

Mazak

**ELECTRICAL
CIRCUIT DIAGRAMS**

SET NO. DD114005008

SET NO.

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 1/7

No.	ITEM	SPECIFICATION
1	MACHINE TYPE	M4, M5, PM-U/C
2	MACHINE No.	STANDARD
3	CNC TYPE	MAZATROL T P I u s
4	SPINDLE TYPE	MDS-A-SP
5	PLC ROM No.	114-
6	AUX. 1 ROM No.	
7	AUX. 2 ROM No.	
8		

Remarks
EXCHANGE SYMBOL "Q"

Option

No.	DRAWING NUMBER	TITLE
①	11400510012.0	POWER SUPPLY LIST (MACHINE TYPE M4)
②	11400510022.0	POWER SUPPLY LIST (MACHINE TYPE M5)
③	11400510032.0	POWER SUPPLY LIST (MACHINE TYPE PM-U/C)
4		
5		
6	11400530010.0	SINGLE TURRET PARTS POSITION (M4)
7	11400530010.1	SINGLE TURRET PARTS POSITION (M5)
8	11400530020.0	SINGLE TURRET PARTS POSITION (M4/M5)
9	11400530030.0	SINGLE TURRET PARTS POSITION (M4/M5)
10	11400530040.0	SINGLE TURRET PARTS POSITION (M4/M5)
11	11400530050.0	DUAL TURRET PARTS POSITION (M4)
12	11400530050.1	DUAL TURRET PARTS POSITION (M5)
13	11400530060.0	DUAL TURRET PARTS POSITION (M4/M5)
14	11400530070.0	DUAL TURRET PARTS POSITION (M4/M5)
15	11400530080.0	DUAL TURRET PARTS POSITION (PM-U)
16	11400530090.0	DUAL TURRET PARTS POSITION (PM-C)
17	11400530100.0	DUAL TURRET PARTS POSITION (PM-U)
18	11400530110.0	DUAL TURRET PARTS POSITION (PM-C)
19		
20		
21	11400550010.0	OPERATING PANEL PLC I/O ADDRESS (FOR DIANOSE)
22	11400550011.1	OPERATING PANEL PLC I/O ADDRESS (FOR DIANOSE)
23	11400550010.2	OPERATING PANEL PLC I/O ADDRESS (FOR DIANOSE)
24	11400550010.3	OPERATING PANEL CONNECTION
25	11400550020.0	I/F PANEL LAYOUT

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 2/7

No.	DRAWING NUMBER	TITLE
26		
27		
②⑧	11400540011.0	MAIN TRANSFORMER MAIN BREAKER (1)
29	11400540012.1	MAIN TRANSFORMER MAIN BREAKER (2) (JAPAN)
30	11400540012.2	EARTH LEAKAGE CIRCUIT BREAKER
31	11400540010.3	TRANSFORMER TAP CONNECTION
32	11400540022.0	M4, M5 LINE POWER SUPPLY (POWER UNIT & SPINDLE AMP)
33	11400540022.1	LINE POWER SUPPLY (SPINDLE/MILL MOTOR)
34	11400540022.2	PM-C/U 45 k w LINE POWER SUPPLY (POWER UNIT & SPINDLE AMP)
35	11400540023.3	PM-U/C 30 k w LINE POWER SUPPLY (POWER UNIT)
36	11400540022.4	PM-U/C 30 k w LINE POWER SUPPLY (SPINDLE MOTOR)
37	11400540032.0	M4, M5, PM-40HP AC SPINDLE MOTOR (STANDARD TYPE)
38	11400540032.1	M4, M5, PM-40HP AC SPINDLE MOTOR (ORIENT OPTION)
39	11400540031.2	PM-60HP AC SPINDLE MOTOR (STANDARD TYPE)
40	11400540031.3	PM-60HP AC SPINDLE MOTOR (ORIENT OPTION)
41	11400540041.0	LINE POWER SUPPLY (NC POWER)
④②	11400540053.0	LINE POWER SUPPLY (AC 100V)
④③	11400540063.0	M4, M5, PM-C MAIN CONTROL CIRCUIT AUX. MOTOR
④④	11400540062.1	M5 ONLY MAIN CONTROL CIRCUIT AUX. MOTOR
④⑤	11400540063.2	PM-U MAIN CONTROL CIRCUIT AUX. MOTOR
④⑥	11400540060.3	HEAD CHILLER UNIT AKM105Y (OPTION)
④⑦	11400540071.0	MOTOR STARTER
④⑧	11400540071.1	WAY LUBE MOTOR
49	11400540080.0	PM-U TAIL & CARRIAGE
50	11400540090.0	X AXIS MOTOR ENCODER
51	11400540091.1	X AXIS ENCODER (BALL SCREW)
52	11400540090.2	X AXIS ENCODER (MAGNE SCALE)
53	11400540100.0	Z AXIS MOTOR ENCODER
54	11400540101.1	Z AXIS ENCODER (BALL SCREW)
55	11400540100.2	Z AXIS ENCODER (MAGNE SCALE)
56	11400540110.0	EMERGENCY STOP (1)
57	11400540110.1	EMERGENCY STOP (2)
58	11400540110.2	EMERGENCY STOP (3) YME-B SPEC.
59	11400540110.3	EMERGENCY STOP (4)
⑥⑩	11400540122.0	M4, M5, PM-C DC CONTROL CIRCUIT

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 3/7

No.	DRAWING NUMBER	TITLE
(61)	11400540121.1	PM-U DC CONTROL CIRCUIT
(62)	11400540171.0	MACHINE MALFUNCTION PLC INPUT (1)
(63)	11400540181.0	NC INPUT (1)
64	11400540180.1	NC INPUT (1) M4, M5, PM-C
65	11400540181.2	NC INPUT (1) PM-U ONLY
66	11400540190.0	NC INPUT (2) M4, M5, PM-C
67	11400540190.1	NC INPUT (2) PM-U ONLY
68	11400540190.2	NC INPUT (2)
69	11400540201.0	NC INPUT (3) M4, M5, PM-C
70	11400540200.1	NC INPUT (3) PM-U ONLY
71	11400540210.0	M4, M5, PM-C NC INPUT (4)
72	11400540210.1	PM-U ONLY NC INPUT (4)
73	11400540220.0	NC INPUT (5) TURRET ENCODER
74	11400540220.1	NC INPUT (5) TURRET ENCODER
75	11400540230.0	TX2B ADDITION I/O CARD 0X535
76	11400540240.0	TX2B ADDITION I/O CARD 0X316
(77)	11400540302.0	NC OUTPUT (1) M4, M5, PM-C
78	11400540300.1	NC OUTPUT (1) M4, M5, PM-C
(79)	11400540301.2	NC OUTPUT (1) PM-U
80	11400540300.3	NC OUTPUT (1) PM-U
81	11400540310.0	NC OUTPUT (2) M4, M5, PM-C
82	11400540310.1	NC OUTPUT (2) M4, M5, PM-C
83	11400540310.2	NC OUTPUT (2) PM-U
84	11400540310.3	NC OUTPUT (2) PM-U
85	11400540321.0	NC OUTPUT (3)
86	11400540321.1	NC OUTPUT (3)
87	11400540331.0	NC OUTPUT (4)
88	11400540340.0	M CODE DECODE OUT (1) (OPTION)
89	11400540350.0	M CODE DECODE OUT (2) (OPTION)
90	11400540360.0	TX2B ADDITION I/O CARD 0X535
91	11400540400.0	OPERATING PANEL I/O (1)
92	11400540401.1	OPERATING PANEL I/O (2)
93	11400540410.0	OPERATING PANEL I/O (3)
94	11400540420.0	OPERATING PANEL I/O (4)
95	11400540431.0	OPTION WORK LIGHT

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 4/7

No.	DRAWING NUMBER	TITLE
96	11400540440.0	MANUAL PULSE GENERATOR
97	11400540450.0	ALARM OR CYCLE FINISH LIGHT (OPTION)
98	11400540462.0	M4, M5, PM-C TOOL MEASURE CIRCUIT (OPTION)
99	11400540461.1	AUTO TOOL MEASURE CIRCUIT (OPTION)
100	11400540461.2	PM-U TOOL MEASURE CIRCUIT (OPTION)
101	11400540471.0	MEASURING SYSTEM (OPTION)
102	11400540470.1	MEASURING SYSTEM (OPTION)
103	11400540480.0	OPTION OIL SKIMMER
104	11400540490.0	WARMING UP (OPTION)
105	11400540500.0	AUTO POWER ON/OFF & AUTO POWER OFF
106	11400540500.1	AUTO POWER ON/OFF & AUTO POWER OFF
107	11400540510.0	YME-B SPEC. ENABLE DOOR OPEN
108	11400540520.0	YME-B SPEC. DOOR SIGNAL
109	11400540530.0	YME-B SPEC. RELAY DRIVE OUTPUT
110	11400540540.0	YME-B SPEC. OUTPUT AC100V VALVE
111	11400540550.0	ALARM SWITCH RELAY SAFETY FOR YME
(112)	11400540560.0	HEAD CHILLER UNIT WIRING DIAGRAM (OPTION)
113		
114		
115	11400530210.0	M4, M5 CABLE SYSTEM DIAGRAM
116	11400530210.1	PM-U CABLE SYSTEM DIAGRAM
117	11400530210.2	PM-C CABLE SYSTEM DIAGRAM
118	11400530220.0	EXTERNAL CABLE LIST (1)
119	11400530230.0	EXTERNAL CABLE LIST (2)
120	11400530240.0	EXTERNAL CABLE LIST (3)
121	11400530310.0	TRANSFORMER CONNECTION
122	11400530310.1	PARTS LIST TRANSFORMER CONNECTION
123	11400530321.0	SPINDLE CONNECTION
124	11400530320.1	PARTS LIST SPINDLE CONNECTION
125	11400530331.0	X AXIS MOTOR CONNECTION
126	11400530330.1	PARTS LIST X AXIS MOTOR CONNECTION
127	11400530340.0	Z AXIS MOTOR CONNECTION
128	11400530340.1	PARTS LIST Z AXIS MOTOR CONNECTION
(129)	11400530351.0	AUX. MOTOR & SOLENOID e t c. CONNECTION 1
(130)	11400530351.1	AUX. MOTOR & SOLENOID e t c. CONNECTION 2

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 5/7

No.	DRAWING NUMBER	TITLE
131	11400530350.2	AUX. MOTOR & SOLENOID e t c. CONNECTION 3
132	11400530350.3	PARTS LIST AUX. MOTOR'S e t c.
133	11400530360.0	AIR KIT (M4 ONLY) CONNECTION
134	11400530360.1	PARTS LIST AIR KIT
135	11400530370.0	HEAD BOX (PM-U) CONNECTION 1
136	11400530371.1	HEAD BOX (PM-U) CONNECTION 2
137	11400530370.2	HEAD BOX (PM-U) CONNECTION 3
138	11400530370.3	HEAD BOX (PM-U) CONNECTION 4
139	11400530370.4	HEAD BOX (PM-U) CONNECTION 5
140	11400530370.5	PARTS LIST HEAD BOX (PM-U)
141	11400530380.0	CARRIAGE BOX CONNECTION 1 (M4, M5)
(142)	11400530381.1	CARRIAGE BOX CONNECTION 1 (PM-UNIVERSAL)
(143)	11400530381.2	CARRIAGE BOX CONNECTION 1 (PM-CHUCKER)
(144)	11400530381.3	CARRIAGE BOX CONNECTION 2
145	11400530380.4	CARRIAGE BOX CONNECTION 3
(146)	11400530381.5	CARRIAGE BOX CONNECTION 4
147	11400530380.6	PARTS LIST CARRIAGE BOX
148	11400530390.0	TAIL BODY CONNECTION
149	11400530390.1	PARTS LIST TAIL BODY/SLEEVE
150		
151	11400550031.0	M4, M5 CONTROL BOX ELECTRIC PARTS LAYOUT
152	11400550033.1	M4, M5 CONTROL BOX ELECTRIC PARTS LAYOUT
153	11400550041.0	PM-U/C (40HP) CONTROL BOX ELECTRIC PARTS LAYOUT
154	11400550041.1	PM-U/C (60HP) CONTROL BOX ELECTRIC PARTS LAYOUT
155	11400550043.2	PM-U/C CONTROL BOX ELECTRIC PARTS LAYOUT
156	11400550052.0	CONTROL BOX PARTS LAYOUT
(157)	11400550063.0	M4, M5 POWER PANEL 1 PARTS LAYOUT
(158)	11400550062.1	PM-U/C POWER PANEL 1 PARTS LAYOUT
159	11400550071.0	M4, M5, PM-U/C TERMINAL BLOCK LAYOUT
160	11400550082.0	RELAY PCB LAYOUT
161	11400550081.1	RELAY PCB LAYOUT
162	11400550081.2	DC LINE ZL CONNECTION X64, X65
163	11400550080.3	DC LINE ZL CONNECTION X66, X67
164	11400550080.4	AC LINE ZL CONNECTION X200, X201, X202
165	11400550080.5	AC LINE ZL CONNECTION X203, X204, X205

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

PAGE 6/7

No.	DRAWING NUMBER	TITLE
166	11400550080.6	AC LINE ZL CONNECTION X206, X207, X208
167	11400550090.0	YME-B SPEC. EMERGENCY PANEL LAYOUT
168	11400550100.0	SUB TERMINAL UNIT CONNECTOR LAYOUT
169	11400550110.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
170	11400550120.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
171	11400550130.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
172	11400550140.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
173	11400550150.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
174	11400550160.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
175	11400550170.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
176	11400550180.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
177	11400550190.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
178	11400550200.0	SUB TERMINAL UNIT CONNECTION DIAGRAM
179	11400550210.0	SUB TERMINAL UNIT COMMON CONNECTION DIAGRAM
180	11400550220.0	OPTION RELAY PANEL LAYOUT
181	11400550220.1	OPTION RELAY PANEL CONNECTION DIAGRAM
182	11400550220.2	OPTION RELAY PANEL CONNECTION DIAGRAM
183	11400550230.0	SSR BOARD (M4, M5)
184	11400550230.1	SSR BOARD (PM-C/U)
185	11400550240.0	SSR BOARD CONNECTION DIAGRAM (M4, M5, PM-C/U)
186	11400550250.0	TERMINAL UNIT CONNECTOR LAYOUT
187	11400550260.0	TERMINAL UNIT CONNECTION X1, X3, X4
188	11400550270.0	TERMINAL UNIT CONNECTION X5, X6, X7
189	11400550280.0	TERMINAL UNIT CONNECTION X8, X9, X10
190	11400550290.0	TERMINAL UNIT CONNECTION X11, X12, X13
191	11400550300.0	TERMINAL UNIT CONNECTION X14, X16, X17, X18
192	11400550310.0	TERMINAL UNIT CONNECTION X20, X25, X27, X28, X60
193	11400550320.0	TERMINAL UNIT CONNECTION X29, X170, X171
194	11400550330.0	TERMINAL UNIT CONNECTION CDP31, CDP32, CDP51, CDP131
195	11400550340.0	TERMINAL UNIT CONNECTION CDP132, CDP231, CDP232, CDJ31
196	11400550350.0	TERMINAL UNIT CONNECTION CDJ32, CDJ131, CDJ132, CDJ231
197	11400550360.0	TERMINAL UNIT CONNECTION CDJ232
198	11400550370.0	TERMINAL UNIT CONNECTION COMMON
199	11400550380.0	TERMINAL UNIT CONNECTION COMMON
200	11400550390.0	NC CONNECTION

ELEMENTARY DIAGRAM LIST

SET No. : DD114005008

No.	DRAWING NUMBER	TITLE
201	11400550400.0	M4. M5 CONTROL CABINET
202	11400550400.1	PM-U/C CONTROL CABINET
203	11400550400.2	PM-U/C CONTROL CABINET
204	11400550410.0	CONNECTION DIAGRAM (TERMINAL UNIT)
205	11400550420.0	M4. M5. PM-C CONNECTION DIAGRAM (SUB TERMINAL UNIT)
206	11400550420.1	PM-U CONNECTION DIAGRAM (SUB TERMINAL UNIT)
207	11400550430.0	CONNECTION DIAGRAM (RELAY PANEL)
208	11400550440.0	CONNECTION DIAGRAM (SSR BOARD UNIT)
209	11400550450.0	INTERNAL CABLE LIST (1)
210	11400550450.1	INTERNAL CABLE LIST (2)
211	11400510070.0	PLC PARAMETER (1)
212	11400510080.0	PLC PARAMETER (2)
213	11400510090.0	PLC PARAMETER (3)
214	11400510100.0	PLC PARAMETER (4)
215	11400510110.0	PLC PARAMETER (5)
216		
217	711408R0101.0	PARTS LIST
218	711408R0102.0	PARTS LIST
219	711411R0101.0	PARTS LIST
220	711413R0101.0	PARTS LIST
221	711414R0102.0	PARTS LIST
222	711417R0101.0	PARTS LIST
223	711422R0102.0	PARTS LIST
224		
225		
226		
227		
228		
229		
230		
231		
232		
233		
234		
235		