



# SDI GRB Appliance Update 27 Guide



*Johnson Space Center, 06 May 2024*

This document is available online at:

[https://www.ssec.wisc.edu/mcidas/doc/sdi\\_appliance/orders/sdi\\_grb\\_update27\\_guide\\_jsc\\_2024may06.pdf](https://www.ssec.wisc.edu/mcidas/doc/sdi_appliance/orders/sdi_grb_update27_guide_jsc_2024may06.pdf)

The ***SDI GRB Appliance Operator's Manual*** is available online at:

[https://www.ssec.wisc.edu/mcidas/doc/sdi\\_man/sdi\\_grb\\_oper\\_manual.pdf](https://www.ssec.wisc.edu/mcidas/doc/sdi_man/sdi_grb_oper_manual.pdf)

## **Need Assistance?**

Send your questions/requests to [sdi.help@ssec.wisc.edu](mailto:sdi.help@ssec.wisc.edu)

## **Table of Contents**

- Section 1 - [Current and Previous Updates](#)
- Section 2 - [Contents of Your Shipment](#)
- Section 3 - [Installing Your SDI Software Update](#)

## Section 1 - Current and Previous Updates

- This is Update 27 for your (Johnson Space Center) SDI GRB Appliance systems. The update consists of an upgrade to the system software from version 4.0.16 to 5.0.0 and to CSPP Geo GRB from 1.0.27 to 1.0.28. RPMs and security patches were updated on 3 May 2024. This is an update from CentOS 7 to Rocky 8.9.

**Note:** In system software 4.0.5 and later, the software will ingest any GOES-R series satellite and can be changed from one to another by switching your feed. To do so, simply switch the demodulator cable attached to the 1 gigabit port labeled *DMOD* by disconnecting the old cable (e.g., GOES-16) and then connecting the other cable (e.g., GOES-17). No other changes are needed.

- Previous packages shipped to your site were dated 12 May 2017 (original package), 31 July 2017 (Update 1), 30 November 2017 (Update 2), 13 February 2018 (Update 3), 05 June 2018 (Update 4), 24 September 2018 (Update 5), 19 November 2018 (Update 6), 14 January 2019 (Update 7), 01 July 2019 (Update 8), 10 September 2019 (Update 9), 22 November 2019 (Update 10), 02 March 2020 (Update 11), 02 May 2020 (Update 12), 29 August 2020 (Update 13), 09 December 2020 (Update 14), 21 January 2021 (Update 15), 04 May 2021 (Update 16), 23 July 2021 (Update 17), 03 November 2021 (Update 18), 11 January 2022 (Update 19), 04 May 2022 (Update 20), 08 September 2022 (Update 21), 01 December 2022 (Update 22), 08 March 2023 (Update 23), 10 August 2023 (Update 24), 04 December 2023 (Update 25), and 29 February 2024 (Update 26). The three most recent of the previous updates are available online at:

[https://www.ssec.wisc.edu/mcidas/doc/sdi\\_appliance/orders/sdi\\_grb\\_update24\\_guide\\_jsc\\_2023aug10.pdf](https://www.ssec.wisc.edu/mcidas/doc/sdi_appliance/orders/sdi_grb_update24_guide_jsc_2023aug10.pdf)

[https://www.ssec.wisc.edu/mcidas/doc/sdi\\_appliance/orders/sdi\\_grb\\_update25\\_guide\\_jsc\\_2023dec04.pdf](https://www.ssec.wisc.edu/mcidas/doc/sdi_appliance/orders/sdi_grb_update25_guide_jsc_2023dec04.pdf)

[https://www.ssec.wisc.edu/mcidas/doc/sdi\\_appliance/orders/sdi\\_grb\\_update26\\_guide\\_jsc\\_2024feb29.pdf](https://www.ssec.wisc.edu/mcidas/doc/sdi_appliance/orders/sdi_grb_update26_guide_jsc_2024feb29.pdf)

- Each software update (including this one) is customized for your specific appliances by hard-coding the network configuration and including the complete system software package.

## Section 2 - Contents of Your Shipment

The contents of your SDI GRB Appliance Update 27 shipment are listed below. You will receive one copy of each of these items for each of your three units.

- **SDI GRB Appliance System Software USB flash drive** - contains version 5.0.0 of the system software (complete system consisting of the operating system and utilities, SDI configuration and applications, [CSPP Geo GRB 1.0.28](#) and other packages appropriate for the system you ordered), configured with the local settings listed below; for this release the update is an upgrade to the system software from version 4.0.16 to 5.0.0. RPMs and security patches were updated on 03 May 2024.

All system software updates are preconfigured with the following settings (if provided, and if the site is using a static network configuration) in order to customize it for the receiving site. This is intended to make the update procedure convenient because it has the same custom settings as the original package.

- IP address for SDI
- Netmask
- Gateway
- IP address(es) of nameserver(s)
- Optional: IP address(es) of specific NTP server(s)

## Section 3 - Installing Your SDI Software Update

The instructions below are from Chapter 2, Installation and Configuration, of the ***SDI GRB Appliance Operator's Manual*** (link on page 1). Use these instructions to install this update on your appliance. During the update procedure you will have the option to remove the existing GRB data or leave it intact (step 5 below).

1. Insert the supplied USB flash drive into a USB port on the appliance and then reboot the system with command **reboot** or by pressing **Ctrl+Alt+Delete**. You can ignore any unmounting errors that appear.
2. Closely watch the console. When the menu listing the function key actions appears, immediately press **F11** to bring up the *Boot Manager*.

Note: You must press the F11 key within 10 seconds; otherwise the system will continue booting off the hard drive.

3. When the Boot Manager Main Menu appears, select the *One-shot BIOS Boot Menu* option and press **Enter**.
4. When the Boot Manager Root Menu appears, select the *DataTraveler n.n* option (where *n.n* is a version number, e.g., 3.0) to use the USB flash drive inserted in step 1 above and press **Enter**.
5. When the blue SSEC SDI Installer screen appears, select the appropriate option for your system and press **Enter**. The options are:

*Upgrade SSEC SDI system*

or

*Install SSEC SDI system*

The *Upgrade* option does a fresh install of the complete system\* but leaves the contents of */data*, including the completed GRB data, intact. The system drive will be reformatted.

The *Install* option does a fresh install of the complete system\* and removes the existing GRB data (everything in */data*, including log files). Do not select the Install option unless you are sure that you want to reformat the system and data drives. Systems configured with the ADDE (rather than BASIC) option that have local changes will also lose them during the Install and thus will need to be re-added later. See Appendix D, McIDAS Configuration, of the ***SDI GRB Appliance Operator's Manual*** (link on page 1) for specifics.

\* The complete system includes the operating system and utilities, SDI configuration and applications, CSPP Geo GRB and other packages appropriate for the system you ordered.

Note that it will likely take several minutes for the Install or Upgrade to complete.

6. When the message appears saying that the CentOS Install is complete,
  - a. Click the Reboot button in the bottom right to reboot the system.
  - b. When the Dell splash screen appears you can remove the stick.

The SDI GRB Appliance software update is complete. The system is designed to immediately start ingesting GRB data if your data feed is in place. Data is ingesting if the two conditions below are met:

- the log file, **/data/sdidata/holding/log/ingest/grb.log**, is updating  
(note: run command **tail -f grb.log** to check for updates as they are added)
- data is accumulating in the **/data/sdidata/complete/goes** directories, e.g.,  
**/data/sdidata/complete/goes/grb/goes<NN>/<CCYY>/<CCYY\_MM\_DD\_JJJ>/<instrument>/<product\_level>/<coverage>**

If data is not ingesting, see Appendix B, Troubleshooting, of the ***SDI GRB Appliance Operator's Manual*** (link on page 1).