



Quick Start Guide
SG4000/SG3500AF
Utility Version

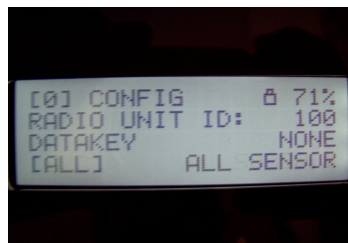
*note-if you are the SG4000 for a utility program, refer to that utilities Technical Specifications for proper placement of temp sensors.

Setup- from the main menu

Set the current date and time. Select 0 for CONFIG menu.

Select 1 for SET DATE & TIME. Using 7 for up and 9 for down, select the current month, press enter. Repeat steps for date, year, hour, minute.

Note: option 2 SEL RADIO ID#100 - contact the factory for instructions. For use with multiple SG4000s at one location.



Main Menu

From this screen- to enter the utility mode and non utility mode, select either Superheat or Subcool.

Superheat –SG4000

From main menu screen, select the red SUPERHEAT key. Follow the on screen prompts to give the SG4000 needed information regarding the unit in testing. Press (0) to select between R22 and R410a. Press (1) to select fixed orifice or TXV valve. Press (2) to select residential or commercial. Select (3) if this non utility or utility test.

Select the seer of the unit in test. 3 options- 10/Greater, 8.5-9.5, 8/Lower.

Select (SH) or (SC) will put you into read mode. In this mode, you can not store your data.

Select (0) to begin the test in period. Utility mode – 15 minuets minimum run time. Non utility mode 3 minutes minimum run time.

Enter Tonnage Size- Commercial 5.0 tons – 25 tons

Residential 1.5 tons – 5.0 tons

At the end of 15 minuets – (or 3), if you do not have the return probe plug in, the SG4000 will not communicate with the SG3500AF.

*note-if you are the SG4000 for a utility program, refer to that utilities Technical Specifications for proper placement of temp sensors.

Sub Cool-SG4000

From main menu screen, select the blue SUBCOOL key. Follow the on screen prompts to give the SG4000 needed information regarding the unit in testing. Press (0) to select between R22 and R410a. Press (1) to select fixed orifice or TXV valve. Press (2) to select residential or commercial. Select (3) if this non utility or utility test.

Select the seer of the unit in test. 3 options- 10/Greater, 8.5-9.5, 8/Lower.

Select (SH) or (SC) will put you into read mode. In this mode, you can not store your data.

Select (0) to begin the test in period. Utility mode – 15 minuets minimum run time. Non utility mode 3 minutes run time minimum.

Enter Tonnage Size- Commercial 5.0 tons – 25 tons

Residential 1.5 tons – 5.0 tons

*note-if you are the SG4000 for a utility program, refer to that utilities Technical Specifications for proper placement of temp sensors.

Airflow- SG3500AF

From the main menu- press the menu key to select the mode in which you will be testing. Using the up and down arrow keys, select your mode for Airflow readings.

Mode #1- Flow CFM. In this mode use the SG4000 approved flow plates provide by The Energy Conservatory, or select the up arrow to input a manual CFM reading.

If using Flow plates, follow on screen prompts to obtain NSOP- Normal Standard Operating Pressure. Unit needs to run for 30 seconds to obtain NSOP, after 30 seconds enter key becomes available to store the NSOP. Select flow plate numbers either #14 or #20 and follow on screen prompts.

Mode # 2- Temp Split. In this mode you use the Supply probe and Return probe.

CONFIG RADIO- **contact the factory for instructions. For use with multiple SG4000s at one location.**

*note-if you are the SG4000 for a utility program, refer to that utilities Technical Specifications for proper placement of temp/RH probes sensors.

Initial Conditions

When in either utility mode (15 mins) or non utility mode (3 mins), the initial conditions write to the data key after each allotted run time.

Final Conditions

When in either utility mode or non utility mode, final conditions write to the data key when the user presses the enter key during the Pass/Fail menu. *note- conditions will write to the data key regardless of pass or fail.

Kit Items

- Every kit comes with everything needed to begin testing.
- RXT1- qty 1- used to obtain outside ambient temp.
 - RXT2- qty 1- used to obtain low side pipe temp (SUPERHEAT)
 - RXT3- qty 0- used as an extra temp sensor to determine temp split of air entering condenser and air leaving.
 - TXT1- qty 1- used to obtain high pressure line entering the indoor evaporator.
 - RH/Temp 1 (and cable)- qty 1- used to obtain RH/WB/DB for the return air. *note- if this is not plugged into the top of the SG3500AF, the SG3500AF will not communicate with the SG4000.
 - RH/Temp 2 (and cable) -qty 1- used to obtain RH/WB/DB for the supply air. Used when using the temp split mode #2.
 - Wall charger- qty 1- used with both the SG4000 and SG3500AF. Max charge time- 180mins.
 - Car Charger- qty 1- used with both the SG4000 and SG3500AF.
 - Software disc and reader (USB cable)- qty 1- used to read data collected in the field.
 - Data Key- qty 1- used to store data collected in the field.
 - Stargate Flashlight- qty 1- used to see in dark places.