Instructions for Disassembling and Assembling USB Series and E-Series Cases

Measurement Computing's USB Series and E-Series products are shipped in rugged aluminum cases that protect your the board from environmental and electrical conditions which may be detrimental to the operation of the board.

Before you can remove your board—to add or remove modules, change switch settings, and so on—you must first take apart the case. All you need is a medium-sized Phillips head screwdriver and the instructions below in order to take apart the case and put the case back together.

Assembled case components

The assembled aluminum case is made up of the components shown here.
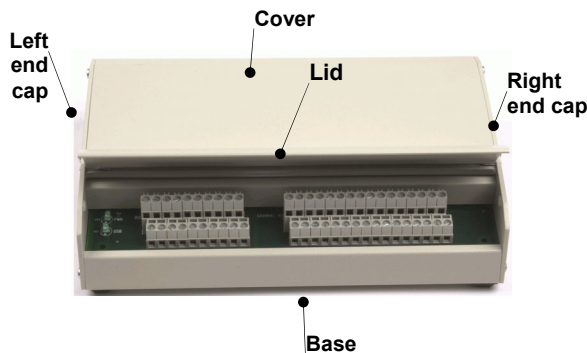
Two DIN rail clips and four peel-and-stick feet are also provided.

- If you are placing the device on a horizontal surface, peel away the backing on each foot and press onto each corner of the base. Do not attach the feet if you plan to mount the case on a DIN rail, as they prevent the case from fitting on the rail.

- To mount the case horizontally on a DIN rail, slide the DIN rail clips into the groove on the bottom of the base. Position one clip at each end of the case, and clip onto the DIN rail.

Taking the case apart

1. Place the case on a flat surface.
2. Unscrew the four screws from the left end cap and remove the left end cap.
3. Remove the lid.
4. Remove the four screws from the right end cap and remove the right end cap.
5. Remove the cover from the cover guide slot on the base.
6. Before handling the board, ground yourself with a wrist-grounding strap or by holding onto a grounded object. Never touch the exposed pins or circuit connections on the board.
7. Remove the board from the card guide in the cover.

Your case is now fully disassembled. If you are making changes to the board configuration, verify the new configuration before reassembling the case.

Inserting the board and assembling the case

Unassembled case components

The unassembled aluminum case is made up of the components shown here.
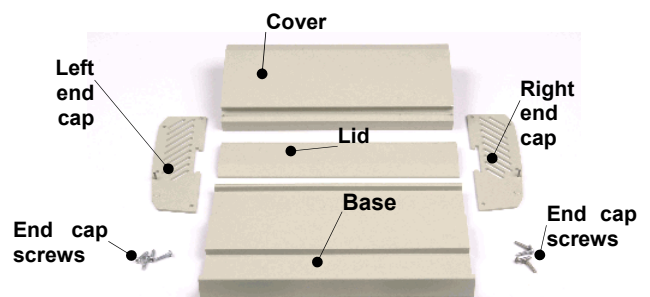
Before putting the case back together

If your board has standoffs installed, remove them before inserting the board in the case. There is not enough room in the case to insert the board with standoffs installed.

Inserting the board in the case

1. Holding the cover with one hand, line up the board connectors with the connector cutouts on the cover.

2. Place the board in the card guide inside the cover.

   Make sure that the board is seated *completely* in the card guide.
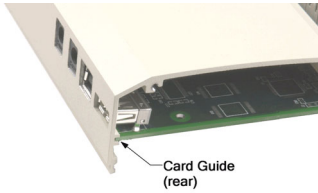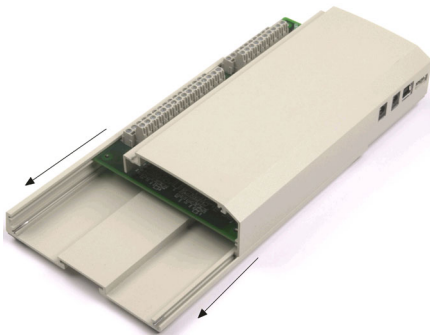

   Card Guide
   (rear)

   Note: The USB-1616FS is shown in this procedure.

3. Holding the cover and board together, line up the cover with the cover guide at the rear of the base, and line up the board with the card guide at the front of the base.

   Card Guide
   (front)

   Cover Guide
   (rear)
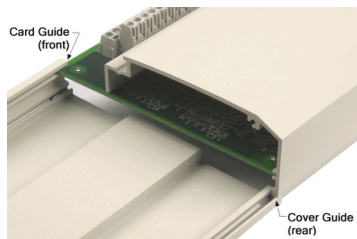
4. Slide the cover and board through the guides.

Completing the case assembly

1. Line up the left end cap with the screw holes on the left side of the case.

   Left end cap   Right end cap

   Tension pin   Tension pin

   Each end cap has a tension pin on one side that lines up with the lid guide. Orient each end cap so that the tension pin is on the inside of the case.

2. Insert and partially tighten the four screws on the left end cap. Do not fully tighten the screws until you attach the lid.

3. Slide the lid along the lid guide onto the tension pin on the left end cap.

   Lid Guide
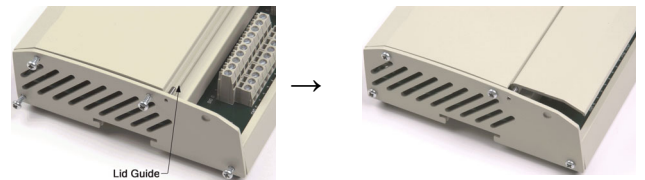
4. Fully tighten the screws on the left end cap.

5. Line up the right end cap with the screw holes on the right side of the case.

6. Insert and partially tighten the four screws on the right end cap.

   Do not fully tighten the screws until you are sure the board is properly aligned in the case.

7. Verify that the board is properly seated, and that the board connectors are visible through the cutouts on the rear of the case.

8. Fully tighten the screws on the right end cap.

The case is now fully assembled, and ready for you to connect your field wiring to the terminals on the board.

To mount the case horizontally on a DIN rail, slide the supplied DIN rail clips into the groove on the bottom of the base. Position one clip at each end of the case, and clip onto the DIN rail.