

Application Note: Color Fuses

IMPACT Software Suite Information:

Software Version: 8.1

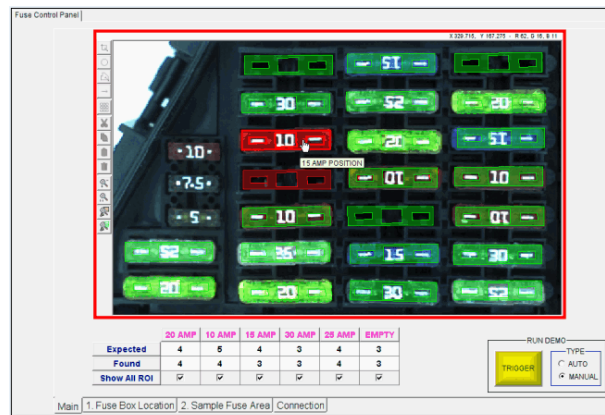
Files Included: Images VPM Program CP Program

Others:

Application:

This application sample demonstrates an inspection of Automotive Fuses to ensure that the correct Fuse is present in the correct position.

Image Example(s):



Lighting:

Optics:

VPM Tools:

1. Origin Tool; used to find the edges of the fuse box. This X, Y and Angle information is then shared with all the Color Blob tools below it for correct ROI positioning. This tool uses only the grey image from the color image.
2. Color Image Sampler Tool; used for selecting the part of the image that needs to be inspected. This tool was used to improve the application inspection time.
3. Color Blob Analysis Tool; one is used for each fuse amp type and empty positions. It verifies that each position in the fuse box

has the correct fuse type. This includes if the position must be empty.

4. Pass Fail Tool; used for decision making after each Color Blob tool identifies the colors in the position it inspects. A global Pass Fail tool is also used to decide whether the part passed or failed, based on the current state of those Tools being monitored.
5. Data Set Tool; used if a fuse type passes to tell the main control panel that this fuse type ROI should be colored green.
6. Basic Tool; used if a fuse type fails to verify which fuse positions have the correct fuse type or not and tell the main control panel which ROIs to make red or green.
7. Discrete Output Tools; used to toggle the various Outputs On/Off to allow the machine to reject failing parts accordingly. Here the Discrete Output 1 is turned on for a pass condition and Discrete Output 2 is turned on for a fail condition.

Other Notes: