



Simplifying Processes...
Standardizing Excellence.

Checklist of Functionality to Meet Honda MPRs

Honda developed its Minimum Process Requirements (MPRs) to help its suppliers consistently achieve 100% accuracy in their processes for packing, labeling, shipping and traceability of Honda product. The key to meeting Honda MPRs is adopting line-side processes with built-in controls that can prevent errors in real-time.

SPEDE Technologies offers a variety of real-time Automated Solutions that control and error-proof line-side processes to ensure every customer shipment has the right parts, right quantities and right labels. Our solutions combine PLCs, weigh scales, vision, touch screens, WiFi and other technologies to automate processes from Production Setup to Shipping and Traceability. The SPEDE Automated Solutions are quick to install, usually within 90 days of contract date, and can interface to virtually any host ERP, EDI and OEE systems.

If you are looking for an efficient way to control quality and meet Honda MPRs, this Checklist can help you get started.

Technology is Key to MPR Compliance

There are many ways to leverage technology to ensure accuracy and meet Honda MPRs:

- PLCs: to supply accurate part number data
- Vision Sensors: to identify, count and verify parts; determine good vs. scrap; verify kitting; validate tools/dies
- Part Serialization: to control piece counts, rework and repack; enable serialized traceability
- Container Serialization: to provide accurate inventory tracking, shipping, traceability
- Weigh Scales: to ensure accurate dunnage
- Touchscreens: to display part number data and images; enable adjustments at packing, rework, etc.
- SPEDE Application Software: to collect and verify data; ensure processes are followed; create detailed databases for accountability, traceability and reporting; and interface to your plant floor equipment and host systems.

Use this Checklist as a Starting Point

This Checklist can help you begin identifying and prioritizing the functionality you need. We tailor our solutions to fit the equipment, procedures and data requirements of each production line. You can always add more functionality later on a per-line or per-site basis, as your needs require.

Which Functionality Could Help You Meet Honda MPRs?

Automated Labeling - Using PLCs, Scales, Vision and/or TouchScreens



PLC -directed



Weigh Scale



Vision Technology

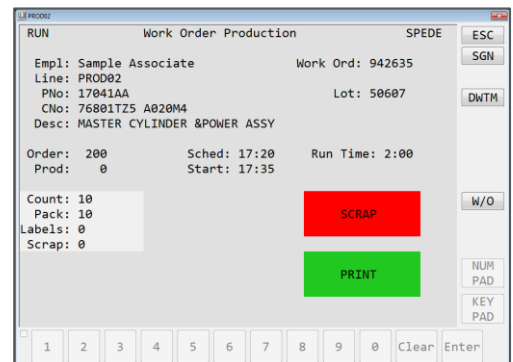
- Use your production machine's PLC to count both Good and Scrap Parts, and automatically print a container label when the PLC indicates a pack count of Good Parts is reached
- Use a Vision Sensor to verify whether a Part is Good or Scrap as it leaves production machine
- Use a Vision Sensor to count both Good and Scrap Parts, and automatically print a container label when a pack count of Good Parts is reached
- Use a Conveyor and Diverter to automatically separate the Good Parts (Positive Release)
- Use a Mini-Conveyor with a Vision Sensor on a Mobile Cart in the Packing area to pack only Good Parts
- Use a Weigh/Count Scale to determine when the container is full and automatically print a container label.
- Print a serialized barcode label, or use laser etching to serialize each individual Part.
- Automatically scan or read each Part's serial number to provide accurate counts for inventory and production, and create serialized parts traceability records.
- Use a Touchscreen PC at line-side to display real-time counts and enable the operator to adjust for Rejects /Scrap.
- Use a Power Cart and WiFi printer as a mobile print station.
- Automatically export Production Counts, Machine Data and Container Label Data to your existing ERP, EDI, Shipping and/or OEE systems.

Tool Validation

- Use a Vision Sensor to validate Parts and/or Tools at Start-of-Run or Changeover
- Interface Vision Sensor to test jigs

Accurate Production Information in Real-time

- Display real-time piece counts, label status, run data, etc. at line-side
- Display Actual Machine Counts vs. Targets
- Count only "good" pieces toward pack count quantity
- Retain a detailed Individual Part History, including any Rework history
- Update host systems automatically



Production / WIP

- Automatically obtain WIP label data from PLC or host system
- Print serialized Internal (WIP) label or Customer label
- Scan serial number on WIP label to create new Honda label

Re-Pack / Re-Label

- Scan the barcoded serial number on bulk container of parts for repack/ relabel
- Use a Touchscreen PC at Pack Station to display part description and photo and enable quantity adjustments
- Verify correctness of the part to be re-packed to a shipment container by either:
 - Scanning a barcoded serial number on the part
 - Using vision to verify the part number instead of barcode scanning
 - Interfacing a Touchscreen to the PLC to automatically verify the part number and obtain part serial number
- Automatically count parts and verify when container count is correct
- Automatically print new Honda serialized container label per shipping requirements

Which Functionality Could Help You Meet Honda MPRs?

Small Lots, Partials

- Control non-standard pack counts at end of run /end of shift
- Print serialized internal Partial label at end of run
- Print "Do Not Ship" label at end of run, end of shift, etc.
- Scan Partial serial numbers to build full pack count; automatically print new serialized full pack container label when count is correct
- Automatically link Partial serial numbers to new container serial number for traceability
- Control leftover Partials after combining multiple Partials to make up a full pack count
- Control containers of partials available for repack or rework



Rework

- Provide a mechanism to produce full pack count, shippable containers with parts acquired from one or more Partial/Rework containers
- Track locations/quantities of serialized Partial/Rework containers
- Print serialized label for rework container
- Automatically associate partial container serial numbers to serial number of new full container
- Retain detailed Individual Part History including any Re-work history

Pass Thru

- Validate Parts at Kitting or Packing
- Use Vision to confirm the Supplier's Part is correct, per the Supplier's label
- Or Scan Supplier label

Shipping

- Send SPEDE label data real-time to your EDI/Shipping application
- Partial containers / Split containers do not update EDI

Process Control

- Automate and standardize processes to ensure quality control
- Confirm correct process is being followed in real-time
- Provide Alert, and Report if Operator varies from standard processes

Accountability

- Maintain Operator accountability (who made what, where, when, etc.).
 - Operator login validation
 - Function choice based on level of authority
 - Transactions linked to employee and terminal
- Provide Operator productivity reports (good parts, rejects, scrap)

"We have had zero claims for mis-labeled product since we implemented SPEDE."

*B. Lortie
Nissin Brake*

Which Functionality Could Help You Meet Honda MPRs?

Serialized Traceability:

- Serialize each Part via barcode label, or laser etching
- Automatically associate individual serialized parts to a serialized container of parts.
- Automatically associate serialized containers of parts to a serialized pallet label.
- Automatically associate a serialized pallet to a unique customer shipper/RAN/ASN.
- Maintain Part Traceability from the Customer back to Shipper number, Pallet, Container, Machine, Shift, Operator.
- Maintain Part Traceability from a Production Machine back to Lot Numbers of Raw Materials used.
- Maintain Part Traceability from Lot Numbers of Raw Materials used back to the Supplier(s) of those Raw Materials.
- Retain detailed Individual Part History including any Re-work history
- Collect/Store Production Run Statistics (good/reject/scrap) in SQL DB for inquiries/reports.

| Part Nbr | Description | Run Nbr | Start | Stop | Elapsed | Scrap | Good | Containers |
|---------------|---------------------|-----------|----------|----------|-----------------|-----------|------------|------------|
| C728-103-0000 | ACCORD M/T RADIATOR | 000012001 | 08:03:22 | 12:01:10 | 03:57:48 | 11 | 200 | 40 |
| C728-103-0000 | ACCORD M/T RADIATOR | 000012004 | 13:01:08 | 17:38:57 | 04:37:51 | 19 | 240 | 48 |
| C728-103-0000 | ACCORD M/T RADIATOR | 000012007 | 18:20:07 | 23:30:45 | 05:10:38 | 9 | 260 | 52 |
| | | | | | 13:48:17 | 39 | 700 | 140 |
| C728-101-0000 | CIVIC M/T RADIATOR | 000012012 | 07:58:26 | 12:10:00 | 04:11:34 | 13 | 180 | 36 |
| C728-101-0000 | CIVIC M/T RADIATOR | 000012016 | 13:12:35 | 17:28:20 | 04:15:45 | 8 | 160 | 32 |
| C728-101-0000 | CIVIC M/T RADIATOR | 000012017 | 19:00:05 | 23:40:10 | 04:40:05 | 11 | 205 | 41 |

Additional Requirements or Comments:

If you would like to discuss your project and this Functionality Check-list with a SPEDE Business Analyst, please call us. Or email your completed Check-list to Bob Bunsey at bbunsey@spede.com.

Your Name _____ Job Function _____

Company _____ Phone _____

ERP, EDI System _____ Project Timeframe _____



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