

# PHM Touchscreen and Display Replacement Assemblies

This document describes the procedures required to replace the touchscreen and display assemblies in the BZK-1505, BZK-1701, DSK-1505 and the DSK-1705 kits. The following procedures are described:

- *Opening the PHM Monitor*
- *Replacing the Assemblies on a 15" Monitor*
- *Replacing the Assemblies on a 17" Monitor*
- *Closing the PHM Monitor*

## Before You Start

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Before attempting to replace the touchscreen in the PowerStation, be sure to follow the steps below.

- 1 Turn off the unit and disconnect the PowerStation from the power source.
- 2 Remove the unit from its enclosure (if installed) to gain access to the display.
- 3 Place the PowerStation on an Electrostatic Discharge (ESD) mat.

## Electrostatic Discharge (ESD) Precautions



Modern integrated electronic devices are extremely sensitive to electrostatic discharges (ESD) and fields. Before you open the system, be sure to follow these simple precautions to protect you and the equipment from harm resulting from ESD.

- Always disconnect power from the equipment before opening or removing the back cover. Do not touch any components of the monitor while it is on.
- Only handle internal components of the equipment in an ESD-safe location, using appropriate grounding methods.
- Wear a grounding wrist strap for continuous protection.
- Always ground yourself to remove any static charge before you touch the video controller board inside the unit.
- Be particularly careful not to touch the components on the video controller board.
- Keep any monitor part in its anti-static packaging when it is not installed and place it on a static dissipative mat when you are working on it.

## Opening the PHM Monitor

In order to replace the touchscreen and display assemblies, you must first open the monitor.



**Important:** For safety reasons, the monitor should be opened only by qualified service personnel.

- 1 Place the monitor on an ESD mat, display face down.
- 2 Remove the nuts or screws holding the back cover on the unit, depending on which PHM monitor you are working with:

PHM Monitor	Remove the...
15" PHM Monitor	Remove the 14 screws as shown in Figure 1.
17" PHM Monitor	Remove the 16 nuts as shown in Figure 2.

**Figure 1: Removing the Screws on the 15" Monitor**

Remove the 4 screws on the top and bottom of the monitor. Then remove the 3 screws on each side of the monitor, for a total of 14 screws.



**Figure 2: Removing the Nuts on the 17" Monitor**

Remove the 16 nuts, 5 on the top and bottom, and 3 on each side, holding the back cover on the PHM Monitor.



- 3 Go to one of the following sections, depending on which monitor you are using:

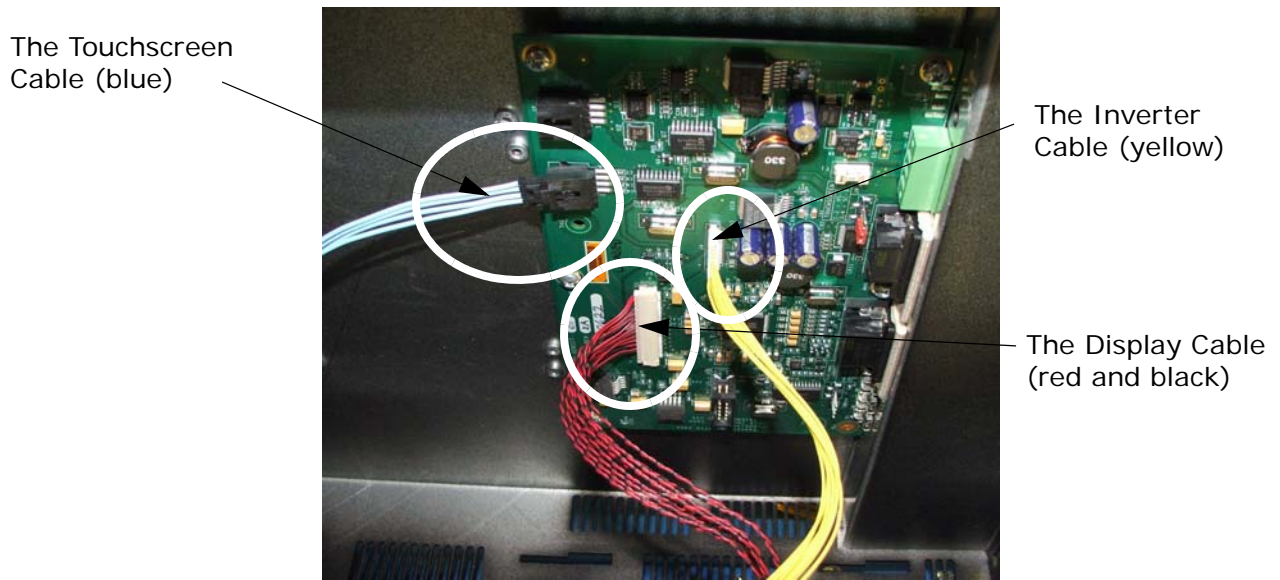
PHM Monitor	Refer to...
15" PHM monitor	<i>Replacing the Assemblies on a 15" Monitor</i> on page 3.
17" PHM monitor	<i>Replacing the Assemblies on a 17" Monitor</i> on page 7.

## Replacing the Assemblies on a 15" Monitor

After you have opened the monitor, follow the instructions below to replace the touchscreen and display assemblies on a 15" PHM monitor.

- 1 Gently lift the back cover up to reveal the inverter, display and touchscreen cables as shown in Figure 3.

**Figure 3: Accessing the 15" Monitor Cables**



- 2 Disconnect the yellow, inverter cable from the CPU board. Pull the cable straight down to disconnect it from the board.
- 3 Disconnect the red and black, display cable from the CPU board. Pull the cable straight out toward the left-hand side of the monitor to disconnect it from the board.
- 4 Disconnect the blue, touchscreen cable from the CPU board. Press down on the small, black tab to disconnect the cable from the board.
- 5 Set the back cover aside.
- 6 Unplug the blue, touchscreen cable from the touchscreen tail as shown in Figure 4.

**Figure 4: Disconnecting the Touchscreen Tail**

**Figure 4a: The Touchscreen Tail**



**Figure 4b: Disconnecting the Touchscreen Tail**



- 7 Remove the four screws holding the display assembly to the bezel as shown in Figure 5.

**Figure 5: Removing the Display Assembly**

Remove the 4 screws holding the display assembly on to the bezel.



8 Choose one of the following options:

If you want to...	Go to...
Replace the display assembly on the 15" PHM monitor	<i>Replacing the 15" Display Assembly</i> on page 5.
Replace the bezel assembly on the 15" PHM monitor	<i>Replacing the 15" Bezel Assembly</i> on page 6.

## Replacing the 15" Display Assembly

Follow the instructions below to replace the display assembly and reassemble the PHM monitor.

- 1 Discard the old display assembly removed in Step 7, on page 4.
- 2 Place the new DSK-1505, display assembly on the bezel assembly.
- 3 Attach the four screws on the display assembly as shown in Figure 5 above.
- 4 Connect the touchscreen tail to the touchscreen cable as shown in Figure 4, on page 4.
- 5 Go to *Closing the PHM Monitor* on page 10.

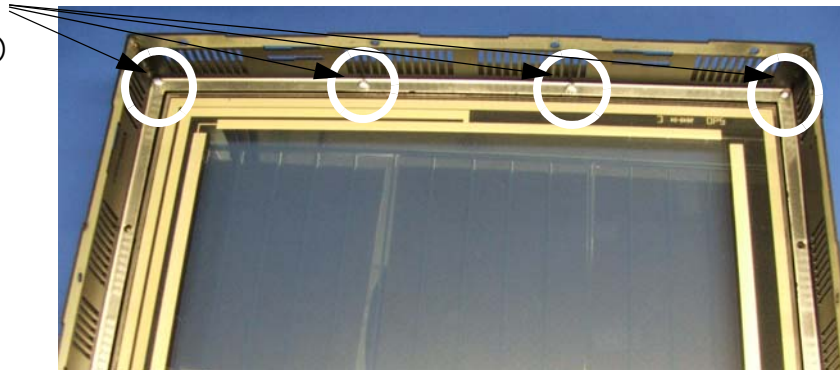
## Replacing the 15" Bezel Assembly

Follow the instructions below to replace the bezel assembly and reassemble the PHM monitor.

- 1 Set aside the display assembly.
- 2 Remove the 8 screws holding the mounting bracket to the bezel assembly as shown in Figure 6.

**Figure 6: Removing the Mounting Bracket**

Remove the 8 screws (4 on top, 4 on bottom) holding the mounting bracket onto the bezel.



- 3 Discard the old bezel assembly.
- 4 Place the new bezel assembly on the ESD mat.
- 5 Set the mounting bracket on the new BZK-1505, bezel assembly.
- 6 Attach the mounting bracket to the bezel assembly using the 8 screws removed in Step 2, four across the top and four across the bottom.
- 7 Make sure the touchscreen and display assembly are dust free.
- 8 Set the display assembly on the bezel assembly.
- 9 Attach the display assembly using the 4 screws as shown in Figure 5, on page 5.
- 10 Connect the touchscreen tail to the touchscreen cable as shown in Figure 4, on page 4. You may want to tuck the touchscreen tail under the green board.
- 11 Go to *Closing the PHM Monitor* on page 10.



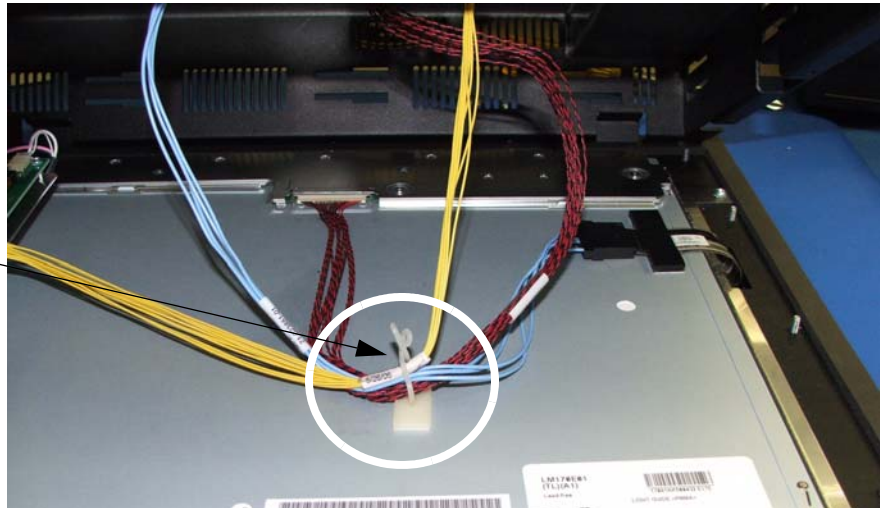
## Replacing the Assemblies on a 17" Monitor

After you have opened the monitor, follow the instructions below to replace the touchscreen and display assemblies on a 17" PHM monitor.

- 1 Gently lift the back cover up to reveal the inverter, display and touchscreen cables as shown in Figure 8, below.
- 2 Open the cord holder and release the cables as shown in Figure 7.

**Figure 7: Opening the Cord Holder on the 17" Monitor**

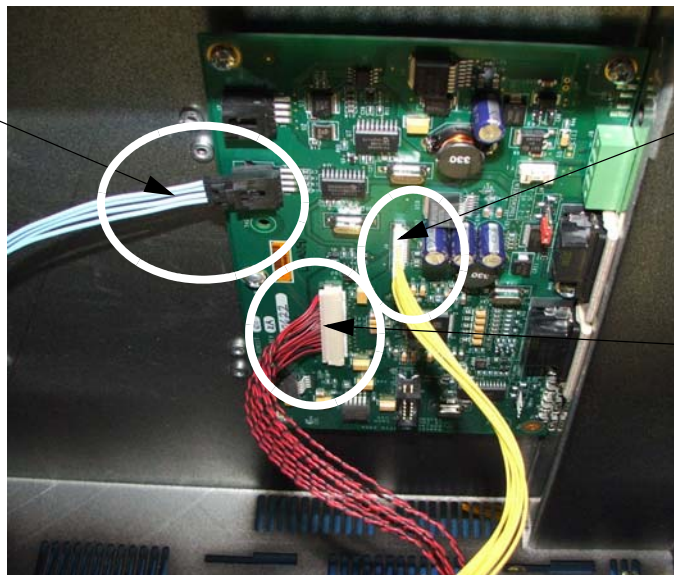
Open the cord holder to release the cables, making it easier to access the CPU board.



- 3 Disconnect the yellow, inverter cable from the CPU board as shown in Figure 8. Pull the cable straight down to disconnect it from the board.

**Figure 8: Accessing the 17" Monitor Cables**

The Touchscreen Cable (blue)

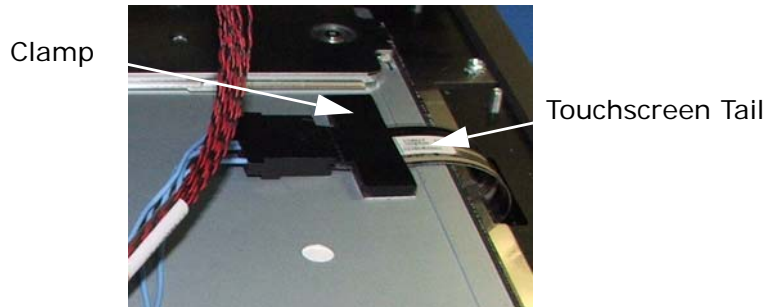


The Inverter Cable (yellow)

The Display Cable (red and black)

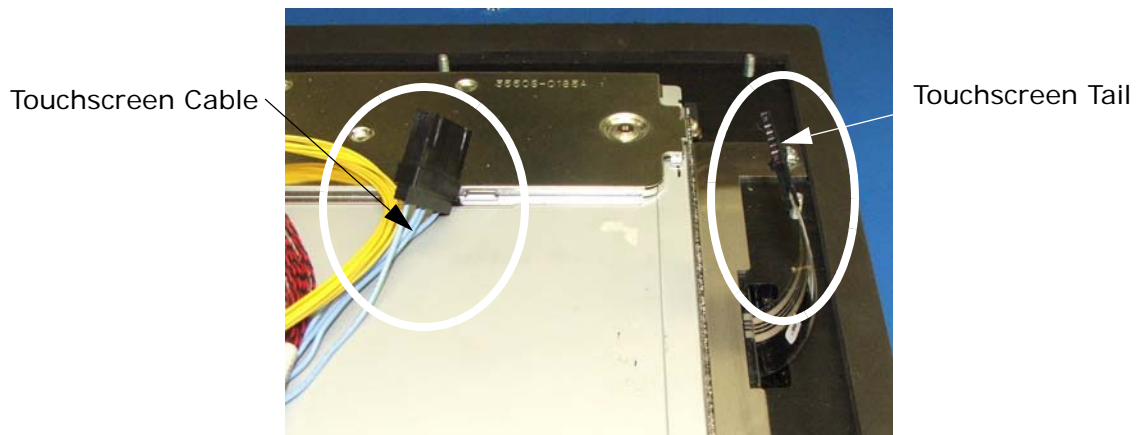
- 4 Disconnect the red and black, display cable from the CPU board. Pull the cable straight out toward the left-hand side of the monitor to disconnect it from the board.
- 5 Disconnect the blue, touchscreen cable from the CPU board. Press down on the small, black tab to disconnect the cable from the board.
- 6 Set the back cover aside.
- 7 Gently pry the black, clamp holding the touchscreen tail to the back of the display.

**Figure 9: Lift the Clamp to Disconnect the Touchscreen Tail**



- 8 Unplug the blue, touchscreen cable from the touchscreen tail as shown in Figure 10.

**Figure 10: Disconnecting the Touchscreen Cable**



- 9 Remove the four screws holding the display assembly to the bezel.
- 10 Choose one of the following options:

If you want to...	Go to...
Replace the display assembly on the 17" PHM monitor	<i>Replacing the 17" Display Assembly</i> on page 9.
Replace the bezel assembly on the 17" PHM monitor	<i>Replacing the 17" Bezel Assembly</i> on page 9.



## Replacing the 17" Display Assembly

Follow the instructions below to replace the display assembly and reassemble the PHM monitor.

- 1 Discard the old display assembly.
- 2 Place the new DSK-1705, display assembly on the bezel assembly.
- 3 Attach the display assembly using the four screws removed in Step 9, on page 8.
- 4 Connect the touchscreen tail to the blue, touchscreen cable.
- 5 Attach the touchscreen tail to the display with the black, clamp provided with the display kit.
- 6 Go to *Closing the PHM Monitor* on page 10.

## Replacing the 17" Bezel Assembly

Follow the instructions below to replace the bezel assembly and reassemble the PHM monitor.

- 1 Set aside the display assembly.
- 2 Discard the old bezel assembly.
- 3 Place the new bezel assembly on the ESD mat.
- 4 Make sure the touchscreen and display assembly are dust free.
- 5 Set the display assembly on the new BZK-1701, bezel assembly.
- 6 Attach the display assembly using the 4 screws removed in Step 9, on page 8.
- 7 Connect the touchscreen tail to the blue, touchscreen cable.
- 8 Attach the touchscreen tail to the display with the black, clamp provided with the bezel kit.
- 9 Go to *Closing the PHM Monitor* on page 10.

## Closing the PHM Monitor

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Follow the steps below to close the PHM monitor.

- 1 Set the back cover on the top of the bezel assembly at a tilt to access the board.
- 2 Reconnect the red and black, display cable to the board on the back cover.
- 3 Reconnect the blue, touchscreen cable to the board on the back cover.
- 4 Reconnect the yellow, inverter cable to the board on the back cover.
- 5 Set the back cover over the entire bezel assembly.
- 6 Reattach the back cover:

PHM Monitor	Attach the...
15" PHM Monitor	Reattach the 14 screws as shown in Figure 1, on page 2.
17" PHM Monitor	Reattach the 16 nuts as shown in Figure 2, on page 3.