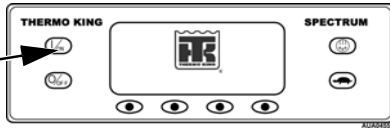
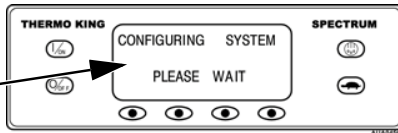


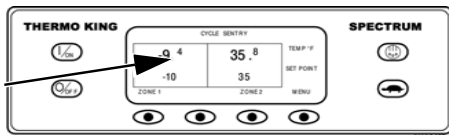
Turn Unit On or Off:



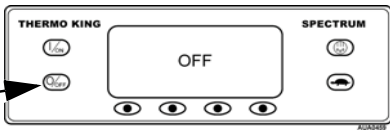
1. Press the ON Key. TK logo is shown briefly.



2. Startup screen appears. Unit prepares to operate.



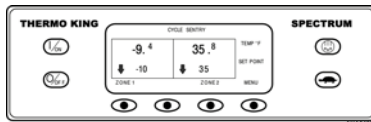
3. Standard Display indicates unit is ready to run.



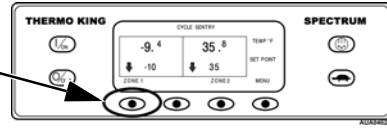
4. Press OFF key to stop unit operation. Screen will display OFF, then go blank.

Standard Display:

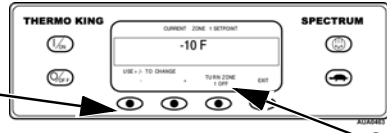
Standard Display is the default when no other display function is selected. Shows box temperature and setpoint or OFF for all zones. Two zone operation shown here. Zone 1 is -9.4 F with -10 F setpoint. Zone 2 is 35.8 F with 35 F setpoint. Top of display shows unit is in CYCLE SENTRY mode. Two arrows indicate that both zones are cooling.



Select Zone Display:

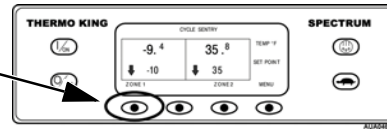


1. At the Standard Display, press the soft key to show the Zone Display for the desired zone.

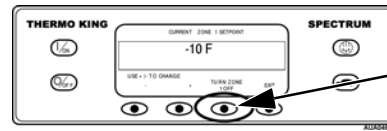


2. Selected zone is displayed.
3. "Turn Zone (number) ON/OFF" identifies zone and indicates that zone may be turned ON (if presently off) or OFF (if presently on).

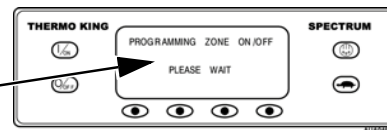
Turn Zone On or Off:



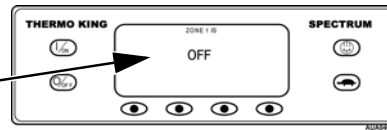
1. At the Standard Display, press the soft key to show the Zone Display for the desired zone.



2. Turn Zone ON or OFF by pressing soft key.

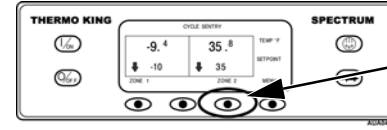


3. Display will briefly indicate change in progress.

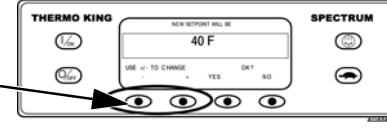


4. Display will show new zone setting, then return to Standard Display after 30 seconds.

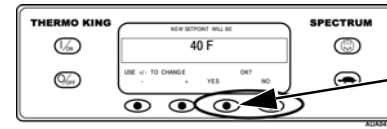
Change Zone Setpoint:



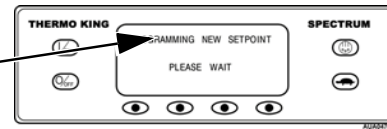
1. At the Standard Display, press the soft key to show Zone Display for the desired zone (Zone 2 shown).



2. Press the "-" and/or "+" soft keys to display setpoint. YES and NO soft keys also appear. "-" and/or "+" soft keys are used to change setpoint (here to 40 F).

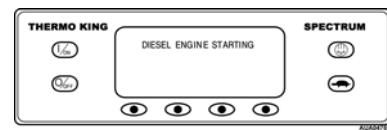


3. When desired setpoint is reached, press YES soft key within 10 seconds to confirm and load



4. Display will briefly show "PROGRAMMING NEW SETPOINT", then return to the Standard Display.

Start Engine:

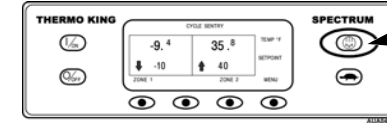


Diesel engine preheats and starts are automatic in Continuous and CYCLE SENTRY modes. The engine will preheat and start as necessary if the unit is on. The start screen will be displayed. Preheat and start will be delayed in CYCLE SENTRY if there is no need for the unit to run.

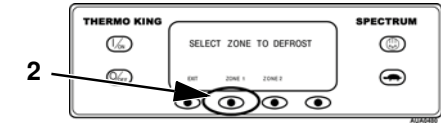
Caution: The engine may start automatically at any time the unit is turned on.

Initiate Manual Defrost:

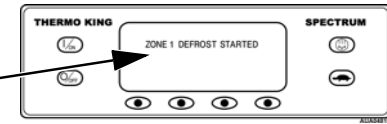
Defrost cycles are usually initiated based on time or demand. Manual defrost is available if the zone is on and the coil temperature is less than 45 F (7 C). Only one zone may be defrosted at a time.



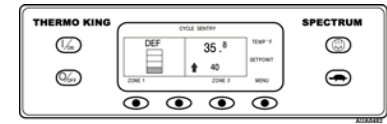
1. Press the DEFROST key. The display will prompt for the zone to defrost



2. Press the soft key to select the zone to defrost. Defrost of that zone will begin (Zone 1 shown here).

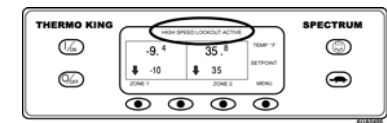


3. The display will briefly show "PROGRAMMING DEFROST" and then "ZONE 'X' DEFROST STARTED" where X = zone1 or 2.



4. Display will return to Standard Display. The zone in defrost will show "DEF." Bar indicator shows approximated time to complete defrost cycle.

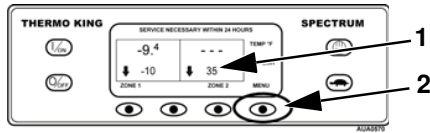
High Speed Lockout:



If preprogrammed, high speed operation can be locked out. Press the key to enable or disable the feature. Display shows lockout programming in progress and then active or inactive status.

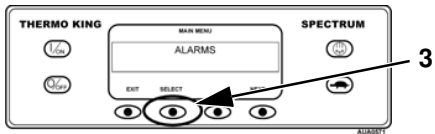
Viewing/Clearing Alarm Codes:

1. If an alarm condition occurs, an alarm message appears in place of the mode indication.

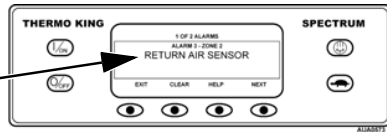


2. Alarms are displayed and cleared with the Alarm Menu. From the Standard Display press the MENU key.

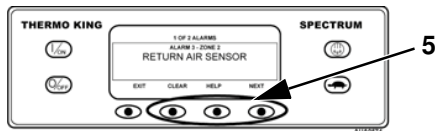
Language or Alarm Menu will appear. If "LANGUAGE" appears, press the NEXT key to show Alarm Menu.



3. Press the SELECT key.



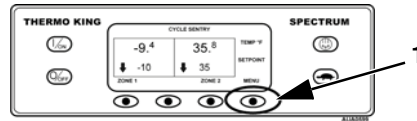
4. Alarm display will appear. If no alarms are present, NO ALARMS will appear. If alarms are present, quantity of alarms and most recent alarm code will be shown. If the alarm pertains to a specific zone, that zone will be identified.



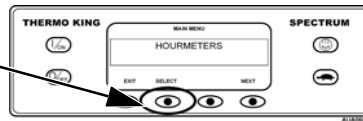
5. After the alarm is resolved, press the CLEAR key to clear the alarm. For information on the alarm, press the HELP key. To display the next alarm, press the NEXT key. Press EXIT to return to the Standard Display.

If a serious condition occurs, the unit will shut down to prevent damage. The display will indicate unit shutdown and the alarm code which caused it. A complete list of alarm codes can be found in the unit Operators Manual or Maintenance Manual.

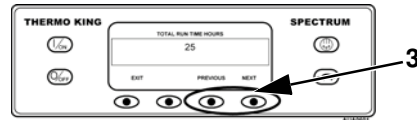
Viewing Hourmeters:



1. From the Standard Display, press the MENU key. The Language or Alarm Menu will appear. Press the NEXT key display the Hourmeter Menu.



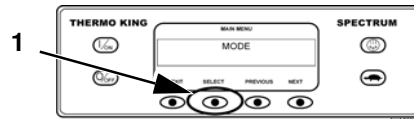
2. Press the SELECT key to see Hourmeter Display.



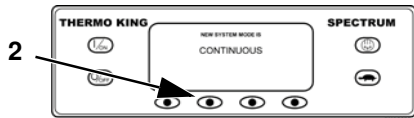
3. Press the NEXT or PREVIOUS key to scroll through the hourmeters.

CYCLE SENTRY or Continuous:

CYCLE SENTRY mode causes unit to start and stop automatically to maintain compartment setpoint, keep engine warm and battery charged. Continuous mode starts and runs unit continuously to maintain setpoint and constant airflow.



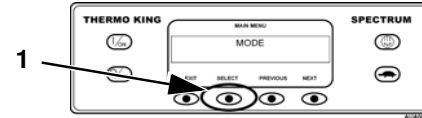
1. From the Standard Display, press the MENU key. The Language or Alarm Menu will appear. Press the NEXT key display the MODE Menu.



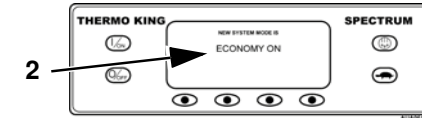
2. Press SELECT key to change mode between CYCLE SENTRY and Continuous. Display will confirm change in progress and resulting mode. Display then returns to Mode Menu.

Economy Mode:

Economy Mode can be used for loads that do not require critical temperature control. From the Standard Display, press the MENU key. The Language or Alarm Menu will appear. Press the NEXT key as required to display Economy Mode.



1. Press the SELECT key to turn Economy Mode on.

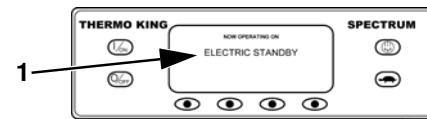


2. The display will confirm the change, show new mode for 10 seconds, then return to Mode Menu.

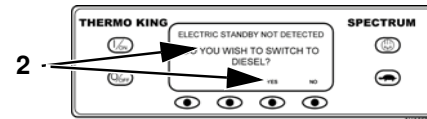
Economy Mode can be turned off by pressing the SELECT key again.

Diesel or Electric Operation:

Factory-set default is for automatic changeover to Electric Mode when the unit is connected to electric power. Unit will switch back to Diesel power if electric power fails or is disconnected.



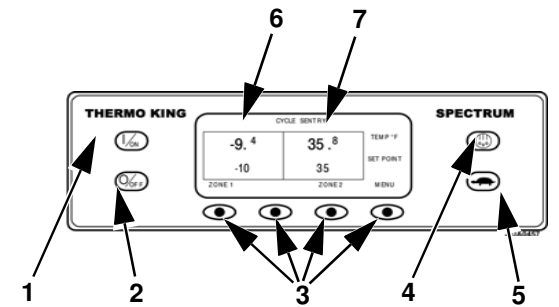
1. If unit is turned on while connected to electric power, Electric Standby screen will be displayed for 10 seconds. Unit will run normally.



2. If unit is turned on in Electric Standby Mode and electric power is not available, prompt will be shown Switch to Diesel Mode by pressing YES key.

SPECTRUM TS Multi-Temp Control System Operating Guide

HMI Control Panel Features:



1. ON Key
2. OFF Key
3. Multi-Purpose "Soft" Keys
4. Manual Defrost Key
5. High Speed Lockout Key
6. Zone 1 Display
7. Zone 2 Display

CAUTION: This is a quick reference guide. Always refer to the operating manual for detailed instructions.



TK 52145-1-PC (Rev. 1, 08/03)