

PXBCM meter color touchscreen display quick start guide

For detailed information concerning the operation and features available in the PXBCM meter display - 6" color touchscreen (PXBCM-DISP-6-XV or PXBCM-DISP-6-TM-XV), please refer to PXBCM meter color touchscreen display features (IB150023EN) or PXBCM meter tenant meter touchscreen display features (IB150030EN) available on the Eaton website (www.eaton.com/meters).



Figure 1. Color touchscreen display for PXBCM series meter.

Technical information

- 640 x 480 pixel backlit VGA touch screen display.
- Power: 24 Vdc input.

Display measurements

- Height: 5.24 in. (133 mm);
- Width: 6.81 in. (173 mm);
- Depth: 1.54 in. (39 mm);
- Weight: 1.32 lb (600 g);
- Cutout dimensions: 4.61 in. x 6.18 in. (117.0 x 157.0 mm).

Ratings

- Front bezel IP rating: IP65;
- Operating temperature: 0 ~ 50°C (32 ~ 122°F);
- Storage temperature: -20 ~ 60°C (-4 ~ 140°F);
- Ambient humidity: 10% ~ 90% RH (0 ~ 40°C [32 ~ 104°F]), 10% ~ 55% RH (41 ~ 50°C [105.8 ~ 122°F]).

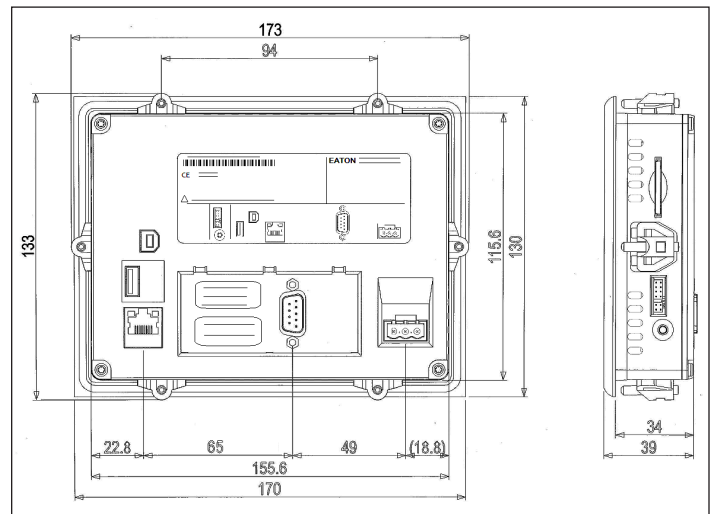


Figure 2. Dimensions of the PXBCM meter display - 6" color touchscreen (PXBCM-DISP-6-XV).

Installation

1. Disconnect and lockout all power to the enclosure.
2. Inspect the enclosure door to determine the best mounting location for the PXBCM meter color touchscreen display.

Note: A minimum clearance of 1.18 in. (30.0 mm) must be maintained between the ventilation holes in the back of the display and any other component within the enclosure.

3. Use the mounting template to mark the cutout area on the enclosure door. Cut out the marked area.

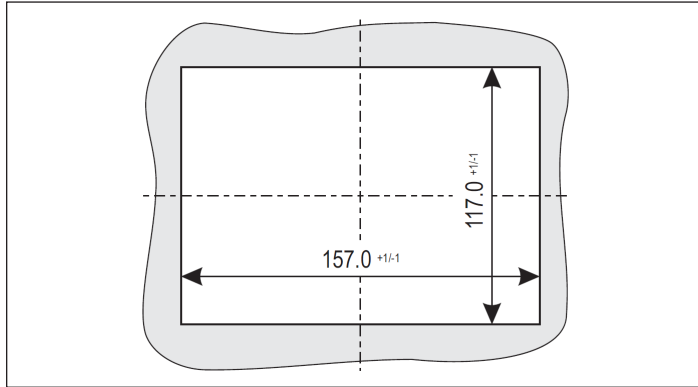


Figure 3. Cut out dimensions.

4. Insure proper gasket placement on the PXBCM meter color touchscreen display.
5. Insert the PXBCM meter color touchscreen display through the cutout.
6. Fit the supplied threaded pins in the retaining brackets. The tips of the threaded pins must point towards the wider ends of the retaining brackets. Clip on the retaining brackets in the recesses provided for them on the device.

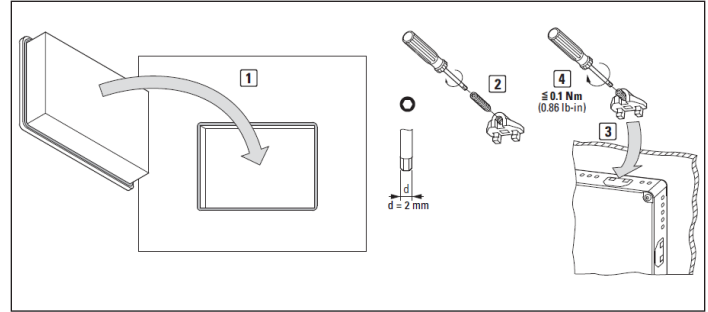


Figure 4. Mounting the PXBCM meter display.

7. Check for proper alignment of the PXBCM meter color touchscreen display. Then fix the device by torquing the threaded pins to 0.1 Nm (0.86 lb-in) with a 2mm hexagonal screwdriver. The front of the display should be flush with the surface of the control cabinet at the fixing points.

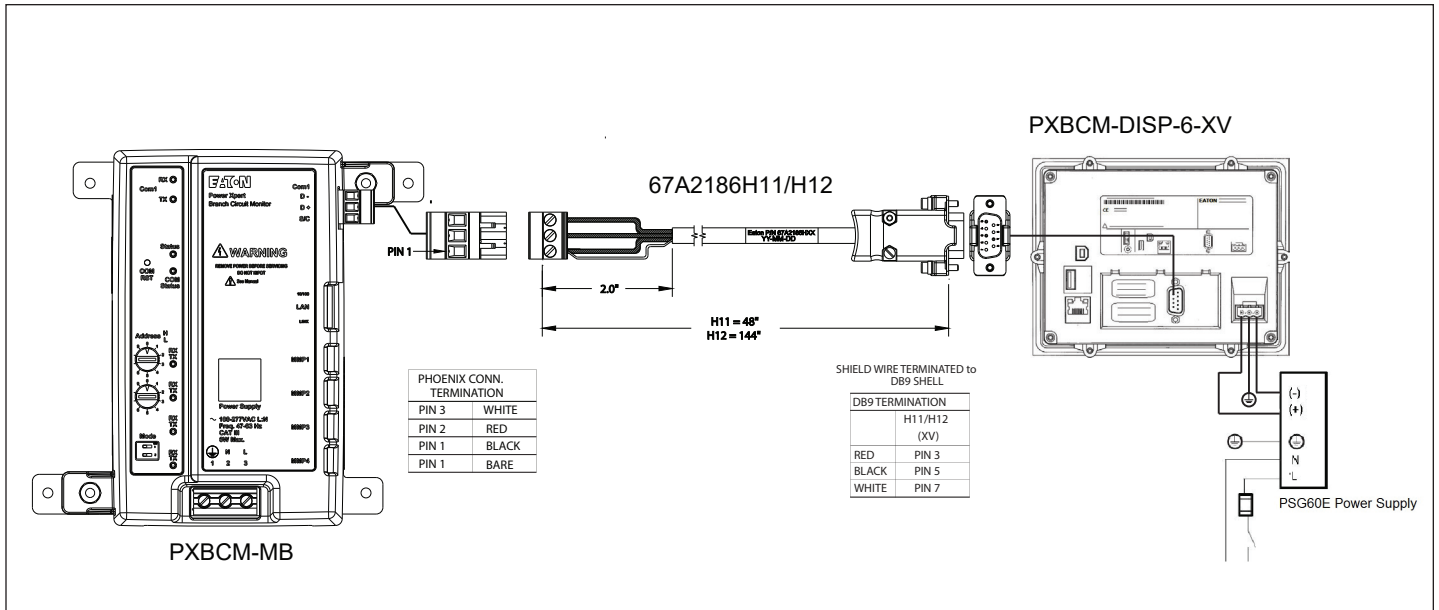


Figure 5. Power and COM port connections for the PXBCM meter display touch screen display.

Connections

To use the PXBCM meter color touchscreen display, provide 24 Vdc and connect the power cable between the PXBCM color touchscreen display and the PXBCM-MB meter.

The display's plug-in terminals provide connections for +24, GND and Common (0). Included with the PXBCM meter color touchscreen display is a data cable to connect DB9 of the color touchscreen display to 3-terminal COM 1 or 2 (RS485) of the PXBCM meter base.

For best results, use the default communication settings for the PXBCM color touchscreen display (38.4 kbps, 1 start bit, 1 stop bit, no parity). In applications requiring both COM ports, COM 2 is recommended for the display.

Note: By default, the PXBCM color touchscreen display is preset for a PXBCM meter base Modbus address of "01". To accommodate a different Modbus address, the user **MUST** change the PXBCM meter color touchscreen display's "Modbus ID".

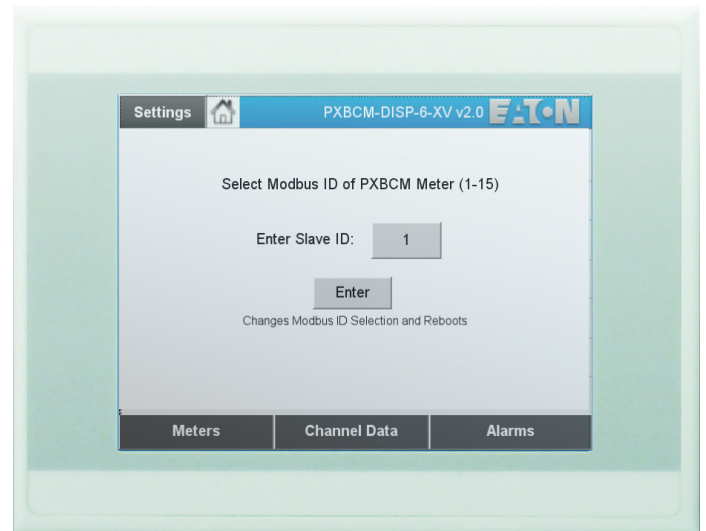


Figure 6. Changing the Modbus ID.

Firmware updates

Eaton periodically releases firmware updates with feature enhancements and stability improvements.

To update the firmware on the display, one of the following two methods can be used:

USB drive, keyboard and mouse

1. Download the firmware update file from eaton.com/meters. Save to a flash drive and unzip the folder.
2. Press the CTRL button on the right side of the display to exit the application.
3. Under the display's MyDevice, copy the UsbStorage\InternalStorage folder (Edit > Copy).
4. Again, under MyDevice, delete the existing InternalStorage (File > Delete).
5. Paste the new InternalStorage (Edit > Paste). This transfers the firmware from the flashdrive to the display. Expect the transfer to take 2 minutes. For files that already exist, select "Yes to All" so that they are overwritten.
6. Power cycle the display.
7. On boot-up, enter the 7-character authentication code that is printed on a label on the back of the display (see Figure 9). Click Return. The authentication box will turn from red to green.
8. Click Save.
9. Double-click the GRS-CE5 to start the application (or, alternatively, cycle power the display).

PC and ethernet cable

1. Download the firmware update file from eaton.com. Save to the PC. Unzip the folder.
2. Press the CTRL button on the right side of the display to exit the application.
3. On the display, select Start > Settings > Network and Dial-up Connections. Double-click "ONBOA..." to see the Display's Ethernet connection IP address. Verify that this is 192.168.1.1. If it is not, edit the fields and click OK.
4. Attach Ethernet cable between the display and PC.
5. Set the PC's Ethernet address to be compatible with the display (e.g. 192.168.1.99).
6. On the PC, use Windows File Explorer navigate to the downloaded firmware upgrade files so that the InternalStorage folder appears.

| Name | Date modified | Type | Size |
|-----------------|--------------------|-------------|------|
| InternalStorage | 10/30/2020 4:27 PM | File folder | |

Figure 7. Internal storage.

7. Open another instance of Windows File Explorer address bar, type "ftp://192.168.1.1" (or the display's Ethernet connection IP address from step 3). This will show the file structure in the display.

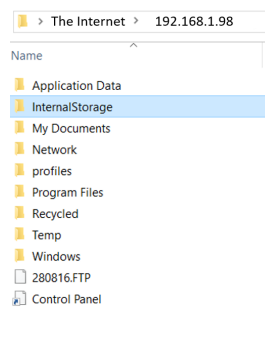


Figure 8. Example with display set for 192.168.1.98 and PC set for 192.168.1.99.

8. All firmware goes into the InternalStorage folder.
9. Delete the existing InternalStorage folder (OS and runtime folders are likely protected).
10. With a mouse, drag the InternalStorage folder from the firmware update (step 6) to the FTP pane. Expect the transfer to take 2 minutes. For files that already exist, select "Yes to All" so that they are overwritten.
11. Power cycle the display.
12. Enter the 7-character authentication code that is printed on a label on the back of the display (see Figure 9). Click Return. The authentication box will turn from red to green.
13. Click Save.
14. Double-click the GRS-CE5 to start the application (or, alternatively, cycle power the display).

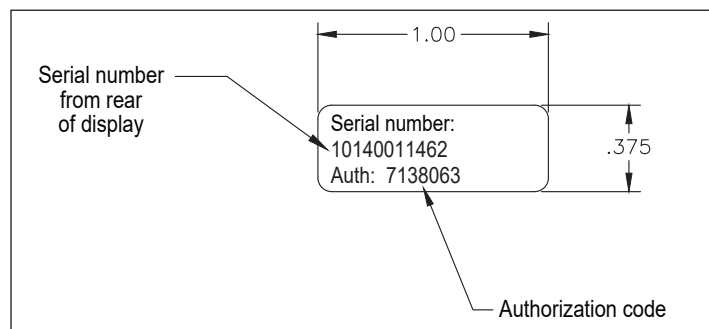


Figure 9. Example authorization code label on rear of display.

Eaton
Electrical Sector
1000 Eaton Boulevard
Cleveland, OH 44122
United States
877-ETN-CARE (877-386-2273)
Eaton.com

© 2020 Eaton
All Rights Reserved
Printed in USA
Publication No. TD150031EN / TBG001462
November 2020