

Custom Telesis Software Displays Corrective Action Instructions on Marquee



TMM5100 Marking Head with custom pneumatic clamp holds the marker in place during the print cycle.

An American Automaker recently purchased a PINSTAMP® TMM5100/700 VIN Marking System to print VINs and paint codes on the floor pans of minivans. The VINs are normally acquired when a fixed barcode scanner reads an eight-character VIN derivative from a label attached to the bumper of the vehicle. How-

ever, damaged or dirty labels may make the barcode illegible. The manufacturer wanted an interactive system that would tell the operator when a misread occurred and the steps to take to remedy the problem. They also needed a custom pneumatic clamp to hold the marking head in place during print cycles.

Telesis software engineers designed an extraordinary software package that:

- A) Interacts with the manufacturer's host computer
- B) Tracks the progress of the read/print cycle
- C) Sends instructions to the operator via the marquee
- D) Records each transaction and sends the record to the plant quality system
- E) Minimizes the opportunities for operator errors.

The software gives the operator several opportunities to enter the VIN electronically, via fixed and hand-held barcode scanners before allowing the operator to enter the VIN on a remote terminal.

The custom pneumatic clamp anti-tie-down feature requires the operator to use both hands to press two clamp activation buttons on the support tooling. This safety feature prevents

the operator from inadvertently catching fingers or hands in the clamp as it closes. The clamp automatically releases when the print cycle is complete.

With this system, there are many possible sequences of operation. The following steps illustrate how the system is designed catch read errors and instruct the operator.

- A body assembly enters the marking station.
- The fixed barcode scanner attempts to read the barcode label affixed to the bumper.
- If the label does not conform to the pre-defined mask a NO READ occurs.
- If the label is missing or misaligned a NO READ occurs.
- If a NO READ occurs the Telesis system notifies the host computer and sends a message to the marquee: **"Scan Bumper Label."**
- The operator then scans the eight-character VIN label with the hand-held barcode scanner.
- If a second NO READ occurs, the marking system again notifies the host, then sends another message to the marquee: **Scan VIN Label."**
- The operator scans the 17-character VIN on the tracker sheet that accompanies the vehicle.
- If a valid read occurs following either scan, the eight-character code appears on the marking system monitor, and if the host is online, it acknowledges the read.
- The TMM5100/700V sends a "GET TAG" message to the host.
- The host responds, sending the corresponding record, containing the full VIN and paint code to the marking system.
- The marking system acknowledges receipt of the record and extracts the VIN and paint code.
- If the host fails to send the record, the marking system sends a message to the marquee: **"Scan VIN Label."**
- The operator scans the VIN barcode on the tracker sheet.
- If the VIN does not conform to the mask, a NO READ occurs.
- The marking system sends a message to the marquee: **"Scan VIN Label."**
- The operator scans the tracker sheet VIN label.
- If another NO READ occurs, the marking system sends a message to the marquee: **"Enter VIN and Paint Code."**
- The operator enters the VIN and paint code on the TransTerm6 remote terminal.
- A successful read and receipt of VIN and paint code data at any time results in the VIN being displayed on the marquee and monitor. Only when this occurs is the marker enabled.
- The operator positions the marker on the floor pan and activates the pneumatic clamp by pressing two anti-tie-down buttons on the support tooling.
- The operator presses the START PRINT button on the support tooling
- The TMM5100 prints the 17-character VIN and three-character paint code on the floor pan.
- When the print cycle is complete, the clamp automatically releases.
- The operator retracts the marker from the vehicle.
- The marked body assembly leaves the marking area.
- The marking system creates a record of the printed VIN and stores it in a FIFO queue file.
- When the Quality System computer is online, the record(s) is transferred, then erased from the marking system.