### SERVICE BULLETIN

Original Issue Date: 7/11

Model: 20-2250 kW with Decision-Maker® 3+ Controller

Market: Industrial, Residential/Commercial, and Marine

Subject: Red Main Logic Board (GM28725) and

Blue Main Logic Board (GM64497) Troubleshooting

### Introduction

Kohler Co. is finding that many of the Decision-Maker<sup>®</sup> 3+ (DEC 3+) main logic boards are being replaced for issues that can be resolved by using the suggestions shown in this informational service bulletin.

#### **Red Board and Blue Board Compatibility**

The blue board can always be substituted for the red board. The red board can usually be substituted for the blue board except on ERES, REZG, REZX, and RZX models.

## Check Application Code before Replacing the Main Logic Board

Try updating the Controller Application version on the controller before replacing the DEC 3+ main logic board. Use the following procedure.

- 1. Connect the controller to Monitor III and review the status screen for the Controller Application Program Version. Reference the Monitor III operation manual TP-6347 as needed.
- 2. Go to KohlerNet and use Tech Tools to view the Application Code update descriptions. Go to Tech Tools, Software, Software Updates. Then click on the link for DEC 3+ with red board or DEC 3+ with blue board and this will give a brief description of each Controller Application version update.

If you find that one of the application versions listed addresses your problem and it has a higher (newer) application program version than what is currently on the controller, then download the latest application program version from the download section of Tech Tools to your laptop. 3. Then download the application program version onto the DEC 3+ main logic board using Program Loader. Reference TT-1285 Program Loader as needed.

# Check the Main Logic Board DIP Switch Settings

If the main logic board is replaced and an auxiliary fault or flashing overcrank alarm occurs this may be due to the DIP switches not set correctly for the application. Refer to the controller operation manual shown in Figure 1 and/or Service Bulletin SB-645.

Figure 1	Decision-Maker® 3+ Controller Operation
TP-6670	300-500EOZC/EFOZC Marine Generator Sets with Software Version 2.10 or higher
TP-6611	33-180EOZC/EFOZC Marine Generator Sets with Software Version 2.10 or higher
TP-6441	33-180EOZD/EFOZD Marine Generator Sets with Software Version 2.10 or higher
TP-6161	20-2250 kW Generator Sets with Software Version 1.10 or higher

Figure 1 Decision-Maker® 3+ Controller Operation Manuals

In some cases, there will be a thin green-colored film strip covering the DIP switch. Peel this film strip off to access the DIP switch settings.

Note: After setting DIP switches correctly for the generator set application, be sure to *power down* and then *power up* the controller (disconnect the battery and then reconnect the battery of the generator set) or use the prime power switch, if equipped. Another method to power down the unit is to temporarily remove the F2 fuse. The controller will NOT acknowledge the DIP switch change until after generator set controller is *powered up*.

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#### Main Logic Board does not Accept Software Downloads

If the controller will not accept the download, power down the controller by removing the F2 fuse. Refer to the controller operation manual or wiring diagram for location. Reference TT-1285 Program Loader as needed.

Remove the F2 fuse and when you get to the step in Program Loader where it indicates to remove and reapply power, reinstall the F2 fuse. Then press OK to continue with the downloading when prompted by the software.

Also save the new code version on your hard drive rather than running it from the CD or flash drive. In some cases, it takes too long for Program Loader to access the file and an error message displays. Therefore, save the new code version file in a single folder on your hard drive for quick access.