MURPHY®

by **EN**OVATION CONTROLS

PowerCore MPC-20

1800RPM
TARGET: 1800
55 PSI   169 °F
Running Loaded
32 % Soot | 7 % DEF | Manual

PowerCore MPC-10

PowerCore TEC-10

Murphy PowerCore® Configurations
Installation Manual

In order to consistently bring you the highest quality, full-featured products, we reserve the right to change our specifications and designs at any time. The latest version of this manual can be found at enovationcontrols.com.

WARNING

BEFORE BEGINNING INSTALLATION OF THIS MURPHY PRODUCT:

- Read and follow all installation instructions.
- Observe all Warnings and Cautions in each section of these instructions.

Contact Enovation Controls Technical Service if you have any questions or concerns at: +1 918-317-4100.

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USB Overview / Requirements

PowerCore® Products

The PowerCore® products include the MPC20, MPC10, and the TEC-10. The MPC's are also used in the ML series panels; ML2000 and ML1000 respectively.

USB Configuration Loading Methods

There are two methods used to load configurations; USB or CAN bus. However, the TEC-10 can only be loaded over the CAN bus.

> **NOTE:** When loading a new configuration, the original setpoints will be changed to the setpoints in the new configuration.

USB Thumb Drive

1. UDISK devices are not supported by PowerCore. With the Thumb drive installed, go to: control panel\device manager\disk drives. Expand disk drives to verify UDISK is not in the description.

2. Thumb Drive file system must be formatted for FAT. FAT32, EXFAT and NTFS are not supported by PowerCore. With the Thumb drive installed, go to: computer\removable disk. Right click on removable disk, click on Format. Check under File System to verify the format is compatible.

Necessary PowerCore Harnessing for USB Loading

MPC20

Along with the 40000554 3' 90 pin whip harness, the 40000566 USB programming harness is required. The 40000566 harness plugs in to the Molex connector on the 40000554 harness.

ML2000

The 40000566 programming harness is included in the ML2000. Remove the four screws holding the black inner panel to the enclosure. Gently pull the inner panel away from the enclosure far enough to expose the 40000556 programming harness.

MPC10

Along with the 40000598 3' 3x12 whip harness, the 78000668 USB programming harness is required. The 78000668 harness plugs in to the USB receptacle on the back of the MPC10.

ML1000

The 78000668 programming harness is not included in the ML1000. Remove the four screws holding the black inner panel to the enclosure. Gently pull the inner panel away from the enclosure far enough to expose the back of the MPC10. The 78000668 harness plugs in to the USB receptacle on the back of the MPC10.
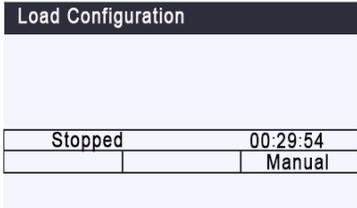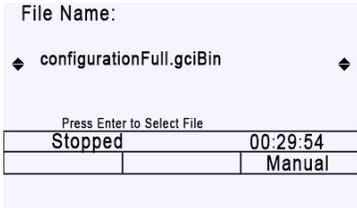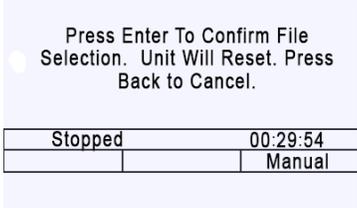
Loading Configurations with USB

There are two types of configuration files: configuration.gciBin, and configurationFull.gciBin. It is recommended to use the larger Full file, which includes the application portion of the configuration.

There are two methods for loading configurations using the USB port. If the configuration is PowerVision 2.9 or later, there is a Load Configuration choice in the main menu. This is referred to as the Local method in this manual. If the configuration is an older version, that choice is not there, and the older method must be used.

MPC20 & MPC10 LOCAL METHOD
The file name can be customized for easy reference, but the file must have .gciBin as the extension (i.e., perkins.gciBin, model42.gciBin, etc.).

If you load a file with the file name from PowerVision, you must use configurationFull.gciBin. Configuration.gciBin will not load using the local method.
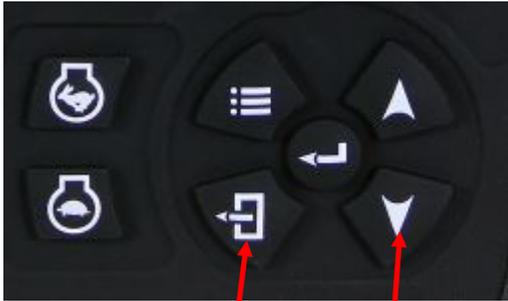
Step	Action
1	Go to the main menu and select Load Configuration. Load Configuration Stopped 00:29:54 Manual
2	Press Enter. The message No File Found will be displayed.
3	Install the Thumb drive, and select the correct file to be loaded. There can be several files on the same USB Thumb Drive. File Name: ♦ configurationFull.gciBin ♦ Press Enter to Select File Stopped 00:29:54 Manual
4	Press Enter and the display will prompt as follows: Press Enter To Confirm File Selection. Unit Will Reset. Press Back to Cancel. Stopped 00:29:54 Manual

Step	Action
5	When Enter is pressed to confirm, the controller will begin to load the configuration. During the load, the amber LED will blink. When the load is finished, the amber and red LEDs will be blinking and the green LED will be on steady. The loading process takes approximately 10 to 15 seconds.
6	Remove the thumb drive, and the controller will exit out of the bootload mode.
7	Power cycle the controller to return to normal operations.

NOTE: If the loading process is interrupted, or the power or thumb drive are removed, the older method (detailed below) must be used.

MPC20 & MPC10 Older Method

Using this method, PowerCore products need to be put in the bootload mode to receive configurations. Follow these steps:

Step	Action
1	Hold down both the back and down arrow buttons while powering up the controller. Continue to hold both buttons until all three LEDs are blinking.
2	Once in bootload mode, insert the thumb drive. In a few seconds, the thumb drive LED will start blinking. The loading process takes approximately 10 to 15 seconds.

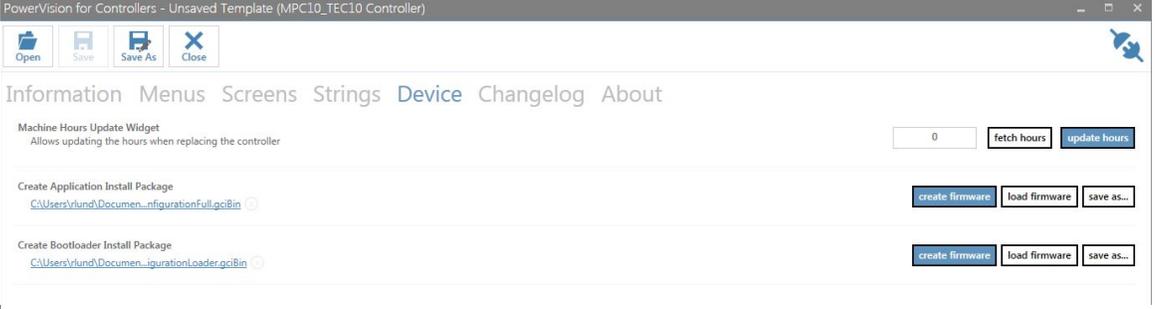| Step	Action
3	When the load is complete, the green LED on the controller and the LED on the thumb drive will quit blinking and remain on.
4	Remove the thumb drive, and the controller will exit out of the bootload mode.
5	Power cycle the controller to return to normal operation.

CAN Overview / Requirements

The TEC-10 does not support a USB port, therefore all configurations must be loaded using the CAN bus via a PC with either PowerVision for Controllers or the full PowerVision Suite installed.

Necessary PowerCore Harnessing for CAN Loading

The 40000625 programming kit or equivalent is required to load programs in to the TEC-10. This same kit can be used on the ML PowerCore panels.

Loading Configurations with CAN

Step	Action
1	Install the ECOM device driver for 32-bit or 64-bit Windows. The drivers can be downloaded from the website **cancapture.com**.
2	Connect the 40000625 programming kit to the controller and your PC.
3	Open the configuration to be loaded in PowerVision, and the version window should appear as shown when the controller and PowerVision are connected. |	Available	Installed
Build With:	2.9.23029	2.8.10599
App:	2.9.10051	2.8.10161
OS:	5.2	5.2
Loader:	2.9.10015	2.9.10015	 *MPC10 Connected*
4	The Activity LEDs will be blinking on the ECOM dongle while the controller and PowerVision are connected.
5	Click on Device and then click on Create Firmware. This process takes about 40 seconds.

Step	Action
6	Click on Load Firmware. This process takes about 3 to 4 minutes. During the load, the amber LED will blink on the controller. When the load is finished, the controller will reset and return to normal operation.

ENOVATION CONTROLS CORPORATE HEADQUARTERS
5311 S 122ND EAST AVENUE
TULSA, OK 74146

ENOVATION CONTROLS LTD. – UNITED KINGDOM
CHURCH ROAD LAVERSTOCK
SALISBURY SP1 1QZ UK

SUN MURPHY INTERNATIONAL TRADING (SHANGHAI) CO., LTD
B15 ROOM, 6# BUILDING, 351 SIZHUAN ROAD
SONGJIANG DISTRICT, SHANGHAI 201601, CHINA

ENOVATION CONTROLS INDIA PVT. LTD.
301, 3RD FLOOR, KRSNA CHAMBERS,
11 GALAXY GARDENS, NORTH MAIN ROAD,
KOREGAON PARK, PUNE 411001,
MAHARASHTRA, INDIA

U.S. SALES & SUPPORT

PHONE: 918 317 4100
EMAIL: SALES@ENOVATIONCONTROLS.COM
WWW.ENOVATIONCONTROLS.COM

MURPHY INDUSTRIAL PANEL DIVISION
PHONE: 918 317 4100
EMAIL: IPDSALES@ENOVATIONCONTROLS.COM

INTERNATIONAL SALES & SUPPORT

EUROPE, MIDDLE EAST, AFRICA
PHONE: +44 1722 410055
EMAIL: SALES@ENOVATIONCONTROLS.EU

CHINA
PHONE: +86 21 6237 5885
EMAIL: APSALES@ENOVATIONCONTROLS.COM

INDIA
PHONE: +91 91581 37633
EMAIL: INDIASALES@ENOVATIONCONTROLS.COM

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