

# Shovel Application Packages & Sensors

Emerson's CSI 6500 Machinery Health Monitor shovel application can be pre-installed on new shovels prior to deployment, or retro-fitted to shovels already in the field.

The following serves as a guide for ordering the appropriate application package for your Joy Global 2800 and 4100 shovels, along with sensor options that can be applied to any package. Contact your local Emerson representative for pricing and to customize your order.



CSI 6500 Machinery Health Monitor

| Shovel Packages              |  |
|------------------------------|--|
| <b>A6500-4100AC</b>          | <b>CSI 6500 System for PH4100AC shovels. Includes hardware/software items listed here:</b> |
| B65PH4100AC-CAB1             | PH4100AC enclosure, 48-channel, non-transient, wired and tested                            |
| B65PH4100-CAB2               | PH4100AC-DC enclosure, 24-channel, non-transient, wired and tested                         |
| B65PHSRVR-CAB                | PH server enclosure with Machinery Health Manager software, DB and UPS, wired and tested   |
| <b>MHM-PJTACVT-A65PHSVCS</b> | Project services for PH shovel system. No on-site services included.                       |
| <b>A65SHOVELIP</b>           | CSI 6500 Machinery Health Monitor license for articulating equipment                       |
| <b>A6500-4100DC</b>          | <b>CSI 6500 System for PH4100DC shovels. Includes hardware/software items listed here:</b> |
| B65PH4100DC-CAB1             | PH 4100DC enclosure, 48-channel, non-transient, wired and tested                           |
| B65PH4100-CAB2               | PH 4100AC-DC enclosure, 24-channel, non-transient, wired and tested                        |
| B65PHSRVR-CAB                | PH server enclosure with Machinery Health Manager software, DB and UPS, wired and tested   |
| <b>MHM-PJTACVT-A65PHSVCS</b> | Project services for PH shovel system. No on-site services included.                       |
| <b>A65SHOVELIP</b>           | CSI 6500 Machinery Health Monitor license for articulating equipment                       |
| <b>A6500-2800DC</b>          | <b>CSI 6500 System for PH2800DC shovels. Includes hardware/software items listed here:</b> |
| B65PH2800DC-CAB1             | PH 2800DC enclosure, 48-channel, non-transient, wired and tested                           |
| B65PHSRVR-CAB                | PH server enclosure with Machinery Health Manager software, DB and UPS, wired and tested   |
| <b>MHM-PJTACVT-A65PHSVCS</b> | Project services for PH shovel system. No on-site services included.                       |
| <b>A65SHOVELIP</b>           | CSI 6500 Machinery Health Monitor license for articulating equipment                       |
| <b>A6500-2800AC</b>          | <b>CSI 6500 System for PH2800AC shovels. Includes hardware/software items listed here:</b> |
| B65PH2800AC-CAB1             | PH 2800AC enclosure, 48-channel, non-transient, wired and tested                           |
| B65PHSRVR-CAB                | PH server enclosure with Machinery Health Manager software, DB and UPS, wired and tested   |
| <b>MHM-PJTACVT-A65PHSVCS</b> | Project services for PH shovel system. No on-site services included.                       |
| <b>A65SHOVELIP</b>           | CSI 6500 Machinery Health Monitor license for articulating equipment                       |

**Sensors**

**Sensors:**

A0322R5 Accelerometer 100 mV/g, 10% Side Exit C5015 Connector, 0.5 to 8000 HZ, Rating IP68, CE.

**Sensor Mounting Accessories:**

A212 Large adhesive mounting pad, 1" diameter, 1/4-28 threaded hole, 316 S.S.

A92106 Loctite Depend adhesive, 250 ml tube with spray activator

MHM-88101 Spot facing tool, 1" diameter model

**Sensor Cables and Accessories**

A612-NA-09-0 Sensor Cable, C5015 2-pin push-on boot, no armor, 9M/30' long, blunt cut

A612-NA-18-0 Sensor Cable, C5015 2-pin push-on boot, no armor, 18M/60' long, blunt cut

A612-NA-30-0 Sensor Cable, C5015 2-pin push-on boot, no armor, 30M/100' long, blunt cut

A612-AR-09-0 Sensor Cable, C5015 2-pin push-on boot, armor 9M/30' long, blunt cut

A612-AR-18-0 Sensor Cable, C5015 2-pin push-on boot, 9M/30' armor, 18M/60' long, blunt cut

A612-AR-30-0 Sensor Cable, C5015 2-pin push-on boot, 9M/30' armor, 30M/100' long, blunt cut

**Wiring Boxes, Enclosures and Accessories:**

A6500-SS-JB-12 Junction Box, 12-channel, 3-tier termination block, NEMA 4X, SS

**Services**

Onsite startup services\*

Onsite shovel package operator and maintenance training\*

Shovel package Guardian support (annual)\*

\*Contact factory to define scope and schedule services.

**Emerson Process Management  
Reliability Solutions**  
835 Innovation Drive  
Knoxville, TN 37932  
T (865) 675-2400  
F (865) 218-1401

©2014, Emerson Process Management.

The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, they are not to be construed as warranties or guarantees, express or implied, regarding the products or services described herein or their use or applicability. All sales are governed by our terms and conditions, which are available on request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice.

All rights reserved. Machinery Health is a mark of one of the Emerson Process Management group of companies. The Emerson logo is a trademark and service mark of Emerson Electric Co. All other marks are the property of their respective owners.