



## Innovation Ensures Easy Ride For Major Car Manufacturer

### A fully traceable document and scanning audit trail provided by Datalogic Scanning products and TPL Labels

Delphi is a leading global supplier of mobile electronics and transportation systems, including powertrain, safety, steering, thermal, and controls & security systems, electrical/electronic architecture, and in-car entertainment technologies. Engineered to meet and exceed the rigorous standards of the automotive industry, Delphi technology is also found in computing, communications, consumer electronics, energy and medical applications. Headquartered in Troy, Michigan, USA, Delphi has approximately 171,000 employees and operates 159 wholly owned manufacturing sites in 36 countries with sales of \$26.4 billion in 2006.

Supplying advanced suspension systems to an Oxford based major car manufacturer, Delphi Automotive Systems ensures the right components

are supplied to the assembly line in the right sequence as they are needed.

#### The Challenge

As a result of lean manufacturing initiatives designed to reduce assembly costs, automotive manufacturers require their suppliers to provide just-in-time deliveries of pre-assembled systems directly to their production lines. Delphi Automotive Systems delivers multiple, small batches of suspension systems as they are needed. This means the automotive manufacturer can minimize inventory levels and improve operational efficiency. What's more, Delphi must deliver their suspension systems in the correct assembly sequence, as each new vehicle is built-to-customer order, possessing its own unique build specifications, rather than built-to-stock. In fact, of every 1,000,000 cars that roll off the production line only 10 will be identical.

## DELPHI

#### Customer

Delphi Automotive Systems

#### Industry

Automotive

#### Application

Manufacturing

#### Geography

United Kingdom

#### Datalogic Product

Datalogic Scanning PowerScan® PM8300  
Industrial Handheld Reader

#### Datalogic Partners

TPL Labels Ltd.

## The Solution

To successfully meet the challenge of supplying in assembly line sequence the correct suspension module on each corner of the vehicle for over 5200 vehicles a week Delphi designed an innovative picking process. Working in partnership with TPL Labels Ltd, a specialist provider of custom labels, auto-identification and data capture solutions, Delphi reorganized its shop floor into specific lanes designated by the final destination of the suspension module on the vehicle: front-left, front-right, rear-left, rear-right.

Jim Allen, Operations Manager, explained: "We were tasked to deliver suspension modules in sequence to our customer's production line. We needed to have a robust and reliable error-proofing system that ensured our customer would be consistently supported, and protect Delphi with a fully traceable document and scanning audit trail.

"Together TPL Labels Ltd. and Delphi constructed the architecture of the error-proofing and Datalogic provided the hardware and integration. Datalogic was selected as the hardware provider for this project because of its market reputation for quality, reliability and project management."

Connected electronically to the automotive manufacturers assembly line management system, Delphi's Luton plant prepares batch deliveries using a combination of a truck-mounted Datalogic Mobile Rhino-Net™ rugged mobile computer, a Datalogic Automation DS4600A fixed position laser bar code scanner, and Datalogic Scanning PowerScan® M8300 industrial handheld bar code reader.

Mounted on an electric pallet truck, Delphi and TPL Labels Ltd. devised a system whereby the operator moves along the picking lane and is instructed as to which suspension module is required by the Rhino-Net mobile computer. Having picked the suspension module, the operator places it on a vertical arm where its identifying bar code is automatically scanned by the DS4600A.

Having positively identified that the suspension module is the correct one, the operator places it in a customized "pigeon hole" storage system on the truck. Each compartment of the storage system is individually numbered and assigned a corresponding bar code. Having placed the suspension module in a storage compartment, the operator scans the bar code to positively identify that the right suspension unit has been picked and placed in the correct storage compartment prior to shipping.

Delphi chose the Datalogic PowerScan M8300 rugged handheld scanner for several reasons including its extremely rugged construction (IP65 rating and 2m drop resistance), ergonomic design, 3GL™ good read feedback system, and superior reading performance. Using Datalogic's STAR Cordless System™ for narrow band radio communications (433MHz or 910MHz), the PowerScan M8300 industrial handheld scanner offers reliable, secure data transfer without Wi-Fi interference, or the constraints and hazards of a tethered device.

## The Results

For the automotive manufacturer Delphi's supply-in-line sequence process means greatly reduced line-side storage, simpler, more efficient manufacturing logistics, increased production flexibility and lower costs.

## About TPL Labels Ltd.

Established in 1969, TPL Labels Ltd. specializes in the supply of a wide range of printed labels from plain to full color process, in a variety of materials and finishes, as well as thermal ribbons, printers, scanners and label software. TPL Labels Ltd. works closely with its customers to provide labelling solutions to a diverse range of markets.



*"Together TPL Labels Ltd. and Delphi constructed the architecture of the error-proofing and Datalogic provided the hardware and integration. Datalogic was selected as the hardware provider for this project because of its market reputation for quality, reliability and project management."*

**Jim Allen**

**Operations Manager, Delphi**

**Automotive Systems**

© 2009 Datalogic Scanning Inc. • All rights reserved. • Protected to the fullest extent under U.S. and international laws. • Copying, or altering of this document is prohibited without express written consent from Datalogic Scanning, Inc.

Datalogic is a registered trademark of Datalogic S.p.A. in many countries and the Datalogic logo, and RhinoNet are trademarks of Datalogic S.p.A. • PowerScan is a registered trademark of Datalogic Scanning Inc. • All other brand and product names may be trademarks of their respective owners.

Product specifications are subject to change without notice.

SS-DELPHI-ENA4 REV B 20090505

[www.scanning.datalogic.com](http://www.scanning.datalogic.com)