

Updating Your Matrix Plus 3 Firmware

When your system firmware needs updating, you will either be sent a CD that contains the Firmware Updater program, or you can download the Firmware Updater program files from the Clear-Com Web site.

Often, updating the firmware requires that you replace the main program, PGM-WIN, as well. Before installing the new PGM-WIN program, rename the Matrix Plus 3 folder to reflect its version number. For example, you can name the folder for version 2.2 "MX+3 2.2." This prevents having your current folder overwritten during the update. Also, copy all of your configuration files to an external floppy disk or CD before installing any new software.

After you install the new PGM-WIN program, copy all of your configuration files from the old Matrix Plus 3 folder to the new Matrix Plus 3 folder.

If you are installing the program from a CD, install the CD on your computer and follow the onscreen instructions. From a CD, both the Firmware Updater program and the PGM-WIN program will install automatically.

If you are installing the programs from a zip file that you obtained on the Clear-Com Web site, decompress the zip file and extract it to your hard drive so that you can do a standard Windows installation of the programs.

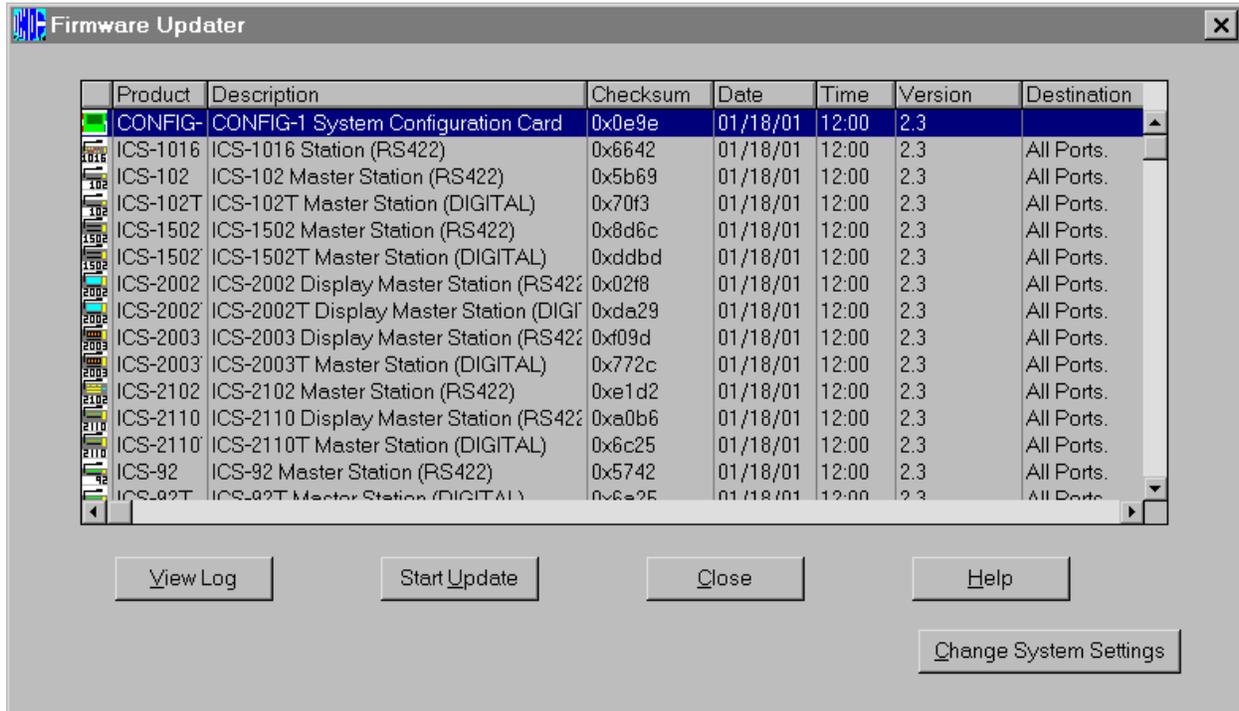
WARNING: *The intercom system will be out of service until this process is complete so allow enough time. The update process can take up to an hour or more.*

To run Firmware Updater in Windows:

1. Before running the program make sure that all remote audio devices are connected to the Matrix frame and powered.
Note which port lights on the Matrix's front panel are lit. After the upgrade, you must verify that the same port lights are lit.
2. On the Windows taskbar, click the Start button to access the Start menu.
3. From the Start menu, choose Programs, then Clear-Com Intercoms, and then Firmware Updater.

The Firmware Updater dialog box appears. It lists all of the hardware devices whose firmware is being updated. Each product type listed represents all of the devices of that type in the system. For example, the one "ICS-1016"

listing represents all of the ICS-1016 stations in the system.



- Verify that the list contains the firmware for all products that are connected to the Matrix frame.

Note: *Certain products, such as the Clock card, ICS-21 stations, ICS-22 stations, and ICS-24 stations, do not have firmware so you will not see them in the list. Other products on the list may not be used in your intercom system. There is no need to update the firmware of a product that is not used in your intercom system.*

- Select one product type in the Firmware Updater dialog box by clicking it.

Select only one product type at a time to update. The recommended order is:

- MTX/MVX-A8 cards
- MTX/MVX-D8 cards
- CONFIG-1 card
- ICS-2003 stations (update analog and digital station types separately)
- i-Stations
- ICS-1016
- ICS-2110 (update analog and digital stations separately)

- Legacy Stations: ICS-2002/1802, ICS-1502, ICS-62/102, ICS-52/92, ICS-2102 (update each station type separately and each station subtype— analog or digital— separately as well.)

6. Click the Start Update button after each product type has been selected.

Two progress bars appear. The first lets you know that the Firmware Update software is downloading to the system. The second lets you know that the update is in progress and gives you the estimated time to completion.

Note: *You will know that the update for all of the equipment on a port is complete when the light for that port on the Matrix's front panel goes off. When the update is complete, you can either let the Firmware Updater program complete its cycle before beginning a new update, or to save time you can end that particular cycle by pressing the leftmost CNTL+SHIFT on your computer keyboard. Do not end the update unless you are sure that all the green port lights are off; otherwise you may disable the entire intercom system.*

7. When the firmware for all product types is updated, reset the Matrix system to the factory default configuration. To reset to the default configuration, from the File menu on your computer, select Transfers, and then click Reset System in the Transfers dialog box. Wait until the frame logs in all stations and interfaces connected to it.
8. Reset the Matrix frame cards by simultaneously pressing the two buttons at the top of the CONFIG-1 card. Doing so resets the CONFIG-1 card and all Matrix cards in the system.

Note: *On a MicroMatrix system, reset the frame cards by inserting a paper clip in the hole on the front panel marked "System Reset."*

9. Continue resetting the Matrix frame cards until all cards are operating correctly.

You will know that the cards are operating correctly when the yellow Frame Data lights are blinking approximately once every two seconds. The Frame Data lights are located at the bottom of the Matrix cards in the Compact 72 and System 200 frames. The MicroMatrix's Frame Data lights are located on the right side of the front panel.

10. Confirm that the same front-panel green port lights that were lit before the update are now lit after the upgrade. This verifies that the equipment connected to each port has returned to normal operation.

11. Confirm that each ICS-2003 and ICS-2003T station has returned to normal functioning.

Press a talk key on a station to observe if it lights up. If not, reset a station locally by inserting a paper clip in the hole located under the program-volume knob on the station's front panel.

12. To complete the update, reload the saved configuration file, and then reset the Matrix frame cards by simultaneously pressing the two buttons at the top of the CONFIG-1 card.

WARNING: *Do not interrupt the update by powering down or disconnecting equipment or by terminating the Firmware Update program while it is actively updating the system firmware. Doing so may completely disable the intercom system. Clear-Com makes no guarantees as to the ultimate reliability of this process and cannot be held liable for any loss of business incurred by possible interruptions of intercom service.*