NUVO
V1000 Series
SURGICAL TABLE
SERVICE MANUAL

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REVISIONHISTORY

REVISION	DATE OF ISSUE	REASON FOR CHANGE	APPLICABLE TABLE VERSION
Previous Versions	See Previous Versions	See Previous Versions	See Previous Versions
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03.3	March 1, 2017	Corrected specifications for N height, and REFLEX position. Changed Installation Instruction to Instructions Before Use.	V03
03.4	October 30, 2017	Engineering changes that affect drawings related to floor lock mechanism	v03.1
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03.6	August 1, 2018	EC18002	V03.1
03.7	July 24, 2019	Added Tools for and Maintenance of Linear guide; updated intended use	V03.1

LIST OF AFFECTED PAGES

CHAPTER	PAGE
2, 3, 6	2-8, 3-1, 6-6, 6-7

Dear technician or user,

Before installing and using this table, please read these installation and operating instructions thoroughly. This manual also describes the maintenance procedures. Technicians installing and/or servicing this table should be familiar with the warnings, cautions, and instructions contained herein.

Use these operating instructions for personnel training on features, usage and care of V1000 Series surgical tables.

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Section 1 Summary of Warnings and Cautions
Sommaire d'Avertissements et Précautions

When operating or servicing the V1000 Series surgical tables, users or technicians must observe the following safety precautions. **WARNINGS** refer to hazards that could injure users or patients. **CAUTIONS** refer to hazards that could damage the table. These precautions are placed throughout the manual where applicable. Observe these precautions in order to lower the risk of bodily injuries and/or damage to the table. Please note that these precautions are not comprehensive. It is not possible for NUVO to know, evaluate and advise maintenance departments about all of the necessary maintenance procedures or the potential dangers of each procedure.

WARNING:

⚠ **PINCHING HAZARD:**Extreme tabletop articulation creates pinch points. Before operating the table, review illustrations in 5.1.

⚠ **PINCHING AND TIPPING HAZARD:**If user is not completely familiar with the controls for patient positioning and table operation, patient could sustain injury.

⚠ **TIPPING HAZARD:** The maximum patient weight limit for both normal and reverse orientation on V1000 Series table with floor locks locked for standard weight loading (please refer to 0) is 1000lb (454kg); however, the limit drops to 600lb (273kg) when the table(reverse orientation) is slide out (head end) over6.3in (16cm). Do not exceed the limit. Pay special attention when placing short and heavy persons on the table, for it could present a situation of uneven weight distribution. For maximum safe patient weight for any position other than those shown in this publication, please contact your local NUVO representative.

⚠ **TIPPING HAZARD:**The nominal patient weight capacity is tested according to the Standard IEC 60601-2-46 Additional sub clause: 21.101. The Standard's weight distribution calculation model is based on 190 cm stature. Patients weighing over 600 lbs (272 kilos) who are shorter than (6ft. 2.8") 190 cm do not fit the criteria for the Standard's weight distribution calculation model. Read Section 0for important information concerning tipping hazards

⚠ **PATIENT INJURY OR FALLING HAZARD:** Improper positioning of patient may result in possible patient injury and table failure. Health-care professionals who are present at the time of surgery are responsible for the patient's safety.

⚠ **FALLING HAZARD:** Make sure the floor locks are engaged before placing patient on the table.

⚠ **FALLING HAZARD:** When a patient is on the table, do not release the floor locks.

WARNING:

- **TRIPPING HAZARD:** Make sure to route the power cord so that it will not create a tripping hazard.
- **SHOCK HAZARD:**Monitor the electrically conductive properties of floor locks. Measure their resistance level according to the requirements of NFPA 99 before placing table in use. Subsequent routine testing should be performed at least once every three (3) months.
- **PATIENT INJURY HAZARD:**A potential hazard exists when the surgical table is used together with high-frequency surgical equipment such as cardiac defibrillators and cardiac defibrillator-monitors. In certain conditions, the antistatic properties of the mattress pads could become insufficient to prevent burns to the patient's skin. Care must be taken to ensure that the insulation between the mattress pad and the patient's skin is maintained, including monitoring the bed sheet for excessive moisture, which could compromise this insulation. Carefully read the manufacturers' instructions of the aforementioned products, as they relate to patient safety.
- **ELECTRIC SHOCK HAZARD:**To avoid the risk of electric shock, this equipment must only be connected to supply mains with protective earth.
- **ELECTRIC SHOCK HAZARD:** Only authorized service personnel should be allowed to remove covers.
- **INSTABILITY HAZARD:** Using NUVO table and/or accessories or accessories manufactured and sold by other companies for a purpose other than their stated purpose could result in possible patient or user injury, and/or table, accessory or other property damage.
- **UNANTICIPATEDTABLE MOVEMENT HAZARD:**Secure patient to table according to recommended positioning practices.
- **EXPLOSION HAZARD:** Do not use surgical table with flammable anesthetics.
- **INFECTION HAZARD:**When cleaning the surgical table, personnel should wear gloves, a mask, eye protection, and other safety equipment which will protect body parts from exposure to aerosols which could be deflected from contaminated surfaces.
- **PERSONAL INJURY HAZARD:**When installing any surgical table accessory, check for correct attachment and tighten securely (if applicable). Do not use worn or damaged accessories.
- **PERSONAL INJURY HAZARD:** Only recommended cleaners/disinfectants should be used on NUVO surgical tables. Do not use alcohol, which does not have sufficient cleaning/disinfecting properties, or phenolics, which when inadequately rinsed off, could burn the patient's skin.

WARNING:

⚠ **INTERFERENCEHAZARD:** Do not place this table near other equipment that will generate electromagnetic interference or other types of interference.

⚠ **TABLE FAILURE HAZARD:**This manual describes routine scheduled maintenance and services which will help keep this equipment safe and reliable. Only experienced personnel who are fully acquainted with this equipment should perform repairs and adjustments. Maintenance or service performed by inexperienced, unqualified personnel, or installation of unauthorized parts could result in personal injury, costly damage, or cause the warranty to become void.

⚠ **DISPOSAL HAZARD:** A hazardous waste management company with appropriate licenses and permits may be required to handle some of the materials which are contained inside the surgical table.

AVERTISSEMENT:

⚠ **RISQUE DE PINCEMENT:** L'articulation excessive du dessus de table crée des points de pincement. Consultez les illustrations des figures 5.1, « POINTS DE PINCEMENT » avant l'utilisation la table.

⚠ **RISQUE DE PINCEMENT ET DE BASCULEMENT:** Si l'utiliisateur n'a pas une parfaite connaissance des contrôles de positionnement du patient, le patient subir des blessures.

⚠ **RISQUE DE BASCULEMENT:** Lorsque la table de série V1000 est utilisée en orientation normale ou inverse et que les dispositifs de verrouillage au sol sont verrouillés, la limite de poids maximal du patient est de 454 kg (1000 lb) (veuillez vous référer à la section 0 « Capacité de charge »); lorsque l'opérateur fait coulisser la table en orientation inverse du côté de la tête de plus de 16 cm (6,3 po), la limite de poids est réduite à 273 kg (600 lb). Ne dépassez pas les limites. Portez une attention particulière lorsque vous inst allez une personne lourde et de petite taille sur la table, pour que la répartition du poids ne soit pas inégale. Pour connaître les limites de poids maximal sûr du patient pour une position différente de celles présentées dans cette publication, veuillez contacter votre représentant local NUVO.

⚠ **RISQUE DE BASCULEMENT:** La limite nominale de poids des patients est testée conformément à la norme IEC 60601-2-46, sous-clause 21.101. Le modèle de calcul standard de répartition du poids est basé sur une stature de 190 cm. Les patients de plus de 272 kg (600 lb) de poids et de moins de 190 cm de taille (à 6 pi 2,8 po) ne correspondent pas aux critères du modèle de calcul standard de répartition du poids.

AVERTISSEMENT:

Referrez vous à la section 0« Capacité de charge » pour lire d'importantes instructions relatives aux risques de basculement.

⚠ **RISQUE DE BLESSURES AU PATIENT:** Un danger potentiel est présent lorsque la table chirurgicale est utilisée avec de l'équipement chirurgical de haute fréquence tel que des défibrillateurs cardiaques ou des moniteurs à défibrillateur cardiaque. Dans certaines conditions, les propriétés antistatiques des couvre-matelas pourraient devenir insuffisantes pour prévenir les brûlures à la peau du patient. Des précautions doivent être prises pour s'assurer que l'isolation entre le couvre-matelas et la peau du patient est maintenue, ce qui comprend la surveillance de l'humidité excessive dans les draps de lit, qui pourrait compromettre cette isolation. Veuillez lire attentivement les instructions des fabricants des produits susmentionnés, car ils ont trait à la sécurité des patients.

⚠ **RISQUE DE BLESSURES ET DE CHUTES DU PATIENT:** Le mauvais positionnement du patient peut causer des blessures au patient et un mauvais fonctionnement de la table. Les professionnels de la santé présents au moment de la chirurgie sont responsables de la sécurité du patient.

⚠ **RISQUE DE CHUTE:** Assurez-vous que les dispositifs de verrouillage au sol sont engagés avant de placer le patient sur la table.

⚠ **RISQUE DE CHUTE:** Lorsqu'un patient est sur la table, ne libérez pas le dispositif de verrouillage au sol.

⚠ **RISQUE DE DÉCHARGE ÉLECTRIQUE:** Assurez-vous d'acheminer le cordon d'alimentation (électrique) de manière à éviter les risques de trébuchement.

⚠ **RISQUE DE DÉCHARGE ÉLECTRIQUE:** Surveillez les propriétés de conductivité électrique des dispositifs de verrouillage au sol. Mesurez leur niveau de résistance selon les exigences de la norme NFPA 99 avant de commencer à utiliser la table. Des tests de routine doivent être effectués au moins une fois tous les trois mois.

⚠ **RISQUE DE DÉCHARGE ÉLECTRIQUE:** Seul le personnel de service autorisé devrait être autorisé à retirer les couvercles.

⚠ **RISQUE DE DÉCHARGE ÉLECTRIQUE:** L'exploitant doit pas toucher le port USB et le patient en même temps.

⚠ **RISQUE DE DÉCHARGE ÉLECTRIQUE:**Effectuez l'étape suivante afin d'éviter le risque de choc électrique. L'appareil doit être branché sur une electrial avec terre protectrice.

⚠ **RISQUE D'INSTABILITÉ:** L'utilisation de la table NUVO et de ses accessoires ou d'accessoires fabriqués et vendus par d'autres compagnies pour d'autres fins que

AVERTISSEMENT:

celles indiquées peut entraîner des blessures au patient ou à l'opérateur, ainsi que des dommages à la table ou à ses accessoires.

⚠ **RISQUE DE MOUVEMENTS IMPRÉVUS DE LA TABLE:** Installez le patient sur la table de manière sécurisée selon les pratiques de positionnement recommandées.

⚠ **RISQUE D'EXPLOSION:** N'utilisez pas la table avec des anesthésiques inflammables.

⚠ **RISQUE D'INFECTION:** Lors du nettoyage de la table chirurgicale, le personnel devrait porter des gants, un masque, des lunettes de protection et tout autre équipement de sécurité qui permettra de protéger le corps contre toute exposition aux aérosols qui pourraient être réfléchis par les surfaces contaminées.

⚠ **RISQUE DE BLESSURES CORPORELLES:** Lors de l'installation de tout accessoire à la table chirurgicale, veuillez vérifier qu'il est adéquatement fixé et serré (selon le cas). N'utilisez aucun accessoire usé ou endommagé.

⚠ **RISQUE DE BLESSURES CORPORELLES:** Seuls les nettoyants et désinfectants recommandés devraient être utilisés sur la table chirurgicale NUVO. N'utilisez pas d'alcool pour procéder au nettoyage de la table, car ses propriétés de nettoyage et de désinfection sont insuffisantes et n'utilisez pas de composés phénoliques qui risquent de brûler la peau du patient s'ils sont mal rincés.

⚠ **RISQUE D'INTERFÉRENCE:** N'installez pas cette table à proximité d'autres équipements qui génèrent des interférences électromagnétiques ou d'autres types d'interférence.

⚠ **RISQUE DE MAUVAIS FONCTIONNEMENT DE LA TABLE:** Ce manuel décrit la routine d'entretien et de maintenance régulière qui aideront à garder cet équipement sécuritaire et fiable. Seul le personnel expérimenté et connaissant parfaitement cet équipement devrait effectuer des réparations et ajustements. Toute procédure de maintenance ou d'entretien effectuée par du personnel inexpérimenté ou non qualifié, et toute installation de pièces non autorisées pourraient causer des blessures corporelles ou des dommages coûteux, ou annuler la garantie de l'équipement.

⚠ **RISQUE LIÉ À L'ÉLIMINATION DES DÉCHETS:** Il peut être nécessaire de faire appel à une entreprise spécialisée dans la gestion des déchets dangereux, possédant les licences et permis appropriés, pour gérer certains matériaux qui sont contenus dans la table chirurgicale.

CAUTION:

- Only recommended cleaners/disinfectants should be used on NUVO tables. Do not use

CAUTION:

alcohol, which does not have sufficient cleaning/disinfecting properties, or phenolics, because when it is inadequately rinsed off, it could burn patient's skin.

- Route hand pendant cord and optional foot control cord clear of any pinch points where they could be damaged.
- To avoid damage to the hand pendant, clip to side rail of table when not in use.
- Read the aerosol can label thoroughly and follow all directions and cautions.
- Keep any cleaning fluid out of electric receptacles.
- Only persons familiar with table operation should perform cleaning procedures which require table articulation.
- IMPORTANT: Operate table through all articulations prior to usage when table has been stored for longer than four (4) weeks.
- Plug power cord into a properly grounded socket only.
- Check the manual and be familiar with all information before operation.
- When using a third party arm support, keep an angle greater than 15 degrees along the direction of table length to avoid component damage during tabletop movements.
- Do not articulate table into any angle that could hurt the patient.
- Do not place this surgical table near other equipment that will generate electromagnetic interference or other types of interference.
- Before using high-frequency surgical equipment, such as cardiac defibrillators or cardiac defibrillator-monitors, please refer to their instruction manual.
- Use only NUVO's mattress pads in order to avoid risk of electrostatic shock.
- When the power cord is damaged in any way, replace it immediately or else use the table's internal electrical power source until it can be replaced.
- The antistatic pathway is**:** Mattress Pad→Tabletop→Column→Base→Floor Lock Pads→ Floor. Therefore, the anti-static properties of the table depend upon the use of the recommended NUVO mattress pads.
- If the surgical drape hangs over the articulation points or the articulation covers (stainless steel plates covering the joints), movement could cause damage to the table. Tuck the drapes between the mattress pad and tabletop in order to prevent this.
- Static electricity could damage the IC. Avoid any bodily contact with the electronic

CAUTION:

systems. Use probes if necessary. Personnel must use a grounding device when probing circuits or connectors, or else immediate electrical failure could result.

- There is only one way to insert the connector of the hand pendant into its receptacle on the table. The connector must be inserted straight into the receptacle without twisting it, or else pins inside the receptacle will be bent and rendered unusable.
- Since collision with the table joint covers may damage them, keep stretchers or other heavy objects away from the covers.
- Read the entire instructional manual before operating the table. If the surgical table begins to move on its own when the override control enable toggle switch is turned on, immediately turn off the switch, discontinue use of the table, and call a technician for service. (for table with the “S” suffix)
- If the surgical table begins to move on its own when the override control toggle switch is put in either the up or down position, immediately put the switch back in the middle position, discontinue use of the table, and call a technician for service. (for table without the“S” suffix)
- When using any control, operate only one button or switch at a time to prevent table malfunction.

MISE EN GARDE:

- Seuls les nettoyants et désinfectants recommandés doivent être utilisés sur les tables NUVO. N'utilisez pas d'alcool pour procéder au nettoyage de la table, car ses propriétés de nettoyage et de désinfection sont insuffisantes et n'utilisez pas de composés phénoliques qui risquent de brûler la peau du patient s'ils sont mal rincés.
- Acheminez le cordon du boîtier de commande manuelle suspendu et le cordon de la pédale de commande optionnelle de manière à éviter tout point de pincement susceptible de les endommager.
- Pour éviter d'endommager le boîtier de commande manuelle suspendu, attachez-le au rail latéral de la table lorsqu'il n'est pas utilisé.
- Veuillez lire attentivement l'étiquette du flacon aérosol et suivez toutes les instructions et les avertissements.
- Gardez tout liquide de nettoyage hors de contact des réceptacles électriques.
- Seules les personnes maîtrisant le fonctionnement de la table doivent effectuer les procédures de nettoyage qui requièrent l'articulation de la table.

MISE EN GARDE:

- IMPORTANT: Lorsque la table a été stockée pendant plus de quatre semaines, activez toutes les articulations de la table avant son utilisation.
- Ne branchez le cordon d'alimentation que dans une prise de courant bien fixé au sol.
- Lorsque vous utilisez un support de bras fourni par un autre fabricant, gardez un angle supérieur à 15 degrés dans le sens de la longueur de la table pour éviter d'endommager les composants pendant que vous articulez le dessus de table.
- Éviter d'articuler la table à un angle susceptible de blesser le patient.
- N'installez pas cette table chirurgicale à proximité d'autres équipements qui génèrent des interférences électromagnétiques ou d'autres types d'interférence.
- Avant d'utiliser de l'équipement chirurgical de haute fréquence, tel que des défibrillateurs cardiaques ou des moniteurs à défibrillateur cardiaque, veuillez vous référer à leurs manuels d'utilisation.
- Utilisez uniquement un couvre-matelas NUVO afin d'éviter les risques de décharges électrostatiques.
- Si le cordon d'alimentation est endommagé, remplacez-le immédiatement ou utilisez la source d'alimentation électrique interne de la table jusqu'à ce qu'il puisse être remplacé.
- Le chemin antistatique est le suivant**:** Couvre-matelas→dessus de Table→ Colonne→ Base→ Patins de verrouillage au sol→Plancher. Par conséquent, les propriétés antistatiques de la table dépendent de l'utilisation des couvre-matelas recommandés par NUVO.
- Si le champ opératoire s'accroche dans les points d'articulation ou sur les couvercles d'articulation (les plaques en acier inoxydable couvrant les articulations), tout mouvement risquerait de causer des dommages à la table. Bordez les draps entre le couvre-matelas et la table afin d'empêcher cela.
- L'électricité statique peut endommager les circuits intégrés. Évitez tout contact corporel avec les systèmes électroniques. Utiliser des sondes au besoin. Le personnel doit utiliser un dispositif de mise à la terre pour sonder les circuits ou les connecteurs, sinon une panne électrique pourrait en résulter.
- Le connecteur du boîtier de commande manuelle ne peut s'insérer dans le réceptacle de la table que dans un seul sens. Insérez le connecteur tout droit dans le réceptacle, sans le tordre, sinon les broches internes du réceptacle risquent de se plier et d'être inutilisables.
- Puisqu'un choc sur les couvre-joints de la table risque de les endommager, gardez les brancards et autres objets lourds à l'écart des couvre-joints.
- Tout dispositif fournissant une tension ou de courant à travers son USB est interdit d'être

MISE EN GARDE:

connecté au port USB de la table.

- Ne pas déplacer la table sur un seuil qui est supérieure à 2 cm du sol.
- Veuillez lire entièrement le manuel d'instruction avant d'utiliser la table.
- Si la table chirurgicale commence à se déplacer d'elle-même alors que l'interrupteur de commande prioritaire est activé, désactivez immédiatement l'interrupteur, cessez d'utiliser la table et appelez un technicien qualitfié pour la réparation (des modèles T1000S/T1000SK/T1000SKP).
- Si la table chirurgicale commence à se déplacer toute seule elle-même alors que l'interrupteur de commande prioritaire est en position « haute » ou « basse », placez immédiatement l'interrupteur en position « milieu », cessez d'utiliser la table et appelez un technicien en entretien et en réparation (pour les modèles V1000/T1000K).
- Lorsque vous utilisez une commande, veuillez utiliser un bouton ou un commutateur à la fois pour éviter tout mouvement inattendu de la table.

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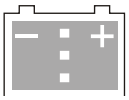
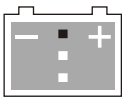
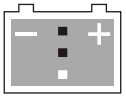
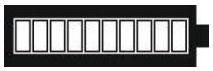
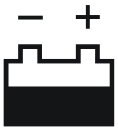
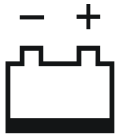
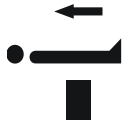
Section 2 Symbols, Tools and Materials
Symboles, Outils et Matériels

Table 2-1 : Symbols that may be seen on table or controls

Symbols(Symboles)	Definition (Définition)
	Protective Earth (Terre Protectrice)
	Functional Earth (Terre Fonctionnelle)
	Consult manual for further instructions (Consultez le manuel pour des instructions supplémentaires)
	Caution (Mise en garde)
	High Voltage Part (Partie sous haute tension)
A	Amperage Rating of the Unit (L'intensité nominalede l'unité)
V	Voltage Rating of the Unit (Tension nominale de l'unité)
~	Alternating Current (Courant alternatif)
W	Power Rating of the Unit (Puissance nominalede l'unité)
Hz	Frequency of the Unit (Fréquence de l'unité)
	Equipotentiality (Équipotentialité)
	Type B Equipment (Équipement de type B)

Symbols(Symboles)	Definition (Définition)
	Powered by AC and charging battery when LED is on (DC when off) (Propulsé et recharge de la batterie par courant électrique lorsque le voyant est allumé et la batterie interne lorsqu'il est éteint.)
	Full Battery (Batterie chargée) When all three LEDs are flashing, batteries should be replaced. (Lorsque les trois voyants clignotent, les batteries doivent être remplacées.)
	Mid Battery (Chargée à moitié)
	Low Battery (Batterie déchargée)
	Battery Level Indicator. It becomes a service code display when Service LED is lit on the hand pendant. (Indicateur de niveau de batterie. Cet indicateur affiche le code de service lorsque le voyant de service est allumé sur le boîtier de commande manuelle.)
	Full Battery (Batterie chargée) When all three LEDs are flashing, batteries should be replaced. (Lorsque les trois voyants clignotent, les batteries doivent être remplacées.)
	Mid Battery (Chargée à moitié)
	Low Battery (Batterie déchargée)
	On the hand pendant, this button activates the hand pendant. On the override panel, this button activates the override system. (Sur le boîtier de commande manuelle, ce bouton active le boîtier de commande. Sur le panneau de priorité, ce bouton active le système de

Symbols(Symboles)	Definition (Définition)
	commande de priorité.)
	On Hand Pendant, it turns the Hand Pendant into Sleep Mode. On Override panel, it disables the override system. (Sur le boîtier de commande manuelle, ce bouton active le boîtier de commande manuelle. Sur le panneau de priorité, ce bouton désactive le système de commande de priorité.)
	Normal Patient Orientation (Orientation normale du patient)
	Reverse Patient Orientation (Orientation inverse du patient)
	Floor Lock: Lock (Dispositif de verrouillage au sol : verrouiller)
	Floor Lock: Unlock (Dispositif de verrouillage au sol : déverrouiller)
	Level (Plat)
	Reverse Trendelenburg (Position de Trendelenburg inverse)
	Reverse Trendelenburg (Position de Trendelenburg inverse)
	Trendelenburg (Position de Trendelenburg)
	Trendelenburg (Position de Trendelenburg)
	Height Down (Baisser la table)

Symbols(Symboles)	Definition (Définition)
	Height Up (Elever la table)
	Tilt Left (Incliner à gauche)
	Tilt Right (Incliner à droite)
	Back Down (Baisser le dossier)
	Back Down (Baisser le dossier)
	Back Up (Elever le dossier)
	Back Up (Elever le dossier)
	Leg Down (Baisser les jambes)
	Leg Down (Baisser les jambes)
	Leg Up (Elever les jambes)
	Leg Up (Elever les jambes)
	Slide Toward Head (Glisser vers la tête)

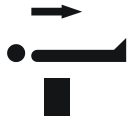
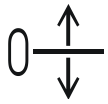
Symbols(Symboles)	Definition (Définition)
	Slide Toward Head (Glisser vers la tête)
	Slide Toward Leg (Glisser vers les jambes)
	Slide toward Leg (Glisser vers les jambes)
	Reflex (Flexion inverse)
	Flex (Flexion)
	Zero Line Shift (Décalage de la ligne zéro)

Table2-2: Tools and Materials needed during installation and/or maintenance

No.	Name and Information	Picture
01	Angle Meter	
02	Pressure Gauge 0~150 kg/cm^2 with Hydraulic Hose	
03	Multi Meter	

No.	Name and Information	Picture
04	Hex Key Wrench Set, L Shape (Metric Standard)	
05	Phillips (Crosshead) Screw Driver(+)	
06	Slotted Screw Driver (–)	
07	Utility Knife	
08	Electrical Tape	
09	Hammer (1.5 pounds)	
10	Punch (8mm diameter)	
11	Locking Pliers	

No.	Name and Information	Picture
12	Needle-Nose Pliers	
13	Breaking Pliers	
14	Side Cutter Pliers	
15	Adjustable-Angle Head Wrench 300mm	
16	Wrench Set (Metric)	
17	ISO 32 Hydraulic Oil	
18	Grease: MOLYKOTE 33 Medium	

No.	Name and Information	Picture
19	Anaerobic Thread-Locking Glue Loctite 242 for screws Loctite 262 for hydraulic fittings	
20	C-Locking Pliers	
21	Grease Gun	
22	Grease for linear guide: Kyodo Yushi Multemp PS No. 2	

Section 3 Technical Specification &General Information
Spécification Technique & Informations Générales

WARNING! AVERTISSEMENT!

⚠ **WARNING:** Do not modify this equipment without authorization of the manufacturer.

AVERTISSEMENT: Ne pas modifier cet équipement sans l'autorisation du constructeur.

3.1 Product Description

The V1000 Series models are shown in the following table.

Table 3-1: Model Function Comparison

Basic	Optional Functions (multiple choice)				Voltage (single choice)		Override Control
T1000S	**K:**	**P:**	**N:**	**D:**	**.1:**	**.2:**	toggle switches
V1000	kidney elevator	foot pump	low profile	double-joint head section	110 Vac	220 Vac	manual rotary knob + toggle switches

Constructed from aluminum alloy, stainless steel, and other high strength steel, V1000 Series with its powerful electro-hydraulic system is rigid enough to position patients weighing up to 1000 lbs (455 kg) in normal orientation and 600 lbs (273 kg) in reverse orientation (some limitations apply, please refer to Sec 3.6.6). Ask your NUVO sales representative for the available accessories (sold separately from the table).

3.1.1 Intended Use

V1000 Series surgical tables, when configured with appropriate accessories, are intended to support and adjust the patient to achieve surgical positions as illustrated in their catalogs including the positions for the following surgical procedures: gynecology and laparoscopy, urology and lithotomy, gallbladder and thoracic, lateral kidney and thoracic, Nissen Fundoplication, shoulder surgery (arthroscopy), total hip, rectal surgery, neurosurgery, cardiovascular, ophthalmic and plastic surgery, and orthopedic surgery.

3.1.2 Frequently Used Functions

Height Up and Down, Lock, and Unlock are the most used functions.

3.1.3 Contraindication

The V1000 Series tables are not MRI compatible.

3.2 Product Classification and Identification

V1000 Series surgical table's electrical insulation structure is categorized as CLASS 1 TYPE B with IPX4 fluid ingress protection. Each individual surgical table has a unique serial number including rating information printed on the identification plate, which is located on the leg side of the column as illustrated to the right.

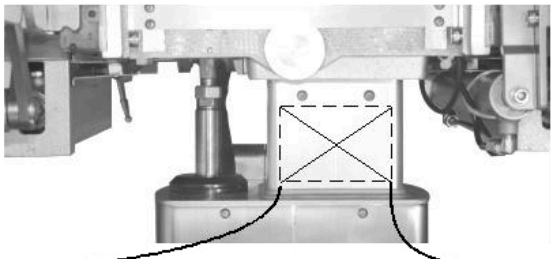
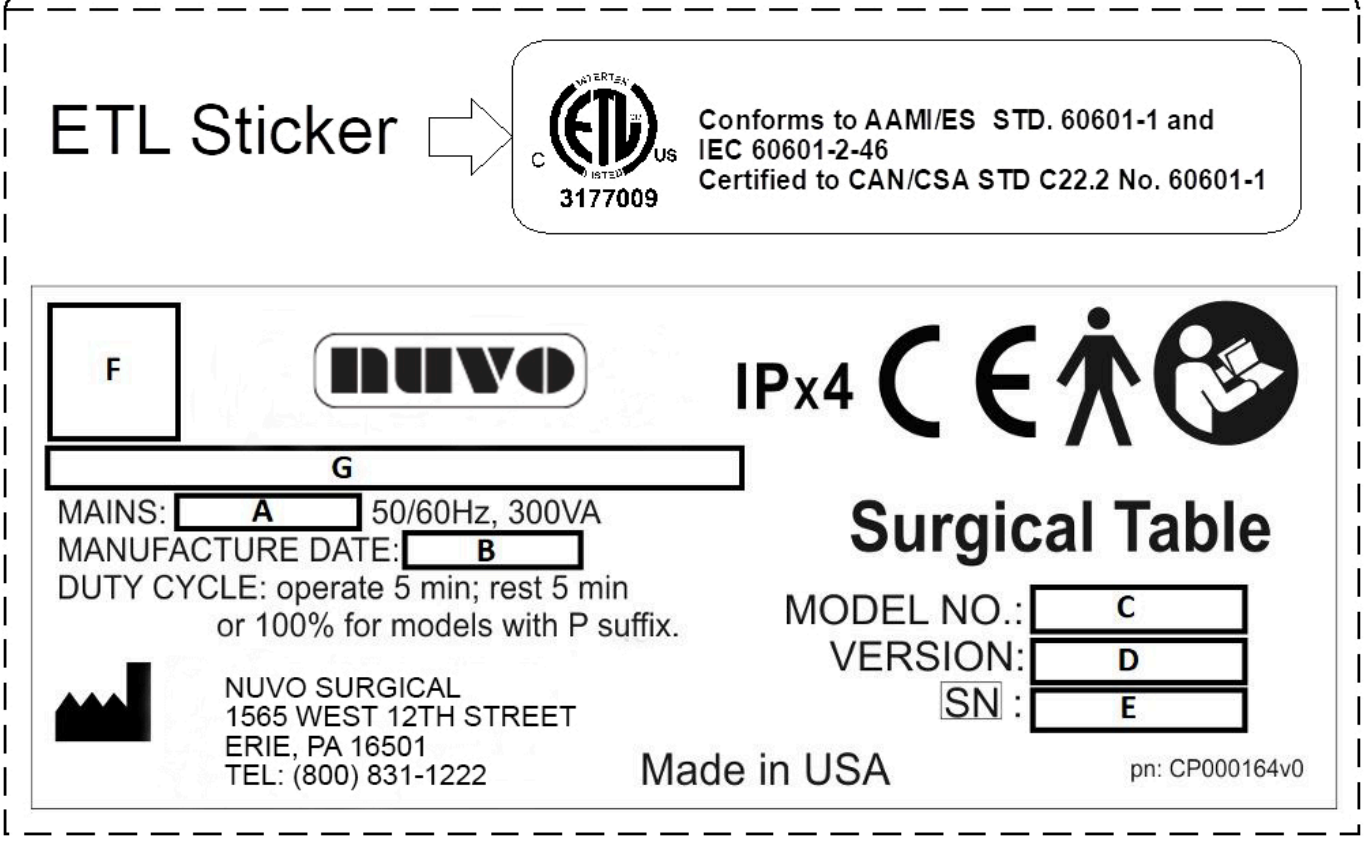


Figure 3-1:
Identification Plate Location



A: The mains may be 100~120 Vac or 200~240 Vac
B: The manufacture date reads as YYYY-MM-DD
C: ".1" means 100~120 Vac, and ".2" means 200 ~240 Vac.
D: The "VERSION" is of the model number.
E: The "SERIAL NO." is the unique identifier of the table.
F: UDI (GS1 Data Matrix; if sold in the USA)

G: UDI (Human readable portion; if sold in the USA)

3.3 Requirements

3.3.1 Operating Environment Requirements

- Temperature: 0°C~40°C (32°F~104°F)
- Relative humidity: 20~80 %RH
- Atmospheric Pressure: 700~1060 kPa

3.3.2 Power Requirements

- AC 110V / 5A, 300VA, 50 / 60Hz or
- AC 220V / 3A,300VA, 50 / 60Hz; single phase

Notes:

1. Plug the power cord into an equivalent electrical outlet marked “Hospital only” or “Hospital Grade” for effective electrical grounding.
2. V1000 Series surgical tables are shipped with standard electrical specifications and configurations. If a change needs to be made to the electrical system, contact NUVO for instructions on the correct procedure.

Remarque:

1. Branchez le cordon d'alimentation dans une prise électrique équivalente marquée « Hôpital uniquement » ou « Qualité hôpital » pour obtenir une mise à la terre efficace.
2. Nous livrons nos tables avec une configuration et des spécifications électriques standards; pour toute modification qui doit être effectuée sur le site, veuillez contacter NUVO pour connaître la procédure.

3.4 Product Transportation and Storage

The V1000 Series surgical table is heavy and its paint could be scratched by sharp or hard objects. Use the original package to transport and store the table. When the original package is not available, have an experienced person package the table for transportation or storage in order to prevent damage. Do not expose the table to rain even when it is well packaged. The table storage location should have a temperature between 14°F ~ 158°F (-10°C ~ 70°C) and relative humidity between 20 ~ 100 % RH

Note: For extended storage, please read the battery charging procedure in Sec.6.7.
Remarque: Pour un stockage prolongé, veuillez lire la Sec. 6.7« Procédures de charge des batteries ».

3.5 Parts Identification

1. Detachable Head Section
2. Back Section
3. Kidney Elevator
4. Seat Section
5. Leg Section
6. Detachable Leg Extension
7. Side Rail
8. Thumbscrews
9. Base Panel with Override Contrc / Solenoid Valve Foot Pump
10. Central Column
11. Table Base
12. Ratchet Wrench for kidney eleva
13. Rotary Valve Foot Pump

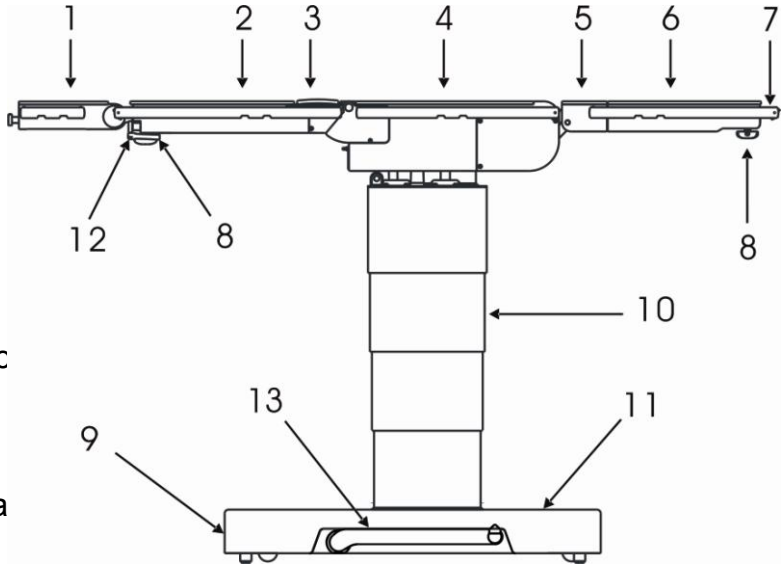


Figure3-2: Parts Identification

3.5.1 Applied Parts

1. Table pads

3.5.2 Detachable Parts

1. Head section
2. Leg section
3. Hand pendant
4. Pads
5. Power cord

3.5.3 Membranous Key Pad Number & Model Number Comparison Chart

Each membranous key pad's part number is located on the bottom of the key pad (Fig. 5-2).

Basic Model No.	Suffix:				Membranous Key Pad Part Number
T1000.1 (.2)	K	P	N	D	CP000277
T1000S.1 (.2)					CP000279

3.6 Technical Specifications

3.6.1 Dimensions

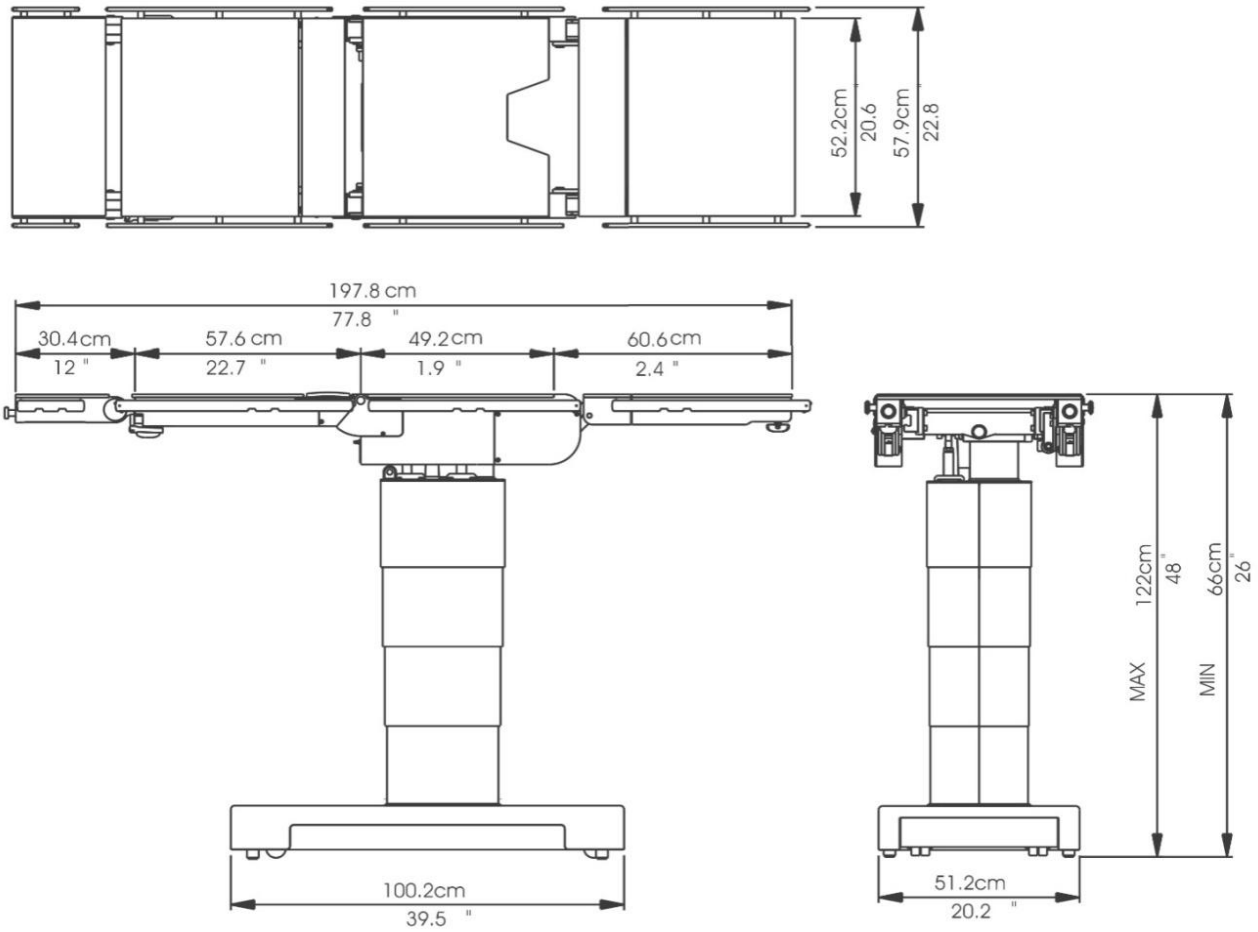


Figure 3-3: Dimensions

Note: Heights of models with N suffix range from 100 cm (39.37”) to 55 cm (21.65”).

3.6.2 **Weight**(without package, pads and accessories)

Basic Model No. (in Bold Type)	Basic Weight lb (kg)	Optional features		
		Kidney Elevator	Low Profile	Foot Pump
T1000.1 (.2)	440 (200)	Add 11 lb (5 kg)	Subtract 12 lb (5 kg)	Add 30 lb (14)
T1000S.1 (.2)	491 (223)			

3.6.3 Power Cord

The plug type is NEMA 5-15P, 10(A), 125 (V). The connector type is IEC320 C13, 10(A), 125 (V). The cable type is 18AWG 3C 105°C. The cable length is 5 meters. To isolate the device from the supply mains, unplug the power cord from either ends

3.6.4 Battery Capacity

Main Battery Set: 24V, 14 Ah (Battery Specification: 12V/14Ah*2, per each table)
Sub Battery Set: 24V, 2.3 Ah (Battery Specification: 12V/2.3Ah*2, for T1000S(K)P only)

Item Id	Description	Shelf Life
EB0003	Sealed Lead Acid Battery, YUASA, PN: REC14-12	3 Months
EB0004	Sealed Lead Acid Battery, YUASA, PN: NP2.3-12	3 Months

3.6.5 C-arm Imaging Coverage

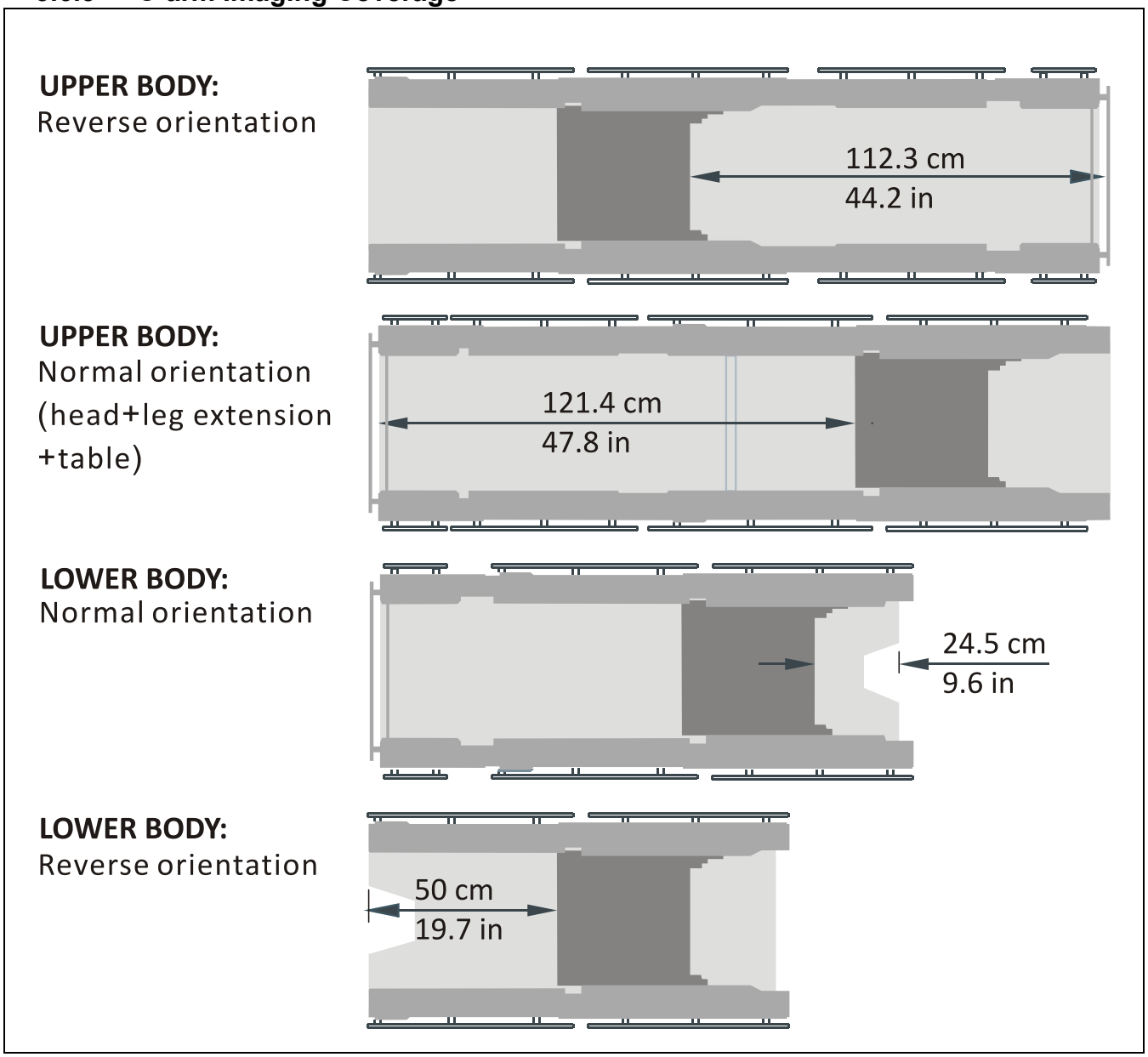
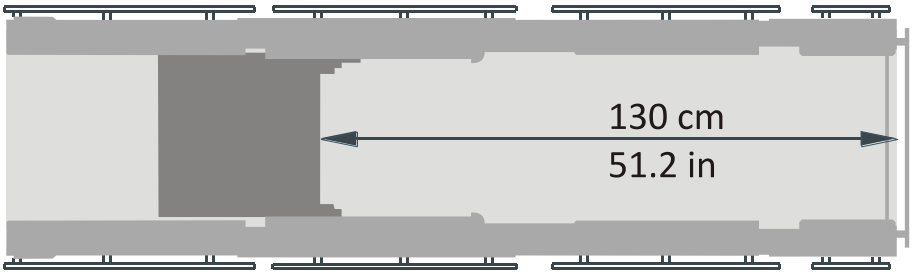


Figure 3-4: Image Coverage of Models without S suffix

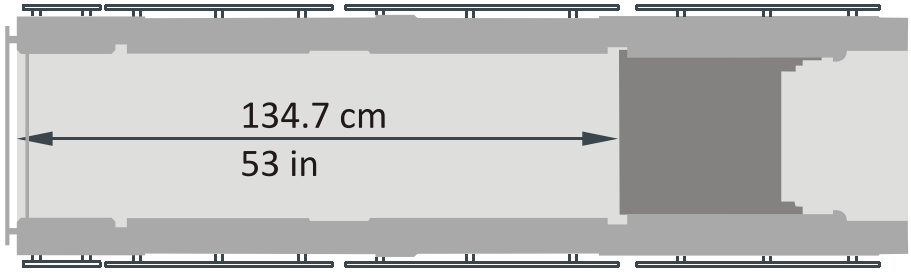
Note: The imaging coverage is 14 inches wide.

Remarque: La couverture d'imagerie est de 35.5 cm (14 po) de large

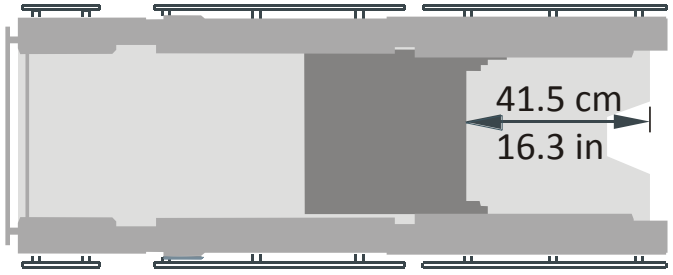
UPPER BODY:
Reverse orientation slid to head end



UPPER BODY:
Normal orientation slid to head end (head+leg extension +table)



LOWER BODY:
Normal orientation slid to leg end



LOWER BODY:
Reverse orientation slid to leg end

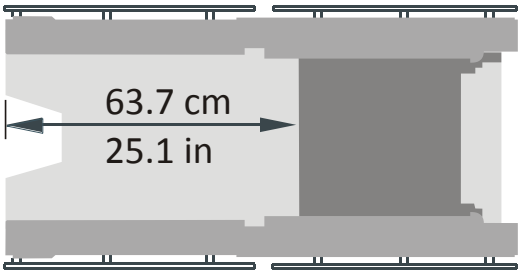


Figure 3-5: Image Coverage of Models with S Suffix

Note: The imaging coverage is 14 inches wide.

Remarque: La couverture d'imagerie est de 35.5 cm (14 po) de large

3.6.6 Load Capacity

The nominal patient weight capacity is tested according to the Standard IEC60601-2-46 Additional sub clause: 21.101. The Standard's weight distribution calculation model is based on person with 190 cm stature. The V1000 Series tables can hold a patient weighing up to 1000lbs (455kg) in normal orientationand 600lbs (273kg) in reverse orientation.Patients (over 600 lbs (273kg) and shorter than 190 cm (6'2.8")) in reverse orientation sliding out toward the head could face a table tipping hazard. A good practice to minimize such hazard would be to slide out only the distance needed for the task, and not to slide all the way out regardless of patient's stature. When in doubt concerning the maximum safe patient weight for any position, please contact your local NUVO representative.

3.6.7 Range of Table Movements

a.	Height	26 to 48in (66 to 122 cm) 21.26 to 39.76 in (54 to 101 cm) for models with N suffix.
b.	Slide	12.2in (31cm)
c.	Lateral Tilt	±20° ±19.5° for models with N suffix
d.	Trendelenburg	+30° +25° for models with N suffix
e.	Reverse Trendelenburg	-30° -25° for models with N suffix
f.	Back Section	+80° ~-50°
g.	Leg Section	+80°~ -105°
h.	Head Section	+90°~ -90°.
i.	Kidney Elevator	0 ~4.7in (12cm)
j.	Flex, normal (reverse)	Maximum -25° (-30°) Maximum -25° (-25°) for models with N suffix
k.	Reflex	Maximum +30° for seat section and +50° for back section Maximum +25° for seat section and +55° for back section for models with N suffix

3.6.8 Duty Cycle

The table is not designed for continuous use over an extended period of time. The duty cycle is 50%. It is recommended that after operating the table continuously for five minutes, it should rest for about five minutes before being used again. The duty cycle is 100% if the table is equipped with a foot pump.

3.7 Hydraulic Oil

The surgical table uses ISO32 Hydraulic Oil. The reservoir inside of the table should be filled to 60-70% when the table is leveled at its highest position.

3.8 Standards

The V1000 Series Surgical Table is in compliance with national and international safety standards for electro-medical equipment, and meets the applicable requirements of the following standards:

- Medical electrical equipment, Part 1: AAMI/ES 60601-1: 2005 + C1:2009 + A2:2010 /(R)2012, certified by Intertek Testing Services NA Inc. with ETL listing.
- Medical electrical equipment-Part 1: CSA-C22.2 N0. 60601-1:08 +COR 2:2011, certified by Intertek Testing Services NA Inc. with ETL listing.
- Medical electrical equipment Part 2-46: IEC 60601-2-46: 2010 & CSA-C22.2 No. 60601-2-46:12, certified by Intertek Testing Services NA Inc. with ETL listing
- Electrical Safety: IEC 60601-1: 2005 + CORR. 1:2006 +CORR. 2:2007 and IEC 60601-2-46: 2010, tested by Intertek Testing Services Taiwan Ltd.
- IEC/EN60601-1-2:2007, Electromagnetic Compatibility, certified by Electronics Testing Center, Taiwan
- SVHC (REACH Regulation No. 1907/2006), tested by Intertek Testing Services Taiwan Ltd.
- RoHS (2011/65/EU) and Heavy Metal Content in Battery (2006/66/EC), tested by Intertek Testing Services Taiwan Ltd.
- CE marked to the Medical Device Directive, 93/42/EEC
- FDA Good Manufacturing Practices Regulations 21CFR820 for Medical Devices
- Insulation type: Class 1, Type B
- Suitable for intermittent operation, five minutes per every ten minutes (except model suffix with P, which is 100% duty cycle)
- IPX-4 (Fluid Ingress Protection)

3.9 Patient Positioning Accessories

NUVO offers a wide range of accessories for its V1000 Series surgical tables. Please contact NUVO's sales representative for more information about V1000 Series surgical table accessories.

Item ID	Description
ACC0001v01	Clark Socket for 3/8” x 1 1/8” Safety Side Rail
ACC0003	Universal Pelvis Rest with Pad
ACC0004	Side Rail Lock for 3/8” x 1 1/8” Side Rail
ACC0005	Wedge-shaped Sacral Rest with Pad
ACC0006	Anesthesia Screen
ACC0007	Winged Anesthesia Screen
ACC0008	Infusion Stand
ACC0009	Arm Board
ACC0010	Multi-task Arm Board
ACC0012	Hourglass Table
ACC0013	Left Shoulder Support
ACC0014	Right Shoulder Support
ACC0015	Lateral Support
ACC0016	Stainless Steel Drain Pan
ACC0017	Perineal Cutout Filler Piece, Carbon-fiber
ACC0018	Perineal Cutout Filler Piece, Stainless Steel
ACC0019	Leg Holder
ACC0020	J Stirrup
ACC0022	Foot Rest
ACC0025	Restraint Strap
ACC0026	Basic Strap
ACC0027	Radiolucent Spine Surgery Frame
ACC0028	Dorsal Cushion
ACC0029	Morgan Pelvic Rest
ACC0030	Uro Catcher System
ACC0031	Fluid Collector Bags
ACC0032	Plastic Drain Pan
ACC0035	Adjustable Headrest Adapter
ACC0036	Ophthalmic Headrest with Surgeon Wrist Support
ACC0037	Cassette Slide
ACC0038	Orthopedics Perineal cutout filler piece. Stainless Steel
ACC0039	Femoral / Popliteal Board
ACC0041	Transfer Board (for table)
ACC0042	Shoulder Attachment
ACC0044	Hip Rest with Pad
ACC0045	Foot Controller
ACC0046	Cassette Top for V1000 Series

Item ID	Description
ACC0047	Cassette Top for T1000K Series
ACC0050	Perineal Post without Pad
ACC0051	Table Width Extender
ACC0052-1	Pad for Perineal Post, Adult
ACC0052-2	Pad for Perineal Post, Pediatric
ACC0053	Elite Stirrups
ACC0054	Heavy Duty Stirrups
ACC0055	Traction Accessory Clamp
ACC0056	Tibia&Lateral Countertraction Support
ACC0057	Abductor Bar Assembly (ASM0187)
ACC0058	Mounting Bracket, Pin type (ASM0189)
ACC0059	Mounting Bracket, Rail type (ASM0188)
ACC0060-1	Crescent Counter-traction bar, Adult
ACC0060-2	Crescent Counter-traction bar, Pediatric
ACC0061v01	V1000 Orthopedic Extension
ACC0063	Accessory Cart
ACC0064	IA Extender
ACC0065	Spinal Frame
ACC0066	Supporting Stand
ACC0067	Traction Unit Assembly
ACC0068-1	Traction Boot Assembly, Adult Traction
ACC0068-2	Boot Assembly, Adolescent Traction
ACC0068-3	Boot Assembly, Pediatric Skeletal
ACC0069	Traction Bow
ACC0070	Standard Stirrups
ACC0071	Basic Stirrups
ACC0072	Junior PAL Stirrups
ACC0073	Little PAL Stirrups
ACC0074	Stirrup Cart
ACC0075	Cysto-Lift Knee Crutch
ACC0078	LPS Arm Support
ACC0079-1	Fixture for Body Support
ACC0079-2	Back-buttocks support
ACC0079-3	Pubis-sacrum-sternum support Deluxe
ACC0080	Arthroscopic Legholder System
ACC0081	Traction Tower
ACC0082	Equalizing Device
ACC0083	Mesh Finger Traps
ACC0084-1	Stainless Steel Finger Trap XS
ACC0084-2	Stainless Steel Finger Trap S
ACC0084-3	Stainless Steel Finger Trap M
ACC0084-4	Stainless Steel Finger Trap L
ACC0085	Arm Trap

Item ID	Description
ACC0086	Flexible Anesthesia Screen
ACC0087	Flexible Hand Positioner
ACC0088	Straight Traction Extension
ACC0091	Clamshell Stirrup Pads
ACC0092	Split-Plate Leg Section
ACC0093	L-shaped Traction Extension
ACC0094	Patient Transfer Board
ACC0095	Orthopedic Accessory Cart
ACC0096	Reverse Leg Holder
ACC0097	Lift-Assist™ Beach Chair
ACC0099	Storage Case for Neurosurgery Headset
ACC0100	Multi-positioning Base Unit
ACC0101	Swivel Adapter
ACC0102	Horseshoe Headrest with Extension Bar, adult
ACC0103	Crossbar Adapter for Base Unit
ACC0104	Silicon Lateral Support
ACC0105	Silicon Leg Holder (single)
ACC0106	Silicon Multi-Task Arm Board

Section 4 Instructions Before Use
Instructions Avant Utilisation

WARNING!

⚠ **SHOCK HAZARD:** Monitor the electro conductive properties of floor locks. Measure their resistance level according to the requirements of NFPA 99 before placing table in use. Subsequent routine testing should be performed at least once every three (3)months.

⚠ **TRIPPING HAZARD:**Make sure to route the power cord so that it will not create a tripping hazard.

CAUTION!

- Route hand Pendant cord and optional foot controller cord clear of any pinch points where they could be damaged.
- To avoid damage to the Hand Pendant, always clip it onto the side rail when not in use.
- When the power cord is damaged in any way, replace it immediately or else use the table's internal electrical power source until it can be replaced.

4.1 Install AC Power Cord

1. Move table to a desired location.
2. Plug power cord into socket (#4of**Figure 5-3** or **Figure 5-4**), and secure it with Wire Collect Tie (#3 of **Figure 5-3** or **Figure 5-4**).
3. Route the cord in a way that it cannot be tripped over, and plug the cord's 3-pronged hospital grade plug into an electrical outlet. AC Power Indicator (#7 of **Figure 5-3** or **Figure 5-4**) should be lit.
4. To discontinue the use of AC mains, disconnect the power cord from the outlet or the socket.

4.2 Install Hand Pendant

CAUTION!

- There is only one way to insert the connector of the hand pendant into its receptacle on the table. The connector must be inserted straight into the receptacle without twisting it, or else pins inside the receptacle will be bent and rendered unusable.
- To avoid damage to the Hand Pendant, always clipit onto thetable's side rails when not in use.
- Route Hand Pendant cord and optional foot controller cord clear of any pinch points where they could be damaged.

1. Push Hand Pendant to firmly clipit on an appropriate side rail. Do not only hang it on the side rail.

   Note:

   When removing the Hand Pendant from the side rail, pull it straight out. Do not twist from side to side, or the metal clip could be damaged.

   Remarque:

   Lorsque vous retirez le boîtier de commande manuelle du rail latéral, tirez-le vers vous. Ne le tournez pas de gauche à droite, car cela pourrait endommager l'attache en métal.

2. Locate the receptacle oncolumn top underneath the seat section.
3. Insert the connector all the way into the receptacle,and then tighten its screw to prevent the connection from becoming loose.

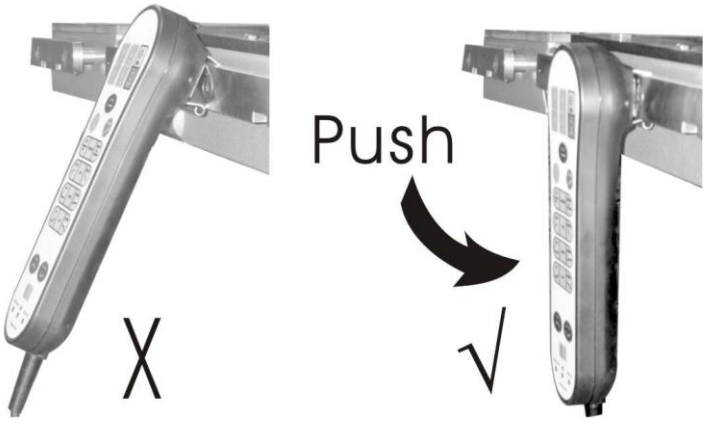


Figure 4-1: Clipping Hand Pendant

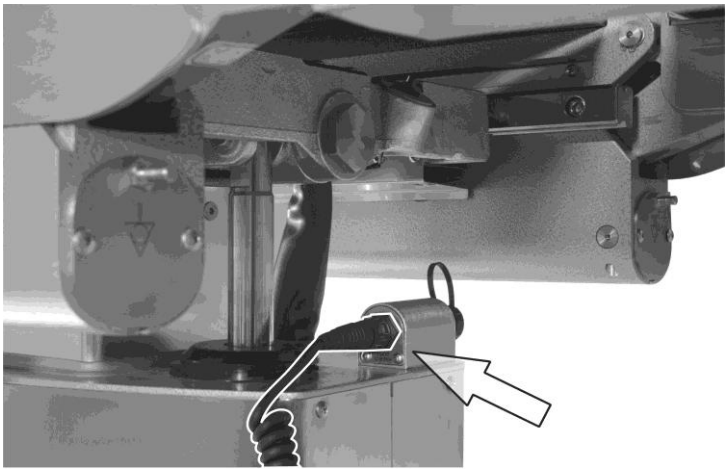


Figure 4-2: Installing Hand Pendant Cable

4.3 Lock Table in Place

WARNING!

⚠ **SHOCK HAZARD:** Monitor the electro conductive properties of floor locks. Measure their resistance level according to the requirements of NFPA 99 before placing table in use. Subsequent routine testing should be performed at least once every three (3) months.

CAUTION!

- The antistatic pathway is: Mattress Pad→Tabletop→Column→Base→FIoor Lock Pads→Floor. Therefore, the anti-static properties of the table depend upon the use of the recommended mattress pads.

1. Press the Lock button (#2,**Figure 5-2**) of Hand Pendant and wait for the green LED to light up, the floor locks will become locked. The table will remain locked until the unlock button (#8, **Figure 5-2**) is pressed.
2. Make sure the table does not wobble. If the table does not wobble it means the locks are snug against thefloor.

Note: If the hand pendant's service LED becomeslit and the base panel's 10-segment LED indicator displays the service code for over-voltage or under-voltage, please refer to Section 4.7to adjust the voltage, and then come back to finish the table lock procedure.

4.4 Install Head Section

1. Tighten the two thumbscrews to secure the head section.
2. Loosen thumbscrews under back section before attaching or removinghead section.
3. Insert connection rods of the headsection into the back section.

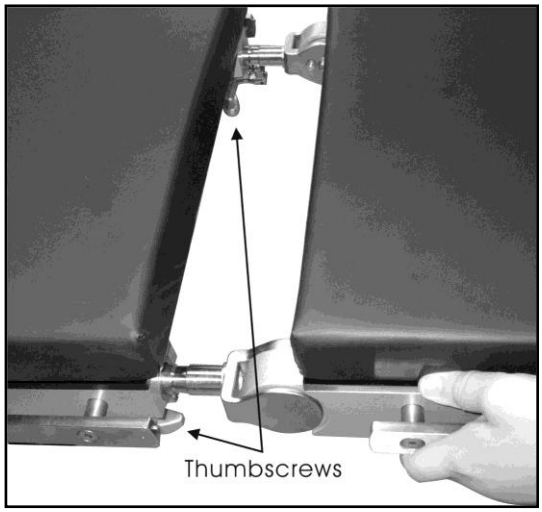


Figure 4-3: Installing Head Section

4.5 Install Leg Section

1. Loosen thumbscrews under tabletop frame before attaching or removinglegextension.
2. Insert connection rods of the legextension completely into leg section.
3. Tighten the two thumbscrews to secure the leg extension.

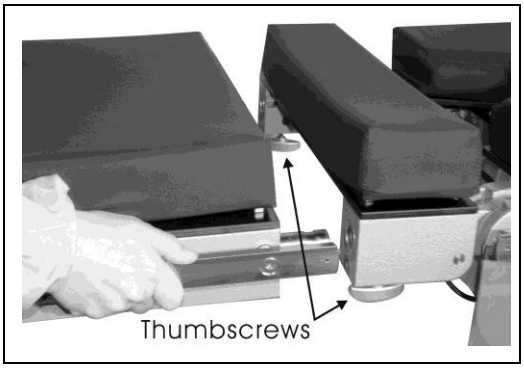


Figure 4-4: Installing Leg Section

4.6 Before Use Checklist

Check off boxes below as they are performed.

- □ Install, secure power cord with wire collect tie and route power cord to prevent tripping.
- □ Install Hand Pendant.
- □ Lock and secure table in place.
- □ Install headsection and leg extension.
- □ Install table pads.
- □ Check all table movements (Performance Checklist4.6.1).

4.6.1 Performance Checklist

After completing installation procedures (4.1 to 4.5), installation technician shall verify the performance of table (also refer to5.2.1) according to the specifications and record the results of verification in the following chart:

Test Item	Specification	Result	Verified
Height range of table without Mattress pads	26 ~ 48in (66 ~ 122cm) 21.65~39.37 in (50 ~100 cm) for models with N suffix		
Sliding	12.2in (31cm)		
Kidney Elevator	4.7in (12cm)		
Trendelenburg	0°~30° 0°~25° for models with N suffix		
Reverse Trendelenburg	0°~30° 0°~25° for models with N suffix		
Lateral Tilt	to right or left 0° ~ 20° to right or left 0° ~ 19° for models with N suffix		
Back Section	up 0°~80°, down 0°~50°		
Leg Section	up 0°~80°, down 0°~105°		
Head Section	up 0°~90°, down 0°~90°		
Flex	Back down 25° max. Seat down 25° max.		
Reflex	Back up 30° max. Seat up 30° max. Seat section up 25° max for models with N suffix		
Override Switches	Height, Sliding, Trend., Rev. Trend., Side Tilt, Back, Leg, Floor Locks		
Level	+/-2°		

* If the Head Section could not be leveled with the Back section, please refer to 4.6.2 for adjustment procedures.

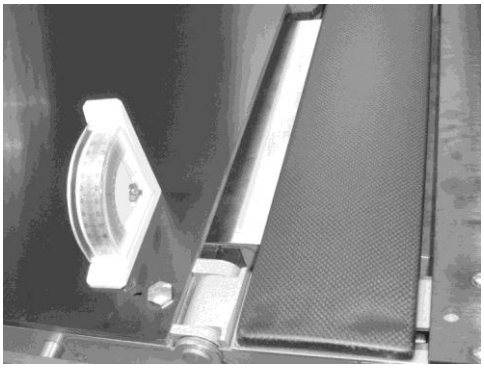
** If Level button function does not articulate the back and leg sections to within +/- 2° of horizontal plane, please refer to 4.6.3 for adjustment procedures.

4.6.2 Head Section Level Adjustment

Required Tools: T001, T004 (Refer to**Table2-2**)

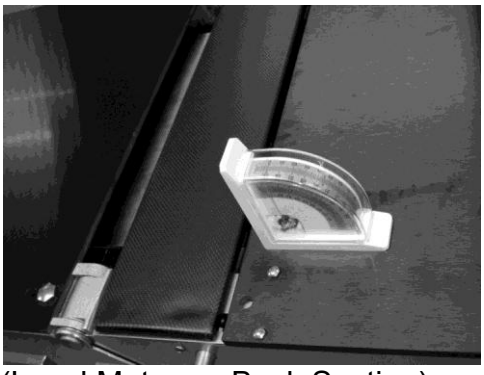
Procedures:

1. Remove pads from table top.
2. Place level meter on Seat Section, and press Tilt Left/Right buttons until the level meter reads 0°. (See picture to the right.)



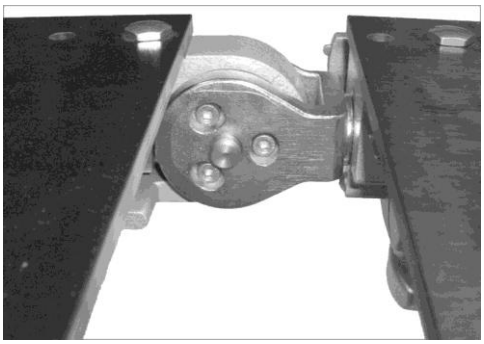
(Level Meter on Seat Section)

3. Place the level meter on Back Section, and press Back Up/Down buttons until the lever meter reads 0°. (See picture to the right.)
4. Adjust Head Section so it is one notch below 0°.



(Level Meter on Back Section)

5. With the Head Section attached to the Back Section, loosen all screws (three on each side) of the joints facing inside. (See picture to the right.)
6. Lift and hold the Head Section so the level meter reads 2° above 0°.
7. Tighten all the screws that were loosened in step 5.
8. Let go of the Head Section and the level meter shall read between 0°~2°.



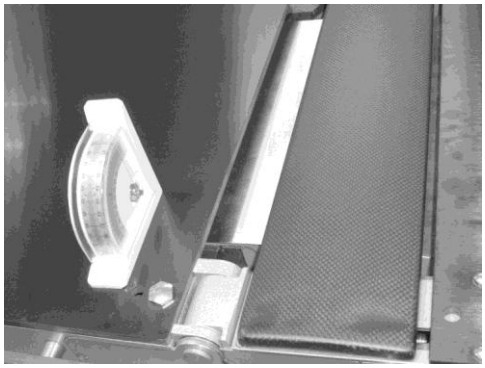
(Screws location)

4.6.3 Level Reset

Required Tools: T001 (Refer **Table2-2**)

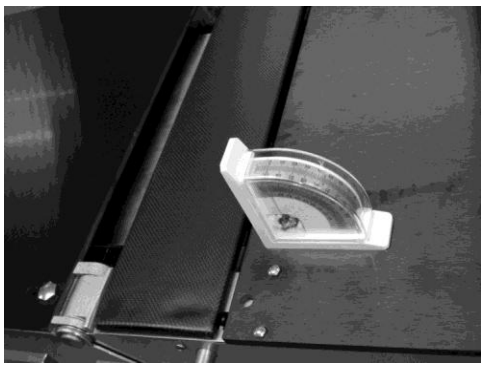
Procedure:

1. Remove pads from table top.
2. Place level meter on Seat Section, and press Tilt Left/Right buttons until the level meter reads 0°. (See picture to the right.)



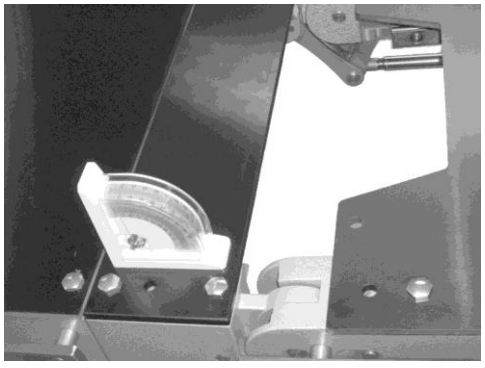
(Level Meter on Seat Section)

3. Place level meter on Back Section, and press Back Up/Down buttons until the lever meter reads 0°. (See picture to the right.)



(Level Meter on Back Section)

4. Place the level meter on Leg Section, and press Leg Up/Down buttons until the lever meter reads 0°. (See picture to the right.)
5. Turn off Hand Pendant.
6. Press and hold Level button until the back lit faceplate comes on and off.
7. Turn on the Hand Pendant; use it to articulate the table top so it is no longer leveled. Press and hold down the Hand Pendant's Level button to check its function and verify the result.



(Level Meter on Leg Section)

4.6.4 In-Service Training Checklist

After Verifying that the table is working properly and according to specification, the installation technician should train the hospital staff on how to properly use the table and be sure they are competent at responding to alarms, warnings, and error messages in an appropriate and timely manner. After completing the in-service, technician should sign off on the Certificate of Warranty, indicating that the table was installed and the staff was trained.

Items to be covered	Completed
How to use the hand pendant and override systems to control the table	
Identifying and understanding the service and interlock LEDs on the hand pendant (especially interlock due to the back down limit switch)	
How and where to read the service code	
How to use the “OFF” button in an emergency	
Where in the instruction manual to locate the list of all cautions and warnings for the surgical table	
Preliminary Troubleshooting (How to perform soft reset and hand pendant reset)	

4.7 Voltage Setting Instructions

WARNING!

⚠ **TABLE FAILURE HAZARD:** This manual describes routine scheduled maintenance and services which will help keep this equipment safe and reliable. Only experienced personnel who are fully acquainted with this equipment should perform repairs and adjustments. Maintenance or service performed by inexperienced, unqualified personnel, or installation of unauthorized parts could result in personal injury, costly damage, or cause the warranty to become void.

⚠ **ELECTRIC SHOCK HAZARD:** Only authorized service personnel should be allowed to remove the base cover.

CAUTION!

- Static electricity could damage the IC. Avoid any bodily contact with the electronic systems. Use probes if necessary. Personnel must use a grounding device when probing circuits or connectors, or else immediate electrical failure could result.

Required Tools: T003 and T006 (Refer to **Table2-2**)

Procedure:

1. Remove telescopic sleeves from the column and lift up the base cover.
2. Unplug one of the connectors from the batteries.
3. Unplug AC power cord (#4, **Figure 5-3** or **Figure 5-4**).
4. Unplug the 6-terminal green power supply connector on Main Control PCB (**Figure 4-5**&**Figure 4-6**).
5. Make sure jumper(s) are in the appropriate place(s) according to **Table 4-1**.
6. Wire from terminal 0V to Bridge Rectifier (AC -) according to**Figure 4-5**.
7. Wire from terminal 20V, 22V, 24V or 26V to the Bridge Rectifier (AC +) according to **Figure 4-5**.
8. Plug in the AC power cord. Use a multi meter to check the DC voltage on the green connector from step 4 at the terminals where the red (JP10, 24+) and grey wire (JP10, 0V) from the bridge rectifier connect according to **Figure 4-6**.Make sure the multi meter is calibrated annually.
9. Repeat steps 3, 7 and 8 if voltage does not read between **31V and 34V**.
10. Make sure the AC power is plugged in before reconnecting wire to the batteries and put back the cover and telescopic sleeves.

Table 4-1: Jumper Locations for Input Voltage

		Input Voltage	
		90~132	180~264
Jumper location	1	0v - J1	J1 - J2
	2	J2 - N	Jumper not used

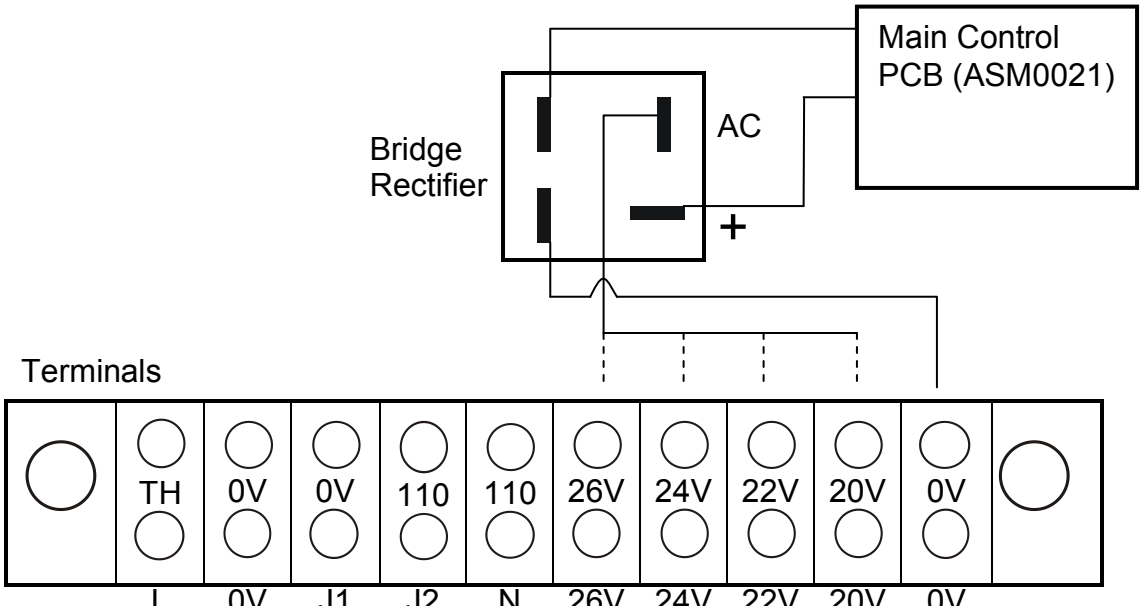


Figure 4-5: Wiring of Terminals and Bridge Rectifier

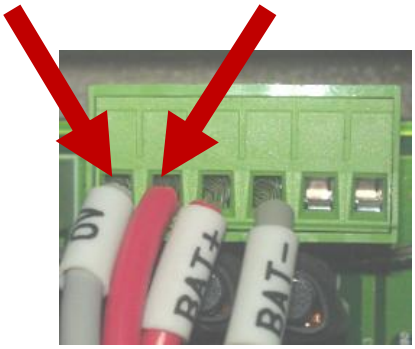


Figure 4-6: Multi meter test points on Main control PCB power connector

Section 5 Operating Instructions
Mode d'emploi

WARNING!

⚠ **PINCHING HAZARD:**Extreme tabletop articulation creates pinch points. Before operating the table, review illustrations in 5.1.

⚠ **PINCHING AND TIPPING HAZARD:** If user is not completely familiar with the controls for patient positioning and table operation, patient could sustain injury.

⚠ **TIPPING HAZARD:**The maximum patient weight limit for normal orientation and reverse orientation with sliding toward head not over 6.3in (16cm) is 1000lb (455kg). The limit drops to 600lb (273kg) when the table (reverse orientation) is slid out to its extreme (head end).

⚠ **TIPPING HAZARD:**The nominal patient weight capacity is tested according to the Standard IEC60601-2-46 Additional sub clause: 21.101. The Standard's weight distribution calculation model is based on 190cm stature. Patients over 600lbs (272 kilos) and shorter than 6' 2.8" (190cm) do not fit the criteria for the Standard's weight distribution calculation model. Read Section 0for important information concerning tipping hazard.

⚠ **PATIENT INJURY HAZARD:** A potential hazard exists when the surgical table is used together with high-frequency surgical equipment such as cardiac defibrillators and cardiac defibrillator-monitors. In certain conditions, the antistatic properties of the mattress pads could become insufficient to prevent burns to the patient's skin. Care must be taken to ensure that the insulation between the pad and the patient's skin is maintained, including monitoring the bed sheet for excessive moisture, which could compromise this insulation. Carefully read the manufacturers' instructions of these products relating to patient's safety.

⚠ **PATIENT INJURY OR FALLING HAZARD:**Improper positioning of patient may result in possible patient injury and table failure. During surgery, health-care professional present at the time is responsible for the patient's safety.

⚠ **FALLING HAZARD:**Make sure the floor locks are engaged before placing patient on the table.

⚠ **FALLING HAZARD:**When a patient is on the table, do not release floor locks.

⚠ **TRIPPING HAZARD:** Make sure to route the power cord so that it will not create a tripping hazard.

⚠ **EXPLOSION HAZARD:** Do not use this table with flammable anesthetics.

⚠ **INSTABILITY HAZARD:** Using an NUVO surgical table and/or NUVO accessories or accessories manufactured and sold by other companies for other than the stated purpose could result in possible patient or user injury, and/or table, accessory, or other property damage.

⚠ **UNANTICIPATEDTABLE MOVEMENT HAZARD:**Secure patient to surgical table according to recommended positioning practices..

⚠ **PERSONAL INJURY HAZARD:**Check for correct attachment and tighten securely (if applicable) when installing any table accessory. Do not use worn or damaged accessories.

⚠ **INFECTION HAZARD:** When cleaning the surgical table, personnel should wear gloves, a mask, eye protection, and other safety equipment which will protect body parts from exposure to aerosols which could be reflected from contaminated surfaces.

⚠ **INTERFERENCEHAZARD:**Do not place this table near other equipment that will generate electromagnetic interference or other types interference.

⚠ **UNEXPECTEDTABLE MOVEMENT HAZARD:** If the table begins to move on its own when the override system is enabled, please disable it immediately and call for a technician for service. (for T1000S/T1000SK/T1000SKP)

⚠ **UNEXPECTEDTABLE MOVEMENT HAZARD:** If the table begins to move on its own when the override control toggle switch is switched to either the up or down position, immediately switch it back to the middle position and call a technician for service. (for V1000/T1000K)

⚠ **TABLE FAILURE HAZARD:** This manual describes scheduled maintenance and service which will help keep this equipment safe and reliable. Only experienced personnel who are fully acquainted with this equipment should perform repairs and adjustments. Maintenance or service performed by inexperienced, unqualified personnel, or installation of unauthorized parts could result in personal injury, costly damage, or cause the warranty to become void.

⚠ **UNEXPECTEDTABLE MOVEMENT HAZARD:** When using any control, please operate one button or switch at a time to avoid unexpected table movement.

CAUTION!

- Make sure you have completed all the installation instructions in Section 4 before operating the table.
- IMPORTANT: Operate table through all articulations prior to usage when table has been stored for longer than four (4) weeks.
- Plug power cord into properly grounded socket only.
- Check the manual and be familiar with all information before operation.
- Route Hand Pendant cord (and optional foot controller cord) cleared from any pinch points where they could be damaged.
- To avoid damage to the Hand Pendant, clip it to the side rail of table when it is not in use.
- When using a third party arm support, keep an angle greater than 15 degrees along the direction of table length to avoid component damage during tabletop movements.
- Do not articulate table into any angle that could hurt the patient.
- When the power cord is damaged in anyway, replace it or use the table's internal electrical power source.
- The antistatic pathway is Mattress→Tabletop→Column→Base→Floor Lock Pads→Floor. Therefore, the anti-static properties of the table depend upon the use of the recommended mattress.
- Since collision with the table joint covers may damage them, keep stretchers or other heavy objects away from the covers.
- Do not place this surgical table near other equipment that will generate electromagnetic interference or other types of interference.
- Before using high-frequency surgical equipments, cardiac defibrillators or cardiac defibrillator-monitors, please refer to their instruction manual.
- Use only NUVO's mattress pads in order to avoid risk of electrostatic shock.
- If the surgical drape hangs over the articulation points or the articulation covers

(stainless steel plates covering the joints), movement could cause damage to the table. Tuck the drapes between the mattress pad and tabletop in order to prevent this.

- There is only one way to insert the connector of the hand pendant into its receptacle on the table. The connector must be inserted straight into the receptacle without twisting it, or else pins inside the receptacle will be bent and rendered unusable.
- Since collision with the table joint covers may damage them, keep stretchers or other heavy objects away from the covers.

5.1 Pinch Point Warnings

Tabletop articulation could create pinch points. These points are identified in **Figure 5-1**. Everyone involved in the tabletop positioning should be aware of these pinch points before operating the table.

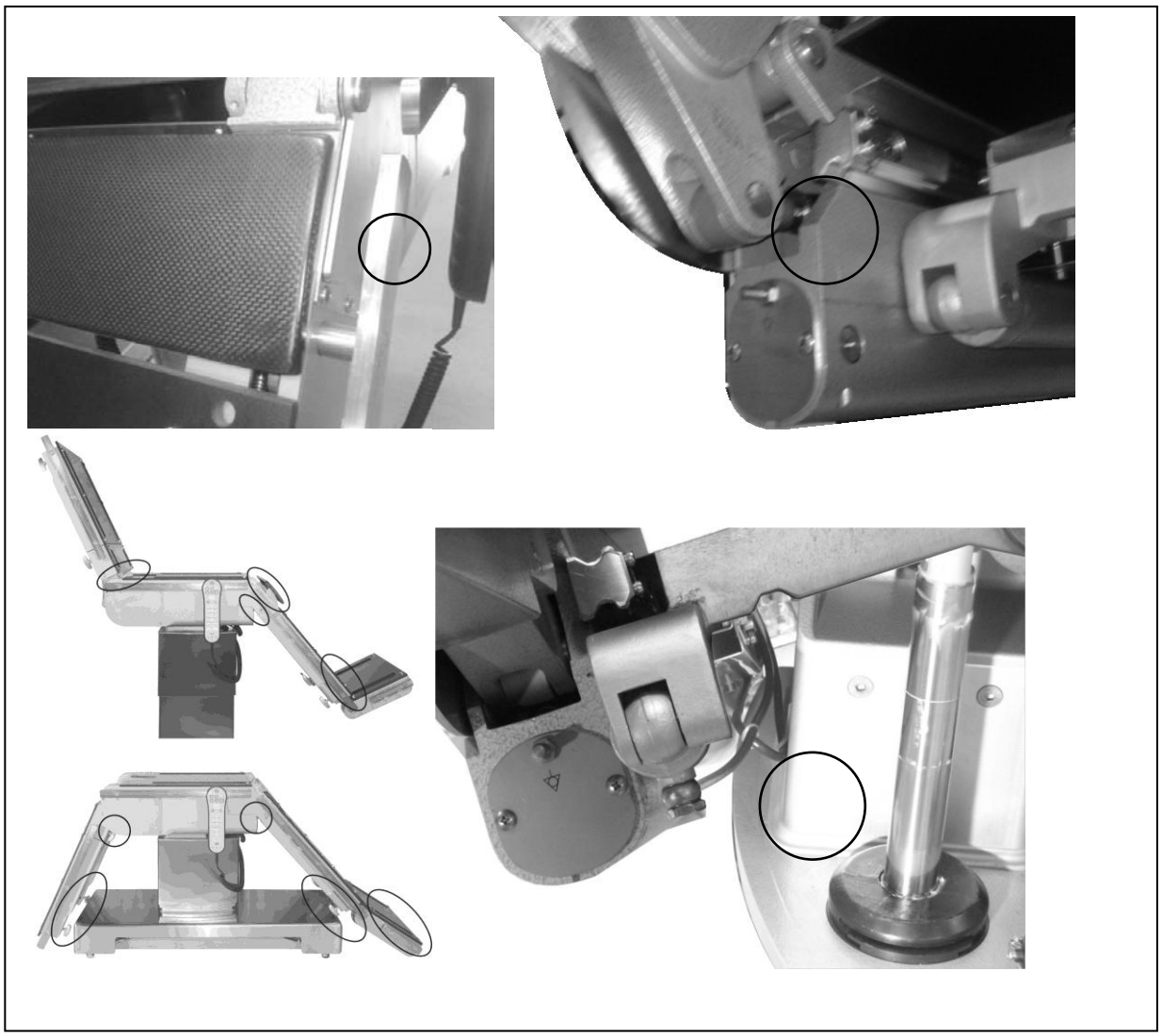


Figure 5-1: Pinch Points

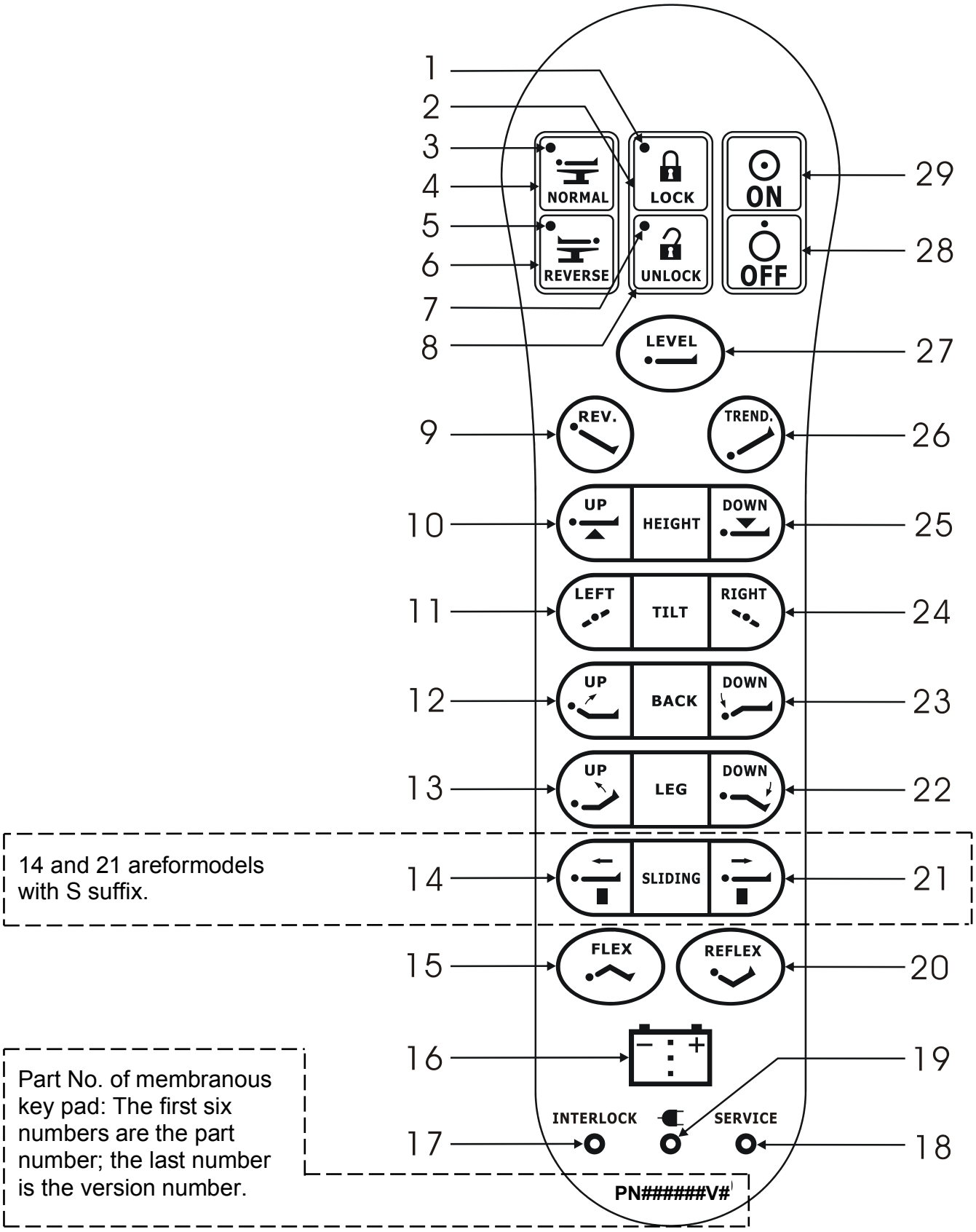


Figure 5-2: Location of Buttons on Hand Pendant

Table 5-1: Definition of Buttons on Hand Pendant

No.	Description	No.	Description
1.	Floor Lock Indicator (Green LED): Lock	16.	BatteryLevel Indicator
2.	Floor Lock: Lock	17.	Interlock Indicator (Yellow LED)
3.	Normal Orientation Indicator(Green LED)	18.	Service Indicator (Yellow LED)
4.	Normal Patient Orientation	19.	AC Power Indicator (Green LED)
5.	Reverse Orientation Indicator(Green LED)	20.	Reflex
6.	Reverse Patient Orientation	21.	Slide Down (Leg end)
7.	Floor Lock Indicator (Green LED): Unlock	22.	Leg Down
8.	Floor Lock: Unlock	23.	Back Down
9.	Reverse Trendelenburg	24.	Right Tilt
10.	Height Up	25.	Height Down
11.	Left Tilt	26.	Trendelenburg
12.	Back Up	27.	Tabletop Level
13.	Leg Up	28.	Sleep Mode
14.	Slide Up (Head end)	29.	Activate
15.	Flex		

Note: 14 and 21 are for models with S suffix only.

5.2 Table Positioning

Make sure the Floor Locks are engaged before continuing with the following instructions. Use Hand Pendant or an optional Foot Controller to create a desired table position; the Head Section and Kidney Elevator can only be adjusted manually. In case of a Hand Pendant malfunction, use the Override System until the problem can be resolved.

5.2.1 Hand Pendant Operation

Complete Section 4 before using the Hand Pendant for the first surgery.

- Press desired button(s) to create a desired position. Press one button at a time. There are no automatic buttons other than the LOCK and UNLOCK buttons. The table moves only when a movement button is pressed, and it stops either as soon as the button is released or when it has reached its maximum or programmed allowable distance or angle.
- Release the button when the desired position is reached.

- For LOCK or UNLOCK, press the button and release it after the function has been activated; the table will automatically LOCK or UNLOCK.
- If the table begins to move on its own while using the hand pendant, press the OFF button immediately and call for service.

5.2.1.1 Level Button Operation

Press and hold Level button (#27, **Figure 5-2**) until tabletop has reached level and then let go of the button.

5.2.1.2 Normal Orientation Operation

Press Normal button (#4, **Figure 5-2**) and its green LED will be lit. All buttons will automatically switch to normal orientation.

5.2.1.3 Reverse Orientation Operation

Press Reverse button (#6, **Figure 5-2**) and its green LED will be lit. All buttons will automatically switch to reverse orientation.

5.2.1.4 Battery Level Indicator

Battery level indicator indicates the level of battery power. When all three LEDs within the battery symbol are flashing, it indicates the need to change the battery or batteries.

5.2.1.5 Interlock LED

As a protective feature, when the Interlock indicator (#17, **Figure 5-2**) is lit(beeping at the same time), it means one of the movements (table down, Trendelenburg, Reverse Trendelenburg, tilts, leg down, back down or slide out) has stopped because it is colliding with something, and the button for that movement has been disabled. It could also mean that the movement has reached its maximum distance or angle.

5.2.1.6 Service LED

While operating the Hand Pendant, if Service indicator (#18, **Figure 5-2**) is lit (beeping at the same time), it could meanthe override system is on. Turn it off and the Service LED should turn off. If the override system is off and the Service LED is still on, then a problem has occurred that renders certain component(s) unusable. At this time, the 10-segment LED

Battery Indicator (#8,**Figure 5-3** or **Figure 5-4**) should display a Service Code. For events when the Service LED is lit only while a button is pressed, press and hold the buttonwhile lookingat the Service Code display. Let go of the button to exit from the Service Code display. Please have this code ready to provide to NUVO Sales or Service Representatives if requesting assistance.

5.2.2 Using Override System for Table Positioning

WARNING!

⚠ **PINCHING HAZARD:**Extreme tabletop articulation creates pinch points. Before operating the table, review illustrations in Figures 5-1, PINCH POINTS.

⚠ **PINCHING AND TIPPING HAZARD:**If user is not completely familiar with the controls for patient positioning and table operation, patient could sustain injury.

⚠ **EXPLOSION HAZARD:** Do not use this table with flammable anesthetics.

⚠ **UNEXPECTED MOVEMENT HAZARD**: When the table moves by itself as you enable the override system, disable it right away and call a technician for service. (T1000S* models only)

⚠ **UNEXPECTED MOVEMENT HAZARD:**If the surgical table begins to move on its own when the override control toggle switch is put in either the up or down position, immediately put the switch back in the neutral position, discontinue use of the table, and call a technician for service. (V1000(K) only)

⚠ **UNEXPECTED MOVEMENT HAZARD:** When using any control, operate only one button or switch at a time to avoid unexpected table movement.

CAUTION !

- Read the entire manual before operating the table

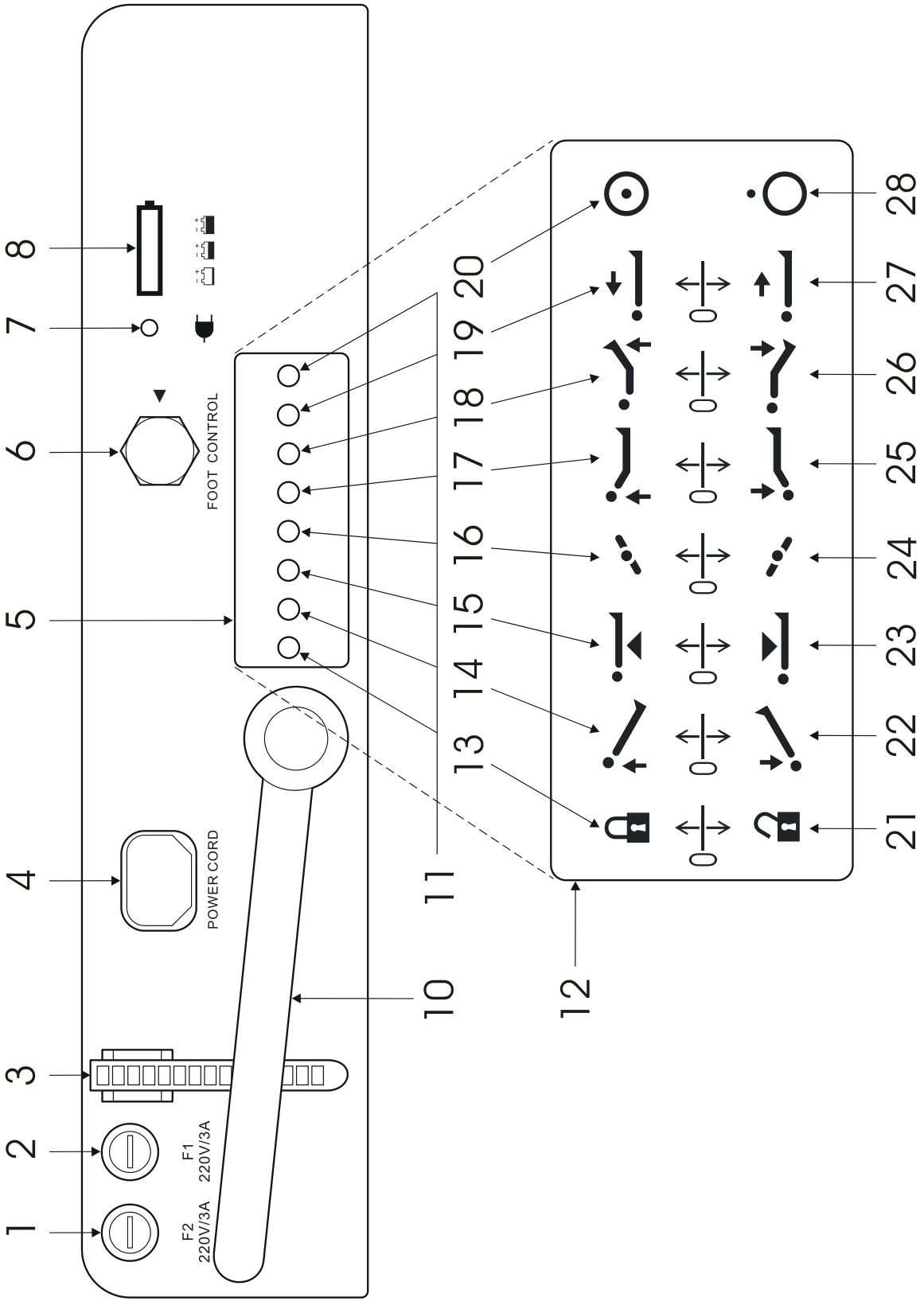


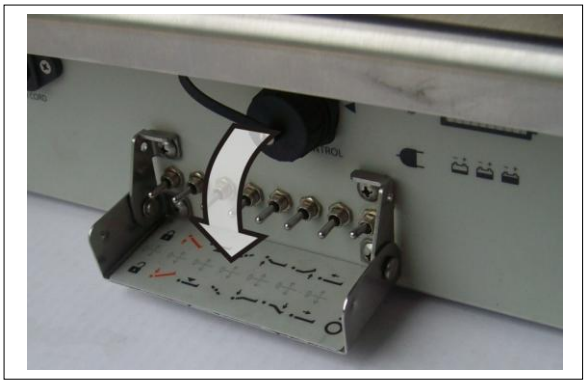
Figure 5-3: Location of switches and items on the Base Panel and Override System(Models with S suffix only)

Table 5-2: Definition of switches and items on the Base Panel and Override System (Models with S suffix only)

No.	Description	No.	Description
1.	F1 Fuse (live)	15.	Height Up
2.	F2 Fuse (neutral)	16.	Left Tilt
3.	Wire Collect Tie	17.	Back Up
4.	Power Cord Socket	18.	Leg Up
5.	Override System Cover	19.	Slide Up
6.	Foot Control Socket	20.	Override System Enable
7.	AC Power Indicator (Green LED)	21.	Table Unlock
8.	Battery Power Indicator (10 bars-Full, 5 bars-Mid, 2 bars-Low)	22.	Trendelenburg
9.	(not used)	23.	Height Down
10.	Foot-pump Pedal (T1000SKP only)	24.	Right Tilt
11.	Override System Toggle Switches	25.	Back Down
12.	Override System Label (located inside of “5. Override System Cover”)	26.	Leg Down
13.	Floor Lock	27.	Slide Down
14.	Reverse Trendelenburg	28.	Override System Disable

5.2.2.1 Override for T1000S* Models

The T1000S* Model tables are equipped with an Override System (#12, **Figure 5-4**for controlling table movements in the event of Hand Pendant malfunction. The system consists of an on/off switch, table movement switches and a floor lock switch.



1. Flip down the override system cover.
2. Turn toggle switch (#20, **Figure 5-3**) to ON.

Note: If the table moves by itself as you enable the override system, disable it immediately and call for service.

Remarque: Si la table se déplace d'elle-même alors que vous activez le système de commande de priorité, désactivez-le immédiatement et appelez un technicien en entretien et en réparation.

3. Toggle switch(s) (#11, **Figure 5-3**) up or down to actuate desired table movement.

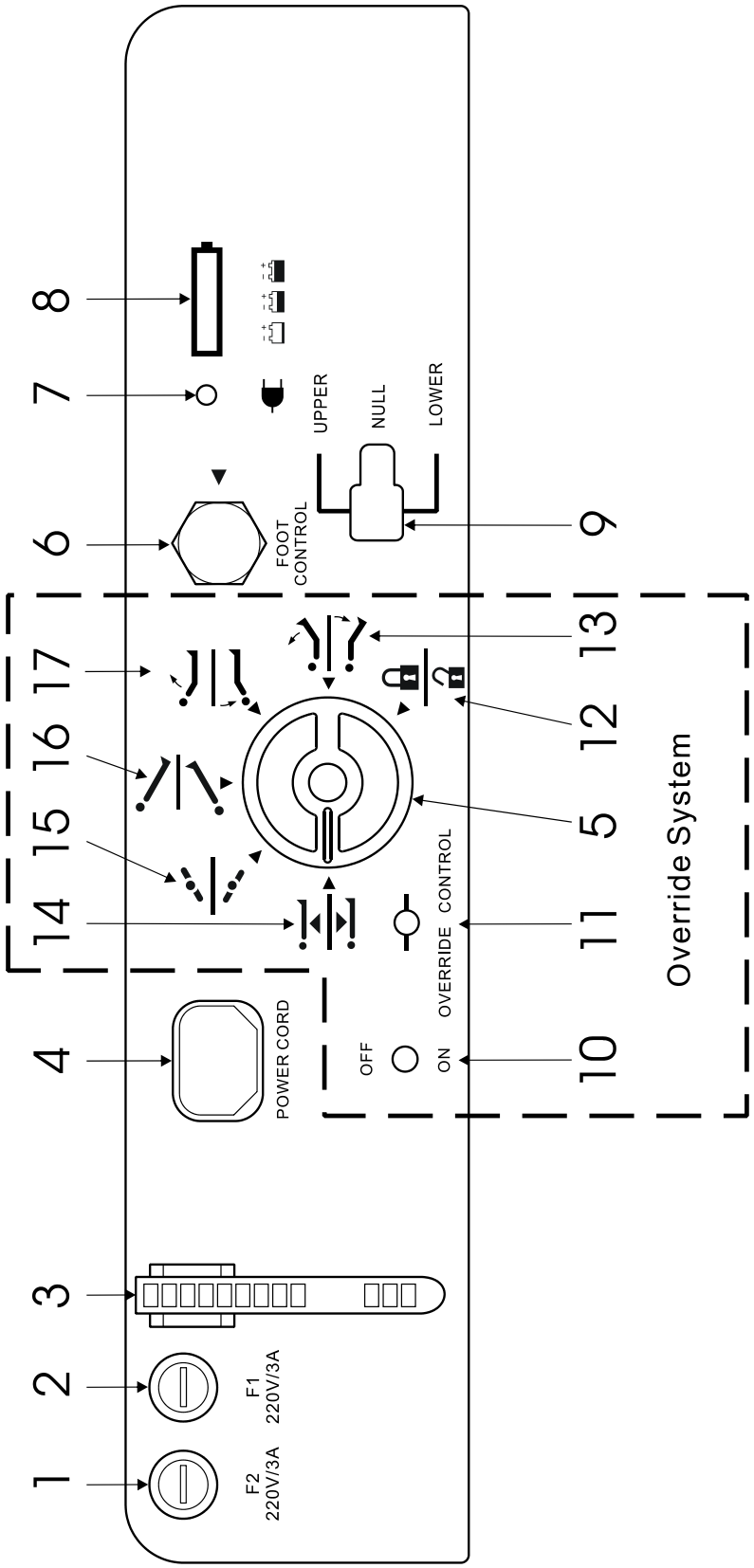


Figure 5-4: Location of switches and items on the Base Panel and Override System (Models without S suffix only)

Table 5-3: Definition of switches and items on the Base Panel and Override System (Models without S suffix only)

No.	Description	Rotary Knob (#5)		Override Control (#11)	
1.	Fuse (neutral)	**No.**	**Description**	**Up**	**Down**
2.	Fuse (live)	12.	Floor Lock	Lock	Unlock
3.	Wire Collect Tie	13.	Leg	Up	Down
4.	Power Cord Socket	14.	Height	Up	Down
5.	Manual Rotary Knob	15.	Tilt	Left	Right
6.	Foot Control Socket	16.	Trendelenburg	Rev. Trend.	Trend.
7.	AC Power Indicator (Green LED)	17.	Back	Up	Down
8.	Battery Level Indicator(10 bars: Full, 5 bars: Mid, 2 bars: Low)				
9.	(not used)				
10.	ON/OFF Switch (to actuate movement)				
11.	Override Control Switch (to control direction of movement)				

5.2.2.2 Override for V1000 (without S Suffix)

The T1000model tables without S suffix are equipped with an Override System (**Figure 5-4**) for controlling table movements in the event of Hand Pendant malfunction. The system consists of an on/off switch, a manual rotary knob and an override control toggle switch.

1. Turn knob (# 5, **Figure 5-4**) to select a desired movement.
2. Toggle switch (# 11, **Figure 5-4**) up or down towards the direction of desired movement.

Note: If the table moves by itself, return the Override Control toggle switch to its neutral position, which is in the middle, and call for service.

Remarque: Si la table se déplace d'elle-même, remettez l'interrupteur de commande prioritaire en position neutre (au milieu), et appelez un technicien qualifié pour la reparation.

3. Toggle switch (#10, **Figure 5-4**) to activate the movement.
4. Repeat step 1, 2 and 3 as many time as needed to create a desired table position.

Note: Override System is only suitable for NORMAL patient orientation.

Although table positioning can be performed with the Override System, the problem should be corrected as soon as possible. Have a qualified service technician repair the table before further use.

CAUTION: When using the override system, certain safety features such as Interlock do not work.

When Override System is enabled, Hand Pendant and Foot Controller are disabled,and the Hand Pendant's Service LED is lit.

Remarque:

Le système de commande de priorité ne convient qu'à l'orientation NORMALE du patient.

Bien que le positionnement de la table puisse être effectué avec le système de commande de priorité, le problème devrait être corrigé dès que possible. Demandez à un technicien en entretien et en réparation de réparer la table avant de continuer à l'utiliser.

Lorsque le système de commande de priorité est activé, le boîtier de commande manuelle et la pédale de commande sont désactivés,et le voyant de service du boîtier de commande manuelle est allumé.

5.2.3 Manual Pump Instructions

5.2.3.1 Foot pump for table models with S suffix

Use Manual Pump when electrical pump is not available due to malfunction or lack of electricity. In case of missing AC mains and depleted primary back up batteries, this will work for as long as the secondary back up batteries maintain a charge.

Pull out and flip Foot Pedal into position.

1. Press a Hand Pendant button for the desired movement.
2. Step on the Foot Pedal while pressing a Hand Pendant button until the desired degree or distance of movement is reached.
3. Step off the foot pedal and release the button to stop table movement.

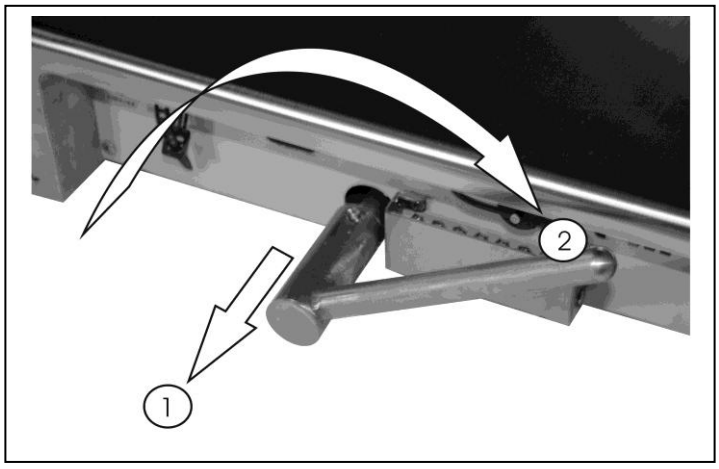


Figure 5-5: Manual Foot Pump

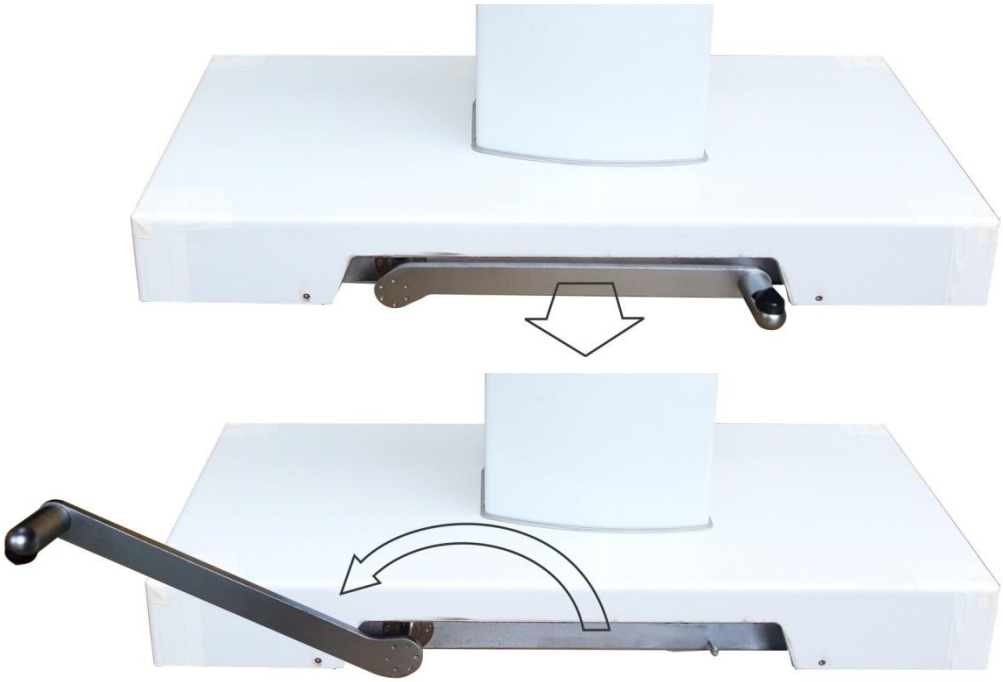
Note: Although table positioning can be performed with the Manual Pump, the problem should be corrected as soon as possible.

Remarque: Bien que le positionnement de la table puisse être effectué avec une pompe manuelle, le problème devrait être corrigé dès que possible.

5.2.3.2 Foot pump for table models without S suffix

Use Manual Foot Pump when electrical pump is not available due to malfunction or lack of electricity.

1. Pull out and flip Foot Pedal into position as shown below.



2. Turn knob (# 5, **Figure 5-4**) to select a desired movement.
3. Turn switch (# 9, **Figure 5-4**) up or down for the direction of the desired movement.
4. Step on the Foot Pedal up and down to actuate the desired movement as shown below.

5. Repeat steps 2 to 4 as needed.
6. Return the switch (# 9, **Figure 5-4**) back to NULL position after all is done.

5.2.1 Head Section Positioning

5.2.1.1 Regular Head Section (Model without "D"Suffix)

Head section is manually adjustable 90° maximum up or down relative to the back section.

1. To adjust the head section upward, lift the head section by hand.
2. To adjust the head section downward, locate the spring-loaded bar and pull it to unlock the head section. Move it to a desired angle and release the bar pull. Move the head section slightly until ratchet mechanism locks it into position.

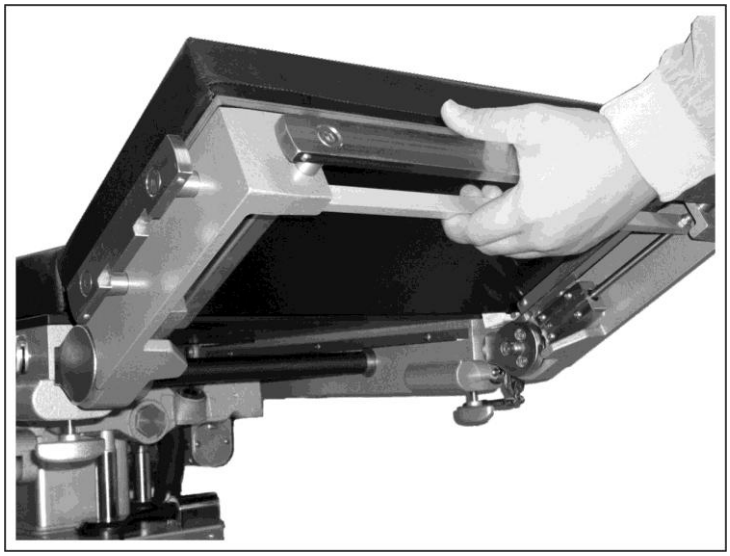


Figure 5-6: Head Section Positioning

5.2.1.2 Double-joint Head Section (Model with "D" Suffix)

Position the head section according to diagram to the right and the steps below:

1. Open the lever to unlock the head section.
2. Adjust the angle of head section.
3. Close the lever to lock the head section.
4. Open the lever to unlock the top board.
5. Adjust the angle of top board.
6. Close the lever to lock the top board.

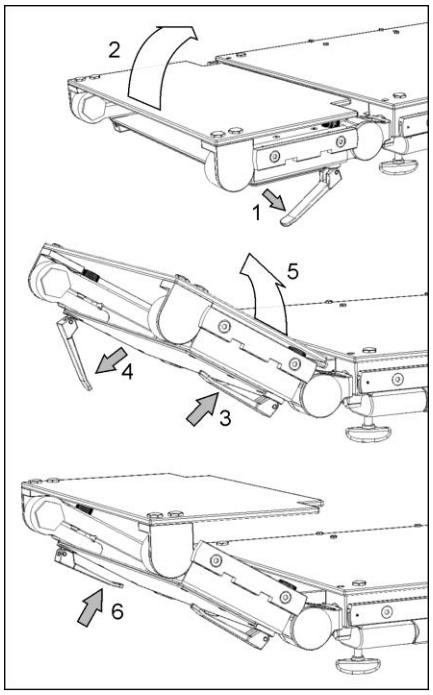


Figure 5-7: Head Section Positioning

5.2.2 Kidney Elevator Instructions

The kidney elevator is manually adjustable up to 4.7in (12cm) from the tabletop.

1. Locate the ratchet wrench (#12,**Figure3-2**) under the right side of Back section, fold down and bring out the handle.
2. Adjust the lever to the right for the upward direction, and then use the wrench to bring up the kidney elevator.
3. Adjust the lever to the left for the downward direction, and then use the wrench to bring down the kidney elevator.

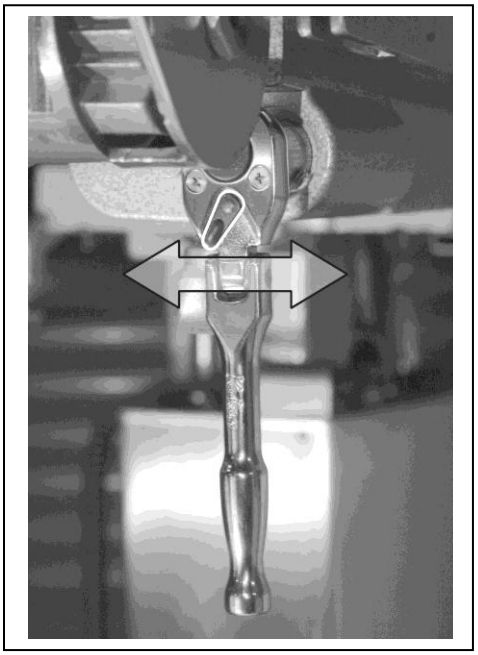


Figure 5-8: Kidney Elevator

5.2.3 Cassette Channels

There are Cassette Channels beneath the tabletop where the radiograph can be taken. Slide in the x-ray film cassette into the channel (14" wide only).

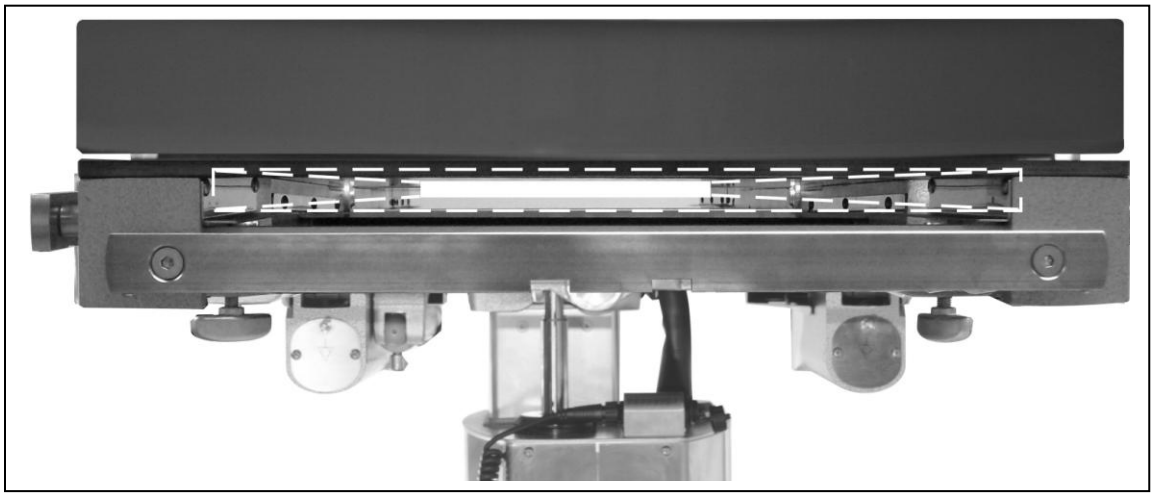


Figure 5-9: Cassette Channel

5.2.4 Use of Equipotentiality for Other Electrical Equipment

WARNING! AVERTISSEMENT!

⚠ **PATIENT INJURY HAZARD:** A potential hazard exists when the surgical table is used together with high-frequency surgical equipment such as cardiac defibrillators and cardiac defibrillator-monitors. In certain conditions the antistatic properties of the mattress pads could become insufficient to prevent burns to the patient's skin. Care must be taken to ensure that the insulation between the mattress pad and the patient's skin is maintained, including monitoring the bed sheet for excessive moisture, which could compromise the insulation. Carefully read the manufacturers' instructions of the aforementioned products, as they relate to patient safety.

RISQUE DE BLESSURES AU PATIENT: Un danger potentiel est présent lorsque la table chirurgicale est utilisée avec de l'équipement chirurgical de haute fréquence tel que des défibrillateurs cardiaques ou des moniteurs à défibrillateur cardiaque. Dans certaines conditions, les propriétés antistatiques des couvre-matelas pourraient devenir insuffisantes pour prévenir les brûlures à la peau du patient. Des précautions doivent être prises pour s'assurer que l'isolation entre le couvre-matelas et la peau du patient est maintenue, ce qui comprend la surveillance de l'humidité excessive dans les draps de lit, qui pourrait compromettre cette isolation. Veuillez lire attentivement les instructions des fabricants des produits susmentionnés, car ils ont trait à la sécurité des patients.

Two connecting points of Equipotentiality are available.

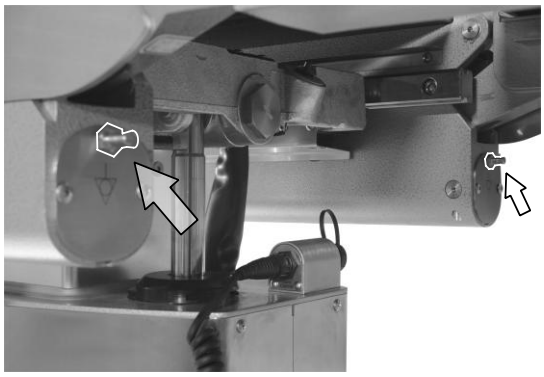


Figure 5-10: Points of Equipotentiality

5.2.5 Backup Batteries

V1000 Series surgical tables are AC or DC powered. In AC mode, the batteries are charged automatically. In absence of AC power, the table will switch to battery power automatically.

Note: Make sure the Battery Level Indicator (#8, **Figure 5-3** or **Figure 5-4**)has at least 2 segments before operating the table.

Remarque: Assurez-vous que l'indicateur de niveau de batterie (#8, **Figure 5-3** ou **Figure 5-4**) allume au moins deux segments avant d'utiliser la table.

5.3 Accessories

WARNING! AVERTISSEMENT!

⚠ **INSTABILITY HAZARD:** Using an NUVO surgical table and/or NUVO accessories or accessories manufactured and sold by other companies for a purpose other than the stated purpose could result in patient or user injury, and/ or table, accessory, or other property damage.

RISQUE D'INSTABILITÉ: L'utilisation de la table NUVO et de ses accessoires ou d'accessoires fabriqués et vendus par d'autres compagnies pour d'autres fins que celles indiquées peut entraîner des blessures au patient ou à l'opérateur, ainsi que des dommages à la table ou à ses accessoires.

⚠ **PERSONAL INJURY HAZARD:** When installing any surgical table accessory, check for correct attachment and tighten securely (if applicable). Do not use worn or damaged accessories.

RISQUE DE BLESSURES CORPORELLES: Lors de l'installation de tout accessoire à la table chirurgicale, veuillez vérifier qu'il est adéquatement fixé et serré (selon le cas). N'utilisez aucun accessoire usé ou endommagé.

5.3.1 Mattress Pads

CAUTION!

- The anti-static pathway is: Mattress Pad→ Tabletop→ Column→ Base→ Floor Lock Pads→ Floor. Therefore, the anti-static properties of the table depend upon the use of the recommended mattress pads.

  Le chemin antistatique est le suivant**:** Couvre-matelas→ dessus de Table → Colonne→ Base→Patins de verrouillage au sol→Plancher. Par conséquent, les

propriétés antistatiques de la table dépendent de l'utilisation des couvre-matelas recommandés par NUVO.

The conductive mattress pads are backed with hook fastener tape strips, which can be securely placed on the tabletop.

1. Installing the mattress pads: Leaving the hook fastener tape strip attached to the mattress pad, remove the paper from the back of the outer tape strip. Carefully position the mattress pad over the appropriate table section, then press firmly to ensure the adhesive attaches securely to the tabletop.
2. To detach the mattress pad, pull up and peel it away from the tabletop.

Note: Use Mattress pads supplied by NUVO to ensure its anti-static properties.

Remarque: Utilisez les couvres-matelas fournis par NUVO pour garantir les propriétés antistatiques.

Table 5-4: Mattress Pads

Part Number	Description	Shelf Life
CP001630v00.1	Pressure Relieving Pad, Head Section (Coussin anti-pression, section de tête)	3 years(ans)
CP001636	Pressure Relieving Pad, Body Section (Coussin anti-pression, section du corps)	3 years(ans)
CP001632	Pressure Relieving Pad, Leg Section (Coussin anti-pression, section des jambes)	3 years(ans)
CP001633	Pressure Relieving Pad, Leg Extension (Coussin anti-pression, rallonge pour les jambes)	3 years(ans)
GN0001v01	Pressure Relieving Pad Set (Head, Body, Leg and Leg Extension) (Jeu de coussins anti-pression (tête, corps, jambes et rallonge pour les jambes))	3 years(ans)
CP001656	Pressure Relieving Pad, Arm Support (Coussin anti-pression, support de bras)	3 years(ans)

5.3.2 Side Rail Lock and Clark Sockets

Many accessories are attached to the table's side rails; these accessories need side rail locks or Clark sockets to help secure them in place.

To install a side rail lock (**Figure 5-13**), place it on the side rail, then insert the rectangular rod of accessory through the corresponding rectangular hole, and lock the accessory into position with thumbscrew. To uninstall, reverse the steps of installation.

To install a Clark socket (**Figure 5-13**), slide it in from the end of side rails or through notches on the side rail, and place the round rod of accessory through the Clark socket's corresponding round hole, and lock the accessory into position with screw. To uninstall, reverse the steps of installation.

Figure 5-12

Figure 5-13

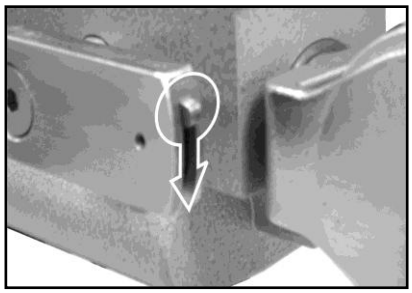


Figure 5-11

5.3.3 Arm Support

CAUTION!

- When using a third party arm board, keep an angle greater than 15 degrees along the direction of table length to avoid component damage during tabletop movements.

  Lorsque vous utilisez un support de bras fourni par un autre fabricant, gardez un angle supérieur à 15 degrés dans le sens de la longueur de la table pour éviter d'endommager les composants lorsque vous articulez la table.

The Arm Board is manually adjustable 180°from head end to leg end horizontally; it can be used when the angle of the tabletop is ≤ 15 degrees above or below horizontal. The Multi-task Arm Board is available for purchase separately, which can be used for any angle.

Adjust Arm Board to desired angle:

1. Clamp Arm Board to the side rails.

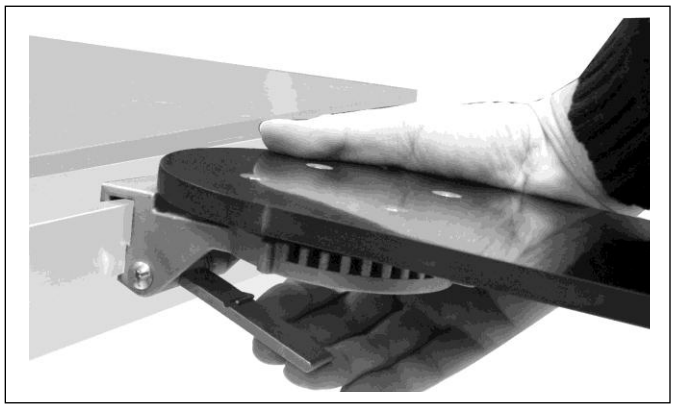


Figure 5-14: Clamp Arm Board

2. Locate ratchet release and pull to release (spring-loaded) the ratchet lock, and at the same time adjust the arm board to the desired angle. Let go of ratchet release to lock the arm board.

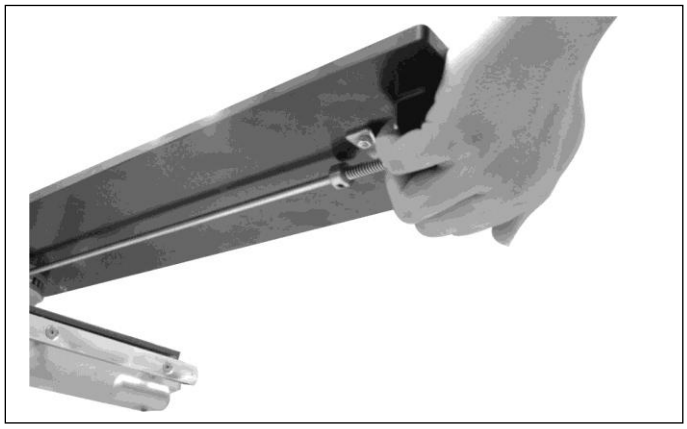


Figure 5-15: Pull ratchet release

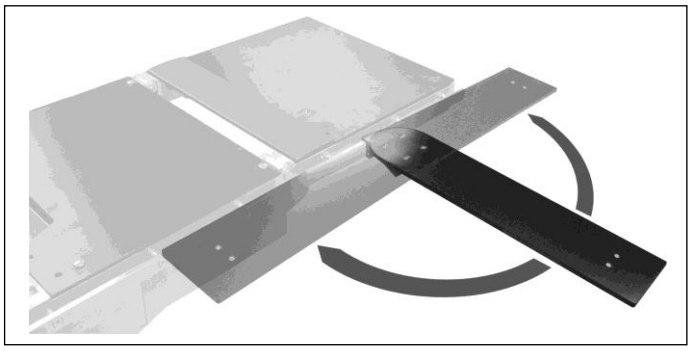


Figure 5-16: Arm support movement

5.3.4 Restraint Strap

Strap patient's legs with Restraint Strap to the side rails by using the hooks on either end of the Restraint Strap. Adjust the length of Restraint to a suitable tightness to hold the patient in place.

5.3.5 Cassette Top

An optional accessory of a four-section cassette top is available from NUVO for V1000 Series table. An X-ray cassette can be inserted between tabletop and the cassette top from the left or right side of table. Align and push the pins of cassette top into holes on the tabletop so they fit tightly, then place the patient onto the table top. During surgery, the X-ray cassette can be inserted from left or right side easily to take photos. Adjust and push the cassette pin to ensure a snug fit.

5.3.6 Foot Controller

An optional accessory of Foot Controller is available from NUVO for V1000 Series table. Insert the controller's connector into the Foot Control Socket on the Base Control Panel (#6, **Figure 5-3** or **Figure 5-4**) and then tighten the screw cap to prevent the disconnection.

Figure 5-17: Foot Controller

Section 6 Maintenance
Entretien

6.1 General

WARNING! AVERTISSEMENT!

⚠ **TABLE FAILURE HAZARD:** This manual describes routine scheduled maintenance and service which will help keep this equipment safe and reliable. Only experienced personnel who are fully acquainted with this equipment should perform repairs and adjustments. Maintenance or service performed by inexperienced, unqualified personnel, or installation of unauthorized parts could result in personal injury, costly damage, or cause the warranty to become void.

RISQUE DE MAUVAIS FONCTIONNEMENT DE LA TABLE: Ce manuel décrit la routine d'entretien et de maintenance régulière qui aideront à garder cet équipement sécuritaire et fiable. Seul le personnel expérimenté et connaissant parfaitement cet équipement devrait effectuer des réparations et ajustements. Toute procédure de maintenance ou d'entretien effectuée par du personnel inexpérimenté ou non qualifié, et toute installation de pièces non autorisées pourraient causer des blessures corporelles ou des dommages coûteux, ou annuler la garantie de l'équipement.

Maintenance procedures described in Sections 6.2 through 6.7 shall be done regularly. Only a qualified technician should perform quarterly and semi-annual maintenance procedures.

6.2 Cleaning and Disinfection Procedures

WARNING!AVERTISSEMENT!

⚠ **PERSONAL INJURY HAZARD:**Only recommended cleaners/disinfectants should be used on NUVO surgical tables. Do not use alcohol, which does not have sufficient cleaning/disinfecting properties, or phenolics, which when inadequately rinsed off could burn the patient's skin.

RISQUE DE BLESSURES CORPORELLES: Seuls les nettoyants et désinfectants recommandés devraient être utilisés sur la table chirurgicale NUVO. N'utilisez pas d'alcool pour procéder au nettoyage de la table, car ses propriétés de nettoyage et de désinfection sont insuffisantes et n'utilisez pas de composés phénoliques qui risquent de brûler la peau du patient s'ils sont mal

rincés.

To perform the cleaning procedures described in this section, please use the following materials:

1. Clean and dry lint-free cloths
2. A container of clean water
3. Materials for different types of cleaning
   a. **SOIL OR STAINS:** Use neutral soapsuds with lukewarm water. Use water to rinse and let it dry. Harsh cleansers, solvents, or detergents are not recommended.
   b. **HARD TO CLEAN SPOTS:** For troublesome spots or stains, use standard household/vinyl cleansers and/or a soft bristle brush. Heavy and dried-on soil should be pre-soaked.
   c. **DISINFECTION:** Follow the product label and dilute disinfectants and/or germicides accordingly. Contact NUVO for a list of recommended disinfectants.

   Note: When using disinfectants, read and follow label's recommendations.

6.2.1 After Each Usage

WARNING! AVERTISSEMENT!

⚠ **INFECTION HAZARD:** When cleaning the surgical table, personnel should wear gloves, a mask, eye protection, and other safety equipment which will protect body parts from exposure to aerosols which could be deflected from contaminated surfaces.

RISQUE D'INFECTION: Lors du nettoyage de la table chirurgicale, le personnel devrait porter des gants, un masque, des lunettes de protection et tout autre équipement de sécurité qui permettra de protéger le corps contre toute exposition aux aérosols qui pourraient être réfléchis par les surfaces contaminées.

CAUTION! MISE EN GARDE!

- Only persons familiar with table operation shall perform cleaning procedures which require table articulation.

  Seules les personnes maîtrisant le fonctionnement de la table doivent effectuer les procédures de nettoyage qui requièrent l'articulation de la table.

- Read the aerosol can label thoroughly and follow all directions and cautions.

  Veuillez lire attentivement l'étiquette du flacon aérosol et suivez toutes les instructions et les avertissements.

- Keep all cleaning fluid out of electrical receptacles.

  Gardez tout liquide de nettoyage hors de contact des réceptacles électriques.

1. Remove soil with a disposable cloth and place the used cloth in an appropriate biohazards waste-disposal container.
2. Clean tabletop according to the following steps:
   a. Level the tabletop and adjust it to a comfortable working height.
   b. Remove tabletop pads by peeling them away from tabletop. Place them on other clean surfaces.
   c. Hold the can of spray six to eight inches from surface and spray cleaning fluid liberally on top and sides of pads. Clean only one pad at a time if possible.
   d. Use a clean lint-free cloth to wipe sprayed surfaces, dampen with water to remove cleaning fluid. To minimize streaking, use damp cloth.
   e. To remove any remaining residue, wipe cleaned surfaces again with a clean, damp lint-free cloth.
   f. Repeat steps c, d and e for all sides of pad and for all tabletop surfaces.
   g. Place and align pad on tabletop, and then press the pad so it is securely adhered to the tabletop.
3. Raise table to maximum elevation to clean lower surfaces.
4. Clean the column and entire base surface:
   a. Hold the can of spray six to eight inches from a surface and spray.
   b. Use a clean lint-free cloth to wipe sprayed surfaces. Dampen with water to remove cleaning fluid. To minimize streaking use damp cloth.
   c. To remove any remaining residue, wipe cleaned surfaces again with a clean, damp lint-free cloth.
   d. Repeat steps a, b and c for all surfaces.

5. Turn the table's power off with Hand Pendant when finished with cleaning procedure.

6.2.2 End-of-day Cleaning Procedure

1. Perform cleaning procedure as described in Section 6.2.1.
2. Clean floor lock pads:
   a. UNLOCK table floor locks.
   b. Wipe floor lock pad with a cloth, dampened with water, to remove cleaning fluid and debris.

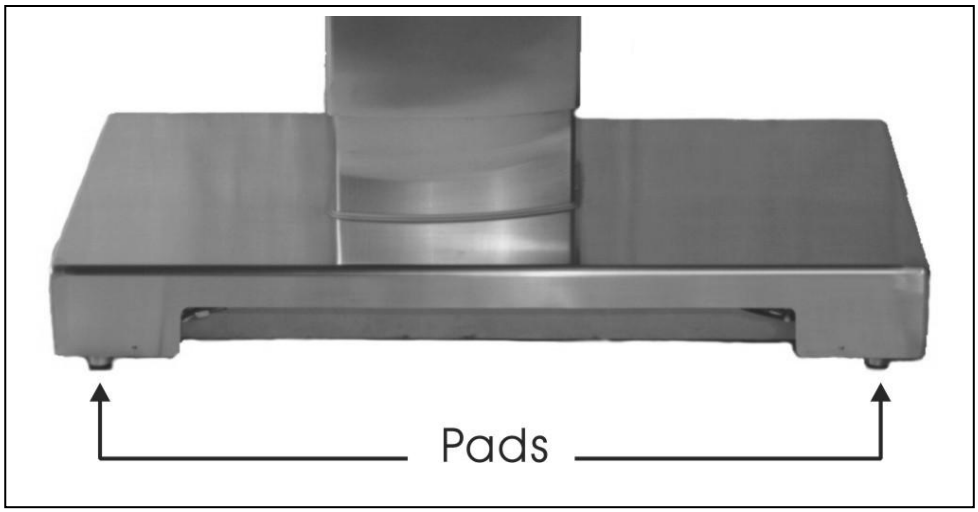


Figure 6-1: Floor Lock Pads

6.2.3 Weekly Cleaning Procedure

1. Perform Section 6.2.1 and 6.2.2 cleaning procedure.
2. Go through all movements of table and clean all additional surfaces exposed during these articulations as follows:
   a. Hold the can of spray six to eight inches from surface and spray.
   b. Use a clean piece of lint-free cloth to wipe sprayed surfaces, dampened with water to remove cleaning fluid. To minimize streaking use a damp cloth.
   c. To remove any remaining residue, wipe cleaned surfaces again with a clean, damp lint-free cloth.
3. Turn the table's power off with Hand Pendant when finished with cleaning procedure.

6.3 Monthly Maintenance

Perform all table functions. Observe if all movements are smooth and if there is any noise. Have a qualified technician check the table for anything out of the ordinary. Never allow inexperienced, unqualified technicians to attempt any repair on the table.

6.4 Quarterly Maintenance

WARNING! AVERTISSEMENT!

⚠ **SHOCK HAZARD:**Monitor the electrically conductive properties of casters and floor locks. Measure their resistance level according to the requirements of NFPA 99 before placing table in use. Subsequent routine testing should be performed at least once every three (3) months.

RISQUE DE DÉCHARGE ÉLECTRIQUE: Surveillez les propriétés de conductivité électrique des dispositifs de verrouillage au sol. Mesurez leur niveau de résistance selon les exigences de la norme NFPA 99 avant de commencer à utiliser la table. Des tests de routine doivent être effectués au moins une fois tous les trois mois.

⚠ **ELECTRIC SHOCK HAZARD:** Only authorized service personnel should be allowed to remove the covers.

RISQUE DE DÉCHARGE ÉLECTRIQUE: Seul le personnel de service autorisé devrait être autorisé à retirer les couvercles.

1. Clean the floor locks according to Sec.6.2.2 and then check for conductivity.

6.5 Lubrication

6.5.1 Lubrication Schedule

Table 6-1: Lubrication Schedule

LUBRICANT	TABLE SECTION	MINIMUM FREQUENCY
Grease: MOLYKOTE 33 Medium	Articulation pins – Leg Section	2 x per year
	Articulation pins – Tabletop Tilting	
	Articulation pins – Back Section	
	Articulation pins – Seat Section	
	Central column – Tabletop up/down	
	Floor Lock Posts (see 6.5.2)	
Grease: Kyodo Yushi Multemp PS No.2	Linear Guide Assembly (see 6.5.3)	1 x per year

It is recommended that the frequency of the lubrication be chosen depending on the environment and conditions of use; specifically, exposure to or adhesion of solvents, saline, and/or blood to table section.

a. High: Maintenance every 3 months
b. Medium: Maintenance every 6 months
c. Low: Maintenance every 12 months

If the maintenance frequency does not meet the usage requirements, please increase the maintenance frequency according to the conditions of use. This will ensure the best preventive maintenance and prolong the service life of these parts.

6.5.2 Lubrication of Floor Lock Posts

1. Maintenance tools:

a) Wiping cloth
b) Fine grit sandpaper
c) Grease, MOLYKOTE 33 Medium
d) WD-40

2. Maintenance method:

a. Place a block of wood under the end of the table base.

b. Extend the locking posts as far as they will go using the manual override control
c. Using a combination of fine grit sandpaper, WD-40, and a wiping cloth, clean both posts on this end of the table base.
d. Retract the floor lock posts, then extend again. Repeat the cleaning process 2-3 more times, until the locking posts remain clean after retracting and extending.
e. Apply a thin film of grease to the surface of the locking post, then retract and extend them 1 more time.
f. Repeat this cleaning and greasing process at the other end of the table.

6.5.3 Lubrication of Linear Guide Assembly

1. Maintenance tools:

e) Wiping cloth
f) Grease gun
g) Grease, Kyodo Yushi Multemp PS No.2 or equivalent grease
h) WD-40

2. Maintenance method:

a. Position the table top into a horizontal position and remove the Bakelite pelvic plate. At this time, the linear guide rail and the slide block will be exposed, allowing for convenient cleaning of any dirt or moisture on the guide rail and the slide block. Use WD-40 if necessary.
b. After the surface is cleaned, position the table top to the maximum angle of Trendelenburg, and spray WD-40 on the guide rails and slider blocks. Slide the table top to the end of the stroke. Repeat this action at least 2 times and confirm that the rail surface is cleaned.
c. Position the table top back into a horizontal position, then use the prepared grease gun. Connect the barrel joint of the grease gun to the grease input fitting on the slider. Slowly press the grease gun until about 1.2~2.0 cm^3 is applied. Slide the table top to the end of the stroke. Repeat the greasing and sliding actions 2 more times, and ensure that the grease film is evenly coated on the surface of the linear guide rail.
d. If the grease is over-filled, use a cloth to wipe off the grease; be sure to keep the linear guides evenly coated with film.

e. After confirming the completion of the linear guide rail maintenance, reassemble the Bakelite pelvic plate back onto the table. This completes the linear guide maintenance.

6.6 Other Maintenance Schedule

Table 6-2: Other Maintenance Schedule

ITEMS	MINIMUM FREQUENCY
1. TABLETOP	
1.1 Remove pads, and then look for wear and tear on the pads and on the fastening strips of pads and tabletop.	4× per year
1.2 Examine all side-rail hardware attachments.	
1.3 Check and tighten screws on side rails.	
1.4 Remove and clean cassette top of each table section.	
2. HYDRAULIC SYSTEM	
2.1 Clean fluid filters.	1× per year
2.2 Check the cleanness of hydraulic oil. Replace it if necessary.	
2.3 Check hydraulic fluid level.	
2.4 Inspect floor directly beneath the table and all the hoses, fittings and components of hydraulic system for leakage.	
3. ELECTRICAL CHECKS	
3.1 Check for loose circuit board connectors and cable plugs.	1× per year
3.2 Check for damaged or frayed cables.	
3.3 Inspect electrical cord and Hand Pendant cable.	
3.4 Check the electrically conductive properties of floor locks	4× per year
4. TABLE MOVEMENTS (NORMAL AND REVERSE ORIENTATIONS)	
4.1 Seat, Back and Leg Sections	1× per year
4.2 Lateral Tilt	
4.3 Height and Sliding	
4.4 Head Section	
5. TABLE RIGIDITY	
5.1 Check both ends of tabletop for any horizontal or vertical play.	1x per year
5.2 Check side tilt mechanism for any play.	

ITEMS	MINIMUM FREQUENCY
5.3 Check central column for any play.	1x per year
5.4 Check for wobblingof table base due to uneven floor locks.	

Note: Before the base cover is closed, be sure tools are left outside of the table base

6.7 Battery Charging Procedure

Batteries will be charged automatically as long as the AC power is plugged in (#4, **Figure 5-3** or **Figure 5-4**). Battery Level Indicator indicates low or discharged battery conditions on the Hand Pendant (#16, **Figure 5-2**) as well as on the Base Panel (#8, **Figure 5-3** or **Figure 5-4**). We recommend that AC power be plugged in whenever possible to allow the batteries to charge, since this will prolong the life of the batteries. Follow the battery charging schedule below, if AC power is not the main power supply:

1. Every 10 days when the table is in normal service; more often if usage demands.
2. Charge whenever the hand pendant's Battery Power Indicator indicates low or the base panel's Battery Power Indicator shows fewer than two green segments.
3. If a table remains in extended storage for more than 1 month; batteries must be fully charged before storing and charged every 1 month.

Notes:

- Allow about 12 hours to completely charge the sealed lead battery.
- Verify Battery Level Indicator indicates full by making sure all segments are lit on the Battery Level Indicator.
- All batteries are a sealed, lead-acid gel electrolyte-type, with a nominal life of 4 years (Depending on the usage frequency).
- The battery is delivered by sea-shipment only.
- Only replace battery with one recommended by NUVO, or the Battery Level Indicator may not display correctly.
- When power cord has been unplugged for ten (10) days, the hand pendant is then deactivated until AC power is restored. This is to remind the user to charge the batteries.
- If batteries are not being charged, check for the following:
    - Blown fuse(s), F1 and F2 (# 2 and #1, **Figure 5-3** or **Figure 5-4**) - replace if necessary
    - Defective AC power cord - replace if necessary

Remarque:

- Pour une batterie au plomb, comptez environ 12 heures pour une charge maximale de la batterie.
- Vérifiez que la batterie est complètement chargée en vous assurant que tous les segments sont allumés sur l'indicateur de niveau de batterie.
- Toutes les batteries sont de type scellé, au plomb-acide à électrolyte en gel, avec une durée de vie nominale de 4 ans (selon la fréquence d'utilisation)
- Les batteries ne doivent être expédiées que par voie maritime.
- Remplacez uniquement la batterie par un modèle recommandé par NUVO, ou l'indicateur de niveau de la batterie peut ne pas s'afficher correctement.
- Lorsque le cordon d'alimentation a été débranché pendant plus de dix (10) jours, le boîtier de commande manuelle est ensuite déchargé.
- Si les batteries ne sont pas chargées lorsque la table est branchée, vérifiez les points suivants :
  - Les fusibles F1 et F2 ont peut-être sauté (#2 et #1, **Figure 5-3**) - remplacez-les au besoin.
  - Cordon d'alimentation défectueux - remplacez-le dès que possible.

6.8 Fuse Replacement

Unplug the AC power cord (#4, **Figure 5-3**).

Remove fuse socket caps (#1 and #2, **Figure 5-3**) with a screwdriver. The cap is not screwed in, therefore do not try to unscrew it or else the cap may become damaged. Just push it in the cap and turn slightly counter-clockwise to unlock it and use hand to pull it out.

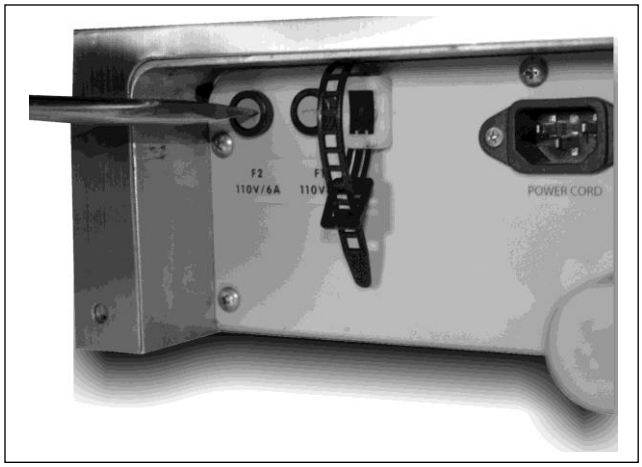


Figure 6-2: Fuse Replacement

Replace blown fuse(s) with new one(s) according to the specifications below.

NUVO Item Id	Specifications	AC Voltage
EF0002	6*32 3A/250V (time-lag)	220V~240V
EF0003	6*32 5A/250V (time-lag)	110V~120V

Push and turn slightly to lock the fuse socket caps.

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Section 7 Hydraulic System
Système Hydraulique

7.1 System Description

Please refer to the Hydraulic System Schema (**Figure 7-1 ~ Figure 7-4**), the Arrangement of Solenoid Valves for the T1000S, T1000SK, and T1000SKP (**Figure 7-5**), and the Arrangement of Rotary Valves for V1000 and T1000K (**Figure 7-6**) at the end of this section for understanding the following discussion on the hydraulic system of V1000 Series table.

Most movements of the V1000 Series table are powered by an electro-hydraulic system, which consists of a Hydraulic Power Unit, a set of valves, pressure switches, and cylinders. A foot pump is included in the hydraulic system of V1000 models with a P suffix as an alternative pressure generator when the Hydraulic Power Unit is out of service.

7.1.1 Hydraulic Power Unit

The Hydraulic Power Unit comprises a motor, a plastic reservoir, a relief valve, a gear pump, filters, fittings, and a connecting block for mounting the above mentioned components. The V1000(K)(P)'s Hydraulic Power Unit is bidirectional as shown in**Figure 7-3** and **Figure 7-4**. When the motor turns counterclockwise, the high pressure oil goes out of fitting "H1" and the low pressure oil comes back through fitting "H2". When the motor turns clockwise, the high pressure oil goes out of "H2" and the low pressure oil comes back through "H1".

The T1000S(K)(P)'sHydraulic Power Unitalways turns counterclockwise and is driven by PWM control programming. The high pressure oil goes out of fitting "P" and the low pressure oil comes back through fitting "T" (as shown in **Figure 7-1** and **Figure 7-2**). Due to the PWM control programming, the Hydraulic Power Unitstarts and stops the table movements smoothly without a jolting effect, which makes it more comfortable for a conscious patient undergoing surgery.

There are two relief valves in theT1000(K)(P)'s bidirectional Hydraulic Power Unit and one relief valve in theT1000S(K)(P)'sHydraulic Power Unit. Each relief valve's pressure setting should be adjusted to 135 ± 5 kg/cm^2, allowing the oil to circulate back to the plastic reservoir when the pressure reaches 135 ± 5 kg/cm$^{2.}$ There is a 25um high-pressure filter in the T1000S(K)(P)'sHydraulic Power Unit. If the filter is blocked by too many particles, the output pressure will become insufficient and will drastically slow down the table movements. The Hydraulic Power Unit's output pressure can always be measured through the testing fitting.

7.1.2 Foot Pump

A Foot Pump is connected onto the Hydraulic Power Unit for T1000S(K)P as shown in **Figure 7-1** and **Figure 7-2**. It pumps oil from the Reservoir through the entire hydraulic system.

7.1.3 Rotary Valve

The V1000(K)(P)tables are equipped with a 6-Fold Rotary Valve directing oil flowbetween the Hydraulic Power Unitand cylinders as shown in **Figure 7-3** and **Figure 7-4**. The oil flow directing shaft within the Rotary Valve is motor driven; it can also be operated manually by turning its knob. There are four photo interrupters for sensing one of the six valve-set positions V1/V2, V3/V4, V5/V6, V7/V8, V9/V10, and V11/V12. Three of the photo interrupters are used for decoding the six valve positions as shown in **Figure 7-3** and **Figure 7-4**,and the other one is used for precisely aligning the rotary axle with valve-set positions V1/V2, V3/V4, V5/V6, V7/V8, V9/V10, and V11/V12.

Each fold has a set of pilot check valves to keep the oil in the cylinders from leaking back to the Reservoir when there is no output from the Hydraulic Power Unit. When there is pressure output, the selected fold's pilot check valve will open two passageways for the cylinder bound andthe Reservoir bound oil flow. The direction of flow depends on the direction of the Hydraulic Power Unit'srotation. When theHydraulic Power Unit stops, the set of pilot check valves slowly closes; thus, all the table movements stop smoothly without a jolting effect, which makes it more comfortable for a patient who is conscious undergoing surgery.

7.1.4 Solenoid Valve

The T1000S(K)(P) tables are equipped with a set of 7-Fold Solenoid Valves directing oil flowbetween the Hydraulic Power Unitandthe cylinders as shown in **Figure 7-1** and **Figure 7-2**. Each fold has a pair of solenoid valves for directing hydraulic oil to corresponding cylinder(s) for one of the table movements. The oil goes from the Hydraulic Power Unit viathe fitting marked "P" into the Valve and goes back to the Hydraulic Power Unit viathe fitting marked "T". There is a throttle valve controlling the flow rate for each solenoid valve except S7 and S8 valves as shown **Figure 7-1** and **Figure 7-2** and **Figure 7-5**.

Each fold has a set of pilot check valves to keep the oil in the cylinders from leaking back to the Reservoir when there is no output from the Hydraulic Power Unit. When there is pressure output from the Hydraulic Power Unit, the activated solenoid valve's pilot check valve opens a cylinder bound passageway on its side and a Reservoir bound passageway on its opposite side for the oil flow.

7.1.5 Pressure Switches

7.1.5.1 Floor Lock

There are two pressure switches (psLOCK and psUNLOCK) for detecting the pressure of Lock/Unlock cylinders as shown in **Figure 7-1 ~ Figure 7-4**. When all four Lock/Unlock cylinders extendto the extreme, the psLOCK (setting at 115-120 kg/cm^2) sends a signal to Main Control PCB, which then draws them back about one second or until the psUNLOCK (setting at 35-40 kg/cm^2) sends another signal to Main Control PCB. Thus completes the locking process and the four locking posts are firmly contacting the floor. This is possiblewhen the tolerance of floor's unevenness is less than 0.2" (5 mm).

7.1.5.2 System

There is a pressure switch (psPUMP) connected directly onto the Hydraulic Power Unit for detecting its pressure. When the relief valve is open, the psPUMP(setting at 120-125 kg/cm^2) sends a signal to Main Control PCB to stop some protected movements such as table down, back down, leg down, slide out, side tilt, and reverse Trendelenburg. The "Interlock" LED on the hand pendent will be lit and beeping when the protected action is activated until the activated button on the Hand Pendant is released.

7.1.6 Cylinders

The hydraulic cylinders are shown in Hydraulic System Schematics (**Figure 7-1 ~ Figure 7-4**).

7.2 Troubleshooting

Table 7-1:HYDRAULIC/MECHANICAL SYSTEM TROUBLESHOOTINGprovides steps to identify and correct most problems encountered in the hydraulic system. In most cases, a problem is either a hydraulic one OR an electrical one, but not both. Refer to Section 8, Electrical System, when a problem appears to be electrical.(You may need some of the tools listed in**Table2-2**).

Table 7-1:HYDRAULIC/MECHANICAL SYSTEM TROUBLESHOOTING

Problem	Symptom/Cause	Solution	Reference
1. Nothing moves.	Hydraulic Power Unit does not run.	Refer to **Table 8-2:** ELECTRICAL TROUBLESHOOTING	Table 8-2

Table 7-1:HYDRAULIC/MECHANICAL SYSTEM TROUBLESHOOTING			
Problem	**Symptom/Cause**	**Solution**	**Reference**
	Hydraulic Power Unit runs but no pressurein the system.	● Check hydraulic fluid level. Add fluid if necessary. ● Connect pressure gauge at Hydraulic Power Unit's test point. Get the pump running and adjust the relief valve until the gauge reads around 135 ± 5 kg/cm^2 ● If pressure cannot be adjusted to 135 ± 5 kg/cm^2, clean the 25um high pressure filter. (Not applicable for Bidirectional Hydraulic Power Unit.) ● If after cleaning the filter, the pressure still cannot be adjusted to 135 ± 5 kg/cm^2, replace the gear pump or relief valve.	Sec. 9.5 Sec. 9.8.3 Sec. 9.10
	Electricity is not coming to the rotary valve motor (tables without sliding).	Refer to **Table 8-2:** ELECTRICAL TROUBLESHOOTING	Table 8-2
	Rotary valve motor does not run even with electricity (tables without sliding)	Replace defective motor.	Sec. 9.9.2
2. Every section of table moves too slow.	The pressure setting of relief valve is too low.	Connect pressure gauge at test point on Hydraulic Power Unit. Operate pump and adjust the relief valve until the gauge reads around 135 ± 5 kg/cm^2.	Sec. 9.5
	The 25um filter is blocked by particles.	If the output pressure cannot be adjusted to 135 ± 5 kg/cm^2, clean the 25um high pressure filter. (not applicable for Bidirectional Hydraulic Power Unit)	Sec. 9.8.3
	The check valve onFoot Pump is not properly screwed on. **(T1000SKP Only)**	● Unscrew foot pump's check valve and clean the inside as well as the surface of the check valve (a little steel ball). ● Screw back on the check valve.	Figure 10-16
3. One or more of table sections movement too slow.	1. 60um filter(s) in rotary valve or solenoid valve is (are) blocked by particles.	Clean or replace the affected filter(s).	Sec. 9.8

Table 7-1:HYDRAULIC/MECHANICAL SYSTEM TROUBLESHOOTING			
Problem	**Symptom/Cause**	**Solution**	**Reference**
	2. The throttle valve(s) is (are) not opened wide enough.	Adjust the affected throttle valve(s) to appropriate flow rate.	Figure 7-5
4. Some sections or one of the sections does not move.	1. Corresponding solenoid valve does not receive electricity.	Refer to **Table 8-2:** ELECTRICAL TROUBLESHOOTING	Table 8-2
	2. Corresponding solenoid valve does not actuate even withelectricity.	• Replace defective solenoid coil. • Clean shuttle that blocked by metal bits. • Replace defective valve assembly.	Sec. 9.9.1
	3. Rotary valve does not stop at a correct position.	4-set Photo Interrupter PCB is defective. Replace it.	Sec. 9.15.6
5. One of the table sections drifts down slowly.	1. Corresponding pilot check valve leaks internally.	Clean out the unwanted foreign particles or repair valve assembly.	Sec. 9.9
	2. Corresponding cylinder has defective o-ring or oil seal.	Replace cylinder.	Sec. 9.12
	3. Hydraulic line leaks.	Replace damaged Hydraulic tube.	NA
	4. Hydraulic fitting leaks.	• Tighten the loose fitting. • Replace defective bonded seals.	NA
6. One of the floor locks gets stuck in its bay.	The locking postdoes not come out.	Remove foreign object(s) from the floor lock bay, which obstruct(s) the movement offloor lock mechanism. **Note:** After opening the table base cover, do not place small objects near the opening of floor lock bays as they may fall into it and be forgotten.	Sec. 9.12.1
	The locking post suffered collision damage and is unable to retract	• File deformed section, or • Replace the damaged locking post	

Table 7-1:HYDRAULIC/MECHANICAL SYSTEM TROUBLESHOOTING			
Problem	**Symptom/Cause**	**Solution**	**Reference**
7. The table cannot complete the locking procedure.	Wrong pressure setting on pressure switch psLOCK .	Adjust the pressure setting to 120 kg/cm^2.	Sec. 9.7
	Wrong pressure setting on pressure switch psUNLOCK .	Adjust the pressure setting to 30~35 kg/cm^2.	
	Pressure switch cannot send signal.	Replace the defective pressure switch(s) (psLOCKand/or psUNLOCK).	

7.3 Hydraulic System Schematics

Figure 7-1: T1000S(K)P

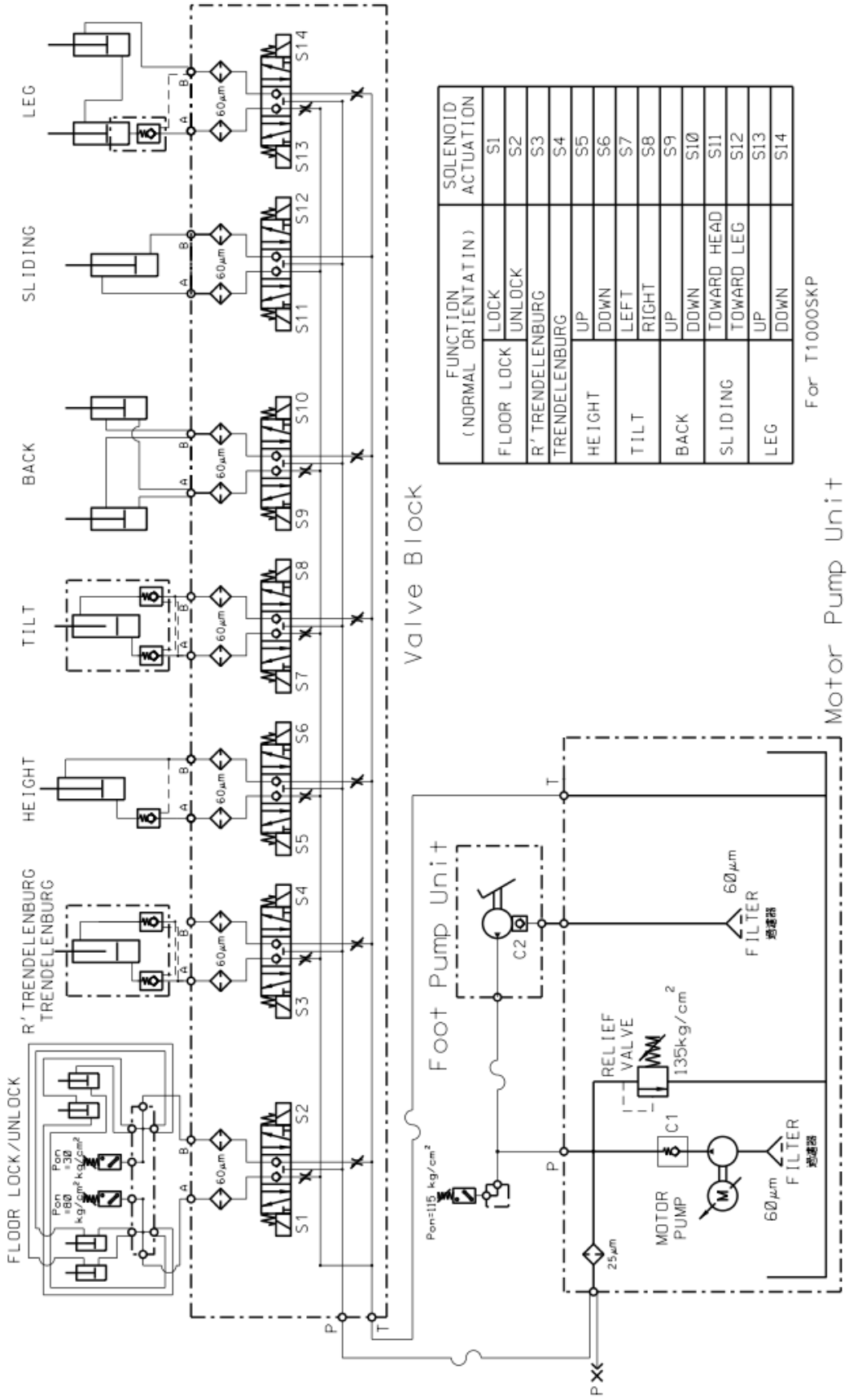


Figure 7-2: T1000S(K)

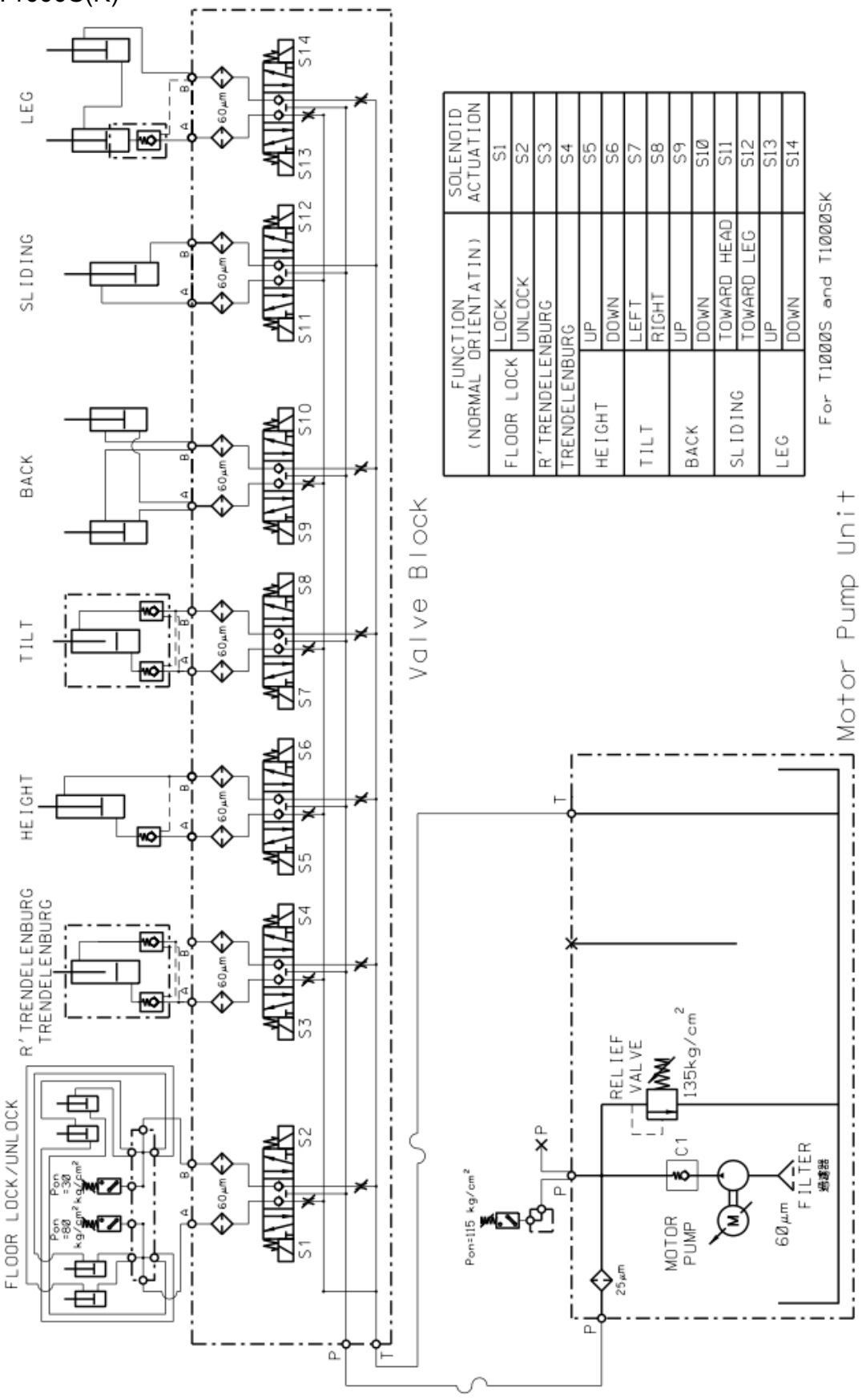
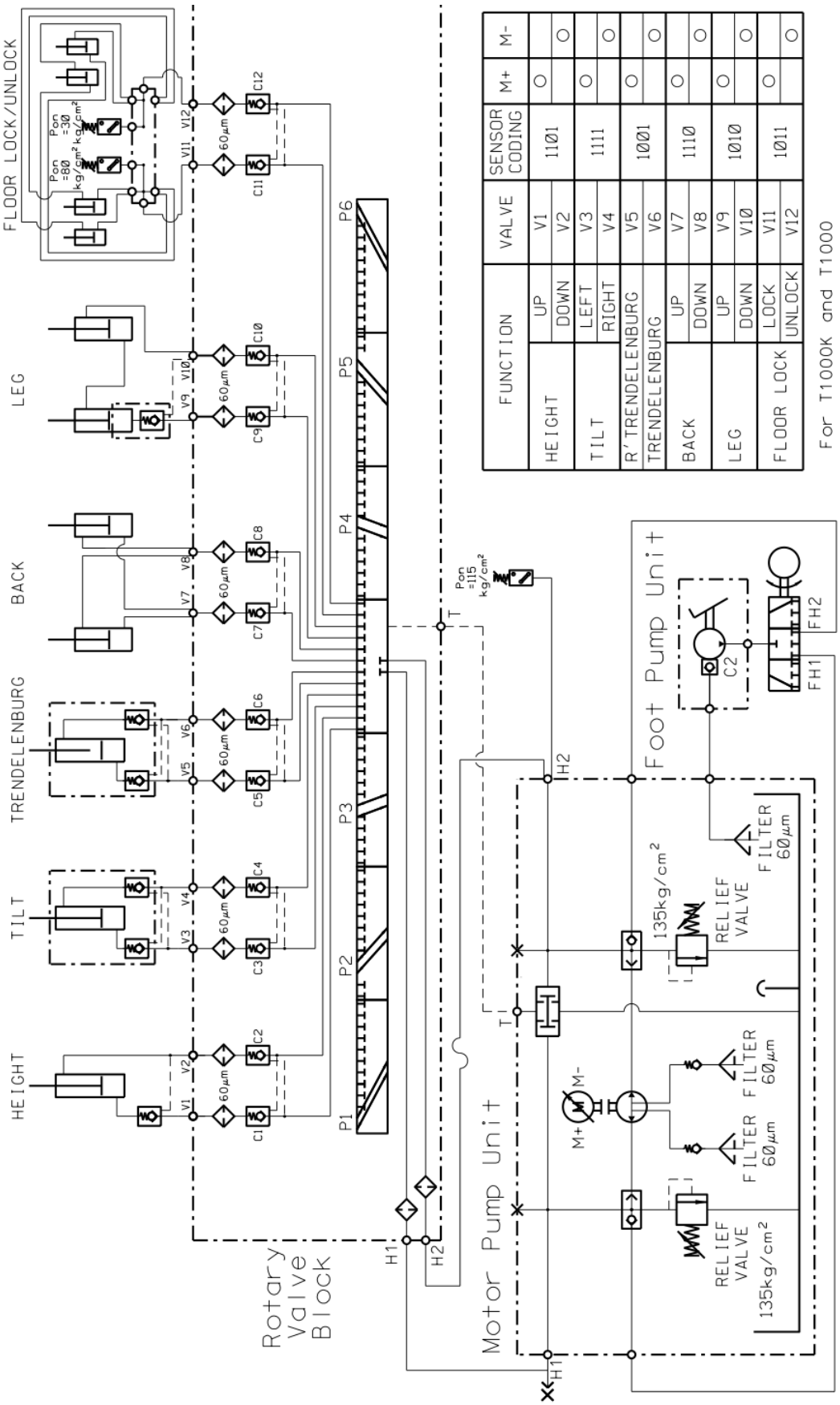
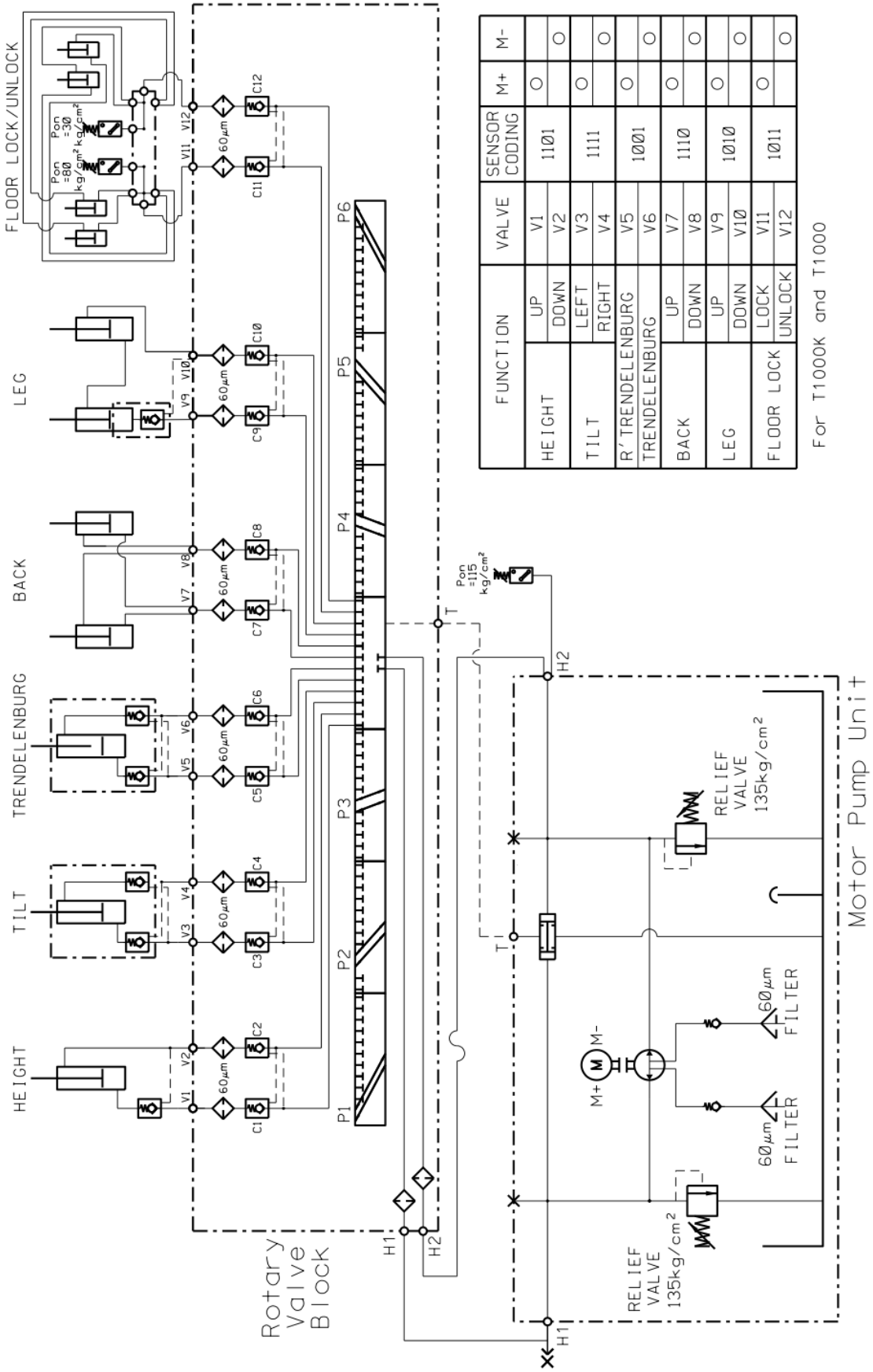


Figure 7-3: V1000(K)P



FUNCTION			VALVE	SENSOR CODING	M+	M-
HEIGHT	UP		V1	1101	O	
	DOWN		V2			O
TILT	LEFT		V3	1111	O	
	RIGHT		V4			O
R'TRENDELENBURG			V5	1001	O	
TRENDELENBURG			V6			O
BACK	UP		V7	1110	O	
	DOWN		V8			O
LEG	UP		V9	1010	O	
	DOWN		V10			O
FLOOR LOCK	LOCK		V11	1011	O	
	UNLOCK		V12			O

Figure 7-4: V1000(K)



FUNCTION		VALVE	SENSOR CODING	M+	M-
HEIGHT	UP	V1	1101	O	
	DOWN	V2			O
TILT	LEFT	V3	1111	O	
	RIGHT	V4			O
R'TRENDELENBURG		V5	1001	O	
TRENDELENBURG		V6			O
BACK	UP	V7	1110	O	
	DOWN	V8			O
LEG	UP	V9	1010	O	
	DOWN	V10			O
FLOOR LOCK	LOCK	V11	1011	O	
	UNLOCK	V12			O

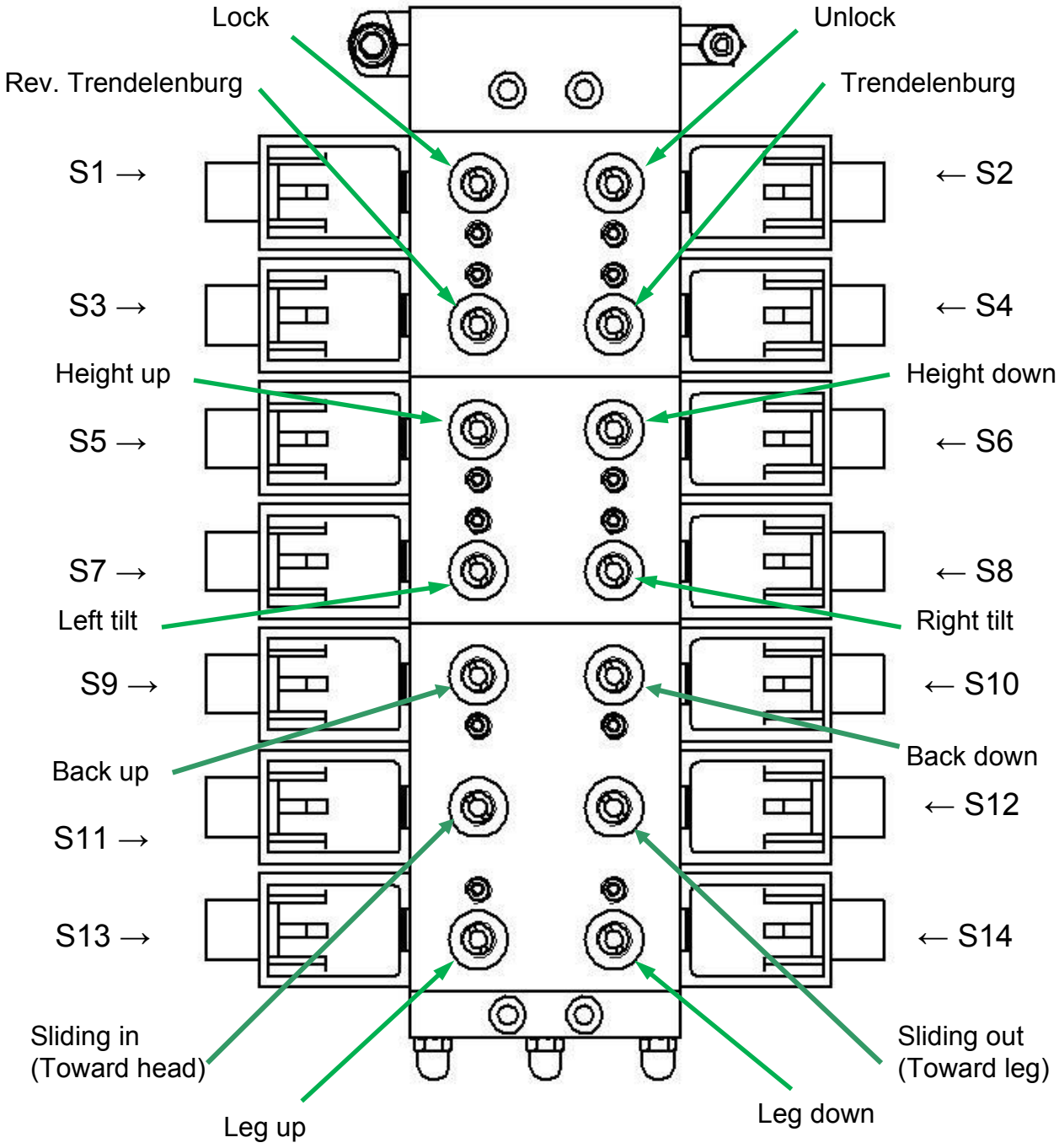


Figure 7-5: Arrangement of Solenoid Valves for Models with S suffix

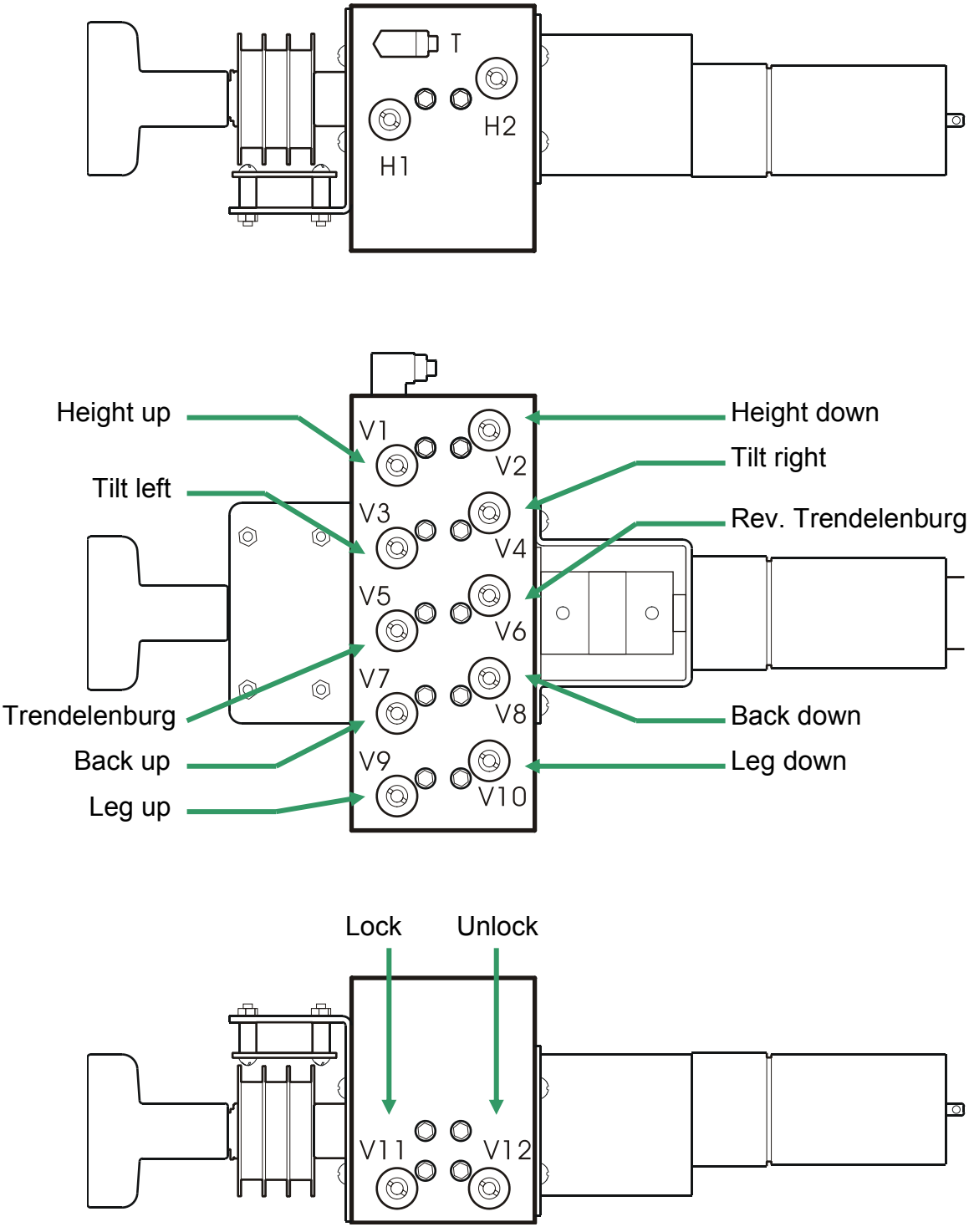


Figure 7-6: Arrangement of Rotary Valves for Models without S suffix

Section 8 Electrical System
Système Electrique

CAUTION!

- Electrostatic could damage IC. Avoid any contact with the electronic systems by hands. Use probes if necessary.Please wear a grounding device when probing circuits or connectors, or it may result in an immediate electrical failure.

8.1 General Introduction of Electrical System

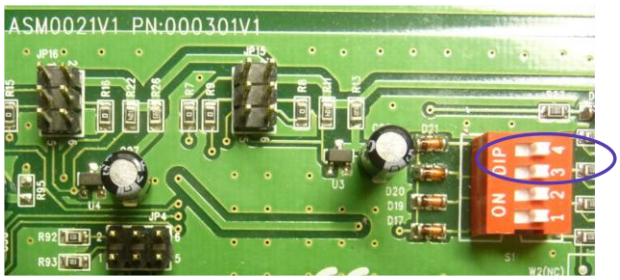
Refer to Electrical System Schematic at the end of this section for the following discussion. There are two Schematics listed below for different models in the V1000 Surgical Table series. **Figure 8-5**: V1000 models without S suffix
Figure 8-6: V1000 models with S suffix
Main Control PCB (ASM0021) receives information and processes it for further actions. They include hand pendent, optional foot controller, optionalUSB Wireless Interface, AC supply mains, DC supply battery, and various sensors. In addition, there is a secondary override control, which can take over the control of the surgical table in case of malfunction of the Hand Pendant and/or the Main Control PCB. All the PCBs used in the system are listed in the following table.

Table 8-1: List of PCB's & Part Numbers

Part Number	Part Description	Applicable Models
ASM0020	Filter PCB	All models
ASM0021	Main Control PCB	All models
ASM0022	Solenoid Valve Drive PCB	Models with S suffix
ASM0023	Rotary Valve Drive PCB	Models without S suffix
ASM0024	Hand Pendant PCB	All models
ASM0025	Power Indication PCB	All models
ASM0026	2-set Photo Interrupter PCB	All models
ASM0027	4-set Photo Interrupter PCB	Models without S suffix
ASM0028	ADIS12601 PCB	All models
ASM0029	ADIS12603 PCB	All models

The DIP switches on the Main Control PCB are used to identify table model and set the timing parameter of the valve motor.

8.1.1 Model Identification



Model Number	Dip Switch S1	
	3	4
T1000SKP, T1000S(K) (N)	off	off
V1000(K) (N)	off	on

Figure 8-1: Model Identification through DIP Switch Setting

8.1.2 Firmware Identification

Each table has 3 firmwares that communicate with each other to make the table operational. Following the steps below, each firmware's version can be displayed in the 10-segment LED Battery Indicator (#8, **Figure 5-4**) as binary code. Please see the binary- numeric conversion chart below.

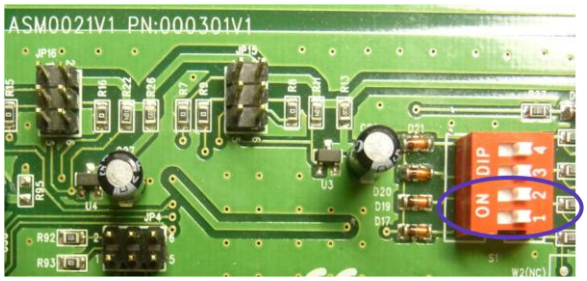
Firmware Number	Description	1.	2.	3.		4.
		AC	Hand pendant	Normal button	Rev. button	Continue pressing the button in step 3
FW0001V01	Power Control	No	ON	Press 5 sec.		Read the display
FW0002	Hand Control	Yes				
FW0003 (Solenoid)	Main Control				Press 5 sec.	
FW0004V02.1 (Rotary)						

The version number will be displayed on the battery indicator of the base panel after pressing the Normal or Reverse Orientation buttons for 5 seconds.

Binary-numeric Conversion Chart

Code	Ver.	Code	Ver.	Code	Ver.	Code	Ver.	Code	Ver.
	00		06		12		18		24
	01		07		13		19		25
	02		08		14		20		26
	03		09		15		21		27
	04		10		16		22		28
	05		11		17		23		29

8.1.3 Timing Parameter of Valve Motor



Dip Switch S1		Code	Timing
1	2		
off	off	0	Shortest delay
on	off	1	↕
off	on	2	↕
on	on	3	Longest delay

Figure 8-2: Setting Timing Parameter of Valve Motor on DIP Switch

Press the hand pendant movement buttons one by one and watch the Selection Knob (#88, ASM0035, 0036, or 0038 in Sec. 10). If the Selection Knob indicator stops short of the index point on its first try, then set the DIP Switch to a slower setting, and vice versa.

Note: If the indicator could not stop exactly on the index points with either one of the four settings, then select the setting that is closest to the index point; preferably selecting the one that stops short of index point.

8.2 Power Supply and Power Indication

Two fuses, F1 and F2 (located on the control interface panel at the front of table base), are added to the beginning of the AC circuit for protection. A transformer then steps down the primary AC voltage of 110V AC or 220V to a secondary AC voltage of 20V, 22V, 24V or 26V, and a rectifier converts it into DC, which powers the rest of the circuitries after going through a filter PCB that oppresses some possible line surges. The LED AC Power Indicators on the table base control panel (#7, **Figure 5-3** or **Figure 5-4**) and the Hand Pendant (**Figure 5-2**, #19) indicate the table is receiving AC power.

The table base also contains a set of batteries, so it can operate even when AC power is unavailable, and can be charged when AC power is available. Battery Level Indicators on the table base control panel (#8, **Figure 5-3** or **Figure 5-4**) and the Hand Pendant (**Figure 5-2**, #16) indicate the power level of batteries. Model T1000SKP* contains another set of two smaller batteries, which provides continuous operation when both AC and primary batteries are unavailable. The secondary backup batteries supply power to the circuitries (excluding the motor used for Hydraulic Power Unit); in this case, the user can change table positions using the foot pump.

8.3 Operational Interface

Any electro-hydraulically driven movement of the surgical table can be done through the Hand Pendant, an optional Foot Controller, or an optionalUSB Wireless Interface. The same Hand Pendant PCB (ASM0024) works in all Hand Pendant models. The Hand Pendant PCB detects the button being pressed then sends the signal to the Main PCB. It also receives

information from the Main Control PCB showing the table status on its keypad. The optional Foot Controller only sends signals to the Main Control PCB for table movement. The optionalUSB Wireless Interface connects a computer (as a Hand Pendant) to the Main Control PCB.

8.4 Override Control

As mentioned above, the Override System could be used in case of Hand Pendant malfunction, but it does not provide operation in “Reverse Orientation” mode.

For models with the S Suffix,the control comprises an On/Off toggle switch and a set of seven other toggle switches. Toggle the On/Off switch to enable the Override System, and then toggle the other switches (one at a time) to create the desired table positions.

For models without the S Suffix, the control comprises two toggle switches and a rotary knob for the selection of table movement. To use the override system, turn and align the knob’s pointer to a desired icon of movement, and then toggle the Override Control Switch (#11 in **Figure 5-4**) to a desired moving direction. Toggle the ON/OFF switch to enable the Override System.

8.5 Solenoid Valve Drive PCB

The Main Control PCB controls the Hydraulic Power Unit’s motor and the solenoids (one solenoid at a time) via the Solenoid Valve Drive PCB.The Drive PCB outputsa 24 DC voltage to drive the motor and solenoids, respectively. The Drive PCB supplies power in normal polarity to the motor so it always turns counterclockwise.

8.6 Rotary Valve Drive PCB (ASM0023)

The Main Control PCB controls the Hydraulic Power Unit’s motor and the Rotary Valve’s motor via the Drive PCB (one motor at a time). The Drive PCB outputs24V DC to drive the motors, respectively. This Drive PCB is capable of supplying powerin reverse polarity to the two motors, allowing them to turn either counterclockwise or clockwise according to the Main Control PCB’s signal.

8.7 2-Set Photo Interrupter PCB (ASM0026)

By using two 2-Set Photo Interrupter PCBs, (which detect the approximate position of the locking posts), and two pressure switches ((psLOCK and psUNLOCK), which detect the pressure in cylinders that extend and retract the locking posts via a cam mechanism), the table can be locked toor unlocked from the floor.

During the locking process, the Main Control PCB receives a signal (when all four floor lock cylinders are fully extended) from the psLOCK, and then commands to stop extending the cylinders. Next, the Main Control PCB commands to retract a cylinder whose locking post does not stand firmly on the floor, until a signal is sent by psUNLOCK. At least one if not both of the 2-Set Photo Interrupter PCBs shall then send a signal to the Main Control PCB, and the Hand Pendant's Lock LED shall be lit.

During the unlocking process, the Main Control PCB commands the floor lock cylinders to retract for 8 seconds and then to light the Unlock LED on Hand Pendant. At this point it checks the unlocking signals from the 2-set Photo Interrupter PCBs. Both Interrupters need to send unlocking signal to the Main Control PCB or else the Service LED will be lit.

8.8 4-Set Photo Interrupter PCB (ASM0027)

Modelswithout the S suffix have a 4-set Photo Interrupter PCB that detectsthe positionof the Rotary Valve'sshaft; therefore, the PCB providessensing abilitytothe Main Control PCBto align and position the valve to the different table movements. If one of the photo interrupters does not work properly, the Main Control PCBdisablesthe use of Hand Pendant andFoot Controller (if connected) and the Hand Pendant's Service Indicator (LED) is lit.

8.9 ADIS12603 PCB (ASM0029V00.1)

The Back and Leg Sectionseach have an ADIS12603 PCB to detect its angle for the function of Level, Flex and Reflex Buttons on the Hand Pendant.

8.10 ADIS12601 PCB (ASM0028)

Trendelenburg and Tilt of Pelvis (Seat) Section angles are detected by an ADIS12601 PCB. This PCB is also used for the functions of Level, Flex and Reflex Buttons on the Hand Pendant. The ADIS12601 PCB collects all the data from the two ADIS12603 PCBs mentioned above and sends them to the Main Control PCB.

8.11 Troubleshooting

8.11.1 Instant Troubleshooting

While operating the Hand Pendant, if the Service indicator (#18, **Figure 5-2**) is lit, and is beeping at the same time, it could mean the override system is on. Turn it off and the Service LED should go off. If the override system is off and the Service LED is still on,then a problem has occurred that renders the table unusable. At this time, the 10-segment LED Battery Indicator (#8, **Figure 5-3** or **Figure 5-4**) may display a Service Code. Press the button in question on the Hand Pendantwhile it is turned on to display the Service Code.

Display/Code	Symptom	Cause
 1	Pump motor is not working.	1. Overheated motor 2. Baddriver PCB (ASM0022 or ASM0023)
 2	1. LOCK functions normally but signal from both of 2-set photo sensors (ASM0026) were not detected. 2. UNLOCK functions normally, but signal from at least one of the two 2-set photo sensors (ASM0026) was not detected.	Bad 2-set photo sensors (ASM0026) or connection
 3	LOCK functions normally, but the signal from psUNLOCK was not detected.	Bad psUNLOCK or pressure setting too high
 4	LOCK functions normally, but the signal from psLOCK was not detected	Bad psLOCK or pressure setting too high
 5	During LOCK, signals from neither psLOCK nor psUNLOCK were detected.	1. Solenoid valve jam 2. Bad (ASM0022) driver PCB 3. Bad wiring of psLOCK, psUNLOCK or pressure setting too high
 6	1. For models without S suffix: All angle sensors function normally, but signal from psSYSTEM was not detected when either Trendelenburg, back down or leg down moves to extreme. 2. For models with S suffix: All angle sensors function normally, but signal from psSYSTEM was not detected when either lateral tilts, Trendelenburg, Rev. Trend, Back or Leg down moves to extreme.	1. Bad psSYSTEM or wiring 2. Pressure setting too high
 7	No signal from Back angle sensor (ASM0029)	Bad Back ASM0029 or wiring
 8	No signal from Leg angle sensor (ASM0029)	Bad Leg ASM0029 or wiring
 9	No signal from Seat angle sensor (ASM0028)	Bad ASM0028 or wiring
 10	No signal in more than one angle sensor	Loose/damaged connection (ASM0021/JP17) and/or bad angle sensor PCBs
 12	Motor is running without being intentionally activated.	Bad Main PCB or Driver PCB

Display/Code	Symptom	Cause
 13	For models without S suffix: When rotary valve keeps turning but receives no signal from U1~U4 of ASM0027.	1. Short circuit within the angle system. 2. Bad Rotary valve motor 3. Bad ASM0023 driverPCB 4. Bad ASM0027 or wiring
 14	For models without S suffix: Rotary valve position number not matching position code.	Bad ASM0027 or wiring
 15	For models without S suffix: Rotary valve position code correct but stops too early, and fails to position after programmed compensation.	Timing parameter is set too low
 17	For models with S suffix: Tabletop tilts laterally or longitudinally without their respective button being pressed.	Bad ASM0022 driver PCB
 21	Main batteries is not being charged (i.t.)*	1. Loose battery connector 2. Battery reached life span or over discharged 3. Bad ASM0021 PCB
 24	Using Slide button of hand pendant on Non-slide table	Wrong hand pendant.
 25	Found T800* Hand Pendant connected to V1000* table (i.t.)*	Wrong hand pendant.
 27	Voltage Setting is too high (i.t.)*	Wrong voltage setting (see Sec. 4.7)
 28	Voltage setting is too low (i.t.)*	Wrong voltage setting (see Sec. 4.7)
 29	Upon switching on, Service LED lights and emits bi-bi-bi sound (i.t.)*	Did not disable Override System
 30	Upon switching on, Service LED lights and emits bi-bi-bi sound (i.t.)*	DIP Switch 3 and 4 were not set to off position. (i.t.)*
 31	Upon switching on, Service LED lights and emits bi-bi-bi sound (i.t.)*	Both DIP Switch 3 and 4 were wrongly set to off position. (i.t.)*

(i.t.)*: Initiating test of system, which happens when the system is being powered up after it has been disconnected from all power sources.

Note: Numbers skipped are not used

8.11.2 Other Ways of Troubleshooting

When problems occur outside of the scope of the predefined Service Codes, the troubleshooting table (**Table 8-2**) for electrical system provides easy-to-follow steps to identify and correct most problems. Use **Table 8-2**in conjunction with **Table 7-1**when applicable.

The troubleshooting table is divided by Problem, Symptom, and Remedy. In most cases, there will be either hydraulic or electrical problems but not both.

Table 8-2: ELECTRICAL TROUBLESHOOTING

Problem	Symptom/Cause	Remedy	Where To Find
The LEDon Hand Pendant and Base control panel is not litwhen power cord has been plugged in.	Blownfuse (F1 or F2) on control panel.	Replace Fuse.	NA
	Broken AC power cord.	Replace power cord.	NA
	There is no output from secondary wires from transformer.	Replace transformer.	Figure 10-27 (#55)
	There is power coming into bridge rectifier from transformer but no output from bridge rectifier.	Replace bridge rectifier.	Figure 10-27 (#58)
	There is power from bridge rectifier to Main Control PCB.	Replace the PCB or the blown 15A fuse on it.	Sec. 9.15.1
Base control panel's LED is not litwhen power cord has been plugged in.	If Hand Pendant's LED is lit, then thePower Indication PCB is broken.	Replace the PCB	Sec. 9.15.4
Hand Pendant's LED is not lit	Malfunction in the membranous keypad on Hand Pendant.	Replace the membranous keypad.	Sec. 9.16
No backlight when Hand Pendant is turned on.	Malfunction in the membranous keypad on Hand Pendant.	Replace the membranous keypad.	Sec. 9.16
	Malfunction in Hand Pendant PCB.	Replace the PCB.	Sec. 9.15.3
Hand Pendant cannot be turned on.	Malfunction in Hand Pendant PCB.	Replace the PCB.	Sec. 9.15.3
	Broken coil cable.	Replace the coil cable.	Sec. 9.17
	Malfunction in the Main Control PCB	Replace the PCB.	Sec. 9.15.1
One or some of the buttons on Hand Pendant do/does not work.	Malfunction in the membranous keypad on Hand Pendant.	Replace the membranous keypad.	Sec. 9.16

Table 8-2: ELECTRICAL TROUBLESHOOTING			
Problem	**Symptom/Cause**	**Remedy**	**Where To Find**
Hand Pendant's Table Lock Indicator is not lit after having pressed down "Lock" Button for a while.	The membranous keypad's "LOCK" button is broken.	Replace the membranous keypad.	Sec. 9.16
	If table is locked on floor with the Service LED being lit, there is malfunction in 2-set Photo Interrupter PCB.	Replace the PCB.	Sec. 9.15.5
	If table does lockand goes back to unlock status with the Service LED being lit, then the pressure switch psUNLOCK'spressure setting is incorrect or the switch is broken,	Replace the pressure switch psUNLOCK if its setting cannot be adjusted.	Sec. 9.7
The motor pump does not stop by itself after having pressing downtable "Lock" button for a while.	The pressure switchpsLOCK'spressure setting is incorrect or the switch is broken.	Replace the pressure switch psLOCK if its setting cannot be adjusted.	Sec. 9.7
One or some of the electro-hydraulic related function(s) do not work but Hand Pendant works normally.	There is output voltage to the corresponding solenoid(s), but the coil(s) is broken.	Replace the coil(s) on the solenoid(s).	Figure 10-17 Figure 10-18 (#15)
	There is output voltage to the rotary valve'sshaft driving motorbut the motor does not respond.	Replace the motor.	Figure 10-20(#21)
	There is no output voltage from the Solenoid Valve Drive PCB to the corresponding solenoid; the PCB is broken.	Replace the PCB.	Sec. 9.15.2
	There is no output voltage from the Rotary Valve Drive PCB to the motor for rotary valve; the PCB is broken.	Replace the PCB.	Sec. 9.15.2
All of the electro-hydraulic related functions do not work but Hand Pendant works	The Hydraulic Power Unit's motor over heats, and its internal thermo-sensor may have cut the power off.	Wait for about 15 minutes. If it still does not work after cooling down, replace the motor.	Figure 10-13 - Figure 10-15 (#1)

Table 8-2: ELECTRICAL TROUBLESHOOTING			
Problem	**Symptom/Cause**	**Remedy**	**Where To Find**
normally.	There is 24DC input voltage from the Main Control PCB to the Solenoid or Rotary Valve Drive PCB, but there is no output voltage to the Hydraulic Power Unit's motor.	Replace the Drive PCB.	Sec. 9.15.2
	There is 24DC input voltage from the bridge rectifier to the Main Control PCB, but there is no 24DC output voltageto the Solenoid or Rotary Valve Drive PCB.	Replace the Main Control PCB or the blown 15A fuse on it.	Sec. 9.15.1
The Hand Pendant and Base control panel's Battery Level Indicators are not lit.	Malfunction in the Main Control PCB	Replace the PCB.	Sec. 9.15.1
Base control panel's Battery Level Indicator is not lit.	If the Hand Pendant's Battery Level Indicator is lit, then there is a malfunction in the Power Indicator PCB.	Replace the PCB.	Sec. 9.15.4
Hand Pendant's Battery Level Indicator is notlit.	If the Base control panel's Battery Level Indicator is lit, then there could be malfunctioning in the Hand Pendant's membranous keypad or Hand Pendant PCB.	Replace the keypad.	Sec. 9.16
		Replace the PCB.	Sec. 9.15.3

8.12 Main PCB layouts

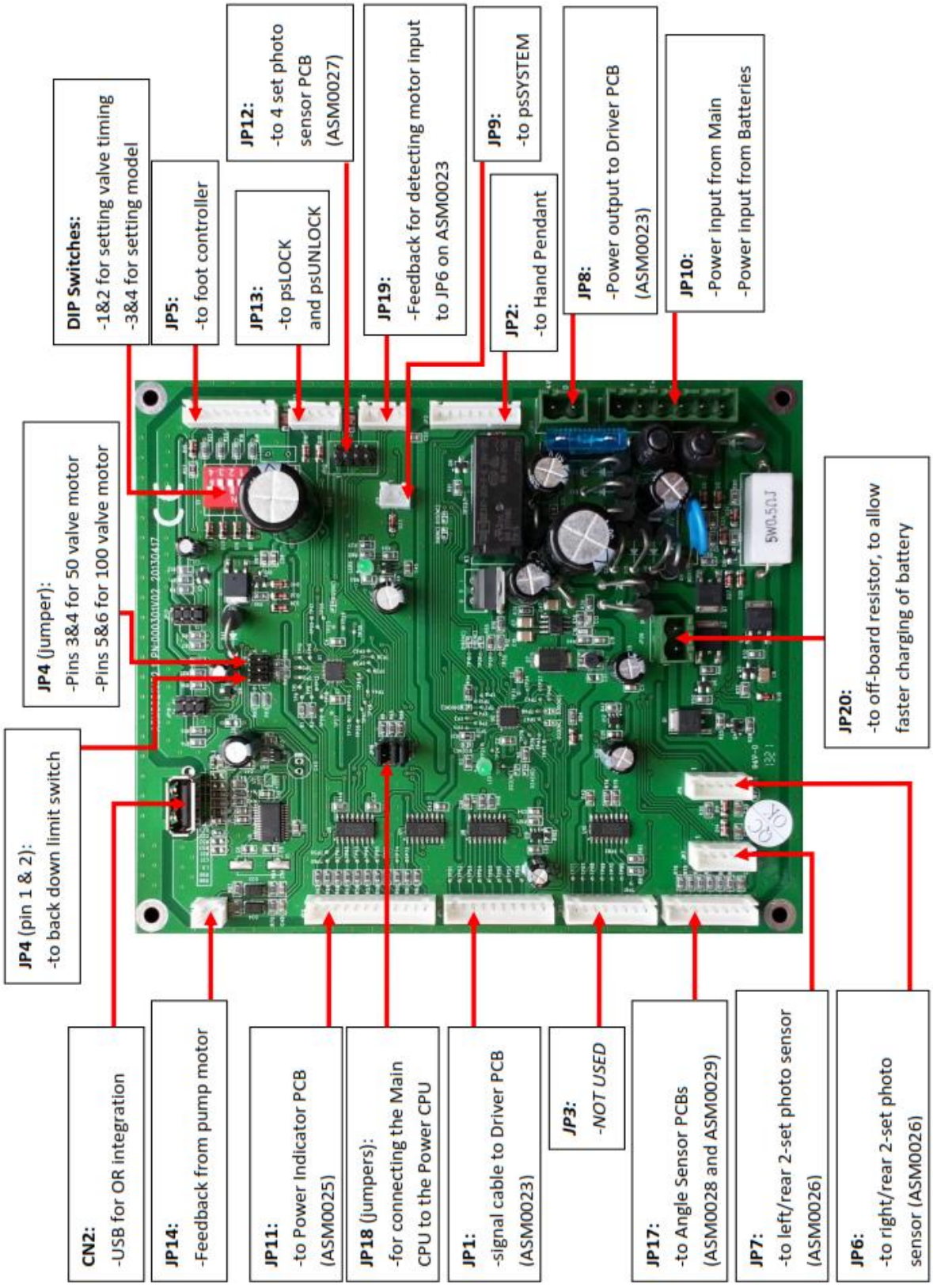


Figure 8-3: Layout of Rotary ASM0021

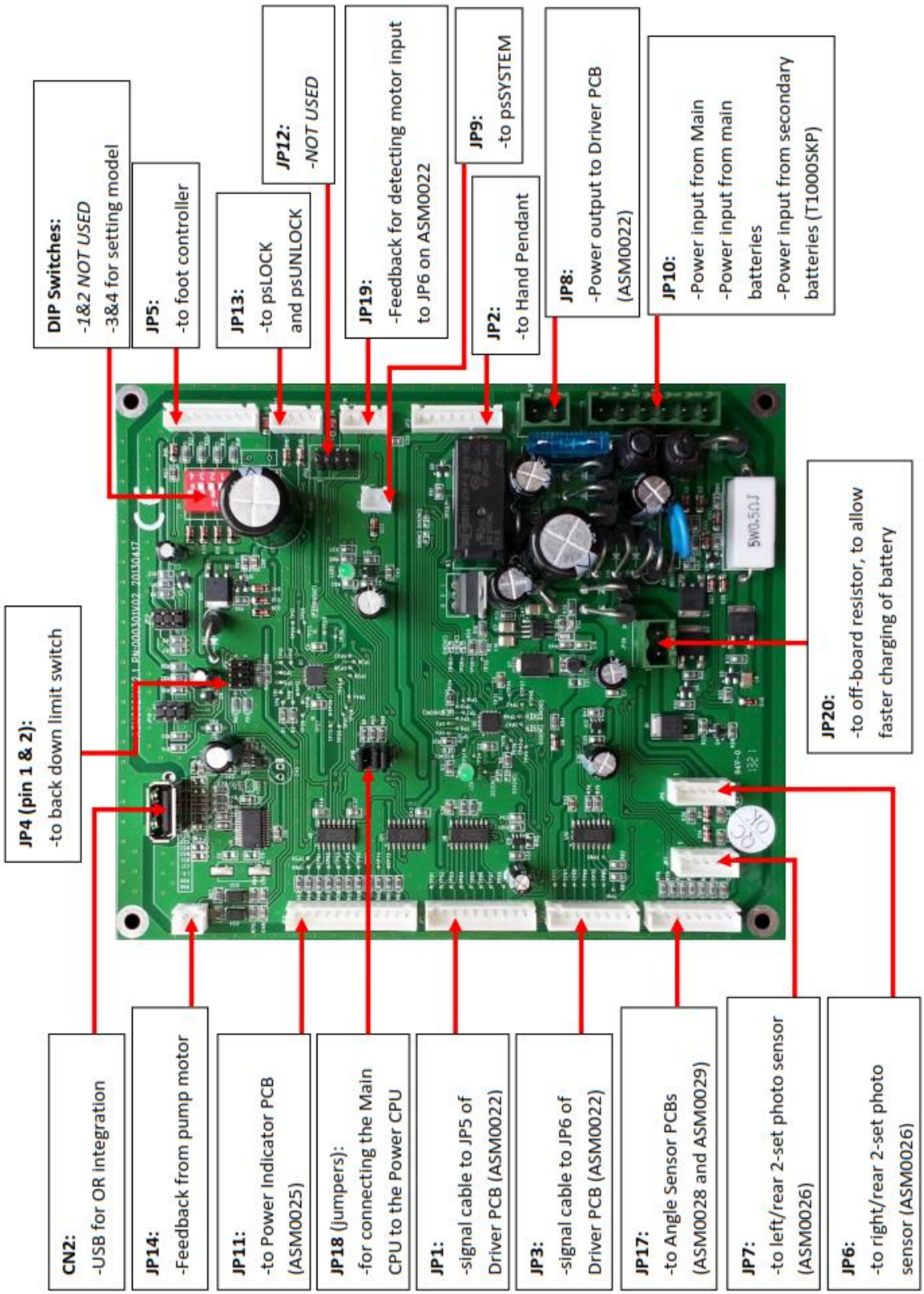


Figure 8-4: Layout of Solenoid ASM0021

8.13 Electrical System Schematics

Figure 8-5:V1000 without S suffix

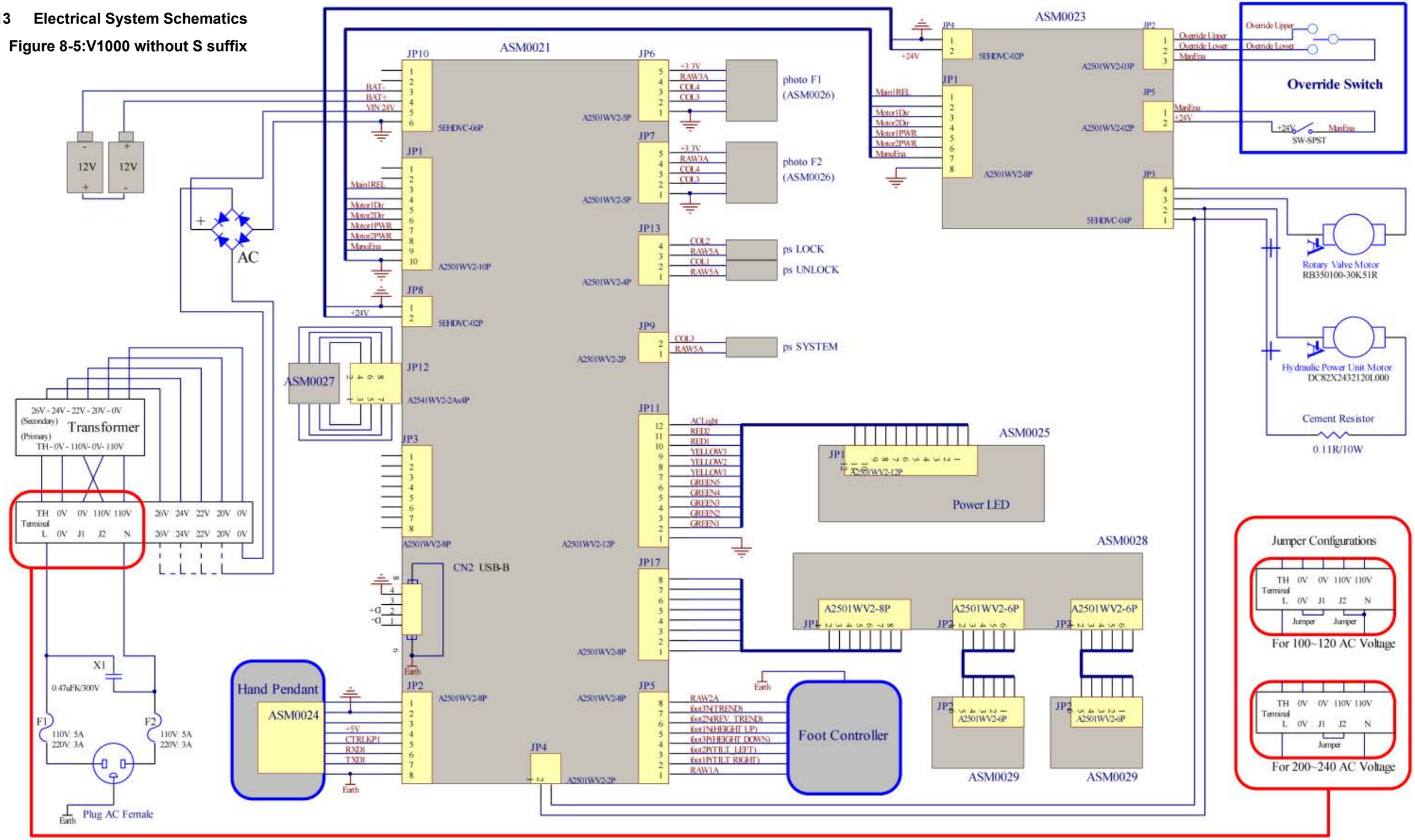
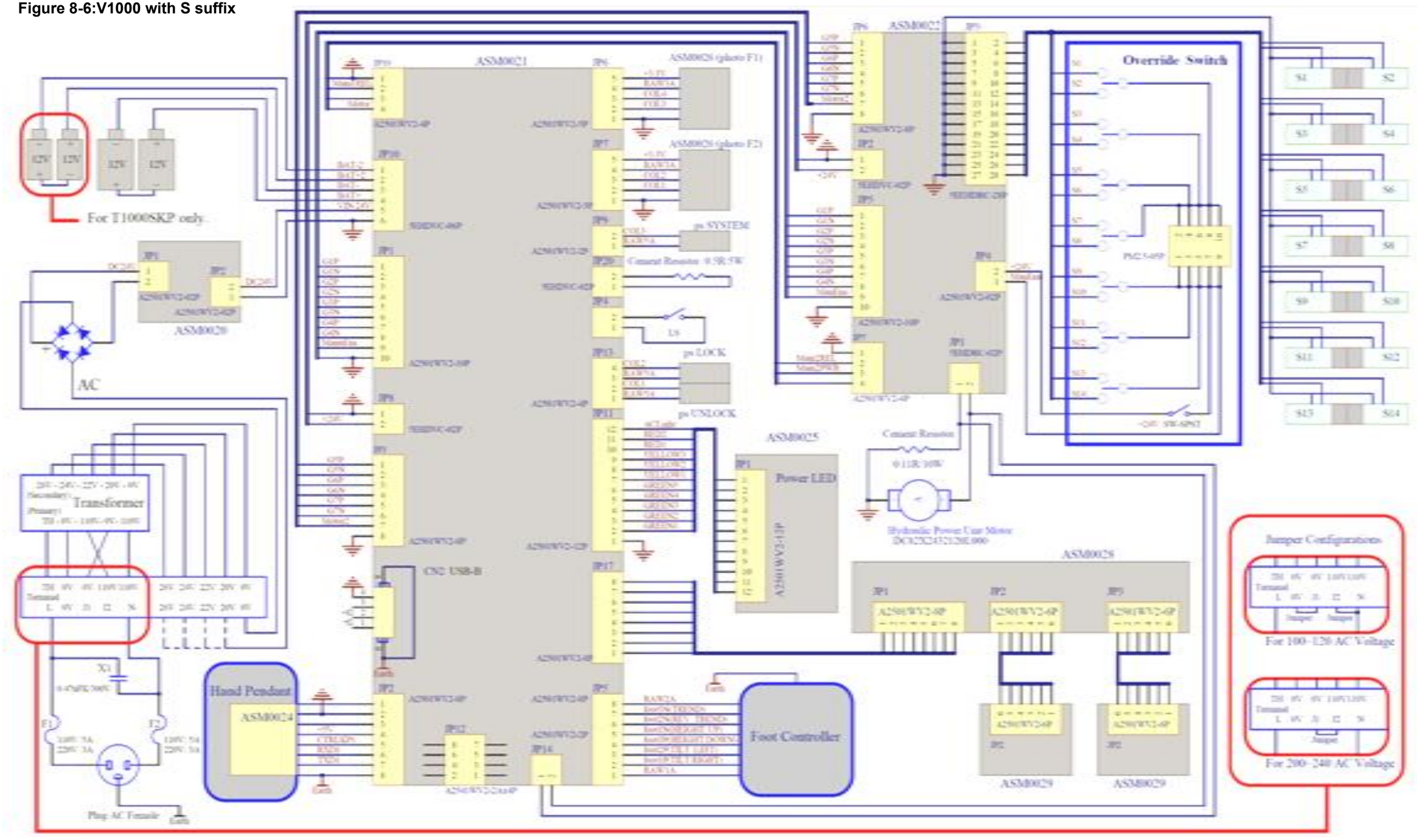


Figure 8-6:V1000 with S suffix



Section 9 Component Repair, Replacement and Adjustment
Réparation de composants, de remplacement et d'ajustement

WARNING! AVERTISSEMENT!

⚠ **TABLE FAILURE HAZARD:** Only experienced personnel, fully acquainted with this equipment, shall perform repairs and adjustments. Personal injury, invalidating the warranty or costly damage may result from maintenance or service done by inexperienced, unqualified personnel or installation of unauthorized parts.

This section contains useful information on maintaining and repairing the table. Procedures for taking apart assemblies and removing parts are provided; reassembly is essentially the reverse of disassembly. Refer to the exploded drawings in the next section to identify assemblies or parts discussed. After replacing any assembly or part, perform the appropriate inspections, applicable tests and/or adjustments

9.1 Performing Service on Surgical Tables

9.1.1 Contamination Control Aspects of Hydraulic Field Service

Please pay extreme attention to prevent particles from getting into the hydraulic system during field service on the system. When any hydraulic line or component is opened, the system is vulnerable to receiving solid particles. Average particle sizes in the oil are normally about 25 microns (or 0.001 inches). Some components may fail and create hazards if particles greater than 100 microns (or 0.004 inches) get into the system; therefore, precautions must be taken when servicing the hydraulic system. Just being aware of the need to maintain a clean servicing environment, using common sense and good practices, and being dedicated to contamination control will help to ensure that the system provides a long product life.

9.1.2 Working Environment

Although the OR is a convenient place to perform hydraulic service, a maintenance area or a utility room would be a better location. NEVER work in or next to a room where any woodworking is carried out or any area where metal work, especially grinding, is done. The particles generated by these or other similar operations are uncontrollable and can be devastating to the hydraulic system when airborne. If you must work in one of these rooms, wait at least several hours after such activities have been performed and be sure that none will occur during servicing.

Try to work in a place where people will not be continually passing. Do not work near heating and/or cooling vents that produce airborne particles.

9.1.3 Tools

Tools, gauges, hydraulic plugs, caps, etc., used during servicing must be extremely clean. Use a lint-free cloth to clean tools whenever possible. When handling hydraulics, hands and fingernails must also be clean. As work is being done, always place tools and parts on a clean surface. When working with hydraulics, do not smoke, eat or drink.

9.1.4 General Procedures

Use a lint-free cloth to wipe all components being serviced and the areas around them.

- Breaking connections – For prolonged open connections, use a clean plug or cap to protect both ends of the connection. If not, at least cover the openings with a lint-free cloth or clean bag and secure in place with a rubber band.
- Removing components - Place removed component on a lint-free cloth and cover it with a lint-free cloth.
- Handling components – Touch/handle only those surfaces which do not interact with the hydraulic system oil (non-wetted surfaces).
- Assembling - All wetted surfaces (that come in contact with the hydraulic system oil) must be thoroughly inspected. Remove any visible particles (i.e., 0.002 inch or more in diameter). O-rings and o-ring seats must also be inspected for scratches and/or tears. All critical surfaces should not touch anything during assembly.
- Completing work - Cleaning the newly serviced fitting(s) will help to detect any leaks more easily. After completion, check all table functions, not only the function that was repaired.

9.1.5 Test and Inspection Checklist

After completion inspect the table thoroughly and check all table functions, not only the function that was repaired.

- ☐ Check before closing the base cover! Tubes and cables should all be routed away from all moving parts.
- ☐ All Hand Pendant buttons work
- ☐ All Override functions work
- ☐ No leaking of hydraulic components
- ☐ Back down limit switch works
- ☐ INTERLOCK LED lit and beeping when height reaches lowest
- ☐ SERVICE LED lit and beeping while using Hand Pendant with JP14 disconnected from ASM0021 PCB
- ☐ Manual Head and Split Leg Sections can be adjusted and will hold position
- ☐ Antistatic Pathway tested according to Maintenance Items
- ☐ Performance tested according to 4.6.1 Performance Checklist

9.2 Telescopic Sleeve Removal

(Refer to **Figure 10-1 ~ Figure 10-6**)

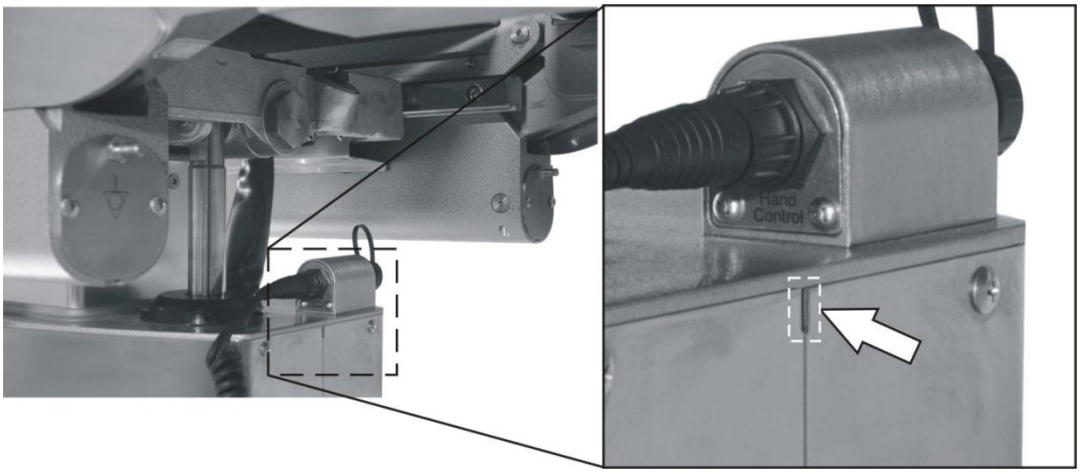


Figure 9-1: Telescopic Sleeve Slot

1. The V1000 Series surgical table has a 4-section telescopic sleeve. Each section consists of two half sleeves that snap together. Before removingthe sleeves, lower tabletop to its lowest position if it is functional.
2. Remove the 4 screws fixing the innermost section of telescopic sleeves (#20)tothe base cover.
3. Hold the outermost section of the telescopic sleeves (#20) to keep it from falling onto the base cover while removing the 4 screws fixing it to the column. Then, gently lower it down on the base cover.
4. Separate the two halves of each section by inserting the tip of a large screwdriver (-) into the slot (**Figure 9-1**), and then turn the screwdriver.

9.3 Base Cover Removal for Reaching Inside of Table Base

(Refer to **Figure 10-1 ~ Figure 10-6**)

1. Remove telescopic sleeves as in Sec.9.1.5.
2. Remove 8 screws from the base.
3. Suspendthe base cover asclose as possible to the tabletop with bungee cords.
4. Raise tabletop to its highest position if it is functional.

9.4 Pressure Gauge Installation

(Refer to ASM0039~ASM0041 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.

2. Remove 1/4”H screw cap (#7) and/or tube from the pressure testing point(s) on Hydraulic Power Unit.
3. Install one or two pressure gauges onto H1 and H2 pressure testing points for rotary valve models.

9.5 Relief Valve Adjustment

(Refer to ASM0002~ASM0004 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Connect pressure gauges as in Sec. 9.4.
3. A workable electro-hydraulic system is needed to perform the adjustment.
4. Loosen the M18x1.5 hexagon nut that locks the relief valve’s adjusting screw. Operate the table to the extreme of any movement and then turn the screw until the gaugereads 135 ± 5 kg/cm^2.
5. Tighten the hexagon nut to lock the adjusting screw of relief valve. Repeat step4 and 5 until the gaugereadsbetween 135 ± 5 kg/cm^2.

9.6 Throttle Valve Adjustment

(only used for v00 and v01 models; Refer to **Figure 7-5**)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Connect pressure gauges as in Sec. 9.4.
3. A workable electro-hydraulic system is needed to perform the adjustment.
4. For Rotary Valve System:

   The rotary valve design already throttles the flow correctly.

   For Solenoid Valve System:

   Throttle valves are located on solenoid valve block.
5. Operate the table movement to be adjusted without reaching the extreme of movement, then turn the screw until the gaugereads between 50 and 55 kg/cm^2.
6. After adjusting the throttle valve, (tighten the hexagon nut for Rotary Valve System and) retest the pressure to verify.

9.7 Pressure Switch Adjustment

Table 9-1: Pressure Switch Settings

Pressure Switch	psPUMP (psSYSTEM)	psUNLOCK	psLOCK
Setting	120 kg/cm^2	35 kg/cm^2	V03.1 and newer: 64 kg/cm^2 v03 and Older: 115 kg/cm^2

There are three pressure switches. Each switch's pressure level is stated in the**Table 9-1**.

1. Refer to Sec. 9.5 and adjust the setting of the relief valve to the pressure setting specified in **Table 9-1**to the tolerance of -0, +5 kg/cm^2.
2. Detach the pressure switch's wire (JP9 and JP13) on the main board PCB assembly.
3. Use the continuity setting on a multimeter to read the contact signal between the two wiring terminals on the top of the switch.
4. Turn the adjusting screw (which is in the center hole on the top of pressure switch) to adjust the pressure setting. Turn the screw clockwise to increase the setting, and counterclockwise to decrease the setting.
5. Ensure the setting is just higher than the borderline between closed and open circuit.
6. Adjust the setting of the relief valve back to 135kg/cm^2, and then double check the switch setting.

9.8 Filter Cleaning and Replacement

9.8.1 Cleaning and Replacing 60μm Filter in Hydraulic Power Unit

(Refer to ASM0002~ASM0004 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Carefully detach all hydraulic tubes from Hydraulic Power Unit and detach the pump's wire from Driver PCB assembly.
3. Remove the four screws and four washers to detach the Hydraulic Power Unit from table base.
4. Plug Black Reservoir Cap (#15) with a tooth pick.
5. Loosen Worm Gear Clamp (#12) to remove the pump.
6. Remove three 60μm Filters (#9, ASM0002~ASM0004 in Sec. 10) and clean them with kerosene.
7. Ifthey are deformed or broken in any way, replace them with a new one.

9.8.2 Cleaning and Replacing 60µm Filter in Solenoid or Rotary Valve

(Refer to ASM0013 ~ ASM0015 unless otherwise noted)

IMPORTANT: Detaching hydraulic tube(s) causes hydraulic fluid to leak, table height to drop and/or table section(s)to sag due to loss of pressure and gravity. Support the table or affected section(s) firmly before detaching any hydraulic tube and have a lint-free cloth available to soak up oil spills.

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3. Also remove head section and leg sections.
2. Operate tabletop high enough tofit a wooden or steel rod below the Outer Sleeve of Central Column (#1, ASM0058 in Sec. 10), and then lower the table until Outer Sleeve of Central Column presses on the wooden or steel rod. The tightness should prevent the rod from being moved away easily by hand.
3. Locate the valve(s) (**Figure 7-5**&**Figure 7-6**) for which table movement(s) seems to be slower than usual.
4. Remove the hexagon bolt and washer seals that attach the tube(s) to the valve(s) to reveal the 60µm Filter (#13).
5. Remove 60µm Filter with a slotted (−) screwdriver.
6. Clean Filter with kerosene. If it is deformed or broken in any way, replace with a new one.

9.8.3 Cleaning and Replacing 25µm High Pressure Filter

(for T1000S* Models; Refer to ASM0039 and ASM0040 in Sec. 10) unless otherwise noted)

1. Remove telescopic sleeves and base cover
2. Detachall hydraulic tubesconnected on the 25µm High-pressure Filter (#8).
3. Screw out 25µm High-pressure Filter with the fitting on it.
4. Clean it with kerosene and blow compressed air into the fitting’s opening.
5. If it is inconvenient to clean 25µm High-pressure Filter during field service. Please replace with new filter and fitting. Do not take apart the original fitting on the old 25µm High-pressure Filter.

9.9 Valve Cleaning or Replacement

9.9.1 Solenoid Valve

(Refer to ASM0008 and ASM0009 in Sec. 10, unless otherwise noted)

IMPORTANT: Detaching hydraulic tube(s) causes hydraulic fluid to leak, table height to drop and/or table section(s)to sag due to loss of pressure and gravity. Support the table or

affected section(s) firmly before detaching any hydraulic tube and have a lint-free cloth available to soak up oil spills.

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3. Also remove head section and leg sections.
2. Operate tabletophigh enough tofit a wooden or steel rod below the Outer Sleeve of Central Column (#1, ASM58 in Sec. 10), and then lower the table until the Outer Sleeve of the Central Column tightly presses down on the wooden or steel rod until it cannot be moved away easily by bare hand.
3. Remove the hexagon bolt and washer seals that fix hydraulic tubes onto valve block.
4. Detach all hydraulic tubes.
5. Unplug all the cords (#116, ASM0034 or ASM0037 in Sec.10).
6. Remove the fourHexagon Socket Head Cap Screws, M4x0.7x60 (#60, ASM0034 or ASM0037).
7. Take 7-Fold Solenoid Valve Assembly out of the base and place it on a clean lint-free cloth.
8. Remove the three Hexagon Nuts (#9, ASM0010)holding all valve blocks together.
9. Slide out the Fixing Plate, 3-Fold Valve Block Assembly, and 2-Fold Valve Block Assemblies (#8, #7 and #6, ASM0010) to be cleaned or replaced.
10. Remove the three O-rings 5.5x1.5 (#5, **Figure 10-19**) between the valve block assembly to be cleaned or replaced.
11. Refer to Figure 7-4 for locating the fold in need of cleaning.
12. Remove Solenoid (#15, **Figure 10-17** or**Figure 10-18**) from each side, and then take out all the rest of parts to reveal the cylindrical through-hole of piston valve.
13. Remove Seal Cover Screw (#11,**Figure 10-17** or **Figure 10-18**) from each side, and then take out all the rest of theparts to reveal the through-hole of pilot check valve.
14. Clean the holesof piston valve and pilot check valve with kerosene, and then blow dry with compressed air.
15. Clean all the removed parts carefully with kerosene and then dry.
16. Examine o-rings and o-ring seats for scratches, tears, and contamination. Replace any damaged part.
17. Assemble all parts back to their original place and test all affected functions.

18. If the symptom still exists or it is not convenient to clean the valve in the field, replace with a new 2-Fold Valve Block Assembly or 3-Fold Valve Block Assembly.

9.9.2 Rotary Valve

(Refer to ASM0015 in Sec. 10) unless otherwise noted)

IMPORTANT: Detaching hydraulic tube(s) causes hydraulic fluid to leak, table height to drop and/or table section(s)to sag due to loss of pressure and gravity. Support the table or affected section(s) firmly before detaching any hydraulic tube and have a lint-free cloth available to soak up oil spills.

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3. Also remove head section and leg sections
2. Operate tabletop high enough tofit a wooden or steel rod below the Outer Sleeve of Central Column (#1, ASM0058 in Sec. 10), and then lower the table until Outer Sleeve of Central Column presses on the wooden or steel rod. The tightness should prevent the rod from beingmoved away easily by hand.
3. Remove Cross-recessed Head Screw, M5x0.8x16 (#90) and Selection Knob (#88) of ASM0086.
4. Remove all the hexagon bolt and washer seals to detach hydraulic tubes from valve block (#38 in assembly drawing ASM0086).
5. Disconnect the electrical wire on Rotary Valve Motor from Rotary Valve Drive PCB (ASM0023).
6. Remove the four screws (#40) and two screws (#39) of ASM0086 in Sec. 10.
7. Remove the two screws (#39) of ASM 0015, in Sec. 10.
8. Place the valve on a clean lint-free cloth.
9. Removing two Hexagon Socket Setscrew, M5x0.8x8(#15) and four Cross-recessed Head Screws, M4x0.7x8 (#18).
10. Remove 4 Cross-recessed Head Screws, M3x0.5x6 (#23) to detach 4-set Photo Interrupter PCB (#33).
11. Remove External Retaining Ring STW-12 (#32) to detach Encoding Plate Assembly (#27).
12. Detach Front Cover of Rotary Valve (#24) and Rear Cove of Rotary Valve (#17) by removing a total of six Cross-recessed Head Screws, M4x0.7x8 (#18).
13. Push from the front and draw out Rotary Shaft (#14).

14. Locate the valve (Refer to **Figure 7-6**) for which table movement drifts or does not work properly.
15. Remove Screw Seal Cover (#12) from each side then take out the rest of the parts to reveal the through-hole of pilot check valve. The picture below shows half of the content.

Figure 9-2: One side of inside components of pilot check valve of rotary valve

16. Clean the hole with kerosene then blow dry with compressed air.
17. Carefully clean all the removed parts with kerosene and then dry.
18. Examine o-rings and o-ring seats for scratches, tears, and contamination. Replace any damaged part.
19. Assemble all parts back to their original place and test all affected functions.
20. If the symptom still exists or it is not convenient to clean the valve in the field, replace with a new Rotary Valve Assembly.

9.10 Reservoir Filling

(Refer to ASM0002 to ASM0004 in Sec. 10)

NOTE: Use ISO 32 hydraulic oil, when adding to or refilling reservoir.

1. Level the tabletop and remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Remove telescopic sleeves and base cover.
3. Clean area around Black Reservoir Cap.
4. Remove Black Reservoir Cap and Rubber Washer.
5. Add oil to about 70% - 75% of reservoir, when tabletop is level at maximum height.

9.11 Column Lubrication

(Refer to ASM0058 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Operate the table to its highest position, and lubricate the telescopic column with silicon grease (T018 of**Table2-2**)
3. Apply the grease all around the Middle Sleeve of Central Column (#10) and Inner Sleeve of Central Column (#11).

4. Put base cover and telescopic sleeves back.
5. Operate the Height functions (Up ←→Down) to the extremes several times.

9.12 Replacement of Hydraulic Cylinders

9.12.1 Lock/Unlock Cylinder Assembly

(Refer ASM0043 in Sec. 10, unless otherwise noted)

1. Level the tabletop and remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. If the cylinder to be replaced is located at the same corner as the 2-set Photo Interrupter PCB, remove the Transparent PCB Cover (#29) as described in Section 9.15.5. Then remove Cross-recessed Truss Head Screw M4x0.7x8 (#27), Nylon Washer W11x5.1x1-N66 (#26), two Light Blocking Plates (#24), and Nylon Spacer SPO 16x10x7, N66/N (#25).

Figure 9-3: Orientation of Light Blocking Plates

3. Loosen three Hexagon Set Screws, M5x0.8x6 (#17), located at same corner as the Floor Lock Cylinder needing to be replaced and one Hexagon Set Screw M5x0.8x10 (#19).
4. Remove Fix Pin of Floor Lock Cylinder (#18), Fixing Ring (#22) for Cam Axle, Floor Lock Detective Pin (#23), and Parallel Keys 6x6x20L (#20).
5. Remove the Hexagon Set Screw, M5x0.8x6 (#17) used for fixing Axle for Rod of Floor Lock Cylinder.
6. Remove Rod Pin (#16) of Floor Lock Cylinder.
7. Remove the two hydraulic tubes connected onto the Floor Lock Cylinder Assembly (#5, #6)and Elbow Brass Flared Fitting, LIN1/4Hx1/8”PT.
8. Replace a new Bidirectional Cylinder (#5 and #6) for Floor Lock Cylinder Assembly.

9.12.2 Central Column Cylinder Assembly

(Refer toASM0058 in Sec.10, unless otherwise noted)

1. Level the tabletop and remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Remove Head Section and Leg Sections, and support the column and tabletop.

3. Disconnect DC/AC powers before disconnecting all the hydraulic tubes, cables, and wires that come down from the central column.
4. Remove two screws and Upper Double Row Tube Clip (#68, #67 in **Figure 10-7** -**Figure 10-12**) four screws and Lower Double- Row Tube Clip (#68, #74 in), and three screws and Tube Clip Cover (#73, #72 in**Figure 10-7**- **Figure 10-12**).
5. Remove four Arc Hexagon Screws, then remove the Bakelite Plate from Pelvis Section (#83,**Figure 10-7**- **Figure 10-12**).
6. Remove six screws M4x0.7x8 and the Cover of Lateral Tilting Frame (#82 and #81, **Figure 10-7** - **Figure 10-12**) and the connector under the cover for some models.
7. Remove two screws and Water Blocking Tube Packing (#65 and #63 in**Figure 10-7** - **Figure 10-12**) then draw all the hydraulic tubes, cables, and wires out of Water Blocking Tube Bundle (#62 in).
8. Loosen the Hexagon Setscrews that fixes the Axle for Rod of Trendelenburg Cylinder (#51) and draw the Axle out.
9. Remove setscrews (#47) that hold the axle (#49), remove left external restrain clip (#50) and then remove the axle.
10. Remove the whole tabletop.
11. Remove 8 Hexagon Countersunk Socket Screw, M6x1.0x16, SUS (#35)
12. Remove Rod Pins (#24, #32).
13. Remove Rubber Cover (#36), Cross-recessed Truss Head Screw M6x1.0x12, SUS (#34), Flat Washer D8x17x1.6 (#33),
14. Remove Cross-recessed Head Screw M4x0.7x8 (#26) that fixes the ground wire, and then remove the Top Cover of Central Column (#30).
15. Remove two plastic tube anchors (#19) inside from the top of column.
16. Replace Cylinder Assembly

9.12.3 Trendelenburg Cylinder Assembly

(Refer ASM0058 in Sec. 10, unless otherwise noted)

1. Remove telescopic sleeves as in Sec. 9.1.5.
2. Remove Head Section and Leg Section.

3. Remove four Arc Hexagon Screws, and then remove the Bakelite Plate for Pelvis Section (#24, **Figure 10-7** - **Figure 10-12**)
4. Remove six screws M4x0.7x8 and the Cover of Lateral Tilting Frame (#81,**Figure 10-7** - **Figure 10-12**) and the connector under the cover for some models.
5. Loosen the Hexagon Set Screw that fixes the Axle for Rod of Trendelenburg Cylinder (#51) and draw the Axle out.
6. Detach all tubes from the cylinder.
7. Remove one External Retaining Ring STW-16 (#42) then draw out the Axle (#41) at the cylinder end.
8. Fill grease in dust cover (#43,).
9. Replace with a new Trendelenburg Cylinder Assembly (#37).

9.12.4 Tilt Cylinder Assembly

(Refer to ASM0058 in Sec. 10 unless otherwise noted)

1. Level the tabletop and remove telescopic sleeves as in Sec. 9.1.5.
2. Remove Head Section and Leg Section.
3. Remove four Arc Hexagon Screws, then remove the Bakelite Plate for Pelvis Section (#83, **Figure 10-7** - **Figure 10-12**)
4. Remove six screws M4x0.7x8 and Cover of Lateral Tilting Frame (#81,**Figure 10-7** - **Figure 10-12**) and the connector under the cover for some models
5. Loosen Hexagon Nut M16x2.0 (#57) of the piston end and then continuously turn the piston until POS 16 Bearing or Heim Joint (#56) along with Universal-joint Bearing Bracket (#63) has detached from Tilt Cylinder Assembly (#53).
6. Detach the hydraulic tube from the top of cylinder.
7. Remove one Hexagon Socket Head Screw (#62), one Spring Washers D10 (#61), one Flat Washers D10x21x2.0 (#60), Axle at thecylinder end (#59), and two D16 Long Fixing Sleeves (#58).
8. Detach the hydraulic tube from the bottom of cylinder.
9. Fill grease in dust cover (#43, ASM0058 in Sec. 10).
10. Replace with a new Tilt Cylinder Assembly (#53).
11. Check for angle (20°), and adjust as needed by turning the piston rod.

9.12.5 Sliding Cylinder Assembly

(Refer to T1000S* in Sec. 10)

1. Level the tabletop.
2. Remove the two hydraulic tubes that connect to the Cylinder (#37).
3. Remove Hexagon Socket Head Screws, M8x1.25x16 (#108) and its Flat Washer.
4. Remove Hexagon Set Screws, M6x1.0x8 (#40) and Axle for Sliding Cylinder (#39).
5. Replace a new Sliding Cylinder Assembly.

9.12.6 Back Cylinder Assembly

(Refer to ASM0125 ~ASM0131 in Sec. 10, unless otherwise noted)

1. Level tabletop and remove Head Section.
2. Remove four Arc Hexagon Head Screws, M8 (#24,**Figure 10-7** - **Figure 10-12**), Pelvic Plate (#83, **Figure 10-7** - **Figure 10-12**).
3. Remove six screws M4x0.7x8 and Cover of Lateral Tilting Frame (#81,**Figure 10-7** - **Figure 10-12**) and the connector under the cover for some models
4. Operate<Back Down> to its extreme.
5. Loosen two setscrews (#47), and two setscrews (#60).
6. Operate <Back Up> to extreme, and then <Reverse Trendelenburg> to make the Back section about 90 degrees up right.
7. Remove first and third spacers (#67) in order to remove (#61)
8. Remove axle (#59).
9. Remove the cassette rail (#72).
10. Remove Hexagon Socket Setscrews, M5x0.8x10 (#4) and the axle (#3) that it holds atthe cylinder end of Back Cylinder.
11. Detachall tubes from Back Cylinder Assembly.
12. Replace with a new Back Cylinder Assembly.

9.12.7 Leg Cylinder Assembly

(Refer to ASM0125 ~ASM0131 in Sec. 10, unless otherwise noted)

1. Do step 1 to step 12 as described in Section 9.12.6and place Back Cylinder Assembly on a clean lint-free cloth.
2. Remove Leg Extension.
3. Operate <Leg Down> to its extreme.
4. Remove protective plate (#34)
5. Remove External Retaining Ring STW-16 (#32).
6. Remove Axle for Rod of Leg Cylinder (#31).
7. Remove metal plate (#5).
8. Loosen setscrew (#4) to remove the axle at cylinder end of Leg cylinder.
9. Disconnect the two hydraulic tubes on Leg Cylinder Assembly.
10. Replace a new Leg Cylinder Assembly.

Adjustment of Parallel Legs:

1. Connect the T outlet of the pump to the input of the Balance Valve Assembly (#167) with a hydraulic tube.
2. Connect a transparent tube to the outlet on top of the Balance Valve Assembly. Insert the other end of the tube into the hydraulic oil reservoir.
3. Remove the quick-release short leg plate (#23).
4. Close the oil input at the leg-end of the Balance Valve by turning the brass screw head clockwise. Open the oil output at the head-end by turning the other brass screw head counter-clockwise. Operate leg up completely, then leg down completely.
5. Open the oil input by turning the brass screw head counter-clockwise and close the oil output by turning the other brass screw head clockwise. Operate leg down completely, then leg up completely.
6. Repeat steps 4 and 5 until all air is removed.
7. After the air is removed, close the oil input and open the oil output. Operate leg up and down until the left side is 0.3 degrees higher than the right.
8. Close both oil input and output screwheads.
9. Double check the 0.3 degree angle difference and verify that both legs remain parallel at the top and bottom. Readjust if needed.
10. Remove the hydraulic tubes that were attached in Step 1.

9.13 Base Cover Replacement

9.13.1 Rotary Valve Table

(Refer to**Figure 10-7**, **Figure 10-8**, and **Figure 10-12**, unless otherwise noted)

1. Level and raise the tabletop all the way up, remove telescopic sleeves and base cover as Sec. 9.1.5&9.3.
2. Remove Head Section and Leg Sections.
3. Disconnect tubes running from pump to solenoid or rotary valve block at pump's end, but remove the transparent tube from valve's end.
4. Remove four screws and Lower Double- Row Tube Clip (#74).
5. Disconnect all cables that run from the Tube Clip (#69) at base's and PCB's end.
6. Disconnect the ground wire that runs from the bottom of Central Column at base end.
7. Remove four screws (#69) and Tube Clip (#70).
8. Disconnect the transparent tube at valve's end.
9. Remove four screws that attach the Throttle Valve Block (#139, ASM0086 in Sec. 10) to the base.
10. Remove #90x1, #88x1, #89x1, and #40x4 (ASM0086), and disconnect valve motor wires, and ASM0027 cable.
11. Tip over the table to its left.
12. Disconnect the tubes that run from the bottom of Central Column at valve's end.
13. Remove eight screws (#76, ASM0058 in Sec. 10)
14. Replace with a new Base Cover.

9.13.2 Solenoid Valve Table

(Refer to **Figure 10-9 – Figure 10-11**unless otherwise noted)

1. Do step 1 to step 8 from Sec. 9.13.1.
2. Remove 4 screws (#60 ASM0034 orASM0037 in Sec. 10) holding the valve block (#59 ASM0034 orASM0037 in Sec. 10).
3. Remove all solenoid power connectors (#116 ASM0034 orASM0037 in Sec. 10) from the valve block.

4. Tip over the table to its left.
5. Disconnect the tubes that run from the bottom of Central Column at valve's end.
6. Remove eight screws (#76, ASM0058 in Sec. 10)
7. Replace with a new Base Cover.

9.14 Battery Removal and Replacement

(Refer to ASM0043 in Sec.10, unless otherwise noted)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Confirm the AC power supply is connected, and then disconnect the wire connected to battery terminals.
3. Remove all the screws and plates that hold the batteries and unplug the AC power supply.
4. Replace with new batteries recommended by NUVO Medical Equipment, Inc.
5. Plug in AC power before DC power, and check for Battery Power Indicator.

9.15 PCB Replacement

- Ground the table by plugging it in to AC main.
- PCB must stay in its anti-static bag until it is ready to be installed into a base, and the worker handling the PCB must discharge static charge before removing the PCB out of the bag. Once the PCB is removed from the bag, it shall be installed into the base right away.

9.15.1 Main Control PCB Replacement

(Refer to ASM0034 or ASM0037 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Unplug AC power before DC power, and detach all the cables connected to Main Control PCB Assembly (#82).
3. Remove four Cross-recessed Head Screws, M3x0.5x6 (#81) and PCB.
4. Replace a new Main Control PCB Assembly, and make sure that it has the right jumpers and DIP setting (Refer to Sec. 3.1)
5. Plug in AC power before DC power, and then check table functions.

9.15.2 Valve Drive PCB Replacement

(Refer to ASM0034 or ASM0037 in Sec. 10)

1. Perform pts 1 and 2 of Sec 9.15.1.

2. Detach all the cables connected to Driver PCB Assembly for Rotary Valve(#80).
3. Remove four Cross-recessed Head Screws, M3x0.5x6 (#81).
4. Replace a new Rotary Valve Drive PCB Assembly.
5. Plug in AC power before DC power, and then check table functions.

9.15.3 Hand Pendant PCB Replacement
(Refer to ASM0053 or ASM0106V00.1 in Sec. 10)

1. Disconnect the coil cable from the column. Remove two Cross-recessed Head Screws, M3x0.5x20 (#8) and two Cross-recessed Head Screws, M3x0.5x25 (#9).
2. Open Upper Cover of Hand Pendant (#1) and then detach Coil Cable (#6) connector from Hand Pendant PCB Assembly (#3).
3. Remove four Cross-recessed Head Screws, M3x0.5x6 (#4) and the coil cable ground wire.
4. Be sure the grounding strip is detached before detaching the two connectors of membranous keypad from Hand Pendant PCB Assembly.
5. Replace with a new Hand Pendant PCB Assembly.

9.15.4 Power Indication PCB Replacement
(Refer to ASM0018 or ASM0045 in Sec. 10)

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Detach the cable connected to Power indicating PCB Assembly (#10).
3. Remove two Hexagon Nuts, M3 (#12) and the washers (#14). The plastic washers must not be lost.
4. Replace with a new Power indicating PCB Assembly.

9.15.5 2-Set Photo Interrupter PCB Replacement
(Refer to ASM0043 in Sec. 10)

1. Perform pts 1 and 2 of Sec 9.15.1.
2. Locate the 2-set Photo Interrupter PCB Assembly (#31, ASM0026 in Sec. 10) that needs to be replaced, and then remove two Cross-recessed Countersunk Socket Screws, M3x0.5x20 (#32), to take out Transparent PCB Cover (#29).
3. Remove Cross-recessed Truss Head Screw, M3x0.5x6 (#30) holding the 2-set Photo Interrupter PCB Assembly.
4. Detach the cable connected to the 2-set Photo Interrupter PCB Assembly.

5. Replace with a new 2-set Photo Interrupter PCB Assembly.

9.15.6 4-Set Photo Interrupter PCB Replacement

(Refer to ASM0086 in Sec. 10, or unless otherwise noted)

1. Perform pts 1 and 2 of Sec 9.15.1.
2. Remove a screw (#90), and then remove Selection Knob (#88) and Steel Pin 4x9.8mm (#89).
3. Remove four Hexagon Socket Head Screw M5x0.8x12 (#40) holding the Rotary Valve.
4. Detach the cable connected to 4-set Photo Interrupter PCB Assembly (#33, ASM0015 in Sec. 10).
5. Raise the Rotary Valve upward slightly, and remove four Cross-recessed Head Screw (#23, ASM0015) holding the 4-set Photo Interrupter PCB Assembly.
6. Replace with a new 4-set Photo Interrupter PCB Assembly.

9.15.7 ADIS12601 PCB Replacement

(Refer to **Figure 10-7** - **Figure 10-12**))

1. Loose Four Arc Hexagon Head Screws, and remove Pelvic Plate (#83)
2. Loose 6 Cross-recessed Head Screws, M4*0.7*8 (#82), and remove Top Cover of Tilt Frame (#81) and the connector under the cover for some models.
3. Remove protective casing (#56).
4. Make sure the hand pendant is off before detaching the cables connected to ADIS12601 PCB Assembly (#53). Remember the orientation of the PCB in respect to its bracket before removing it.
5. Remove four Cross-recessed Head Screws, M3x0.5x6 (#54).
6. Replace with a new ADIS12601 PCB Assembly.

9.15.8 ADIS12603 PCB Replacement

(Refer to ASM0126, 0128, 0130, and 0132)

9.15.8.1 Back Section Angle Sensor

1. Level the tabletop.
2. Remove Back section board (#25, Figure 10-7 ~ Figure 10-12).

3. Remove two Cross-recessed Head Screw M3x0.5x20 (#25) fixing it on the Angle Sensor Bracket (#19). Remember the orientation of the PCB in respect to its bracket before removing it.
4. Remove ADIS 12603 PCB Assembly (#21).
5. Make sure the hand pendant is off before detaching the cable connected to ADIS12603 PCB Assembly.
6. Replace with a new ADIS12603 PCB Assembly.
7. Check for its function using leveling bottom.
8. If the tabletop is not level using level button, level the tabletop by articulating each section of tabletop with individual button.
9. Turn off Hand Pendant and reset level by pressing “Level” key until the back light comes on and off.

9.15.8.2 Leg Section Angle Sensor

1. Level the tabletop.
2. Remove Back section board (#23, **Figure 10-7** - **Figure 10-12**)).
3. Remove two Cross-recessed Head Screw M3x0.5x20 (#25) fixing it on the Angle Sensor Bracket (#19). Remember the orientation of the PCB in respect to its bracket before removing it.
4. Remove ADIS 12603 PCB Assembly (#21).
5. Make sure the hand pendant is off before detaching the cable connected to ADIS12603 PCB Assembly.
6. Replace with a new ADIS12603 PCB Assembly.
7. Check for its function using leveling bottom.
8. If the tabletop is not level using level button, level the tabletop by articulating each section of tabletop with individual button.
9. Turn off Hand Pendant and reset level by pressing “Level” key until the back light comes on and off.

9.15.9 EFT Filter PCB Replacement

(Refer to ASM0043 in Sec. 10)

1. Perform pts 1 and 2 of Sec 9.15.1.

2. Unplug wires from the PCB (#154), and then the screws holding it. Remember the orientation of the PCB.
3. Replace with a new PCB, and plug in the wires.
4. Plug in AC power before plug in DC power.

9.16 Membranous Keypad Replacement

(Refer to ASM0053 or ASM0106V00.1 in Sec. 10)

1. Disconnect the coil cable from the column. Remove two Cross-recessed Head Screws, M3x0.5x20 (#8) and two Cross-recessed Head Screws, M3x0.5x25 (#9).
2. Open Upper Cover of Hand Pendant (#1) then detach Coil Cable, C97-CHX-FM08S835 (#6) connector from Hand Pendant PCB Assembly (#3).
3. Remove four Cross-recessed Head Screws, M3x0.5x6 (#4). Remove the coil cable ground wire.
4. Detach the connectors on Hand Pendant PCB Assembly.
5. Peel off Membranous Key Pad (#2) from Front Cover of Hand Pendant, removing all adhesive residue.
6. Replace a new Membranous Keypad, being very careful aligning (once it is applied, it cannot be removed and reapplied)

9.17 Hand Pendant Coil Cable Replacement

(Refer to ASM0053 or ASM0106V00.1 in Sec. 10)

1. Disconnect the coil cable from the column. Remove two Cross-recessed Head Screws, M3x0.5x20 (#8) and two Cross-recessed Head Screws, M3x0.5x25 (#9).
2. Open Upper Cover of Hand Pendant (#1) and then detach Coil Cable (#6) connector from Hand Pendant PCB Assembly (#3).
3. Remove the upper screw on the Hand Pendant PCB Assembly to remove the coil cable ground wire.
4. Replace with a new Coil Cable.

9.18 Kidney Elevator Ratchet Replacement

(Refer to ASM0126 and ASM0128 in Sec. 10)

1. Remove two setscrews (#47) that hold the Ratchet to the Coupling Shaft (#45) and then remove the ratchet.
2. Replace with a new ratchet.

9.19 System Reset

9.19.1 Software Reset

Preliminary check:

1. Unplug AC and the AC LED that is on the base panel should be off, and vice versa.
2. While the AC is plugged in, turn on hand pendant, and its panel should be lit.
3. The battery power indicator should come on after the hand pendant is turned on.
4. While the hand pendant is on, perform the following.

For T1000S*:

1. Flip the override control enable toggle switch to the “on” (up) position. First toggle on right.
2. Wait 5 seconds. The hand pendant should turn off, meaning the system has been reset.
3. Flip the override control enable toggle switch to the “off” position.

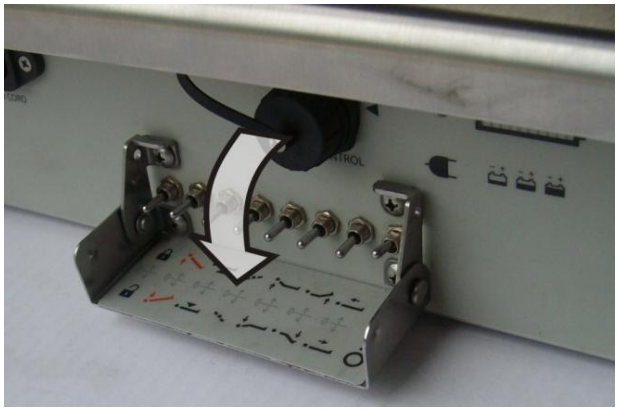


Figure 9-4: Override Control Cover

For V1000 modes without S suffix:

1. Turn the (C) knob so the indicator is pointing to triangle of the Lock/Unlock symbol “ “.
2. Flip the (B) toggle switch all the way down.
3. Press and hold the (A) toggle switch down for 5 seconds until the hand pendant is turned off, which means the system has been reset. While the switch is being pressed down, the pump motor will be running, and the table will be unlocked.

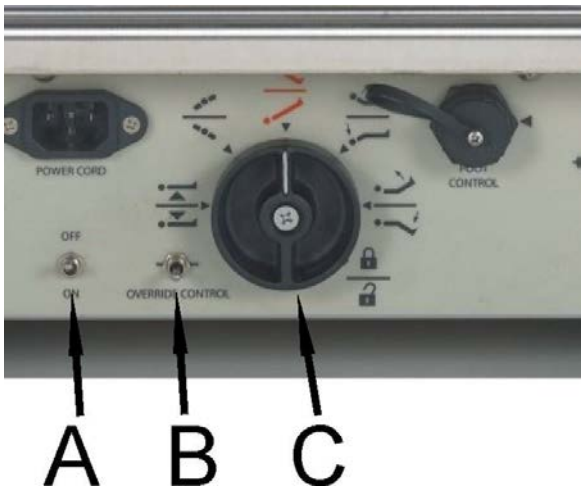


Figure 9-5: Location of Override Components

4. Return the (B) toggle switch to its neutral position (in the middle)

9.19.2 Hardware Reset

1. Remove telescopic sleeves and base cover as in Sec. 9.1.5&9.3.
2. Unplug AC power before DC power.
3. Wait for 30 seconds.
4. Plug in AC power before DC power.
   Note: You may need to try again if you do not succeed on the first try.

9.19.3 Hand Pendant Hard Reset

1. Detach Hand Pendant coil cable from table.
2. Wait for 30 seconds.
3. Connect Hand Pendant coil cable back to table.
   Note: Hardware Reset also performs a hand pendant hard reset.

9.20 Foot Pump Removal

9.20.1 Solenoid Valve Foot Pump

(Refer to ASM0005 and ASM0037 in Sec. 10)

1. Remove retaining ring SF0005 from pin (#45, ASM0037), then remove pin.
2. Remove the pedal pole of foot pump (#44)
3. Remove and cap the hydraulic tubes from ASM0005 (#37).
4. Remove the Foot pump by removing the four M6x1.0x75 Hexagon socket head screws (#39)
5. On a lint-free cloth, open Hexagonal Foot Pump Cap (#7, ASM0005) and remove the components: Bonded Seal (#6), Tower Spring (#5), and Steel Ball (#4).
6. Remove the retaining ring (#18), from Pin of Foot Pump Lever (#17), then remove the pin. Take out bearing (#16).
7. Use a lint-free cloth to grab and pull out the Foot Pump Swing Shaft (#12) along with the Compression spring (#11)
8. Unscrew the set screws (#15).
9. Remove the retaining ring (#21) and remove the foot pump coupling shaft (#14)
10. Pull out the Foot Pump Lever (#13).
11. Using a tool with no sharp edgesor burrs, remove the dust seal (#10) and O-ring (#9).

9.20.2 Rotary Valve Foot Pump

(Refer to ASM0251 and ASM0237 in Sec. 10)

1. Remove 2 screws (#241, ASM0251) from turning pin (#240), then remove turning pin.
2. Remove the pedal pole for Rotary Valve Assembly (#242)
3. Remove and cap the hydraulic tubes from ASM0237 (#228).
4. Remove the Foot pump by removing the two sets of screws (#229, #230)
5. On a lint-free cloth, remove the retaining ring (#21), from Pin of Foot Pump Lever (#20), then remove the pin. Take out bearing (#19).
6. Unscrew and remove the set screws (#18).
7. Hold the swing shaft (#12) in place with a C-clamp. Remove the retaining ring (#22) and remove the foot pump coupling shaft (#14)
8. Pull out the Foot Pump Lever (#13).
9. Release the C-clamp and take out the Foot Pump Swing Shaft (#12) along with the Compression spring (#11)
10. Using a tool with no sharp edges, remove the dust seal (#10). Using tweezers, remove the Back-up ring (#9) and O-ring (#8).
11. Open Hexagonal Foot Pump Cap (#7, ASM0237) and remove the components: Bonded Seal (#6), Tower Spring (#5), and Steel Ball (#4).

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Section 10 Exploded Views and Parts List
Vues éclatées et liste des pièces

Exploded drawings and parts lists in this section are those necessary to do maintenance on V1000 Series surgical table. The part number, the description, and the quantity required for each usage are given. When suffixes are shown in paretheses, this indicates that the following BOM and drawing refers to any combination of the letteres. For example, if the Description is V1000(P)(N)(D), it refers to V1000, T1000P, T1000N, T1000D, T1000PN, T1000ND, T1000PD and T1000PND; the differences are noted in the Remarks column of the BOM. The Q'TY column is specific for the given assembly or subassembly level.

How to Use the Illustrated Parts Breakdown

(1) Determine the function and application of the part required. Turn to the list of illustrations and select the most appropriate title. Note the illustration page number.

(2) Turn to the page indicated and locate the desired part on the illustration.

(3) From the illustration, obtain the index number assigned to the part desired. Refer to the accompanying description for specific information regarding the part.

Figure	Assembly No.	Description	Page
Figure 10-1	V1000(P)(N)(D).1(.2)	Surgical Table, V1000(P)(N)(D) (110V/220V)	10-3
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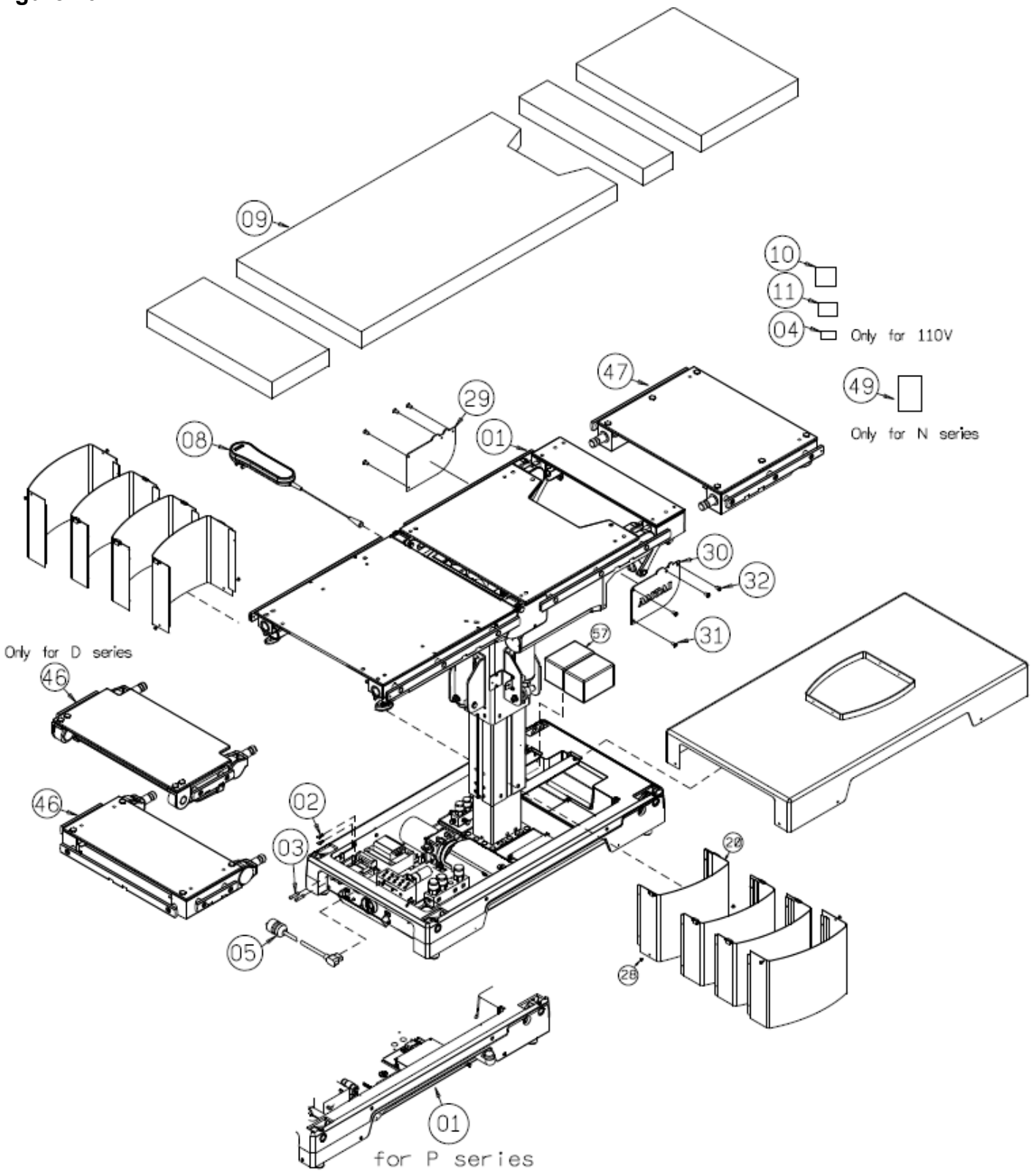
ASSEMBLY: Surgical Table, V1000(P)(N)(D)
(110V/220V) BOM No: V1000(P)(N)(D).1/2v03.1

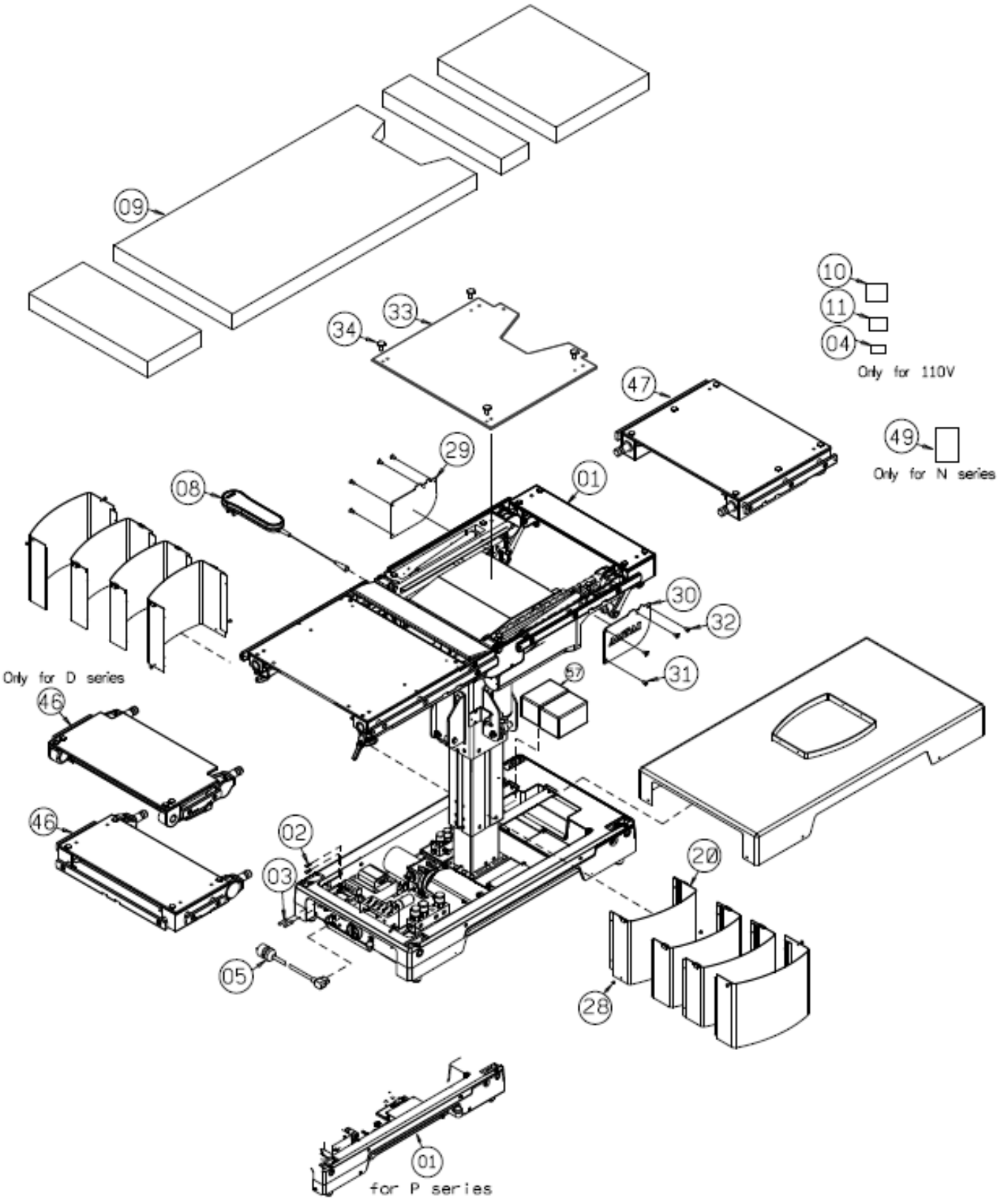
Figure 10-1



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000v03	V1000 Without Voltage Setting	1	
	T1000Pv03	T1000P Without Voltage Setting		
	T1000Nv03	T1000N Without Voltage Setting		
	T1000PNv03	T1000PN Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0106V00.1	Hand Pendant Assembly(V1000)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
	ASM0225V01	4-Section Telescopic Sleeve Assembly(Short)	1	Only for N series
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section		Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
049	CP000137v00.2	Operational Warning Label, No1	1	Only for N series
055	CP000650	Cable, Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	

ASSEMBLY: Surgical Table, T1000K(P)(D)(110V/220V)
BOM No: T1000K(P)(D).1/2v03.1

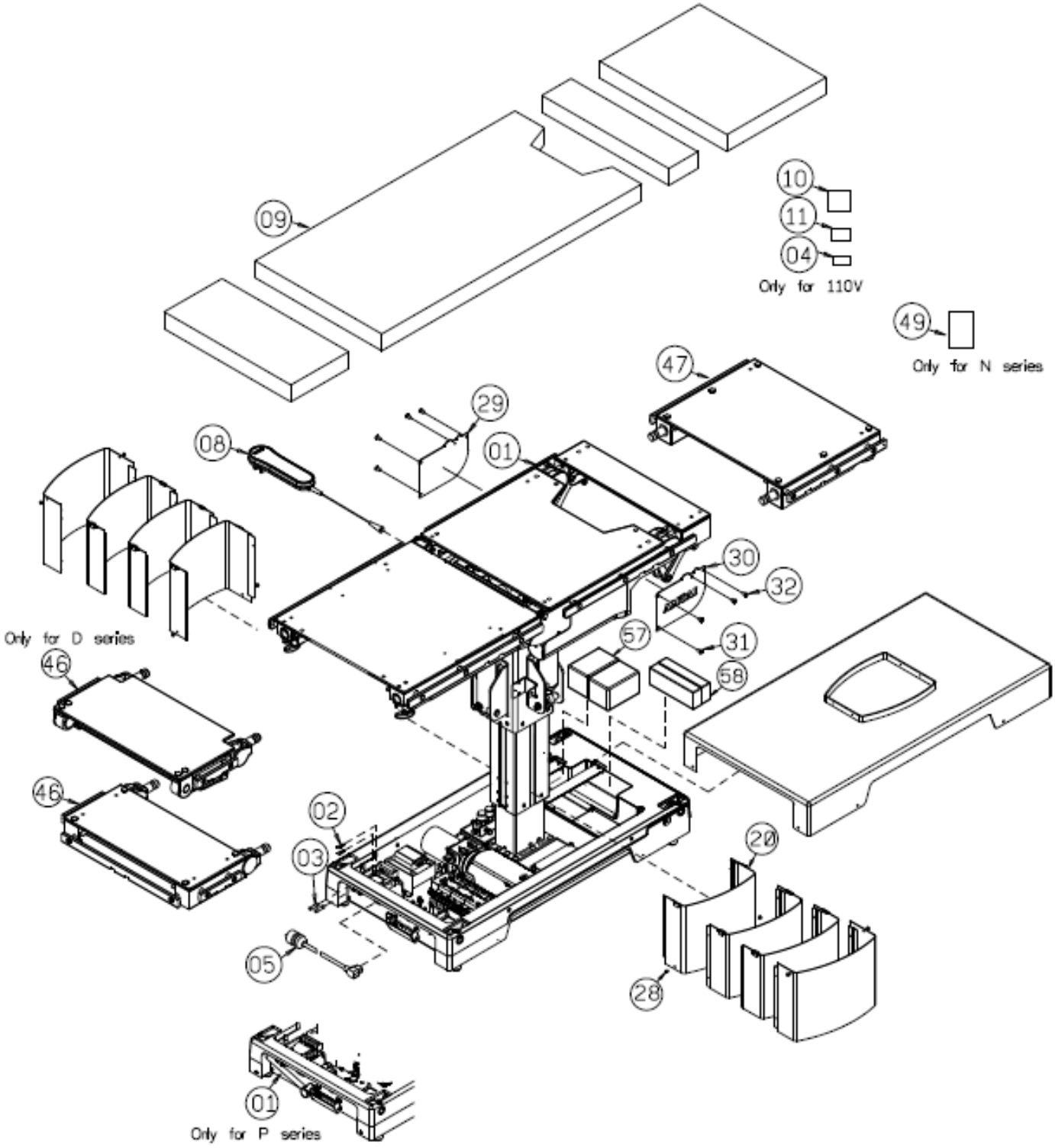
Figure 10-2



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000Kv03	T1000K Without Voltage Setting	1	
	T1000KPv03	T1000KP Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0106V00.1	Hand Pendant Assembly (V1000)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
033	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
034	CP000485	Arc Hexagon Head Screw M8	6	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section		Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
055	CP000650	Cable, Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	

ASSEMBLY: Surgical Table, T1000S(P)(N)(D)(110V/220V)
BOM No: T1000S(P)(N)(D).1/2v03.1

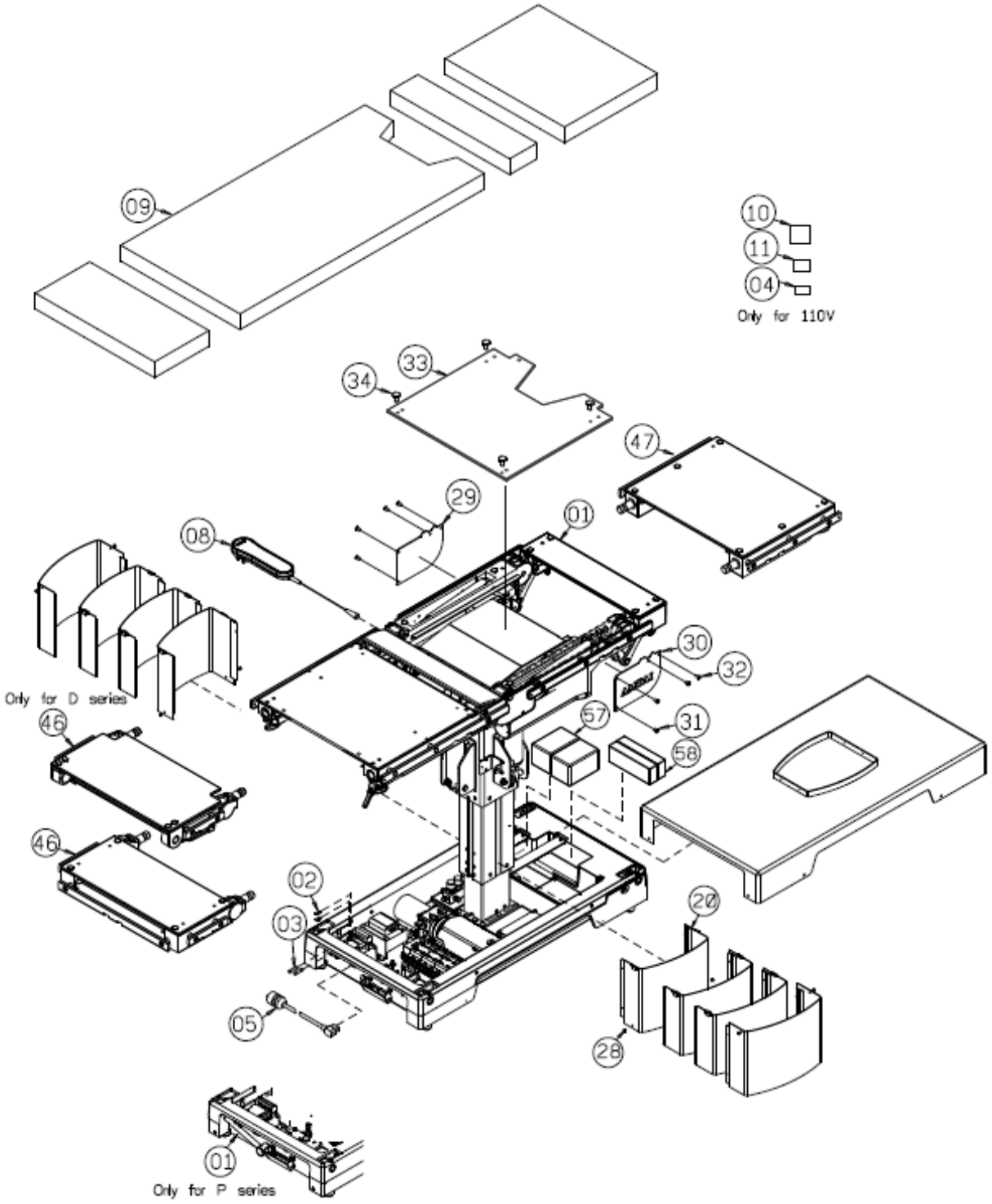
Figure 10-3



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000Sv03	T1000S Without Voltage Setting	1	
	T1000SPv03	T1000SP Without Voltage Setting		
	T1000SNv03	T1000SN Without Voltage Setting		
	T1000SPNv03	T1000SPN Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0053	Hand Pendant Assembly(T1000S)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
	ASM0225V01	4-Section Telescopic Sleeve Assembly(Short)	1	Only for N series
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section		Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
049	CP000137v00.2	Operational Warning Label, No1	1	Only for N series
055	CP000650	Cable, Battery Series	1	
056	CP000679	Cable, Backup Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	
058	EB0004	Sealed Lead Acid Battery, NP2.3-12	2	

ASSEMBLY: Surgical Table, T1000SK(P)(D)(110V/220V)
BOM No: T1000SK(P)(D).1/2v03.1

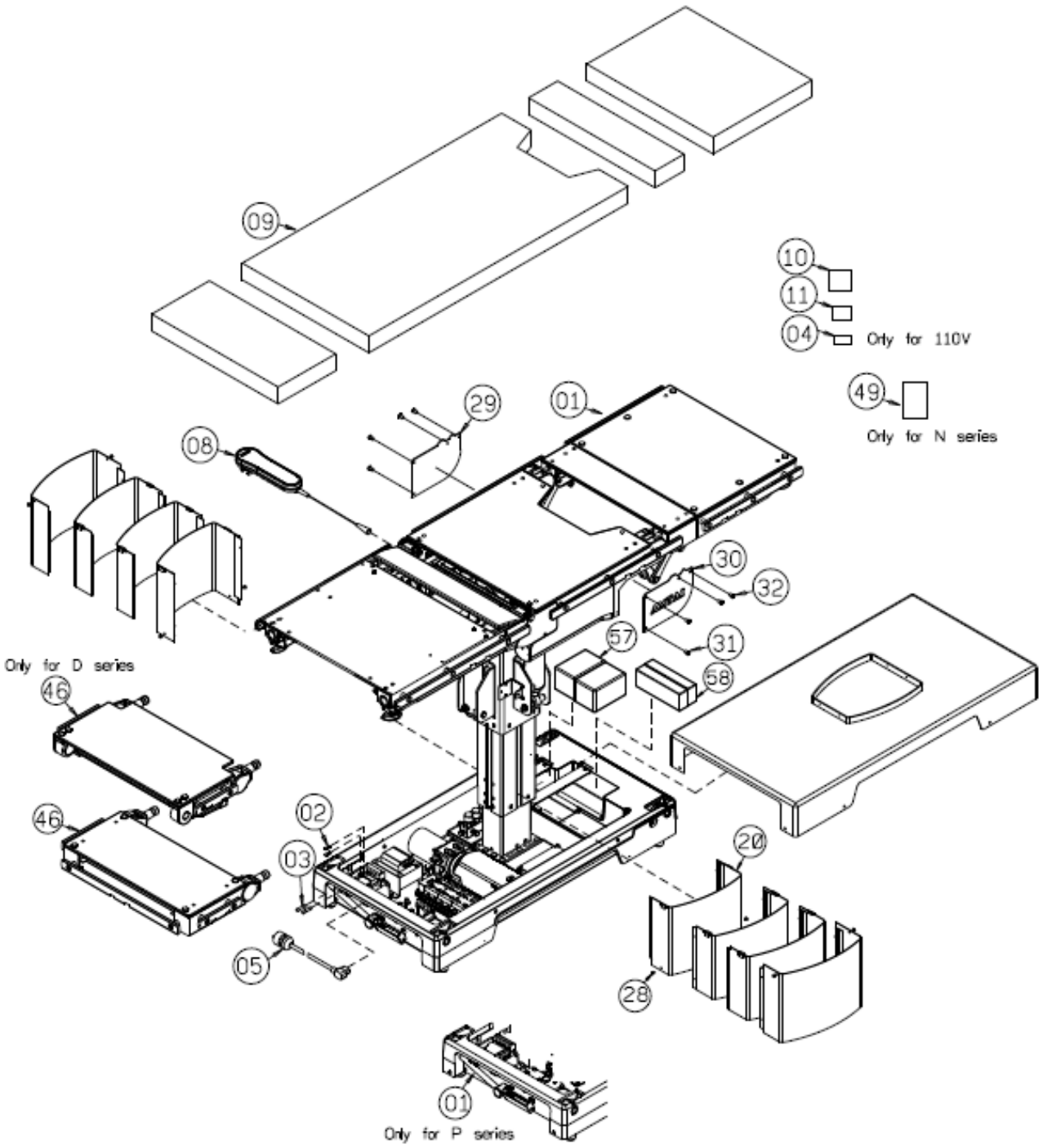
Figure 10-4



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000SKv03	T1000SK Without Voltage Setting	1	
	T1000SKPv03	T1000SKP Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0053	Hand Pendant Assembly(T1000S)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
033	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
034	CP000485	Arc Hexagon Head Screw M8x1.25x16	6	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section	1	Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
055	CP000650	Cable, Battery Series	1	
056	CP000679	Cable, Backup Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	
058	EB0004	Sealed Lead Acid Battery, NP2.3-12	2	

ASSEMBLY: Surgical Table, T1000SK(P)N(D)(110V/220V)
BOM No: T1000SK(P)N(D).1/2v03.1

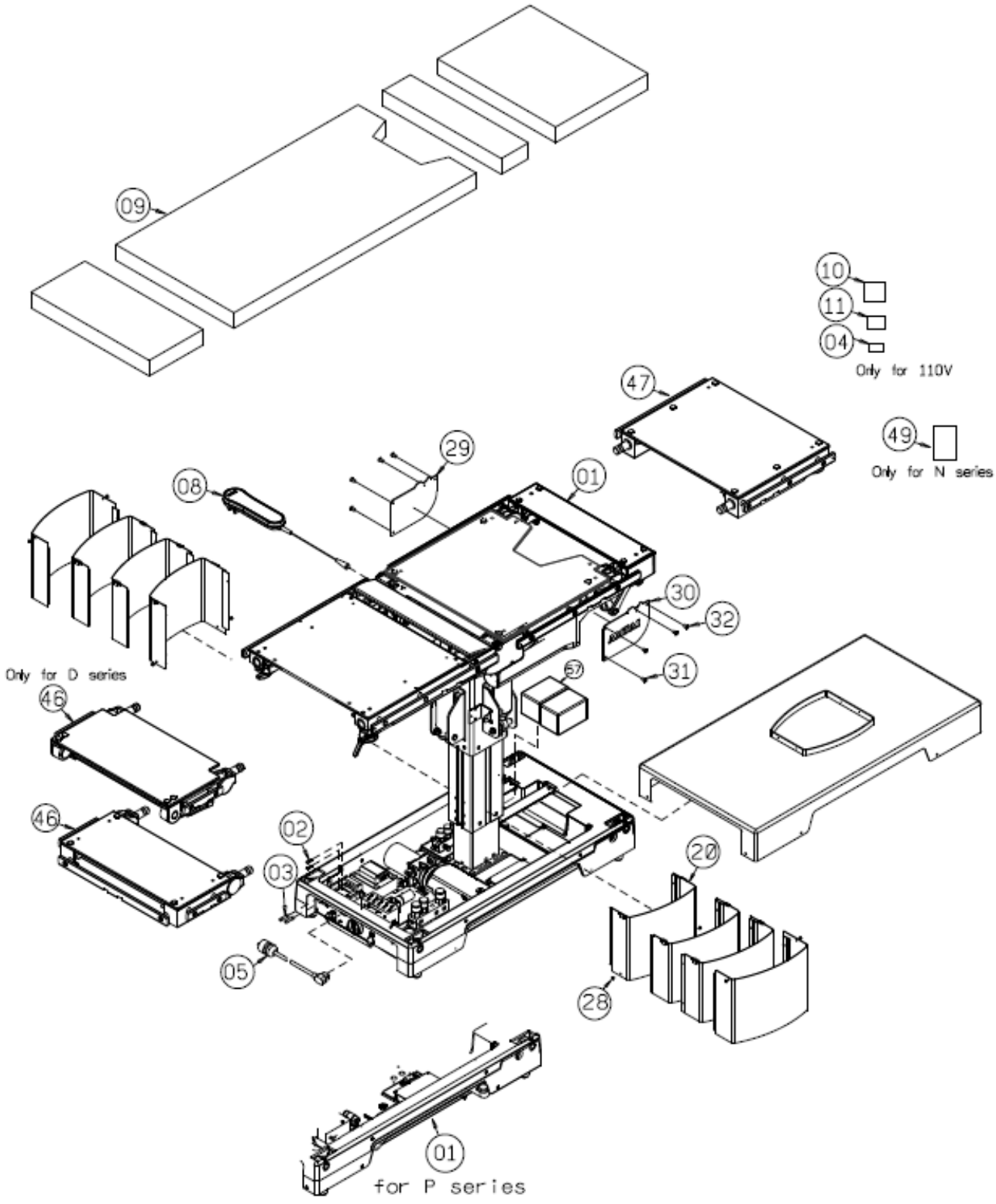
Figure 10-5



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000SKNv03	T1000SKN Without Voltage Setting	1	
	T1000SKPNv03	T1000SKPN Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0053	Hand Pendant Assembly(T1000S)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section	1	Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
049	CP000137v00.2	Operational Warning Label, No1	1	
055	CP000650	Cable, Battery Series	1	
056	CP000679	Cable, Backup Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	
058	EB0004	Sealed Lead Acid Battery, NP2.3-12	2	

ASSEMBLY: Surgical Table, T1000K(P)N(D)(110V/220V)
BOM No: T1000K(P)N(D).1/2v03.1

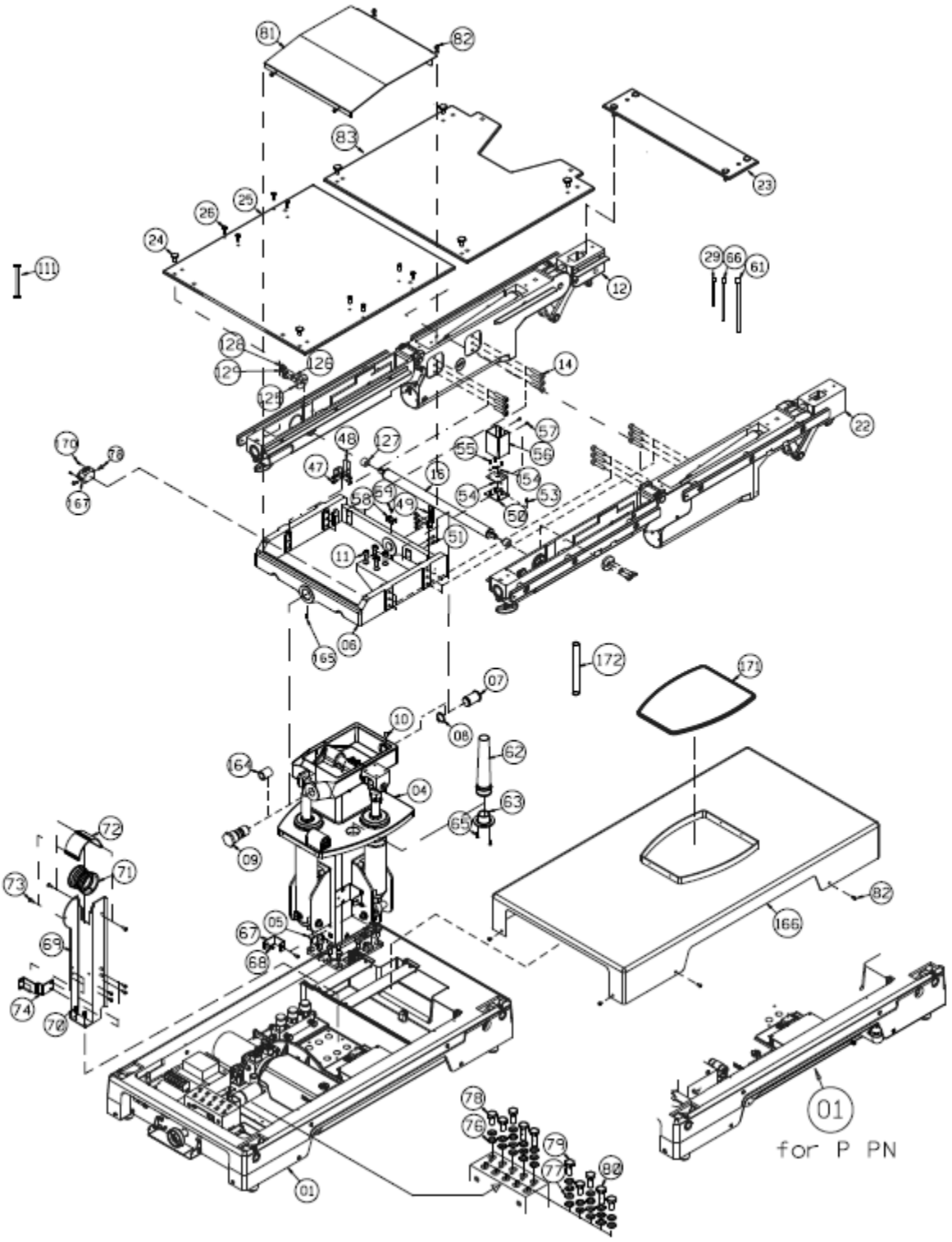
Figure 10-6



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	T1000KNv03	T1000KN Without Voltage Setting	1	
	T1000KPNv03	T1000KPN Without Voltage Setting		
002	EW0205	Jumper CSC-402pS	2	110V
			1	220V
003	EF0003	Glass Tube Fuse, 5A/250V(Time-Lag)6*32,61S-050H	2	110V
	EF0002	Glass Tube Fuse, 3A/250V(Time-Lag)6*32,61S-030H		220V
004	CP000077	110V/5A Sticker	1	Only for 110V
005	CP000156	Hospital Grade Power Cord, 001H-1+002A-R	1	
008	ASM0106V00.1	Hand Pendant Assembly(V1000)	1	
009	GN0001v01	Table Pad Set(2.375" Softcare), Single Leg Section	1	
010	CP000164	Serial Label	1	
011	SZ0006	ETL Label	1	
020	ASM0219	4-Section Telescopic Sleeve Assembly	1	
028	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	8	
029	CP000512	NUVO Cover, Pelvis-Leg Joint, Left	1	
030	CP000577	NUVO Cover, Pelvis-Leg Joint, Right	1	
031	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	6	
032	SS0142	Cross-recessed Countersunk Socket Screw M4x0.7x6, SUS	2	
046	ASM0118V00.1	Headrest Assembly	1	
	ASM0124	Double-Joint Head Section	1	Only for D series
047	ASM0119v00.1	Leg Extension Assembly	1	
049	CP000137v00.2	Operational Warning Label, No1	1	
055	CP000650	Cable, Battery Series	1	
056	CP000679	Cable, Backup Battery Series	1	
057	EB0003	Sealed Lead Acid Battery, REC14-12	2	
058	EB0004	Sealed Lead Acid Battery, NP2.3-12	2	

ASSEMBLY: V1000(P)(N) without Voltage
Setting BOM No: V1000(P)(N)v03

Figure 10-7

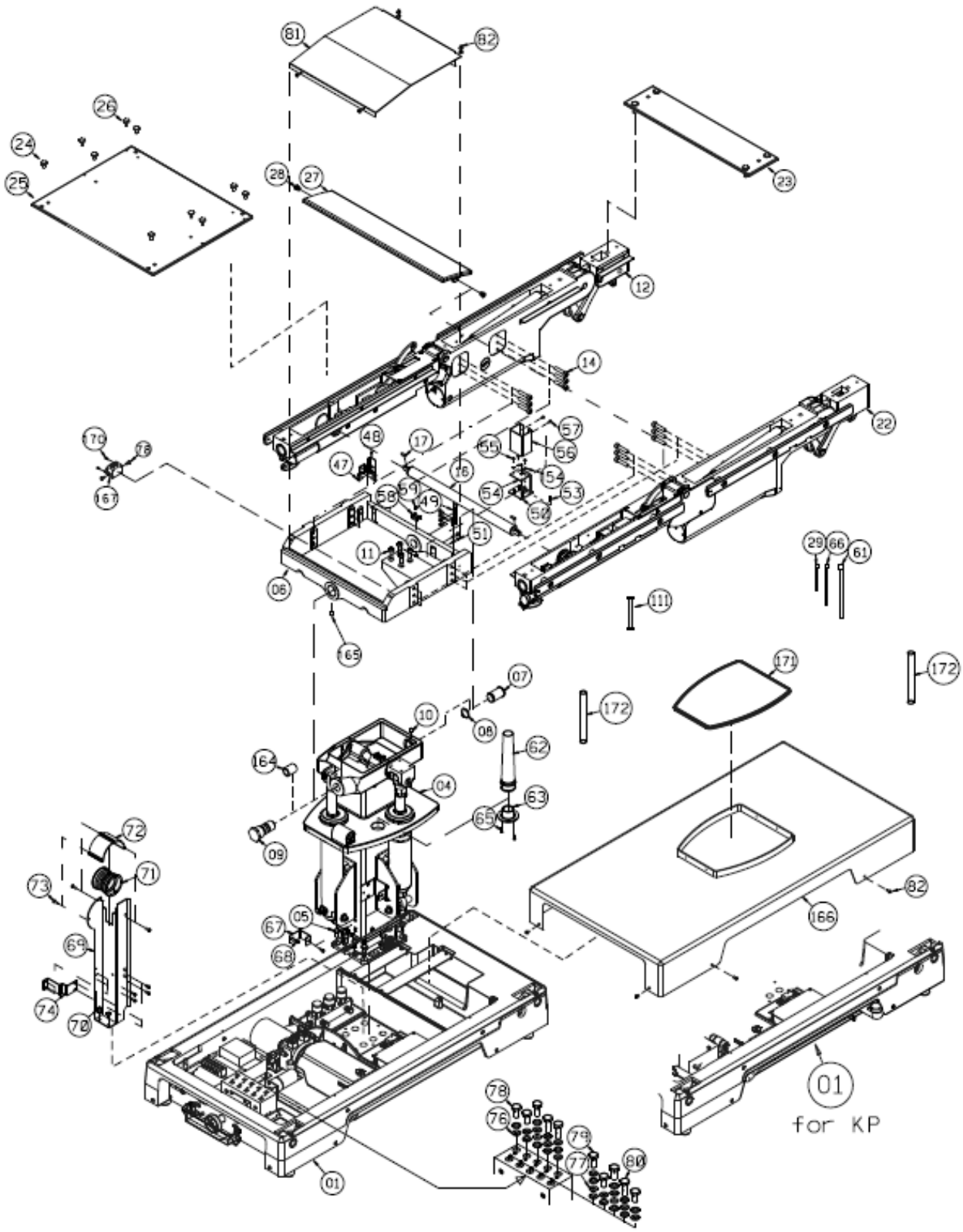


ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0086v04	Base Assembly with Rotary Valve &Hydraulic Leg	1	
	ASM0251v01.1	Base Assembly with Rotary Valve (Leg & Hydraulic Floor-Lock & Foot Pump		for P PN
004	ASM0058v02.2	Central Column (22" Stroke) Assembly	1	
	ASM0055v01	Central Column (45cm) Assembly		for N PN
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000596v00.1	Non-Sliding Lateral Tilting Frame	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0131v01	Left Table Frame Assembly (Aluminum) wo/ Kdy, Slide	1	
014	SS0088	Hexagon Socket Head Screw M8x1.25x35, Nickel-Coating	12	
016	CP000603	Transmission Rod for Kidney Elevator of V1000	1	
022	ASM0132v01	Right Table Frame Assembly (Aluminum) wo/ Kdy, Slide	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
024	CP000485	Arc Hexagon Head Screw M8x1.25x16	6	
025	CP000904	Bakelite Back Plate without Kidney Elevator(narrow Cutout)	1	
026	CP000492	Arc Hexagon Head Screw M6	8	
029	EW0009	Nylon Cable Tie,CV-100	9	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	
048	CP000546V00.1	Bracket, Left side for 5	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	2	
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000039V01.3	Tube Stand	1	
	CP000835	Tube Clip(Short)		for N PN
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	31	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	5	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000595	Top Cover of Non-sliding Tilt Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
083	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
125	CP000756	Ring for Kidney Bar	2	
126	CP000757	Washer for Transmission Rod	2	
127	CP000758	Spacer for Kidney Bar	2	
128	SS0075	Hexagon Socket Head Screw M5x0.8x12, Nickel-Coating	4	
129	SS0102	Hexagon Socket Head Screw M5x0.8x8, SUS	2	
140	FW0001V01	ASM0021 Power Supply Firmware	1	
141	FW0004V02.4	ASM0021 Rotary Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
164	SB0026	Oilless Bush LFB-2620	1	
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

ASSEMBLY: T1000K(P)without Voltage Setting
BOM No: T1000K(P)v03
Figure 10-8



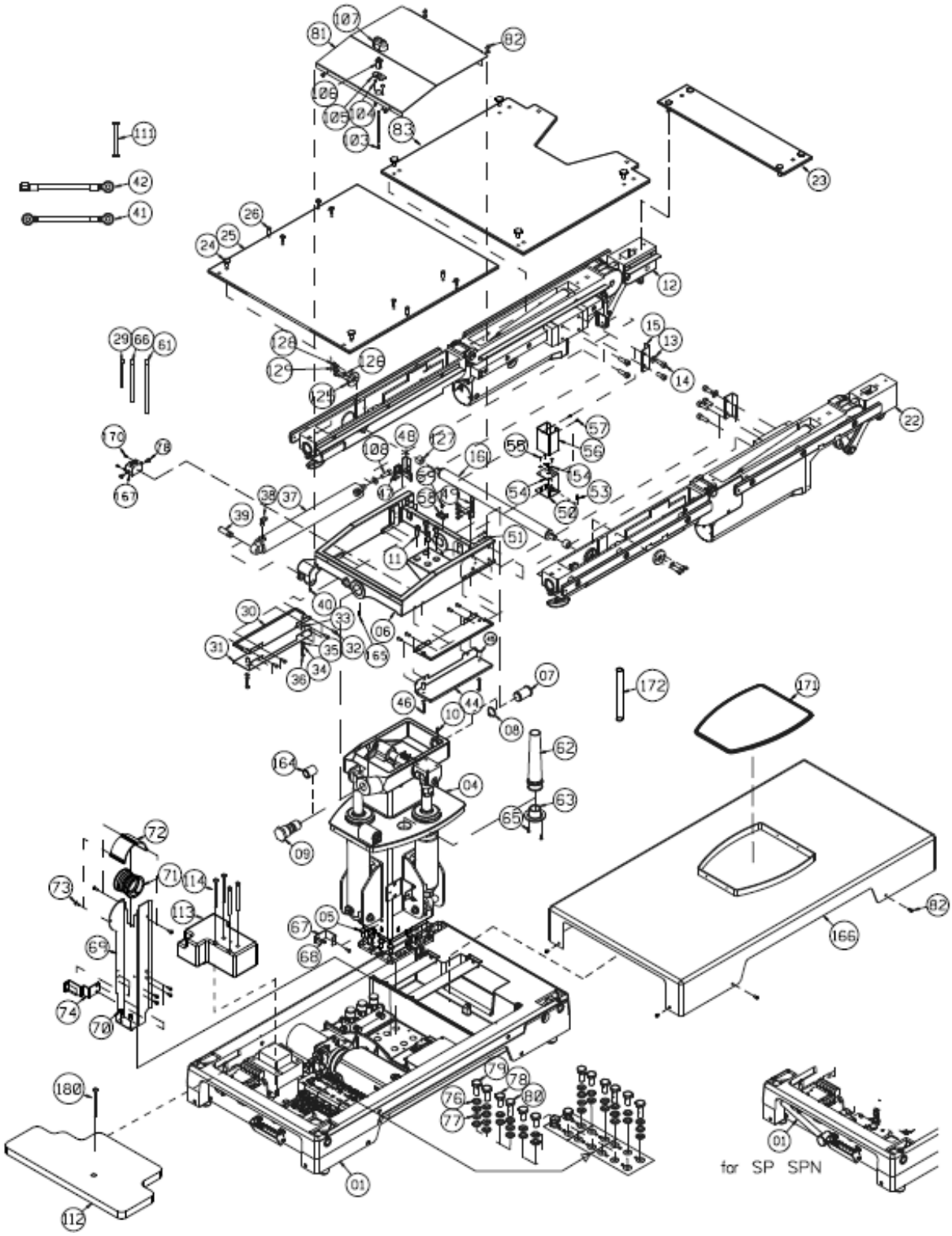
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0086v04	Base Assembly with Rotary Valve &Hydraulic Leg	1	
	ASM0251v01.1	Base Assembly with Rotary Valve (Leg & Hydraulic Floor-Lock & Foot Pump		for KP
004	ASM0058v02.2	Central Column (22" Stroke) Assembly	1	
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000596v00.1	Non-Sliding Lateral Tilting Frame	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0127v01.1	Left Table Frame Assembly (Aluminum) wo/ Slide	1	
014	SS0088	Hexagon Socket Head Screw M8x1.25x35, Nickel-Coating	12	
016	CP000603V00.1	Transmission Rod for Kidney Elevator of V1000	1	
017	SP0001	Parallel Keys 4x4x16L	2	
022	ASM0128v01.1	Right Table Frame Assembly (Aluminum) wo/ Slide	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
027	CP000618v00.1	Plate of Kidney Elevator, 482mm	1	
028	CP000448V00.1	Screw for Kidney Elevator, 13mm	2	
029	EW0009	Nylon Cable Tie,CV-100	9	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	
048	CP000546V00.1	Bracket, Left side for 5	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587V00.1	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating		
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000039V01.3	Tube Stand	1	
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	31	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	5	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000595	Top Cover of Non-sliding Tilt Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
140	FW0001V01	ASM0021 Power Supply Firmware	1	
141	FW0004V02.4	ASM0021 Rotary Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	
164	SB0026	Oilless Bush LFB-2620	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

ASSEMBLY: T1000S(P)(N) without Voltage Setting
BOM No: T1000S(P)(N)v03

Figure 10-9

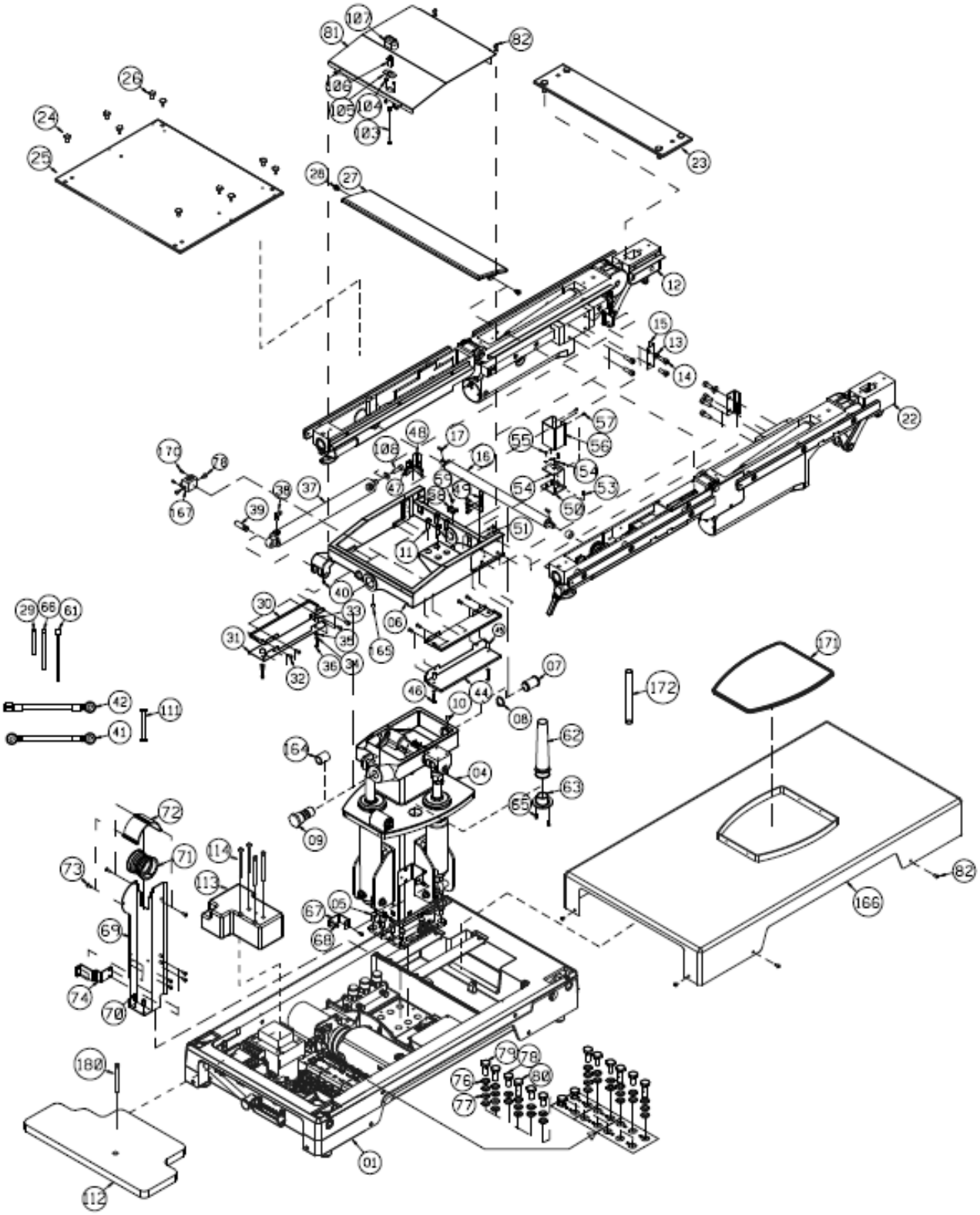


ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0034v04	Base Assembly with Solenoid Valve	1	
	ASM0037v04	Base Assembly with Solenoid Valve & Foot Pump		for SP SPN
004	ASM0058v02.2	Central Column (22" Stroke) Assembly	1	
	ASM0055v01	Central Column (45cm) Assembly		For SN SPN
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000502v00.1	Sliding Lateral Tilting Frame, High-loading	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0129v01	Left Table Frame Assembly (Aluminum) wo/ Kdy	1	
013	SW0005	Flat Washer D8x17x1.6, SUS	7	
014	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	8	
015	CP000298	Reinforcement Plate for Tilting Frame, High-loading	2	
016	CP000603V00.1	Transmission Rod for Kidney Elevator of V1000	1	
022	ASM0130v01	Right Table Frame Assembly (Aluminum) wo/ Kdy	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
024	CP000485	Arc Hexagon Head Screw M8x1.25x16	6	
025	CP000904	Bakelite Back Plate without Kidney Elevator(narrow Cutout)	1	
026	CP000492	Arc Hexagon Head Screw M6	8	
029	EW0009	Nylon Cable Tie,CV-100	9	
030	CP000536v01	Tube Guide, Upper	2	
031	CP000535v01	Tube Guide, Left & Lower	1	
032	SS0047	Hexagon Socket Head Screw M5x0.8x10, Nickel-Coating	8	
033	CP000403	Tube Spacer, 11mm	2	
034	SW0023	Flat Washer D4.3x8x0.8,SUS	4	
035	SW0015	Spring Washer D4x6.3x0.8t	2	
036	SS0121	Hexagon Socket Head Screw M4x0.7x20, Nickel-Coating	2	
037	CP000206v00.1	d30D40S310 Bidirectional Cylinder	1	
039	CP000508	Axle for Sliding Cylinder	1	
040	SS0013	Hexagon Set Screw M6x1.0x8, Nickel-Coating	1	
041	CP000379	Hydraulic Tube,BB-095815-2180L	1	
	CP000399	Hydraulic Tube,BB-095815-1860L		for SN SPN
042	CP000350	Hydraulic Tube,BH-095815-2400L	1	
	CP000398	Hydraulic Tube,BH-095815-2080L		for SN SPN
044	CP000561v01	Tube Guide, Right & Lower	1	
045	CP000404	Tube Spacer, 17mm	2	
046	SS0122	Hexagon Socket Head Screw M4x0.7x25, Nickel-Coating	2	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
048	CP000537	Bracket, Left side for 7	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587V00.1	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	2	
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	4	
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000039V01.3	Tube Stand	1	
	CP000835	Tube Clip(Short)		for SN SPN
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	35	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	7	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000297	Cover of Sliding Lateral Tilting Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
083	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
103	CP000660	Cable, Limit Switch	1	
104	SW0043	Nylon Spacer SPO6x3.1x3-N66	2	
105	CP000505	Washer for Limit Switch	1	
106	ES0009	Limit Switch LPS-001A, (N/O)	1	
107	CP000557v00.1	Rubber Cover for Limit Switch	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
108	SS0128	Hexagon Socket Head Screw M8x1.25x20, SUS	1	
109	CP000672	Mirco Switch with Cable	1	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
112	CP001950	S45C Block 412x208x20	1	
113	CP001951	S45C Block 175x138x70	1	for S SN
114	SS0048	Hexagon Socket Head Screw M6x1.0x75, Nickel-Coating	4	for S SN
125	CP000756	Ring for Kidney Bar	2	
126	CP000757	Washer for Transmission Rod	2	
127	CP000758	Spacer for Kidney Bar	2	
128	SS0075	Hexagon Socket Head Screw M5x0.8x12, Nickel-Coating	4	
129	SS0102	Hexagon Socket Head Screw M5x0.8x8, SUS	2	
140	FW0001V01	ASM0021 Power Supply Firmware	1	
141	FW0003v02.3	ASM0021 Solenoid Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
145	EW0107	OC TYPE CABLE MARKER OC-3/S	2	
146	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
147	EW0112	OC TYPE CABLE MARKER OC-3/2	1	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	
164	SB0026	Oilless Bush LFB-2620	1	
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

ASSEMBLY: T1000SK(P)without Voltage Setting
BOM No: T1000SK(P)v03
Figure 10-10



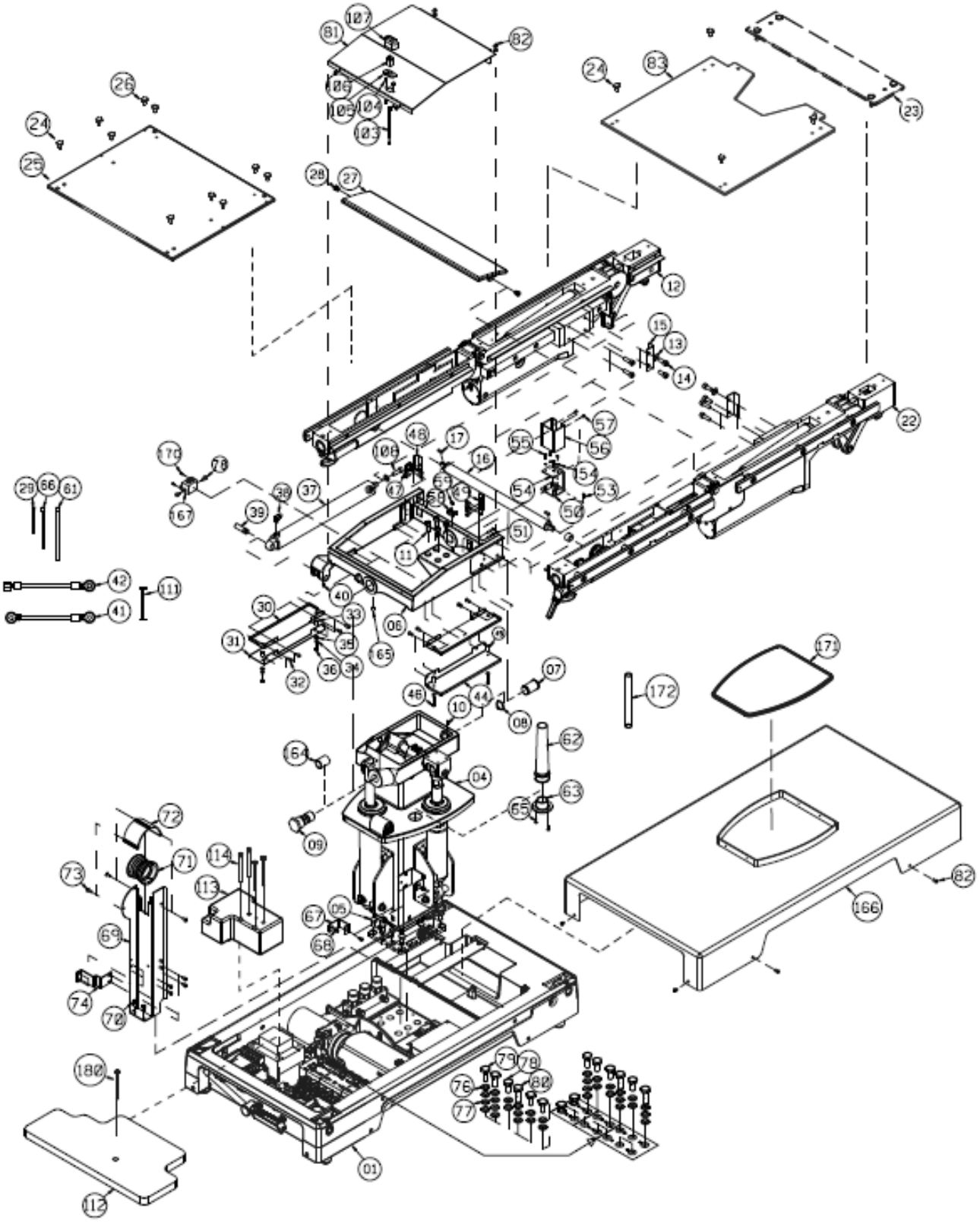
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
	ASM0034v04	Base Assembly with Solenoid Valve		
001	ASM0037v04	Base Assembly with Solenoid Valve & Foot Pump	1	for SKP
004	ASM0058v02.2	Central Column (22" Stroke) Assembly	1	
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000502v00.1	Sliding Lateral Tilting Frame, High-loading	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0125v01	Left Table Frame Assembly (Aluminum)	1	
013	SW0005	Flat Washer D8x17x1.6, SUS	7	
014	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	8	
015	CP000298	Reinforcement Plate for Tilting Frame, High-loading	2	
016	CP000603V00.1	Transmission Rod for Kidney Elevator of V1000	1	
017	SP0001	Parallel Keys 4x4x16L	2	
022	ASM0126v01	Right Table Frame Assembly (Aluminum)	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
027	CP000618v00.1	Plate of Kidney Elevator, 482mm	1	
028	CP000448V00.1	Screw for Kidney Elevator, 13mm	2	
029	EW0009	Nylon Cable Tie,CV-100	9	
030	CP000536v01	Tube Guide, Upper	2	
031	CP000535v01	Tube Guide, Left & Lower	1	
032	SS0047	Hexagon Socket Head Screw M5x0.8x10, Nickel-Coating	8	
033	CP000403	Tube Spacer, 11mm	2	
034	SW0023	Flat Washer D4.3x8x0.8,SUS	4	
035	SW0015	Spring Washer D4x6.3x0.8t	2	
036	SS0121	Hexagon Socket Head Screw M4x0.7x20, Nickel-Coating	2	
037	CP000206v00.1	d30D40S310 Bidirectional Cylinder	1	
039	CP000508	Axle for Sliding Cylinder	1	
040	SS0013	Hexagon Set Screw M6x1.0x8, Nickel-Coating	1	
041	CP000379	Hydraulic Tube,BB-095815-2180L	1	
042	CP000350	Hydraulic Tube,BH-095815-2400L	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
044	CP000561v01	Tube Guide, Right & Lower	1	
045	CP000404	Tube Spacer, 17mm	2	
046	SS0122	Hexagon Socket Head Screw M4x0.7x25, Nickel-Coating	2	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	
048	CP000537	Bracket, Left side for 7	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587V00.1	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	2	
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	4	
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000039V01.3	Tube Stand	1	
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	35	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	7	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000297	Cover of Sliding Lateral Tilting Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
103	CP000660	Cable, Limit Switch	1	
104	SW0043	Nylon Spacer SPO6x3.1x3-N66	2	
105	CP000505	Washer for Limit Switch	1	
106	ES0009	Limit Switch LPS-001A, (N/O)	1	
107	CP000557v00.1	Rubber Cover for Limit Switch	1	
108	SS0128	Hexagon Socket Head Screw M8x1.25x20, SUS	1	
109	CP000672	Micro Switch with Cable	1	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
112	CP001950	S45C Block 412x208x20	1	
113	CP001951	S45C Block 175x138x70	1	for SK
114	SS0048	Hexagon Socket Head Screw M6x1.0x75, Nickel-Coating	4	for SK
140	FW0001V01	ASM0021 Power Supply Firmware	1	
141	FW0003v02.3	ASM0021 Solenoid Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
145	EW0107	OC TYPE CABLE MARKER OC-3/S	2	
146	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
147	EW0112	OC TYPE CABLE MARKER OC-3/2	1	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	
164	SB0026	Oilless Bush LFB-2620	1	
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

ASSEMBLY: T1000SK(P)Nwithout Voltage Setting
BOM No: T1000SK(P)Nv03

Figure 10-11



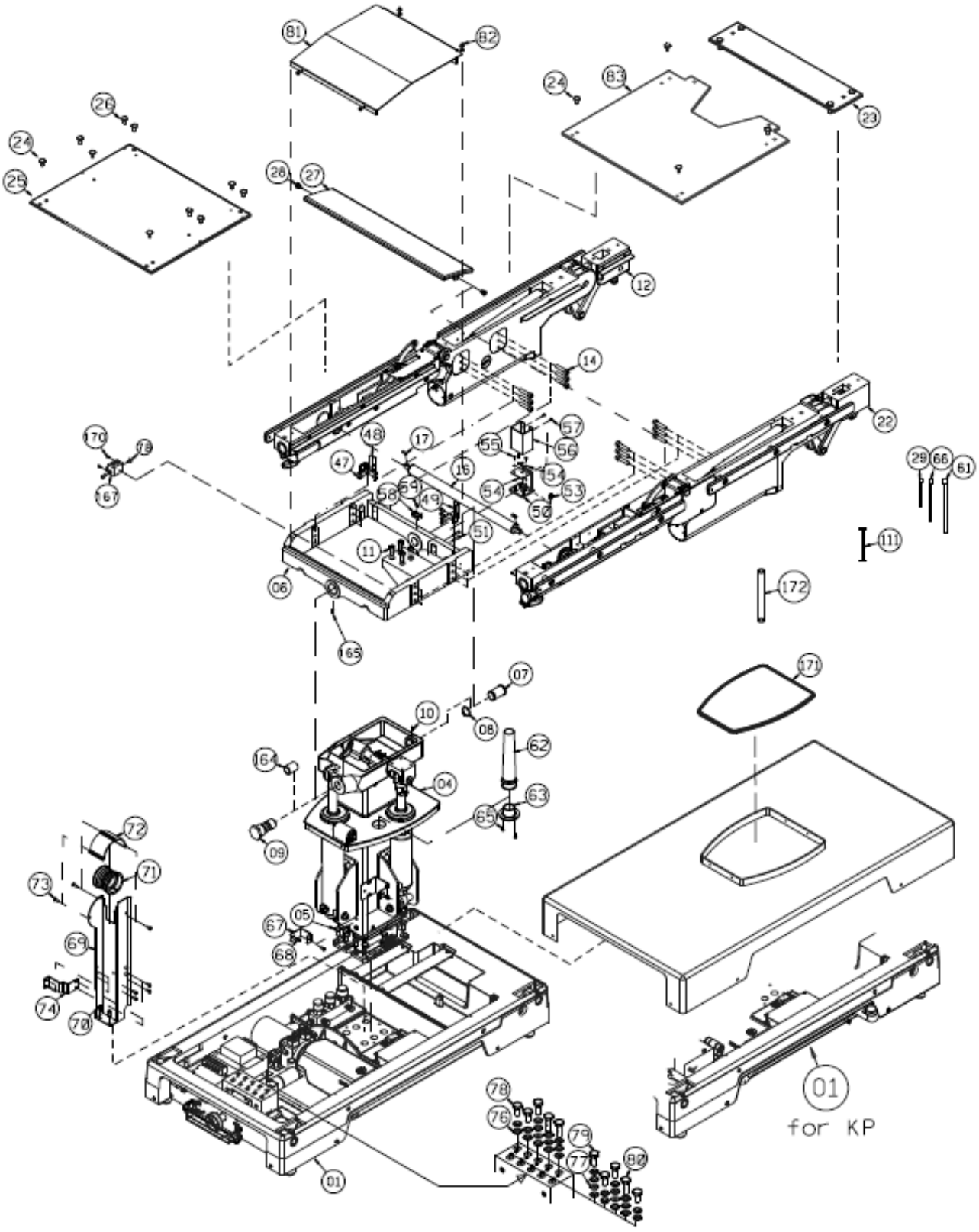
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0034v04	Base Assembly with Solenoid Valve	1	
	ASM0037v04	Base Assembly with Solenoid Valve & Foot Pump		for SKPN
004	ASM0055v01	Central Column (45cm) Assembly	1	
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000502v00.1	Sliding Lateral Tilting Frame, High-loading	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0125v01	Left Table Frame Assembly (Aluminum)	1	
013	SW0005	Flat Washer D8x17x1.6, SUS	7	
014	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	8	
015	CP000298	Reinforcement Plate for Tilting Frame, High-loading	2	
016	CP000603V00.1	Transmission Rod for Kidney Elevator of V1000	1	
017	SP0001	Parallel Keys 4x4x16L	2	
022	ASM0126v01	Right Table Frame Assembly (Aluminum)	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
024	CP000485	Arc Hexagon Head Screw M8x1.25x16	6	
025	CP000905	Bakelite Back Plate(narrow Cutout)	1	
026	CP000492	Arc Hexagon Head Screw M6	8	
027	CP000618v00.1	Plate of Kidney Elevator, 482mm	1	
028	CP000448V00.1	Screw for Kidney Elevator, 13mm	2	
029	EW0009	Nylon Cable Tie,CV-100	9	
030	CP000536v01	Tube Guide, Upper	2	
031	CP000535v01	Tube Guide, Left & Lower	1	
032	SS0047	Hexagon Socket Head Screw M5x0.8x10, Nickel-Coating	8	
033	CP000403	Tube Spacer, 11mm	2	
034	SW0023	Flat Washer D4.3x8x0.8,SUS	4	
035	SW0015	Spring Washer D4x6.3x0.8t	2	
036	SS0121	Hexagon Socket Head Screw M4x0.7x20, Nickel-Coating	2	
037	CP000206v00.1	d30D40S310 Bidirectional Cylinder	1	
039	CP000508	Axle for Sliding Cylinder	1	
040	SS0013	Hexagon Set Screw M6x1.0x8, Nickel-Coating	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
041	CP000399	Hydraulic Tube,BB-095815-1860L	1	
042	CP000398	Hydraulic Tube,BH-095815-2080L	1	
044	CP000561v01	Tube Guide, Right & Lower	1	
045	CP000404	Tube Spacer, 17mm	2	
046	SS0122	Hexagon Socket Head Screw M4x0.7x25, Nickel-Coating	2	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	
048	CP000537	Bracket, Left side for 7	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587V00.1	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	2	
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	4	
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000835	Tube Clip(Short)	1	
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	35	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	7	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000297	Cover of Sliding Lateral Tilting Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
083	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
103	CP000660	Cable, Limit Switch	1	
104	SW0043	Nylon Spacer SPO6x3.1x3-N66	2	
105	CP000505	Washer for Limit Switch	1	
106	ES0009	Limit Switch LPS-001A, (N/O)	1	
107	CP000557v00.1	Rubber Cover for Limit Switch	1	
108	SS0128	Hexagon Socket Head Screw M8x1.25x20, SUS	1	
109	CP000672	Mirco Switch with Cable	1	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
112	CP001950	S45C Block 412x208x20	1	
113	CP001951	S45C Block 175x138x70	1	for SKN
114	SS0048	Hexagon Socket Head Screw M6x1.0x75, Nickel-Coating	4	for SKN
140	FW0001V01	ASM0021 Power Supply Firmware	1	
141	FW0003v02.3	ASM0021 Solenoid Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
145	EW0107	OC TYPE CABLE MARKER OC-3/S	2	
146	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
147	EW0112	OC TYPE CABLE MARKER OC-3/2	1	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	
164	SB0026	Oilless Bush LFB-2620	1	
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

ASSEMBLY: T1000K(P)Nwithout Voltage Setting
BOM No: T1000K(P)Nv03

Figure 10-12



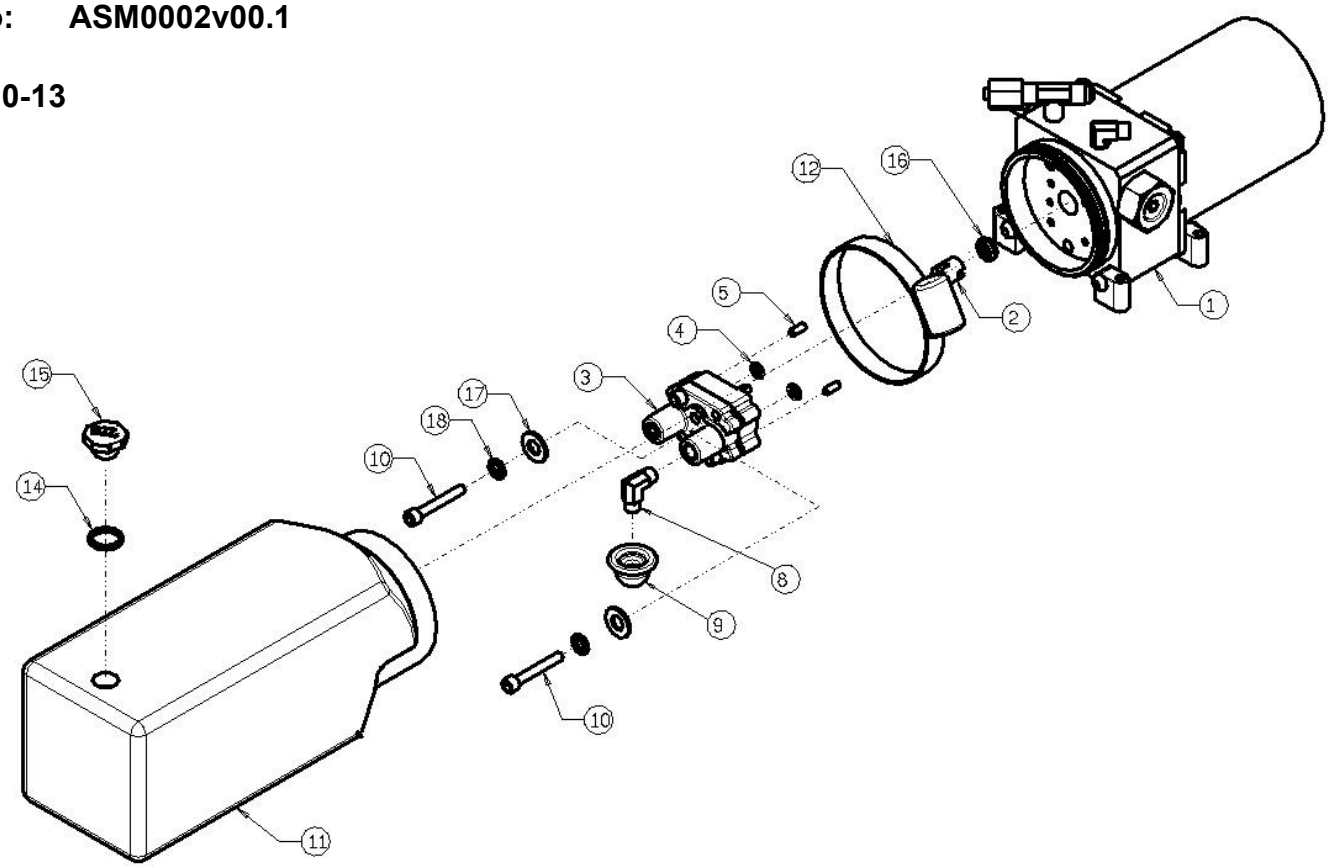
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0086v04	Base Assembly with Rotary Valve & Hydraulic Leg	1	
	ASM0251v01.1	Base Assembly with Rotary Valve (Leg & Hydraulic Floor-Lock & Foot Pump		for KPN
004	ASM0055v01	Central Column (45cm) Assembly	1	
005	SS0053	Hexagon Countersunk Socket Screw M8x1.25x20, SUS	9	
006	CP000596v00.1	Non-Sliding Lateral Tilting Frame	1	
007	CP000468V00.1	Rear Axle of Tilt Frame	1	
008	SF0009	External Retaining Ring STW-25, Nickel-Coating	1	
009	CP000463v01	Front Axle of Tilt Frame	1	
010	SS0077	Hexagon Set Screw M6x1.0x12, Nickel-Coating	3	
011	SS0023	Hexagon Socket Head Screw M8x1.25x20, Nickel-Coating	4	
012	ASM0127v01.1	Left Table Frame Assembly (Aluminum) wo/ Slide	1	
014	SS0088	Hexagon Socket Head Screw M8x1.25x35, Nickel-Coating	12	
016	CP000603V00.1	Transmission Rod for Kidney Elevator of V1000	1	
017	SP0001	Parallel Keys 4x4x16L	2	
022	ASM0128v01.1	Right Table Frame Assembly (Aluminum) wo/ Slide	1	
023	ASM0231	Quick installing Carbon-fiber Leg Plate Assembly	1	
024	CP000485	Arc Hexagon Head Screw M8x1.25x16	6	
025	CP000905	Bakelite Back Plate(narrow Cutout)	1	
026	CP000492	Arc Hexagon Head Screw M6	8	
027	CP000618v00.1	Plate of Kidney Elevator, 482mm	1	
028	CP000448V00.1	Screw for Kidney Elevator, 13mm	2	
029	EW0009	Nylon Cable Tie,CV-100	9	
047	SS0039	Hexagon Socket Head Screw M4x0.7x6, Nickel-Coating	8	
048	CP000546V00.1	Bracket, Left side for 5	1	
049	CP000539V00.1	Bracket, Right side for 7	1	
050	CP000587V00.1	Angular Sensor Bracket, Lateral Tilting Frame	1	
051	SS0134	Cross-recessed Countersunk Socket Screw M4x0.7x20, SUS	2	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
053	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
054	ASM0028V00.2	ADIS12601 PCB Assembly	1	
055	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	2	
056	CP000592	Angular Sensor Cover	1	
057	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
058	EW0007	Saddle Type Tie Mount, HC-2S	1	
059	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
061	EW0011	Nylon Cable Tie,CV-200	10	
062	CP000241	Waterproof Sleeve for Tube Entrance	1	
063	CP000242V00.1	Fixing Ring for Waterproof Sleeve	1	
064	CP000839	Sleeve Cap Ground Wire	1	
065	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
066	EW0143	Nylon Cable Tie,CV-150	4	
067	CP000287V00.1	Tubing Bracket Clip(T1000S series)	1	
068	SS0056	Hexagon Socket Head Screw M4x0.7x8, Nickel-Coating	6	
069	CP000835	Tube Clip(Short)	1	
070	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	4	
071	CP000052v00.1	Guiding Drum	1	
072	CP000050	Cover of Guiding Drum	1	
073	SS0015	Cross-recessed Truss Head Screw M4x0.7x12, Nickel-Coating	3	
074	CP000070v00.1	Lower Double-Row Tube Clip	1	
076	SW0027	Bonded Seal, BS-212	31	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	3	
078	CP000291V00.1	Screw for Single Hydraulic Tubes	5	
079	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	3	
080	CP000292V00.1	Screw for Double Hydraulic Tubes	4	
081	CP000595	Top Cover of Non-sliding Tilt Frame	1	
082	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	14	
083	CP000811V00.1	Bakelite Pelvic Plate, Narrow	1	
111	CP000659	Cable, ADIS 16201 for T1000S(K)	1	
140	FW0001V01	ASM0021 Power Supply Firmware	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
141	FW0004V02.4	ASM0021 Rotary Firmware	1	
142	ASM0029V00.2	ADIS12603 PCB Assembly	2	
154	SW0055	Nylon Washer W6x3.1x1-N66	2	
163	EZ0001	Jumper(DIP)	3	
164	SB0026	Oilless Bush LFB-2620	1	
165	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	1	
166	CP000076V01	Hydraulic Floor-Lock Base Cover	1	
167	ASM0244	Balance Valve of Cylinder Assembly	1	
170	SS0228	Hexagon Socket Head Screw M4x0.7x35, Nickel-Coating	2	
171	CP000225	Waterproof Band	1	
172	EW0203	FLEXO SUPER DUTY SDN1.25BK	0.30	
173	SG0001	Hydraulic Oil R32	3	

Assembly: Single Directional Hydraulic Power Unit
BOM No: ASM0002v00.1

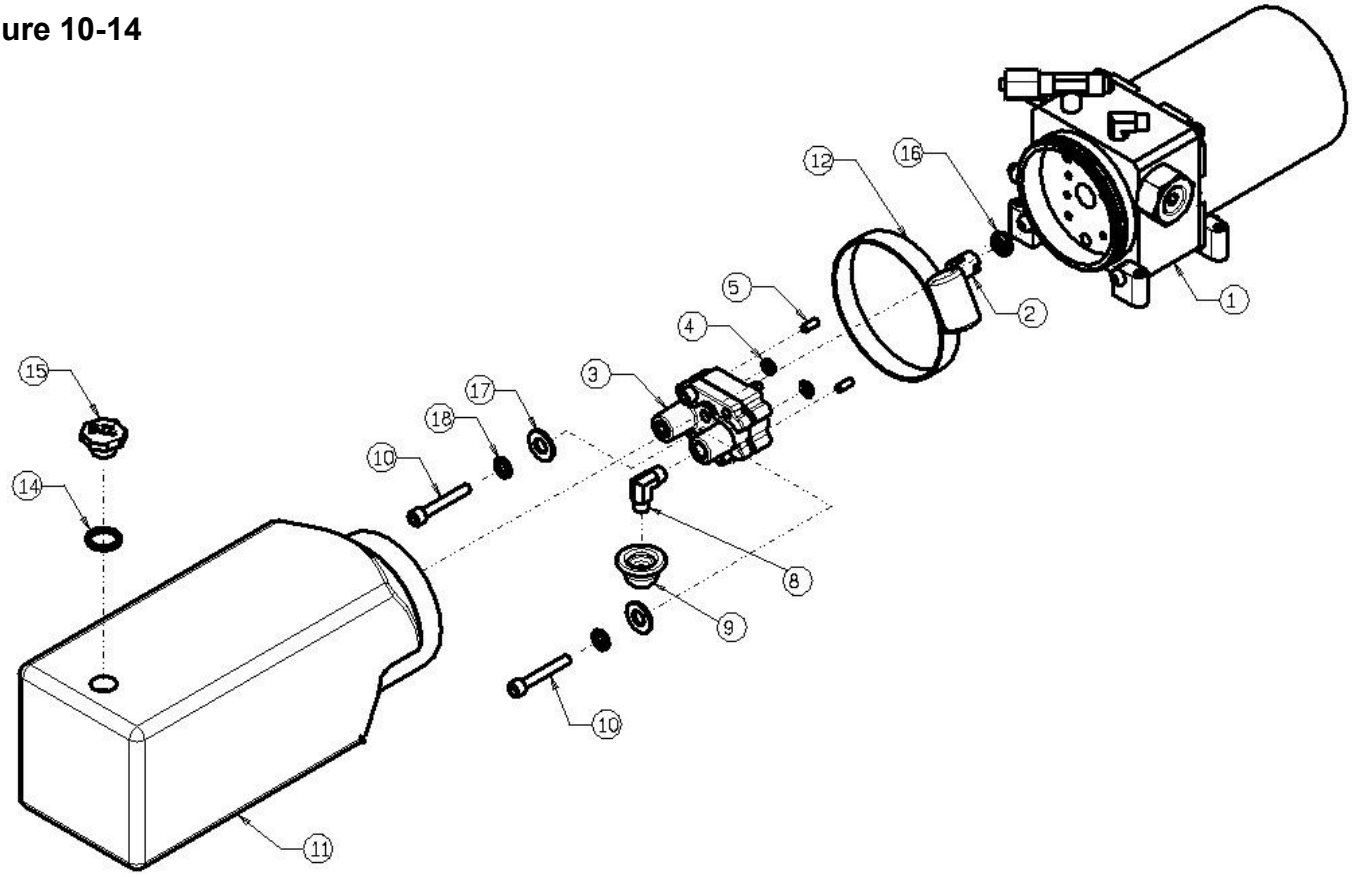
Figure 10-13



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0039	Single Directional Pump Block Motor Assembly	1	
002	CP000013	Coupler	1	
003	ASM0000	Single Directional Pump Unit	1	
004	SO0011	O-ring P5x1.9, G70	2	
005	SB0001	Steel Pin 4x9.8mm	2	
008	SH0002	Elbow Fitting, 1/8"PTx1/8"PT, Copper	1	
009	CP000014	60μm Reservoir Filter	1	
010	SS0115	Hexagon Socket Head Screw M5x0.8x30, Nickel-Coating	2	
011	CP000006	Reservoir	1	
012	SZ0002	3 1/4" Worm Gear Clamp	1	
014	SW0021	Rubber Washer d15.5x23x2	1	
015	SH0013	Black Reservoir Cap	1	
016	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	
017	SW0052	Flat Washer D5.3x10x1.0	2	
018	SW0089	Spring Washer d5 (5.1x8.5x1.2)	2	

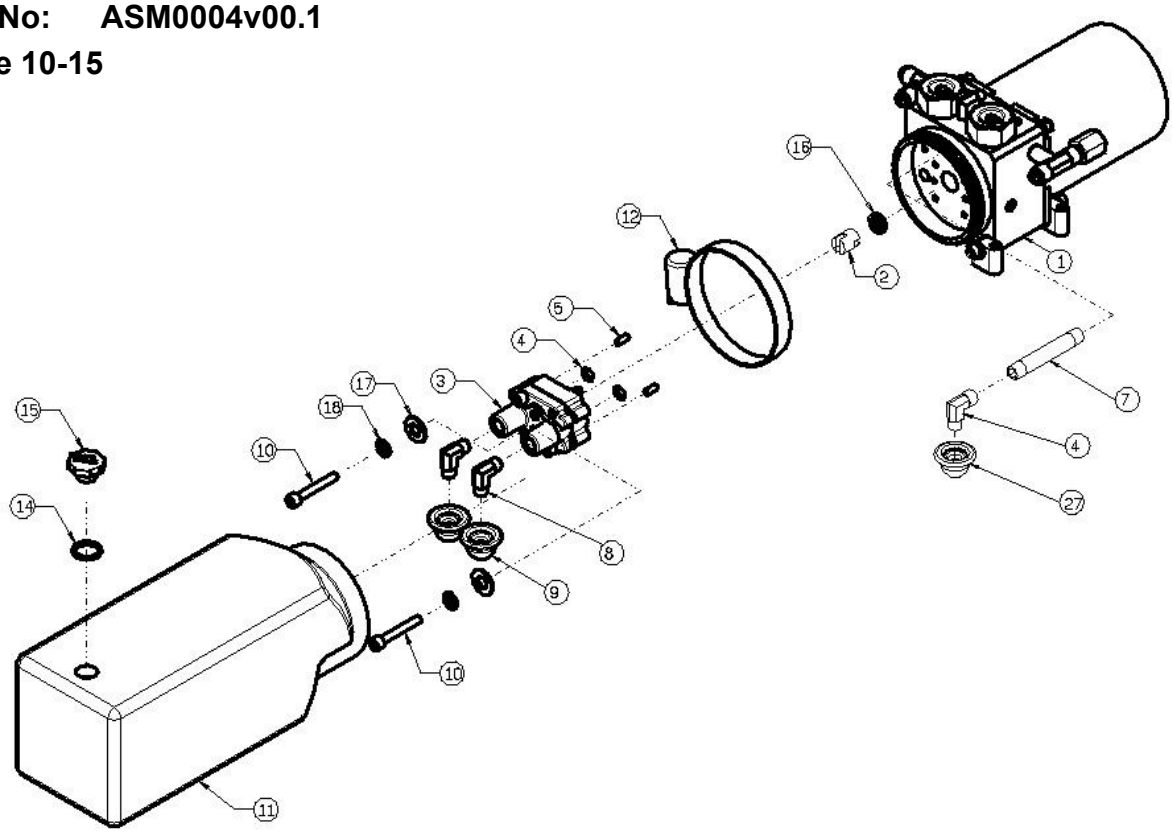
Assembly: Single Directional Hydraulic Power Unit (Foot Pump)
BOM No: ASM0003v00.1

Figure 10-14



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0040	Single Directional Pump Block Motor(Foot Pump) Assembly	1	
002	CP000013	Coupler	1	
003	ASM0000	Single Directional Pump Unit	1	
004	SO0011	O-ring P5x1.9, G70	2	
005	SB0001	Steel Pin 4x9.8mm	2	
008	SH0002	Elbow Fitting, 1/8"PTx1/8"PT, Copper	1	
009	CP000014	60μm Reservoir Filter	1	
010	SS0115	Hexagon Socket Head Screw M5x0.8x30, Nickel-Coating	2	
011	CP000006	Reservoir	1	
012	SZ0002	3 1/4" Worm Gear Clamp	1	
014	SW0021	Rubber Washer d15.5x23x2	1	
015	SH0013	Black Reservoir Cap	1	
016	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	
017	SW0052	Flat Washer D5.3x10x1.0	2	
018	SW0089	Spring Washer d5 (5.1x8.5x1.2)	2	

Assembly: Bidirectional Hydraulic Power Unit
BOM No: ASM0004v00.1
Figure 10-15



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0041	Bidirectional Pump Block Motor Assembly	1	
002	CP000013	Coupler	1	
003	ASM0001	Bidirectional Pump Unit	1	
004	SO0011	O-ring P5x1.9, G70	2	
005	SB0001	Steel Pin 4x9.8mm	2	
006	CP000026	Iron Nipple	1	
007	SH0016	Elbow Fitting,1/8PTx1/8PTCopper	1	
008	SH0002	Elbow Fitting, 1/8"PTx1/8"PT, Copper	2	
009	CP000014	60μm Reservoir Filter	3	
010	SS0115	Hexagon Socket Head Screw M5x0.8x30, Nickel-Coating	2	
011	CP000006	Reservoir	1	
012	SZ0002	3 1/4" Worm Gear Clamp	1	
014	SW0021	Rubber Washer d15.5x23x2	1	
015	SH0013	Black Reservoir Cap	1	
016	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	
017	SW0052	Flat Washer D5.3x10x1.0	2	
018	SW0089	Spring Washer d5 (5.1x8.5x1.2)	2	

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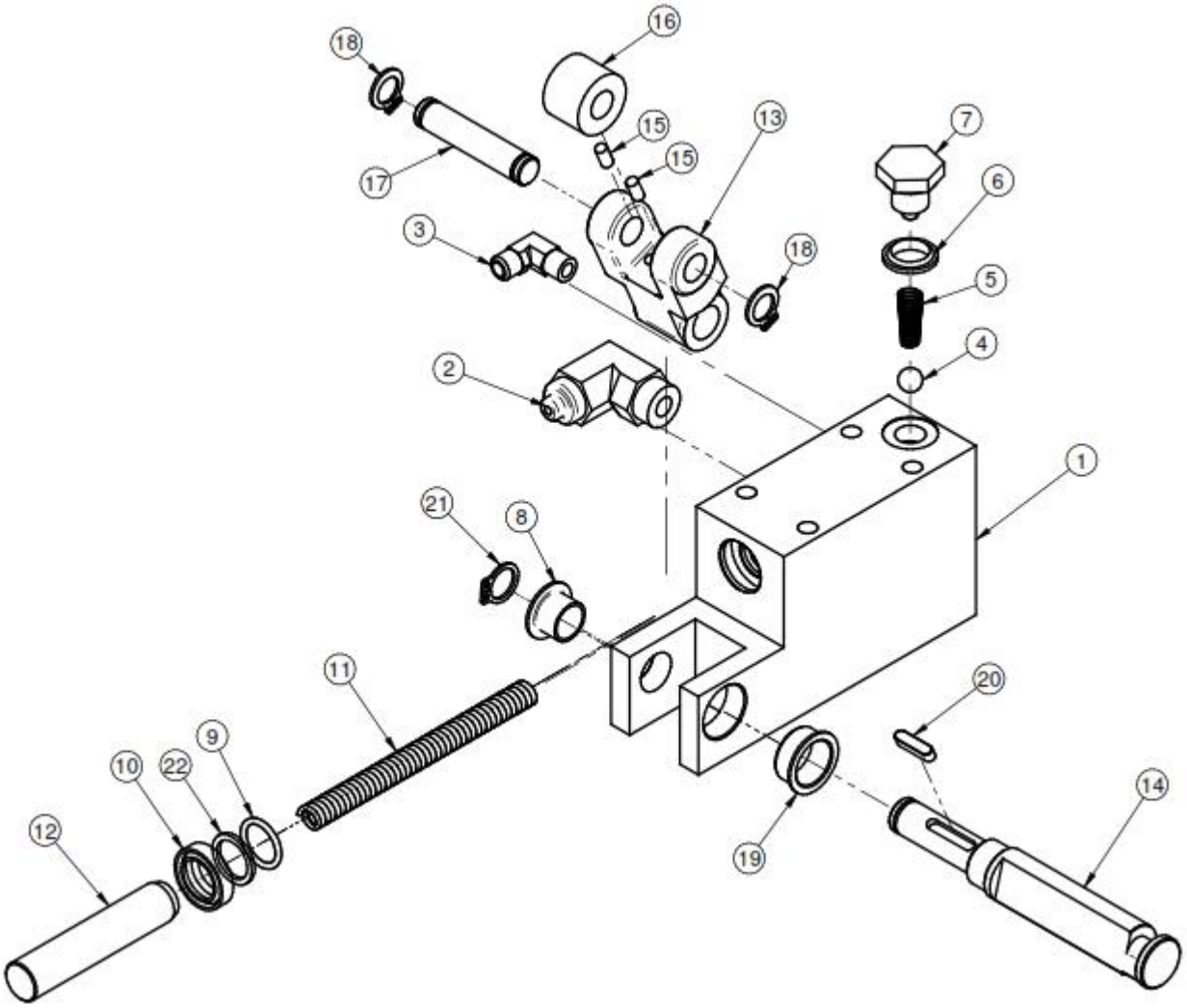
Assembly: Foot Pump Assembly
BOM No: ASM0005v00.2

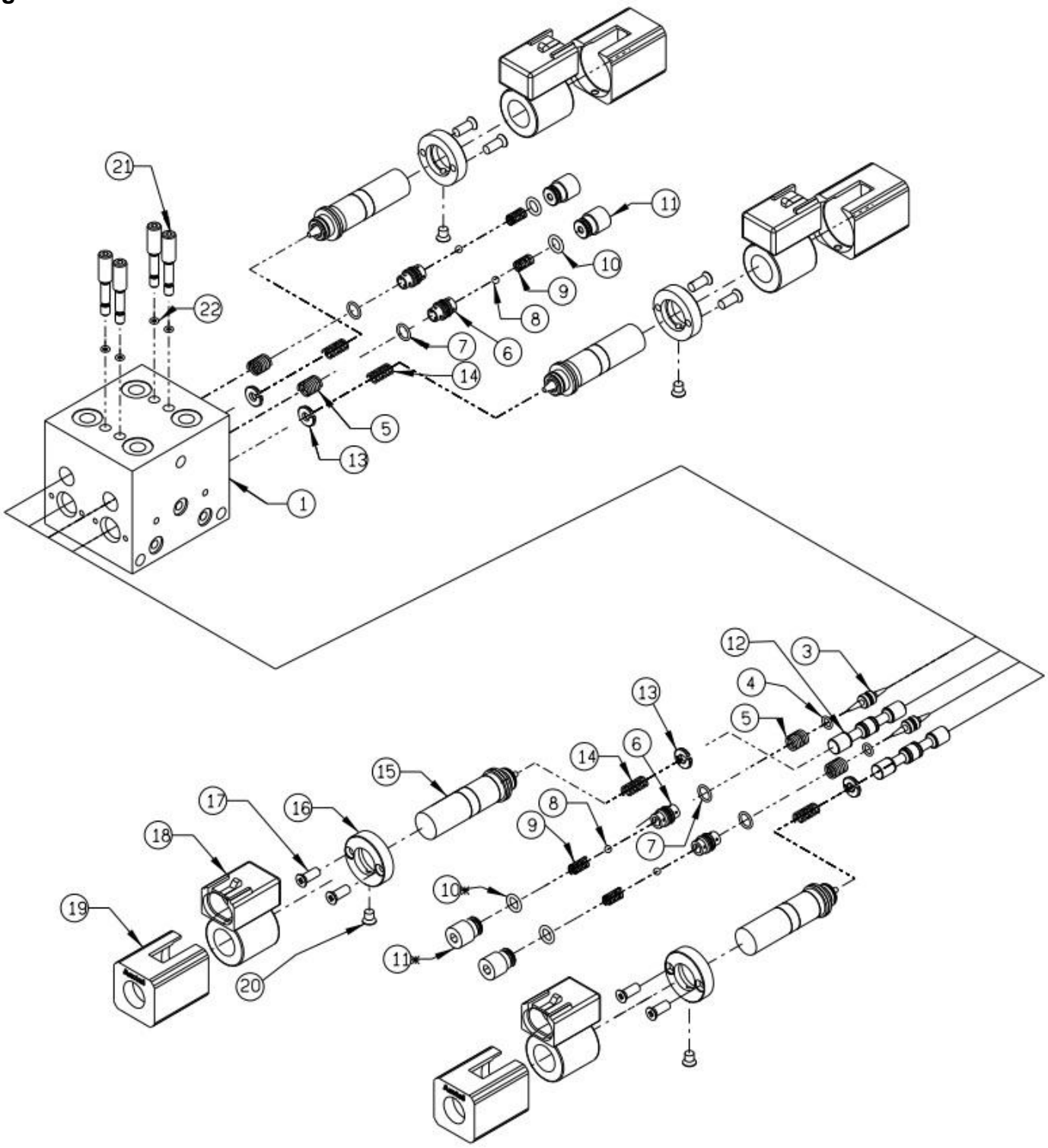
Figure 10-16



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000028v02	Foot Pump Base	1	
002	SH0007	(N06-L2010)Elbow Fitting, High Speed, NP10x1/4"PT, Copper	1	
003	SH0005	Elbow Brass Flared Fitting, LIN1/4Hx1/8"PT, Copper	1	
004	SH0003	Steel Ball SUJ2/52100,8mm,40#	1	
005	CP000005	Tower Spring(SUS),d0.24x5.26x7.7xL20xN13.5	1	
006	SW0003	Bonded Seal, BS-222	1	
007	CP000032v00.1	Hexagonal Foot Pump Cap	1	
008	SB0071	Oilless Bush LFF-1208	1	
009	SO0001	O-ring P14 N0K	1	
010	SO0002	Dust Sealing, LBH-22D-14d-18.3S-5H	1	
011	CP000034v00.1	Compression Spring d1.5xD7.5xP2.8x106.4L	1	
012	CP000029v00.1	Foot Pump Swing Shaft	1	
013	CP000027v01.1	Foot Pump Lever	1	
014	CP000031v01	Foot Pump Coupling Shaft	1	
015	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
016	SB0007	NKI10-16	1	
017	CP000033v00.1	Pin of Foot Pump Lever	1	
018	SF0002	External Retaining Ring STW-10, Nickel-Coating	2	
019	CP001903v00.1	Copper Bushing of Foot Pump	1	
020	SP0012	Parallel Keys 4x4x20L	1	
021	SF0003	External Retaining Ring STW-12, Nickel-Coating	1	
022	SO0078	Back-up Ring P14	1	

Assembly: 2-Fold Valve Block Assembly
BOM No: ASM0008v01

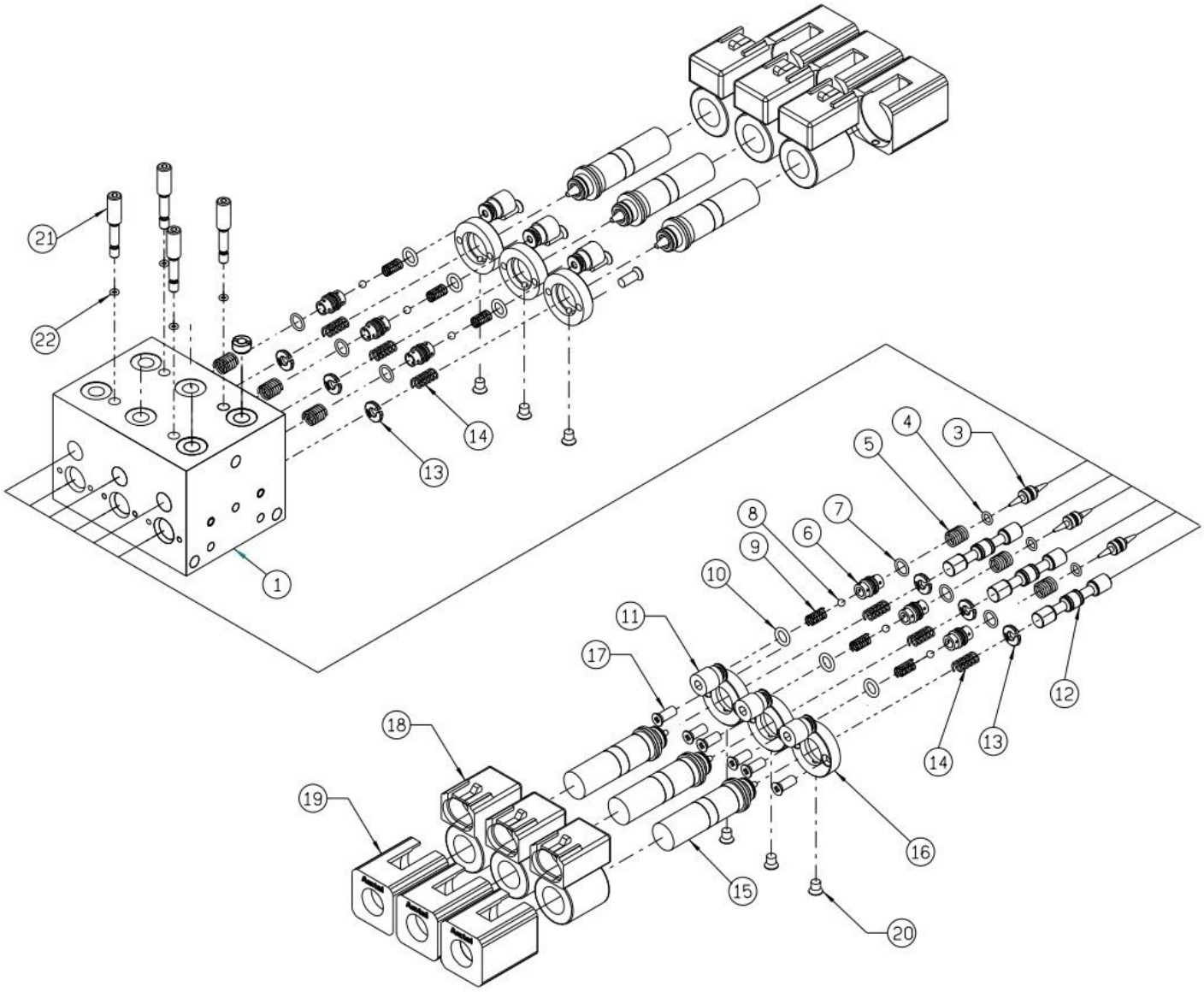
Figure 10-17



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000119	2-Fold Valve Block	1	
002	SS0040	Hexagon Set Screw M4x0.7x5, Nickel-Coating	8	
003	CP000112	Solenoid Valve Shuttle	2	
004	SO0005	O-ring d4x1	2	
005	CP000134v00.1	Compression Spring d0.7xD3.4xP1.2x7.8L	4	
006	CP000114v00.1	Stopping Ring	4	
007	SO0006	O-ring d6x1	4	
008	SH0008	Steel Ball SUJ2/52100,3mm,40#	4	
009	CP000117v00.2	Compression Spring d0.26xD2.24xP1.06xL9.6	4	
010	SO0007	O-ring d5.5x1.5	4	
011	CP000115v00.2	Screw Seal Cover	4	
012	CP000122	Shuttle	2	
013	CP000123	Magnetism Washer	4	
014	CP000124v00.2	Compression Spring d0.5xD4.8xP1.6x12.8L	4	
015	ASM0090	Solenoid Assembly	4	
016	CP000182	Thick Ring	4	
017	SS0041	Cross-recessed Countersunk Socket Screw M3x0.5x10, Nickel-Coating	8	
018	CP000126	Coil Socket for Solenoid Valve	4	
019	CP000125	Coil Block for Solenoid Valve	4	
020	SS0079	Cross-recessed Countersunk Socket Screw M3x0.5x5, Nickel-Coating	4	
021	CP000127	Adjust the Flow Shaft	4	
022	SO0008	O-ring d2x1	4	

Assembly: 3-Fold Valve Block Assembly
BOM No: ASM0009v01

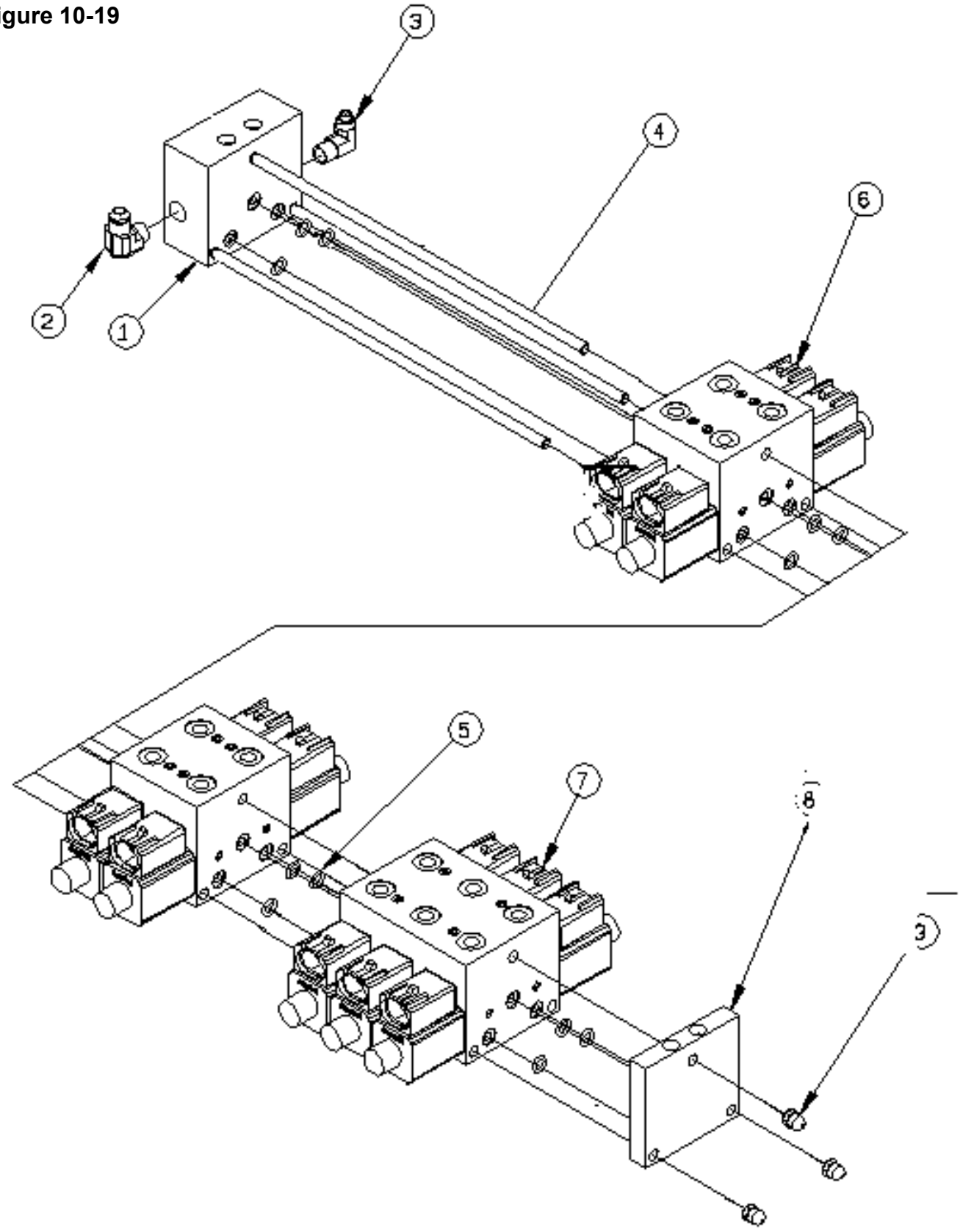
Figure 10-18



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000119	2-Fold Valve Block	1	
002	SS0040	Hexagon Set Screw M4x0.7x5, Nickel-Coating	12	
003	CP000112	Solenoid Valve Shuttle	3	
004	SO0005	O-ring d4x1	3	
005	CP000134v00.1	Compression Spring d0.7xD3.4xP1.2x7.8L	6	
006	CP000114v00.1	Stopping Ring	6	
007	SO0006	O-ring d6x1	6	
008	SH0008	Steel Ball SUJ2/52100,3mm,40#	6	
009	CP000117v00.2	Compression Spring d0.26xD2.24xP1.06xL9.6	6	
010	SO0007	O-ring d5.5x1.5	6	
011	CP000115v00.2	Screw Seal Cover	6	
012	CP000122	Shuttle	3	
013	CP000123	Magnetism Washer	6	
014	CP000124v00.2	Compression Spring d0.5xD4.8xP1.6x12.8L	6	
015	ASM0090	Solenoid Assembly	6	
016	CP000182	Thick Ring	6	
017	SS0041	Cross-recessed Countersunk Socket Screw M3x0.5x10, Nickel-Coating	12	
018	CP000126	Coil Socket for Solenoid Valve	6	
019	CP000125	Coil Block for Solenoid Valve	6	
020	SS0079	Cross-recessed Countersunk Socket Screw M3x0.5x5, Nickel-Coating	6	
021	CP000127	Adjust the Flow Shaft	6	
022	SO0008	O-ring d2x1	6	

Assembly: 7-Fold Solenoid Valve Assembly
BOM No: ASM0010v01

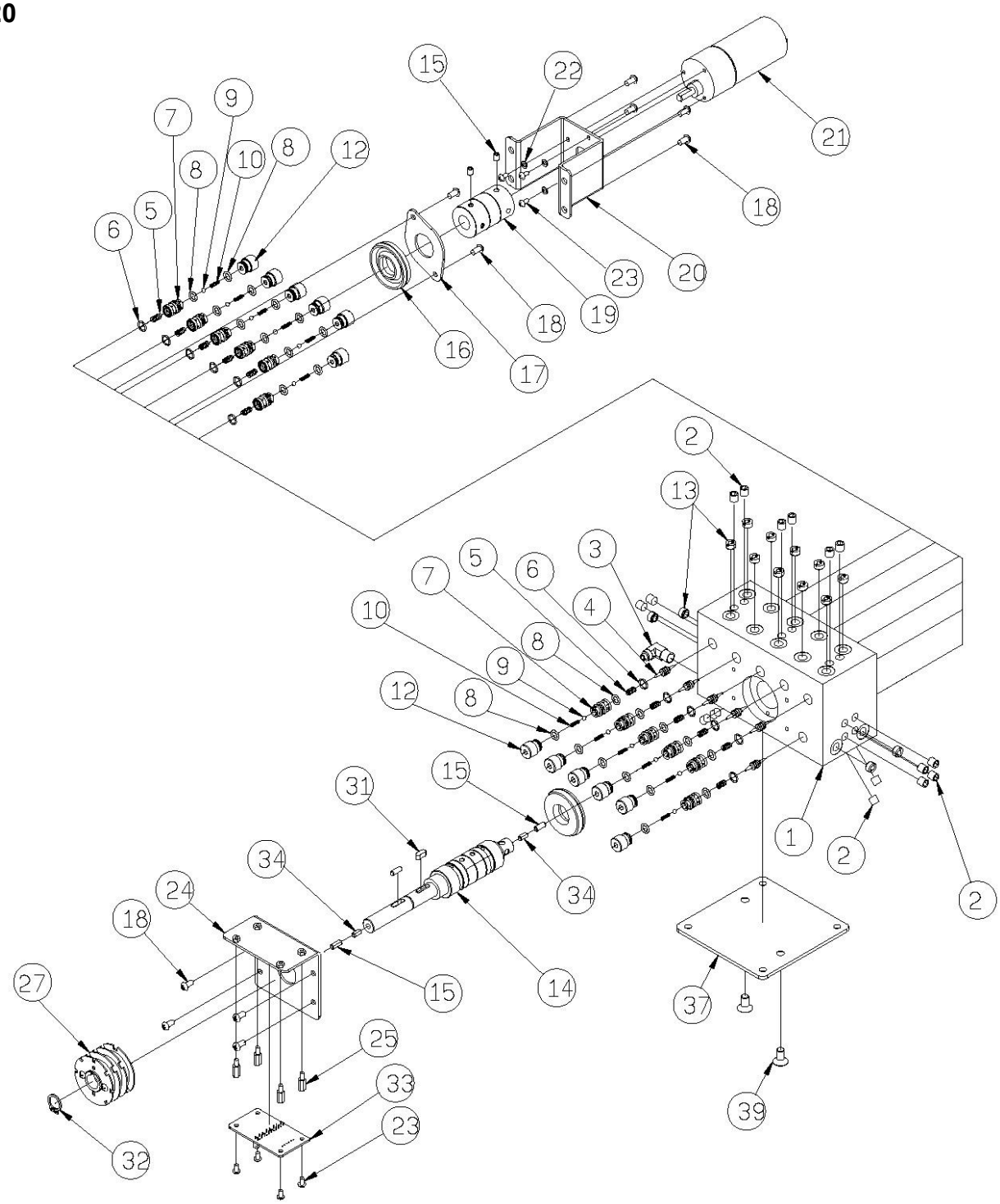
Figure 10-19



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000120	Solenoid Valve Block	1	
002	CP000020	Connector,1/4"JICx1/8"PT	1	
003	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
004	CP000128	Screw Bolt, M5x0.8xL229.3mm	3	
005	SO0007	O-ring 5.5x1.5	12	
006	ASM0008v01	2-Fold Valve Block Assembly	2	
007	ASM0009v01	3-Fold Valve Block Assembly	1	
008	CP000121	Slide Fixing Plate	1	
009	SS0042	Hexagonal Cap Nut M5x0.8	3	

Assembly: 6-Fold Rotary Directional Valve Assembly
BOM No: ASM0015v02

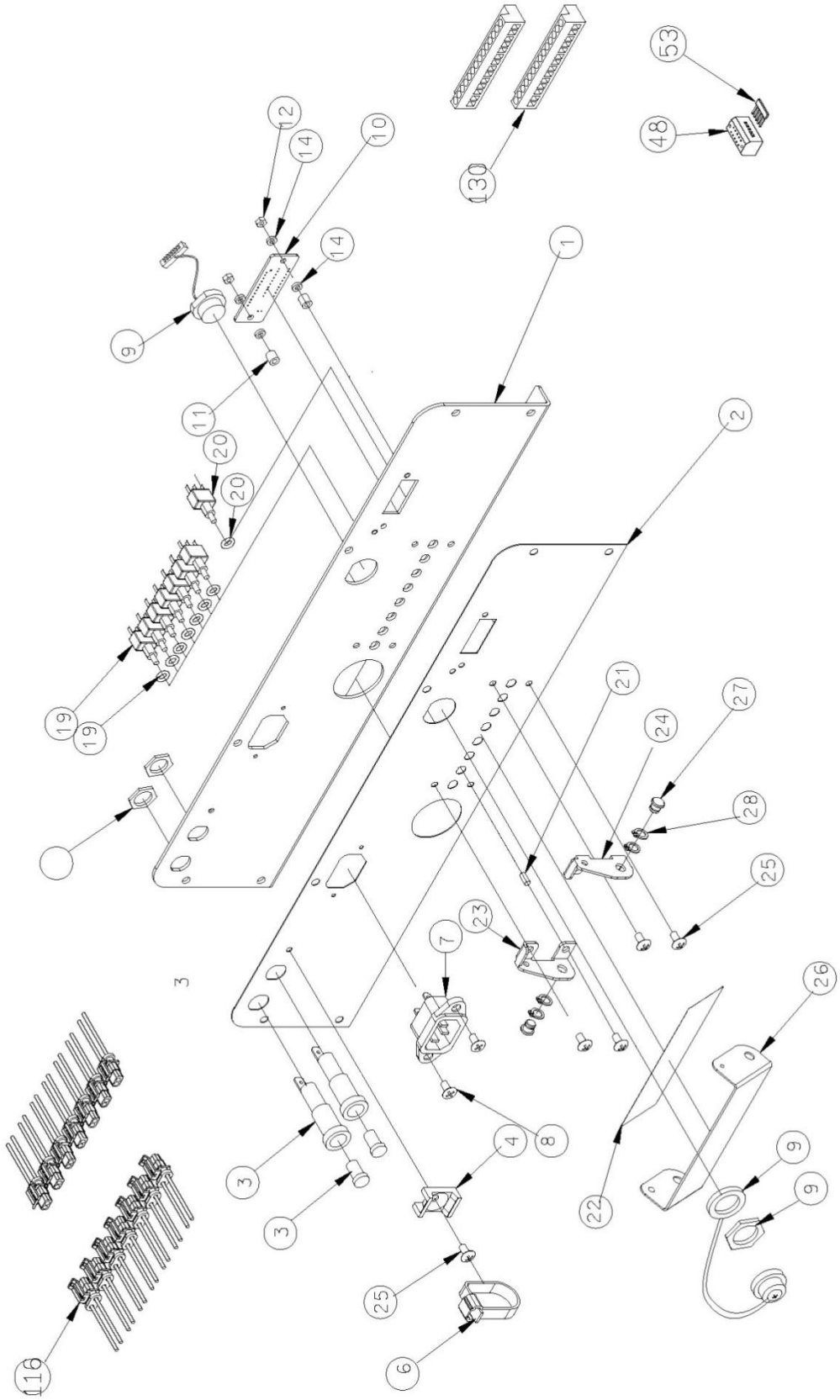
Figure 10-20



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000102v01	6-Fold Rotary Directional Valve Block	1	
002	SH0009	Hexagonal Screw Cap 1/16"PT	14	
003	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
004	CP000912	Pilot Pin	6	
005	CP001960	Compression Spring,d1xD4xP1.6xL8.4	12	
006	SO0060	O-ring d7x1 NOK	12	
007	CP000913	Ball Socket	12	
008	SO0027	O-ring d7.5x1.5	12	
009	SH0027	Steel Ball SUJ2/52100,4mm,40#	10	
010	CP000915	Compression Spring,d0.2xD2.7xP1.2xL9.6	12	
011	CP001952	Limit Washer For Rotary Valve	12	
012	CP000911v00.1	Seal Cover	12	
013	CP000096v00.1	60μm Filter	14	
014	CP000103	Rotary Shaft	1	
015	SS0083	Hexagon Set Screw M5x0.8x8, Nickel-coating	4	
016	SO0013	Oil Seal, TC 24 40 8(NOK)	2	
017	CP000104	Rear Cove of Rotary Valve	1	
018	SS0032	Cross-recessed Head Screw M4x0.7x8, Nickel-Coating	10	
019	CP000107	L050 Shaft coupling	1	
020	CP000106	Fixing Panel of Motor for Rotary Valve	1	
021	CP000684v01	Motor for Rotary Valve With Wires	1	
022	SW0022	Spring Washer D3	3	
023	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	7	
024	CP000105	Front Cover of Rotary Valve	1	
025	SS0064	Hexagonal Spacer, 3P-1CM	4	
027	ASM0089	Encoding Plate Assembly	1	
031	SP0003	Parallel Keys 4x4x10L	1	
032	SF0003	External Retaining Ring STW-12, Nickel-Coating	1	
033	ASM0027V00.2	4-set Photo Interrupter PCB Assembly	1	
034	SS0005	Hexagon Set Screw M5x0.8x6, Nickel-Coating	2	
037	CP000158	Rotary Valve Fix Board	1	
039	SS0084	Hexagon Countersunk Socket Screw M6x1.0x12, Nickel-Coating	2	

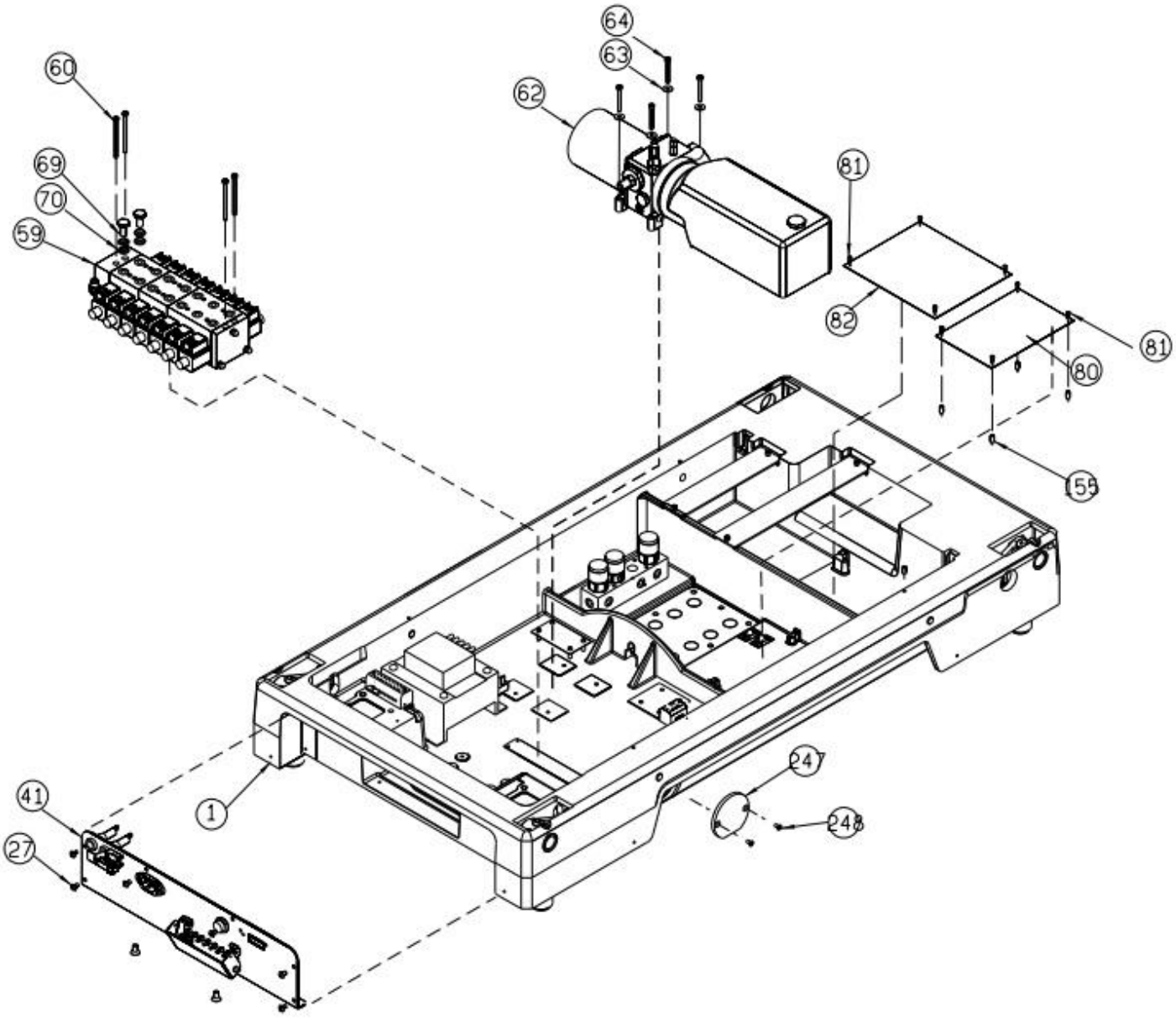
Assembly: Interface Plate (7-Fold Solenoid Valve / Foot Pump)
BOM No: ASM0018v01~19v01

Figure 10-21



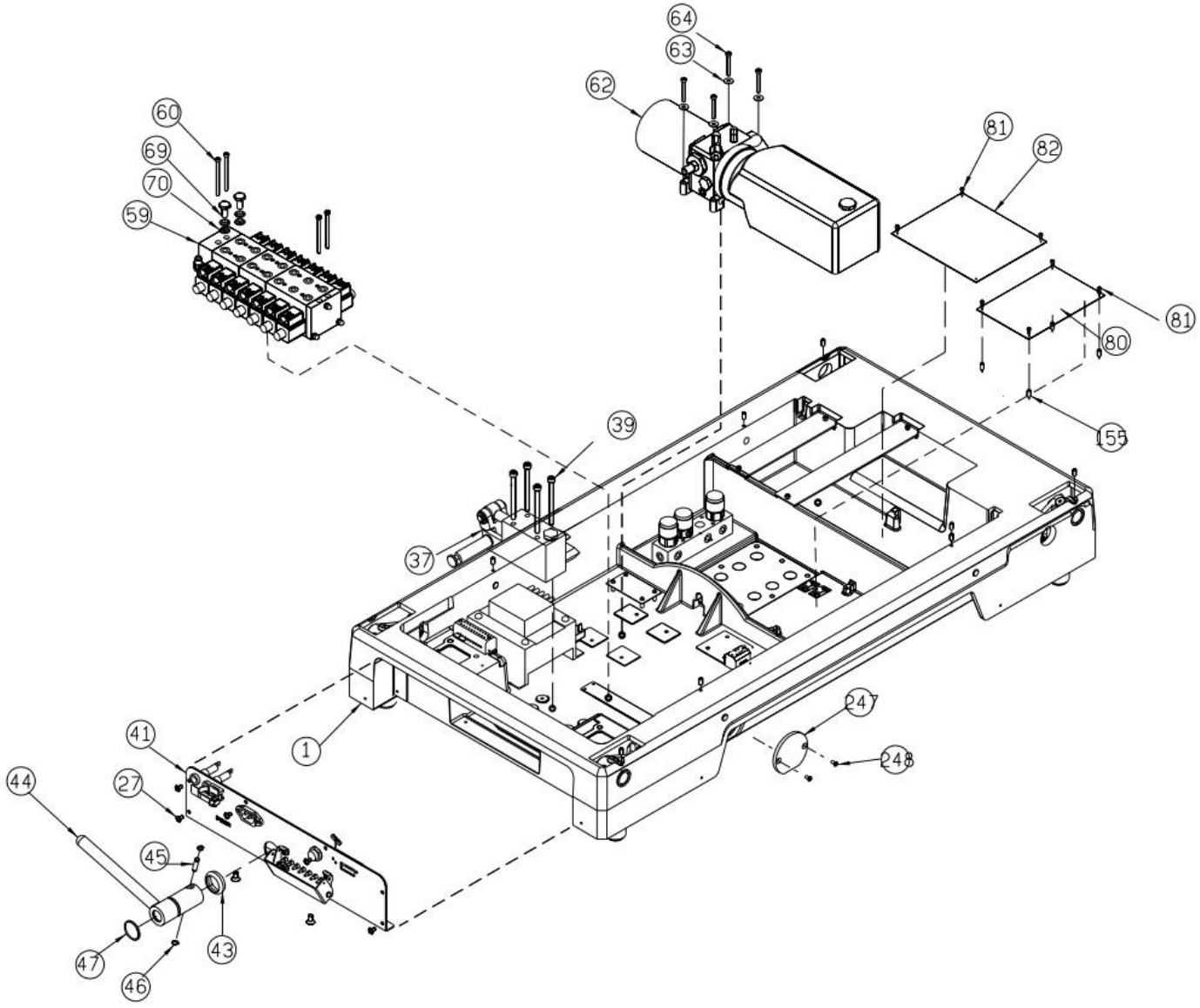
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000088	Solenoid Valve Control Panel	1	
002	CP000091v00.1	Solenoid Valve Control Panel Label(With Foot Pump)	1	For ASM0018v01
002	CP000091v00.1	Solenoid Valve Control Panel Label	1	For ASM0019v01
003	EF0008	Fuse Arming Test Experiment Base FEU 0031.1764	2	
004	EW0007	Saddle Type Tie Mount, HC-2S	1	
006	EW0004	Wire Collect Tie, PCT-140BK	1	
007	CP000643v01	AC Power Socket with Cable	1	
008	SS0020	Cross-recessed Countersunk Socket Screw M3x0.5x8, SUS	2	
009	CP000153	Foot Control BOX Cable C97-C0H-MF09S600	1	
010	ASM0025v00.2	Power indicating PCB Assembly	1	
011	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
012	SS0035	Hexagonal Nut M3x0.5, Nickel-Coating	2	
014	SW0055	Nylon Washer W6x3.1x1-N66	4	
019	CP000668	Override Switch with Cable	7	
020	CP000673	Override Enable Switch with Cable	1	
021	ES0003	Toggle Cap, T1-3	1	
022	CP000140	Override Switch Label	1	
023	CP000142	Override Switch Fixing Plate(L)	1	
024	CP000143	Override Switch Fixing Plate(R)	1	
025	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	5	
026	CP000141	Override Switch Cover	1	
027	CP000144	Override Switch Fixing Pin	2	
028	SF0005	External Retaining Ring STW-6, Nickel-Coating	4	
048	EW0196	Terminal PM2.5N-5P	1	
053	EW0198	Jumper CSC-2.5-05PS	1	
116	CP000669	Solenoid Valve Cable	14	
130	EN0019	Terminal, 5ESDV-14P	2	

Assembly: Base Assembly with Solenoid Valve
BOM No: ASM0034v04
Figure 10-22



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0043v03	Base Assembly with Hydraulic Floor-Lock	1	
027	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	8	
041	ASM0019v01	Interface Panel (Solenoid valve 7 Fold)	1	
059	ASM0010v01	7-Fold Solenoid Valve Assembly	1	
060	SS0051	Hexagon Socket Head Screw M4x0.7x60, Nickel-Coating	4	
061	SH0019	Nylon Tube ¼"	0.25	
062	ASM0002	Single Directional Hydraulic Power Unit	1	
063	SW0052	Flat Washer D5.3x10x1.0	4	
064	SS0062	Hexagon Socket Head Screw M5x0.8x25, Nickel-Coating	4	
065	CP000330	Hydraulic Tube,HH-028878-360L	1	
069	CP000291V00.1	Screw for Single Hydraulic Tubes	1	
070	SW0027	Bonded Seal, BS-212	5	
076	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	1	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	1	
080	ASM0022v02.3	Driver PCB Assembly For Solenoids	1	
081	SS0054	Cross-recessed Head Screw M3x0.5x8, Nickel-Coating	8	
082	ASM0021v02.3	Main Control PCB Assembly	1	
105	CP000656	Cable, Power LED	1	
110	CP000664	Signal Cable, 10p(L260)	1	
111	CP000665	Signal Cable, 8p(L320)	1	
112	CP000666	Power Wire for Driver PCB, 0V (L450)	1	
113	CP000667	Power Wire for Driver PCB, 24V (L450)	1	
128	EN0016	Terminal, 5ESDV-02P	3	
131	CP000699	Voltage Detection Cable	1	
156	CP000693	4P Signal Cable(for Solenoid Valve)	1	
247	CP000938	Waterproof cover of Foot Pump	1	
248	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	

Assembly: Back Set of Aluminum Frame
Assembly: Base Assembly with Solenoid Valve & Foot Pump
BOM No: ASM0032
BOM NO.: ASM0037v04
Figure 10-23
~~Figure 10-18~~



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0043v03	Base Assembly with Hydraulic Floor-Lock	1	
027	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	8	
037	ASM0005v00.2	Foot Pump Assembly	1	
038	SH0018	Nylon tube D10	0.25	
039	SS0048	Hexagon Socket Head Screw M6x1.0x75, Nickel-Coating	4	
041	ASM0018v01	Interface Panel (Solenoid valve 7 Fold/Foot Pump)	1	
043	CP000044	Watertight Ring of Foot Pump	1	
044	CP000030	Pedal Pole of Foot Pump	1	
045	CP000036	Turning Pin of Foot Pump	1	
046	SF0005	External Retaining Ring STW-6, Nickel-Coating	2	
047	CP000035	Pedal Pole Cover	1	
059	ASM0010v01	7-Fold Solenoid Valve Assembly	1	
060	SS0051	Hexagon Socket Head Screw M4x0.7x60, Nickel-Coating	4	
061	SH0019	Nylon Tube 1/4"	0.25	
062	ASM0003	Single Directional Hydraulic Power Unit w/Foot Pump	1	
063	SW0052	Flat Washer D5.3x10x1.0	4	
064	SS0062	Hexagon Socket Head Screw M5x0.8x25, Nickel-Coating	4	
065	CP000330	Hydraulic Tube,HH-028878-360L	2	
069	CP000291V00.1	Screw for Single Hydraulic Tubes	1	
070	SW0027	Bonded Seal, BS-212	5	
076	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	1	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	1	
080	ASM0022v02.3	Driver PCB Assembly For Solenoids	1	
081	SS0054	Cross-recessed Head Screw M3x0.5x8, Nickel-Coating	8	
082	ASM0021v02.3	Main Control PCB Assembly	1	
084	EB0002	Sealed Lead Acid Battery, WP2.3-12	2	
098	CP000679	Cable, Backup Battery Series	1	
099	CP000651	Cable, Backup Battery(BAT-2)	1	
100	CP000652	Cable, Backup Battery(BAT+2)	1	
105	CP000656	Cable, Power LED	1	
110	CP000664	Signal Cable, 10p(L260)	1	
111	CP000665	Signal Cable, 8p(L320)	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
112	CP000666	Power Wire for Driver PCB, 0V (L450)	1	
113	CP000667	Power Wire for Driver PCB, 24V (L450)	1	
128	EN0016	Terminal, 5ESDV-02P	3	
131	CP000699	Voltage Detection Cable	1	
155	SS0064	Hexagonal Spacer, 3P-1CM	4	
156	CP000693	4P Signal Cable(for Solenoid Valve)	1	
247	CP000938	Waterproof cover of Foot Pump	1	
248	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	

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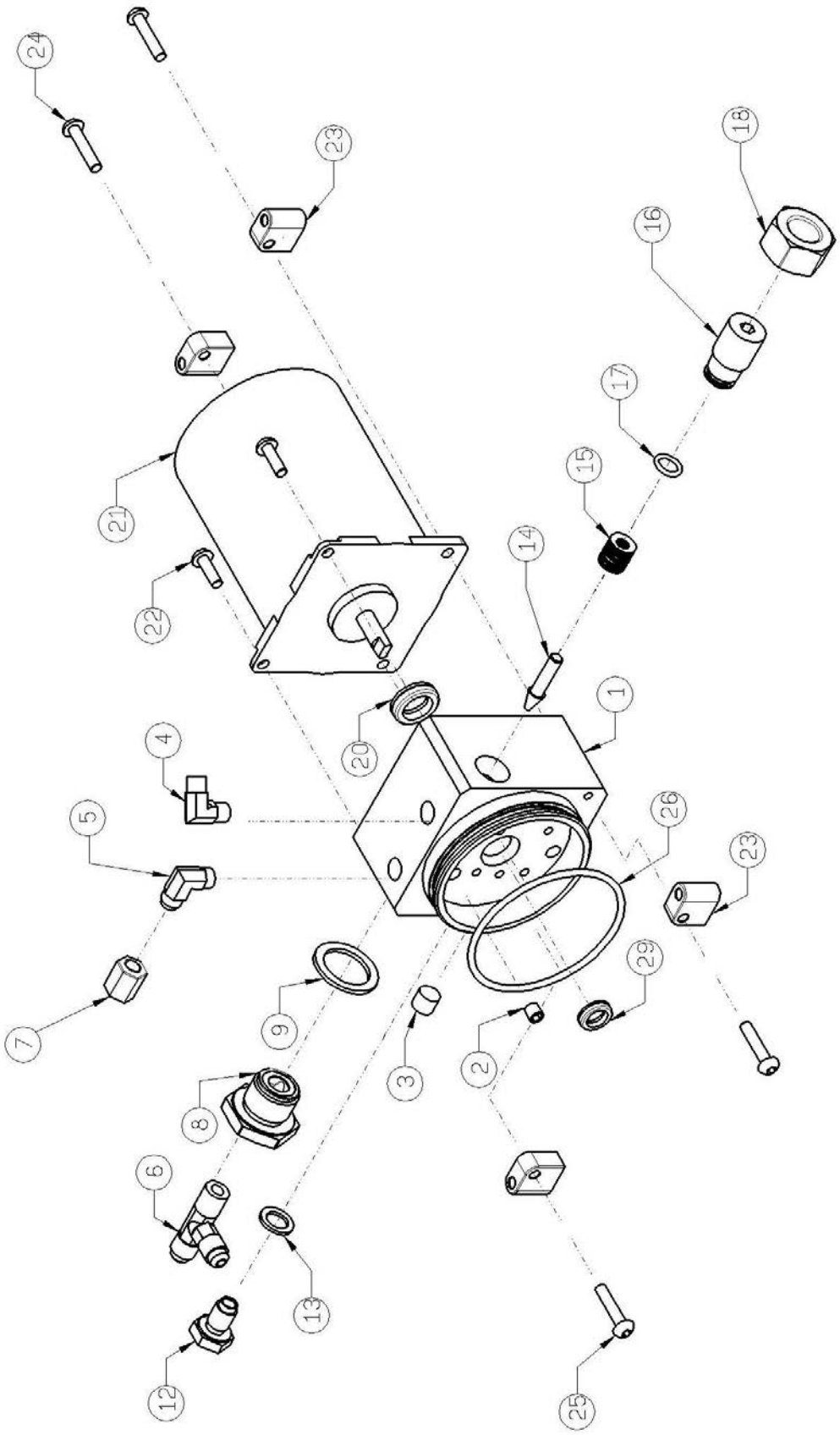
Assembly: Single Directional Pump Block Motor Assembly
BOM No: ASM0039

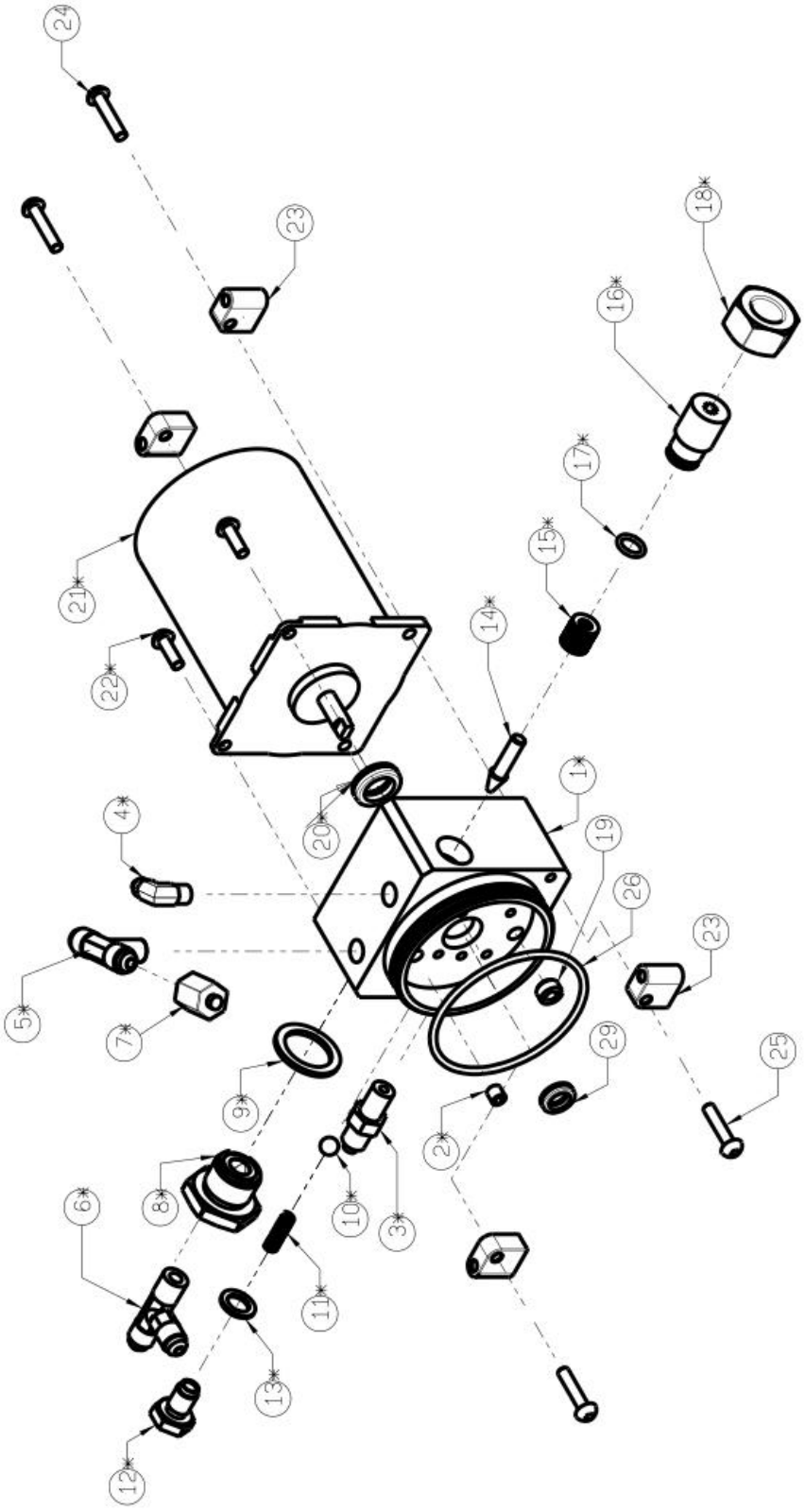
Figure 10-24



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000022v00.2	Single Directional Pump Block, 8cm	1	
002	SH0009	Hexagonal Screw Cap 1/16"PT	1	
003	SH0010	Hexagonal Screw Cap 1/4"PT	1	
004	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
005	SH0005	Elbow Brass Flared Fitting, LIN1/4Hx1/8"PT, Copper	1	
006	SH0023	T-Shaped Brass Flared Fitting,H05-T102 1/8PT*LIN1/4	1	
007	SH0012	Brass Flared Screw Cap 1/4"H, Iron Coating-Zinc	1	
008	CP000021	25μm High-pressure Filter	1	
009	SW0017	Bonded Seal, BS-324	1	
012	CP000011	Check Valve Cover	1	
013	SW0018	Bonded Seal, BS-217	1	
014	CP000019	Relief	1	
015	SW0020	Disc Spring D6.2x12.5x0.5,B136205	18	
016	CP000018	Relief Screw	1	
017	SO0009	O-ring d11.5x2, G70	1	
018	SS0060	Hexagonal Nut M18x1.5, Nickel-Coating	1	
020	SO0010	Screw Seal Cover TC 8 22 7(NOK, AE0158-A4)	1	
021	CP000009	Motor,DC82x2432120L000	1	
022	SS0116	Hexagon Button Head Screw M5x0.8x12, Nickel-Coating	2	
023	CP000017	Cushion	4	
024	SS0114	Hexagon Button Head Screw M5x0.8x25, Nickel-Coating	2	
025	SS0117	Hexagon Button Head Screw M5x0.8x20, Nickel-Coating	2	
026	SO0012	0 Ring D25x3,G70	1	
027	EW0191	14AWG-Bullet Socket(Male)	1	
028	EN0032	14AWG-Bullet Terminal(Male)	1	
029	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	

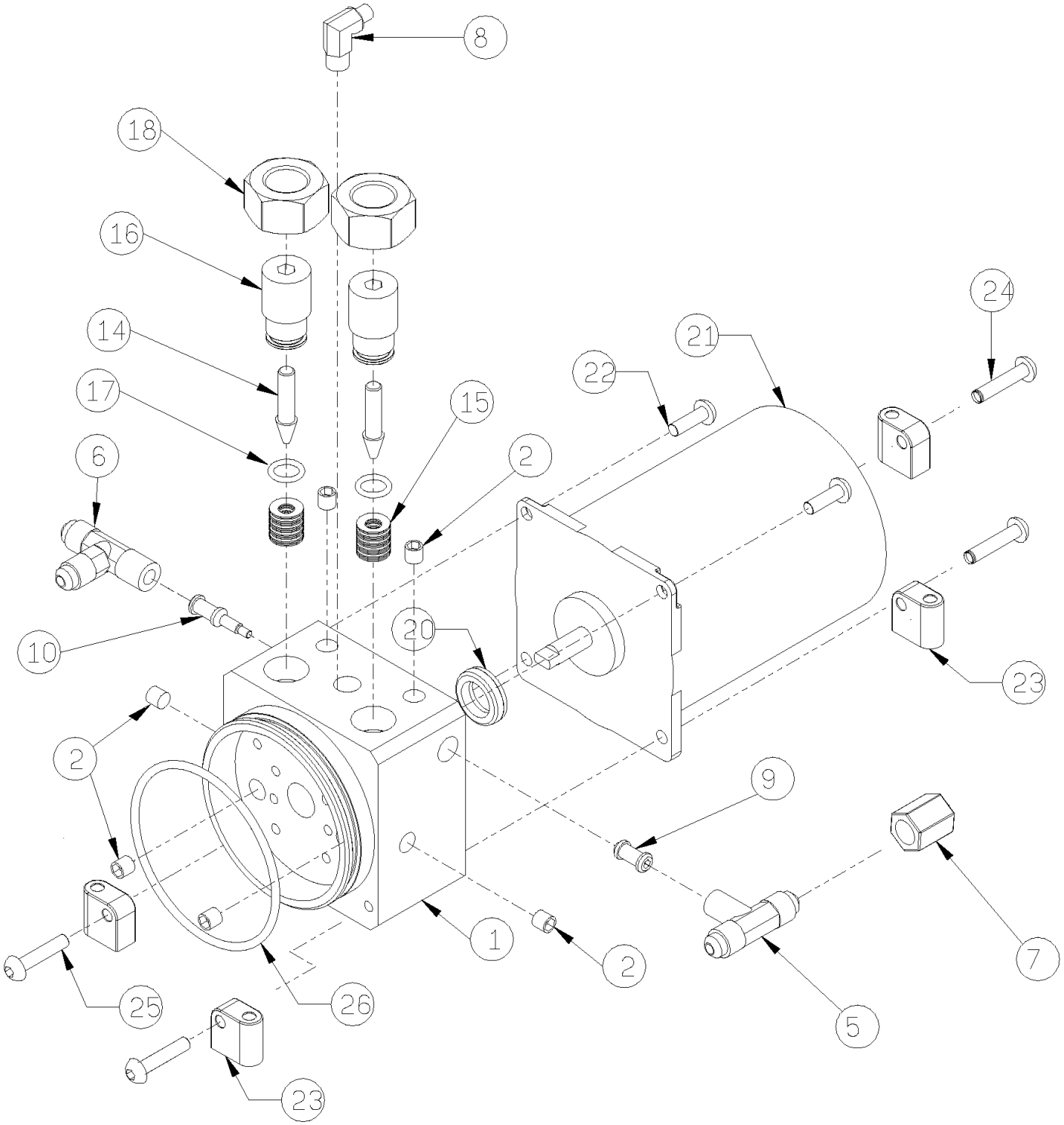
Assembly: Single Directional Pump Block Motor (Foot Pump) Assembly
BOM NO.: ASM0040

Figure 10-25



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000022v00.2	Single Directional Pump Block, 8cm	1	
002	SH0009	Hexagonal Screw Cap 1/16"PT	1	
003	SH0020	Straight Fitting, High Speed, NP10x1/4"PT, Copper	1	
004	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
005	SH0014	T-Shaped Brass Flared Fitting,H04-T102 1/8PT, Copper	1	
006	SH0023	T-Shaped Brass Flared Fitting,H05-T102 1/8PT*LIN1/4	1	
007	SH0012	Brass Flared Screw Cap 1/4"H, Iron Coating-Zinc	1	
008	CP000021	25μm High-pressure Filter	1	
009	SW0017	Bonded Seal, BS-324	1	
010	SH0003	Steel Ball SUJ2/52100,8mm,40#	1	
011	CP000012v00.1	Compression Spring,d0.4xD5.6xP2x20L	1	
012	CP000011	Check Valve Cover	1	
013	SW0018	Bonded Seal, BS-217	1	
014	CP000019	Relief	1	
015	SW0020	Disc Spring D6.2x12.5x0.5,B136205	18	
016	CP000018	Relief Screw	1	
017	SO0009	O-ring d11.5x2, G70	1	
018	SS0060	Hexagonal Nut M18x1.5, Nickel-Coating	1	
019	CP000096v00.1	60μm Filter	1	
020	SO0010	Screw Seal Cover TC 8 22 7(NOK, AE0158-A4)	1	
021	CP000009	Motor,DC82x2432120L000	1	
022	SS0116	Hexagon Button Head Screw M5x0.8x12, Nickel-Coating	2	
023	CP000017	Cushion	4	
024	SS0114	Hexagon Button Head Screw M5x0.8x25, Nickel-Coating	2	
025	SS0117	Hexagon Button Head Screw M5x0.8x20, Nickel-Coating	2	
026	SO0012	0 Ring D25x3,G70	1	
027	EW0192	14AWG-Bullet Socket(Female)	1	
028	EN0032	14AWG-Bullet Terminal(Male)	1	
029	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	

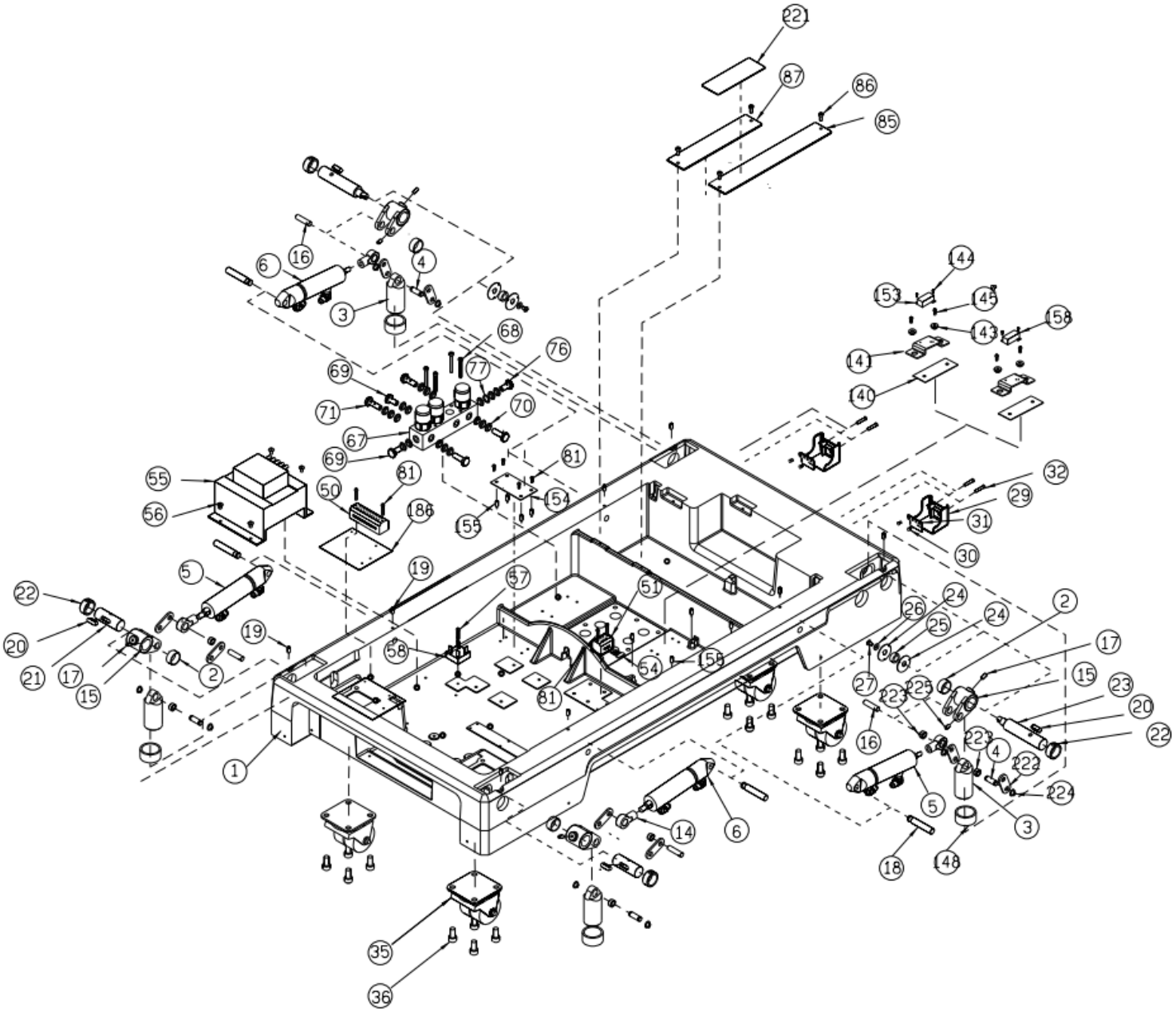
Assembly: Bidirectional Pump Block Motor Assembly
BOM NO.: ASM0041
Figure 10-26



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000023v00.2	Bidirectional Pump Block	1	
002	SH0009	Hexagonal Screw Cap 1/16"PT	6	
005	SH0014	T-Shaped Brass Flared Fitting,H04-T102 1/8PT, Copper	1	
006	SH0023	T-Shaped Brass Flared Fitting,H05-T1021/8PT*LIN1/4	1	
007	SH0012	Brass Flared Screw Cap 1/4"H, Iron Coating-Zinc	1	
008	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
009	CP000024	Bidirectional Pilot Valve(Female)	1	
010	CP000025	Bidirectional Pilot Valve(Male)	1	
014	CP000019	Relief	2	
015	SW0020	Disc Spring D6.2x12.5x0.5,B136205	36	
016	CP000018	Relief Screw	2	
018	SS0060	Hexagonal Nut M18x1.5, Nickel-Coating	2	
020	SO0010	Screw Seal Cover TC 8 22 7(NOK, AE0158-A4)	1	
021	CP000009	Motor,DC82x2432120L000	1	
022	SS0116	Hexagon Button Head Screw M5x0.8x12, Nickel-Coating	2	
023	CP000017	Cushion	4	
024	SS0114	Hexagon Button Head Screw M5x0.8x25, NickelCoating	2	
025	SS0117	Hexagon Button Head Screw M5x0.8x20, Nickel Coating	2	
026	SO0012	0 Ring D25x3,G70	1	
027	EW0191	14AWG-Bullet Socket(Male)	1	
028	EN0032	14AWG-Bullet Terminal(Male)	1	
029	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	

Assembly: Base Assembly with Hydraulic Floor-Lock
BOM No: ASM0043v03

Figure 10-27



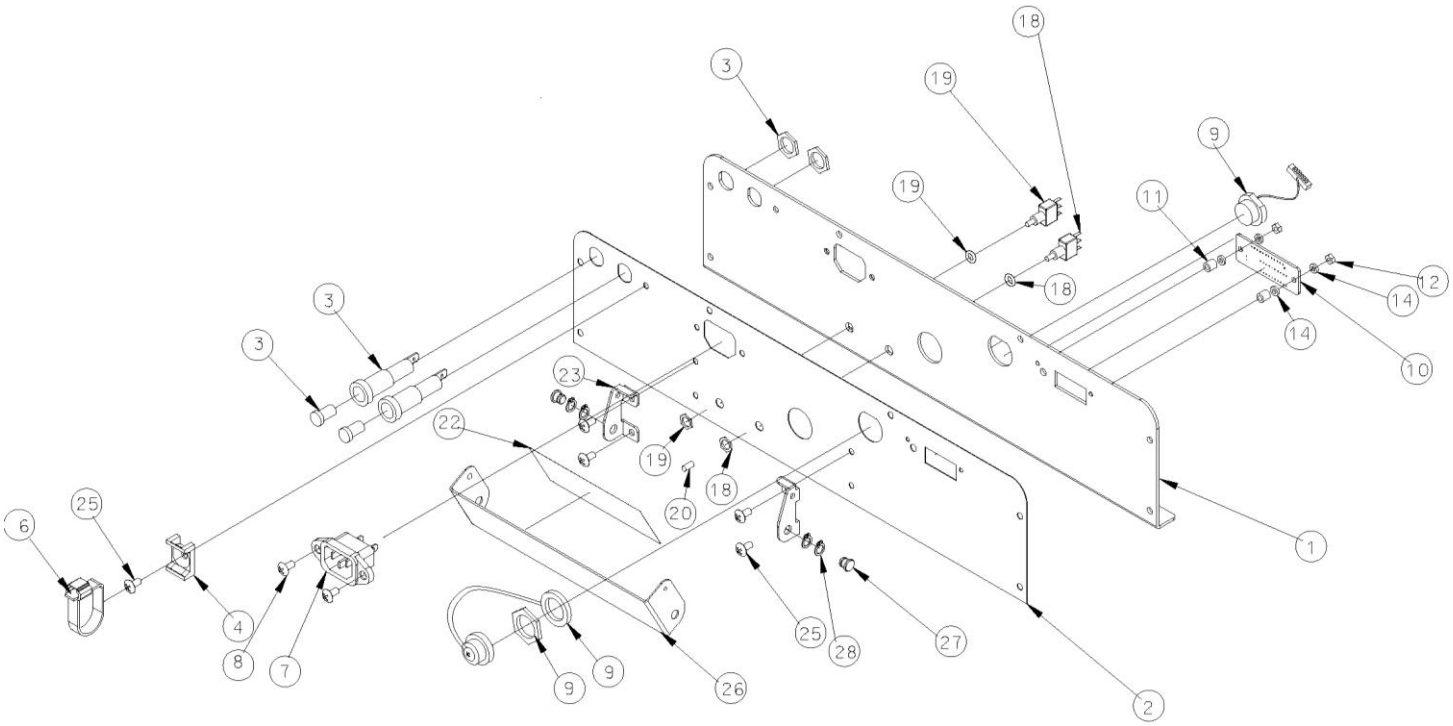
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000007v02.2	Base For Hydraulic Floor Lock	1	
002	SB0023	Oilless Bush LFB-2010	4	
003	CP000080v02	Hydraulic Floor Lock Stud	4	
004	CP002441	Rod Pin of Floor Lock Stud	4	
005	CP000200v01	d20D30S37 Bidirectional Cylinder(LF-RB)	2	
006	CP000724v01	d20D30S37 Bidirectional Cylinder(RF-LB)	2	
008	CP000333	Hydraulic Tube,BH-095815-750L	2	
009	CP000334	Hydraulic Tube, BH-095815-580L	2	
010	CP000335	Hydraulic Tube,BH-095815-1150L	1	
012	CP000338	Hydraulic Tube,BH-095815-850L	1	
013	CP000339	Hydraulic Tube,BH-095815-1270L	3	
014	CP000274v01	Rod Head of Cylinder	4	
015	CP000084V03	Hydraulic Floor Lock Cam	4	
016	CP000072v01	Rod Pin of Cylinder for Brake	4	
017	SS0005	Hexagon Set Screw M5x0.8x6, Nickel-Coating	4	
018	CP000097	Fix Pin of Cylinder for Brake	4	
019	SS0038	Hexagon Set Screw M5x0.8x10, SUS	8	
020	SP0002	Parallel Keys 6x6x20L	4	
021	CP000086v00.1	Cam Axle	2	
022	CP000061v00.1	Fixing Ring for Cam Axle	4	
023	CP000085v00.1	Floor Lock Detective Pin	2	
024	CP000099v01	Light Blocking Plates	4	
025	SW0014	Nylon Spacer SPO16x10x7-N66	2	
026	SW0032	Nylon Washer W11x5.1x1-N66	2	
027	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	2	
029	CP000163v00.1	Transparent PCB Cover	2	
030	SS0003	Cross-recessed Truss Head Screw M3x0.5x6, Nickel-Coating	4	
031	ASM0026v00.1	2-set Photo Interrupter PCB Assembly	2	
032	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	4	
033	CP000657	Cable, Floor Lock	1	
034	CP000680	Cable, Brake(L)	1	
035	SZ0003	Caster, 550P-N2-50	4	
036	SS0025	Hexagon Socket Head Screw M8x1.25x16, Nickel-Coating	16	

050	ASM0169v02	Terminal PM4-11P Assembly	1	
051	EW0197	Terminal PM2.5N-3P	1	
054	EW0200	Jumper CSC-2.5-03PS	1	
055	CP000136v00.1	Insulation Transformer(300VA)	1	
056	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	4	
057	SS0050	Cross-recessed Head Screw M4x0.7x20, Nickel-Coating	1	
058	ED0001	Bridge Rectifier,600V/50A,KBPC5006	1	
067	ASM0012	3-Way Pressure Switch Assembly	1	
068	SS0052	Hexagon Socket Head Screw M4x0.7x40, Nickel-Coating	4	
069	CP000291v00.1	Screw for Single Hydraulic Tubes	2	
070	SW0027	Bonded Seal, BS-212	19	
071	CP000292v00.1	Screw for Double Hydraulic Tubes	4	
072	CP000384	Hydraulic Tube,BB-028878-900L	1	
073	CP000375	Hydraulic Tube,BB-095815-760L	1	
076	CP000295v00.1	Screw for Single Hydraulic Tubes(L)	1	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	1	
081	SS0054	Cross-recessed Head Screw M3x0.5x8, Nickel-Coating	8	
085	CP000093v00.1	Battery Setting Plate(Long)	1	
086	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	4	
087	CP000094v00.1	Battery Setting Plate(Short)	1	
092	CP000644v01	Transformer Cable (Capacitor)	1	
094	CP000646	Cable, Bridge Rectifier AC-	1	
095	CP000647	Cable, Bridge Rectifier AC+	1	
096	CP000648	Cable, Bridge Rectifier DC-	1	
097	CP000649	Cable, Bridge Rectifier DC+	1	
102	CP000653	Cable, Primary Battery(+)(SW)	1	
104	CP000655	Cable, Primary Battery(WP14-)(BAT-)	1	
117	CP000676	Base Grounding Wire	1	
124	CP000067	High Voltage Warning Label	1	
128	EN0016	Terminal, 5ESDV-02P	3	
129	EN0018	Terminal, 5ESDV-06P	1	
140	CP000782v01	Si-Insulation Plate HTOM20-721	2	
141	CP000780v00.1	Cooling plate	2	

143	CP000781	Isolation Plate	4	
144	SS0158	Cross-recessed Head Screw M2x0.4x6, Nickel-Coating	4	
145	SS0030	Cross-recessed Head Screw M4x0.7x12, Nickel-Coating	4	
148	CP000789v00.1	INNER RING IR303525 for Hydraulic Floor-Lock	4	
153	CP000836	Aluminum Housed Wirewound Resistor With Wires	1	
154	ASM0020v00.1	EFT Filter PCB Assembly	1	
155	SS0085	Hexagonal Spacer, 3P-2CM	8	
156	CP000817	Cable of Filter, 0V	1	
157	CP000818	Cable of Filter, 24V	1	
158	CP000878	Aluminum Housed Wirewound Resistor With Wires(5W 0.5Ω)	1	
159	CP000917	Manual Reading Label	4	
171	EW0035	O TYPE CABLE MARKER OM-2/0V	4	
172	EW0036	O TYPE CABLE MARKER OM-2/AC-	1	
173	EW0037	O TYPE CABLE MARKER OM-2/SEL	1	
174	EW0038	O TYPE CABLE MARKER OM-2/AC+	1	
175	EW0039	O TYPE CABLE MARKER OM-2/DC-	1	
176	EW0041	O TYPE CABLE MARKER OM-2/DC+	1	
177	EW0164	O TYPE CABLE MARKER OM-2/24+	3	
182	EW0048	O TYPE CABLE MARKER OM-2/WP14+	1	
183	EW0165	O TYPE CABLE MARKER OM-2/BAT+	1	
184	EW0047	O TYPE CABLE MARKER OM-2/WP14-	1	
185	EW0166	O TYPE CABLE MARKER OM-2/BAT-	1	
186	CP000990v00.1	Mylar, Plastic Sheet(Mylar, Plastic Sheet)	1	
219	EW0104	OC TYPE CABLE MARKER OC-3/L	4	
220	EW0109	OC TYPE CABLE MARKER OC-3/U	4	
221	CP002421	Battery connection Label	1	
222	CP002444	Floor Lock Connect Plate	8	
223	SB0084	Shell Type Needle Roller Bearings TLA-810Z	8	
224	SF0007	External Retaining Ring STW-8, Nickel-Coating	8	
225	SS0040	Hexagon Set Screw M4x0.7x5, Nickel-Coating	4	

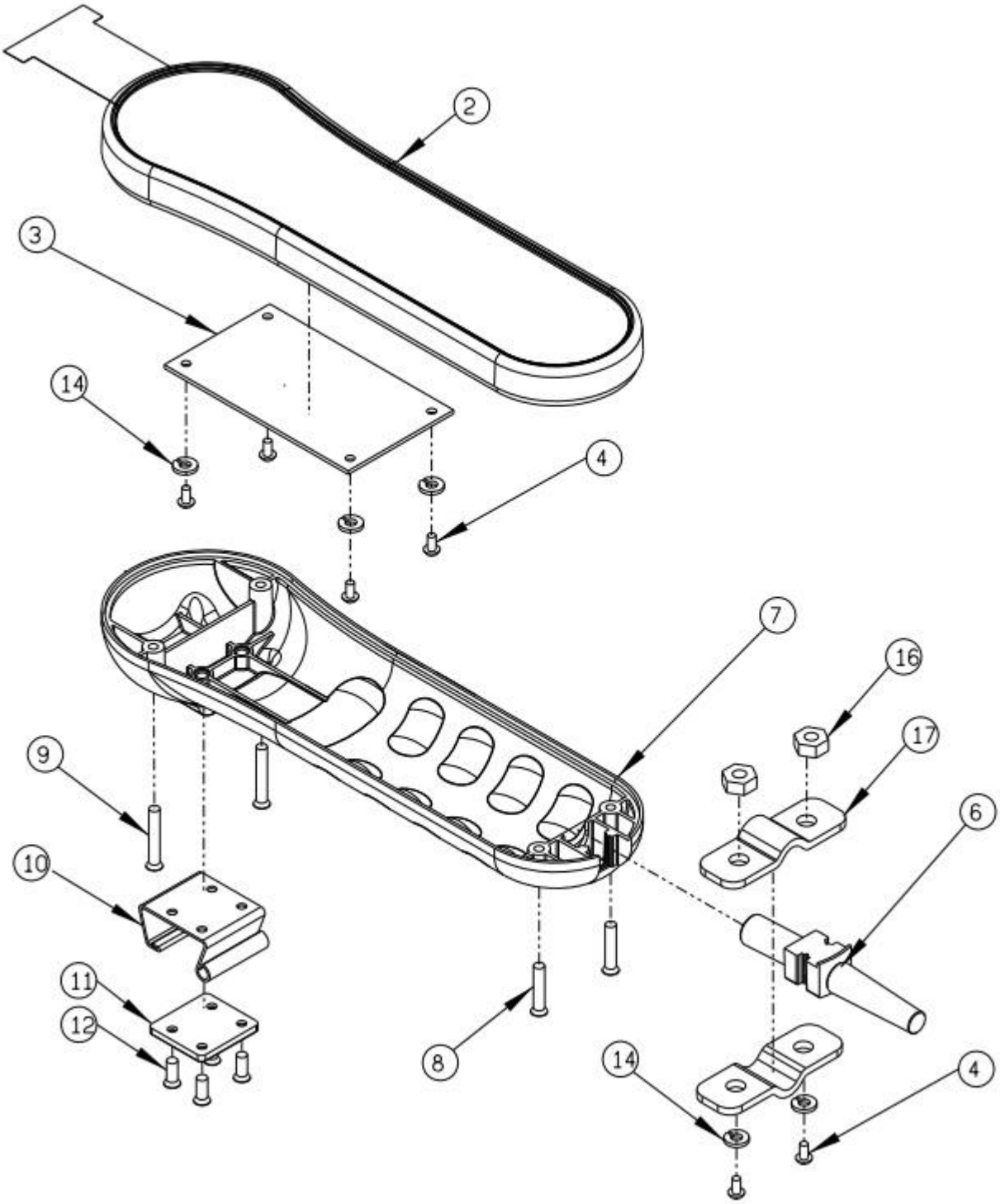
Assembly: Interface Plate (Leg &Lock/Rotary Valve)
BOM No: ASM0045v01

Figure 10-28



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000087v01.1	Rotary Valve Control Panel	1	
002	CP000083v01	Rotary Valve Control Panel Label(LEG & LOCK)	1	
003	EF0008	Fuse Arming Test Experiment Base FEU 0031.1764	2	
004	EW0007	Saddle Type Tie Mount, HC-2S	1	
006	EW0004	Wire Collect Tie, PCT-140BK	1	
007	CP000643v01	AC Power Socket with Cable	1	
008	SS0020	Cross-recessed Countersunk Socket Screw M3x0.5x8, SUS	2	
009	CP000153	Foot Control BOX Cable C97-C0H-MF09S600	1	
010	ASM0025v00.2	Power indicating PCB Assembly	1	
011	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
012	SS0035	Hexagonal Nut M3x0.5, Nickel-Coating	2	
014	SW0055	Nylon Washer W6x3.1x1-N66	4	
018	CP000686	Override Switch with Cable(Terminal)	1	
019	CP000682	Override Enable Switch with wires	1	
020	ES0003	Toggle Cap, T1-3	1	
022	CP000863	Rotary Valve Control Cover Label(LEG & LOCK)	1	
023	CP000142	Override Switch Fixing Plate(L)	1	
024	CP000143	Override Switch Fixing Plate(R)	1	
025	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	5	
026	CP000867	Override Switch Cover(L)	1	
027	CP000144	Override Switch Fixing Pin	2	
028	SF0005	External Retaining Ring STW-6, Nickel-Coating	2	

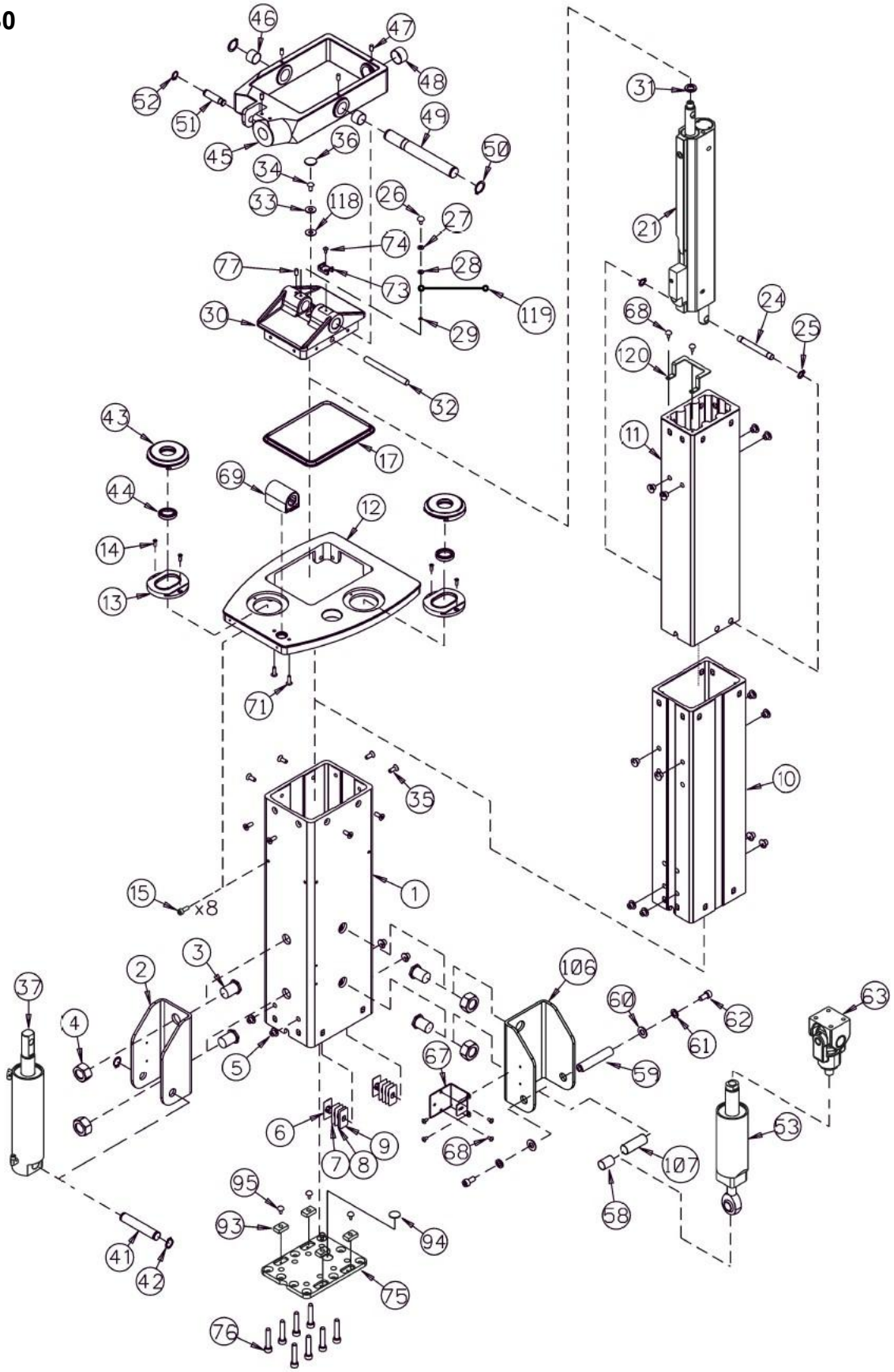
Assembly: Hand Pendant Assembly (T1000S)
BOM No: ASM0053v00.1
Figure 10-29



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
002	CP000277	Membranous Key Pad(T1000S)	1	
003	ASM0024v00.2	Hand Pendant PCB Assembly	1	
004	SS0054	Cross-recessed Head Screw M3x0.5x8	6	
006	CP000151v00.2	Coil Cable, C97-CHX-FM08S835	1	
007	CP000282	Lower Cover of Hand Pendant	1	
008	SS0044	Cross-recessed Countersunk Socket Screws M3x0.5x20	2	
009	SS0045	Cross-recessed Countersunk Socket Screws M3x0.5x25	2	
010	CP000285	Spring Hook	1	
011	CP000286	Fixing Plate	1	
012	SS0046	Cross-recessed Countersunk Socket Screws M3x0.5x10, SUS	4	
013	FW0002v01.3	ASM0024 Hand Pendant Firmware	1	
014	SW0022	Spring Washer d3	6	
016	SS0035	Hexagonal Nut M3x0.5, Nickel-Coating	2	
017	CP001985	Clip Plate	2	

Assembly: Central Column (45cm) Assembly
BOM No: ASM0055v01

Figure 10-30



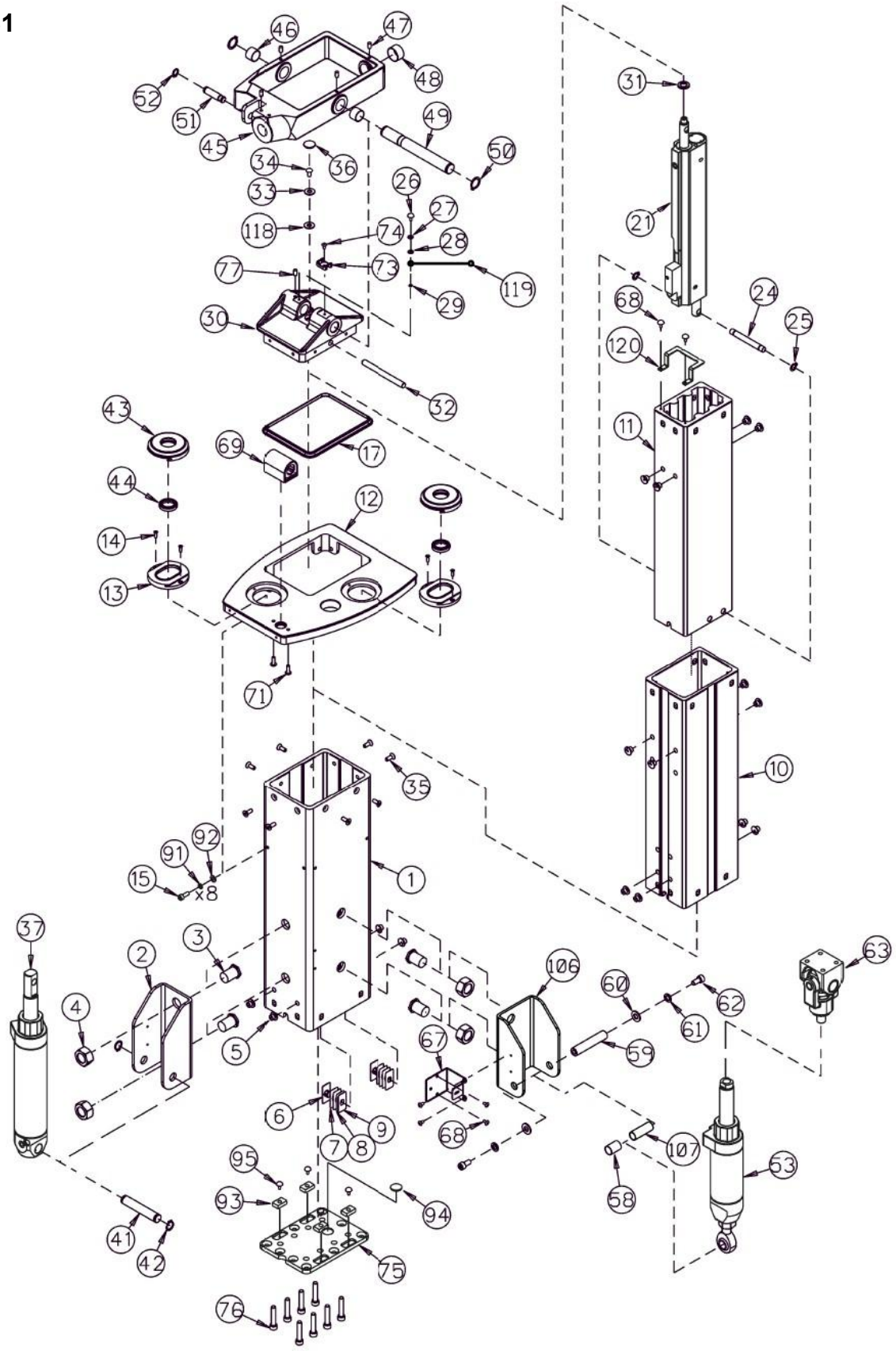
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP001814v01	L382 Outer Sleeve of Central Column	1	
002	CP000214v00.1	Cylinder Bracket	1	
003	CP000215v00.2	Hexagon Bolt,M20x1.5	4	
004	SS0220	Hexagonal Nut M20x1.5x14, Nickel-Coating	4	
005	CP000280	Sleeve Blocking Stud	16	
006	CP000216	Plastic Packing	32	
007	CP000218v00.1	Rectangular Washer,0.5mm Bronze	16	
008	CP000217	Rectangular Washer,0.1mm SUS	80	
009	CP000238	Rectangular Washer,0.05mm SUS	32	
010	CP001813v01	L349 Middle Sleeve of Central Column	1	
011	CP001812v01	L350 Inner Sleeve of Central Column	1	
012	CP000258v00.1	4-Sectional Telescopic Protective Sleeve Cap	1	
013	CP000224	Plastic Sliding Base	2	
014	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	4	
015	SS0098	Hexagon Button Head Screw M6x1.0x12, SUS	8	
017	CP000223	Rubber Cover	1	
021	ASM0084v01.1	ST 466 Bidirectional Cylinder	1	
024	CP000219v00.1	Rod Pin, D10x84	1	
025	SF0002	External Retaining Ring STW-10, Nickel-Coating	2	
026	SS0032	Cross-recessed Head Screw M4x0.7x8, Nickel-Coating	1	
027	SW0015	Spring Washer D4x6.3x0.8t	1	
028	SW0007	Flat Washer D4x10x1.0	1	
029	SW0024	Star Washer D4	1	
030	CP000222v00.1	Top Cover of Central Column	1	
031	CP000950	Flat Washer D12x24x2.5	1	
032	CP000259v00.1	Rod Pin, D10x106	1	
033	SW0016	Flat Washer D8x17x1.6	1	
034	SS0126	Cross-recessed Truss Head Screw M6x1.0x12, SUS	1	
035	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	8	
036	CP000256	Central Column Waterproof Cap	1	
037	CP001943	d50D58S128.2 Bidirectional Cylinder	1	
041	CP000229	Axle for Trendelenburg Cylinder	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
042	SF0001	External Retaining Ring STW-16, Nickel-Coating	2	
043	CP000225	Sliding Cover	2	
044	SO0003	Dust Sealing, LBH-33D-25d-29.3S-5H	2	
045	CP000227v00.1	Trendelenburg Frame	1	
046	SB0018	Oilless Bush LFB-2015	2	
047	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
048	SB0019	Oilless Bush LFF-2515	1	
049	CP000228	Trendelenburg Axle	1	
050	SF0004	External Retaining Ring STW-20, Nickel-Coating	2	
051	CP000230v00.1	Axle for Rod of Trendelenburg Cylinder	1	
052	SF0003	External Retaining Ring STW-12, Nickel-Coating	1	
053	ASM0230v01	d48D58S52 Bidirectional Cylinder Assembly	1	
058	CP000232v00.1	D16 Long Fixing Sleeves	1	
059	CP000923	Long Axle for Tilt Cylinder	1	
060	SW0012	Flat Washer D10x21x2.0	2	
061	SW0029	Spring Washer d10	2	
062	SS0082	Hexagon Socket Head Screw M10x1.5x16, Nickel-Coating	2	
063	ASM0078v01	Gimbal Joint	1	
067	CP000236	Tubing Bracket Base	1	
068	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	6	
069	ASM0051v00.1	USB Port Housing	1	
071	SS0021	Cross-recessed Truss Head Screw M5x0.8x16, Nickel-Coating	2	
072	EW0009	Nylon Cable Tie,CV-100	6	
073	EW0007	Saddle Type Tie Mount, HC-2S	1	
074	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
075	CP000075v00.3	Central Column Fix Board(3-section)	1	
076	SS0034	Hexagon Socket Head Screw M10x1.5x40, Nickel-Coating	8	
077	SS0013	Hexagon Set Screw M6x1.0x8, Nickel-Coating	1	
093	CP000879	Noise Elimination Block(V1000)	4	
094	CP000898v00.1	Noise Elimination Block(Cylinder)	1	
095	SS0242	Cross-recessed Head Screw M4x0.7x6, Zinc	4	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
		Plating		
101	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
102	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
103	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
104	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
105	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
106	CP000922v00.1	Cylinder Bracket,Wide	1	
107	CP000924v00.1	D16 Long Fixing Sleeves, Stretch	1	
108	CP001991	Hydraulic Tube BH-095815-105L	1	
109	CP000343	Hydraulic TubeBB-095815-1730L	2	
110	CP000377	Hydraulic TubeBB-095815-1980L	2	
111	CP001988	Hydraulic Tube BH-095815-180L	1	
113	CP001989	Hydraulic Tube BB-095815-195L	1	
114	CP001990	Hydraulic Tube BB-095815-130L	1	
115	SW0027	Bonded Seal, BS-212	12	
116	CP000292v00.1	Screw for Double Hydraulic Tubes	4	
118	SW0085	Wave Washer WW-12	1	
119	CP001979	Central Column Ground Wire	1	
120	CP001980	Tube Stand for Inner Sleeve	1	

Assembly: Central Column (22" Stroke) Assembly
BOM No: ASM0058v02.2

Figure 10-31



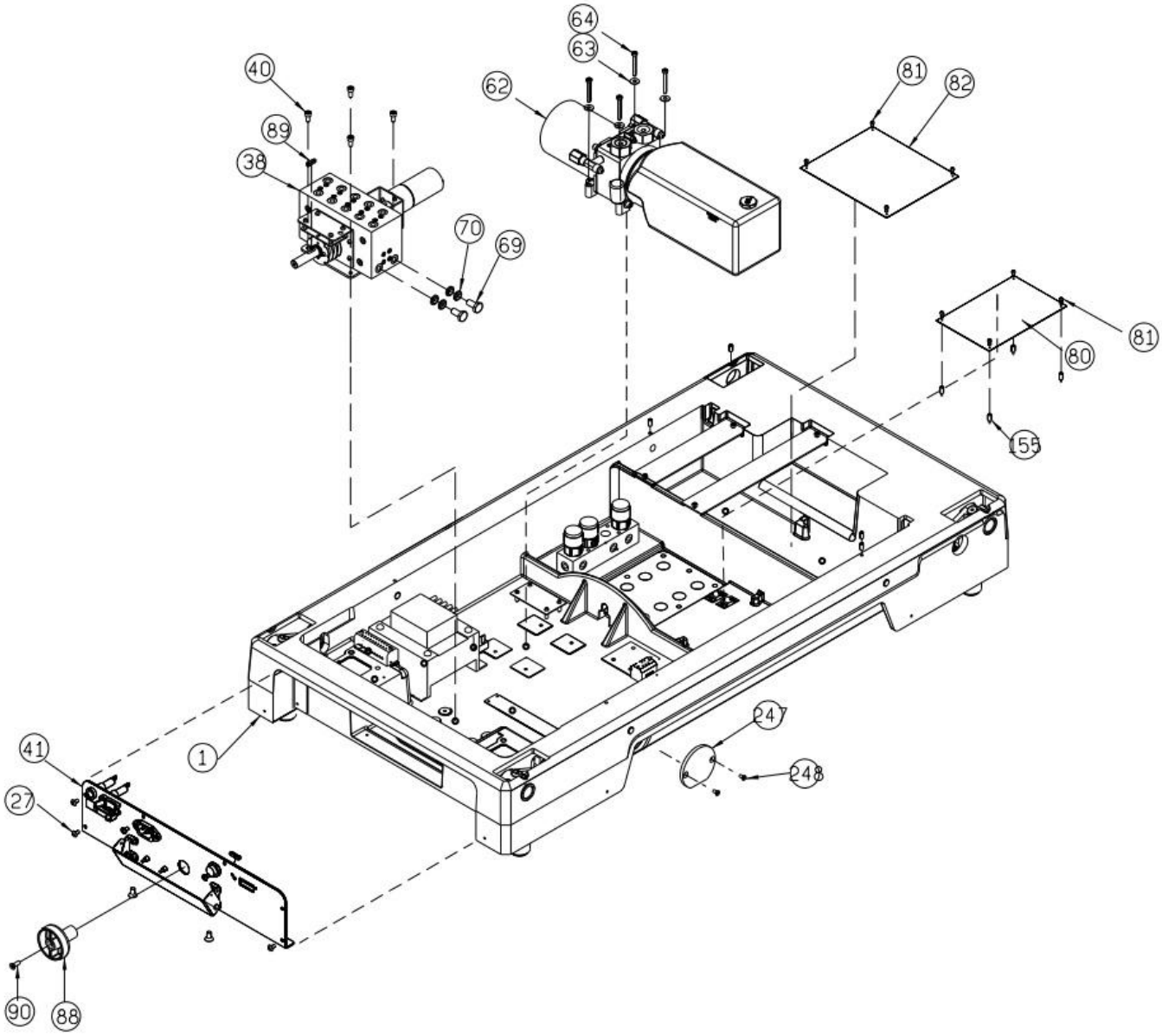
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000213	L496 Outer Sleeve of Central Column	1	
002	CP000214v00.1	Cylinder Bracket	1	
003	CP000215v00.2	Hexagon Bolt,M20x1.5	4	
004	SS0220	Hexagonal Nut M20x1.5x14, Nickel-Coating	4	
005	CP000280	Sleeve Blocking Stud	16	
006	CP000216	Plastic Packing	32	
007	CP000218v00.1	Rectangular Washer,0.5mm Bronze	32	
008	CP000217	Rectangular Washer,0.1mm SUS	80	
009	CP000238	Rectangular Washer,0.05mm SUS	32	
010	CP000212	L467 Middle Sleeve of Central Column	1	
011	CP000210	L468 Inner Sleeve of Central Column	1	
012	CP000258v00.1	4-Sectional Telescopic Protective Sleeve Cap	1	
013	CP000224	Plastic Sliding Base	2	
014	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	4	
015	SS0172	Hexagon Socket Head Screw M6x1.0x16, SUS	8	
017	CP000223	Rubber Cover	1	
021	ASM0083v02.1	ST 560 Bidirectional Cylinder	1	
024	CP000219v00.1	Rod Pin, D10x84	1	
025	SF0002	External Retaining Ring STW-10, Nickel-Coating	2	
026	SS0032	Cross-recessed Head Screw M4x0.7x8, Nickel-Coating	1	
027	SW0015	Spring Washer D4x6.3x0.8t	1	
028	SW0007	Flat Washer D4x10x1.0	1	
029	SW0024	Star Washer D4	1	
030	CP000222v00.1	Top Cover of Central Column	1	
031	CP000950	Flat Washer D12x24x2.5	1	
032	CP000259v00.1	Rod Pin, D10x106	1	
033	SW0016	Flat Washer D8x17x1.6	1	
034	SS0126	Cross-recessed Truss Head Screw M6x1.0x12, SUS	1	
035	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	8	
036	CP000256	Central Column Waterproof Cap	1	
037	CP000978	d50D58S140 Bidirectional Cylinder	1	
041	CP000229	Axle for Trendelenburg Cylinder	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
042	SF0001	External Retaining Ring STW-16, Nickel-Coating	2	
043	CP000225	Sliding Cover	2	
044	SO0003	Dust Sealing, LBH-33D-25d-29.3S-5H	2	
045	CP000227v00.1	Trendelenburg Frame	1	
046	SB0018	Oilless Bush LFB-2015	2	
047	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
048	SB0019	Oilless Bush LFF-2515	1	
049	CP000228	Trendelenburg Axle	1	
050	SF0004	External Retaining Ring STW-20, Nickel-Coating	2	
051	CP000230v00.1	Axle for Rod of Trendelenburg Cylinder	1	
052	SF0003	External Retaining Ring STW-12, Nickel-Coating	1	
053	ASM0229v02	d50D58S55 Bidirectional Cylinder Assembly	1	
058	CP000232v00.1	D16 Long Fixing Sleeves	1	
059	CP000923	Long Axle for Tilt Cylinder	1	
060	SW0012	Flat Washer D10x21x2.0	2	
061	SW0029	Spring Washer d10	2	
062	SS0082	Hexagon Socket Head Screw M10x1.5x16, Nickel-Coating	2	
063	ASM0078v01	Gimbal Joint	1	
067	CP000236	Tubing Bracket Base	1	
068	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	6	
069	ASM0051v00.1	USB Port Housing	1	
071	SS0021	Cross-recessed Truss Head Screw M5x0.8x16, Nickel-Coating	2	
072	EW0009	Nylon Cable Tie,CV-100	6	
073	EW0007	Saddle Type Tie Mount, HC-2S	1	
074	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	1	
075	CP000075v00.3	Central Column Fix Board(3-section)	1	
076	SS0034	Hexagon Socket Head Screw M10x1.5x40, Nickel-Coating	8	
077	SS0013	Hexagon Set Screw M6x1.0x8, Nickel-Coating	1	
091	SW0013	Spring Washer d6,Nickel-Coating	8	
092	SW0008	Flat Washer D6.3x13x1	8	
093	CP000879	Noise Elimination Block(V1000)	4	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
094	CP000898v00.1	Noise Elimination Block(Cylinder)	1	
095	SS0242	Cross-recessed Head Screw M4x0.7x6, Zinc Plating	4	
101	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
102	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
103	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
104	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
105	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
106	CP000922v00.1	Cylinder Bracket,Wide	1	
107	CP000924v00.1	D16 Long Fixing Sleeves, Stretch	1	
109	CP000370	Hydraulic TubeBH-095815-245L	2	
110	CP001973	Hydraulic TubeBB-095815-1650L	1	
111	CP000357	Hydraulic TubeBH-095815-155L	1	
112	CP000343	Hydraulic TubeBB-095815-1730L	1	
113	CP000369	Hydraulic TubeBH-095815-145L	1	
115	SW0027	Bonded Seal, BS-212	12	
116	CP000292v00.1	Screw for Double Hydraulic Tubes	4	
117	CP001974	Hydraulic TubeBB-095815-1850L	2	
118	SW0085	Wave Washer WW-12	1	
119	CP001979	Central Column Ground Wire	1	
120	CP001980	Tube Stand for Inner Sleeve	1	

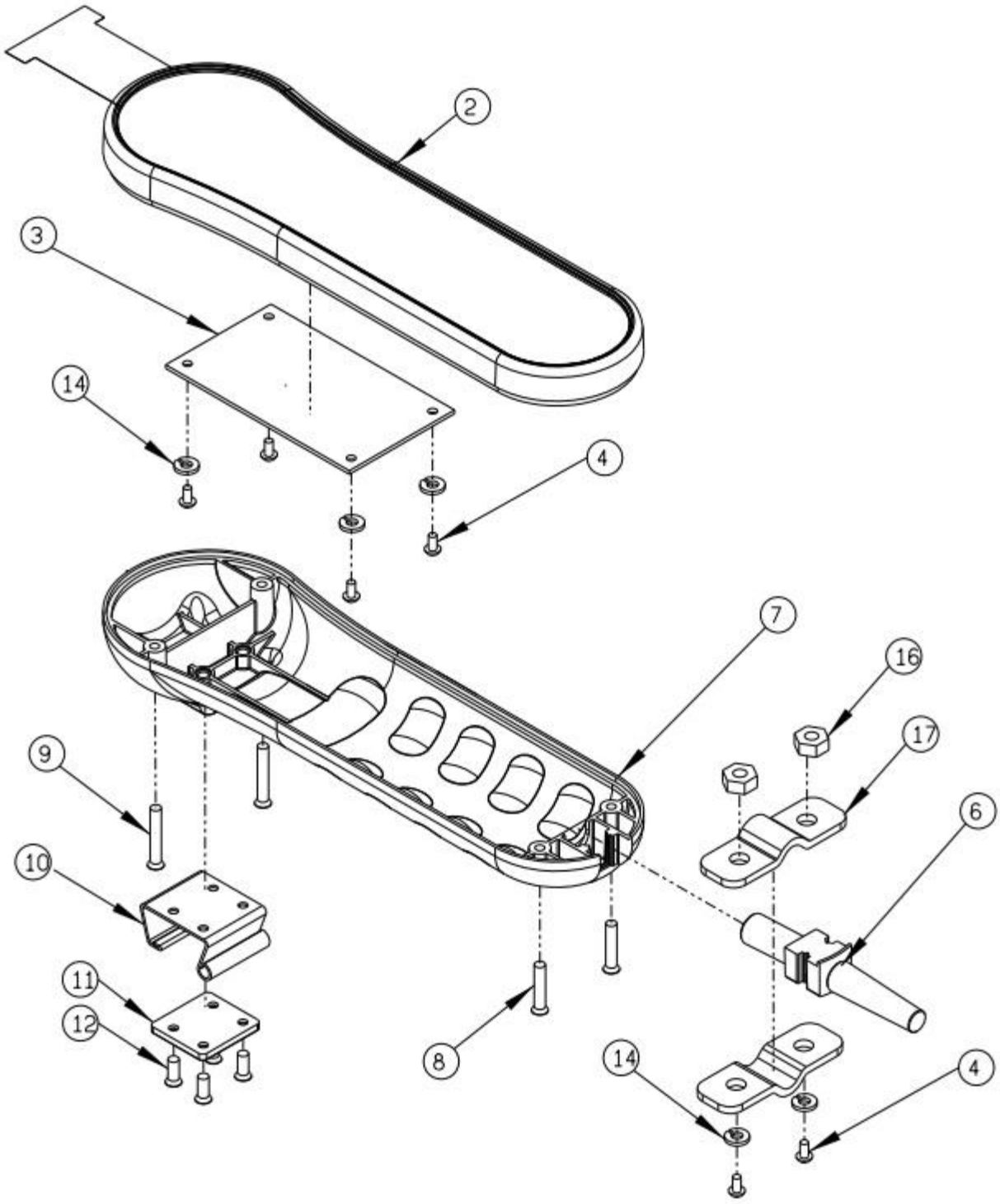
Assembly: Base Assembly with Rotary Valve & Hydraulic Floor-Lock
BOM No: ASM0086v04

Figure 10-32



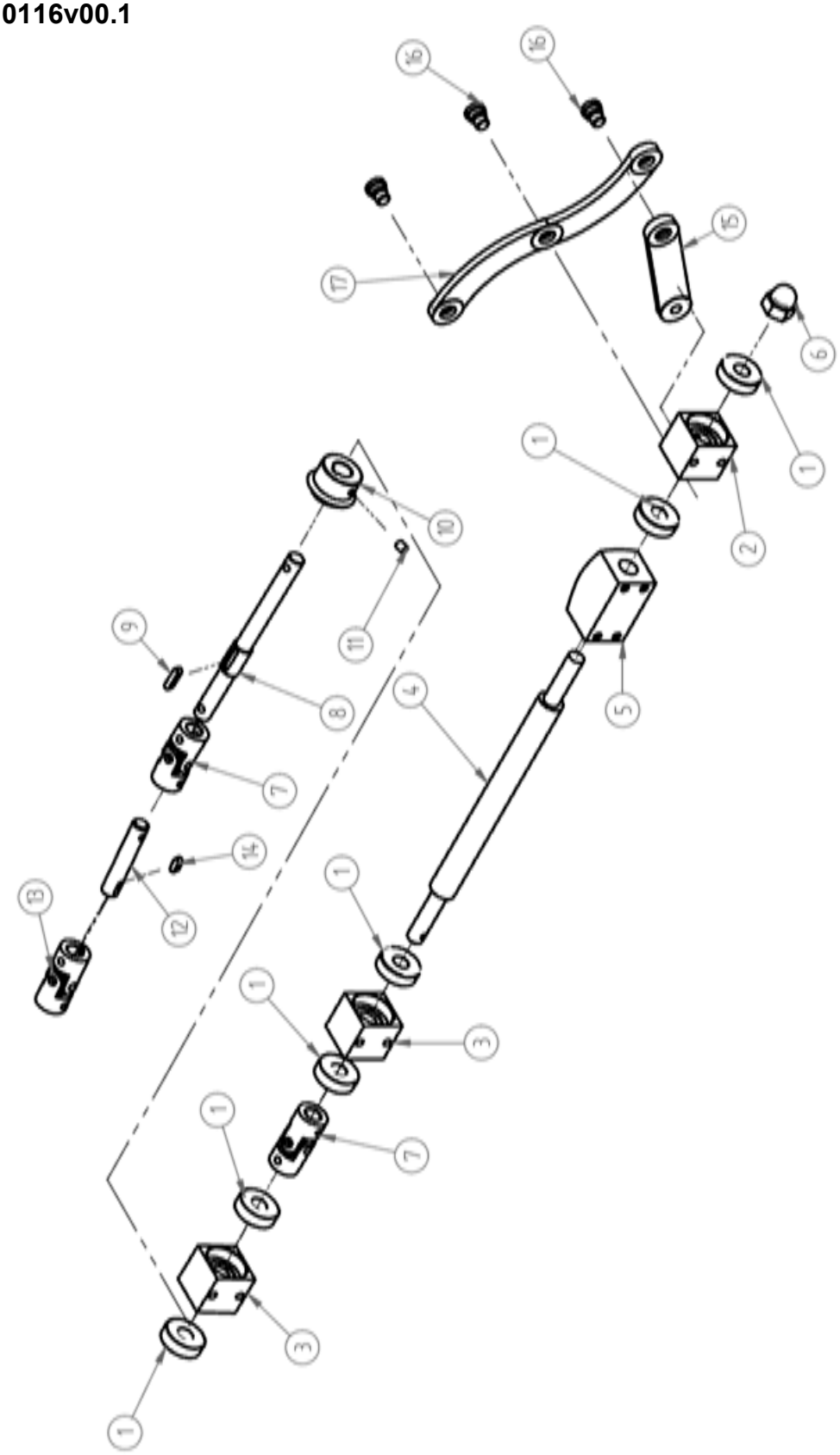
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0043v03	Base Assembly with Hydraulic Floor-Lock	1	
027	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	10	
038	ASM0015v02	6-Fold Rotary Directional Valve Assembly	1	
040	SS0075	Hexagon Socket Head Screw M5x0.8x12, Nickel-Coating	4	
041	ASM0045v01	Interface Panel (Rotary Valve/Leg, Lock) Assembly	1	
061	SH0019	Nylon Tube 1/4"	0.25	
062	ASM0004v00.1	Bidirectional Hydraulic Power Unit	1	
063	SW0052	Flat Washer D5.3x10x1.0	4	
064	SS0062	Hexagon Socket Head Screw M5x0.8x25, Nickel-Coating	4	
065	CP000349	Hydraulic Tube,BH-028878-400L	1	
066	CP000352	Hydraulic Tube, BH-028878-670L	1	
069	CP000291V00.1	Screw for Single Hydraulic Tubes	1	
070	SW0027	Bonded Seal, BS-212	20	
076	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	6	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	6	
080	ASM0023v01.3	Driver PCB Assembly For Rotary Valve	1	
081	SS0054	Cross-recessed Head Screw M3x0.5x8, Nickel-Coating	8	
082	ASM0021v02.3	Main Control PCB Assembly	1	
086	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	4	
088	CP000111	Selection Knob	1	
089	SB0001	Steel Pin 4x9.8mm	1	
090	SS0087	Cross-recessed Countersunk Socket Screw M5x0.8x12, Nickel-Coating	1	
105	CP000656	Cable, Power LED	1	
112	CP000666	Power Wire for Driver PCB, 0V (L450)	1	
113	CP000667	Power Wire for Driver PCB, 24V (L450)	1	
118	CP000683V01	10P+8P Signal Cable	1	
120	CP000688	Cable,4-set Photo Interrupter	1	
128	EN0016	Terminal, 5ESDV-02P	2	
130	EN0017	Terminal, 5ESDV-04P	1	
131	CP000699	Voltage Detection Cable	1	
156	CP000694	4P Signal Cable	1	
247	CP000938	Waterproof cover of Foot Pump	1	
248	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	

Assembly: Hand Pendant Assembly
(V1000) BOM No: ASM0106V00.1v00.1
Figure 10-33



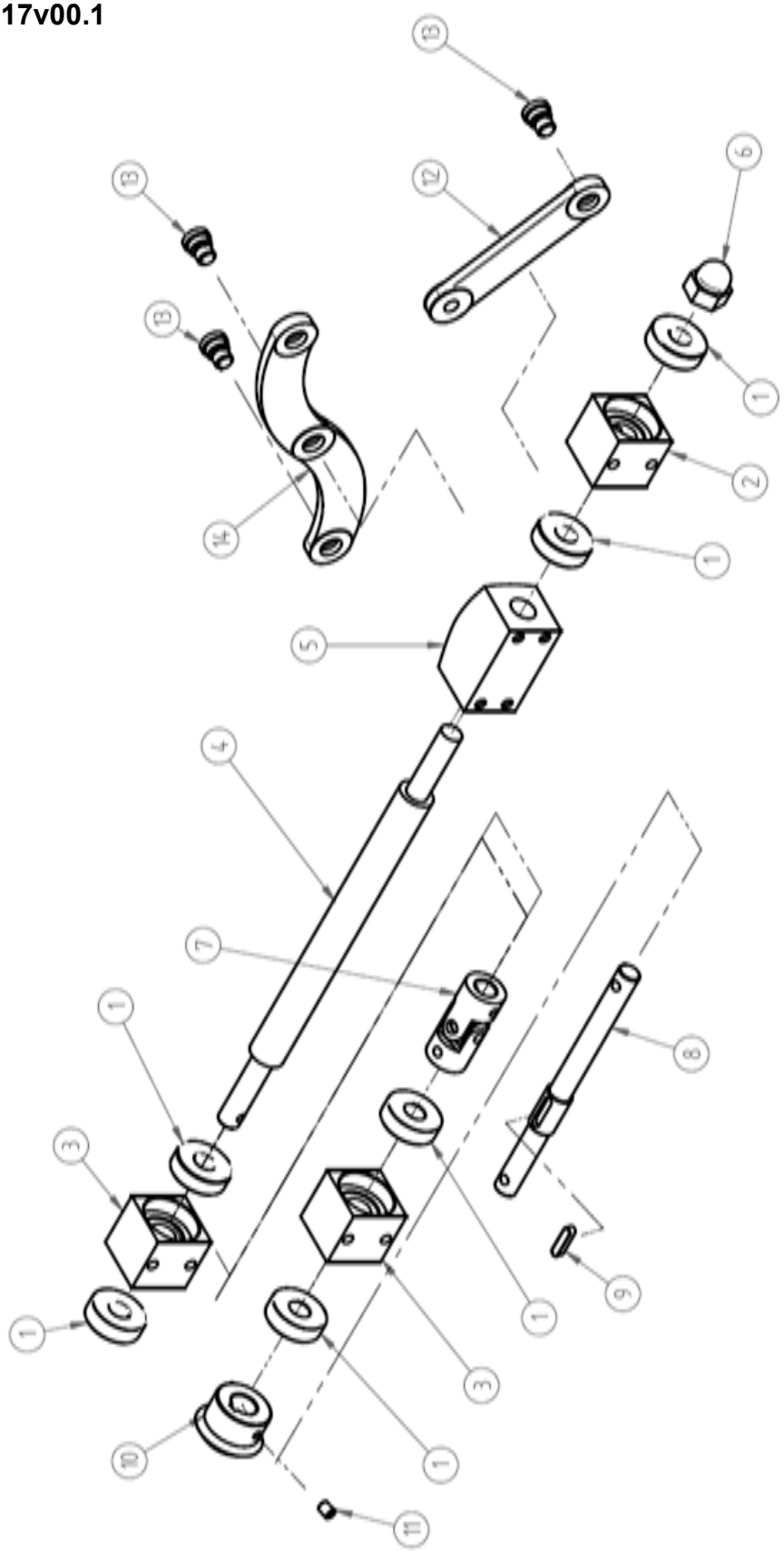
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
002	CP000279	Membranous Key Pad(V1000)	1	
003	ASM0024v00.1	Hand Pendant PCB Assembly	1	
004	SS0002	Cross-recessed Head Screw M3x0.5x6	4	
006	CP000151	Coil Cable, C97-CHX-FM08S835	1	
007	CP000282	Lower Cover of Hand Pendant	1	
008	SS0044	Cross-recessed Countersunk Socket Screws M3x0.5x20	2	
009	SS0045	Cross-recessed Countersunk Socket Screws M3x0.5x25	2	
010	CP000285	Spring Hook	1	
011	CP000286	Fixing Plate	1	
012	SS0046	Cross-recessed Countersunk Socket Screws M3x0.5x10, SUS	4	
013	FW0002v01.3	ASM0024 Hand Pendant Firmware	1	
014	SW0022	Spring Washer d3	6	
016	SS0035	Hexagonal Nut M3x0.5, Nickel-Coating	2	
017	CP001985	Clip Plate	2	

Assembly: Internal Thread Rod Set, Right
BOM No: ASM0116v00.1
Figure 10-34



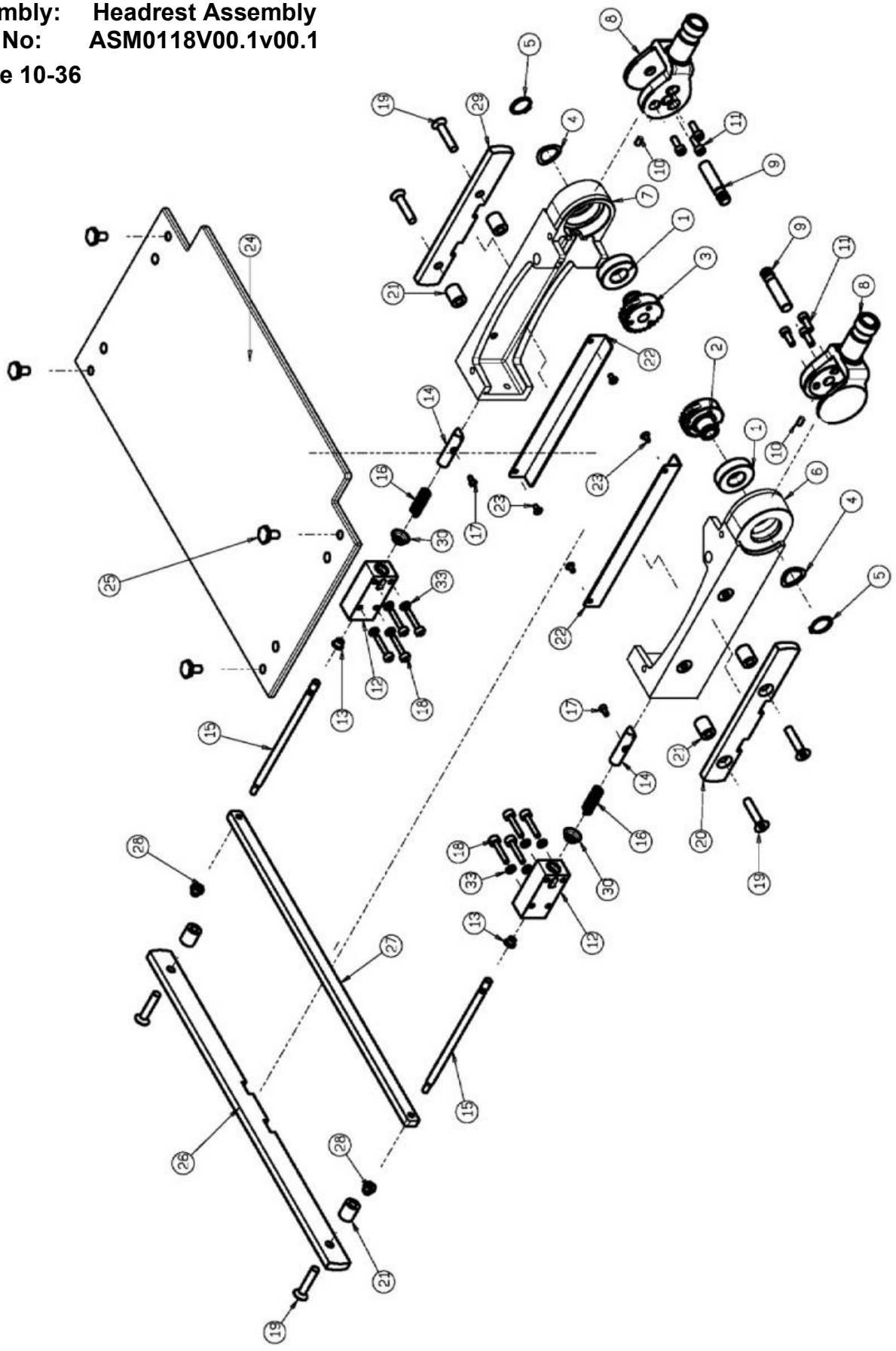
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	SB0002	Ball Bearing 6000zz	6	
002	CP000458	Thread Rod Fixer, Front	1	
003	CP000459	Thread Rod Fixer, Rear	2	
004	CP000454	T-type Thread Rod, Left-handed	1	
005	CP000616v00.1	Left-handed Thread Block of Kidney Elevator, Rear Holes	1	
006	SS0004	Hexagonal Cap Nut M10x1.5,Nickel-Coating	1	
007	ST0001	Universal Joint JCH-10-00A	2	
008	CP000613v00.1	Coupling Shaft, Gear	1	
009	SP0001	Parallel Keys 4x4x16L	1	
010	CP000424	Bevel Gear	1	
011	SS0005	Hexagon Set Screw M5x0.8x6, Nickel-Coating	2	
012	CP000460v00.1	Swing Shaft for Flexible Ratchet, Short	1	
013	ST0002	Universal Joint JCH-10-88A	1	
014	SP0003	Parallel Keys 4x4x10L	1	
015	CP000617	Straight Shaft, Kidney Elevator	1	
016	CP000448Vv00.1	Screw for Kidney Elevator, 13mm	3	
017	CP000427	S Bar, Right	1	

Assembly: Internal Thread Rod Set, Left
BOM No: ASM0117v00.1
Figure 10-35



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	SB0002	Ball Bearing 6000zz	6	
002	CP000458	Thread Rod Fixer, Front	1	
003	CP000459	Thread Rod Fixer, Rear	2	
004	CP000456	T-type Thread Rod, Right-handed	1	
005	CP000602v00.1	Right-handed Thread Block of Kidney Elevator, Rear Holes	1	
006	SS0004	Hexagonal Cap Nut M10x1.5,Nickel-Coating	1	
007	ST0001	Universal Joint JCH-10-00A	1	
008	CP000613v00.1	Coupling Shaft, Gear	1	
009	SP0001	Parallel Keys 4x4x16L	1	
010	CP000424	Bevel Gear	1	
011	SS0005	Hexagon Set Screw M5x0.8x6, Nickel-Coating	1	
012	CP000617	Straight Shaft, Kidney Elevator	1	
013	CP000448v00.1	Screw for Kidney Elevator, 13mm	3	
014	CP000430	S Bar, Left	1	

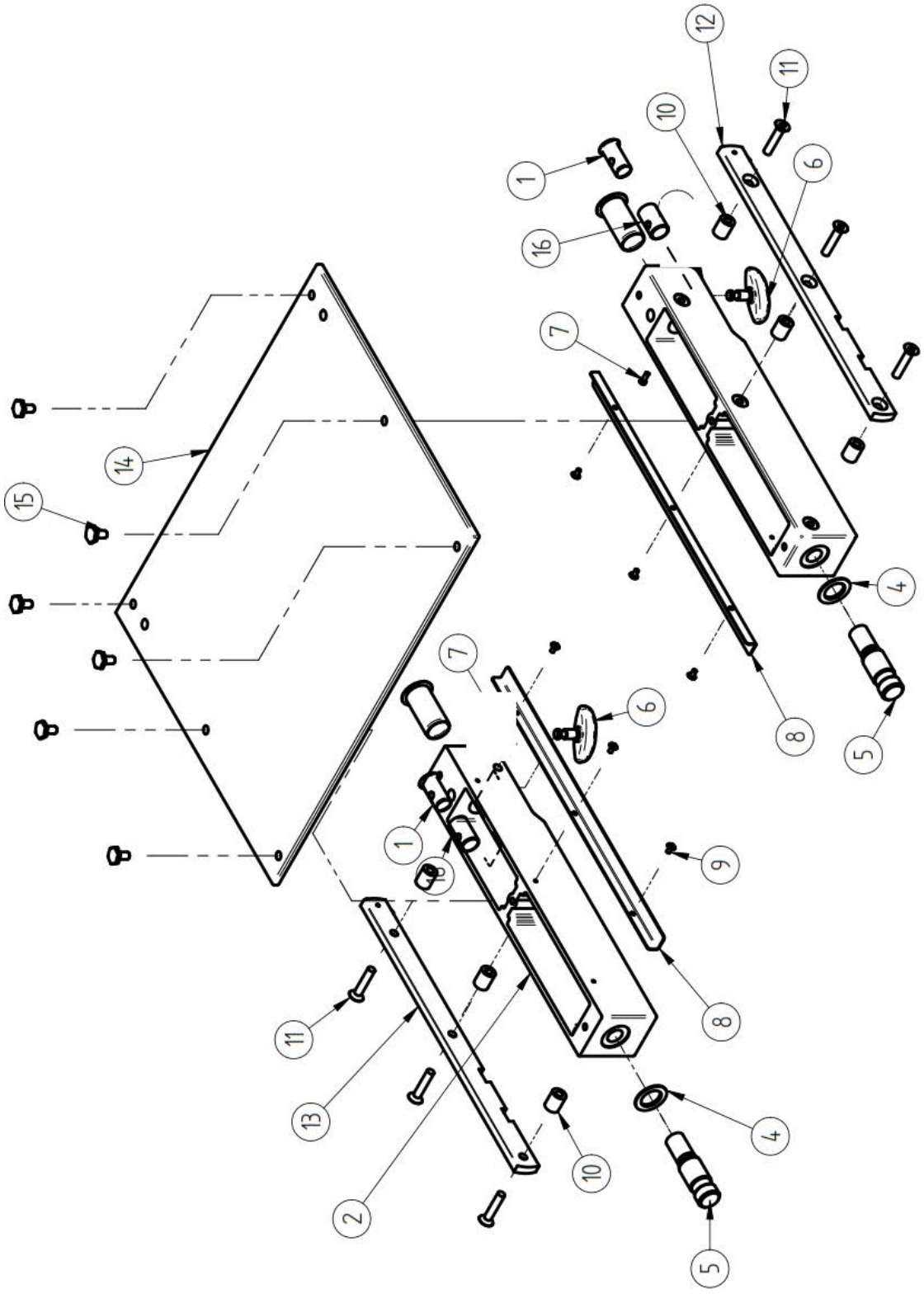
Assembly: Headrest Assembly
BOM No: ASM0118V00.1v00.1
Figure 10-36



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	SB0010	Ball Bearing 6004zz	2	
002	CP000638	Adaptable Ratchet, Right	1	
003	CP000639	Adaptable Ratchet, Left	1	
004	SW0030	Wave Washer WW-20	2	
005	SF0004	External Retaining Ring STW-20, Nickel-Coating	2	
006	CP000641v00.1	Right Frame of Head Section	1	
007	CP000642v00.1	Left Frame of Head Section	1	
008	CP000636	Angular Fixing Shaft	2	
009	CP000640	Pin, Ratchet Positioning	2	
010	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	2	
011	SS0172	Hexagon Socket Head Screw M6x1.0x16, SUS	6	
012	CP000402	Block for Ratchet Fixing	2	
013	SB0040	Oilless Bush LFF-0806	2	
014	CP000408	Angular Fixer, Head Section	2	
015	CP000637	Shaft for Ratchet in Head Section	2	
016	CP000415	Compression Spring, d1xD10.3xP4.0xL34	2	
017	SS0113	Hexagon Socket Head Screw M4x0.7x8, SUS	2	
018	SS0230	Hexagon Socket Head Screw M5x0.8x30, SUS	8	
019	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	6	
020	CP000622v00.1	Right US Side Rail, Head	1	
021	CP000474	Spacer, 19mm	6	
022	CP000635	Cassette Rail, Head	2	
023	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	4	
024	CP000400v00.2	Bakelite Head Plate	1	
025	CP000485	Arc Hexagon Head Screw M8	4	
026	CP000634	Rail, Head	1	
027	CP000620	Pulling Shaft, Head Section	1	
028	SS0073	Hexagonal Cap Nut M6x.10, Nickel-Coating	2	
029	CP000631	Left US Side Rail, Head	1	
030	SB0047	Oilless Bush LFF-1206	2	
031	CP000917	Manual Reading Label	1	
033	SW0069	Flat Washer D5.4x10x1.0,SUS	8	

Assembly: Leg Extension Assembly
BOM No: ASM0119v00.1

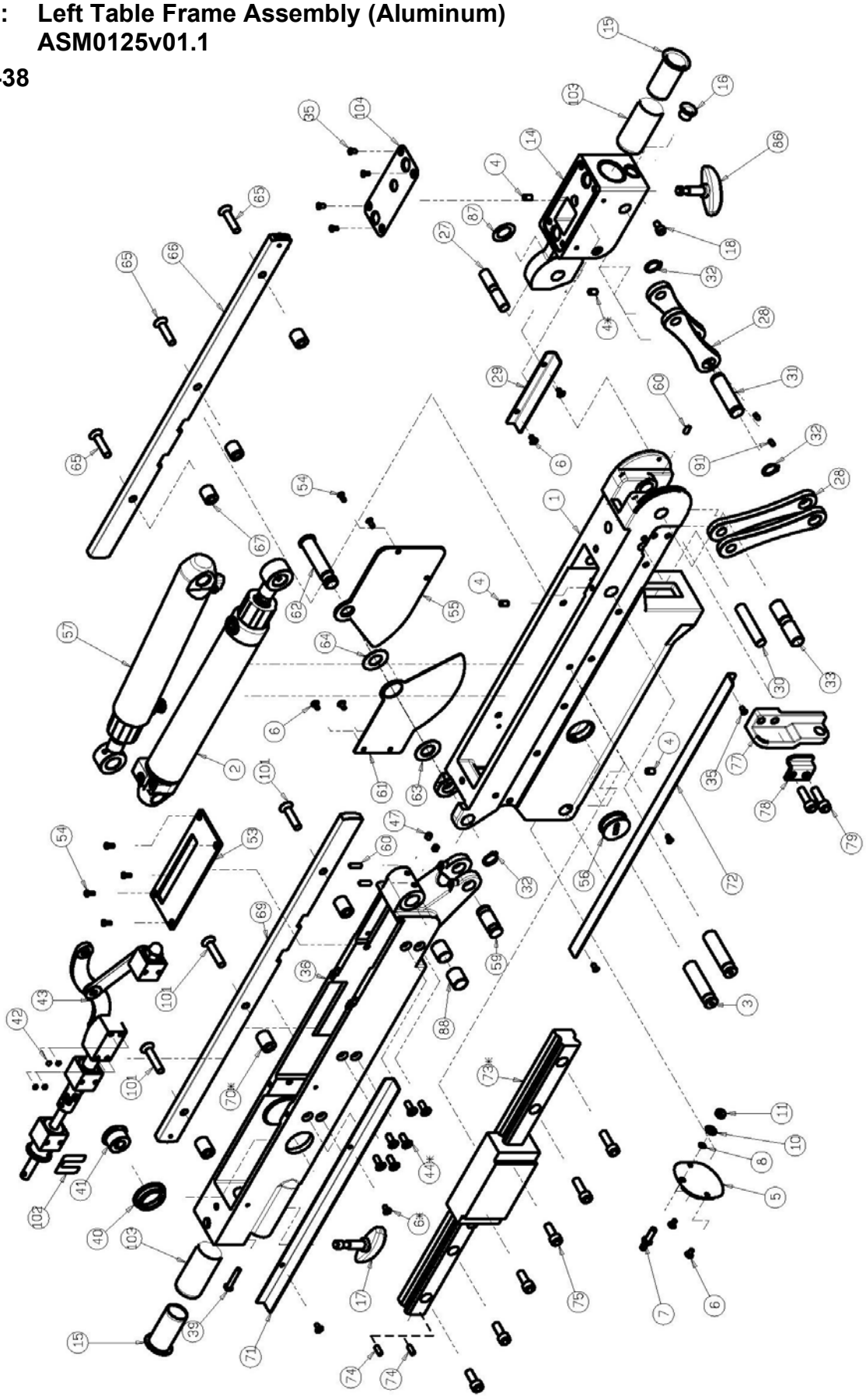
Figure 10-37



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000550v00.1	Copper Lining	2	
002	CP000548	Left Frame of Leg Extension	1	
003	CP000549	Right Frame of Leg Extension	1	
004	CP000542v00.1	Coupling Washer	2	
005	CP000545v00.1	Coupling Shaft, Leg	2	
006	CP000553	T Screw, 24mm	2	
007	SS0055	Hexagon Socket Head Screw M4x0.7x10, Nickel-Coating	2	
008	CP000544	Cassette Rail, Leg	2	
009	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	6	
010	CP000543	Spacer, 20mm	6	
011	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	6	
012	CP000625	US Side Rail, Right Leg	1	
013	CP000627	US Side Rail, Left Leg	1	
014	CP000540v00.1	Bakelite Leg Extension Plate	1	
015	CP000485	Arc Hexagon Head Screw M8	6	
016	CP000975	SUS Bushing	2	

Assembly: Left Table Frame Assembly (Aluminum)
BOM No: ASM0125v01.1

Figure 10-38



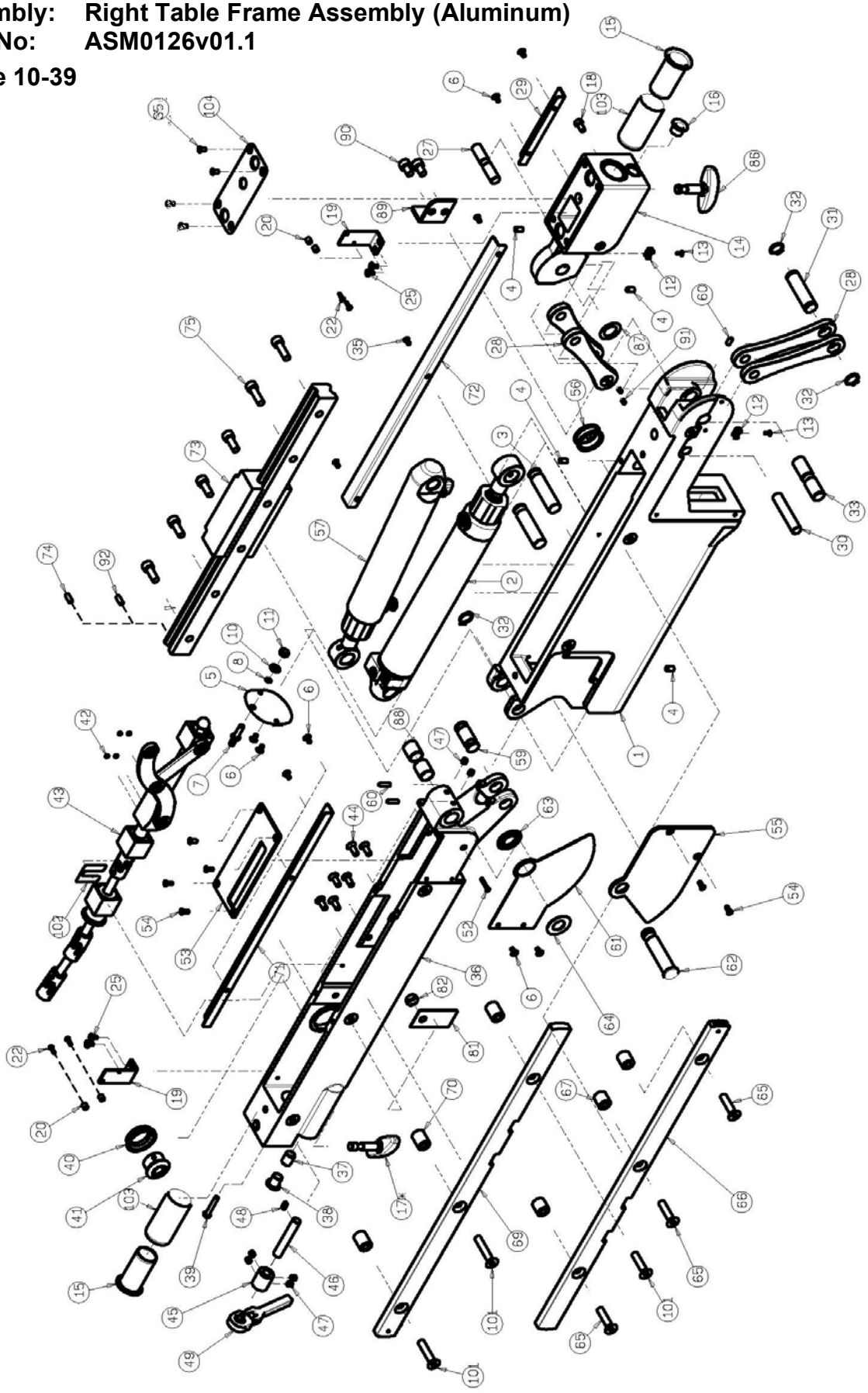
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000585v00.3	Left Frame of Pelvis Section	1	
002	ASM0257v01	Left Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	6	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
014	CP000562v01	Left Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
024	EW0009	Nylon Cable Tie,CV-100	1	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8,SUS	7	
036	CP000615v00.3	Left Frame of Back Section	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
040	CP000608	Sitting of Bevel Gear	1	
041	CP000424	Bevel Gear	1	
042	CP000420	Smoothing Piece	4	
043	ASM0117v00.1	Internal Thread Rod Set, Left	1	
044	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	6	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
053	CP000610	Left Cover, Kidney Elevator	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10,	6	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
		SUS		
055	CP000572	Left Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0120	Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000624	US Side Rail, Left Pelvis	1	
067	CP000566	Spacer, 16mm	3	
069	CP000623	US Side Rail, Left Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000555	Cassette Rail, Back	1	
072	CP000569	Cassette Rail, Pelvis	1	
073	CP000567v00.1	HGH30HA 1R456EZAC	1	
074	SB0001	Steel Pin 4x9.8mm	2	
075	CP000859	Hexagon Socket Head Screw M8x1.25x21, Nickel-Coating	6	
077	CP000565	Coupling Block, Sliding Cylinder	1	
078	CP000767	Sliding Holder	1	
079	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	2	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
093	CP000917	Manual Reading Label	6	
094	EW0104	OC TYPE CABLE MARKER OC-3/L	4	
095	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
097	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
098	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
101	CP000852	Hexagon Countersunk Socket Screw M8x1.25x38, SUS	3	
102	CP000860	Rectangular Washer,0.1mm SUS	2	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

Assembly: Right Table Frame Assembly (Aluminum)
BOM No: ASM0126v01.1

Figure 10-39



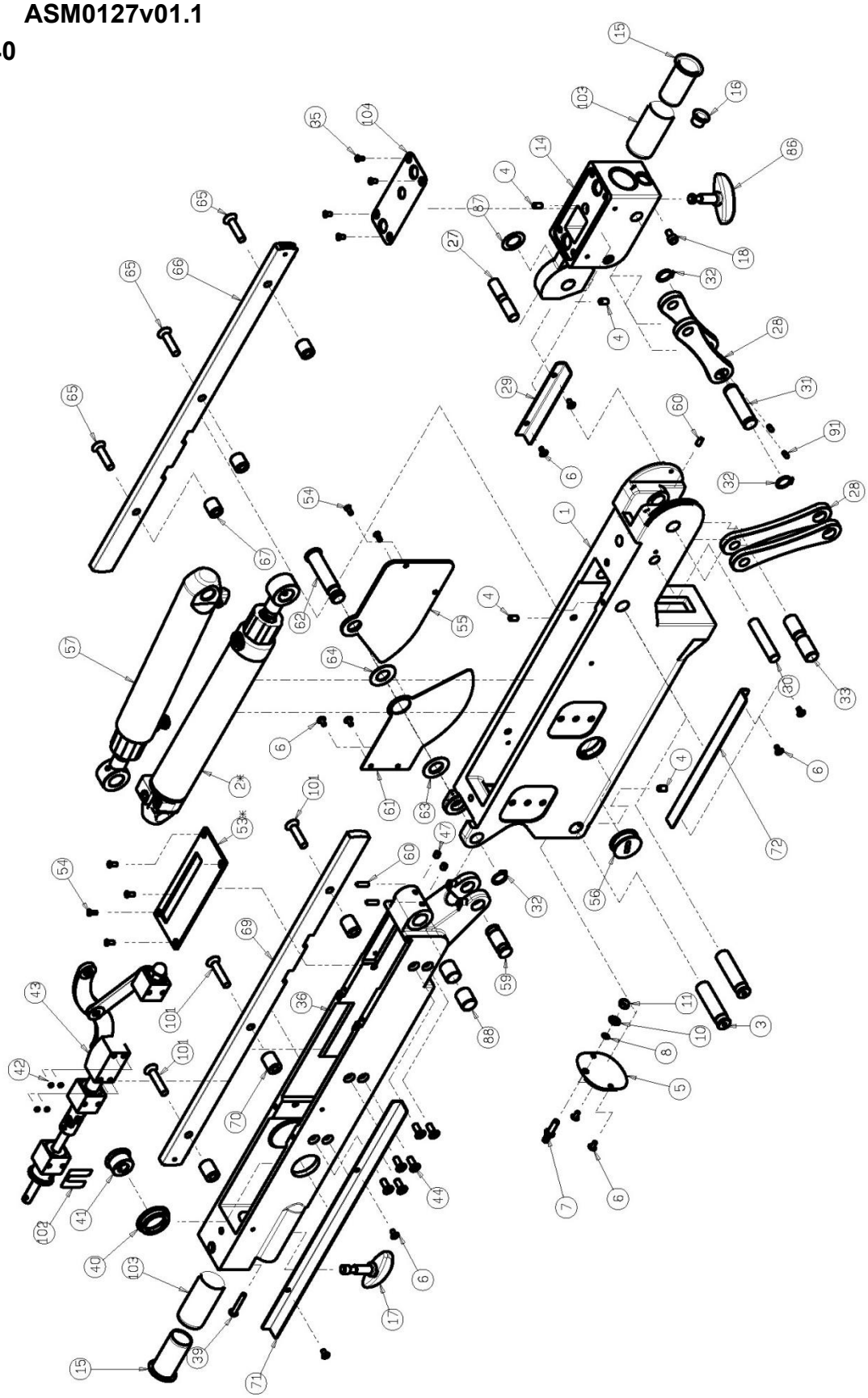
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000584v00.3	Right Frame of Pelvis Section	1	
002	ASM0255v01	Right Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	6	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
012	EW0002	Saddle Type Tie Mount, HC-1S(KSS)	2	
013	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
014	CP000563v01	Right Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
019	CP000586	Angular Sensor Bracket, Table Top	2	
020	SW0011	Nylon Spacer SPO6x3.5x6-N66	4	
022	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	4	
023	CP000663	Cable, ADIS16203 Leg for T1000S(K)	1	
024	EW0009	Nylon Cable Tie,CV-100	6	
025	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	4	
026	EW0123	Spiral Wrapping Band, KS-6	0.50	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	7	
036	CP000614v00.3	Right Frame of Back Section	1	
037	SB0004	Oilless Bush LFB-1015	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
038	SB0005	Oilless Bush LFF-1015	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
040	CP000608	Sitting of Bevel Gear	1	
041	CP000424	Bevel Gear	1	
042	CP000420	Smoothing Piece	4	
043	ASM0116v00.1	Internal Thread Rod Set, Right	1	
044	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	6	
046	CP000612v00.2	Swing Shaft for Flexible Ratchet, 23mm	1	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	4	
048	SP0003	Parallel Keys 4x4x10L	1	
049	SZ0001	Flexible Joint Ratchet, KOKEN 2774PS	1	
051	CP000661	Cable, ADIS 16203 Back for T1000S(K)	1	
052	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	1	
053	CP000609	Right Cover, Kidney Elevator	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	6	
055	CP000571	Right Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0120	Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000628	US Side Rail, Right Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0139	Hexagon Sunken Head Screw M8x1.25x45, SUS	1	
069	CP000626	US Side Rail, Right Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000605	Cassette Rail, Back	1	
072	CP000569	Cassette Rail, Pelvis	1	
073	CP000567v00.1	HGH30HA 1R456EZAC	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
074	SS0182	Steel Pin 4x9.8mm	1	
075	CP000859	Hexagon Socket Head Screw M8x1.25x21, Nickel-Coating	6	
081	CP000558	Back Cable Slice	1	
082	SS0091	Hexagonal Nut M8x1.25, SUS	1	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
089	CP000722	Limited Slice	1	
090	SS0132	Hexagon Socket Head Screw M8x1.25x12,SUS	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
092	SB0021	Steel Pin 4x6mm	1	
093	CP000917	Manual Reading Label	2	
094	EW0106	OC TYPE CABLE MARKER OC-3/R	4	
095	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
097	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
098	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
101	CP000852	Hexagon Countersunk Socket Screw M8x1.25x38, SUS	2	
102	CP000860	Rectangular Washer,0.1mm SUS	2	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

Assembly: Left Table Frame Assembly (Aluminum) wo/ Slide
BOM No: ASM0127v01.1

Figure 10-40



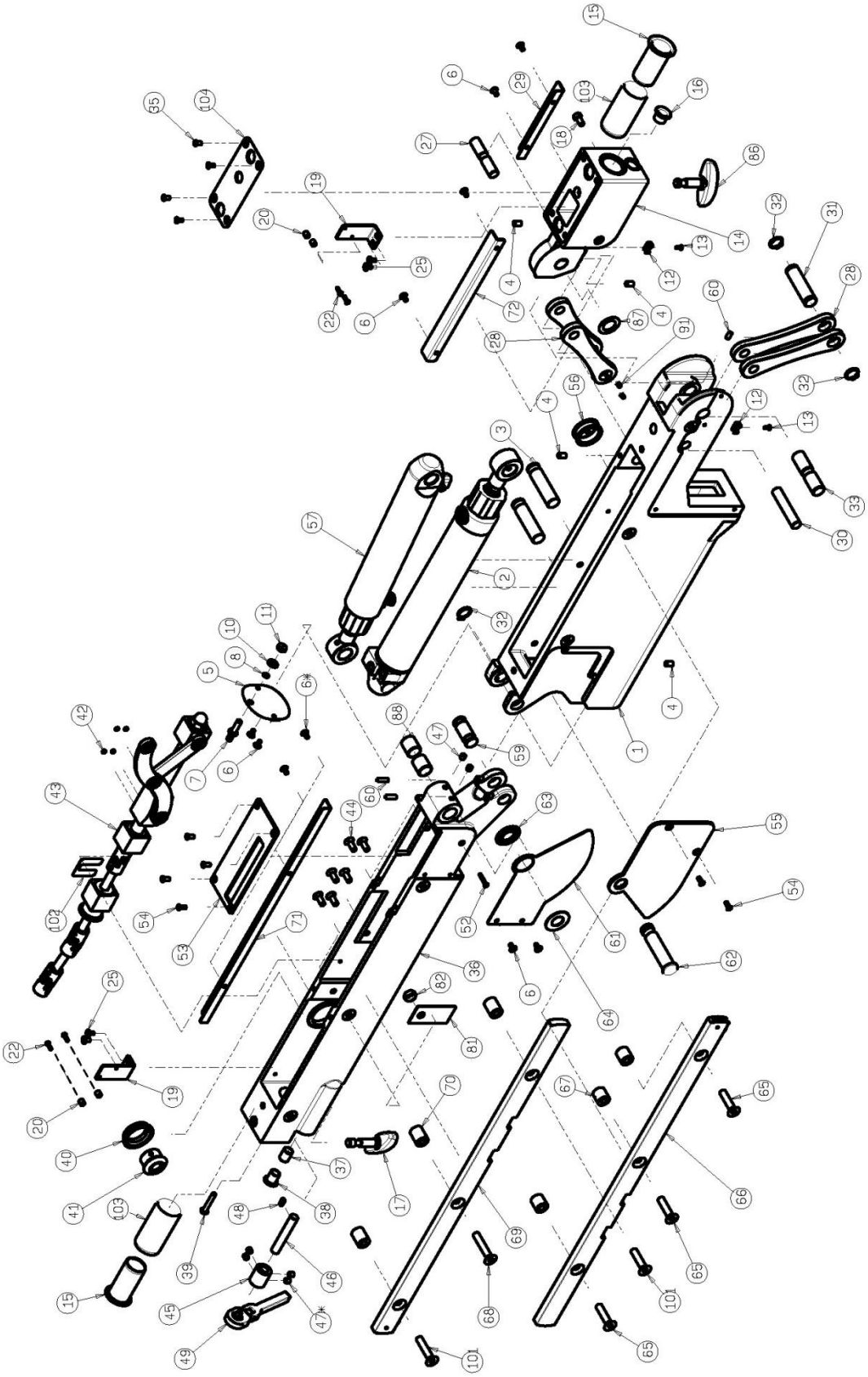
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000593v00.3	Left Frame of Pelvis Section, Non-sliding	1	
002	ASM0258v01	Non-sliding Left Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	10	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
014	CP000562v01	Left Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
024	EW0009	Nylon Cable Tie,CV-100	1	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	4	
036	CP000615v00.3	Left Frame of Back Section	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
040	CP000608	Sitting of Bevel Gear	1	
041	CP000424	Bevel Gear	1	
042	CP000420	Smoothing Piece	4	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
043	ASM0117v00.1	Internal Thread Rod Set, Left	1	
044	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	6	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
053	CP000610	Left Cover, Kidney Elevator	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	6	
055	CP000572	Left Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0122	Non-sliding Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000624	US Side Rail, Left Pelvis	1	
067	CP000566	Spacer, 16mm	3	
069	CP000623	US Side Rail, Left Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000555	Cassette Rail, Back	1	
072	CP000597	Cassette Rail, Non-sliding Pelvis	1	
078	SW0004	Spring Washer D8	2	
079	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	2	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
093	CP000917	Manual Reading Label	2	
094	EW0104	OC TYPE CABLE MARKER OC-3/L	4	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
095	EW0110	OC TYPE CABLE MARKER OC-3/V	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	1	
097	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
098	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
101	CP000852	Hexagon Countersunk Socket Screw M8x1.25x38, SUS	2	
102	CP000860	Rectangular Washer,0.1mm SUS	2	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

Assembly: Right Table Frame Assembly (Aluminum) wo/ Slide
BOM No: ASM0128v01

Figure 10-41



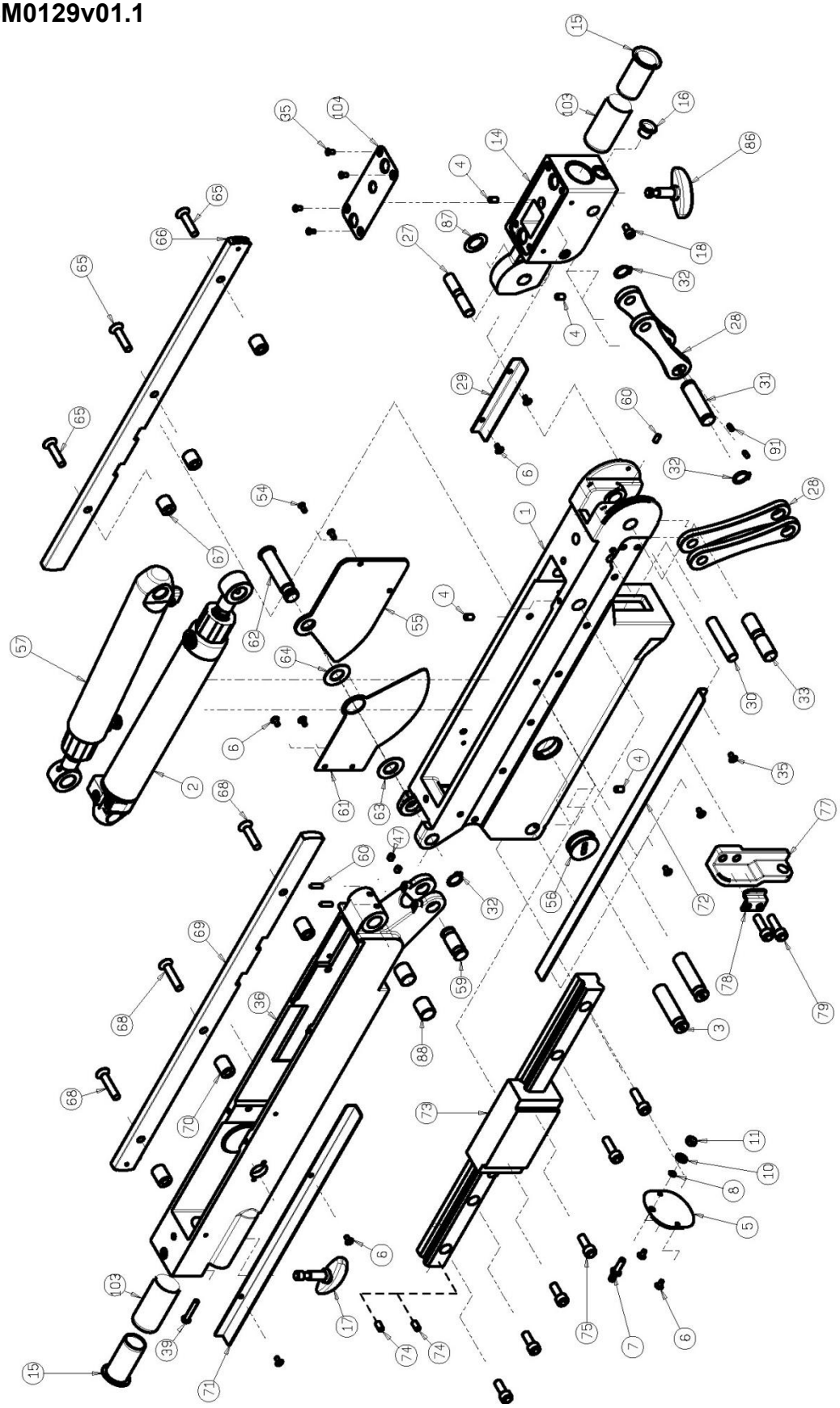
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000594v00.3	Right Frame of Pelvis Section, Non-sliding	1	
002	ASM0256v01	Non-sliding Right Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	10	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
012	EW0002	Saddle Type Tie Mount, HC-1S(KSS)	2	
013	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
014	CP000563v01	Right Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
019	CP000586	Angular Sensor Bracket, Table Top	2	
020	SW0011	Nylon Spacer SPO6x3.5x6-N66	4	
022	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	4	
023	CP000690	Cable, ADIS16203 Back	1	
024	EW0009	Nylon Cable Tie,CV-100	6	
025	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	4	
026	EW0123	Sprial Wrapping Band, KS-6	0.50	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	4	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
036	CP000614v00.3	Right Frame of Back Section	1	
037	SB0004	Oilless Bush LFB-1015	1	
038	SB0005	Oilless Bush LFF-1015	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
040	CP000608	Sitting of Bevel Gear	1	
041	CP000424	Bevel Gear	1	
042	CP000420	Smoothing Piece	4	
043	ASM0116v00.1	Internal Thread Rod Set, Right	1	
044	SS0033	Hexagon Countersunk Socket Screw M6x1.0x16, SUS	6	
046	CP000612v00.2	Swing Shaft for Flexible Ratchet, 23mm	1	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
048	SP0003	Parallel Keys 4x4x10L	1	
049	SZ0001	Flexible Joint Ratchet, KOKEN 2774PS	1	
051	CP000689	Cable, ADIS16203 Back for V1000(K)	1	
052	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	1	
053	CP000609	Right Cover, Kidney Elevator	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	6	
055	CP000571	Right Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0122	Non-sliding Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000628	US Side Rail, Right Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0139	Hexagon Sunken Head Screw M8x1.25x45, SUS	1	
069	CP000626	US Side Rail, Right Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000605	Cassette Rail, Back	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
072	CP000597	Cassette Rail, Non-sliding Pelvis	1	
081	CP000558	Back Cable Slice	1	
082	SS0091	Hexagonal Nut M8x1.25, SUS	1	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
093	CP000917	Manual Reading Label	2	
094	EW0106	OC TYPE CABLE MARKER OC-3/R	4	
095	EW0110	OC TYPE CABLE MARKER OC-3/V	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	1	
097	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
098	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
101	CP000852	Hexagon Countersunk Socket Screw M8x1.25x38, SUS	2	
102	CP000860	Rectangular Washer,0.1mm SUS	2	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

Assembly: Left Table Frame Assembly (Aluminum) wo/ Kdy
BOM No: ASM0129v01.1

Figure 10-42



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000585v00.3	Left Frame of Pelvis Section	1	
002	ASM0257v01	Left Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	4	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
014	CP000562v01	Left Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
024	EW0009	Nylon Cable Tie,CV-100	1	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	7	
036	CP000601v00.3	Left Frame of Back Section without Kidney Elevator	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	
055	CP000572	Left Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0120v01	Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000624	US Side Rail, Left Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	3	
069	CP000623	US Side Rail, Left Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000555	Cassette Rail, Back	1	
072	CP000569	Cassette Rail, Pelvis	1	
073	CP000902	Linear Guideway MSA30LS	1	
074	SB0001	Steel Pin 4x9.8mm	2	
075	CP000859	Hexagon Socket Head Screw M8x1.25x21, Nickel-Coating	6	
077	CP000565	Coupling Block, Sliding Cylinder	1	
078	CP000767	Sliding Holder	1	
079	SS0127	Hexagon Socket Head Screw M8x1.25x25, SUS	2	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
092	CP000827	Sheet Metal of Sliding	1	
093	CP000917	Manual Reading Label	6	
094	EW0104	OC TYPE CABLE MARKER OC-3/L	4	
095	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
097	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
098	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

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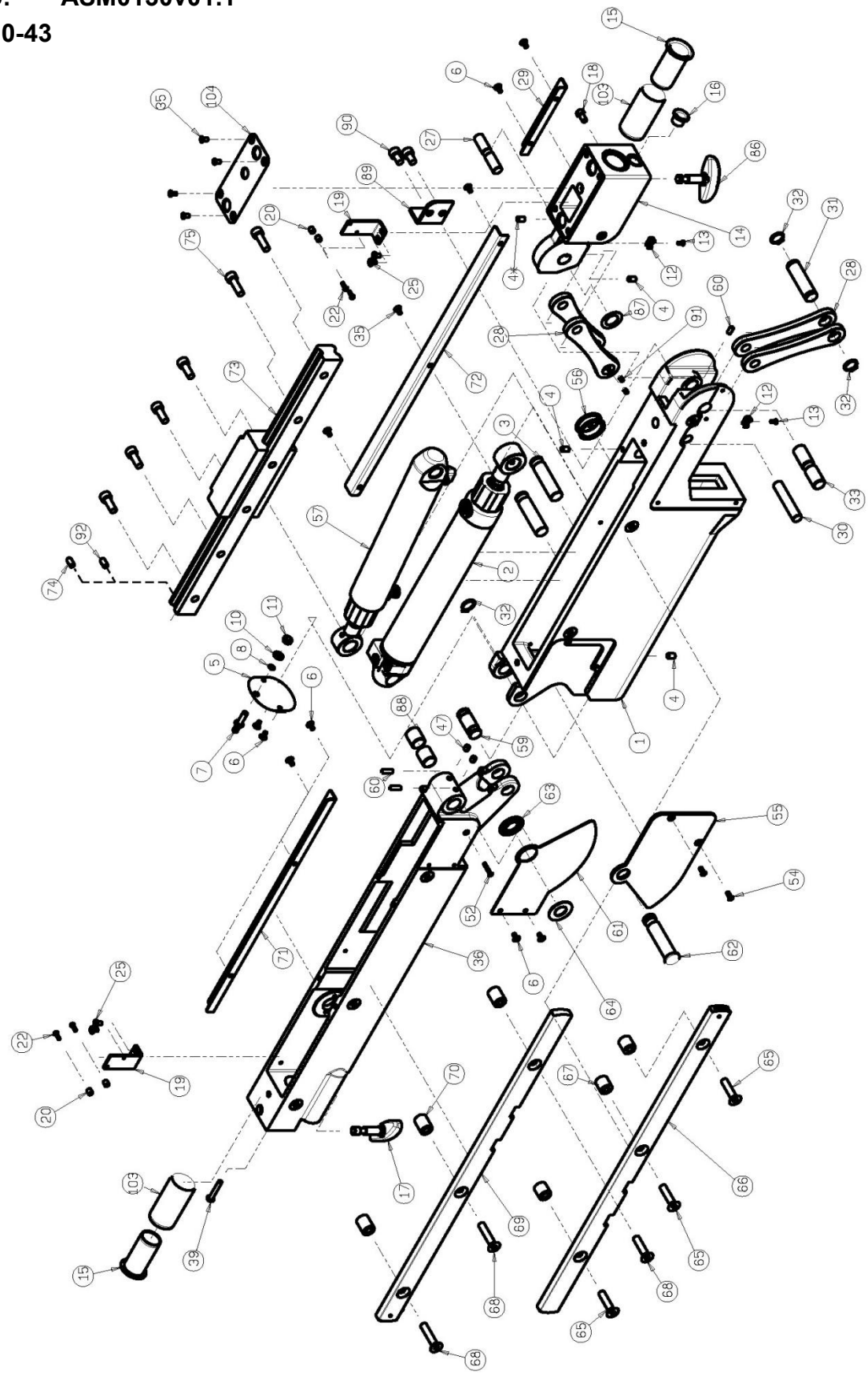
Assembly: Right Table Frame Assembly (Aluminum) wo/ Kdy
BOM No: ASM0130v01.1

Figure 10-43



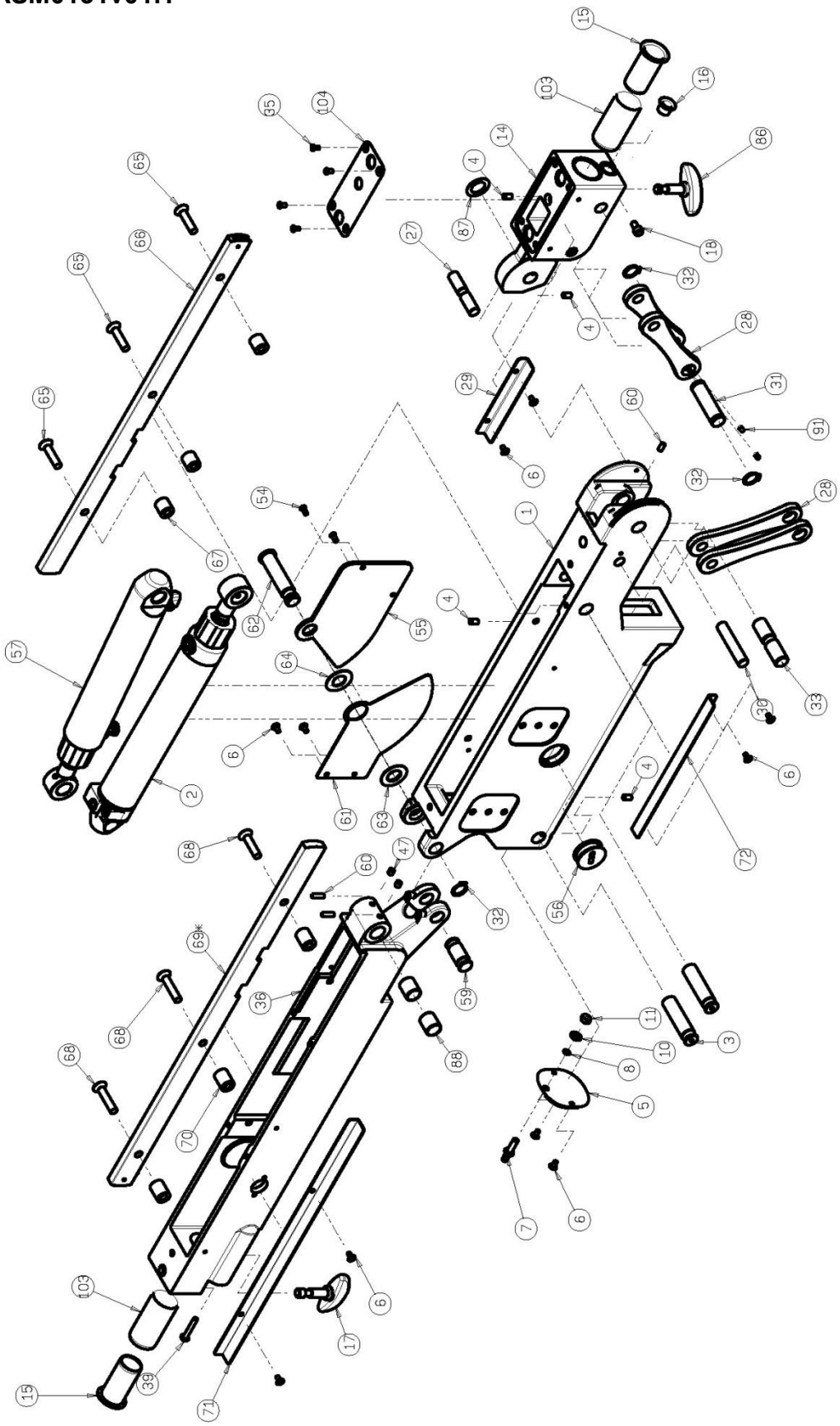
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000584v00.3	Right Frame of Pelvis Section	1	
002	ASM0255v01	Right Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	4	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
012	EW0002	Saddle Type Tie Mount, HC-1S(KSS)	2	
013	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
014	CP000563v01	Right Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
019	CP000586	Angular Sensor Bracket, Table Top	2	
020	SW0011	Nylon Spacer SPO6x3.5x6-N66	4	
022	SS0036	Cross-recessed Head Screw M3x0.5x10,Nickel-Coating	4	
023	CP000663	Cable, ADIS16203 Leg for T1000S(K)	1	
024	EW0009	Nylon Cable Tie,CV-100	6	
025	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	4	
026	EW0123	Sprial Wrapping Band, KS-6	0.50	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion		
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	7	
036	CP000600v00.3	Right Frame of Back Section without Kidney Elevator	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
044	SS0031	Hexagon Socket Head Screw M6x1.0x16, Nickel-Coating	2	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
051	CP000661	Cable, ADIS 16203 Back for T1000S(K)	1	
052	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	
055	CP000571	Right Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0120	Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000628	US Side Rail, Right Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	3	
069	CP000626	US Side Rail, Right Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000605	Cassette Rail, Back	1	
072	CP000569	Cassette Rail, Pelvis	1	
073	CP000902	Linear Guideway MSA30LS	1	
074	SB0001	Steel Pin 4x9.8mm	1	
075	CP000859	Hexagon Socket Head Screw M8x1.25x21, Nickel-Coating	6	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
089	CP000722	Limited Slice	1	
090	SS0132	Hexagon Socket Head Screw M8x1.25x12,SUS	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
092	SB0021	Steel Pin 4x6mm	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
093*	CP000917	Manual Reading Label	2	
094	EW0106	OC TYPE CABLE MARKER OC-3/R	4	
095	EW0107	OC TYPE CABLE MARKER OC-3/S	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	3	
097	EW0113	OC TYPE CABLE MARKER OC-3/3	1	
098	EW0114	OC TYPE CABLE MARKER OC-3/4	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

Assembly: Left Table Frame Assembly (Aluminum) w/o Kdy, Slide
BOM No: ASM0131v01.1

Figure 10-44



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000593v00.3	Left Frame of Pelvis Section, Non-sliding	1	
002	ASM0258v01	Non-sliding Left Leg Cylinder(Aluminum)	1	
003*	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	10	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
014	CP000562v01	Left Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
024	EW0009	Nylon Cable Tie,CV-100	1	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg Motion	1	
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	4	
036	CP000601v00.3	Left Frame of Back Section without Kidney Elevator	1	
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	
055	CP000572	Left Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0122	Non-sliding Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062*	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000624	US Side Rail, Left Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	3	
069	CP000623	US Side Rail, Left Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000555	Cassette Rail, Back	1	
072	CP000597	Cassette Rail, Non-sliding Pelvis	1	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
093*	CP000917	Manual Reading Label	2	
094	EW0104	OC TYPE CABLE MARKER OC-3/L	4	
095	EW0110	OC TYPE CABLE MARKER OC-3/V	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	1	
097	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
098	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
103	CP000975	SUS Bushing	2	
104	CP000899	Sensor Cover	1	

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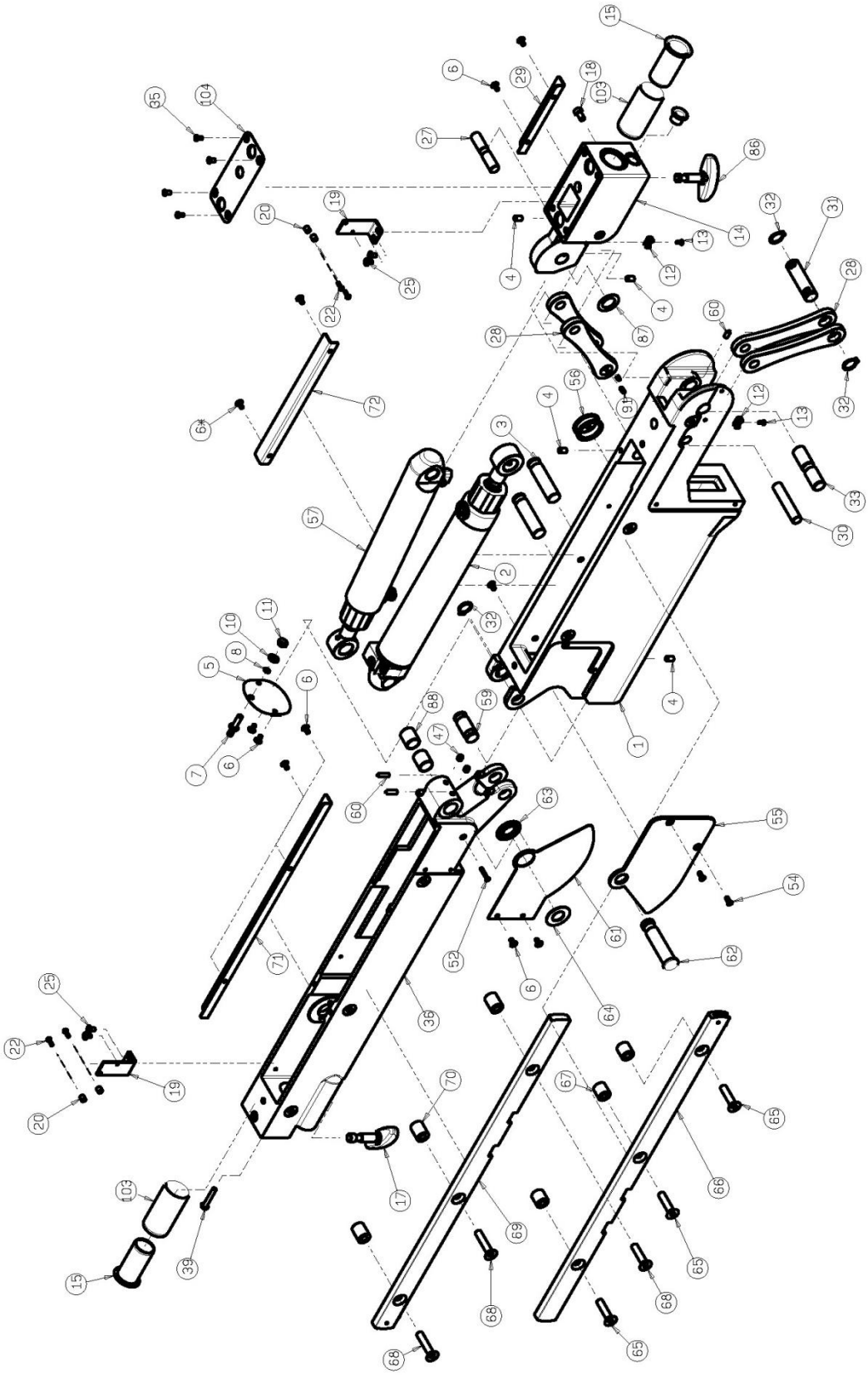
Assembly: Right Table Frame Assembly (Aluminum) w/o Kdy, Slide
BOM No: ASM0132v01.1

Figure 10-45



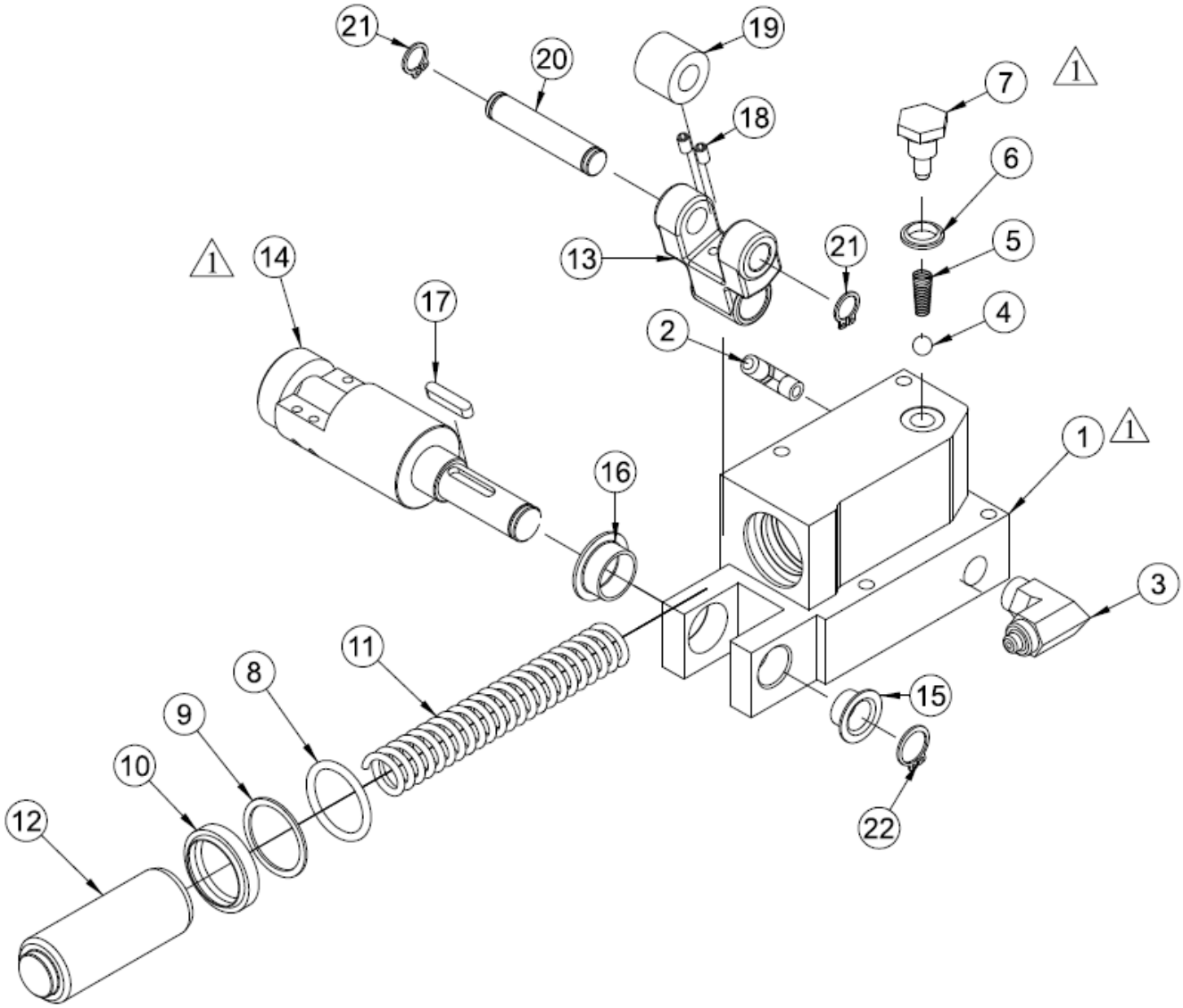
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000594v00.3	Right Frame of Pelvis Section, Non-sliding	1	
002	ASM0256v01	Non-sliding Right Leg Cylinder(Aluminum)	1	
003	CP000582v00.1	Axle for Rod of Leg Cylinder	2	
004	SS0017	Hexagon Set Screw M6x1.0x10, Nickel-Coating	4	
005	CP000574	Cover Plate, Pelvis Section	1	
006	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	10	
007	CP000583v00.1	Grounding Screw	1	
008	SW0001	Star Washer D6	1	
009	CP000674	Ground Wire	1	
010	SW0002	Flat Washer D6, Copper	1	
011	SS0016	Hexagonal Nut M6x1.0, Nickel-Coating	1	
012	EW0002	Saddle Type Tie Mount, HC-1S(KSS)	2	
013	SS0002	Cross-recessed Head Screw M3x0.5x6, Nickel-Coating	2	
014	CP000563v01	Right Frame of Leg Section	1	
015	CP000550v00.1	Copper Lining	2	
016	SB0003	Oilless Bush LFF-1212	1	
017	CP000554	T Screw, 40mm	1	
018	SS0018	Hexagon Socket Head Screw M6x1.0x10, Nickel-Coating	1	
019	CP000586	Angular Sensor Bracket, Table Top	2	
020	SW0011	Nylon Spacer SPO6x3.5x6-N66	4	
022	SS0036	Cross-recessed Head Screw M3x0.5x10, Nickel-Coating	4	
023	CP000690	Cable, ADIS16203 Back	1	
024	EW0009	Nylon Cable Tie,CV-100	6	
025	SS0011	Cross-recessed Truss Head Screw M4x0.7x8, Nickel-Coating	4	
026	EW0123	Sprial Wrapping Band, KS-6	0.50	
027	CP000576v00.1	Pin, Leg-side Rod of Cylinder For Leg Motion	1	
028	CP000568v00.1	Swing Shaft, Leg	4	
029	CP000591	Cassette Rail, Leg	1	
030	CP000579v00.2	Pin, Pelvis-side Rod of Cylinder For Leg		
031	CP000590v00.2	Pin, Coupling set in Leg Section	1	
032	SF0001	External Retaining Ring STW-16, Nickel-Coating	3	
033	CP000578v00.2	Pin, Joint of Leg-Pelvis	1	
035	SS0081	Cross-recessed Countersunk Socket Screw M4x0.7x8, SUS	4	
036	CP000600v00.3	Right Frame of Back Section without Kidney Elevator	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
039	SS0185	Hexagon Socket Head Screw M5x0.8x25, SUS	1	
047	SS0094	Hexagon Set Screw M6x1.0x6, Nickel-Coating	2	
051	CP000689	Cable, ADIS16203 Back for V1000(K)	1	
052	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	1	
054	SS0014	Cross-recessed Countersunk Socket Screw M4x0.7x10, SUS	2	
055	CP000571	Right Cover, Back-Pelvis Joint	1	
056	CP000573	Rubber Tube Bundle	1	
057	ASM0122	Non-sliding Back Cylinder(Aluminum)	1	
058	EW0143	Nylon Cable Tie,CV-150	3	
059	CP000607v00.1	Pin, Rod of Cylinder for Back Motion	1	
060	SS0038	Hexagon Set Screw M5x0.8x10, Nickel-Coating	3	
061	CP000611	Inner Joint Cover of Back Section	1	
062	CP000580v00.1	Pin, Joint of Back-Pelvis	1	
063	CP000581	Convex Washer	1	
064	SW0006	Nylon Washer W32x16x1-N66	1	
065	CP000851	Hexagon Countersunk Socket Screw M8x1.25x33, SUS	3	
066	CP000628	US Side Rail, Right Pelvis	1	
067	CP000566	Spacer, 16mm	3	
068	SS0009	Hexagon Countersunk Socket Screw M8x1.25x40, SUS	3	
069	CP000626	US Side Rail, Right Back	1	
070	CP000543	Spacer, 20mm	3	
071	CP000605	Cassette Rail, Back	1	
072	CP000597	Cassette Rail, Non-sliding Pelvis	1	
086	CP000552	T Screw, 36mm	1	
087	SW0044	Nylon Washer W28x17.5x0.5-N66	1	
088	SB0020	Oilless Bush LFB-1620	2	
091	SS0160	Hexagon Set Screw M4x0.7x75, Nickel-Coating	2	
093	CP000917	Manual Reading Label	2	
094	EW0106	OC TYPE CABLE MARKER OC-3/R	4	
095	EW0110	OC TYPE CABLE MARKER OC-3/V	4	
096	EW0111	OC TYPE CABLE MARKER OC-3/1	1	
097	EW0117	OC TYPE CABLE MARKER OC-3/7	1	
098	EW0118	OC TYPE CABLE MARKER OC-3/8	1	
099	EW0119	OC TYPE CABLE MARKER OC-3/9	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
100	EW0120	OC TYPE CABLE MARKER OC-3/0	1	
103	CP000975	SUS Bushing	2	
104*	CP000899	Sensor Cover	1	

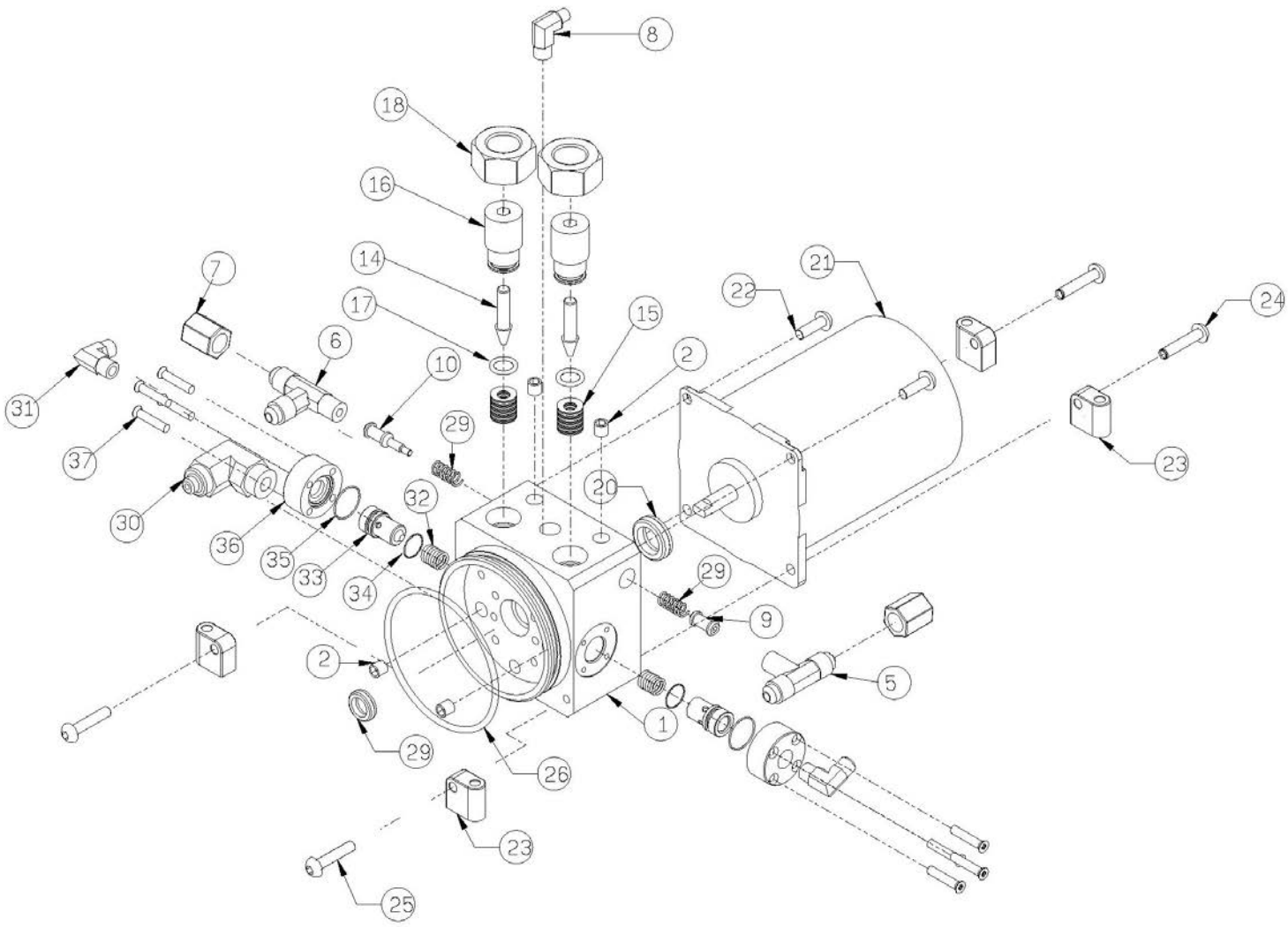
Assembly: Foot Pump for Rotary Valve Assembly
BOM No: ASM0237v01

Figure 10-46



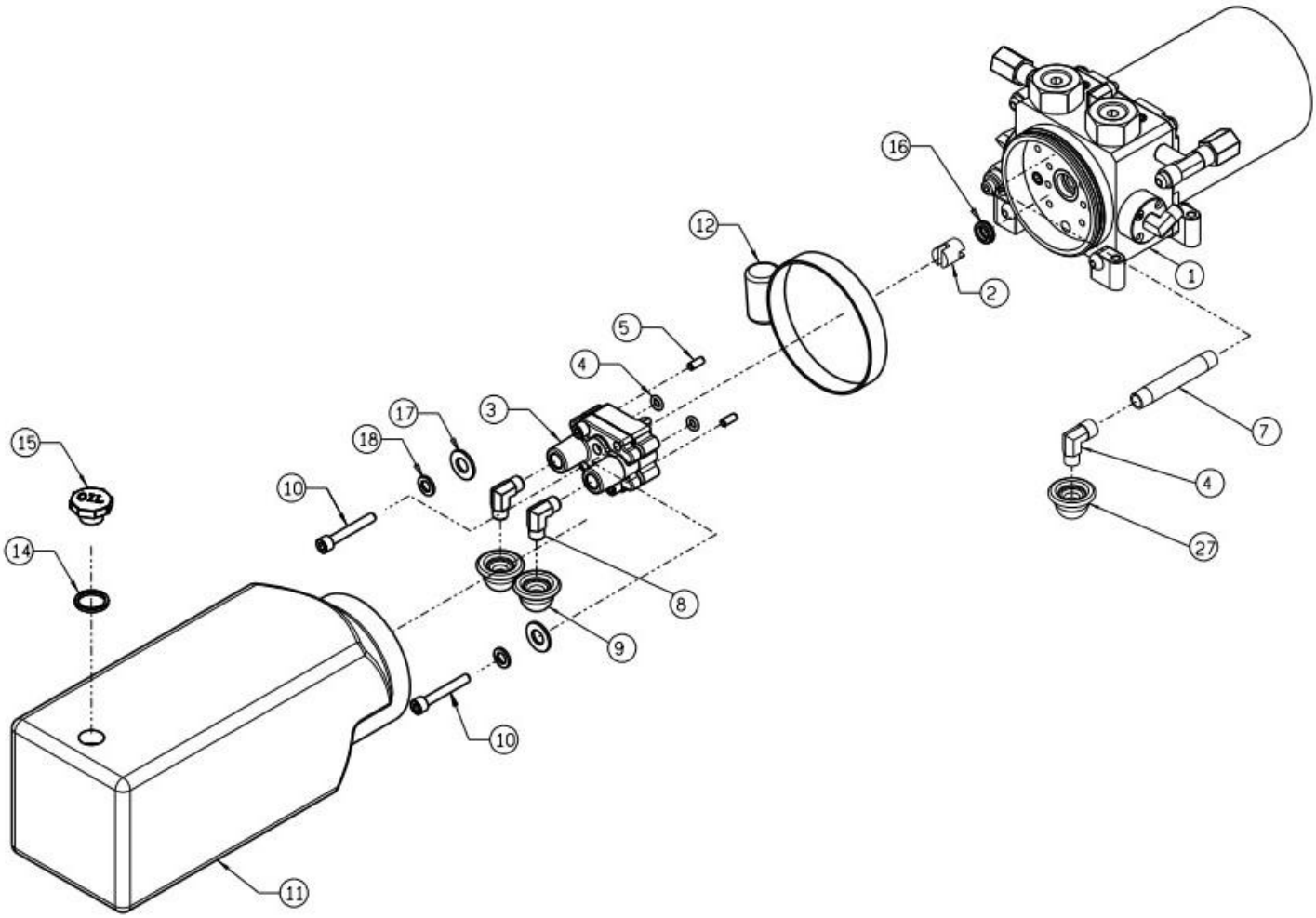
ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000929v00.1	Foot Pump Base for Rotary Valve	1	
002	SH0005	Elbow Brass Flared Fitting, LIN1/4Hx1/8"PT, Copper	1	
003	SH0007	(N06-L2010)Elbow Fitting, High Speed, NP10x1/4"PT, Copper	1	
004	SH0003	Steel Ball SUJ2/52100,8mm,40#	1	
005	CP000005	Tower Spring (SUS),d0.24x5.26x7.7xL20xN13.5	1	
006	SW0003	Bonded Seal, BS-222	1	
007	CP000933v01	Hexagonal Foot Pump Cap for Rotary Valve	1	
008	SO0054	O-ring P30x3.5,G90,NOK	1	
009	SO0055	Back-up Ring P30	1	
010	SO0059	Dust Sealing, LBH-38D-30d-34S-6H	1	
011	CP000947v00.1	Compression Spring,d3xD15xP6xL138	1	
012	CP000930	Foot Pump Swing Shaft for Rotary Valve	1	
013	CP000932v00.1	Foot Pump Lever for Rotary Valve	1	
014	CP000931v01	Foot Pump Coupling Shaft for Rotary Valve	1	
015	SB0069	Oilless Bush LFF-1610	1	
016	SB0070	Oilless Bush LFF-2012	1	
017	SP0011	Parallel Keys 5x5x25L	1	
018	SS0083	Hexagon Set Screw M5x0.8x8, Nickel-coating	2	
019	SB0068	NKI12-20	1	
020	CP000948	Pin of Foot Pump Lever for Rotary Valve	1	
021	SF0003	External Retaining Ring STW-12, Nickel-Coating	2	
022	SF0001	External Retaining Ring STW-16, Nickel-Coating	1	

Assembly: Bidirectional Pump Block Motor (Foot Pump) Assembly
BOM No: ASM0239
Figure 10-47



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000997v00.1	Bidirectional Pump Block	1	
002	SH0009	Hexagonal Screw Cap 1/16"PT	4	
005	SH0014	T-Shaped Brass Flared Fitting,H04-T102 1/8PT, Copper	1	
006	SH0023	T-Shaped Brass Flared Fitting,H05-T102 1/8PT*LIN1/4	1	
007	SH0012	Brass Flared Screw Cap 1/4"H, Iron Coating-Zinc	2	
008	SH0011	Elbow Fitting, High Speed, LIN1/4x1/8"PT, Copper	1	
009	CP000998	Bidirectional Pilot Valve(Female)	1	
010	CP000999	Bidirectional Pilot Valve(Male)	1	
014	CP000019	Relief	2	
015	SW0020	Disc Spring D6.2x12.5x0.5,B136205	36	
016	CP000928v00.1	Relief Screw(S)	2	
017	SO0009	O-ring d11.5x2, G70	2	
018	SS0060	Hexagonal Nut M18x1.5	2	
020	SO0010	Rotary Shaft Oil Seal, TC 8 22 7(NOK, AE0158-A4)	1	
021	CP000009	Motor,DC82x2432120L000	1	
022	SS0116	Hexagon Button Head Screw M5x0.8x12, Nickel-Coating	2	
023	CP000017	Cushion	4	
024	SS0114	Hexagon Button Head Screw M5x0.8x25, Nickel-Coating	2	
025	SS0117	Hexagon Button Head Screw M5x0.8x20, Nickel-Coating	2	
026	SO0012	0 Ring G70(D69.4x3)	1	
028	EN0032	14AWG-Bullet Terminal(Female)	1	
029	CP000946	Compression Spring,d0.5xD6.9xP3xL10.2	2	
030	SH0007	(N06-L2010)Elbow Fitting, High Speed, NP10x1/4"PT, Copper	1	
031	SH0005	Elbow Brass Flared Fitting, LIN1/4Hx1/8"PT, Copper	2	
032	CP000944	Compression Spring,d0.8xD11.5xP5xL25	2	
033	CP000926	Flow Gate for Motor Pump	2	
034	SO0065	O-ring d10x1.5 NOK	2	
035	SO0064	O-ring d14x1.5	2	
036	CP000925	Cap for Flow Cate	2	
037	SS0044	Cross-recessed Countersunk Socket Screw M3x0.5x20, Nickel-Coating	8	

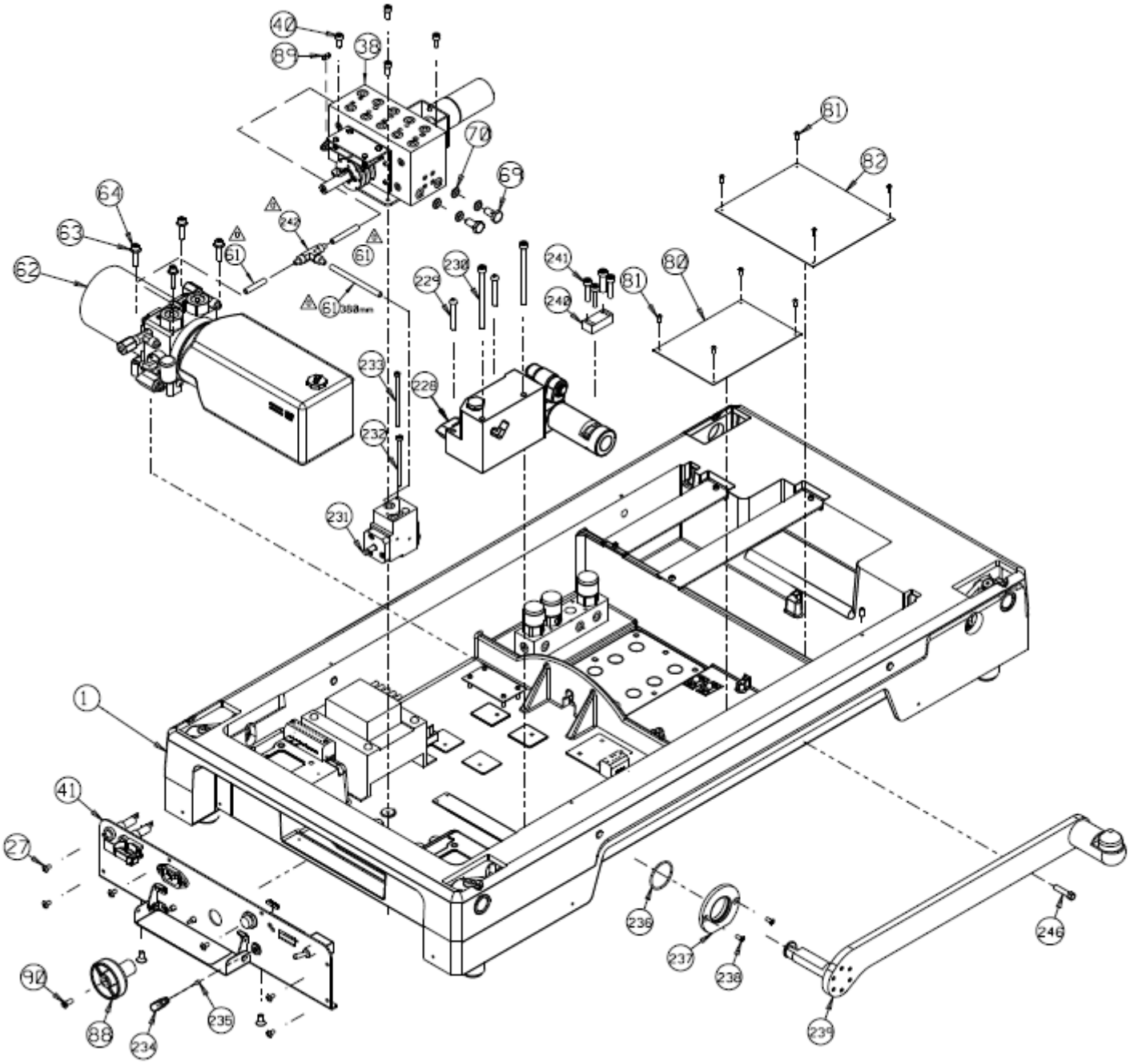
Assembly: Bidirectional Hydraulic Power(Foot Pump) Unit
BOM No: ASM0240
Figure 10-48



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0239	Bidirectional Pump Block Motor (Foot Pump) Assembly	1	
002	CP000013	Coupler	1	
003	ASM0001	Bidirectional Pump Unit	1	
004	SO0011	O-ring P5x1.9, G70 NOK	2	
005	SB0001	Steel Pin 4x9.8mm	2	
006	CP000026	Iron Nipple	1	
007	SH0016	Elbow Fitting,1/8PTx1/8PTCopper	1	
008	SH0002	Elbow Fitting, 1/8"PTx1/8"PT, Copper	2	
009	CP000014	60μm Reservoir Filter	3	
010	SS0115	Hexagon Socket Head Screw M5x0.8x30, Nickel-Coating	2	
011	CP000006	Reservoir	1	
012	SZ0002	3 1/4" Worm Gear Clamp	1	
014	SW0021	Rubber Washer d15.5x23x2	1	
015	SH0013	Black Reservoir Cap	1	
016	SO0047	Oil Seal, SC 6.35 19.05 6.35(1/4" 3/4" 1/4")	1	
017	SW0052	Flat Washer D5.3x10x1.0	2	
018	SW0089	Spring Washer d5 (5.1x8.5x1.2)	2	

Assembly: Base Assembly with Rotary Valve (Leg & Hydraulic Floor-Lock & Foot Pump)
BOM No: ASM0251v01.1

Figure 10-49



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	ASM0043v03	Base Assembly with Hydraulic Floor-Lock	1	
027	SS0007	Cross-recessed Truss Head Screw M4x0.7x8, SUS	8	
038	ASM0015v01	6-Fold Rotary Directional Valve Assembly	1	
040	SS0075	Hexagon Socket Head Screw M5x0.8x12, Nickel-Coating	4	
041	ASM0252	Interface Panel (Rotary Valve/Leg, Lock,Foot Pump) Assembly	1	
061	SH0019	Nylon Tube 4mmX6mm	0.71	
062*	ASM0240	Bidirectional Hydraulic Power(Foot Pump) Unit	1	
063	SW0052	Flat Washer D5.3x10x1.0	4	
064	SS0062	Hexagon Socket Head Screw M5x0.8x25, Nickel-Coating	4	
065	CP000349	Hydraulic Tube,BH-028878-400L	2	
066	CP000352	Hydraulic Tube, BH-028878-670L	1	
069	CP000291V00.1	Screw for Single Hydraulic Tubes	1	
070	SW0027	Bonded Seal, BS-212	26	
076	CP000295V00.1	Screw for Single Hydraulic Tubes(L)	11	
077	CP000296v00.2	Washer for Thick Hydraulic Tubes	11	
080	ASM0023v01.1	Driver PCB Assembly For Rotary Valve	1	
081	SS0054	Cross-recessed Head Screw M3x0.5x8, Nickel-Coating	8	
082	ASM0021v02.3	Main Control PCB Assembly	1	
088	CP000111	Selection Knob	1	
089	SB0001	Steel Pin 4x9.8mm	1	
090	SS0087	Cross-recessed Countersunk Socket Screw M5x0.8x12, Nickel-Coating	1	
105	CP000656	Cable, Power LED	1	
112	CP000666	Power Wire for Driver PCB, 0V (L450)	1	
113	CP000667	Power Wire for Driver PCB, 24V (L450)	1	
118	CP000683V01	10P+8P Signal Cable	1	
120	CP000688	Cable,4-set Photo Interrupter	1	
128	EN0016	Terminal, 5ESDV-02P	2	
130	EN0017	Terminal, 5ESDV-04P	1	
131	CP000699	Voltage Detection Cable	1	
146	SS0150	Hexagon Socket Head Screw M4x0.7x75, Nickel-Coating	4	
156	CP000694	4P Signal Cable	1	
170	EW0097	O TYPE CABLE MARKER OM-1.25/PE	1	
171	EW0035	O TYPE CABLE MARKER OM-2/0V	1	
186	EW0167	O TYPE CABLE MARKER OM-2/GND	1	

ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
187	EW0066	O TYPE CABLE MARKER OM-2/24V	2	
188	EW0168	O TYPE CABLE MARKER OM-2/PM-	1	
189	EW0169	O TYPE CABLE MARKER OM-2/PM+	1	
213	EW0170	O TYPE CABLE MARKER OM-2/VM+	1	
214	EW0171	O TYPE CABLE MARKER OM-2/VM-	1	
217	EW0177	OC TYPE CABLE MARKER OC-8/1	3	
218	EW0186	OC TYPE CABLE MARKER OC-8/L	1	
220	EW0109	OC TYPE CABLE MARKER OC-3/U	1	
221	EW0110	OC TYPE CABLE MARKER OC-3/V	1	
222	EW0112	OC TYPE CABLE MARKER OC-3/2	1	
223	EW0174	OC TYPE CABLE MARKER OC-8/H	2	
224	EW0178	OC TYPE CABLE MARKER OC-8/2	1	
225	EW0176	OC TYPE CABLE MARKER OC-8/V	2	
226	EW0111	OC TYPE CABLE MARKER OC-3/1	1	
227	EW0105	OC TYPE CABLE MARKER OC-3/P	1	
228	ASM0237v01	Foot Pump for Rotary Valve Assembly	1	
229	SS0101	Hexagon Button Head Screw M6x1.0x40, SUS	2	
230	SS0222	Hexagon Socket Head Screw M6x1.0x85, Nickel-Coating	2	
231	ASM0238v00.1	Switch Valve of Foot Pump Assembly	1	
232	SS0223	Hexagon Socket Head Screw M4x0.7x65, Nickel-Coating	1	
233	SS0154	Hexagon Socket Head Screw M4x0.7x70, Nickel-Coating	1	
234	CP000953	Selection Knob of Foot Pump	1	
235	SS0218	Hexagon Set Screw M4x0.7x10, SUS	1	
236	SO0063	O-ring d35x2,G90	1	
237	CP000937v00.1	Waterproof spacer of Foot Pump for Rotary Valve	1	
238	SS0014	Cross-recessed Countersunk Socket Screw	2	
239	ASM0242v01	Pedal Pole for Rotary Valve Assembly	1	
240	CP000935v01	Turning Pin of Foot Pump for Rotary Valve	1	
241	SS0097	Hexagon Socket Head Screw M6x1.0x25, Nickel-Coating	4	
243	CP000368	Hydraulic Tube,BH-028878-550L	1	
244	CP000382	Hydraulic Tube,HH-028878-950L	1	
245	SH0018	Nylon tube D10	0.25	
246	CP002467	Supporting rod of pedal pole	1	

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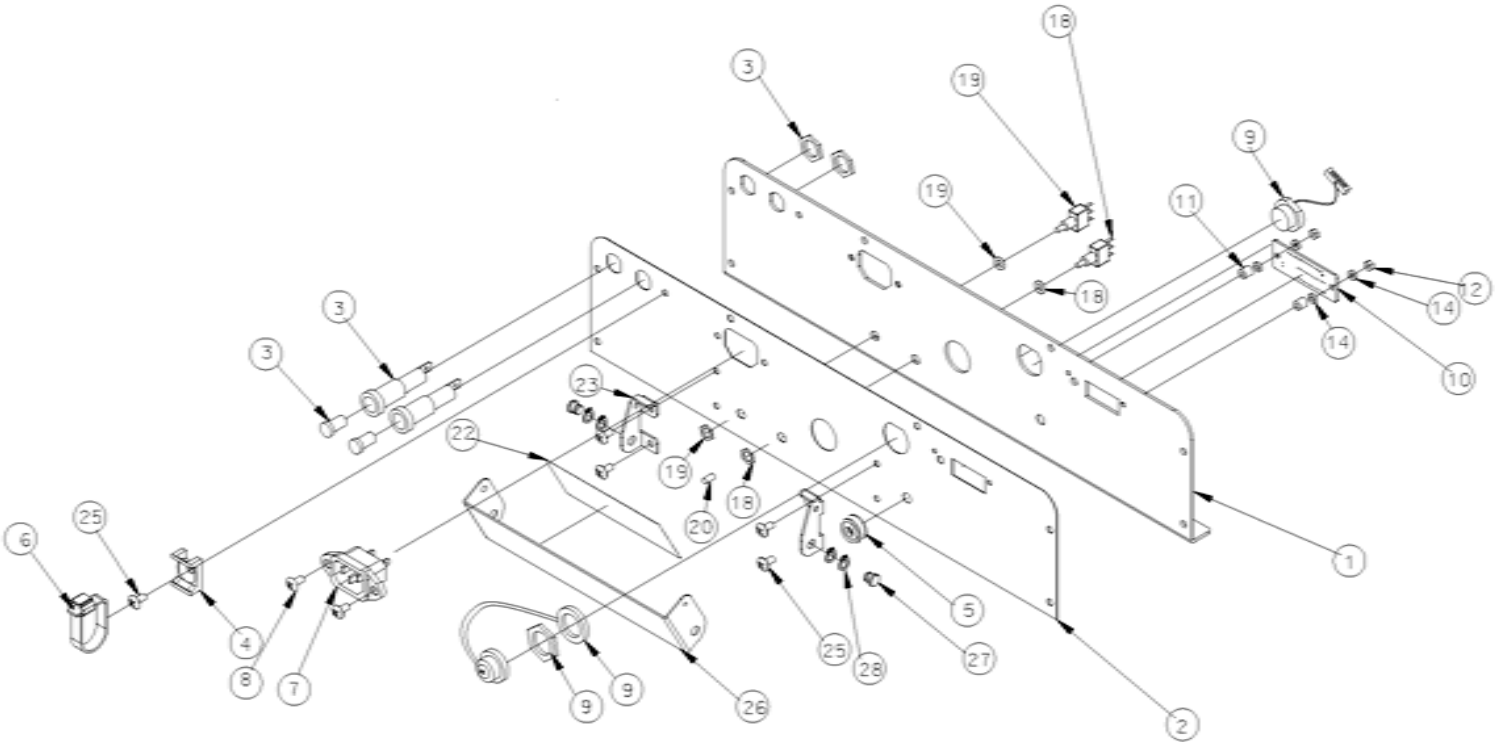
Assembly: Interface Panel (Rotary Valve/Leg, Lock,Foot Pump) Assembly
BOM No: ASM0252

Figure 10-50



ITEM	PART NO.	DESCRIPTION	Q'TY	REMARK
001	CP000087v01.1	Rotary Valve Control Panel	1	
002	CP00194	Rotary Valve Control Panel Label(Leg & Lock & Foot Pump)	1	
003	EF0008	Fuse Arming Test Experiment Base FEU 0031.1764	2	
004	EW0007	Saddle Type Tie Mount, HC-2S	1	
005	CP000961	Waterproof rubber of Foot Pump for Rotary Valve	1	
006	EW0004	Wire Collect Tie, PCT-140BK	1	
007	CP000643v01	AC Power Socket with Cable	1	
008	SS0020	Cross-recessed Countersunk Socket Screw M3x0.5x8, SUS	2	
009	CP000153	Foot Control BOX Cable C97-C0H-MF09S600	1	
010	ASM0025v00.2	Power indicating PCB Assembly	1	
011	SW0011	Nylon Spacer SPO6x3.5x6-N66	2	
012	SS0035	Hexagonal Nut M3x0.5, Nickel-Coating	2	
014	SW0055	Nylon Washer W6x3.1x1-N66	4	
018	CP000686	Override Switch with Cable(Terminal)	1	
019	CP000682	Override Enable Switch with wires	1	
020	ES0003	Toggle Cap, T1-3	1	
022	CP000864	Rotary Valve Control Cover Label(Sliding & Lock)	1	
023	CP000142	Override Switch Fixing Plate(L)	1	
024	CP000143	Override Switch Fixing Plate(R)	1	
025	SS0111	Cross-recessed Truss Head Screw M4x0.7x6, SUS	5	
026	CP000867	Override Switch Cover(L)	1	
027	CP000144	Override Switch Fixing Pin	2	
028	SF0005	External Retaining Ring STW-6, Nickel-Coating	2	

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Section 11 Waste Parts Disposal
Pièces de l'élimination des déchets

WARNING!

⚠ **DISPOSAL HAZARD:**A hazardous waste management company with appropriate licenses and permits may be required to handle some of the materials which are contained inside the surgical table.

The following materials are contained within the V1000 Series surgical table: lead (Pb) (in weight and solder), lead acid (Pb/H2SO4), hydraulic oil (CPC R32), electronic parts, metal parts, plastic parts (ABS), etc. When disposing of the table or its parts, ensure the proper disposal of hazardous and other regulated waste in compliance with local regulations.

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Section 12 Manufacturer Information
Informations sur le fabricant

Manufacturer

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