MagneTek

For GPD 503
Adjustable Frequency Drives

CONTROL BOARD REPLACEMENT
1PCB

Before installing the PCB, a TECHNICALLY QUALIFIED INDIVIDUAL, who is familiar with this type of equipment and hazards involved, should READ this ENTIRE INSTRUCTION SHEET.

IMPORTANT

Whenever Control Board 1PCB is replaced, the kVA constant Sn-01 must be set to the appropriate value shown in Table A3-1 on page A3-1 of the TM 4231 instruction manual to assure continued proper operation of the drive. This applies when replacing an old board with either a new **or** a repaired board.

CAUTION

The Control Board contains electrostatic sensitive devices. Personnel should be grounded before removing contents from the shipping carton and installing into equipment.

INSTALLATION

IMPORTANT

If constants in the drive have been programmed to settings other than the factory defaults to configure drive operation for the particular application in which it is used, be sure that all changed constant settings have been recorded **BEFORE** beginning Control PCB replacement.

1. Disconnect all electrical power to Drive.

2. Remove Drive front cover. Check that "CHARGE" indicator lamp inside Drive is off.

3. Verify voltage has been disconnected by using a voltmeter to check for voltage at incoming power terminals (L1, L2, L3).

WARNING

Hazardous voltage can cause severe injury or death. Lock all power sources feeding Drive in "OFF" position.

4. Remove any option boards connected to standoffs on the old Control PCB, marked 1PCB. Wiring connections to the option boards can remain in place.

CHANGE RECORD				

5. Disconnect the Digital operator (or Alpha-Numeric operator, if used) by disconnecting the ribbon cable from 1CN on the Control Board, removing the two mounting screws and removing the Digital Operator (or Alpha-Numeric Operator, if used).

6. Disconect ribbon cable from 7CN on the old Control Board (from Gate Drive Board).

7. Note the control wire numbers connected to each terminal of the wiring strip on the bottom of the old Control Board (if any); then disconnect the wiring.

8. Note the software number on the label of the EPROMs, devices U5 and U6, on the old Control Board. Unless it is known that the EPROMs on the new Control Board are direct replacements for the EPROMs on the old board, the EPROMs from the old board should be removed and installed in the new board.

9. Pull green chassis ground lead from the pin in the lower left corner of the old Control Board.

10. Remove five screws securing the old Control Board in the drive, and remove the board.

11. Position the replacement board in the drive, and install the five mounting screws. See table on page 1-2 of the TM 4231 technical manual for proper torque to apply to screws.

12. Push green chassis ground lead onto the pin in the lower left corner of the new board.

13. Connect control wiring to terminals on the bottom of the new board, using the same terminals that were used on the old board.

14. Reinstall ribbon cable from the Gate Drive Board to 7CN on the new Control Board.

15. Position the Digital Operator (or Alpha-Numeric Operator, is used) on two standoffs, and install mounting screws. Connect the Operator's ribbon cable to 1CN on the new Control Board.

16. Reinstall any option boards to connectors 2CN and 3CN on the new Control Board.

17. **Programming**. After installation of the new Control Board, the GPD 503 will have to be reprogrammed to ensure proper operation on next start-up.

   a. Constant Sn-01 must be programmed to the proper value for the drive Model No., as shown in Table A3-1 of the TM 4231 technical manual.

   b. Any constants which require setting to other than factory default settings must be reprogrammed at this time.

18. Reinstall and secure drive cover.

THIS COMPLETES INSTALLATION OF THE CONTROL BOARD.