Overview

The ULTRIX-FR12 Door platform has migrated from Ubuntu v18.04 to Ubuntu v22.04 via the following releases:

- ULTRIX-FR12 Door v1.0.5 enables saving configurations for upgrade to Ubuntu v22.04.
- ULTRIX-FR12 Door v2.0.x to upgrade to the Ubuntu v22.04.

This document outlines how to upgrade the ULTRIX-FR12 Door to Ubuntu 22.04. This will require you to:

1. Upgrade the ULTRIX-FR12 Door to v1.0.5.
2. Create a backup of the existing ULTRIX-FR12 Door configuration.
3. Create a bootable USB device for the upgrade.
4. Install the Ubuntu v22.04 upgrade package on your ULTRIX-FR12 Door.

Upgrade the ULTRIX-FR12 Door to v1.0.5

If the ULTRIX-FR12 Door is running v1.04 or older, you will need to upgrade the ULTRIX-FR12 Door to v1.05 before you can create a backup of your configuration.

To upgrade the ULTRIX-FR12 Door

1. Download the ULTRIX-FR12 Door v1.0.5 software to your DashBoard client computer.
2. Locate the ULTRIX-FR12 Door node in the Tree View of your DashBoard client.
3. Expand the ULTRIX-FR12 Door node to display the ULTRIX-FR12 Door Device sub-node.
4. Double-click the ULTRIX-FR12 Door sub-node to display the ULTRIX-FR12 Door in the right-side of the DashBoard window.
5. Select the **General Info** tab.
6. Click **Upload**.
7. Follow the on-screen instructions.

Create a Backup of the Existing ULTRIX-FR12 Door Configuration

The ULTRIX-FR12 Door software v1.0.5 adds the ability to back up and restore the configuration of an ULTRIX-FR12 Door. This backup captures:

- Network IP address, netmask, gateway and DNS information
- Custom panels
- License files
- LCD brightness level
- Audio level and mute
- Screensaver image
- Video files and settings

To create a backup of the existing configuration

1. In the ULTRIX-FR12 Door interface, click **Manage Custom Panels**.
2. Expand the **Custom Panels** folder.
3. Select the **UtilityPanel.grid** file.

2101DR-611-01 rev1
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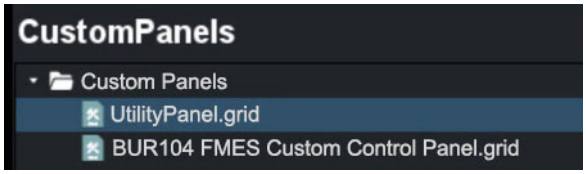

4. Click **Open File**.
5. On the left side of the DashBoard window, ensure that a new **Ultrixfr12-door_Utility** sub-node displays in the tree view.
6. Double-click the **Ultrixfr12-door_Utility** node to open the **Ultrixfr12-door Backup Utility** interface.
7. From the bottom toolbar, click **Create Backup**.

   A compressed backup file is generated that contains the relevant information about the ULTRIX-FR12 Door.
8. From the bottom toolbar, click **Choose Location**.

   The **File Save** dialog opens.
9. Select where on your PC the backup data file will be saved.

   The default location is your Documents folder (e.g. C:\Users\UserName\Documents).
10. Click **Save**.
    - The backup data file is saved and the **File Save** dialog closes.
    - The backup file will have a name of "backup-Ultrixfr12-door-XXX.bin" where the XXX represents the Device ID (this ID is reported on the General Info interface).

✶ Alternatively, if the destination folder is already correct, click **Save** at the bottom of the screen to transfer the backup data file to the PC.

11. If you have multiple ULTRIX-FR12 Door units to be upgraded, you can perform the backup phase for each of them. Each one will save the data to a file with filename uniquely linked to the unit ID.

Creating a Bootable USB Device for the Upgrade

The OS upgrade release comes as a single large ISO file. To install this on an ULTRIX-FR12 Door, it is necessary to transfer the file to a USB device. However, this cannot be done by simply copying the ISO file to the device. The USB must be formatted as a bootable device to allow the ULTRIX-FR12 Door to boot from a temporary OS while the OS is being replaced. Creating a bootable USB can easily be performed using one of several freely available applications.

Before You Begin

- We recommend an application called Rufus to perform the operation on a Microsoft® Windows® PC (https://rufus.ie/en/). There are several versions available in the Latest releases area of the page. The easiest to use is the one marked as Portable (currently rufus-4.9p.exe), which can be run directly, without having to install it on the PC. Just save it to a folder on your PC and run it from there.
- You will need a USB device which is at least 4GB in size. A device with a fast write speed is useful, so USB-3 if possible, or at least USB-2.

✶ The USB device will be completely reformatted by this operation, so any existing data on it will be lost. You will be warned about this several times while running the application.

To create a bootable USB device for the upgrade

1. Ensure the USB device is plugged into your PC.
2. Downloaded Rufus to your PC.
3. Run Rufus as administrator:

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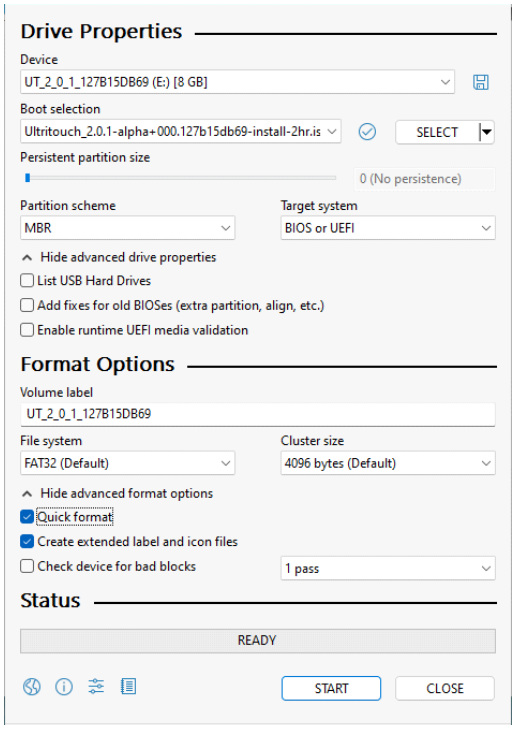
a. Right-click on the executable file.

b. Select Run as administrator.

The Rufus (Portable) dialog opens.



4.Use the **Device** field (at the top) to select which USB device you would like to update.

✶To avoid possible mistakes, it is a highly recommended to unplug all other removable USB devices from the PC for the duration of the operation. The list won't show you any fixed hard drives, so you don't have to worry about damaging your PC.

5.Use the **Boot selection** field to select the **ISO** file to be written to the USB device. The Select button (top right) allows you to select the location of the ISO file on your PC.

6.Ensure the **Partition Scheme** is set to **MBR**.

7.Ensure the **Target system** is set to **BIOS or UEFI**.

8.The rest of the parameters can probably be left at their default values (see example). The **File System** should be **FAT32** and **Cluster size** is **4096 bytes**.

9.Click **START**.

10.When the **IOSHybrid image detected** dialog opens:

a.It is recommended that **Write in ISO Image mode** is selected.

b.Click **OK**.

11.If the **Download required** dialog opens, prompting to confirm which version of Grub will be installed on the device, select **Yes** to download the recommended version and continue.

12. When the final dialog box opens, it includes a warning that all the data on USB device is about to be destroyed.
13. Click **OK** to accept and to start the operation.
14. Wait 3-15 minutes, depending on the speed of your USB device.
15. When it completes, click **CLOSE** to exit the program.
16. Add one or more backup files to the USB device.
    a. On the PC, open the USB device that you have just created.

       You will see various files and folders including: *.disk, [boot], boot, casper etc.

    b. Create a new folder at the top level of the device called **Backup** (with a capital 'B').
    c. Copy the backup-XXX.bin file to this new Backup folder.
    d. If you have backed up multiple ULTRIX-FR12 Doors, copy the multiple backup-XXX.bin files in this folder together. The ULTRIX-FR12 Door will choose the correct one during the install.
17. Eject the USB device from your PC (right-click and click **Eject**).
18. Unplug the USB device from your PC.

Installing the Ubuntu v22.04 Upgrade Package

Once you have created the bootable USB device and added the backup files to it, you are ready to perform the Ubuntu upgrade on the ULTRIX-FR12 Door.

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✶ While performing the upgrade, it is necessary to access the USB port on the front of the ULTRIX-FR12 Door.

To enable the ULTRIX-FR12 Door to boot from the USB device, it is necessary to modify the boot parameters on the door using the BIOS. **Figure 1** shows a simple configuration allowing the upgrade to be performed.

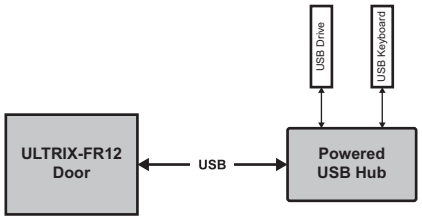
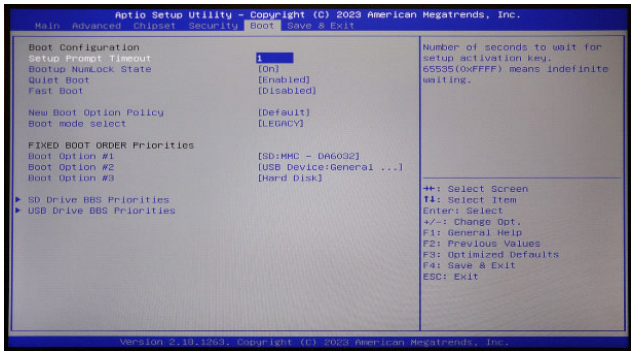


Figure 1 Example of a Simple Configuration for the Upgrade Workflow

To install the upgrade package

1. Connect the USB port on the ULTRIX-FR12 Door to a powered USB hub.
2. Connect a USB keyboard to the powered USB hub.
3. Connect the USB device to the powered USB hub.
4. Wait about one to two seconds, then press **ESC** on the USB keyboard.
5. Repeatedly press **ESC** about once per two seconds until the BIOS menu displays on the LCD display of the door. It shouldn't take more than two or three repeats.
6. If a dialog prompts **Exit Without Saving?**:
   a. Use the arrow keys to select **No**.
   b. Press **Enter**.
7. If the grub monitor prompt opens (a black screen), return to the BIOS menu as follows:
   a. At the grub prompt, type `fwsetup`.
   b. Press **Enter**.
8. Use the right-arrow key to select the **Boot** menu. Refer to the following image.

   The actual layout may be somewhat different depending on which version of the BIOS is installed.



9. Use the down arrow key to select the top entry in the **FIXED BOOT ORDER Priorities** list. On some versions of the BIOS, this list may be called **Hard Drive BBS Priorities**.
   - It will probably have an entry including “MMC”, but older units may have a different default boot device (e.g. PO: SQF-SLMM1-32G-S...).
   - Make a note of this name for later.

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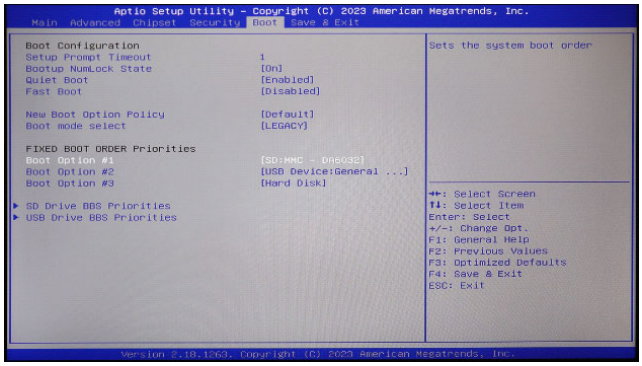


10. Press **Enter** to edit the top entry to be the connected USB device.

★ The USB device must be connected before powering up the ULTRIX-FR12 Door. Otherwise, it will not appear in this list of choices.

The name that appears for the USB device varies based on the manufacturer. If you're lucky, it will include the word “USB” in it, or the name of the manufacturer (e.g. SanDisk), but it may be something more obscure like one of the following.

- Generic Flash Device
- USB Device: General UDisk 5.0
- UEFI: General UDisk 5.0

11. Use the up/down arrow keys to select the appropriate entry and press **Enter**.

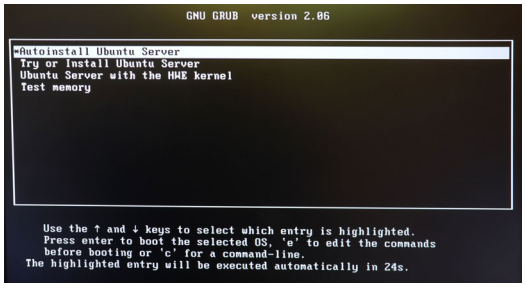
The popup closes and the boot order devices will now have rearranged themselves, putting the USB device at the top and moving the previous entries down one row.

12. To save the changes and reboot:

a. Press **F4**.

b. Press **Enter**.

13. Monitor the ULTRIX-FR12 Door as it reboots from the ISO image on the USB device. Refer to the following image.



14. It will start counting down from 2 seconds to AutoInstall Ubuntu Server.
15. Installation commences. It will take approximately 10 minutes to complete this first phase (patience is required).
16. At the end of the first phase, the ULTRIX-FR12 Door will automatically power itself down.
17. Unplug the USB from the ULTRIX-FR12 Door.
18. Power up the ULTRIX-FR12 Door.

★ The ULTRIX-FR12 Door need to have the BIOS boot parameters restored manually.

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19. Press **ESC** immediately after re-powering the door to get back into the BIOS and reverse the change that was previously done:
    a. Select the Boot page.
    b. Select the top row in the boot order list and press **Enter**.
    c. Select the entry containing MMC (or whatever name you made a note in step 9) and press **Enter**.
    d. Press **F4** to save the changes.
    e. Press **Enter**.
20. Monitor the ULTRIX-FR12 Door as it progresses with the second phase of the installation.

✶ A number of worrying messages may display during this phase. This is normal and can be ignored.

21. At the end of the second phase, the ULTRIX-FR12 Door will automatically power itself down.
22. Unplug the USB cabling.
23. Power up the ULTRIX-FR12 Door.

    The unit now boots into the ULTRIX-FR12 Door application, running under the Ubuntu 22.04 operating system.

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