

Smart Equipment™ Controls Quick Start Guide



version 3.3.1.186

BEFORE YOU BEGIN CONFIGURING YOUR UNIT CONTROLLER

Ensure you understand the application and identify the equipment configuration:

- Constant Volume
- Variable Air Volume (VAV)
- Economizer
- Hot Gas Reheat
- Dual Stage
- Four Stage
- Heat Pump
- Thermostat Controls
- Network Sensor Control
- Space Sensor Control
- Discharge Air Control

UNDERSTANDING THE LOCAL LCD

After you apply power to your Rooftop Unit (RTU), a start-up countdown begins on the Unit Control Board (UCB) LCD. When the controller is ready, the screen will be blank if no faults are present. Use the joystick and the two push buttons below the LCD, to navigate through the menus (Figure 1).

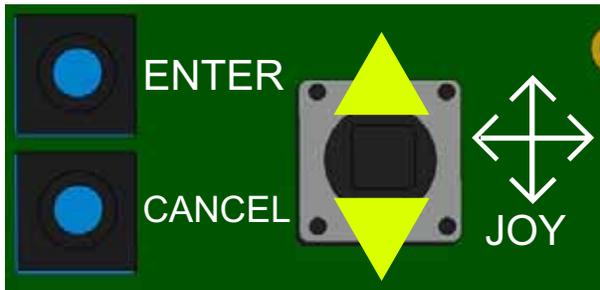


FIGURE 1 - Joystick and Push Buttons on UCB

Up and down movements of the joystick move the > cursor and scroll through the selections in the active section of the menu (Figure 2).

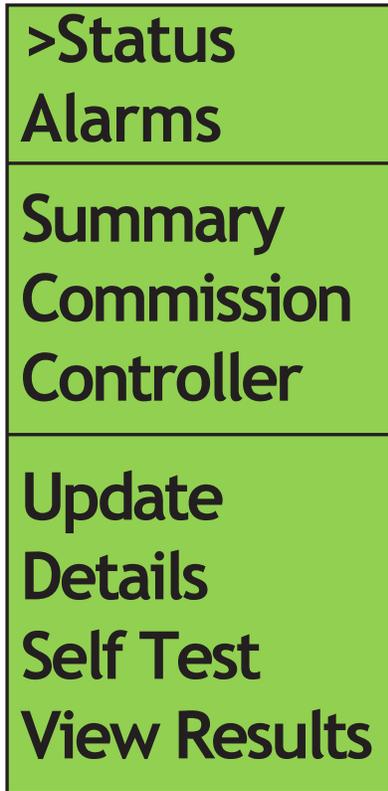


FIGURE 2 - UCB Top Level Menu

Each menu selection represents either a sub-menu or a property. Press "ENTER" to display the items in the sub-menu or the values of the selected property. Press "ENTER" to display the current value of the selected property. Move up or down with the joystick to display the values of other properties.

NOTE: Please see the menu navigation example on page 5.

IMPORTANT

Unit control boards with part numbers SE-SPU1001-5, SE-SPU1011-5, SE-SPU1002-5, SE-SPU1012-5 have a different hardware component than previous board versions. This new component will not allow downgrading of these boards to any firmware older than 3.3.1.186. If a user attempts to install an older version, a message [Info 1025] will display on the LCD screen to indicate that it cannot accept an older firmware version.

FWU:OK
Info 102

FWU:OK
Info 1025

POWERING THE UNIT

When you apply power to the unit the UCB begins a start-up sequence.

The LCD scrolls the text Johnson Controls on the top line and JCI on the bottom line (Figure 3).

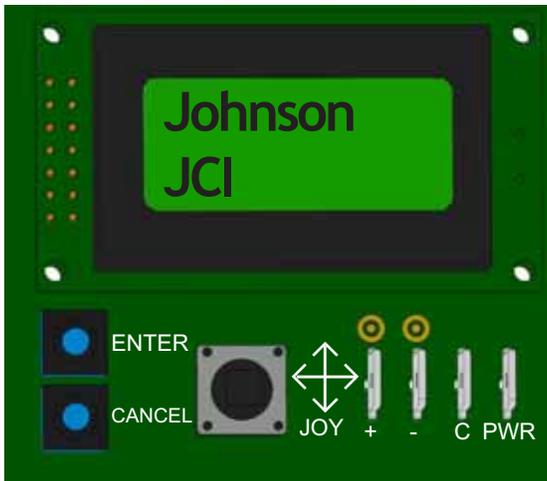


FIGURE 3 - Powering the Unit

The display backlight and green Power LED remain lit as long as power is applied to the C and 24V terminals.

The red Fault LED lights, goes off briefly, and then flashes throughout the start-up sequence.

The green SA Bus LED lights briefly.

During the start-up sequence, the joystick, the "ENTER" button, and the Cancel button are not functional.

The LCD shows a countdown on the top line.

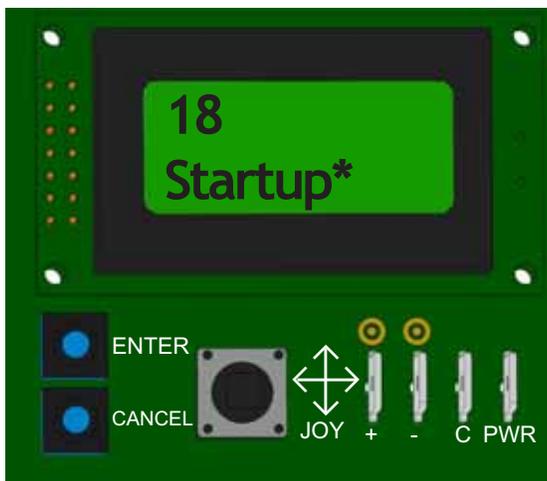


FIGURE 4 - Start-up Countdown

After approximately 15 seconds, the green SA Bus LED does one of the following:

- Lights to indicate the UCB has not established communication and is awaiting communication from SA Bus devices
- Flashes to indicate the UCB established communication with SA Bus devices

After the start-up sequence finishes (90 - 120 seconds), the display shows the current operating status. I.E. Idle, startup delay, cooling... on both lines if no alarm is active. The red Fault LED stops flashing and turns off. The joystick, "ENTER", and Cancel buttons are operational.

COMMISSIONING WITH THE LOCAL LCD

Figure 5 shows the Commissioning view second level menus. The Commissioning view consists of 3 three main menus and several sub-menus.



FIGURE 5 - Commissioning View: Second Level Menu

COMMISSIONING VIEW SUBMENUS

Your equipment configuration determines which menus appear in the Commissioning view. Use the joystick to move between the menu options. Press "ENTER" to select an option.

NOTE: Please see the Commissioning Menu Starting on Page 10.

NOTE: Please see the Pages 8 - 18 for a detailed table of all menus, sub-menus and properties.

VALIDATING YOUR CONFIGURATION

Use the Details > Service menu to ensure your configuration parameters are correct. This view shows the input values for each input. You can view the Sensors and Coil Sensors values.

If no input value appears, the input states **No Input**. This is a convenient way to ensure all your configuration parameters are set and reading properly.

IMPORTANT - Remember to save your configuration parameters using the Update > Backup feature with the USB port on the UCB if performing a firmware update. See [Connecting your Flash Drive](#) and [Performing a System Configuration Backup](#) for more information.

CONNECTING YOUR FLASH DRIVE IF PERFORMING A FIRMWARE UPDATE

When you connect your flash drive to the USB port on the UCB, USB: Wait appears (Figure 6).

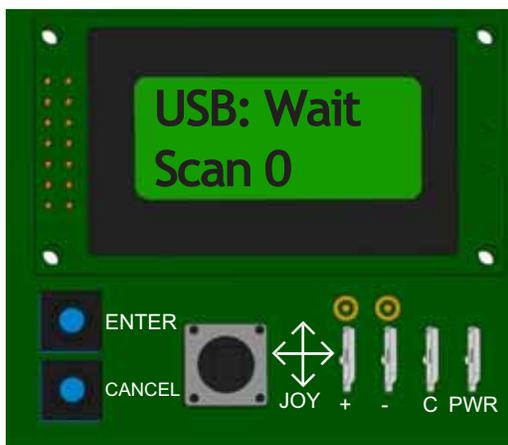


FIGURE 6 - USB Port Connection

NOTE: If you do not see USB: Wait after you connect your flash drive to the UCB, ensure it is properly connected. If it is properly connected, and you do not see the USB: Wait text, your flash drive may not be compatible with the UCB or is defective.

After a few seconds, the top line of the UCB displays USB: OK (Figure 7). The Scan number indicates the files and folders in the top level of the flash drive compatible with the UCB.

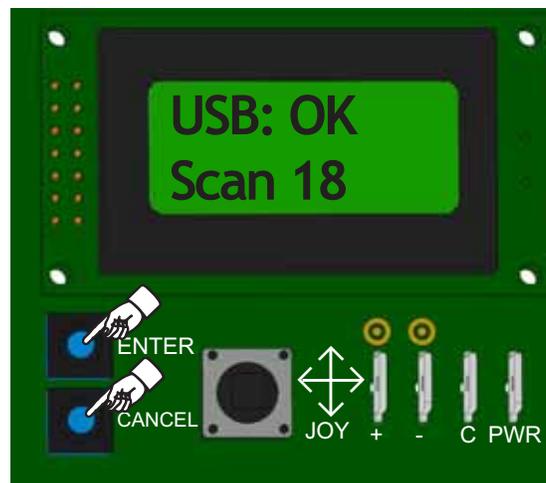


FIGURE 7 - USB Scan

You can keep the flash drive connected to the UCB after the scan completes.

Press the "ENTER" button, press the cancel button, or move the joystick up or down to navigate through the display menu.

PERFORMING A SYSTEM CONFIGURATION BACKUP

Insert your flash drive into the USB port. Navigate to the Update > Backup menu and press "ENTER" (Figure 8).



FIGURE 8 - Backup Menu Option

BKP: Wait appears while the backup is in progress. During the backup procedure, the colon (:) flashes on the top line and the percentage increases on the bottom line of the display.

The backup completes in approximately 30 seconds and BKP: OK appears on the screen. The percentage shows 100%.



FIGURE 9 - Backup Complete

You may remove the flash drive from the USB port.

After the backup completes, a comma separated value (.csv) restoration file is created in the top level of the flash drive. The file name is drawn from the date and time settings in the UCB at the time you create the file. The restoration file size is generally less than 30 KB. Figure 10 shows an example of the .csv file name structure.

Restoration File Name Structure

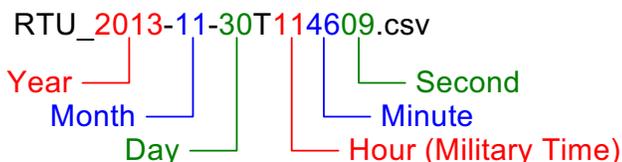


FIGURE 10 - Restoration File Name Structure

You can restore the backup file to the unit and retrieve the configuration after performing an upgrade or making setpoint changes by using the Upgrade > Restore feature.

Use the Partial Cloning feature to take the configuration parameters from one unit, via the backup file, and update the data on another unit. Use the Upgrade > Part Clone feature on the unit you wish to update using the backup file from the previously configured unit.

NOTE: Only use the Full Cloning feature when having to replace the UCB board.

UPDATING SMART EQUIPMENT™ SOFTWARE

AUTO UPDATE (FWU: Firmware Update)

In the release of Version 3.3.1.186¹, an "Auto Update" feature was added. Otherwise known as Firmware Update (FWU), this feature will determine if there are any mismatches in the firmware versions on all applicable control boards on the unit (Economizer, FDD1, FDD2, 4-Stage). If there are any mismatches, the Auto Update process will begin and automatically push the 3.3.1.186 version to all applicable boards on the unit. This may take between 7-30 minutes depending on the amount of control boards.

The Auto Update feature required a change to the memory size on the Unit Control Board. The 3.3.1.186 firmware revision

can be installed into an older (4MB memory) board, but IT WILL NOT perform the Auto Update function.²

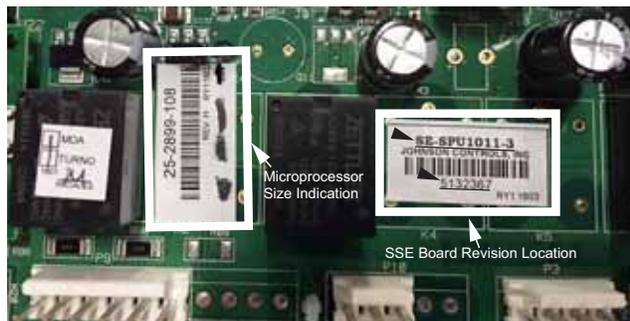


FIGURE 11 - Smart Equipment™ Board Revision (See Table 1)

Table 1: Part Number Chart

UCB	v3.0	v3.1
2 stage w/o Comm	1089066 / SE-SPU1002-1	5132364 / SE-SPU1002-3
2 stage with Comm	1089070 / SE-SPU1012-1	5132365 / SE-SPU1012-3
1 stage w/o Comm	1149498 / SE-SPU1001-1	5132366 / SE-SPU1001-3
1 stage with Comm	1149499 / SE-SPU1011-1	5132367 / SE-SPU1011-3

⚠ CAUTION

If loss of power occurs during the Auto update process, the UCB will re-attempt the updating once power is restored. This will occur 90 seconds after completion of normal startup routine if the UCB determines there are still firmware mismatches.

The UCB will attempt the auto update up to a maximum of 5 times after restoration of lost power. If it reaches the maximum of 5, the firmware will need to be updated manually via USB drive.

DO NOT use the joystick, Enter or Cancel buttons during the auto update process. Let the unit perform its operation.

If the auto update fails for any reason, it will display a brief message, the Fault LED will blink and an alarm indicating "firmware mismatch" will display. If this occurs, manual updating via USB will be necessary.

If USB drive is used to flash a 3.1 level board (8MB) with an older 3.0 level firmware, the update will need to be performed twice.

1. Firmware update must be performed twice back to back

2. REV. G indicates 4MB board. REV. H indicates 8MB board.

A USB Flash Drive must be plugged into the UCB. It must contain the appropriate software file (ending in ".pkg"). This is at the top level of the flash drive.

On the UCB, at the display, push the joystick "down" until the display has a line showing: >Update.



FIGURE 12 - Display Update

Push the "ENTER" button. The first line should now display: >View Ver.

- If you want to verify the version in the UCB, push the "ENTER" button now. The current version will be displayed. Push the Cancel button to return to displaying ">Update"

Push the joystick down until the display is showing: >Backup

Push the "ENTER" button. Wait until the top line says "BKP: OK" and the second line says 100%

Push the Cancel button. The display should now show: >Update

Push the "ENTER" button. The display should now show: >View Ver

Push the joystick down. The first line should now display: >LoadFirm

Push the "ENTER" button. The top line should display: >3.3.1.186.secusb.pkg or the current firmware version.

If not, push the joystick down (or up) so the carrot (>) points to the appropriate file

Push the "ENTER" button. Push again to Confirm.

The UCB and economizer will now be reprogrammed with the selected software, if they are different. Wait until everything is complete, and the control has done a Restart (as if power was just applied).

On the UCB, at the display, push the joystick "down" until the display has a line showing: >Update

Push the "ENTER" button. The first line should now display: >View Ver

Push the joystick down until the display is showing: >Restore

Push the "ENTER" button.

Push the joystick down until the display line starts with: >RTUxxxx and ends with .csv

The UCB will now read back the stored setup. When it is done, the control will Restart. When that is complete, the new software version will be running. Push the "ENTER" button. Push again to Confirm.

READ THE VERSION ON THE ECONOMIZER

With Econ and UCB attached together (see Step 1 above).

Push the joystick "down" (or up, if you go past) until the display shows: >Contlr



FIGURE 13 - Display Update

Push the "ENTER" button. The first line should now display: >Firm

Push the joystick down until the display shows: >SysCntlrs

Push the "ENTER" button. The first line should now display: >Misc

Push the joystick down until the display shows: >Econ

Push the "ENTER" button. The first line should now display: >EconMainVer

Push the "ENTER" button again. The second line should now display the version of software installed in the Economizer.

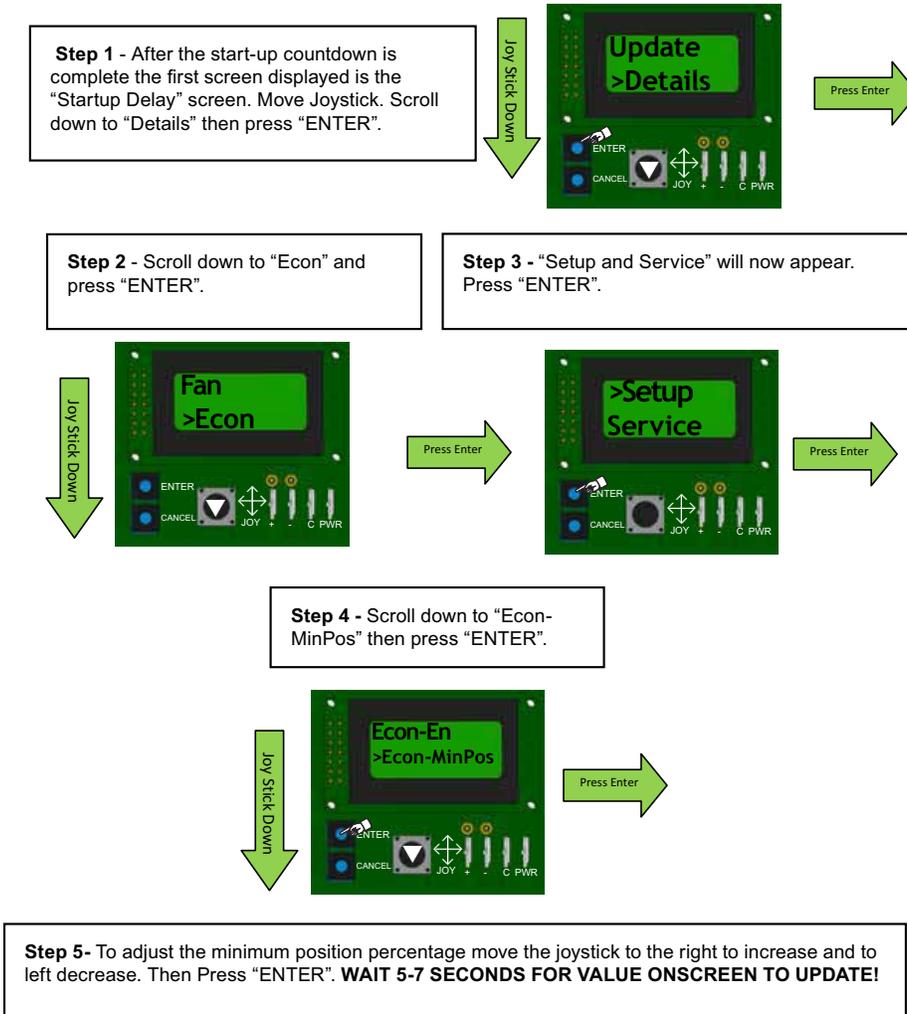
SMART EQUIPMENT™ FIRMWARE VERSION 3.3 BASIC UNIT CONTROL BOARD NAVIGATION EXAM- PLES:

The following document details the navigation and viewing of the LCD display screen equipped as a standard item on the Smart Equipment™ control installed within various commercial UPG packaged and split system equipment. The following information provides a step-by-step demonstration on how to navigate the basic status menu and how to change basic configuration settings. The basic navigation steps outlined in this short demonstration applies to most menus within the Smart Equipment™ control.



Understanding the Local LCD

After you apply power to your Rooftop Unit (RTU), a start-up countdown begins on the Unit Control Board (UCB) LCD. When the controller is ready, the screen is blank because no faults are present. Use the joystick and the two push buttons below the LCD, to navigate through the menus.



Toggle Left to Decrease ◀
Toggle Right to Increase ▶

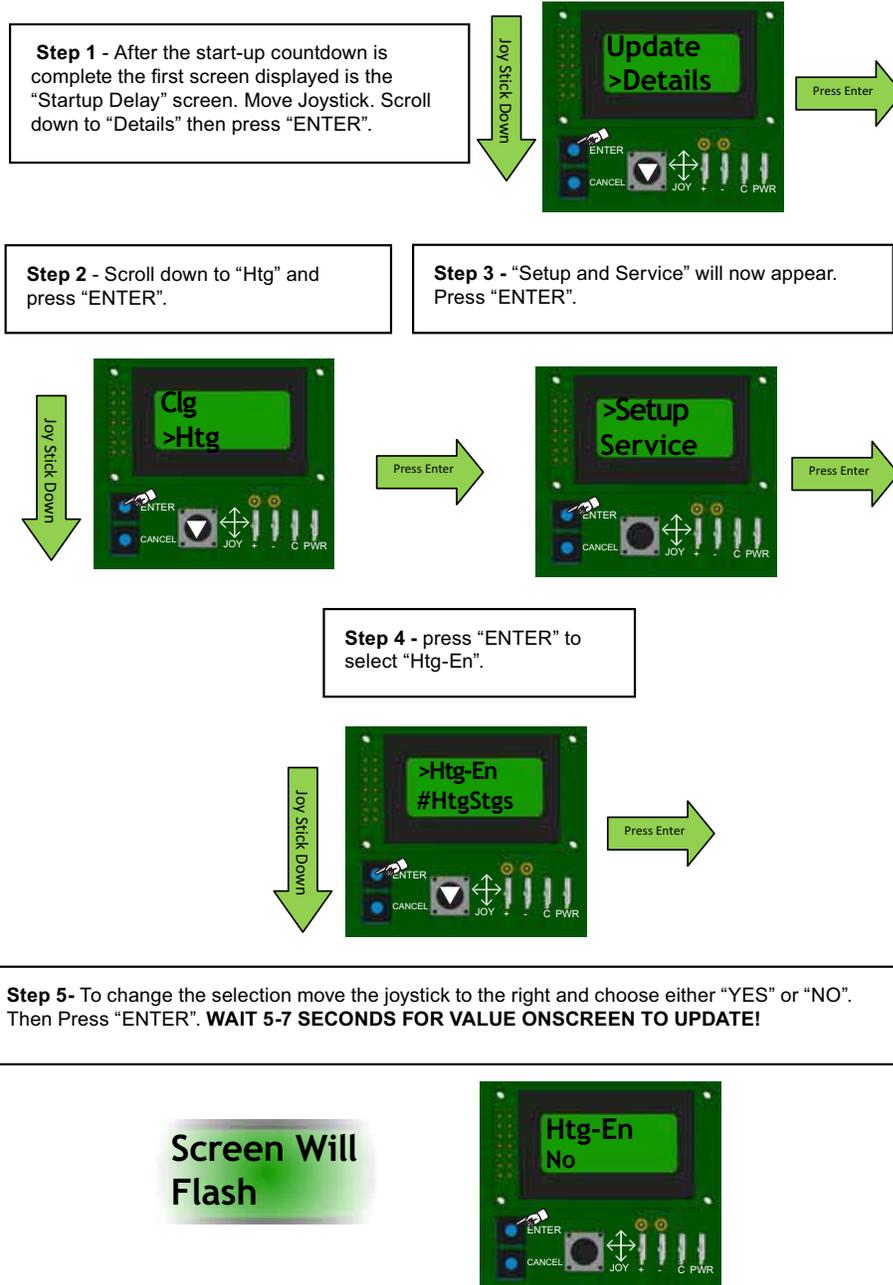
Screen Will Flash

DOWN ⬇ UP ⬆



Press the "Cancel" button to exit each menu level. Repeatedly pressing "Cancel" returns the menu to the first "Status, Alarms" screen.

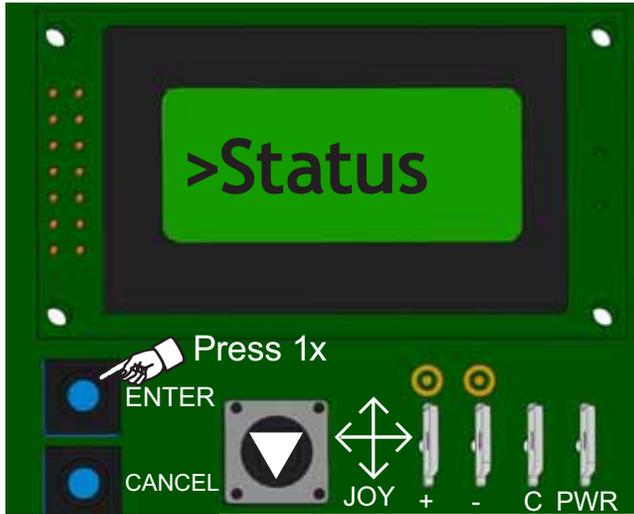
When the "Cancel" button is pressed multiple times to exit each menu level and the screen returns to the first "Status, Alarms" display the next demonstration can begin. In this demonstration the information below steps through the "Commissioning" menu.



These few pages provide a simple demonstration how to navigate the menu's of the Smart Equipment™ control containing Version 3.3 firmware. Please utilize this document along with the additional information in the Users Guide and detailed navigation menu to adjust the control to customer preferences or job specifications.

NOTE: IF OPERATING THE EQUIPMENT WITH A THERMOSTAT, THE UCB SETPOINTS AND PARAMETERS SHOULD NOT REQUIRE ALTERATION; HOWEVER, THERE MAY BE THE CASE WHERE MINIMUM OUTSIDE AIR, LEAD-LAG OR OTHER CUSTOM SETTINGS ARE REQUIRED. PLEASE READ THIS DOCUMENT IN DETAIL TO UNDERSTAND THE IMPLICATIONS OF MAKING CHANGES BEFORE PROCEEDING. IT IS STRONGLY RECOMMENDED THAT A BACKUP OF PARAMETER SETTINGS BE SAVED ON A USB DRIVE BEFORE MAKING ANY MAJOR CHANGES TO THE CONTROL!

SE UCB DISPLAY MENU GUIDE 3.3



MENU	Status	
SUB MENU	Thermostat	
Y1-TSTAT	OFF	(24VAC INPUT TO Y1 TERM)
Y2-TSTAT	OFF	(24VAC INPUT TO Y2 TERM)
Y3-TSTAT	OFF	(24VAC INPUT TO Y3 TERM)
Y4-TSTAT	OFF	(24VAC INPUT TO Y4 TERM)
W1-TSTAT	OFF	(24VAC INPUT TO W1 TERM)
W2-TSTAT	OFF	(24VAC INPUT TO W2 TERM)
W3-TSTAT	OFF	(24VAC INPUT TO W3 TERM)
G-TSTAT	OFF	(24VAC INPUT TO G TERM)
OCC-TSTAT	ON	(T-STAT INPUT ONLY)

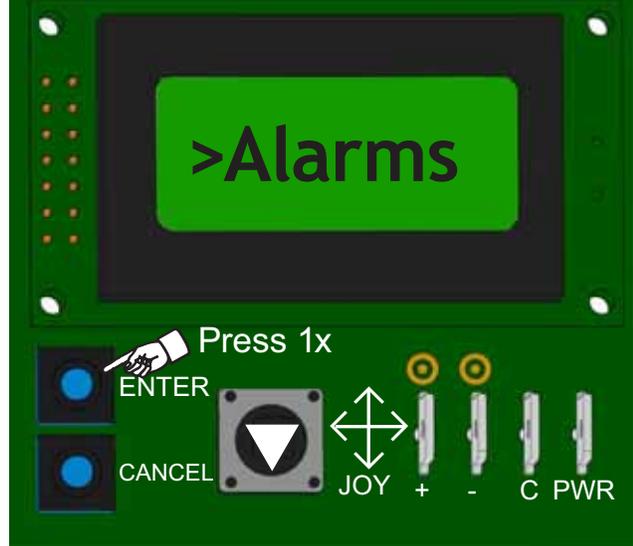
MENU	Status	
SUB MENU	SmokeCtrl	
OPRPURGECMD	FALSE	(ACTIVEPURGECMD)
PURGECMDSRC	RATMP	(PURGECMDSOURCE)
PURGE	FALSE	(PURGE INPUT STATUS)
NETPURGE	FALSE	(PURGECOMMANDSTATUS)
SD	NORMAL	(SD 24 VAC INPUT STATUS)

Legend	
DEFAULT SETTINGS IN RED	BLUE = UCB CONDITIONAL PARAMETER
TAN = ECONOMIZER BOARD PRESENCE	DKGREEN = ECONOMIZER BOARD PRESENCE + ANOTHER CONDITION

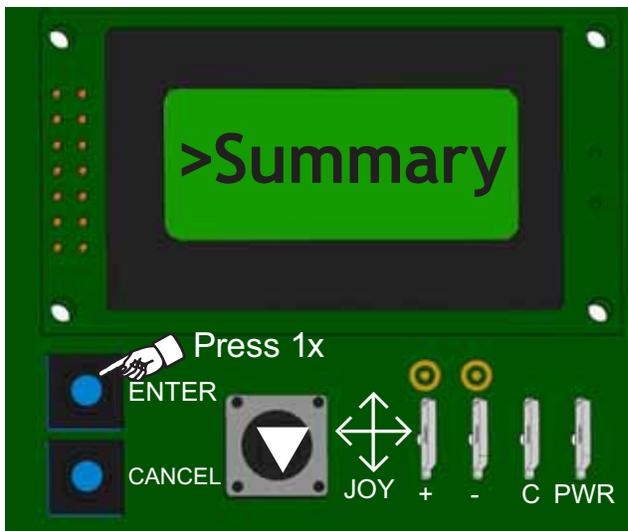
▼▲◀▶ Joystick navigation 
 ☞ Press Enter 1 time 
 ☞ ▼ Press Enter Scroll Down 
 Press Cancel to return to Previous Menu 

MENU	Status	
SUB MENU	▼Status	
UNIT-S	IDLE	(UNIT STATUS)
ECON-S	DISABLED	(ECONOMIZER STATUS)
ExF-S	OFF-IDLE	(EXHAUST FAN STATUS)
FAN-S	OFF-IDLE	(FAN STATUS)
HGR-S	OFF-IDLE	(HOT GAS REHEAT STATUS)
CLG-S	OFF-IDLE	(COOLING STATUS)
DFS	NORMAL	(DIRTY FILTER SWITCH)
UCB24VAC ForOUTP	.3VAC	(UCB 24VAC INPUT)

MENU	Status	
SUB MENU	▼SysCntlrs	
ECONCNTLR	NOT PRESENT	(ECON BRD COMM STATUS)
4StgCNTLR	NOT PRESENT	(FC BUS BACNET NETWORK ADDRESS)
FDDMCNTLR	NOT PRESENT	(REFR CIRC 1-2 STATUS)
FDDSCNTLR	NOT PRESENT	(REFR CIRC 3-4 STATUS)



MENU	▼Alarms	
No EVENTS	(No ACTIVE ALARM)	
ALARM DESCRIPTION	(MOST RECENT ALARM)	
ALARM DESCRIPTION	(2ND MOST RECENT ALARM)	
ALARM DESCRIPTION	(3RD MOST RECENT ALARM)	
ALARM DESCRIPTION	(4TH MOST RECENT ALARM)	
ALARM DESCRIPTION	(5TH MOST RECENT ALARM)	



MENU	▼ Summary	
SUB MENU	🔑 Sensors	
SUB MENU	🔑 Operational Mode	

OPROAT	73.0 F	(OPERATIONAL OUTDOOR AIR TEMPERATURE)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
OPRSSO	.0 F	(SPACE SETPT OFFSET IN USE)
OPRSH	49.6 %H	(SPACE HUMIDITY IN USE)
OPROAH	19% H	(OA HUMIDITY IN USE)
OPRIAQ	477PPM	(IAQ IN USE)
OPROAQ	990PPM	(OUTDOORAIRQUALITY IN USE)
OPRPURGECMD	FALSE	(ACTIVEPURGECMD)

MENU	▼ Summary	
SUB MENU	🔑 Sensors	
SUB MENU	▼ Sensors	

SAT	(60.7 F)	(S A TEMP THERMISTER INPUT)
RAT	(73.0 F)	(R A TEMP THERMISTER INPUT)
OAT	73.0 F	(UCB OAT THERMISTORINPUT)
OATSrc	LOCAL INPUT	(OUTDOORAIRTEMP SOURCE)
ST	69.9 F	(SPACE TEMPERATURE INPUT)
STSrc	NETWORK SENSOR	(SPACE TEMPERATURE SOURCE)
STALARMOFFSET	(5 F)	(SPACE TEMPERATURE ALARM SETPOINT OFFSET)
STALARMDELAY	(60MIN)	(SPACE TEMPERATURE ALARM TIME DELAY)
SSO	.0 F	(SPACE TEMP SETPOINT OFFSET INPUT)
SSOSrc	NETWORK SENSOR	(SPACE TEMPERATURE SETPOINT OFFSET SOURCE)

MENU	▼ Summary	
SUB MENU	🔑 ▼ Sensors	
SUB MENU	▼ Sensors	

SSORANGE	(3.0 F)	(SPACE TEMPERATURE SETPOINT OFFSET RANGE)
RAH	79.4 %H	(SPACE HUMIDITY RAH INPUT)
SHSrc	LOCAL INPUT	(SPACE HUMIDITY SOURCE)
OAH	50.2 %H	(OUTDOOR AIR HUMIDITY INPUT)
OAHSrc	LOCAL INPUT	(OUTDOOR AIR HUMIDITY SOURCE)
IAQ	477PPM	(IAQ 0-10 VDC INPUT)
IAQSrc	LOCAL INPUT	(INDOOR AIR QUALITY SOURCE)
OAQ	477PPM	(OAQ 0-10VDC INPUT)
OAQSrc	LOCAL INPUT	(OUTDOOR AIR QUALITY SOURCE)
PURGECMDSrc	RATEMP	(PURGECMDSOURCE)
SAH	49% H	(SAH 0-10 VDCINPUT)
MAT	70 F	(MIXED AIR TEMPERATURE)
BLDGPREs	.095"/w	(BUILDING STATIC PRESSURE)
DCTPrs	1.50"/w	(DUCTPRES 0-5VDC INPUT)

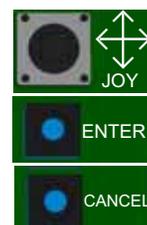
MENU	▼ Summary	
SUB MENU	▼ Sensors	
SUB MENU	🔑 Unit	

NAME	RTUxxxx	(14 CHARACTER MAX)
MODEL#	RTUxxxxx	(14 CHARACTER MAX)
SERIAL#	DEFAULT_SERIAL	(14 CHARACTER MAX)
MODELNAME		(MODEL NAME)
UNIT-S	IDLE	(UNIT STATUS)
UNITEN	ENABLE	(UNIT ENABLE)
HDWRRESET	No	(HARDWARE RESET)
RESETLO	OFF	(RESET LOCKOUTS)

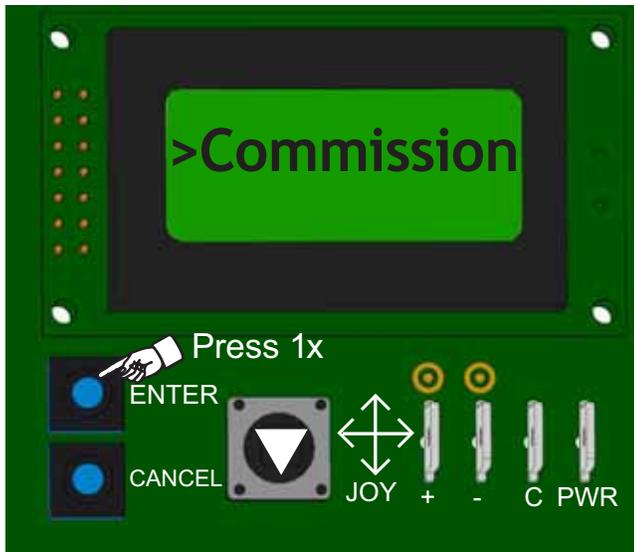
▼▲◀▶ Joystick navigation

🔑 Press Enter 1 time

🔑 ▼ Press Enter Scroll Down
Press Cancel to return to Previous Menu



Legend	
DEFAULT SETTINGS IN RED	BLUE = UCB CONDITIONAL PARAMETER
TAN = ECONOMIZER BOARD PRESENCE	DKGREEN = ECONOMIZER BOARD PRESENCE + ANOTHER CONDITION

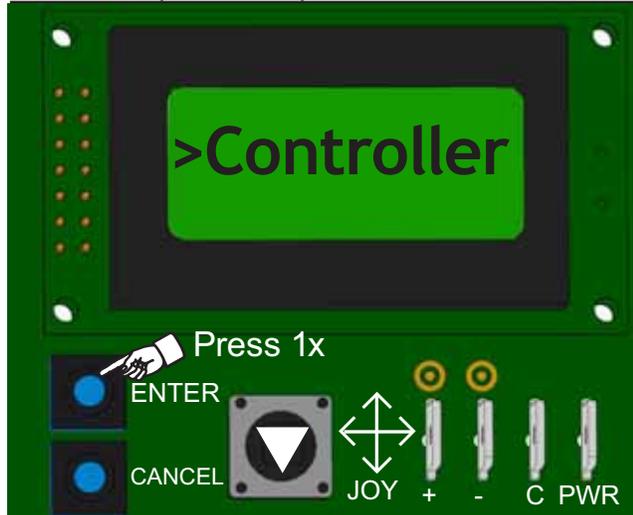


MENU	▼Commission	
SUB MENU	↔Standard↔	
OccMODE	EXTERNAL	OCCUPANCY MODE
TSTAT-ONLY	YES	(T-STAT INPUT ONLY)
CLG-EN	YES	(COOLING ENABLED/DISABLED)
#CLGSTGS	1	(COOLING ENABLED/DISABLED)
HTG-EN	YES	(HEATING ENABLED/DISABLED)
#HTGSTGS	0	(NUMBER OF HEATING STAGES INSTALLED)
ECON-EN	YES	(PERMIT FREE COOLING OPERATION)
ECON-MINPos	20%	(OccEconoMINPos)
LOWSPEEDFAN-MINPos	25%	(AI-IN 0-10VDC INPUT)
FANONOcc	YES	(CV CONSTANTFANOCCUPIED MODE)
SATCOOLLIMIT-EN	YES	(ENABLE SAT LIMIT)
SATCOOLLIMIT-SP	50 F	(SAT LIMIT SETPt)
CLGOATCUTOUT-EN	YES	(LOWAMBCOMP LO)
CLGOATCUTOUT	45 F	(LoAMBCOMPLO STPt)

MENU	▼Commission	
SUB MENU	↔Options↔	
FANCTL-TYPE	SINGLE SPEED	(ID BLOWER TYPE)
EXFTYPE	NONE	(POWER EXH FAN MODE SELECTION)
#REFRIGSYS	4	(#REFRIG CIRCUITS)
LOWAMB-EN	YES	(LOW AMBIENT ENABLED)
LEADLAG-EN	No	(EQUALCOMPRUNTIME)
HGP-INST	No	(HOT GAS BYPASS INSTALLED)
HTG-EN	YES	(HEATING ENABLED/DISABLED)
HTG-TYPE	STAGED	(HEATING CONTROL METHOD)

MENU	▼Commission	
SUB MENU	↔Options↔	
SATHTGLIMIT-EN	YES	(SA HTGLIMITENABLED)
SATHTGLIMIT-SP	140 F	(SA HTGLIMITSETPt)
HTGOATCUTOUT-SP	75 F	(HTGOAT CO SETPt)
APSSSETUP	NONE	(AIR PROVING SWITCH OPERATION)
DFSINST		(DIRTY FILTER SWITCH INSTALLED)
DVENT-MODE	DISABLED	(DMAND VENT MODE SELECT)
HGR-EN	No	(HOT GAS REHEAT ENABLED)
MORNW-EN	No	(VAVMORNWRMUPENABLE)
#HTPUMPSTGS	0	(# OF HEAT PUMPS)
LOWAMBFANPRE-RUNCOOL	60 SEC	(LOW AMBIENT FAN PRERUN TIME)
PIDTUNRST	FALSE	(PID TUNING RESET)
LOWAMBSTART	No	(LOW AMBIENT START)
SZVAVEN	No	(SINGLE ZONE VAV ENABLED)

MENU	▼Commission	
SUB MENU	↔Network Setup↔	
FcBUSMODE	WIRED	(FC BUS COMM MODE)
ADDRESS	4	(FCBUSBACNETNETWORKADDRESS)
DEVICELD	1	(DEVICE OID)
BAUDRATE	AUTO	(FC BUS BAUD RATE IN USE)
DEVNAME	UCBAPP	(FCBUSBACNETNTWRKNAME)
ENCODETYPE	ANSI X3.4 (US-ASCII)	BACNET ENCODING TYPE



MENU	▼Controller	
SUB MENU	↔Network↔	
DEVNAME	UCBAPP	(FC BUS BACNET NETWORK NAME)
BASCOM	BACNET	(COMM SUB-BOARD OPERATION)
ADDRESS	4	(FC BUS BACNET NETWORK ADDRESS)

MENU	▼Controller	
SUB MENU	↻▼Network↻	
TIMEZONE	CENTRAL	
DESCRIPT		
COMM-S	WAITING FOR POLL	(FC BUS COMM STATUS)
FcBUSMODE	WIRED	(FC BUS COMM MODE)
OPRBAUDRATE	AUTO	(FC BUS BAUD RATE TO BE USED)
BAUDRATE	AUTO	(FC BUS BAUD RATE IN USE)
DEVICEID		(DEVICE OID)
LANGUAGE	ENGLISH	
UNITS	IP	(UNITS OF MEASURE TO BE USED)
#NETSENSORS		(NUMBER OF NETWORK SENSORS ONLINE)
RELEARN	FALSE	(RELEARN SYSTEM)
ENCODETYPE	ISO 10646 (UCS-2)	BACNET ENCODING TYPE

MENU	▼Controller	
SUB MENU	↻Firm↻	
FIRM-S	FIRMWARE VERSIONS OK	(FIRMWARE STATUS)
FIRMVER	3.3.1.186	(FIRMWARE VERSION)
UCBMAINVER	3.3.1.186	(FIRMWARE REVISION)
UCBAPPVER	1223_2017.9.6.255	(SOFTWARE APP REV)
UCBHARDVER	001	(HARDWARE REVISION)
ECONMAINVER	3.3.1.186	(FIRMWARE REVISION)
ECONAPPVER	1223_2017.9.6.255	(SOFTWARE APP REV)
ECONHARDVER	001	(HARDWARE REVISION)
4STGMAINVER	3.3.1.186	(FIRMWARE REVISION)
4STGAPPVER	1223_2017.9.6.255	(SOFTWARE APP REV)
4STGHARDVER	001	(HARDWARE REVISION)
FDDMAINVER	3.3.1.186	(FIRMWARE REVISION)
FDDMAPPVER	1223_2017.9.6.255	(SOFTWARE APP REV)
FDDMHARDVER	NOT PRESENT	(HARDWARE REVISION)
FDDSMANVER	3.3.1.186	(FIRMWARE REVISION)
FDDSAPPVER	1223_2017.9.6.255	(SOFTWARE APP REV)
FDDSHARDVER	NOT PRESENT	(HARDWARE REVISION)

MENU	▼Controller	
SUB MENU	↻▼NetworkInputs↻	
NETST		(FC BUS SPACE TEMP)
NETSSO		(FC BUSSPACESETPTOFFSET)
NETSH		(FC BUSSPACEHUMIDITY)

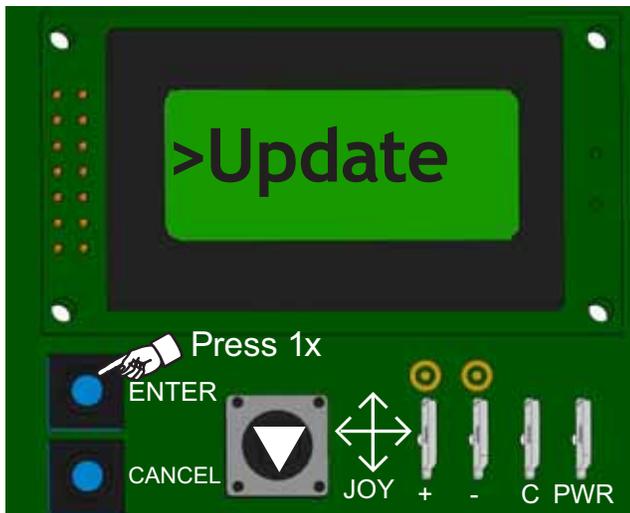
MENU	▼Controller	
SUB MENU	↻▼NetworkInputs↻	
NETOcc	Not SET	(FC BUSOCCUPNCYSTATUS)
NETTEMPOCC	FALSE	(TEMPOCCCOMMAND)
NETIAQ		(FC BUS IAQ VALUE)
NETFANREQ		(FC BUSFANON REQST)
NETOAT		(FC BUS OA TEMP)
NETOAH		(FC BUS OA HUMIDITY)
NETOAQ		(FC BUS OA QUALITY)
NETPURGE		(FC BUSPURGE COMAND)
DIRLOADSHD	Yes/No	(DIRECT LOADSHED)
REDLINE	Yes/No	(REDLINE)

MENU	▼Controller	
SUB MENU	↻▼FDD↻	
UNITTYPE		
EER		
SUBCOOLGOAL		
REFRIGTYPE		
HISIDEPORTLoc		
EVAPCOIL-TYPE		
CONDCOIL-TYPE		
INMETERDEV-TYPE		
OUTMETERDEV-TYPE		
UNITCAP		
FANPOWER		
SUPERHEATGOAL		
ALTITUDE		

MENU	▼Controller	
SUB MENU	↻▼Time↻	
TIME ZONE	CENTRAL	

MENU	▼Controller	
SUB MENU	↻▼Description↻	
CNTRLTYPE	CV	(ROOFTOP CONTROLLER TYPE)
EQUIPTYPE	RTU	(ROOFTOP EQUIPMENT TYPE)

 Joystick navigation
 Press Enter 1 time
 Press Enter Scroll Down
 Press Cancel to return to Previous Menu



MENU	▼Update	
SUB MENU	↻View Ver↻	
3.3.1.186	FIRMWARE OK	

MENU	▼Update	
SUB MENU	↻▼LoadFirm↻	
NO PACKAGE PRESENT	ERROR	USB W/FIRMWARE MUST BE PRESENT

MENU	▼Update	
SUB MENU	↻▼Backup↻	
BKP:WAIT	BCFG 0%	

MENU	▼Update	
SUB MENU	↻▼Restore↻	

>SERIALFLASH/BACKUPCONFIG

MENU	▼Update	
SUB MENU	↻▼Full Clone↻	

>SERIALFLASH/BACKUPCONFIG

MENU	▼Update	
SUB MENU	↻▼Partial Clone↻	

>SERIALFLASH/BACKUPCONFIG

MENU	▼Update	
SUB MENU	↻▼Factory Default↻	

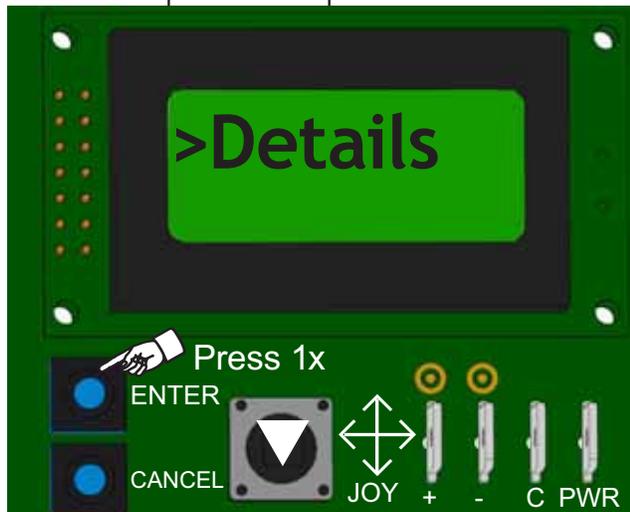
CONFIRM

- ▼▲◀▶ Joystick navigation
- ↻Press Enter 1 time
- ↻▼Press Enter Scroll Down
- Press Cancel to return to Previous Menu



MENU	▼Update	
SUB MENU	↻▼Time↻	
>HOUR	0	(0 THROUGH 23)
MINUTE	11	(0 THROUGH 59)
DAY	1	(1 THROUGH 31)
MONTH	1	(1 THROUGH 12)
YEAR	2000	(1900 THROUGH 2155)

MENU	▼Update	
SUB MENU	↻▼Export Trend↻	
>USB	MISSING	



MENU	▼Details	
SUB MENU	↻OCC↻	

OccMODE	EXTERNAL	OCCUPANCY MODE
OCC	UNOCCUPIED	(OCCUPANCY INPUT)
OPROCC	UNOCCUPIED	(OCCUPANCY STATUS)
OccSRC	LOCAL INPUT	(Occ/UNOcc STATUS SOURCE)
TEMPOCC	DISABLE	(TEMPORARY OCCUPANCY INPUT)
TEMPOCCTIMEOUT	120	(TEMPORARY OCCUPANCY TIME-OUT)
OFFDURUNOCC	No	(OFF DURING OCCUPIED)
OPTSTRT-EN	No	(OPTIMAL START ENABLED)
EARLYSTRTPERIOD	60MIN	(EARLY START PERIOD)
USEOccSCHED	YES	(USE OCCUPANCY SCHEDULE)
PREOccPURGEENA		(PRE OCCUPANCY PURGE ENABLE)

MENU	▼Details	
SUB MENU	↪OCC↪	
PREOCCPURGE-TIME	60	(PRE OCCUPANCY PURGE TIME)
PREOCCUP-SAT_SP	90	(PRE OCCUPANCY PURGE UPPER SETPOINT)
PREOCCLOW-SAT_SP	45	(PRE OCCUPANCY PURGE LOWER SETPOINT)
MENU	▼Details	
SUB MENU	↪▼Clg	
SUB MENU	↪▼Setup↪	
CLG-EN	YES	(COOLING ENABLED/DISABLED)
#CLGSTGS	1	(# OF COOLING STAGES)
#REFRIGSYS	4	(# OF REFRIG SYSTEMS)
CLGOCC-SP	72 F	(CV OCC COOLING SET POINT)
CLGUNOCC-SP	85 F	(CV UNOCC COOLING SET POINT)
CI-EN	YES	(CI 24VACOUTPUTENABLED)
C2-EN	YES	(C2 24VAC OUTPUT ENABLED)
C3-EN	YES	(C3 24VACOUTPUTENABLED)
C4-EN	YES	(C4 24VACOUTPUTENABLED)
MINRTCoolSTG	3MIN	(MINCOMPRUNTIME)
CLGADAPTUNEN	YES	(COOLING AUTO TUNE ENABLE)
LOWAMB-EN	No	(LOW AMBIENT ENABLED)
LOWAMBI00N50FFSP	45 F	(LOAMBOPSETPT)
LEADLAG-EN	No	(EQUALCOMPRUNTIME)
CLGOATCUTOUT-EN	YES	(LOWAMBCOMP LO)
CLGOATCUTOUT	45 F	(LOAMBCOMPLO STPT)
SATCOOLLIMIT-EN	YES	(ENABLE SAT LIMIT)
SATCOOLLIMIT-SP	45 F	(SAT LIMIT SETPT)
HGP-INST	No	(HOT GAS BYPASS PRESENT)
FREEZE-SP	26.0 F	(FREEZE CONDITION SETPOINT)
PMP-OUT-EN	DIS-ABLE	(PUMP OUT ENABLE)
LOWAMBFANPRERUN-COOL	60SEC	(LOW AMBIENT FAN PRE-RUN TIME FOR COOLING)
CLGMANUALTUNE	No	(COOLING MANUAL TUNING)
LOWAMBSTART	No	(LOW AMBIENT START)
4PIPEENA	No	(4 PIPE SPLIT ENABLE)

MENU	▼Details	
SUB MENU	↪▼Clg	
SUB MENU	↪▼Service	
SUB MENU	↪Unit↪	
STGCLGCMD	0%	(STAGED COOLING COMMAND)
OPRCVCLG-SP	72 F	(CV COOLING SET PT IN USE)
CLG-S	OFF-IDLE	(COOLING STATUS)
OPROAT	73.0 F	(OPERATIONAL OUTDOOR AIR TEMPERATURE)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
RAT	73 F	(UCB RAT THERMISTOR INPUT)
ECON-FREE	No	(FREE COOLING AVAILABILITY)
SAT	60.7 F	(UCB SAT THERMISTOR INPUT)
Y1-TSTAT	OFF	(24VAC INPUT TO Y1 TERM)
Y2-TSTAT	OFF	(24VAC INPUT TO Y2 TERM)
Y3-TSTAT	OFF	(24VAC INPUT TO Y3 TERM)
Y4-TSTAT	OFF	(24VAC INPUT TO Y4 TERM)
CN-FAN	OFF	(CN-FAN 24 VAC OUTPUT)
CF2	OFF	(CF2 24 VAC OUTPUT)
MENU	▼Details	
SUB MENU	↪▼Clg	
SUB MENU	↪▼Service	
SUB MENU	↪▼Stage1↪	
CI-S	OFF - IDLE	(COMPRESSOR STAGE STATUS)
CI	OFF	(CI 24VACOUTPUTSTATUS)
CIONTMR	180 SEC	(CIMINRUNTIMEREMAIN)
CIASCDTMR	300 SEC	(CI ASC TIMEREMAIN)
CIRUNTIM	. 0 HR	(CI OUTPTACCUMRUNTIME)
CI-EI	? %	(EFFICIENCY INDEX I)
CI-CI	? F	(CAPACITY INDEX I)
CI-CONDTEMPOVRAMB		(CONDENSING TEMP OVER AMBIENT I)
CI-EVAPTEMPVALUE		(EVAP TEMP VALUE CIRCUIT I)
CLGCKTTESTS-I		(COOLING CIRCUIT TEST STATUS)
CI-SUPERHEAT		(SUPERHEAT)
CI-SUBCOOL		(SUBCOOLING)
MENU	▼Details	
SUB MENU	↪▼Clg	
SUB MENU	↪▼Service	
SUB MENU	↪▼Stage 2↪	
C2-S	OFF - IDLE	(COMPRESSOR STAGE STATUS)
C2	OFF	(C2 24VAC OUTPUT STATUS)

MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Service	
SUB MENU	☞▼Stage 2☞	
C2ONTMR	180 SEC	(C2 MINRUNTIMEREMAIN)
C2ASCDTMR	300 SEC	(C2ASC TIMEREMAIN)
C2RUNTIM	.0 HR	(C2OUTPTACCUMRUNTIME)
C2-EI	? %	(EFFICIENCY INDEX 2)
C2-CI	? F	(CAPACITY INDEX 2)
C2-CONDTEMPOVRAMB	(CONDENSING TEMP OVER AMBIENT 2)	
C2-EVAPTEMPVALUE	(EVAP TEMP VALUE CIRCUIT 2)	
CLGCKTTESTS-I	(COOLING CIRCUIT TEST STATUS)	
CI-SUPERHEAT	(SUPERHEAT)	
CI-SUBCOOL	(SUBCOOLING)	
MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Service	
SUB MENU	☞▼Stage 3☞	
C3-S	OFF - IDLE	(COMPRESSOR STAGE STATUS)
C3	OFF	(C3 24VACOUTPUTSTATUS)
C3ONTMR	180 SEC	(C3MINRUNTIMEREMAIN)
C3ASCDTMR	300 SEC	(C3 ASC TIMEREMAIN)
C3RUNTIM	.0 HR	(C3 OUTPTACCUMRUNTIME)
C3-EI	? %	(EFFICIENCY INDEX 3)
C3-CI	? F	(CAPACITY INDEX 3)
C3-CONDTEMPOVRAMB	(CONDENSING TEMP OVER AMBIENT 3)	
C3-EVAPTEMPVALUE	(EVAP TEMP VALUE CIRCUIT 3)	
CLGCKTTESTS-I	(COOLING CIRCUIT TEST STATUS)	
CI-SUPERHEAT	(SUPERHEAT)	
CI-SUBCOOL	(SUBCOOLING)	
MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Service	
SUB MENU	☞▼Stage 4☞	
C4-S	OFF - IDLE	(COMPRESSOR STAGE STATUS)
C4	OFF	(C4 24VACOUTPUTSTATUS)
C4ONTMR	180 SEC	(C4MINRUNTIMEREMAIN)
C4ASCDTMR	300 SEC	(C4 ASC TIMEREMAIN)
C4RUNTIM	.0 HR	(C4 OUTPTACCUMRUNTIME)
C4-EI	? %	(EFFICIENCY INDEX 4)
C4-CI	? F	(CAPACITY INDEX 4)

MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Service	
SUB MENU	☞▼Stage 4☞	
C4-CONDTEMPOVRAMB	(CONDENSING TEMP OVER AMBIENT 4)	
C4-EVAPTEMPVALUE	(EVAP TEMP VALUE CIRCUIT 4)	
CLGCKTTESTS-I	(COOLING CIRCUIT TEST STATUS)	
CI-SUPERHEAT	(SUPERHEAT)	
CI-SUBCOOL	(SUBCOOLING)	
MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Sensors	
ECI	42 F	(ECI THERMISTOR INPUT)
CCI	96 F	(CCI THERMISTOR INPUT)
SLP-I		(SUCTION PRESSURE I)
LLP-I		(LIQUID PRESSURE I)
SLT-I		(SUCTION TEMPERATURE I)
LLT-I		(LIQUID TEMPERATURE I)
EC2	42 F	(EC2 THERMISTOR INPUT)
CC2	96 F	(CC2 THERMISTOR INPUT)
SLP-2		(SUCTION PRESSURE 2)
LLP-2		(LIQUID PRESSURE 2)
SLT-2		(SUCTION TEMPERATURE 2)
LLT-2		(LIQUID TEMPERATURE 2)
EC3	42 F	(EC3 THERMISTOR INPUT)
CC3	96 F	(CC3 THERMISTOR INPUT)
SLP-3		(SUCTION PRESSURE 3)
LLP-3		(LIQUID PRESSURE 3)
SLT-3		(SUCTION TEMPERATURE 3)
LLT-3		(LIQUID TEMPERATURE 3)
EC4	42 F	(EC4 THERMISTOR INPUT)
CC4	96 F	(CC4 THERMISTOR INPUT)
SLP-4		(SUCTION PRESSURE 4)
LLP-4		(LIQUID PRESSURE 4)
SLT-4		(SUCTION TEMPERATURE 4)
LLT-4		(LIQUID TEMPERATURE 4)
MENU	▼Details	
SUB MENU	☞▼Clg	
SUB MENU	☞▼Safeties☞	
HPSI	NORMAL	(HPSI 24VAC INPUT STATUS)
HPSI-LO	NORMAL	(HIPRESSI SWITCH STATUS)

MENU	▼Details	
SUB MENU	🔗▼Clg	
SUB MENU	🔗▼Safeties🔗	
LPSI	NORMAL	(LPSI 24VAC INPUT STATUS)
LPSI-LO	NORMAL	(LoPRESS1 SWITCH STATUS)
FSI	NORMAL	(FREEZE PROTECT1 STATUS)
FSI-LO	NORMAL	(FREEZE PROTECT1 STATUS)
HPS2	NORMAL	(HPS2 24VAC INPUT STATUS)
HPS2-LO	NORMAL	(HiPRESS2 SWITCH STATUS)
LPS2	NORMAL	(LPS2 24VAC INPUT STATUS)
LPS2-LO	NORMAL	(LoPRESS2 SWITCH STATUS)
FS2	NORMAL	(FREEZE PROTECT2 STATUS)
FS2-LO	NORMAL	(FREEZE PROTECT2 STATUS)
HPS3	NORMAL	(HPS3 24VAC INPUT STATUS)
HPS3-LO	NORMAL	(HiPRESS3 SWITCH STATUS)
LPS3	NORMAL	(LPS3 34VAC INPUT STATUS)
LPS3-LO	NORMAL	(LoPRESS3 SWITCH STATUS)
FS3	NORMAL	(FREEZE PROTECT3 STATUS)
FS3-LO	NORMAL	(FREEZE PROTECT3 STATUS)
HPS4	NORMAL	(HPS4 44VAC INPUT STATUS)
HPS4-LO	NORMAL	(HiPRESS4 SWITCH STATUS)
LPS4	NORMAL	(LPS4 44VAC INPUT STATUS)
LPS4-LO	NORMAL	(LoPRESS4 SWITCH STATUS)
FS4	NORMAL	(FREEZE PROTECT4 STATUS)
FS4-LO	NORMAL	(FREEZE PROTECT4 STATUS)
MENU	▼Details	
SUB MENU	🔗▼Clg	
SUB MENU	🔗▼Misc🔗	
MAXTEMPHUMS-POFF	3.0 F	(MAXIMUM TEMPERATURE / HUMIDITY SETPOINT OFFSET)
TEMPHUM-SP	50% H	(*EFFECTSOPRCLG-SP)
TEMPHUMC-TRL-EN	No	(CNTRLOPERENABLE)
OPRSH	49.6 % H	(SPACE HUMIDITY IN USE)
CLGOcc-SP	72 F	(CV - Occ COOLING SETPOINT)
OPRCVCLG-SP	72 F	(CV - OPERATING COOL SETPOINT)
TEMPHUMVALP-ERDEGOff	5% H	(TEMPERATURE / HUMIDITY VALUE PER DEGREE OFFSET)
Legend		
DEFAULT SETTINGS IN RED	BLUE = UCB CONDITIONAL PARAMETER	
TAN = ECONOMIZER BOARD PRESENCE	DKGREEN = ECONOMIZER BOARD PRESENCE + ANOTHER CONDITION	

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Setup🔗	
HTG-EN	Yes	(HEATING OPER ENABLED)
#HTGStGS	1	(# OF HEATING STAGES)
HTG-TYPE	STAGED	(HEATINGCONTROLMETHOD)
CVHTGOcc-SP	68 F	(CV - Occ HEATING SETPOINT)
CVHTGUNOcc-SP	60 F	(CV - UNOcc HEATING SETPOINT)
HTGADAPTUNEN	Yes	(HEATING AUTO TUNE ENABLE)
SATHtGLIMIT-EN	Yes	(SA HtGLIMITENABLED)
SATHtGLIMIT-SP	135 F	(SA HtGLIMITSetPt)
HTGOATCUTOuT-SP	75 F	(OUTDOOR AIR TEMP HEATING CUTOuT SETPOINT)
#GASVLVS	0	(#HTPMPSTGS = 0)
#LIMSWTCHS	1	(#HTPMPSTGS = 0)
LL_ENABLE	DISABLE	(LOW LIMIT ENABLE)
LL_UpSAT_SP	80 F	(LOW LIMIT UPPER SAT SETPOINT)
LL_LowSAT_SP	80 F	(LOW LIMIT LOWER SAT SETPOINT)
HTGMANUALTUNE	No	(HEATING MANUAL TUNING)
MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Service🔗	
STGHTGCMD	0%	(STAGED HEATING COMMAND)
CVOPRHTG-SP	68 F	(CV - OPERATING HEAT SETPOINT)
HTG-S	OFF-IDLE	(HEATING STATUS)
OPROAT	73.0 F	(OPERATIONAL OUTDOOR AIR TEMPERATURE)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
RAT	70.4 F	(UCB RAT THERMISTORINPUT)
W1-TSTAT	OFF	(24VAC INPUT TO W1 TERM)
W2-TSTAT	OFF	(24VAC INPUT TO W2 TERM)
W3-TSTAT	OFF	(24VAC INPUT TO W3 TERM)
G-TSTAT	OFF	(24VAC INPUT TO G TERM)
HI-S	OFF-IDLE	(HEATING STAGE STATUS)
HI	OFF	(1ST STG HEAT OUTPUT STATUS)
HIONTMR	0 SEC	(REMAINMINRUNTIME)
HIASCDTMR	0 SEC	(REMAIN ASCD TIME)
HIRUNTIM	. 0 HR	(ACCUM HI RUNTIME)

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Service🔗	
H2	OFF	(2ND STG HEATINGOUTPUTSA-TUS)
H2-S	OFF-IDLE	(HEATING STAGE STATUS)
H2ONTMR	0 SEC	(REMAIN MIN RUNTIME)
H2ASCDTMR	0 SEC	(REMAIN ASCDTIME)
H2RUNTIM	.0 HR	(ACCUM H2 RUNTIME)
H3	OFF	(3RD STG HEATINGOUTPUTSA-TUS)
H3-S	OFF-IDLE	(HEATING STAGE STATUS)
H3ONTMR	0 SEC	(REMAIN MIN RUNTIME)
H3ASCDTMR	0 SEC	(REMAIN ASCDTIME)
H3RUNTIM	.0 HR	(ACCUM H3 RUNTIME)

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Safeties🔗	
LIMIT	NORMAL	(LIMIT 24VAC INPUT STATUS)
LIMITLO	NORMAL	(HEAT LIMIT STATUS)
LIM2	NORMAL	(LIMIT 24VAC INPUT STATUS)
LIM2LO	NORMAL	(HEAT LIMIT STATUS)
LIM3	NORMAL	(LIMIT 24VAC INPUT STATUS)
LIM3LO	NORMAL	(HEAT LIMIT STATUS)
MV	No	(MV PIN 24VAC INPUT STATUS)
GV2	OFF	(GV2 PIN 24VAC INPUT STATUS)
GV3	OFF	(GV3,4 PIN 24VAC INPUT STATUS)

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Prop	
SUB MENU	🔗Setup🔗	
HYDHISA-SP	120 F	(HYD HI SAT SETPT)
HYDH2SA-SP	150 F	(HYD H2 SAT SETPT)
SATTEMPHYDHT-EN	No	No(HYDHTGSA TEMPER)
SATTEMPHYDHT-SP	40	(HYD HEAT TEMP SP)
HYDREVERSE	No	(MODHT 2-10VDCACTION)

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Prop	
SUB MENU	🔗▼Service🔗	
CVHtgOcc-SP	68 F	(CV Occ HEATING SET POINT)

MENU	▼Details	
SUB MENU	🔗▼Htg	
SUB MENU	🔗▼Prop	
SUB MENU	🔗▼Service🔗	
CVHtgUNocc-SP	60 F	(CV UNOcc COOLING SET POINT)
CVOPRHTG-SP	68 F	(CV HEATING SET PT IN USE)
VAVOPRHTG-SP	68F	(VAV OPERATING HEAT SETPOINT)
OPR ST	73.0 F	(SPACE TEMPERATURE IN USE)
SAT	(60.7 F)	(S A TEMP THERMISTER INPUT)
WI-TSTAT	OFF	(24VAC INPUT TO WI TERM)
W2-TSTAT	OFF	(24VAC INPUT TO W2 TERM)
HWV	0%	(HWV VDC OUTPUT)
HYDREVERSE	No	(MODHT 2-10VDCACTION)
FSHW	NORMAL	()

MENU	▼Details	
SUB MENU	🔗▼Fan	
SUB MENU	🔗Setup🔗	
FANCTL-TYPE	SINGLE SPEED	(ID BLWR/UNIT OP MODE)
FANON Occ	YES	(CV CONSTANT FAN IN OCCUPIED MODE)
FANONDLYHEAT	30SEC	(HEATFANONDELAY)
FANOFFDLYHEAT	60SEC	(HEATFANOFFDELAY)
FANOFFSTARTHEAT	YES	(FANOFF ATHEATSTART)
FANONDLYCOOL	0SEC	(COOLFANONDELAY)
FANOFFDLYCOOL	30SEC	(COOLFANOFFDELAY)
FAN ONLY-% CMD	50%	(CV IS FAN ONLY)
1CLGSTG-% CMD	70%	(CV IS 1 STG COOL)
2CLGSTG-% CMD	80%	(CV IS 2 STG COOL)
3CLGSTG-% CMDT	90%	(CV IS 3 STG COOL)
4CLGSTG-% CMD	100%	(CV IS 4 STG COOL)
1HTGSTG-%CMD	100%	(OCCUPIED: ONE STAGE OF HEAT % COMMAND)
2HTGSTG-%CMD	100%	(OCCUPIED: TWO STAGE OF HEAT % COMMAND)
3HTGSTG-%CMD	100%	(OCCUPIED: THREE STAGE OF HEAT % COMMAND)
LOWAMBFANPRE-RUNCOOL	60 SEC	
APSSSETUP	NONE	(AIR PROVING SWITCH OPERATION)
DFS	NORMAL	(DFS 24VAC INPUT STATUS)

MENU	▼Details	
SUB MENU	🔍Fan	
SUB MENU	🔍▼Service🔍	
G-TSTAT	OFF	(24VAC INPUT TO G TERM)
FAN-S	OFF-IDLE	(FAN STATUS)
FAN	OFF	(FAN 24VAC OUTPUT STATUS)
FAN-RT	.0 HR	(ACCUMULATED FAN RUNTIME)
OPRFANREQ	OFF	(OPERATING FAN REQUEST)
FANREQSRC	LOCAL INPUT	(FAN REQUEST SOURCE)
APS	OFF	(APS INPUT STATUS)
FANOVERLOAD	NORMAL	(FANOVRIINPTSTATUS)
FANVFDFLT	NORMAL	(FLT24VACINPTSTATUS)
MENU	▼Details	
SUB MENU	🔍▼Econ	
SUB MENU	🔍Setup🔍	
ECON-EN	Yes	(ECONOFREECOOLINGENABLE)
ECON-MINPos	10%	(ECONOMIZER MINIMUM POSITION SETPOINT)
LOWSPEEDFAN-MINPos	25%	(OccLoFANPos)
LOWAMB-MINPos	0%v	(OccLoAMBMINPos)
LOWAMB-SP	0 F	(LoAMBMINPossSETPT)
FREECLG-SEL	AUTO	(FRECLGCHNGOVRMETHOD)
FREECLG-MODE	DRY BULB	(CHNGOVRMODE)
ALLCOMPOFF-ECON	No	(ALL COMPRESSORS OFF IN FREE COOLING)
ECONOAT-SPEN	55 F	(DRYBLBCHGOVRSETPT)
ECONOAENTH-SP	27 B/#	(ENTHCNGOVRSETPT)
DVENT-MODE	DISABLED	(DMAND VENT MODE SELECT)
DVENTMAXECONPos	50%	(MAX ECON POSITION)
DVENTIAQ-SP	1000PPM	(DEMAND VENT IAQ SETPT)
DVENTDIFF-SP	600PPM	(IAQ-OAQ DIFFERENCE-SETPT)
IAQRANGE	2000PPM	(ID SETPT W/Co2 SENSOR INST)
OAQRANGE	2000PPM	(OD SETPT W/Co2 SENSOR INST)
ECONLOAD-EN	No	(ECONLOADINGENABLED)
MOAFLow-SP	10CFM	(FRESH AIR INTAKE SETPOINT)
MOA-RANGE	10000CFM	(FRESH AIR INTAKE MAX SENSOR RANGE)
ECONMECHSTP	OPTION B	(ECON MECH SETUP)
ECONFLTDETECTEN	DISABLE	(ECON FAULT DETECTION EN)

MENU	▼Details	
SUB MENU	🔍▼Econ	
SUB MENU	🔍▼Service🔍	
CLG-S	OFF-IDLE	(COOLING STATUS)
ECON-S	DISABLED	
ECON-FREE	No	(FREECOOLING AVAILABLE)
ECON	0%	(ECON 2-10VDC OUTPUT STATUS)
SAT	60.7 F	(UCB SAT THERMISTORINPUT)
OPROAT	73.0 F	(OPERATIONAL OUTDOOR AIR TEMPERATURE)
OA-ENTH	20 B/#	(CALCOA ENTHALPHYINPUT)
RA-ENTH	20B/#	(RA ENTHALPY INPUT)
OPRIAQ	477PPM	(INDOOR AIR QUALITY INPUT)
OPROAQ	990PPM	(OUTDOORAIRQUALITY IN USE)
FR AIR	7940CFM	(FRESH AIR INTAKE ENABLE)
ECONDAMPPos	38	(AI-IN 0-10VDC INPUT)
ECONALRMDLY	600SEC	(FDD ECON ALARM DELAY)
ECONPosERR	8%	(FDD ECON DAMPER ALLOW ERROR)
ECONMINERR	5%	(FDD DAMPER MIN Pos TOLERANCE)
MENU	▼Details	
SUB MENU	🔍▼Dvent🔍	
ECON-EN	Yes	(ECONOFREECOOLINGENABLE)
DVENT-MODE	DISABLED	(DEMANDVENTIMODE)
DVENTMAXECONPos	50%	(IAQ ECON-MaxPos)
DVENTIAQ-SP	1000PPM	(OccIAQECONOPERSETPT)
DVENTDIFF-SP	600PPM	(Occ DIFF IAQ/OAQ SETPT)
IAQRANGE	2000PPM	(PPM@10VdCIAQ OUTPUT)
OAQRANGE	2000PPM	(PPM@10VdCOAQ OUTPUT)
OPRIAQ	477PPM	(IAQ 0-10VdCINPUT IN USE)
OPROAQ	990PPM	(OUTDOORAIRQUALITY IN USE)
ECONDAMPPos	38	(AI-IN 0-10VDC INPUT)
MENU	▼Details	
SUB MENU	🔍▼AirMonStation🔍	
ECON-EN	Yes	(ECONOFREECOOLINGENABLE)
FRAIR-EN	DISABLE	(FRESH AIR INTAKE ENABLE)
MOAFLow-SP	10CFM	(FRESH AIR INTAKE SETPOINT)
MOA-RANGE	10000CFM	(FRESH AIR INTAKE MAX SENSOR RANGE)
FR AIR	7953CFM	(FRESH AIR INTAKE ENABLE)
ECONDAMPPos	38	(AI-IN 0-10VDC INPUT)
CONTROL	40CFM	(FRESH AIR RANGE)

MENU	▼Details	
SUB MENU	🔗▼PowerEx	
SUB MENU	🔗Setup🔗	
EXF TYPE	NONE	(PWREXFANMODESELECTION)
ECONDMPPosFANON	60%	(FANONPOSITION)
ECONDMPPosFANOFF	20%	(FANOFFPOSITION)
EXDMPPosFANON	80%	(FANONPOSITION)
EXDMPPosFANOFF	20%	(FANOFFPOSITION)
BLDG-SP	100"/w	(EXDMPRBLDGPRESETPT)
DCTPRS		(DUCT STATIC PRESSURE)

MENU	▼Details	
SUB MENU	🔗▼PowerEx	
SUB MENU	🔗▼Service🔗	
EXF-S	OFF	
EXFAN	OFF	(EX-FAN 24VACOUTPUTSTATUS)
BLDGPRES	.164"/w	(BLDGPRES 0-5VDC INPUT)
EAD-O	0%	(EXVFD2-10VDCOUTPTSTATUS)
EXFANVFD	0%	(EX VFD2-10VDC OUTPUT)
EXFAN-RUNTIME	.0 HR	(24VACOUTPUTAccRUNTIME)
EXFANVFDFLT	NORMAL	(VFD FLT24VACINPUT)

MENU	▼Details	
SUB MENU	🔗▼FanVFD	
SUB MENU	🔗Setup🔗	
FANCTL-TYPE	SINGLE SPEED	(UNITOPMODE)
DCTPRS-SP	1.50"/w	(VAV SUPPLYDUCTPRESS SETPOINT)
DCTSHUTDOWNSP	4.5"/w	(DUCTPRESSLIMIT)
SATUP-SP	60 Fc	(VAV Occ UPPRCOOLING SAT SETPT)
SATLo-SP	55 F	(VAV Occ LOWR COOLING SAT SETPT)
SATRST-SP	72 F	(VAV Occ COOL SAT RESET SETPT)
VAVCLGUNOCC-SP	85 F	(FANCTL-TYPE = VARIABLE SPEED)
MORNW-EN	No	(VAVMORNWRMUPENABLE)
MORNWRAT-SP	71 F	(MORNWRMUPRA SETPT)
HTGOCC-EN	YES	(VAV Occ HEATING ENABLED)
VAVHTGOCC-SP	85 F	(VAV Occ HEATING SETPOINT)
HTGUNOCC-EN	No	(VAV UNOCC HEATING ENABLED)
VAVHTGUNOCC-SP	60 F	(VAV UNOCC HTG SETPOINT)
MORNC-EN	No	(MORNING COOLDOWN ENABLED)
MORNCRAT-SP	74F	(MORNING COOLDOWN SP)

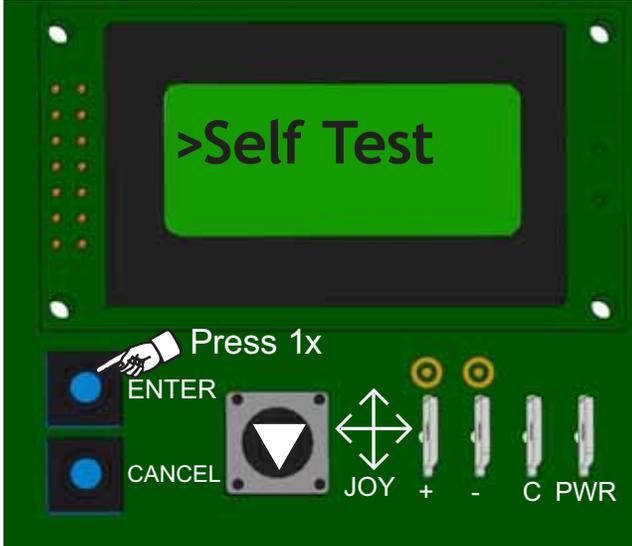
MENU	▼Details	
SUB MENU	🔗▼FanVFD	
SUB MENU	🔗Setup🔗	
OPTSTRT-EN	No	(OPTIMAL START ENABLED)
EARLYSTRTPERIOD	60MIN	(EARLY START PERIOD)
USEOCCSCHED	YES	(USE OCCUPANCY SCHEDULE)
LPSI	NORMAL	(LPSI 24VAC INPUT STATUS)
LPS2	NORMAL	(LPS2 24VAC INPUT STATUS)
TIME		
TIME		
HTGOCC-EN	YES	(VAV Occ HEATING ENABLED)

MENU	▼Details	
SUB MENU	🔗▼FanVFD	
SUB MENU	🔗▼Service🔗	
FANVFD	0%	(VFD 2-10 VDC OUTPUT)
DCTPRS	1.50"/w	(DCT PRS 0-5VDCINPUT)
DCTPRS-SP	1.5"/w	(DUCTPRESSLIMIT)
OPRVAVCLG-SP	55 F	(VAV COOLING SAT SETPT IN USE)
SAT	60.7 F	(UCB SAT THERMISTORIN-PUT)
STGCLGCMD	0%	(STAGED COOLING COMMAND)
CLG-S	YES	(COOLING STATUS)
ECON-FREE	No	(FREE COOLING AVAILABIL-ITY)
CI	OFF	(UCB CI 24 VAC OUTPUT STATUS)
C2	OFF	(DEMAND VENT SET POINT)
C3	OFF	(4STG C3 24 VAC OUTPUT STATUS)
C4	OFF	(4STG C4 24 VAC OUTPUT STATUS)
VAVOPRHTG-SP	68 F	(VAV HEATING SETPT IN USE)
STGHTGCMD	0%	(STAGED HEATING COM-MAND)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
HTG-S	OFF-IDLE	(HEATING STATUS)
H1	OFF	(CV IS 1 STG HEAT)
H2	OFF	(CV IS 2 STG HEAT)
H3	OFF	(CV IS 3 STG HEAT)
VAV Box	OFF	(VAV Box)

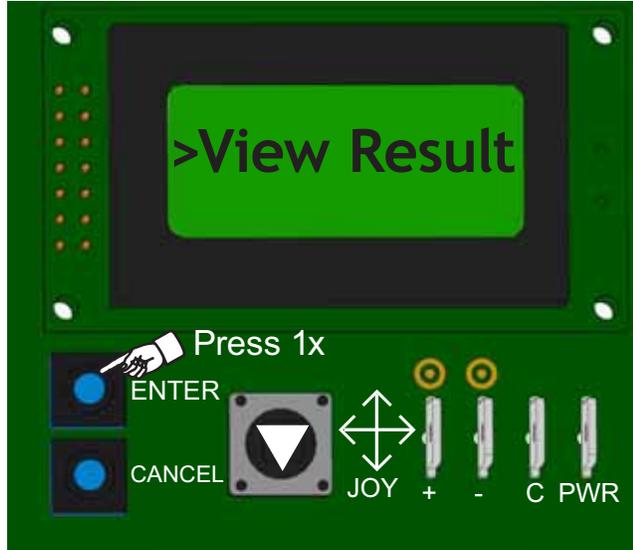
MENU	▼Details	
SUB MENU	🔗▼SZVAV	
SUB MENU	🔗Setup🔗	
SZVAVEN	No	(SINGLE ZONE VAV ENABLED)
SZVAVMINFANSPD	66%	(MINIMUM FAN SPEED)
SZVAVCLGOcc-SP	72 F	(SZ VAV Occ CLG SP)
SZVAVCLGUnocc-SP	85 F	(SZ VAV Unocc CLG SP)
VAVHTgOcc-SP	68 F	(VAV - Occ HEATING SETPOINT)
VAVHTgUnocc-SP	60 F	(VAV UNOcc HEATING SETPT)
DATMaxHTgSP	105F	(DAT HEATING MAX SP)
DATSATSP	70F	(DAT SATISFIED SP)
DATCLGMinSP	54F	(DAT COOLING MIN SP)
MENU	▼Details	
SUB MENU	🔗▼SZVAV	
SUB MENU	🔗▼Service🔗	
OPRSZVAV-CLG-SP	72 F	(SZ VAV OPERATING CLG SP)
SZVAVCLGLD	0%	(SZ VAV COOLING LOAD)
SZVAVHTGLD		(SZ VAV HEATING LOAD)
OPRVAVCLG-SP	60 F	(VAV OPERATING COOL SETPOINT)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
SAT	60.7 F	(SAT THERMISTOR INPUT)
FANVFD	0%	(VFD 2-10VDC OUTPUT STATUS)
ECON	0%	(ECON 2-10 VDC OUTPUT STATUS)
CI	OFF	(1ST COOL 24 VAC OUTPUT)
C2	OFF	(2ND+ COOL 24 VAC OUTPUT)
C3	OFF	(3RD+ COOL 24 VAC OUTPUT)
C4	OFF	(4TH+ COOL 24 VAC OUTPUT)
MENU	▼Details	
SUB MENU	🔗▼HGR	
MENU	🔗Setup🔗	
HGR-EN	No	(HOT GAS REHEAT ENABLED)
HGRALT-EN	No	(HGR ALTERNATE ENABLED)
HGRALTWRITE	No	(HGR ALTERNATE WRITEABLE)
HGRHUM-SP	60DEGF	(HOT GAS REHEAT HUMIDITY SETPOINT)
HGRUNOCC-EN	Yes	(HGR UNOCC ENABLED)
HGRUNOCC-HUM-SP	70DEGF	(HGR UNOCC HUM SP)
HGR-DIFF	3%	(HGR HUMIDITY SETPOINT DIFFERENTIAL)
MODE		(Aux MODE)

MENU	▼Details	
SUB MENU	🔗▼HGR🔗	
MENU	🔗▼Service🔗	
STgCLGcMD	0%	(STAGED COOLING COMMAND)
OPRCVCLG-SP	72 F	(CV COOLING SET PT IN USE)
OPRST	73.0 F	(SPACE TEMPERATURE IN USE)
HGRHUM-SP	60F	(HOT GAS REHEAT HUMIDITY SETPOINT)
OPRSH	49.6 %H	(SPACE HUMIDITY IN USE)
HGR-S	OFF-DIS-ABLED	(HGR STATUS)
HGR	OFF	(HOT GAS REHEAT)
CI	OFF	(CI 24VACOUTPUTSTATUS)
C2	OFF	(UCB CI 24 VAC OUTPUT STATUS)
C3	OFF	(C3 24VACOUTPUTSTATUS)
C4	OFF	(4STG C4 24 VAC OUTPUT STATUS)
RAH	(49.6 %H)	(R A HUMIDITY 0-10 VDC INPUT)
MENU	▼Details	
SUB MENU	🔗▼Heat Pmp🔗	
#HTPUMPSTGS	0	(# OF HEAT PUMPS)
TESTDEFROST-ENABLE	No	(TEST DEFROST ENABLE)
COMPDELAY-ENABLE	No	(COMPRESSOR DELAY ENABLE)
DEFROSTCUR-VESEL	CURVE 1	(DEFROST CURVE SELECT)
REVLV	OFF	(REVERSING VALVE)
AUXHTG	OFF	(AUXILIARY HEAT)
MODE	COOLING	(MODE)
MENU	▼Details	
SUB MENU	🔗▼ERV-En🔗	
ERV-EN	No	(ECON&PWRExINTRGRATIONW/ ERV)
ERVUNOCCFAN-EN		(ERV UNOCCUPIED FAN ENABLED)
FANCTL-TYPE	SINGLE SPEED	(UNITOPMODE)
FAN	OFF	(UCB FAN 24 VAC OUTPUT STATUS)
ECON-FREE	No	(FREECOOLING AVAILABLE)
ExFAN	OFF	(EX-FAN 24 VAC OUTPUT)

MENU	▼Details	
SUB MENU	🔑▼T24LoadShed🔑	
LOADSHEDRATELIM	.066	(RATE LIMITER)
LOADSHEDADJUST	4.0 F	(LOAD SHED ADJUST)
LOADSHEDENABLE	No	(LOAD SHED ENABLE)



MENU	▼Self Test🔑
START	(BEGINS THE SELF TEST SEQUENCE)
PAUSE	(CAUSES THE SEQUENCE TO HOLD ANY OUTPUTS ON FOR 10 MINUTES.)
CANCEL	(STOPS THE SELF TEST SEQUENCER AND RETURNS THE SEC TO NORMAL OPERATION.)
TESTSTATUS	(DISPLAYS CURRENT STATE OF THE SELF TEST SEQUENCER)
RESET	(ERASES THE PREVIOUS SELF TEST RESULTS AND PREPARES THE SELF TEST SEQUENCER FOR ANOTHER TEST RUN)



MENU	▼View Result🔑	
FANRESULT	PASS-FAIL	(APS ON EARLY OR APS OFF)
C1RESULT	PASS-FAIL-WARNING	
C2RESULT	PASS-FAIL-WARNING	
C3RESULT	PASS-FAIL-WARNING	
C4RESULT	PASS-FAIL-WARNING	
H1RESULT	PASS-FAIL-WARNING	
H2RESULT	PASS-FAIL-WARNING	
H3RESULT	PASS-FAIL-WARNING	
ECONRESULT	PASS-FAIL	(DAMPER)
EXHRESULT	WARNING-PASS	(BSP NOT DROPPED)

END OF MENU