

## Upgrading the SpO2 board from MS-11 to MS-2011

**Note:** This procedure only applies to devices containing an MS-11 SpO2 board.

The Masimo **MS-11** SpO2 module was obsoleted in 2011. Thus, a newer version, **MS-2011**, is available for use in SPOT Vital Sign Monitors. When the SpO2 assembly needs repair, all SpO2 assembly replacements should use the **MS-2011** module.

The upgrade will require a new **MS-2011** Module (726572 / MASIMO MS-2011 OEM PCBA 3772 FW V5201), and a new interface board (407433 / SPOT ON MASIMO ADAPTER PCA, MS-2011). New cables or sensors must be purchased separately. For convenience, these two boards, along with a copy of these instructions, are included in the Service Kit: 4200-410 / SPOT MASIMO REPLACEMENT KIT.

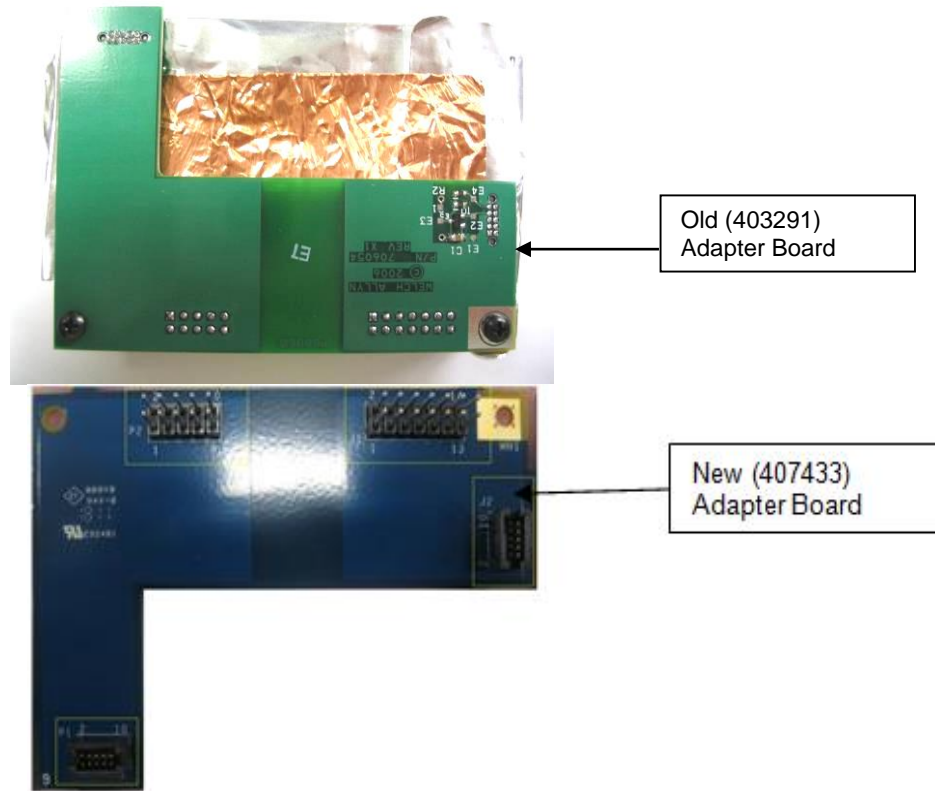
While replacing the **MS-11** (part # 031-0160-01 / MS-11 OEM PCB SPOT ON) with an **MS-2011** (part # 726572), replace the interface board (part # 403291 / SPOT ON MASIMO ADAPTER PCA) with the new version, (part # 407433).

### Procedure:

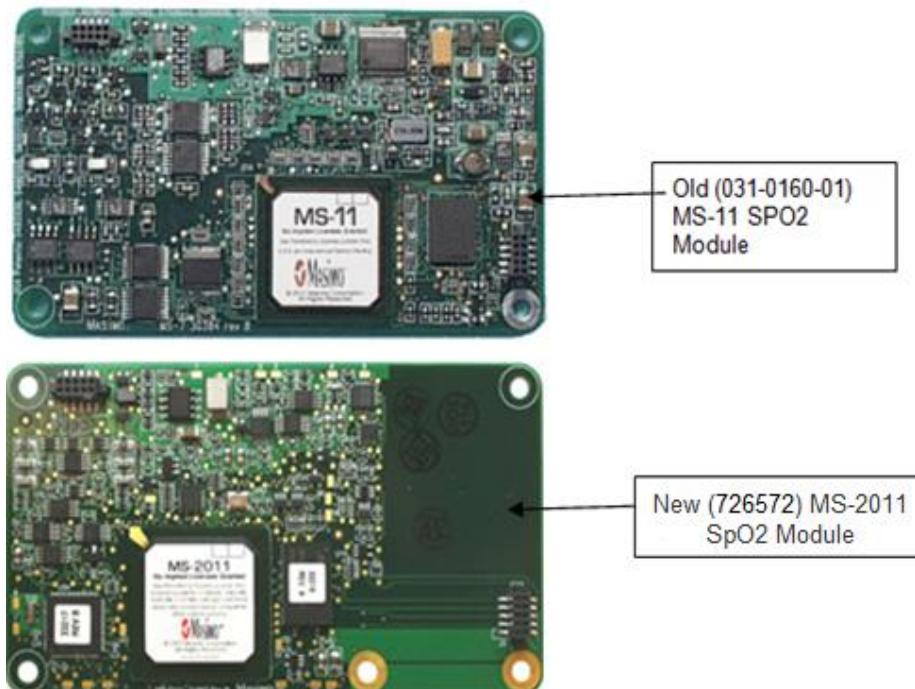
1. Open the SPOT front panel; remove the LCD and the main PCBA, as shown in the standard service instructions.
2. The existing **MS-11** module can be seen wrapped in an EMI shield. The adapter board (403291) can be seen on top of the **MS-11** module.



3. Remove the SpO2 assembly. Note the different color between the old green (403291) and the new blue (407433) adapter boards.



4. Unwrap the EMI shield from the SpO2 Module. Note the difference between the old (MS-11) and the new (MS-2011) modules.



5. Wrap the MS-2011 module in the EMI shield.
6. Assemble the **MS-2011** module into an SpO2 assembly with the **407433** (blue) board.
7. Attach the assembly to the main board and re-assemble the main board in the unit.
8. Re-install the LCD and complete assembly of the unit.
9. For assembly / disassembly details, or to verify proper functionality, refer to:

**Welch Allyn Spot Vital Signs Service Manual**

<https://www.welchallyn.com>

Part #: **718448 / SERVICE MANUAL, SPOT, ENGLISH (DIR # 80017506)**

**Note:** If a **C8 error** displays after the upgrade, the SpO2 cable and/or sensor may need to be replaced. Older cables (sold before January, 2009) may not work with the **MS-2011** module, but new cables will work with both **MS-11** and **MS-2011** modules. Contact Welch Allyn or an authorized distributor to purchase the appropriate replacement cable(s).