Automotive traceability solutions
Technologies for ensuring quality, consistency and compliance

- Track parts with direct part marks, labels and RFID tags
- Verify, read and communicate data throughout the production process
- Take advantage of Omron’s extensive industry knowledge
An end-to-end solution for traceability

From applying the marks to communicating the data to the enterprise level, Omron’s traceability technologies comprise a complete solution.

Direct part marking
Encode lot numbers, serial numbers and other key information in durable laser markings to track parts throughout their life cycle and across the supply chain.

Labeling inspection
Fit all the necessary information into concise, streamlined labels for easy track and trace.

Barcode verification
Ensure the quality of your direct part marks and printed barcodes to prevent no-reads down the line.

Barcode reading
Employ barcode readers that are designed to withstand the harsh conditions of the automotive factory floor.

RFID
Read and write important data related to part identification and work-in-progress status as part of a flexible traceability solution.

Data communication
Take advantage of controllers that communicate traceability to the enterprise level without slowing down the production cycle.
MVRC: Mark, Verify, Read and Communicate

The components of an end-to-end solution

At Omron, we think of traceability in terms of the four main requirements for a working system – a way to mark parts, verify the marks, read the data and communicate the data to the rest of the system.

**Marking: MX-Z Laser marker**
Our high-resolution laser markers offer the kind of high-quality, permanent part identification that industrial traceability demands. They mark characters as small as 0.1 mm (100µm) on a variety of materials, including stainless steel, iron, copper, gold, silver, aluminum and plastics.

**Verification: LVS-9585 off-line and LVS-7510 in-line verifiers and print quality inspection**
Advances in laser marking technology spurred the need for verifiers that could analyze extremely small codes. Our LVS-9585 verifiers have been recently upgraded with ultra-high-density inspection capabilities to grade codes twice as small as the current GS1 minimum.

**Reading: MicroHAWK Barcode readers**
This popular series of industrial barcode readers includes four models that enhance traceability and flexible manufacturing with best-in-class liquid lens auto-focus technology, including new long range functionality, and high-performance X-Mode decoding algorithms.
Reading: HS-360X Handheld Barcode Reader
Rugged enough to withstand the harsh conditions of the automotive factory, the HS-360X boasts an impact-resistant, IP67-rated casing. Advanced X-Mode algorithms capture codes of all types and qualities on shiny, textured and curved surfaces.

Reading: V780 UHF RFID System
This ultra-high-frequency RFID system is an all-in-one solution that includes a reader, an amplifier and an integrated antenna for traceability applications. The V780 enhances flexibility with a long-range reader/writer that accurately tracks mixed model production.

Reading/Verification and beyond:
HAWK MV-4000 and FHV7 Smart Cameras
Smart cameras don’t get any smarter – or faster – than these unique machine vision solutions. With near-PC processing power packed into a compact and rugged casing, these cameras are all-in-one solutions for code reading/verification, gauging, measurement and quality inspection.

Communicate: NX1 Machine Automation Controller and Omron InduSoft
The ideal controller for scalable and flexible production lines; the NX1 integrates machine control with information utilization, quality management and safety over multiple networks without compromising control performance. Omron InduSoft is a software interface that provides HMI visualization and integrated logging of data to local, enterprise databases and cloud-based systems.