

Inverter PCB Kit Installation 18 and 20 SEER Instructions

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ATTENTION INSTALLING PERSONNEL

As a professional installer you have an obligation to know the product better than the customer. This includes all safety precautions and related items.

Prior to actual installation, thoroughly familiarize yourself with this Instruction Manual. Pay special attention to all safety warnings. Often during installation or repair it is possible to place yourself in a position which is more hazardous than when the unit is in operation. Remember, it is **your** responsibility to install the product safely and to know it well enough to be able to instruct a customer in its safe use.

Safety is a matter of common sense...a matter of thinking before acting. Most dealers have a list of specific good safety practices..follow them.

The precautions listed in this Installation Manual are intended as supplemental to existing practices. However, if there is a direct conflict between existing practices and the content of this manual, the precautions listed here take precedence.



WARNING

ONLY PERSONNEL THAT HAVE BEEN TRAINED TO INSTALL, ADJUST SERVICE OR REPAIR (HEREINAFTER, "SERVICE") THE EQUIPMENT SPECIFIED IN THIS MANUAL SHOULD SERVICE THE EQUIPMENT. THE MANUFACTURER WILL NOT BE RESPONSIBLE FOR ANY INJURY OR PROPERTY DAMAGE ARISING FROM IMPROPER SERVICE OR SERVICE PROCEDURES. IF YOU SERVICE THIS UNIT, YOU ASSUME RESPONSIBILITY FOR ANY INJURY OR PROPERTY DAMAGE WHICH MAY RESULT. IN ADDITION, IN JURISDICTIONS THAT REQUIRE ONE OR MORE LICENSES TO SERVICE THE EQUIPMENT SPECIFIED IN THIS MANUAL, ONLY LICENSED PERSONNEL SHOULD SERVICE THE EQUIPMENT. IMPROPER INSTALLATION, ADJUSTMENT, SERVICING OR REPAIR OF THE EQUIPMENT SPECIFIED IN THIS MANUAL, OR ATTEMPTING TO INSTALL, ADJUST, SERVICE OR REPAIR THE EQUIPMENT SPECIFIED IN THIS MANUAL WITHOUT PROPER TRAINING MAY RESULT IN PRODUCT DAMAGE, PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



WARNING

DISCHARGE YOUR BODY'S STATIC ELECTRICITY BEFORE TOUCHING PCB AND/OR UNIT. AN ELECTROSTATIC DISCHARGE CAN ADVERSELY AFFECT ELECTRICAL COMPONENTS. USE THE FOLLOWING PRECAUTIONS DURING INSTALLATION AND SERVICING TO PROTECT THE PCB FROM DAMAGE:

- 1. DISCONNECT ALL POWER TO THE UNIT. DO NOT TOUCH THE PCB OR ANY WIRE CONNECTED TO THE CONTROL PRIOR TO DISCHARGING YOUR BODY'S ELECTROSTATIC CHARGE TO GROUND.**
- 2. FIRMLY TOUCH A CLEAN, UNPAINTED, METAL SURFACE OF THE UNIT AWAY FROM THE CONTROL. BY PUTTING THE UNIT, THE CONTROL, AND THE PERSON AT THE SAME ELECTROSTATIC POTENTIAL, THESE STEPS WILL HELP AVOID EXPOSING THE PCB TO ELECTROSTATIC DISCHARGE.**



WARNING

DO NOT CONNECT TO OR USE ANY DEVICE THAT IS NOT DESIGNED CERTIFIED BY THE MANUFACTURER FOR USE WITH THIS UNIT. SERIOUS PROPERTY DAMAGE, PERSONAL INJURY, REDUCED UNIT PERFORMANCE AND/OR HAZARDOUS CONDITIONS MAY RESULT FROM THE USE OF SUCH NON-APPROVED DEVICES.



WARNING

HIGH VOLTAGE

DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.



NOTE: After installation of the PCB board shared data must be installed on the PCB board prior to starting the unit.

NOTE: Use the Bluetooth Shared Data loader and follow the instructions in the Installation and Instruction contained with the loader





18 Seer Tonnage	PCB (Revision)	New PCB Kit
2 Ton HP	3P386786-1 (K)	3P386786-1S-K
3 Ton HP	3P386786-3 (K)	3P386786-3S-K
4 Ton HP	3P386786-5 (K)	3P386786-5S-K
5 Ton HP	3P386786-5 (K)	3P386786-5S-K
20 Seer Tonnage	PCB (Revision)	New PCB Kit
2 Ton AC	3P357336-4 (U)	3P357336-4S-U
3 Ton AC	3P357336-5 (U)	3P357336-5S-U
4 Ton AC	3P357343-4 (T)	3P357343-4S-T
3 Ton HP	3P357343-4 (T)	3P357343-4S-T
4 Ton HP	3P357343-4 (T)	3P357343-4S-T
5 Ton AC	2P361563-3 (M)	2P361563-3S-M
2 Ton HP	3P357336-4 (U)	3P357336-4S-U
5 Ton HP*	3P357343-5 (U)	3P357343-5S-U
5 Ton HP	2P361563-3 (L)	2P361563-3S-L

* The 5 Ton HP PCB's are Model Rev specific.
The 3P357343-5S U is not backwards compatible for previous model Rev.

Programed Inverter PC Kit Instructions:

WARNING: Discharge your body's static electricity before touching PCB and/or unit. An electrostatic discharge can adversely affect electrical components. Use the following precautions during installation and servicing to protect the PCB from damage. By putting the unit, the control, and the person at the same electrostatic potential, these steps will help avoid exposing the PCB to electrostatic discharge.

 WARNING
HIGH VOLTAGE
DISCONNECT ALL POWER BEFORE SERVICING OR INSTALLING THIS UNIT. MULTIPLE POWER SOURCES MAY BE PRESENT. FAILURE TO DO SO MAY CAUSE PROPERTY DAMAGE, PERSONAL INJURY OR DEATH.


1. Disconnect all power to the unit. Do not touch the PCB or any wire connected to the PCB prior to discharging your body's electrostatic charge to ground.
2. Firmly touch a clean, unpainted, metal surface of the unit away from the control.
3. Note location of all wiring and plug terminals (recommend pictures) and remove all wiring from PCB.

NOTE: Thermal grease applied between the heat sink and the refrigerant loop allows for proper cooling of the PCB circuits (IGBT's). Failure to apply the grease on the cooling loop may result in an insufficient cooling circuit. Only use thermal grease part # 9S00859.

4. Remove the screws from the cooling loop cover to allow it to hinge open. (Figure 1)



Figure 1

5. Pull back gently on the 3/8 copper tubing. (Figure 2)



Figure 2

6. Carefully slide the board from the cooling loop. (Figure 3)



Figure 3

7. Before installing the new board back in place, evenly apply the thermal grease. (Figure 4)



Figure 4

8. Insert the cooling loop in the metal bracket. (Figure 5)



Figure 5

- Secure the top plate with the screws. (Figure 6)



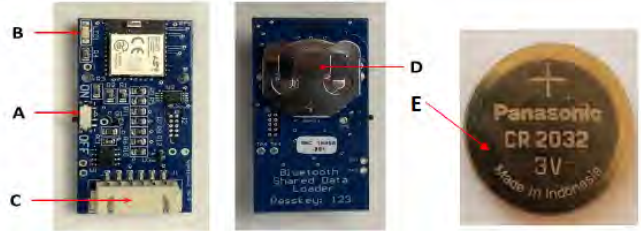
Figure 6

Loading Shared Data:

Bluetooth Shared Data Loader required to install the specific shared data file for your Brand/Model.

Use the Bluetooth Shared data Loader, and follow the installation instructions on how to use the this contained in the Bluetooth loader tool.

Device Layout



- Power Switch** – Can be placed in the ON or OFF position. The device must be powered on to program Shared Data from the **CoolCloud™** HVAC app and to load Shared Data onto any compatible equipment.
- Status LED** – Will blink periodically when the device is powered on. The Status LED will blink once every 4 seconds when the device is powered on normally. The Status LED will blink 3 times in quick succession to indicate the battery is low and will need to be replaced soon.
- Shared Data Loading Connector**
- Battery/Battery Slot** – Accepts a CR2032 3V coin cell battery
- Coin Battery** – One-coin battery is provided in the packaging. Ensure the positive side is facing up and slide the battery into the battery slot.

Setup

Before using the card, download the **CoolCloud** HVAC app for iOS or Android using the links below. Be sure to register for an account before continuing.



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Google Play and the Google Play logo are trademarks of Google LLC

Figure 7

- Ensure that the power to the outdoor unit is turned off.

- Remove PCB cover. Attach the "Bluetooth Shared Data Loader" to X52A on PCB.

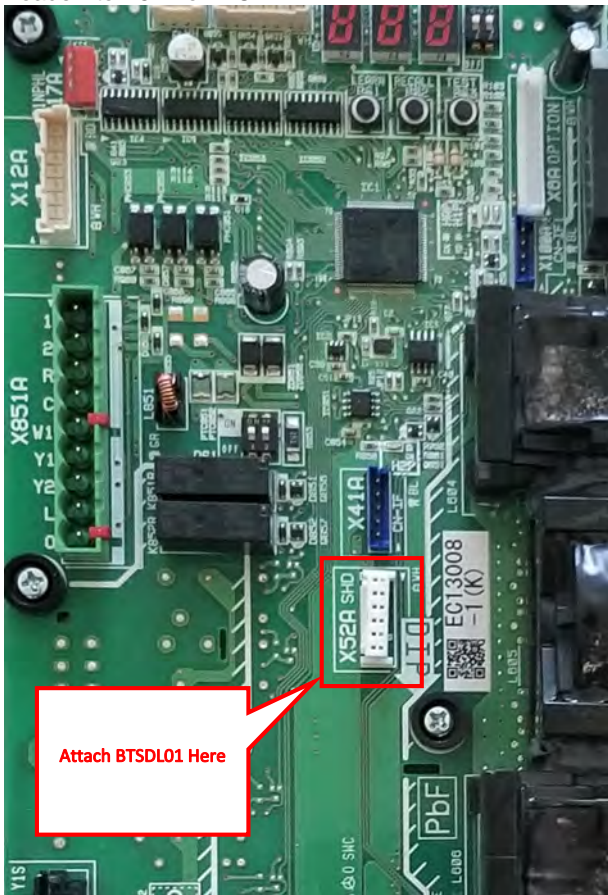


Figure 8

- Turn the Bluetooth Shared Data Loader on by switching the Power Switch to the ON position. The blue Status LED should begin flashing periodically. If the HVAC app is open, it will detect the new Bluetooth network and display "SharedDataCard" as an available network. Tap on this network to connect.

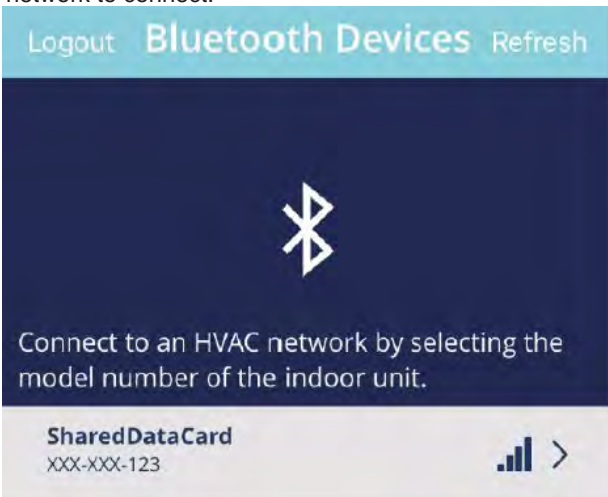


Figure 9

- Using the app, find the shared data part number that corresponds to your specific outdoor unit model. To select shared data, click on "Shared Data Card" on the system overview screen.



Then click on "Shared Data".

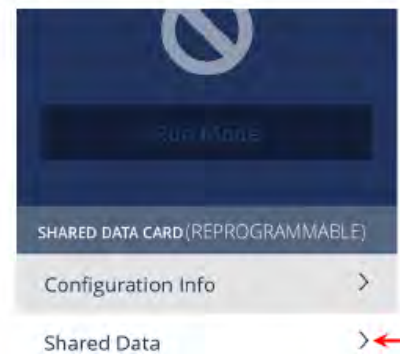


Figure 10

- From here, the appropriate Shared Data can be selected by either scanning a barcode that can be found on the unit or by typing in the model number of the unit. If possible, scanning the 2D barcode is recommended to get the most accurate results. If this barcode is faded, damaged, or can't be found, then it will be necessary to enter the model number instead.



Figure 11

6. If manually entering unit info, start typing the model and the available units for that model and system type will populate. Tap on the correct model.



Figure 12

7. Confirm model number and system type and then tap "Confirm and Continue"



Figure 13

8. There will be a previous setting reset warning notification. Select "YES"

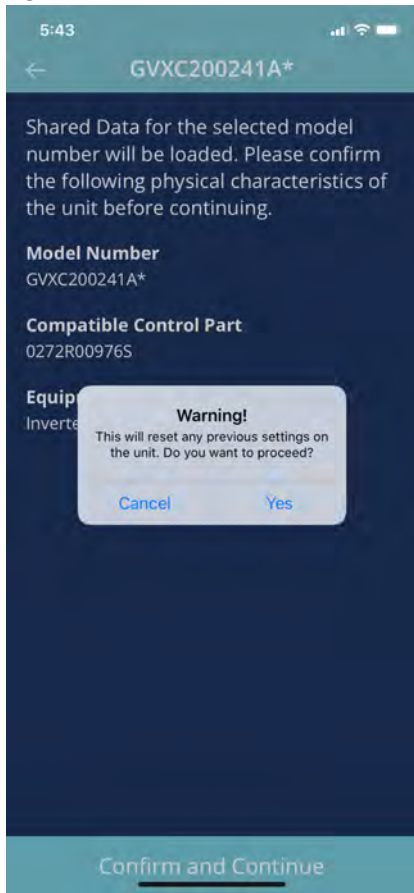


Figure 14

9. The shared data will now be loaded onto the Shared Data Loader

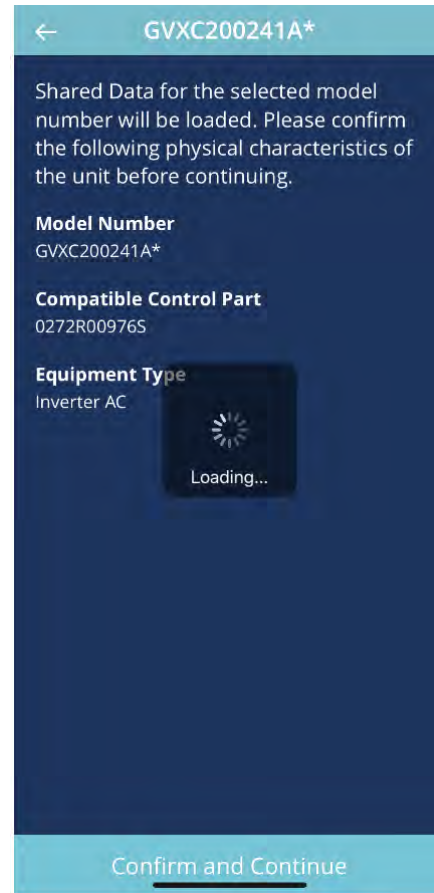


Figure 15

10. When the process is complete, there will be a success popup Shared Data was successfully loaded.

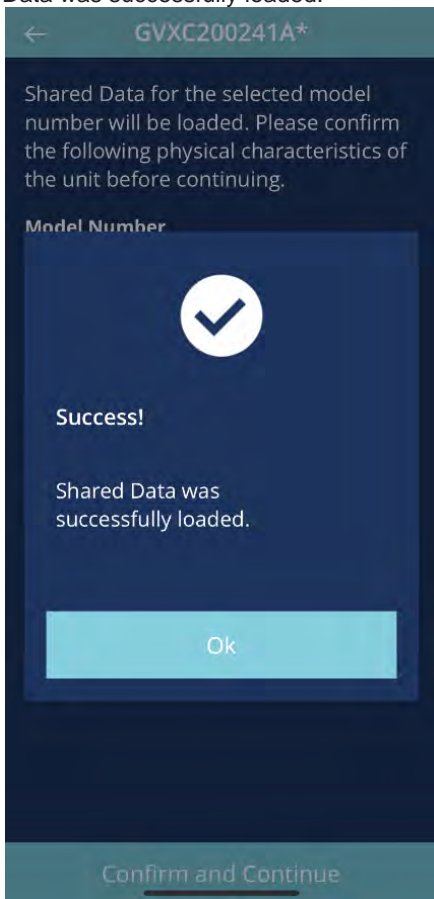


Figure 16

Loading Shared Data onto the Equipment

Remove communication moxex plug (X851A) with the card plugged in and powered on, turn power on to the equipment for 30 seconds to allow the Shared Data loading process to complete. When complete, power the equipment off and retrieve the card from the unit. Reconnect power to the system and confirm that the Shared Data loading process was successful, and that the system is operating normally.

NOTE: Follow the installation instructions on "How to use the Bluetooth loader tool" contained with the tool.

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