



GEC Solutions
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GEC SCSI DRIVE MANUAL

Thank you for purchasing this GEC Solutions' new VME SCSI Emulator product.
We appreciate your business.

Please read the manual completely before installation and use.

Included Products:

- **GECSSFD-2**, VME SCSI Floppy Drive Emulator for Applied Materials Endura, Centura tools.
- **GECSSHD-2**, VME SCSI Hard Drive Emulator for Applied Materials Endura, Centura tools.
- **GECSSRD-2**, VME SCSI Removable Hard Drive (Mass Storage Module) Emulator for Applied Materials Endura, Centura and tools.

INSTRUCTIONS

These solid state SCSI emulators are intended to be installed only by technicians or engineers that are properly trained on the tools and their interfaces.





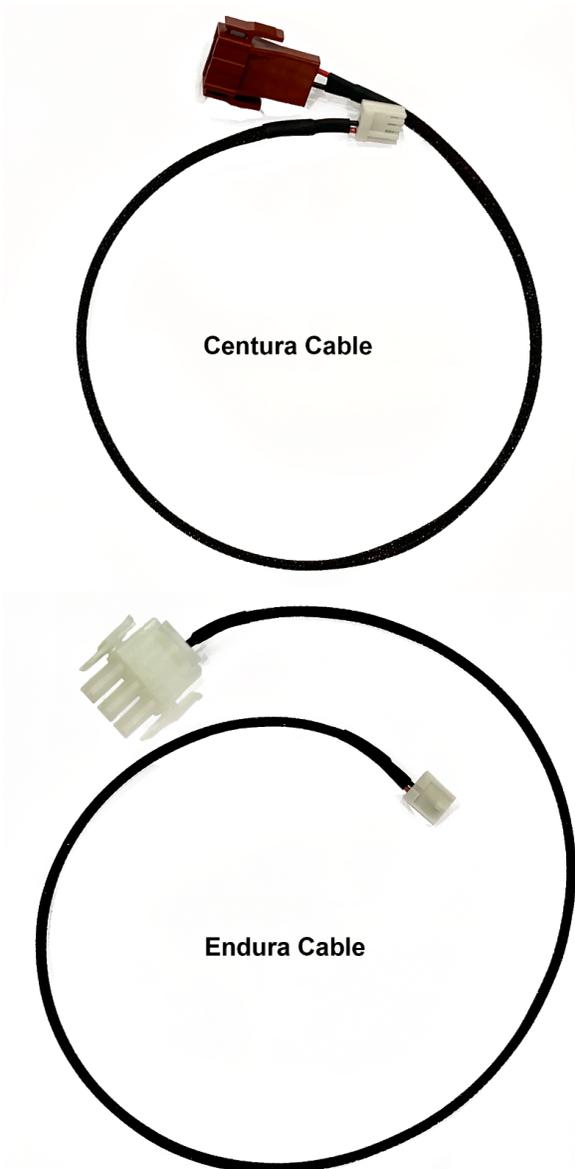
Drive Installation

*Backup data on drive(s) to be replaced. **Please ensure that all files are backed up on the drive(s) to be replaced.** Data loss is unlikely if properly installed and the installation procedures followed, but please back up the drive data first.



***Remove the drive to be replaced.**

***Install new drive**



***Plug in power cable**(power adapter for endura/centura is included) and SCSI cable.

Plug power adapter into existing molex power cord then plug the other end into the drive.

Please double check SCSI cable orientation and that the cable connector is fully inserted.

A power y-splitter may be used to power a harddrive and floppy off a single power cord. (will be included upon request)

(special 3 way cables will be included if a harddrive, floppy and removable harddrive are ordered together).



***Screw new drive into the VME rack.**

*****Drives come pre-formatted, but can be reformatted on tool if needed*****

Key:

U0: = HDD = HARD DRIVE

U2: = FHD = FLOPPY HARD DRIVE

U4: = RHD = REMOVABLE HARD DRIVE

Console = command line that is reached by selecting Misc > Diagnostics > Debug Screen

Reformatting Drive Media: The computer will utilize the new drive's media only after properly formatting it for that drive; afterwards the computer should be able to access the drive normally (when the media is present). Confirm this by attempting to command the drive, DIR, COPY, or any other drive command.

Floppy Drive (U2:) format command = FORMAT U2:

Hard Drive (U0:) format command = HARDDISKFORMAT *

Removable Hard Drive (Mass Storage Module) (U4:) format command = RHDFORMAT *

* Any character(s) entered after the format command will become the volume label.

The computer will attempt to boot from drives with removable media, Floppy Drive (U2:) and Removable Hard Drive (U4:), before booting from the Hard Drive (U0:).

Configured as a Hard Drive (U0:)

The computer will format the Hard Drive (U0:) media with a size of 16gb, the size of the sd card used.

GEC Solutions has a pre-formatted sd with SYSTEM.RUN in the drive when ordered as a Hard Drive

Floppy Drive (U2:)

After formatting the media, the usable size of the volume on this drive will be 1.4 mb regardless of the size of the sd card used. Floppy must be inserted when booting up.

Configured as Removable Hard Drive (Mass Storage Module) (U4:)

The computer will format the Removable Hard Drives (U4:) volume to the sd card's maximum size of 16gb (up to 128gb with separate purchase). The Removable Hard Drive (U4:), is a very flexible large volume removable media drive. The contents of entire Hard Drive (U0:) can be copied onto a single cf card with the command: **COPY *.* U4:**

The new drive ships with the proper SCSI ID and termination settings for the tool and cannot be changed.

The heartbeat LED should flash when the unit is powered up. The LED will briefly flash while the cf card is being initialized indicating the media is coming ready.

If the computer BIOS shows the drive's U# correctly, but it cannot mount or access the media properly, please check the sd cards placement to make sure it is properly installed.

If the sd card is properly installed and the computer is still not properly accessing it, please format the media again. Please also check the syntax of the formatting commands. They are specific to the drive type.



Troubleshooting

Situation 1:

Tool has HDD but no FHD or RHD drive >

Solution:

Purchase either FHD or RHD> power down tool > plug in power and scsi
(FHD and RHD can't be at the end of the scsi chain, HDD must be at the end of SCSI chain)

Power on tool > make sure tool sees either the U2: (FHD) or U4: (RHD)

For the RHD type on console screen- **COPY *.* U4:** (This will backup the HDD onto the RHD)

For the FHD click the DO button on console screen for a list of commands-

Situation 2:

Tool has an Original HDD that is corrupted (no FHD or RHD)

Option 1 solution:

Purchase GEC HDD > copy files from another tool onto pc > plug GEC HDD's sd card into computer > transfer files to sd card > insert sd card back into GEC drive > boot up tool with new GEC drive installed.

Option 2 solution:

Purchase GEC HDD and RHD > take removable harddrive to a tool with a working harddrive > turn off tool > install removable harddrive > boot up >

COPY *.* U4:

This will copy contents of the HDD to the RHD

Power down the tool and uninstall the removable drive

Bring GEC HDD and RHD over to tool with corrupted HDD > uninstall AMAT drive >

Install GEC HDD and RHD (HDD at end of scsi chain) > boot up tool >

COPY U4: *.* U0:

This will copy contents of the RHD to the HDD

Reboot tool > It should now boot off the new GEC HDD

Situation 3:

Tool has a corrupted HDD but has a working RHD with the HDD backed up on it

Solution:

Purchase GEC HDD > Install GEC HDD (HDD at end of scsi chain) > boot up tool >

COPY U4: *.* U0:

This will copy contents of the RHD to the HDD

Reboot tool > It should now boot off the new GEC HDD

A Note on Termination:

Legacy floppy and hard drives often function properly without termination due to much lower input impedance of the SCSI device. Proper termination is required with the solid state SCSI emulators to ensure proper function. **Harddrives should be located at the end of the scsi chain on endura's and centura's.**

You cannot physically change termination on this new style of drive so they can no longer be changed between drive types.

If you are still encountering issues after troubleshooting the unit, please contact GEC Solutions for support.