SERVICE BULLETIN

Original Issue Date: **12/02**
Model: **20–2000 kW Generator Set Models using the 550 Controller Version 2.10 and Higher**
Market: **Industrial**
Subject: **Resetting an EEPROM Write Failure Error**

If there is a shutdown on the 550 controller with an EEPROM WRITE FAILURE display message, the user can reinitialize the microprocessor to reset the controller. The controller display identifies the data block location within the microprocessor that caused the error message. The user then determines if the data is correct or corrupt by comparing the data to the respective menu parameter in the 550 Controller Operation Manual, TP-6200 or MP-6200.

Data Block Failure Message Display	Validate Data Using Menu(s):
GEN SYS DATA	Menu 7, Generator System
CAL FACTOR TABLE	Menu 1, Generator Monitoring for Metering Menu 12, Calibration for calibration
FINAL ASSY AND COMMS	Menu 20, Factory Setup Menu for assembly date and clock number Menu 14, Programming Mode for programming mode and access code Menu 13, Communication for remote communications and MODBUS settings
DEVICE INFO	Menu 20, Factory Setup Menu for serial no. and model numbers
TIME DELAY PRESETS	Menu 8, Time Delays
ANALOG INPUT CAL	Menu 12, Calibration
ANALOG INPUT SETUP	Menu 9, Input Setup
DIGITAL INPUT SETUP	Menu 9, Input Setup
DEFINE COMMON FAULTS	Menu 10, Output Setup
RDO SETUP	Menu 10, Output Setup
VREG PARAMS	Menu 11, Voltage Regulator

Figure 1 Data Block Failure Messages

If the data is considered incorrect, the user can then reset the menu to the default values. If the data seems correct, the user commands the EEPROM to recalculate the values for a validity match.

The following describes the EEPROM write failure resetting procedure for version 2.10 and higher. Figure 1 shows the problem data block messages and menu locations for data validity. Some data block failure messages require reviewing more than one menu.

In order to correctly reset and establish the controller in the operating condition prior to the error message, the user must determine the user parameters.

User parameters are unique to an installation and include timer values, setpoints, generator set data such as kW and voltage, and input/output selections. These parameters are typically set up for or by the installer at the time of installation. Created user parameters are typically documented and stored on the personality profile disk, a separate backup disk, or written in the appendix under User-Defined Settings in the 550 controller operation manual. The location and contents of the user parameters are essential in configuring the controller to the original function prior to the error message.

1. Establish controller local programming and unlock the factory setup.

This step includes instructions on how to unlock the factory setup after entering Menu 20. Use the down arrow key to go to the setup lock menu to determine the setup status.

Note: After completing the EEPROM write failure error reset, **return the controller to the setup lock position** to prevent inadvertent program changes.

Routing	Service Manager	Sales Manager	Parts Manager	Technician No. 1	Technician No. 2	Technician No. 3	Return This to
Initial Here							

1.1 Press the RESET MENU key on the controller keypad. See Figure 2.

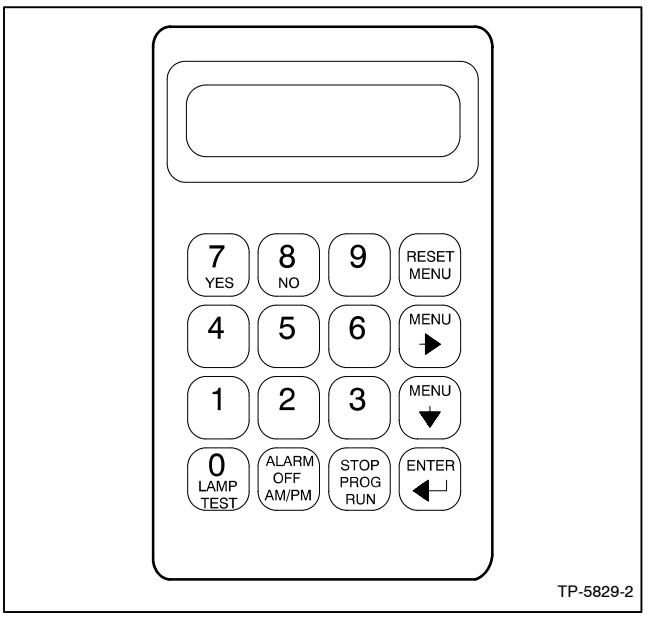


Figure 2 Controller Keypad

1.2 Use the controller keypad to go to Menu 14, Programming Mode**,** and select **programming mode, local**. Use the information from the 550 controller operation manual as necessary.

Note: The factory default access code is the number 0. Contact the factory service department if the access code was set and lost.

1.3 Press the RESET MENU key on the controller keypad.

1.4 Use the controller keypad to go to Menu 20, Factory Setup. See Figure 3 for displays.

1.5 Arrow down to the SETUP LOCK display.

If the SETUP LOCK display indicates **YES**, go to step 1.6.

If the SETUP LOCK display indicates **NO**, go to step 2.

1.6 Unlock the setup.

1.6.1 Arrow down to the FINAL ASSEMBLY, CLOCK NO. display. Record the clock number on the controller display.

1.6.2 Arrow right to ENTER CODE display.

1.6.3 Use the controller keypad to enter the clock number previously recorded.

1.6.4 Press the ENTER key. Changes to Menu 20, Factory Setup, are now possible.

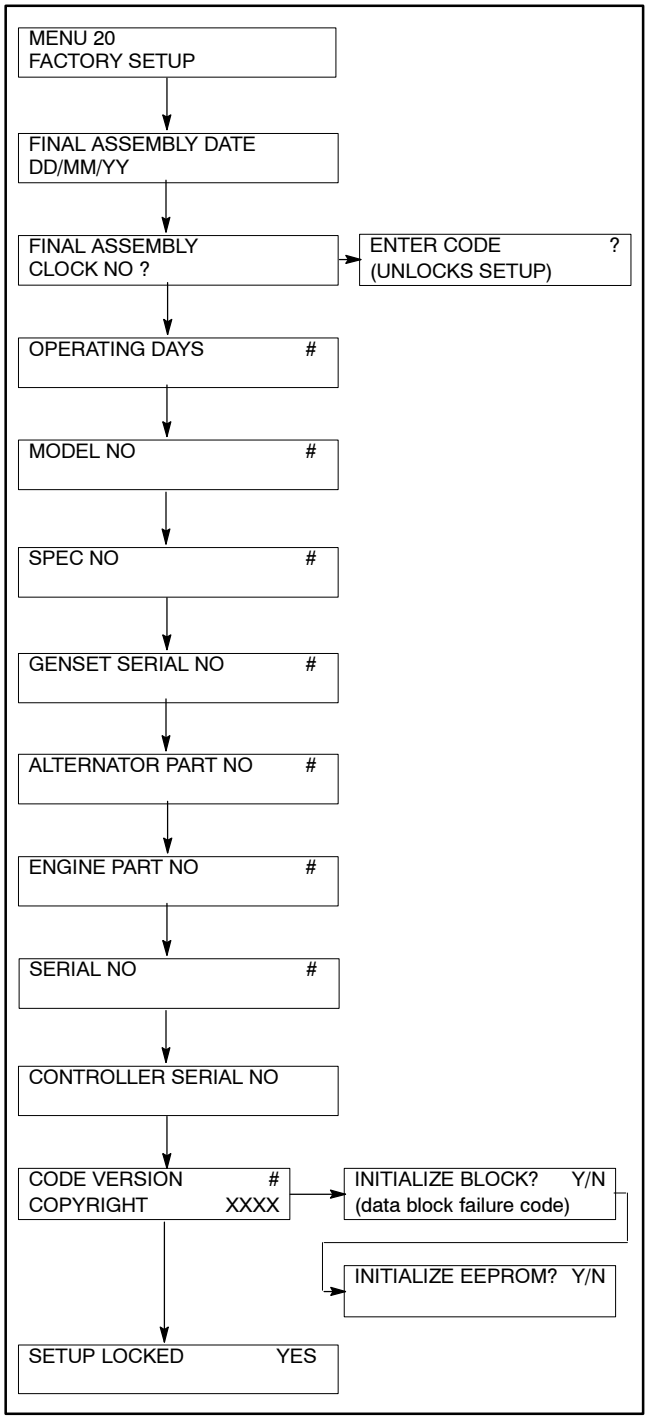


Figure 3 Menu 20, Factory Setup (Version 2.10 or Higher)

2. Initialize the data block.

The following step assumes the generator set is shut down with an EEPROM WRITE FAILURE controller display.

2.1 Go to Menu 20, if necessary, and scroll down to the code version display.

2.2 Press the right arrow key.

2.3 One of the data block failure messages shown in Figure 1 will appear.

2.4 If the user believes the data block failure data is **correct or requires a minor change**, go to the respective menu shown in Figure 1 and confirm the data validity. Make any necessary changes. Proceed to step 2.5.

If the user believes the data block failure data is **incorrect and cannot be easily fixed,** go to step 2.10 and reset the data block to the default values.

2.5 If the data appears correct, go back to Menu 20, Factory Setup, and scroll down to the code version display.

2.6 Press the right arrow key to get the data block failure message.

2.7 Press the NO key and ENTER key.

2.8 The EEPROM logic will clear the error, recalculate the values, and compare the data.

2.9 If an error message **does not** appear, controller reset is complete. The user can continue normal operation. Go to step 6 to lock the system setup.

If an error message **does** appear, the controller reset did not work because the data block still contains corrupt data. The user must clear the data block. Go to step 2.10.

2.10 Using the EEPROM WRITE FAILURE table in Figure 1, determine what menu(s) is affected. Determine if any information in the user parameters is unique or different from the default settings.

These parameters are typically set up for or by the installer at the time of installation. Created user parameters are typically documented and stored on the personality profile disk, a separate backup disk, or written in the User-Defined Settings appendix of the 550 controller operation manual.

Note: The next step WILL cause all unique values in the respective data block to revert to their default values.

2.11 Press the YES key and ENTER key to reestablish the defaults in a respective data block.

3. Determine the impact of custom user parameters.

The following step provides information on entering the user parameters that were lost when the system reverted back to the default values.

3.1 Review Figure 1 to determine the menus affected by the initializing of the data block based on the data block failure message.

3.2 Determine what changes were made in that menu.

If **no changes** were made to the respective menu, go to step 6.

If **changes** were made to the respective menu, go to step 3.3.

3.3 Review the user parameter documentation recorded in step 2.10.

3.4 If using a **PC** to enter user parameters, go to step 4.

If using the **controller keypad and display** to enter user parameters, go to step 5.

4. Add the user parameters with a PC.

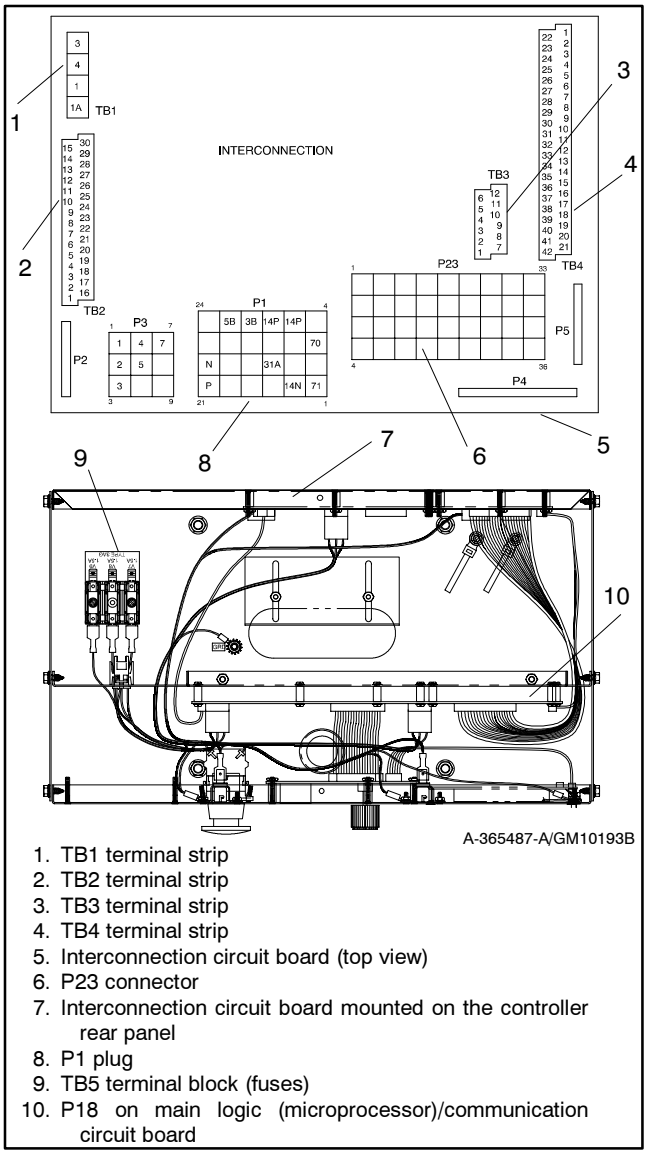
4.1 Remove the controller cover.

4.2 If access to the interconnection circuit board on the rear panel and/or the main logic/ communication circuit board on the front panel is difficult, partially disassemble the controller box. Remove the two controller panel top screws and center bottom screw and then loosen the bottom screw on each side to swing the controller panel down. See Figure 4.

4.3 Connect the PC serial port to the controller RS-232 port (P18) using a null modem RS-232 cable with a 9-pin male plug on the controller end.

Note: It may be necessary to remove the existing P18 cable if remote communication is used with this generator set application.

4.4 Press the RESET MENU key on the controller keypad.



1. TB1 terminal strip
2. TB2 terminal strip
3. TB3 terminal strip
4. TB4 terminal strip
5. Interconnection circuit board (top view)
6. P23 connector
7. Interconnection circuit board mounted on the controller rear panel
8. P1 plug
9. TB5 terminal block (fuses)
10. P18 on main logic (microprocessor)/communication circuit board

Figure 4 Disconnecting Controller Circuit Board External Wiring Connections

4.5 Use the controller keypad to go to Menu 14, Programming Mode—Remote. See the information supplied with the Monitor II software manual.

4.6 Choose one of the following methods to load the user parameters:

- Backup disk. Use a PC to load the data from the user parameter backup disk. See the information from the Monitor II Software Operation/Installation Manual TP-6194 or MP-6194.
- Paper form. Use a PC to enter the user parameter data from the filled-out 550 controller operation manual User-Defined Settings appendix or other similar form. See the information supplied with the Monitor II Software Operation/Installation Manual.

4.7 Create a new user parameter data backup disk if any changes are made. See the Monitor II software manual.

4.8 Disconnect the PC null modem RS-232 cable.

4.9 Install the P18 remote communication connection, as necessary.

4.10 Swing the front controller panel up and replace and tighten the screws, as necessary.

4.11 Replace the controller cover and hardware. Tighten all controller screws.

4.12 Go to step 6.

5. Add the user parameters with the controller keypad and display.

5.1 Press the RESET MENU key on the controller keypad.

5.2 Use the controller keypad to go to Menu 14, Programming Mode—Local. Use the information from the 550 controller operation manual as necessary.

5.3 Use the controller keypad to manually enter the user parameter data from the filled-out 550 controller operation manual User-Defined Settings appendix. Use the information from the 550 controller operation manual as necessary.

5.4 If necessary, create a new user parameter data backup disk if any changes are made. See step 4 for details on using a PC.

6. Lock the Menu 20, Factory Setup, entries.

6.1 Press the RESET MENU key on the controller keypad.

6.2 Use the controller keypad to go to Menu 14, Programming Mode—Local, if not already done.

6.3 Press the SETUP MENU key on the controller keypad.

6.4 Use the controller keypad to go to Menu 20, Factory Setup.

6.5 Arrow down to the SETUP LOCK display.

6.6 Press the YES key to lock the setup and prevent alterations to Menu 20, Factory Setup.