

1 Description

The Optel Vision Code Inspector OP358 verifies printed code integrity, tablet integrity and blister pocket integrity. Printed code authenticity, legibility and position are also verified. Defective products are tracked and manually removed from the production line.

1.1 System Overview

The system is composed of a control panel, three optical assemblies and sensors.

The three optical assemblies carry out two independent inspections:

- a) The color camera verifies tablet presence, color, top of tablet for overall integrity (ie., surface consistency), as well as blister pocket integrity so that pockets are free of contaminants, but are not missing product.
- b) The two monochrome cameras verify lot number, expiration date and bar code presence, position and print quality.

The system tracks defective products and stops them in the predefined ejection zone where they can be manually removed by the operator.

1.2 Control Panel

The control panel is the user interface for the inspection system. It contains a touch screen through which an operator controls the system and indicator lights that signal the system's state.

1.2.1 Indicator Lights

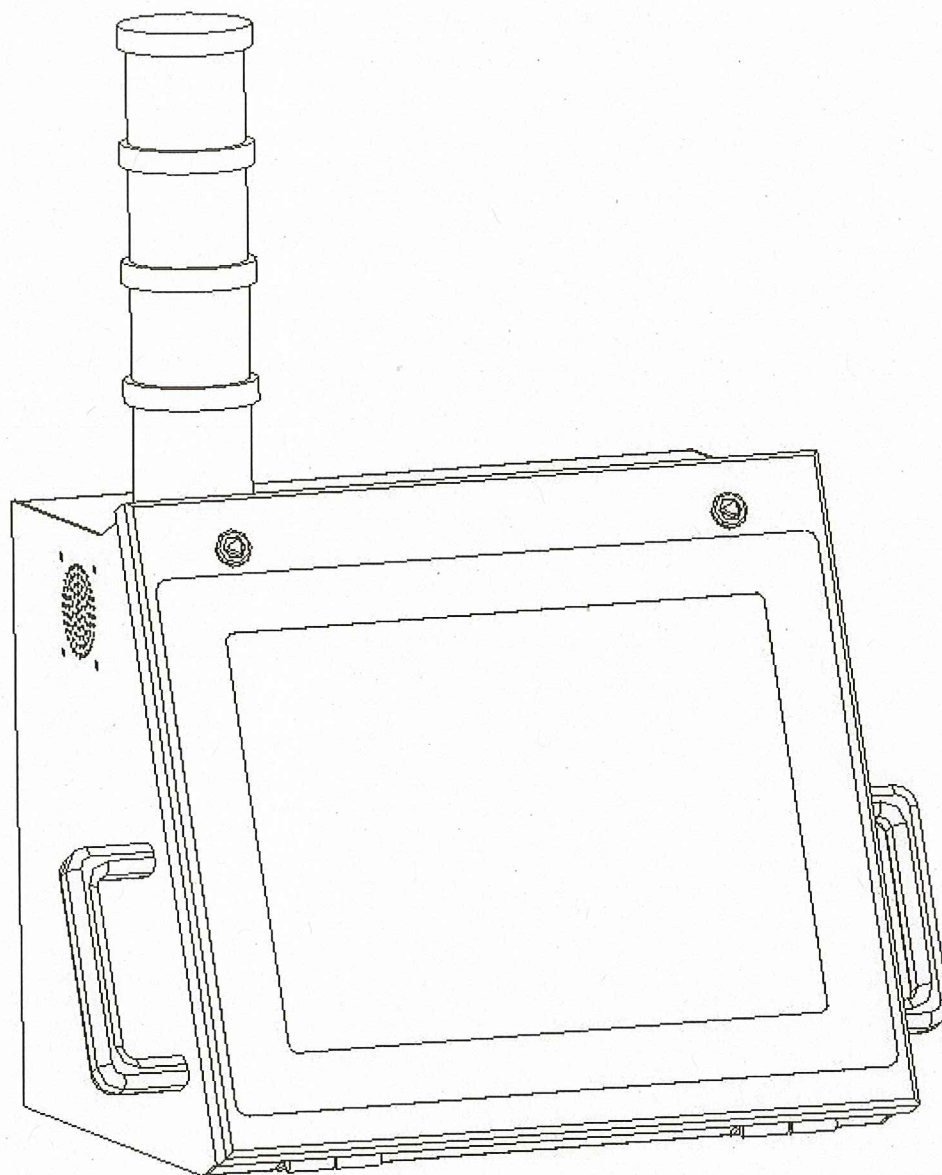
Three indicator lights indicate system and inspection status. They have the following meanings:

Solid Yellow: A defect has been detected on a product. The light turns off after the product has been ejected.

Flashing Red: A warning of a non-critical condition or a critical alarm condition that requires the attention of, or corrective measures by the operator.

Solid Green : The power is on.

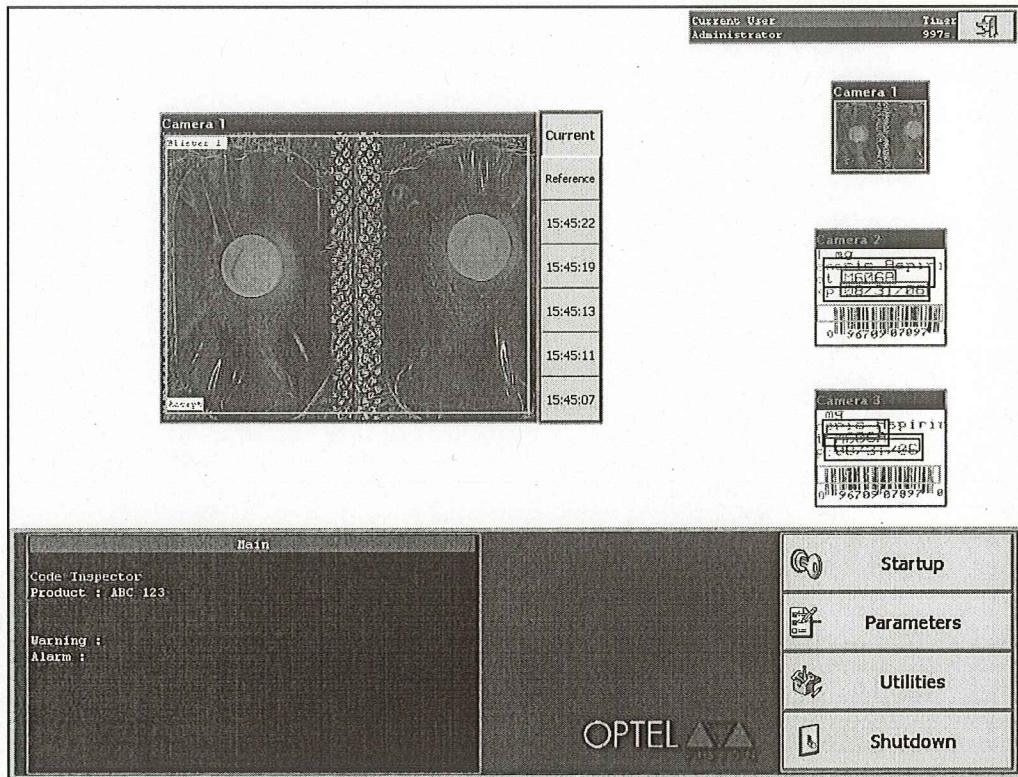
Figure 1.1 Control Panel



1.2.2 Touch Screen

The touch screen is divided into three parts. The monitor, top half of touch screen, shows the codes and tablets being inspected in the camera windows. The keypad, bottom right, is used to input data and access the menus. The message window, bottom left, displays the system's menu options and data.

Figure 1.2 Touch Screen



Connection Status

The connection status window, top right of screen, displays the current user, the connection time left before automatic log out, and the logout button.

Main Camera Window

The main window displays one of the camera images. To change the image in the main window, simply touch the desired camera image window directly on the screen.

OCV inspection frames feature a location frame in blue and an inspection frame in green. The frame name and analysis results are displayed above the inspection frame. The sensitivity and threshold values are displayed below the frame. The background lock location frame is blue with a light blue feature frame.

The tablet inspection frame is green. The frame name is displayed at the top of the frame and analysis results are displayed at the bottom of the frame.

A bar code inspection frame is green and displays the frame name and analysis results at the top. The bar code value is displayed at the bottom of the frame.

When a defect is detected, the image is frozen on the screen for a certain period and the error is boxed in red. The five most recent error images and the reference image can be viewed by pressing the keys on the side of the main image window (**Reference**, etc).

Message Window

The Message Window displays the virtual system's name, the product configuration name, warnings, and alarms, while the system is inspecting. It also displays menus and data when a function is active.

The Main Menu gives access to all other menus. Press **Setup** to begin setup procedure. Press **Parameters** to access system parameters. Press **Statistics** to access inspection statistics. Press **Utilities** to access system utilities. Press **Shutdown** to shut the system down.

Keyboard

The keyboard consists of a menu of keys that invoke various functions. The meanings of the keys change according to the function that is currently active. On some screens, a numeric or arrow keyboard is displayed in the space between the message window and the command menu. On other screens, the entire contents are replaced by a QWERTY keyboard.

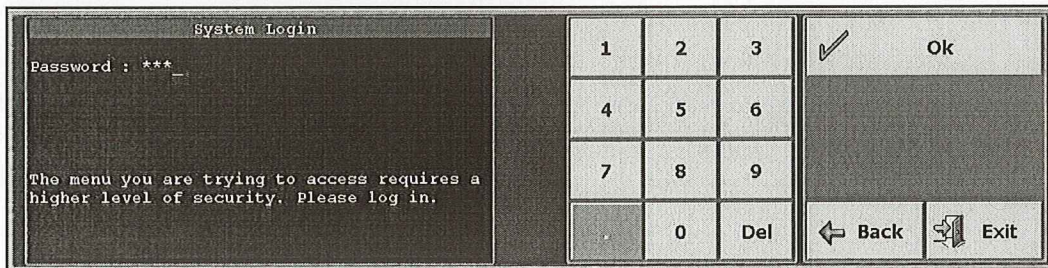
1.3 Optical Assemblies

The color camera, with its lighting, is mounted above the inspection station. The two black & white cameras, with their lighting, are mounted underneath the inspection station.

The trigger signal is activated at the exact moment the product is in the cameras' field of views.

1.4 Security

System security is assured by password. Access to menus and system functions are restricted by password level: 1 operator, 2 supervisor, 3 administrator. The higher levels include the lower level access.



The image shows a 'System Login' screen. On the left, there is a text area with 'Password : ***' and a message: 'The menu you are trying to access requires a higher level of security. Please log in.' To the right of the text area is a numeric keypad with buttons for digits 1 through 9, 0, and a 'Del' button. Further to the right is a large 'Ok' button with a checkmark icon. At the bottom right, there are two buttons: 'Back' with a left arrow icon and 'Exit' with a right arrow icon.

To log in, enter password and press **Ok**. Press **Back** or **Exit** to return to the Main Menu.

The user log in is time limited. After a preset time of inactivity, the user is automatically logged out. By default, this length of time is 90 sec. (an Optel Vision technician can extend this time).

The user can also manually log out by pressing on the logout button in the top right hand corner of the monitor.

