

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-FR5 Installation Guide* which is available for download from our website.

Removing the Cooling Fan Module from the ULTRIX-FR5 Chassis



Caution — For reliable performance, the ULTRIX-FR5 router should not run without fans for more than 5 minutes.

The Cooling Fan Module is critical to the operation of the ULTRIX-FR5. Should a fan fail within the module, you will need to replace the entire module with a new one.

The Cooling Fan Module is accessed via the front of the router chassis and requires that you remove the door first. The door is secured to the front of the router chassis with a rare earth magnet on each side.

★ The Cooling Fan Module replacement should be performed while the chassis is powered on.

To remove the door from the chassis



ESD Susceptibility — Static discharge can cause serious damage to sensitive semi-conductor devices. Avoid handling circuit boards in high static environments such as carpeted areas and when synthetic fiber clothing is worn. Always exercise proper grounding precautions when working on circuit boards and related equipment.

1. With your left hand, grasp the top and bottom of the door at the left sides.
2. With your right hand, grasp the middle of the door on the right side.



Caution — The door of the ULTRIX-FR5 is heavy. Ensure that you have a firm grip on the door, or that the door is otherwise supported, before removing it from the chassis.

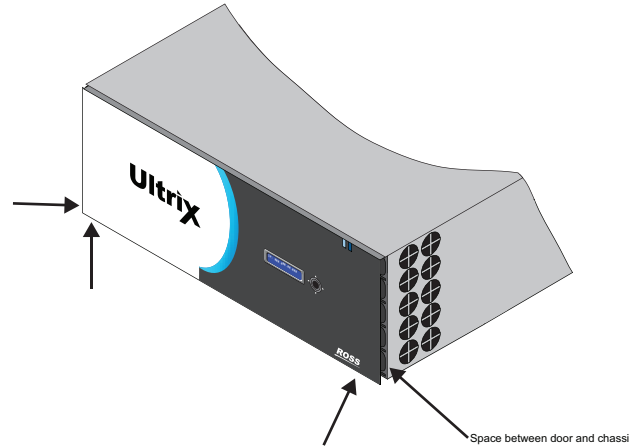


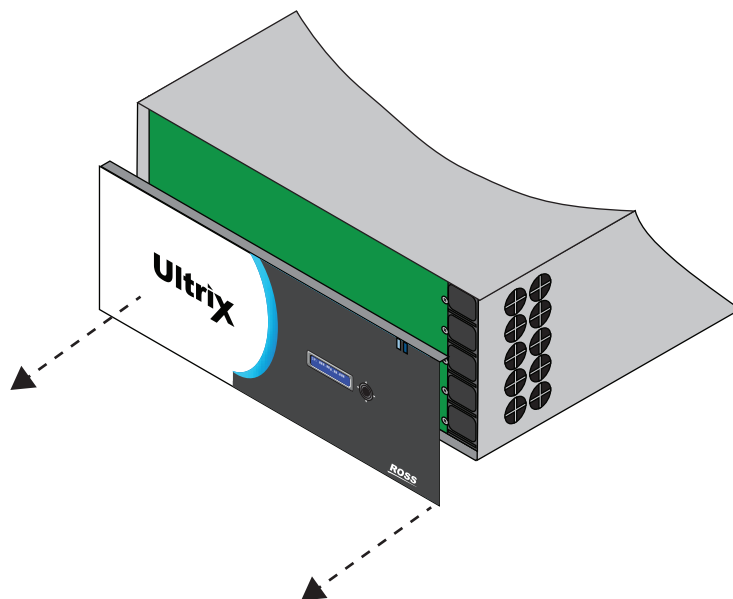
Figure 1 Front Panel — Where to Grasp the Door

★ If you are having trouble removing the door from the chassis, use your right fingers in the space between the door and the chassis for added leverage.

3. Pull the right side of the door towards you to disengage it approximately 1.0" from the chassis.
4. Pull the left side of the door towards you to fully disengage the door from the chassis.



Caution — Pull the door off without twisting or rotating it at too steep of an angle.



To remove the Cooling Fan Module from the chassis

★ Each Cooling Fan Module is affixed separately to the Main Board.

1. Remove the door as outlined in the section “**To remove the door from the chassis**”.
2. Use a #1 Phillips screwdriver to loosen the screw that affixes the failed Cooling Fan Module to the Main Board.

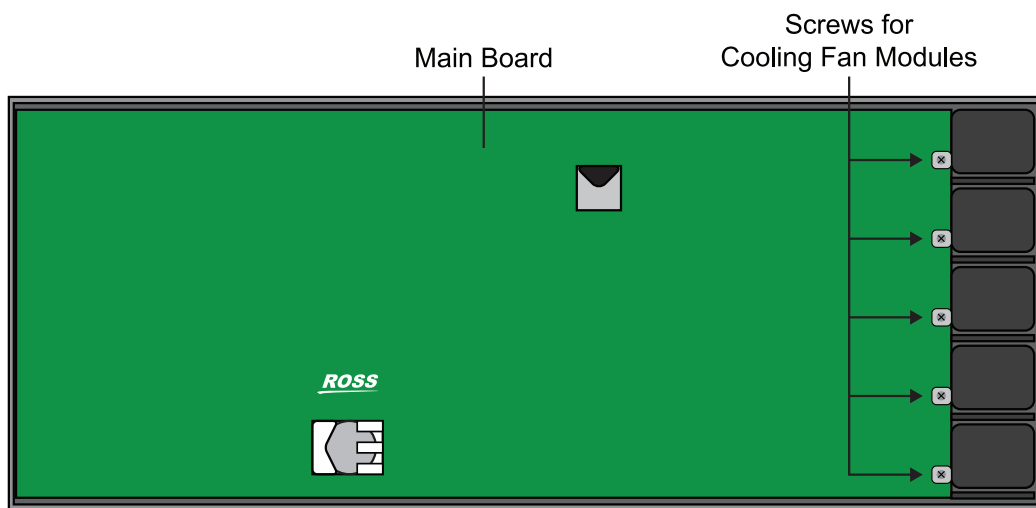


Figure 2 Location of Screw for Cooling Fan Module

3. Gently pull the Cooling Fan Module towards you to unseat it from the backplane and to disengage the module from the chassis.
4. Pull the module free from the chassis and set it on a static-free surface.

Installing a New Cooling Fan Module in the ULTRIX-FR5 Chassis

Once you have removed the failed Cooling Fan Module, you can install the new module into the ULTRIX-FR5 chassis and replace the door on the front panel.

To install a new Cooling Fan Module into the chassis

1. Align the new Cooling Fan Module in the slot inside the chassis.
2. Gently push the Cooling Fan Module into the slot until the module is fully seated. You will feel the back connector of the module engaged with its connector inside the chassis.
3. Use the screw from step 2 in the procedure “**To remove the Cooling Fan Module from the chassis**” to affix the Cooling Fan Module to the frame.



Caution — *The Cooling Fan Module includes a connector that must be fully seated. Reinstalling the Cooling Fan Module retention screw is required to ensure proper contact.*

To re-install the door to the chassis

1. Align the door to the front of the router, ensuring that the door is oriented upright, the corner with the Ultrix logo is in your left hand, and the corner with the Ross logo is in your right hand. Refer to **Figure 3**.



Caution — *Re-installing the door incorrectly or misaligned can damage the door or internal components.*

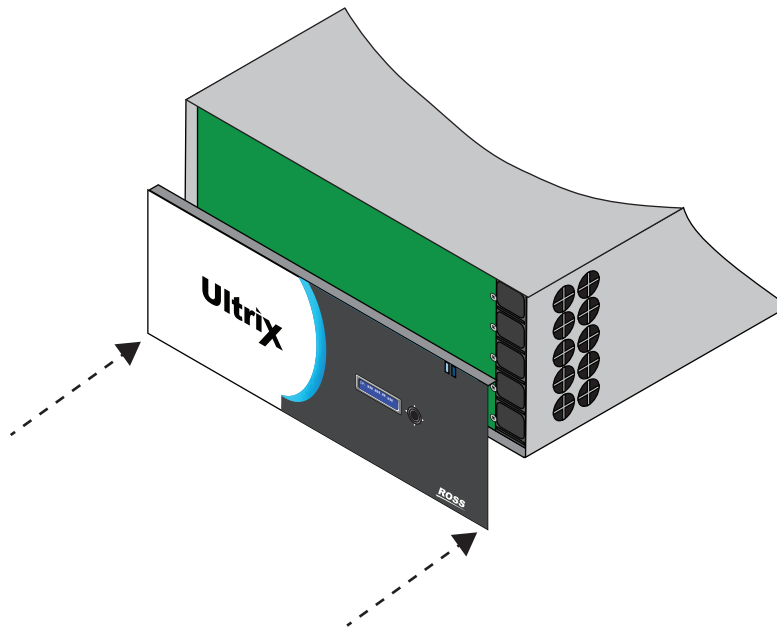


Figure 3 Front Panel — Aligning the Door to the Chassis



ESD Susceptibility — *Static discharge can cause serious damage to sensitive semi-conductor devices. Avoid handling circuit boards in high static environments such as carpeted areas and when synthetic fiber clothing is worn. Always exercise proper grounding precautions when working on circuit boards and related equipment.*

2. Align the left-side of the door against the chassis.
3. Align the right-side of the door, gently rotating the door into position.
4. Verify that the door is fully seated in place with the magnets securing it to the chassis.