

# REVISION TRANSMITTAL

TO: HOLDERS OF SERVICE LETTER SL83-204-02-01 FOR ELDEC 83-204-02, 83-207-02 and 83-210-01 — **TIRE PRESSURE SENSORS**

REVISION 2, DATED FEB 20/14

## HIGHLIGHTS

This page transmits a revision to Service Letter SL83-204-02-01. The entire Service Letter has been reprinted. Discard the old Service Letter and replace with the new copy.

Page No.	Description of Change	Effectivity
1	Revised aircraft applicability. Changed the Boeing 747-400 wheel and TPS data to a table format. Added an aircraft applicability heading above the table.	All
2	Added an aircraft applicability heading above the table. Added wheel part number C20626000 for 737NG. Removed a statement about barometer calibration from paragraph 2.	All
3	Revised the last sentence of paragraph 3 for clarity.	All

HIGHLIGHTS

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# SERVICE LETTER

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TO: OPERATORS OF BOEING 747-400 and 737NG AIRCRAFT

SUBJECT: **SmartStem**<sup>®</sup> WIRELESS TIRE PRESSURE SENSORS

1. Description

This Service Letter provides information about the introduction of new Crane Aerospace & Electronics **SmartStem** tire pressure sensors for the Boeing 747-400 and 737NG aircraft. Crane P/Ns 83-204-02 (large fill valve) and 83-207-02 (standard fill valve) are interchangeable with existing tire pressure fill valves on the 747-400 aircraft. Crane P/Ns 83-204-02, 83-207-02, and 83-210-01 (recessed wheels) are interchangeable with existing tire pressure fill valves on the 737NG aircraft. **SmartStem** tire pressure sensors, measured by a **SmartStem** Hand-Held Reader (HHR), allow the user to take tire pressure readings without the use of a manual tire pressure gauge. For more information on the **SmartStem** system, refer to section 3 below.

Crane **SmartStem** technology has been installed as basic equipment on new production Boeing 777 aircraft since 2007, and on Boeing 787 since production started in 2009. In addition, **SmartStem** tire pressure sensors are certified on a number of business jet aircraft and have been in service since 2008. For more information, or to purchase **SmartStem** for your 747-400 and 737NG aircraft, please refer to section 4 below.

Boeing 747-400 Aircraft Applicability

Description	TPS Part Number	Quantity Per Aircraft
Large Fill Sensor	83-204-02 <sup>1</sup>	16 Main Wheels 2 Nose Wheels
Standard Fill Sensor	83-207-02 <sup>1</sup>	16 Main Wheels 2 Nose Wheels
Hand-Held Reader Kit	KIT83-008-03	1-2 per Facility

1. 83-204-02 and 83-207-02 TPS units are interchangeable and intermixable on Main and Nose Wheels.

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### Boeing 737NG Aircraft Applicability

737NG Wheel Part Numbers	83-204-02 (Large Fill)	83-207-02 (Standard Fill)	83-210-01 (Standard Fill on Recessed Wheel)
3-1559	•	•	•
2607825-2	•	•	
C20637000	•	•	
3-1674	•	•	•
2612301-2	•	•	
2612311-1	•	•	
2615001-1	•	•	
C20626200	•	•	
3-1557			•
3-1558			•
3-1654			•
C20626000	•	•	

**NOTE:** 737NG aircraft have four main wheels and two nose wheels. One sensor will be installed on each wheel. Refer to the table above for sensor options based on wheel P/N.

### 2. Key Benefits

Key operational benefits of the Crane **SmartStem** tire pressure sensors on Boeing 747-400 and 737NG include:

- Easy to use worldwide in any environment.
- Faster and more accurate tire pressure measurements – typically 3 seconds for a single tire.
- No release of gas from the tire during measurement, due to **SmartStem** proprietary wireless interrogation.
- HHR display panel provides clear digital pressure readings in all conditions.
- Accurate tire pressure records are maintained electronically on the HHR, and easily downloaded to any PC.

## SERVICE LETTER – Continued

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### 3. Background

**SmartStem** is a passive, wireless tire pressure system that replaces a standard tire fill valve on the wheel. The system consists of a **SmartStem** tire pressure sensor for each wheel, and an HHR that is utilized as Special Ground Support Equipment (SGSE) to wirelessly interrogate the sensors and display a digital readout of the tire pressure and temperature. This proprietary wireless interrogation method allows an operator to receive tire pressure information without any release of gas from the tire.

The HHR stores up to 10,000 tire pressure readings which can be easily downloaded to a PC device for record keeping, review, and analysis. **SmartStem** tire pressure sensors can be programmed to store the aircraft tail number and wheel position, so that tire pressure measurement data can be traced to a specific aircraft and wheel.

A successful In-Service Evaluation was performed by two 747-400 operators, with Boeing approval, prior to certification.

### 4. Additional Information

For any additional information, or to purchase **SmartStem** equipment for your 747-400 and 737NG aircraft, please contact:

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