Instruction Booklet **IB150022EN** Effective June 2019

Power Xpert® Multi-Point meter 6" color touchscreen display features

Contents

Powering Business Worldwide

1: Introduction

The Power Xpert Multi-Point 6" color touchscreen display (PXMP-DISP-6-XV display) is an essential tool that provides visibility to configuration, meter, and diagnostic data. With access to the entire Modbus map of the meter, the PXMP display not only shows data but also becomes an invaluable tool for verification and validation of the entire PXMP meter. The intent is to display all system meter data and sub-meter data without support for trends, profiles, resets, or other controls. The display can also be a window into the status of inputs and outputs as well as their associated counters.

The PXMP display has no setup capabilities. What is shown on the display is the information the display is reading from the PXMP meter. The display is a totally flexible viewer that can adapt to any configuration programmed into the meters by the Installer/User via the PXMP configuration software (see MN150002EN).

When functioning as the "System" meter, the PXMP display will show either what is being received from a meter that is monitoring the entire system or an internal summation of all the meters within the system as if they were all one meter. This depends on how the meter is set up during the configuration process.

2: Installation

For installation and connection information, please refer to "PXMP Color Touchscreen Display Quick Starts Guide" (Eaton Pub. # TD150030EN).

3: Using the touchscreen

3.1 Basic navigation

Basic navigation between the screens is accomplished by touching the name of the screen or category area; the Back, Next, or Previous arrows; or the Home icon.

Touching a screen name or category area will take the User to the screen or category selected (see Figure 1).

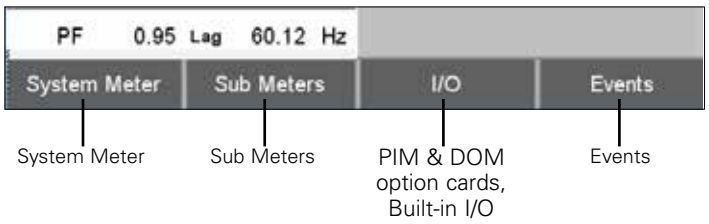

Figure 1. Navigating from the Home screen to the System Meter, Sub Meters, I/O and Events tabs.

Touching the Home icon, where available, will return the User to the Home screen.

Touching the "Back" arrow will return the User to the previous category screen. Touching the "Next" arrow will take the User to the next Data screen. Touching the "Previous" arrow with take the User to the previous Data screen.

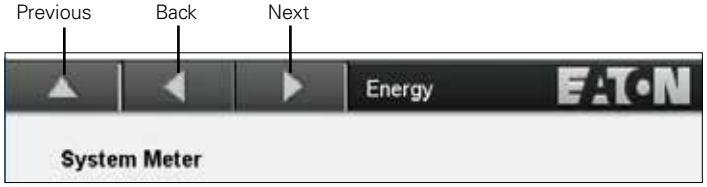

Figure 2. Location of the Back, Previous, and Next arrows.

3.2 The Home screen

The Home screen appears when power has been applied to the PXBCM 6" color touchscreen display and boot-up is complete. The Home screen displays the main data for the meter to which it is connected. This data includes system line-to-line voltages, line to neutral voltages, and power factor.

Touching the Meter Base Info. or Module Info. buttons will take the user to screens with meter base or module information, respectively.

In addition, the Home screen also gives the User direct access to the Meter, Sub Meters, I/O, and Events tabs. These are accessed by touching the name areas at the bottom of the screen.

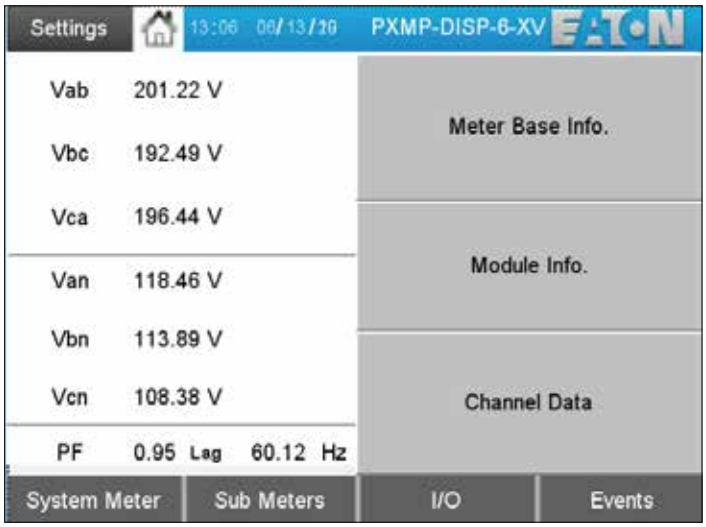

Figure 3. Main System screen on the PXMP touchscreen display.

3.3 The Meter screen

Touch the System Meter tab on the Home screen to access the System Meter functions. The first screen that appears in the Current screen. The User can press the up arrow button to return to the Home screen or can use the left and right arrow buttons to move to the other System Meter functions that include:

- Current
- Voltage;
- Power;
- Per Phase Power;
- Demand;
- Peak Demand 1;
- Peak Demand 2; and
- Energy.

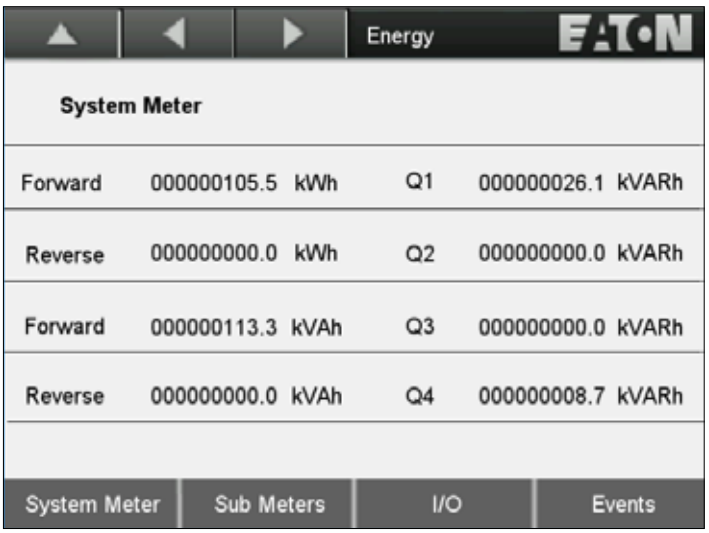

Figure 4. System Meter Energy screen.

For the data available for each category, the data, type of data, values, and available trend information, please refer to Table 1 – Data available from the System Meter screens.

Table 1. Data available from the System Meter screens.

Meter category	Data	Type
Current	I (RMS)	Ia, Ib, Ic, Iavg
Voltage	Voltage (L-L)	Vab, Vbc, Vca
	Voltage (L-N)	Van, Vbn, Vcn
Power	System	Real, apparent, reactive, power factor, frequency
	Per phase	Real, apparent, reactive
Demand	Real	Forward, reverse
	Apparent	By quadrant
	Reactive	Received, delivered
Peak Demand	Real	Forward, reverse
		Last reset
	Apparent	By quadrant
		Last reset
	Reactive	Received, delivered
		Last reset
Energy	Real	Forward, reverse
	Aparent	By quadrant
	Reactive	Received, delivered

Note: While navigating through the screens, pressing the up arrow button will return the User to the Main System Menu screen. Pressing the left and right arrow buttons will take the User to the next or previous screen within the function.

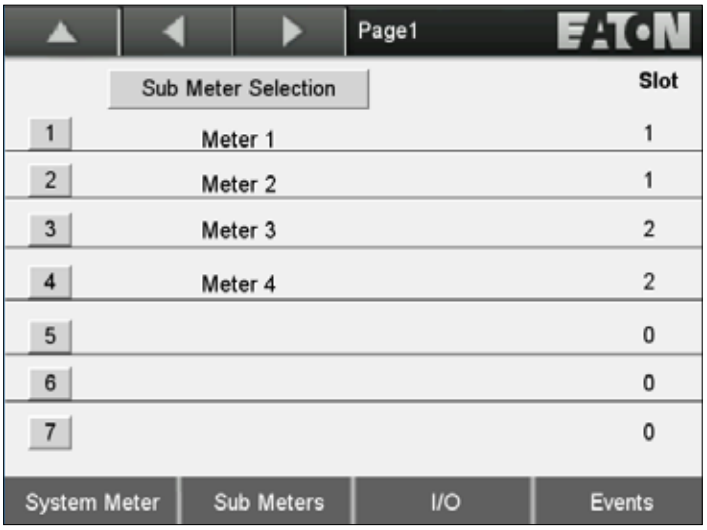

Figure 5. The System Sub Meter screen.

3.4 Sub meter tab

The Power Xpert Multi-Point meter has the capability of handling up to 60 meters (14 3-Phase meters) when all 10 slots in the base of the Multi-Point meter contain meter modules. Therefore, the PXMP display can show the meter information for 60 meters viewed as 7 meters per page. A Page indicator appears to the right of the left and right arrow buttons and identifies the current page shown in the display. To move to other pages within the Sub Meter screen, press the "Page" buttons until the desired page is displayed.

Figure 6. The location of the Page and Sub Meter selection buttons on the System Sub Meter screen.

Press the Sub Meter button to access the Sub Meter functions. The information displayed for each meter includes the meter number, the ASCII description of each meter, as well as the meter input module to which the meter is attached.

While navigating through the screens, pressing the up arrow button will return the User to the Main System menu screen. Pressing the left and right arrow buttons will take the User to the next or previous screen within the function.

Pressing the "Sub Meter Selection" button in the upper left corner of the display at any time will give the User access to the 60 numbered buttons to select a specific meter to view.

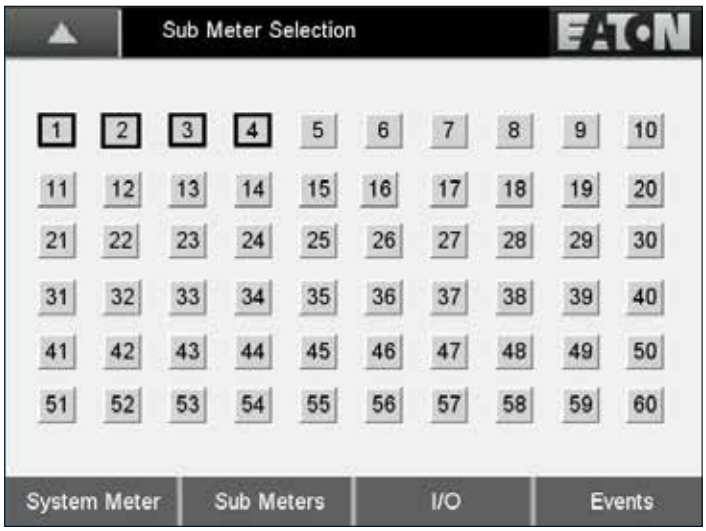

Figure 7. Sub Meter Selection screen.

Pressing a button corresponding to a meter installed in the PXMP meter system will take the User to the System Sub Meter screen page that corresponds to the sub meter selected. From the System Sub Meter screen, the User can again select the sub meter desired and the be taken to the Sub Meter Energy screen.

If the PXMP meter is properly configured and contains PXMP meter modules (PXMP-MMs) wired into an electrical system, when a specific sub meter is selected, the following energy information is displayed:

- kWh Forward (import);
- kWh Reverse (export);
- Q1 kvarh (inductive);
- Q2 kvarh (inductive);
- Q3 kvarh (capacitive);
- Q4 kvarh (capacitive);
- Q1, Q4 kVAh (import); and
- Q2, Q3 kVAh (export).

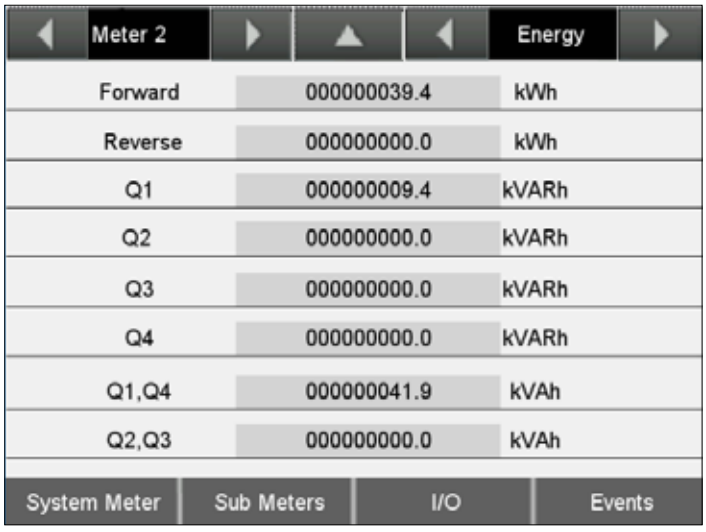

Figure 8. Meter energy information displayed when a specific sub meter Is selected.

3.5 I/O tab

From the Home screen, touch the I/O tab. This takes the user to the I/O menu. The categories of I/O data are:

- Inputs (Pulse Input Module);
- Outputs (Digital Output Module);
- Built-In IO.

Press the up arrow button return to the Main System Menu screen. Then press the Inputs button to access the Input Module Data screen. The Input Module Data screen lists the Input Module Data for each module installed in the ten PXMP-MB slots.

Depending on how the PXMP Meter was configured, the Input Module Data screen for each slot will show up to eight inputs, the input count for each input, and the Scaled Interval Count for the input. The User can move between slots by using the right and left arrow keys located near the top, right of the screen.

3.6 Events tab

Press the up arrow button return to the Main System Menu screen. Then press the Events button to access the Event list.

The Events screens will show the last 20 events recorded by the PXMP meter. The events are listed five per page on four pages. Depending on how the PXMP meter was configured, each event lists the event I.D., the time of the event, and the date of the event.

The User can move from page to page by using the right and left arrow keys near the top of the screen.

3.? Meter base information

From the Home screen, press the up arrow button to return to the Main System Menu screen. Then press the Meter Base Information button to access the Meter Base System Information functions. The Meter Base Information display includes:

- Assembly
- Part Number;
- Rev. (Assembly and Board); and
- Serial Number.

Note: There is a button near the top left of the Meter Base System Info. screen that acts as a quick link the Module Info. screen. Pressing this button on the Meter Base Information screen will take the User directly to the Module Info. screen.

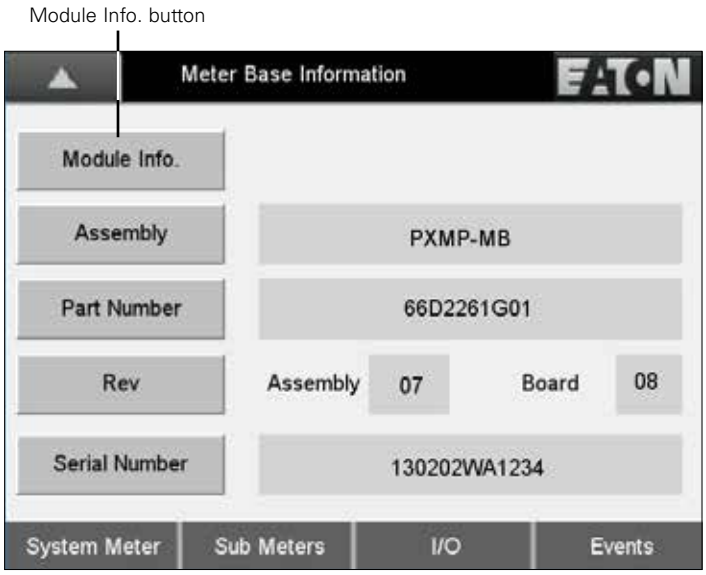

Figure 9. The Meter Base Information screen.

Pressing the Assembly, Part Number, Rev., or Serial Number buttons will take the User to the applicable screen that list the information for all modules installed in the PXMP-MB. Pressing the Module Number buttons will take the User to a screen displaying the individual information for the selected module. Pressing the up arrow button will return the User to the Meter Base Info. screen.

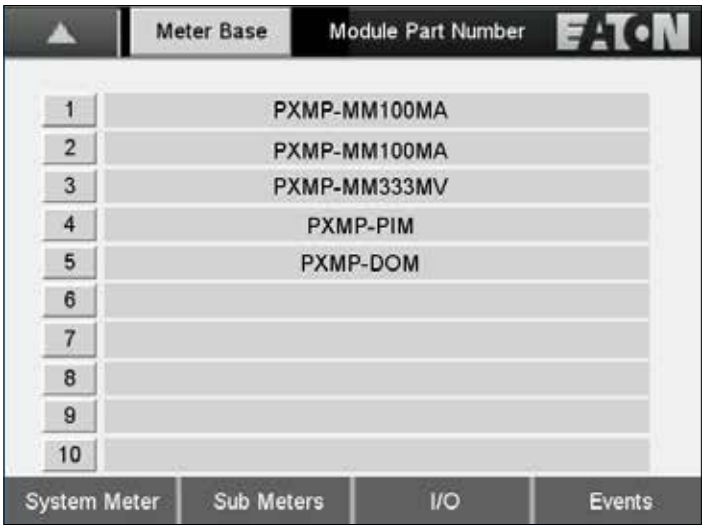

Figure 10. Example of information screen accessed through the buttons on the Meter Base Information screen.

3.8 Module information

From the Home screen, press the up arrow button return to the Main System Menu screen. Then press the Module Information button to access the Module Information functions.

Note: The Module Information screen can also be directly accessed by pressing the Module Info. button on the Meter Base Info. screen.

The Module Information displayed includes:

- Assembly
- Part Number;
- Rev. (Assembly and Board); and
- Serial Number.

Note: There is a button near the top left of the Module Information screen that acts as a quick link the Meter Base Information screen. Pressing this button on the Module Information screen will take the User directly to the Meter Base Info. screen.

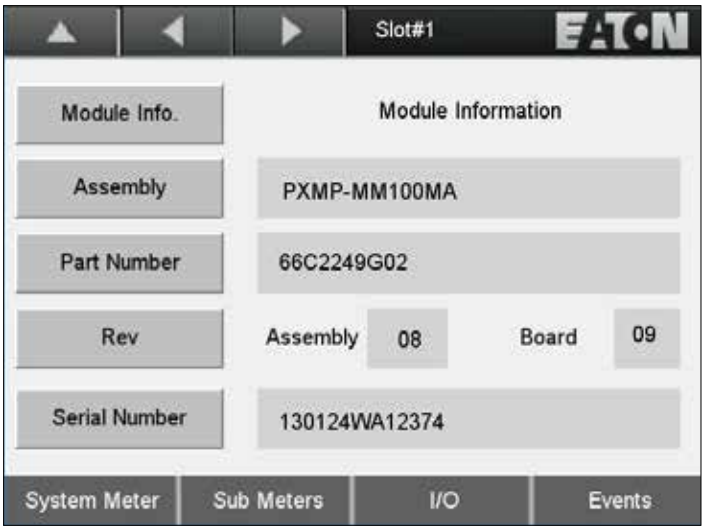

Figure 11. The Module Information screen.

Pressing the Assembly, Part Number, Rev., or Serial Number buttons will take the User to the applicable screen that list the information for all modules installed in the PXMP-MB. There is a separate Module Information screen for each of the ten slots of the PXMP-MB. The User can move from slot to slot (in order slot 1 through 10) by pressing the right and left arrow keys near the top of the screen.

Pressing the Module Number buttons will take the User to a screen displaying the individual information for the selected module. Pressing the "Rev" or "Serial Number buttons will take the User to the "Rev / Serial # screen. Pressing the up arrow button will return the User to the Module Information screen.

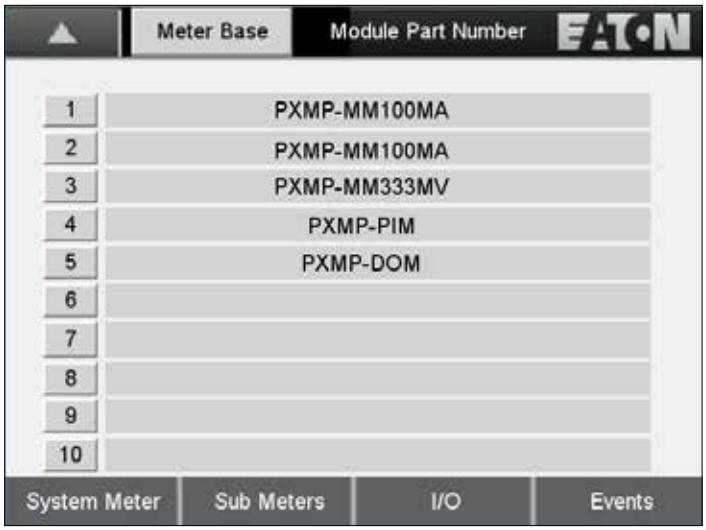

Figure 12. Example of information screen accessed through the buttons on the Module Information screen.

Press the Outputs button to access the Output Module Data screen. The Output Module Data screen lists the Output Data for each module installed in the ten PXMP-MB slots.

Depending on how the PXMP meter was configured, the Output Module Data screen for each slot will show up to eight outputs, the output count for each module, and the state of the output. The User can move between slots by using the right and left arrow keys located near the top, right of the screen.

Press the up arrow button return to the Main System menu screen. Then press the Built-In IO button to access the Built-In IO screen. The Built-In IO screen displays the information for up to three input functions (Input 1, Input 2, and Input 3) and one output function. For the three input functions, the screen will display:

- Input Function;
- Count;
- State; and
- Interval Average.

For the output function, the screen will display:

- Output Function;
- Count;
- KP; and
- State.

Page 1 of the Built-In IO shows the Input 1 and Input 2 information while Page 2 shows the Input 3 and Output 1 details. The user can move between pages 1 and 2 by pressing the left or right arrow buttons.

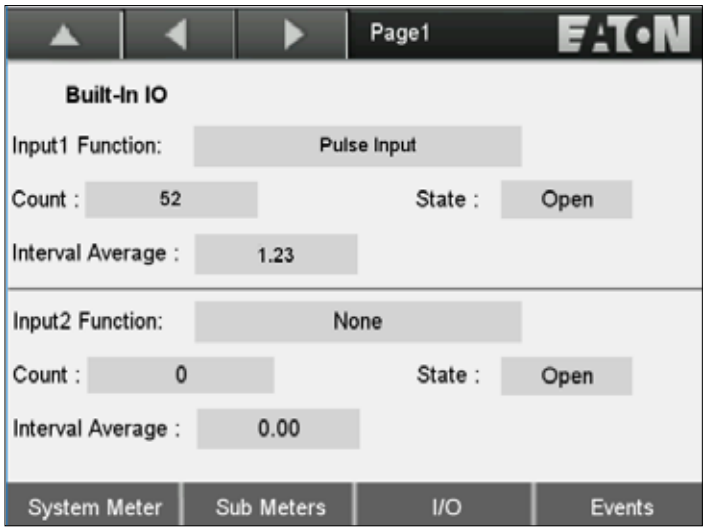

Figure 13. The Built-In IO screen – page 1.

Note: PXMP Pulse Input modules can only serve as counters to count pulses from meters. The input on the meter base, on the other hand, can be used for status.

3.9 Channel data

From the Home screen, press the Channel Data button to access the Channel Data screen. The Channel Data screen displays information for each sub-meter connected to the modules installed in slots 1 through 10. The following types of information can be viewed on the Channel Data screen:

- Amps;
- % Load;
- Meter #s;
- Watts;
- VAR;
- VA; and PF.

The User can move between the types of information by pressing the right and left arrow keys located at the top, right of the screen.

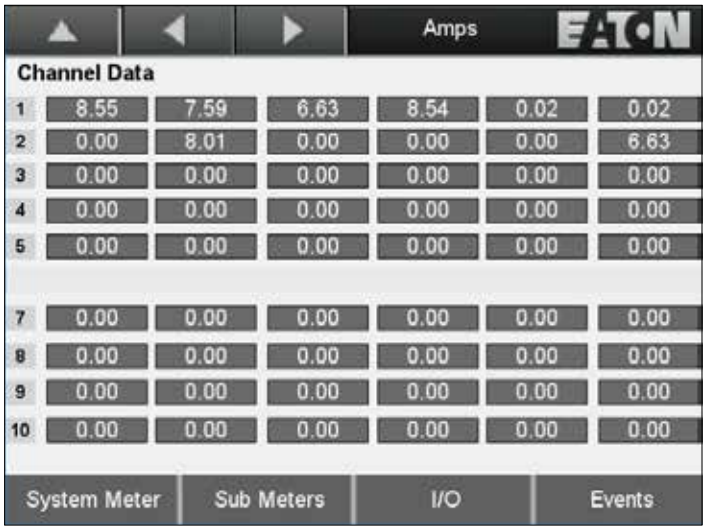

Figure 14. The Channel Data screen - amps shown.

Notes:

Power Xpert® Multi-Point Meter
6" color touchscreen display features

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