CAUTION: Before proceeding, refer to the "Important Regulatory and Safety Notices to Service Personnel" document that was included with your router. It is also recommended to refer to the *ULTRIX-FR12 Installation Guide* which is available for download from our website.

Required Equipment

You will need:

- a Replacement Crosspoint Module Kit (Ross P/N: ULTRIX-FR12-XPT)
- a 3/16 driver (provided with the kit)
- a #2 Phillips screwdriver

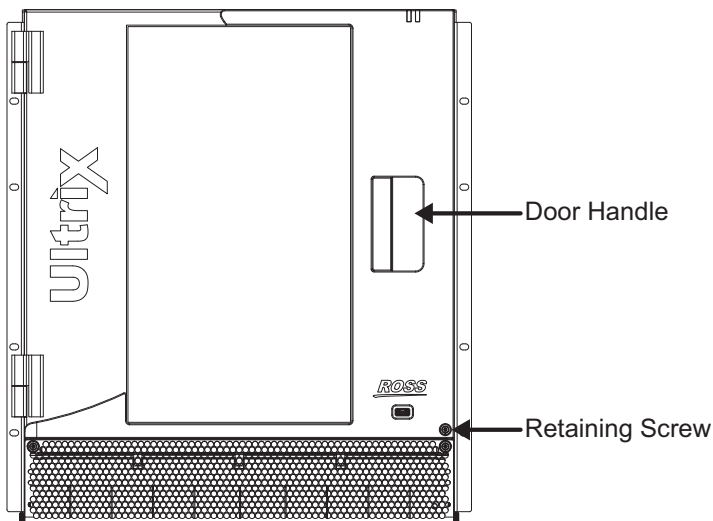## Removing the Crosspoint Module from the ULTRIX-FR12

Caution — *When servicing or moving equipment, always observe safe handling practices. Get help to move heavy items. Follow all safety rules of your workplace.*

Removing the Crosspoint Module from the ULTRIX-FR12 chassis requires that you remove the front panel door, loosen the four hex head screws on the front of the module, engage the red handles on the sides of the module, and pull the module free from the chassis using the red handles.

✸ The front panel door is secured to the chassis with strong magnets and a retaining screw.

To remove the front panel door

1. Locate the retaining screw on the bottom of the panel door.
2. Use a #2 Phillips screwdriver to loosen the retaining screw.
3. Locate the handle on the front panel.
4. Pull the handle towards you to open the door a minimum of half way.

Caution — *The Front Door weighs approximately 12lbs (5.4kg). Ensure that you have a firm grip on the door, or that the door is otherwise supported, before removing it from the chassis.*

5. With your left hand, grasp the bottom of the door at the left side.
6. With your right hand, grasp the middle of the door on the right side.

7. Lift the door upwards until it disengages from its hinges in the chassis.

⚠ **Caution** — *Remove the door without twisting or rotating it at too steep of an angle.*
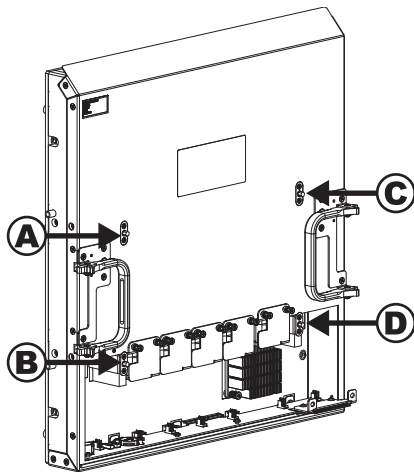
✱ Each door hinge includes a washer that may become loose during removal of the door.

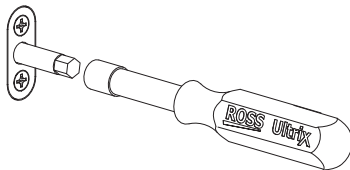8. Set the door on a flat, clean, and static-free surface.

To loosen the four hex head screws on the Crosspoint Module

1. Facing the interior of the chassis, locate the four hex head screws on the Crosspoint Module.

   The screws are located near the read handles. Refer to the following diagram for locations.

2. Use the provided 3/16 driver to unthread screw **A**.

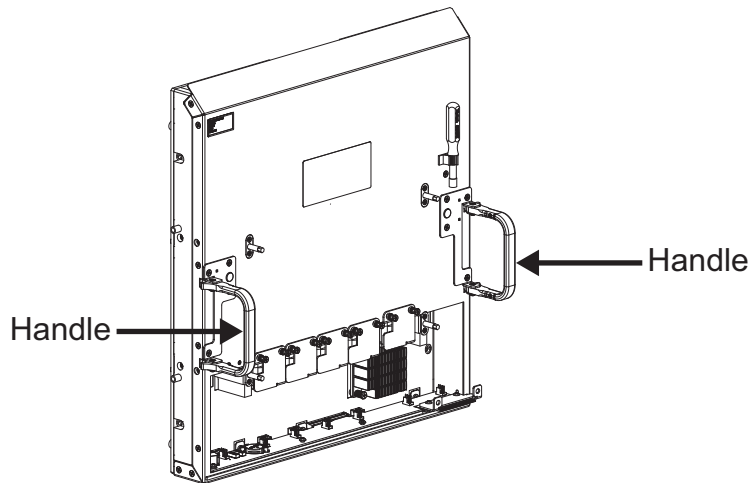   The screw extends outward once it is fully unthreaded.

3. Repeat step 2 for the remaining screws in the following order:

   • screw **B**.
   • screw **C**.
   • screw **D**.

To engage the red handles

1. Locate the red handle on each side of the Crosspoint Module.

2. Flip each handle up and away from the module.

   You will use the handles to remove the module from the chassis.

Handle

Handle

3.   Make a note of the Crosspoint Module position within the chassis.

✱ The new module will install in the same position.

To remove the Crosspoint Module from the chassis

⚠ **Caution** — *The Crosspoint Module weighs approximately 15lbs (6.8kg).*

1.   Grasp a red handle in each hand.

2.   Slowly pull the module away from the chassis.

3.   Set the module on a flat, clean, and static-free surface.

Installing a New Crosspoint Module

This section outlines how to position the new Crosspoint Module in the ULTRIX-FR12 chassis, affix the module using the four hex head screws, then re-install and close the front door.

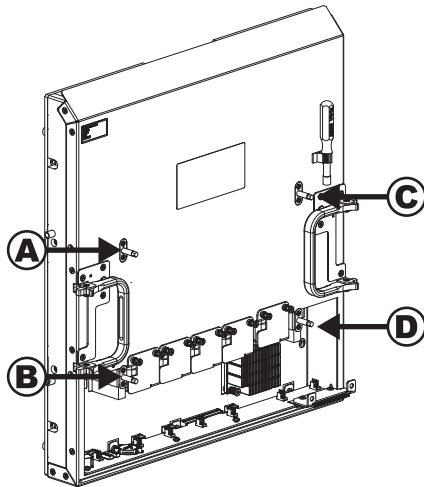**To position the new Crosspoint Module into the chassis**

1.   Locate the red handle on each side of the new Crosspoint Module.

2.   Flip each handle up and away from the module.

     You will use the handles to position the module into the chassis.

3.   Grasp a red handle in each hand.

4.   Slide the module into the chassis until the module is fully seated.

5.   Ensure the posts on both sides of the module are engaged in their slots in the chassis.

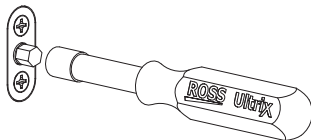6.   Flip each handle down and towards the module.

To affix the module using the four hex head screws

1.   Locate the four hex head screws on the new module.

2. To affix screw **A**:

   a. Use the provided 3/16 driver to depress the screw in its socket.

   b. Partially tighten the screw.

3. Repeat step 2 for screws **B**, **C**, and **D**.

4. Continue to tighten the screws individually in the order of **A**, **B**, **C**, and **D**.

✴ A screw will latch into position once it is fully tightened.

To re-install the front panel door

1. Grasp the door with one hand on the bottom and another hand on the right side.

2. Position the door in front of the chassis, ensuring the logo and handle are on the bottom right.

✴ Each door hinge includes a washer that may have become loose during removal of the door. Verify that each hinge includes a washer before positioning the door.

3. Slide the door onto its hinges and into position.

4. Close the door.

5. Ensure the door handle, on the front right corner is engaged.

6. Secure the door into position:

   a. Locate the locking screw near the bottom right corner of the door.

   b. Use a #2 Phillips screwdriver to tighten the screw.

Completing the Replacement

The new Crosspoint Module is automatically detected and reconfigured.

• The saved ULTRIX-FR12 identifiers, system settings, and network settings are retained.
• The license keys, UltriScape layouts, and soft panel configurations are retained.
• If configured, the system time for the new Crosspoint Module will be synchronized to the external clock (e.g NTP). Otherwise, it will be synchronized to the ULTRIX-FR12 system time.