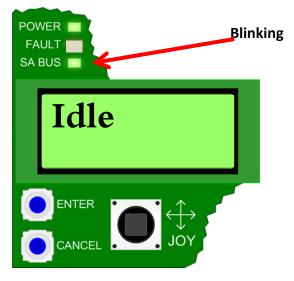
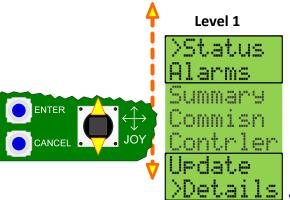
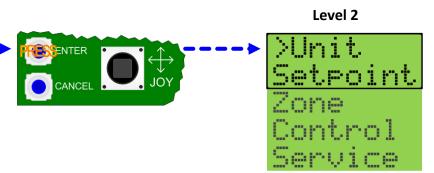
SE Control Quick Start Instructions





NOTE: The ENTER button, CANCEL button and Joystick have no effect throughout the boot-up sequence. During boot up the display will count down on the top line and will display Starting Up on the bottom line. The green Power LED is ON, the red Fault LED is blinking and the green SA Bus LED will blink partway through the sequence.

- After boot up sequence is complete, pressing the ENTER button or moving the Joystick in any direction provides access to control parameter levels. Moving the Joystick up or down moves you through the Level 1 parameter list
- Pressing the ENTER button brings you to the next lower parameter level. Moving the Joystick up or down moves between individual parameters of that level
- Pressing the ENTER button brings you to the next level or to a particular parameter. There are 6 parameter levels.
- If a parameter is adjustable, moving the Joystick left or right will cause the display to start blinking. As it's blinking, moving the Joystick left or right changes the parameter value. Pressing the ENTER button then writes the new value.
- Pressing the CANCEL button while the display is blinking will cancel any changes and stop the parameter from blinking.
- Pressing the CANCEL button will move up one level on the parameter navigation ladder.



Quick Start Parameters

The control has a large number of parameters which must be checked and properly set for a specific application or option set. However most units will be installed as stand alone (with or without an economizer) and it will be controlled with standard thermostat inputs (meaning no BAS, space sensor or Net Sensors).

The following parameters should be checked and set for all stand alone units:

Note: " \rightarrow " = Enter Button

- LEVEL 1 LEVEL 2 LEVEL 3 LEVEL 4 PARAMETER
- → Details-→ Control → Clg→ Setup → ClgOAT Cutout Cooling outdoor temperature low limit.*
- **Details-**Control Clg Setup SATCoolLimit-Sp Cooling supply air low temperature limit*
- **Details-**Control > Htg Setup SATHtgLimit-Sp Heating supply air high temperature limit*
- **Details-**Control Htg Setup HtgOATCutout-Sp Heating Outside air high temperature limit
- **Details-**Control Econ Setup Econ-MinPos Economizer minimum position setpoint*
- **Details-**Control Econ Setup EconOAEnth-Sp Enthalpy setpoint for economizer operation

^{*} If not desired these functions can be disabled by changing the enable parameter from YES to NO. For instance if you don't want the compressors to shut off below a preset outdoor temperature then set the following parameter to NO: ClgOATCutout-En. The enable parameter can be found directly above the adjustable parameter.

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
		default	default	default	default	parameter description and comments	parameter long name
Status	DVent- Mode	DVent-Mode				Demand Ventilation mode selection; Disabled permits no demand ventilation function, Controlled by IAQ requires IAQ input, Diff between IAQ and OAQ requires IAQ and OAQ inputs	Demand Ventilation Mode of Operation
	OprST	OprST				the buffered space temperature in use; may be from UCB RAT thermistor or ST thermistor input, SA BUS NetSensor or FC BUS communicated value sources	Operational Space Temperature
	SAT	SAT				the buffered UCB SAT thermistor input	Supply Air Temperature
	RAT	RAT					Return Air Temperature
	OprSH	OprSH				the buffered space humidity in use; may be from UCB RAH 0-10 VDC input, SA BUS NetSensor or FC BUS communicated value sources; ?Unrel indicates RAH input was once detected and is currently lost	Operational Space Humidity
	RAH	RAH				the buffered UCB RAH 0-10 VDC input; ?Unrel indicates UCB RAH 0-10 VDC input was once detected and is currently lost	Space Humidity RAH Input
	OprOAT	OprOAT				the buffered outdoor air temperature in use; may be from UCB OAT thermistor input or FC BUS communicated value sources	Operational Outdoor Air Temperature
	OprOAH	OprOAH				the buffered outdoor air humidity in use; may be from economizer board OAH 0-10 VDC input or FC BUS communicated value sources; ?Unrel indicates OAH input is currently not present	Operational Outdoor Air Humidity
	OprOAQ	OprOAQ				the buffered outdoor air quality in use; may be from economizer board OAQ 0-10 VDC input or FC BUS communicated value sources; ?Unrel indicates OAQ input is currently not present	Operational Outdoor Air Quality
	OprIAQ	OprIAQ				the buffered indoor air quality in use; may be from economizer board IAQ 0-10 VDC input, SA BUS NetSensor or FC BUS communicated value sources; ?Unrel indicates IAQ input is currently not present	Operational Indoor Air Quality
Alarms	No Events					no notification in the active alarm register	

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6					
		default	default	default	default	parameter description and comments	parameter long name			
Details	Control	Indoor Fan	Status	Fan	Fan	UCB FAN 24 VAC output status	Fan Command			
				FanCtl-Type	FanCtl-Type	indoor blower and unit operating mode selection; Single Speed = CV unit w/o indoor blower VFD, (Two Speed = CV unit w/2-step indoor blower VFD speed control), Fixed Variable = CV unit w/IntelliSpeed indoor blower VFD speed control, Variable Speed = VAV unit w/supply duct static/indoor blower VFD speed control	Fan Control Type			
				APS	APS	UCB APS 24 VAC input status; Off indicates 0 VAC input to the APS pin, On indicates 24 VAC input to the APS pin	Air Proving Switch			
				DctPrs	DctPrs	effective for VAV units; the buffered UCB DCT PRS 0-5 VDC input	Duct Static Pressure			
				SAT	SAT	the buffered UCB SAT thermistor input	Supply Air Temperature			
				FanOverload	FanOverload	UCB FAN OVR 24 VAC input status; Normal indicates 24 VAC input to the FAN OVR pin, Alarm indicates 0 VAC input to the FAN OVR pin	Fan Overload			
				Fan-RT	Fan-RT	accumulated run time of UCB FAN 24 VAC output; resetable in 1/10th adjustment increments; ????? shown on UCB display indicates greater than 999.9 hours of accumulated run time	Fan Accumulated Runtime			
				DFS	DFS	UCB DFS 24 VAC input status; Normal indicates 0 VAC input to the DFS pin, Alarm indicates 24 VAC input to the DFS pin	Dirty Filter Switch			
Details	Control In	Indoor Fan	Setup	LowAmbFanPrerunCool	LowAmbFanPrerunCool	the amount of time the indoor blower must operate before compressor operation is permitted when OprOAT is below LowAmb10On5OffSp	Low Ambient Fan Pre-run Time For Cooling			
				FanOnDlyCool	FanOnDlyCool	the amount of time indoor blower operation is delayed following the initiation of cooling operation	Fan On Delay for Cool			
				FanOffDlyCool	FanOffDlyCool	the amount of time indoor blower operation is maintained following the termination of cooling operation	Fan Off Delay for Cool			
							FanOnDlyHeat	FanOnDlyHeat	the amount of time indoor blower operation is delayed following 24 VAC input to the UCB MV pin being received; must be set to 0 for unit with electric heat	Fan On Delay for Heat
				FanOffDlyHeat	FanOffDlyHeat	the amount of time indoor blower operation is maintained following 24 VAC input to the UCB MV pin being lost	Fan Off Delay for Heat			
				FanOn Occ	FanOn Occ		Continuous Fan Operation in Occupied Mode			
				FanOffStartHeat	FanOffStartHeat	Yes interrupts an existing indoor blower operation request from the initiation of a 1st stage heating operation request until the UCB receives 24 VAC input to the MV pin and the FanOnDlyHeat expires, No does not interrupt an existing indoor blower operation request at the initiation of heating operation	Turn Off Continuous Fan Operation When Starting Heat			

Details Contro	ntrol (default Clg	default	default	default	parameter description and comments	parameter long name
	ntrol (Clg				parameter description and comments	parameter long name
Details Contro			Status	#ClgStgs	#ClgStgs	number of compressor cooling stages; 1 or more enables the UCB C1 24 VAC output, 2 or more enables the UCB C2 24 VAC output, (3 or more enables the 4-stage board C3 24 VAC output, 4 enables the 4-stage board C4 24 VAC output)	Number of Cooling Stages Installed
Details Contro				SAT	SAT	the buffered UCB SAT thermistor input	Supply Air Temperature
l L	ntrol	Clg	Stage 1	C1	C1	UCB C1 24 VAC output status	Compressor Stage Command 1
				C1-En	C1-En	Yes permits UCB C1 24 VAC output; independent of #ClgStgs selection, No does not permit UCB C1 24 VAC output	Compressor Stage 1 Enabled
				C1OnTmr	C1OnTmr	active number of minutes remaining for C1 minimum run timer expiration	Min On Time Remaining 1
				C1ASCDTmr	C1ASCDTmr	active number of minutes remaining for C1 anti-short cycle delay timer expiration	Anti-Short Cycle Delay Time Remaining 1
				C1RunTim	C1RunTim	accumulated run time of UCB C1 24 VAC output; resetable in 1/10th adjustment increments; ????? shown on UCB display indicates greater than 999.9 hours of accumulated run time	Compressor Stage Accumulated Runtime 1
1				EC1	EC1	the buffered UCB EC1 thermistor input	Evaporator Coil Temp 1
oxdot				CC1	CC1	the buffered UCB CC1 thermistor input	Condenser Coil Temp 1
Details Contro	ntrol	Clg	Stage 2	C2	C2	effective for units with 2 or more compressor cooling stages; UCB C2 24 VAC output status	Evaporator Coil Temp 1 Condenser Coil Temp 1 Compressor Stage Command 2 Compressor Stage 2 Enabled Min On Time Remaining 2
				C2-En	C2-En	Yes permits UCB C2 24 VAC output; independent of #ClgStgs selection, No does not permit UCB C1 24 VAC output	
				C2OnTmr	C2OnTmr	active number of minutes remaining for C2 minimum run timer expiration	
				C2ASCDTmr	C2ASCDTmr		Anti-Short Cycle Delay Time Remaining 2
				C2RunTim	C2RunTim	accumulated run time of UCB C2 24 VAC output; resetable in 1/10th adjustment increments; ????? shown on UCB display indicates greater than 999.9 hours of accumulated run time	Compressor Stage Accumulated Runtime 2
				EC2	EC2	the buffered UCB EC2 thermistor input	Evaporator Coil Temp 2
				CC2	CC2	the buffered UCB CC2 thermistor input	Condenser Coil Temp 2

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
		default	default	default	default	parameter description and comments	parameter long name
				Clg-En	Clg-En	sets permission to allow UCB C1 and C2, (4-stage board C3 and C4) 24 VAC outputs for compressor contactor coils; Yes permits C1, C2 (C3 & C4) output, No does not permit C1, C2 (C3 & C4) output	
				MinRtCoolStg	MinRtCoolStg	individual C# minimum run time expires	Minimum Runtime for a Cooling Stage
				LeadLag-En	LeadLag-En	effective for 2 or more compressor stages; Yes permits compressor equalized runtime where the C# output with the least C#RunTim operates first, the the C# output with the next least C#RunTim operates second, etc. No operates the C1 output first, the C2 output second, etc.	Lead/Lag Equalize Cooling Stage Runtime Enabled
				LowAmbFanPrerunCool	LowAmbFanPrerunCool	the amount of time the indoor blower must operate before compressor operation is permitted when OprOAT is below LowAmb10On5OffSp	Low Ambient Fan Pre-run Time For Cooling
				ClgOATCutout-En	ClgOATCutout-En	ClgOATCutout, No permits C# output at any OprOAT	OAT Cooling Cutout Enabled
			QSP>	ClgOATCutout	ClgOATCutout	OproA1 falls below this setpoint	OAT Cooling Cutout
Details	Control	Clg	Setup	SATCoolLimit-En	SATCoolLimit-En		Enable
			QSP>	SATCoolLimit-Sp	SATCoolLimit-Sp	if SATCoolLimit-En = Yes, C# output is not permitted if SAT falls below this setpoint	SAT Limit for Cooling Setpoint
		/	7	EconLoad-En	EconLoad-En		Economizer Loading Enabled
				AllClgOff-Econ	AllClgOff-Econ	No does not permit C# output if Econ-Free = Yes; Yes permits C# output to supplement economizer free cooling operation if SAT is above 55°F with a 1st stage cooling request or if SAT is above 50°F with a 2nd stage cooling request	All Stages of Cooling Off in Free Cooling
				LowAmb10On5OffSp	LowAmb10On5OffSp		Low Ambient Cooling Stages 10 on 5 off Setpoint

QSP = Quick Start Parameter

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
		default	default	default	default	parameter description and comments	parameter long name
Details	Control	Htg	Status	Htg-Type	Htg-Type	sets heating control method; Staged permits UCB H1, H2 (& 4-stage board H3) 24 VAC outputs, (not to be used until provivions are made in later control revisions, Proportional permits 4-stage board MOD HT 2-10 VDC output)	Heating Control Type
				#HtgStgs	#HtgStgs	number of heating stages; 1 or more enables the UCB H1 24 VAC output, 2 or more enables the UCB H2 24 VAC output, (3 enables the 4-stage board H3 24 VAC output)	Number of Heating Stages Installed
Details	Control	Htg	Stage 1	Empty			
				H1	H1	effective for units with 1 or more heating stages; UCB H1 24 VAC output status	Heat Stage Command 1
				H1OnTmr	H1OnTmr	active number of minutes remaining for H1 minimum run timer expiration	Heating Stage 1 Min On Time Remaining
				H1ASCDTmr	H1ASCDTmr	active number of minutes remaining for H1 anti-short cycle delay timer expiration	Heating Stage 1 Anti-Short Cycle Delay Time Remaining
				H1RunTim	H1RunTim	accumulated run time of UCB H1 24 VAC output; resetable in 1/10th adjustment increments; ????? shown on UCB display indicates greater than 999.9 hours of accumulated run time	Heat Stage 1 Accumulated Runtime
Details	Control	Htg	Stage 2	H2	H2	effective for units with 2 or more heating stages; UCB H2 24 VAC output status	Heat Stage Command 2
				H2OnTmr	H2OnTmr	active number of minutes remaining for H2 minimum run timer expiration	Heating Stage 2 Min On Time Remaining
				H2ASCDTmr	H2ASCDTmr		Heating Stage 2 Anti-Short Cycle Delay Time Remaining
				H2RunTim	H2RunTim	accumulated run time of UCB H2 24 VAC output; resetable in 1/10th adjustment increments; ????? shown on UCB display indicates greater than 999.9 hours of accumulated run time	Heat Stage 2 Accumulated Runtime
Details	Control	Htg	Setup	Htg-En	Htg-En	sets permission to allow UCB H1 and H2, (4-stage board H3) 24 VAC outputs for heat stages; Yes permits H1, H2 (& H3) output, No does not permit H1, H2 (& H3) output	Heating Mode Enabled For Operation
			QSP>	SATHtgLimit-En	SATHtgLimit-En	Yes does not permit H# output if SAT rises above SATHtgLimit- Sp, No permits H# output at any SAT	SAT Air Temp Limit for Heating Enabled
				SATHtgLimit-Sp	SATHtgLimit-Sp	if SATHtgLimit-En = Yes H# output is not permitted if SAT rises above this setpoint	SAT Air Temp Limit For Heating Setpoint
			QSP>	HtgOATCutout-Sp	HtgOATCutout-Sp	H# output (and hydronic heat operation) is not permitted if OprOAT rises above this setpoint	Outdoor Air Temp Heating Cutout Setpoint

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
		default	default	default	default	parameter description and comments	parameter long name
			_	Econ	Econ	economizer board ECON 2-10 VDC output status	Economizer Damper % Command
				Econ-Free	Econ-Free	Yes indicates economizer free cooling is available, No indicates economizer free cooling is not available; indication depends on FreeClg-Mode effective and current outdoor/indoor conditions	Econ Free Cooling Available
				FreeClg-Mode	FreeClg-Mode	free cooling changeover method currently effective; indication depends on FreeClg-Sel setting, presence of OAH 0-10 VDC input to the economizer board and presence of RAH 0-10 VDC input to the UCB	Free Cooling Current Mode
				MAT	MAT	the buffered economizer board mat thermistor input; ?Unrel indicates MAT input was once detected and is currently lost	Mixed Air Temperature
Details	Control	Econ	Status	OA-Enth	OA-Enth	enthalpy calculated from OAH 0-10 VDC input to the economizer board and OprOAT; 0B/# indicated if OAH 0-10 VDC input to the economizer board is not present	Outdoor Air Enthalpy
				OprOAH	OprOAH	the buffered outdoor air humidity in use; may be from economizer board OAH 0-10 VDC input or FC BUS communicated value sources; ?Unrel indicates OAH input is currently not present	Outdoor Air Enthalpy Operational Outdoor Air Humidity Operational Outdoor Air
				Opr OAT	Opr OAT	the buffered outdoor air temperature in use; may be from UCB OAT thermistor input or FC BUS communicated value sources	Operational Outdoor Air Temperature
				RA-Enth	RA-Enth	enthalpy calculated from RAH 0-10 VDC input to the UCB and RAT thermistor input to the UCB; 0B/# indicated if RAH 0-10 VDC input to the UCB is not present	Return Air Enthalpy
				RAH	RAH	the buffered UCB RAH 0-10 VDC input; ?Unrel indicates UCB RAH 0-10 VDC input was once detected and is currently lost	Space Humidity RAH Input
ľ	i			RAT	RAT	the buffered UCB RAT thermistor input	Return Air Temperature
				SAH	SAH	the buffered economizer board SAH 0-10 VDC input; ?Unrel indicates SAH input is currently not present	Supply Air Humidity

Level 1	Level 2	Level 3	Level 4	Level 5	Level 6		
		default	default	default	default	parameter description and comments	parameter long name
	ı			Econ-En	Econ-En	Yes permits economizer free cooling operation, No does not permit economizer free cooling operation	Economizer Enabled For Operation
				FreeClg-Sel	FreeClg-Sel	sets the desired economizer free cooling changeover method; Auto sets the changever method based on the presence of economizer board OAH 2-10 VDC input and UCB RAH 2-10 VDC input, Dual Enthalpy requires OAH and RAH inputs to be effective, Single Enthalpy requires OAH input to be effective. Dry Bulb uses only OAT	Free Cooling Selection
			QSP>	Econ-MinPos	Econ-MinPos	economizer minimum position effective with occupied status, indoor blower operation and when OAT is above LowAmb-Sp	Economizer Minimum Position Setpoint
Details	Control	Econ	Setup	EconOAT-SpEn	EconOAT-SpEn	dry bulb free cooling changeover setpoint; with FreeClg-Mode = Dry Bulb Tempe, economizer free cooling is available when OAT is below this setpoint	Economizer Outdoor Air Temp Enable Setpoint
			QSP>	EconOAEnth-Sp	EconOAEnth-Sp	single enthalpy free cooling changeover setpoint; with FreeClg-Mode = Single Enthalpy, economizer free cooling is available when OA-Enth is below this setpoint	
				LowAmb-Sp	LowAmb-Sp	* * *	Low Ambient Economizer Setpoint
				LowAmb-MinPos	LowAmb-MinPos	economizer minimum position effective with occupied status, indoor blower operation and when OAT is below LowAmb-Sp; typically set less than Econ-MinPos	Low Ambient Economizer Minimum Position
		the maximum economizer actuator position for demand ventilation operation; termed "DVentMaxEconPos" elsewhere	Maximum IAQ Ventilation Economizer Position				
				LowSpeedFan-MinPos	LowSpeedFan-MinPos	not to be used until setting access provisions are made in later control revisions, economizer minimum position effective with occupied status and when the VFD speed controlled indoor blower operates at the lowest setting; typically set greater than Econ-MinPos	Economizer Damper Minimum Position Low Speed Fan