

JTL USER GUIDE

CONTROLLER TYPE: UAIC

The controller can be shutdown for servicing purposes using the display switch. This feature is enabled by item 138.

Display Controlled Fans Only Mode

The controller can be put into fans only mode using the display switch. This feature is enabled by item 136.

Timer Controlled Shutdown

When used in conjunction with a JTL timer on the network the controller can be put into shutdown mode. Item 238 is used to select the appropriate network timer and item 239 shows the associated network command state.

Daylight Saving

When connected to a JTL network this controller can operate by displaying daylight saving time for its time and defrost schedule. Daylight saving operation is selected by setting item 18. The connected network controller then adjusts the times automatically during the daylight saving period.

ADJUSTABLE PARAMETERS				UAIC
	item	Function	Range	Units
TEMPS & ALARMS	33	Cabinet temperature ratio	20 to 80	hr:mn K K K hr:mn hr:mn K
	36-39	Sensor selections	0=off 1=on	
	147	Termination sensor selection	0=off 1=on	
	32	Cabinet overtemperature tolerance	0 to +20	
	34	Air off over temperature tolerance	0 to +30	
	480	Cabinet under temperature tolerance	0 to -10	
	47	Alarm averaging time	00:30 to 03:00	
	481	Cabinet temperature warning trend	00:00 to 23:59	
	533	Cabinet temperature ratio (second case)	0 - 80	
	532	Cabinet overtemperature tolerance (second case)	0 - 20	
TEMPERATURE CONTROL	123	Enable 2nd setpoint	0=disabled 1=enabled	°C °C °C
	124	Primary cabinet temperature setpoint	-30 to +10	
	125	Secondary cabinet temperature setpoint	-30 to +10	
	140	Temperature control deadband	1.0 to 3.0	
	500	Enable second case	0=Disabled 1=Enabled	
COMPRESSORS	361	Compressor 1 enable	0=Disabled 1=Enabled	Secs Secs
	362	Compressor 2 enable	0=Disabled 1=Enabled	
	48/363	Starts per hour	0=Unlimited 1=10 per hour 2=15 per hour 3=20 per hour 4=6 per hour	
	366	Minimum off time	15 to 60	
	367	Lag compressor delay	30 to 120	
DEFROST INITIATION	107	Defrost strategy	0=none 2=Network (learned backup)3=Time 5=PREDICT 7=Network (real time backup) 8=Coordinated (learned) 9=Coordinated (real time)	hr:mn hr:mn hours hours %
	69	Number of defrosts expected or required	0 to 12	
	61	Pump down time	00:00 - 00:10	
	51-56	Defrost schedule	00:01 - 23:59	
	60	Defrost schedule 12/24 hour clock	0=24hr 1=12hr	
	210	Electrical supply distribution panel no	1 to 7 panel no	
	213	Defrost heater circuit	1-31=circuit	
	214	Defrost method	0=brown phase 1=black phase 2=grey phase 3=3 phase 6=off cycle	
	223	Defrost requirement priority	1 to 8	
	225	PREDICT Minimum time between defrosts	2 to 8	
	226	PREDICT Maximum time between defrosts	6 to 72	
	227	PREDICT Sample discard list	0 to 3	
	228	PREDICT volatility setpoint	2 to 12	
DEFROST TERMINATION	144	Defrost termination method	1=Evaporator 2= Air off 3=Termination 4=Time only	°C hr:mn hr:mn hr:mn hr:mn
	50	Defrost termination temp	0 to +20	
	145	Minimum defrost time	00:00 - 00:30	
	57	Defrost termination time	00:05 to 00:59	
	59	Drain down time	00:00 to 00:10	
LOAD SHEDDING	49	Refrigeration delay after defrost	00:00 to 00:10	
	600	Load shedding	0=off 1=enabled	
	601	inhibit defrost	0=off 1-8 broadcast input	
	602	inhibit refrigeration	0=off 1-8 broadcast input	
	603	Fans off	0=off 1-8 broadcast input	
	604	Light off	0=off 1-8 broadcast input	
	605	Raise setpoint	0=off 1-8 broadcast input	
	606	Run one compressor only	0=off 1-8 broadcast input	
FAN CONTROL	607	Reduce trim heat	0=off 1-8 broadcast input	°C hr:m °C
	108	Fan control	0=not controlled 1=run always 2=off during defrost 3=fan controlled during defrost	
	146	Temperature to turn fans off during defrost	-12 to +20	
	109	Fan delay after defrost	00:00 - 00:10	
TEMPERATURE CONTROL	150	Temperature to turn fans on after defrost	-20 to +5	% %
	390	Control strategy	1 =off, 2=off when shutdown, 3 =fixed adjustment,	
	392	Normal percentage operation	4= night setback, 5= network control	
LIGHTING CONTROL	393	Night setback operation		
	110	Jnet lighting control selection	0=disabled	
	112	Lights of broadcast timer selection	0=disabled 1-8=timer number	
	118	Lighting contractor selection	0=n.o 1=n.c	
JNET FUNCTIONS	119	Enable lights during shutdown	0=disabled 1=enabled	
	1	Unit number	0.1 - 899.7	
	501	Unit number second case	0.1 - 899.7	
	62	Jnet network shutdown selection	0=disabled 1=enabled	
	18	Daylight saving operation	0=standard time 1=daylight saving time	
DISPLAY	238	Select network shutdown number	0=disabled 1-8 timer number	
	122	Temperature display choice	0=Celsius 1=Fahrenheit	
	136	Enable fans only mode from display	0=disabled 1=enabled	
	138	Enable display controlled shutdown	0=Off 1=On	
	502	Enable 2nd display	0=Disabled 1=Enabled	
	199	Display backlight	0=off 1=on 2=off Flashing for alam 3=Flashing for alarm	

Bitswitch settings 0 Frozen food , 1 Ice cream, 2 Chillers, 3 Produce (0 to 3 is the virtual bitswitch setting on item 966)

OTHER USEFUL ITEMS							
Item	Function	Item		Item	Function	Item	Function
20	TEMPERATURES Cabinet temperature	30	CONTROL Cabinet temperature setpoint	70	MODE INPUTS & OUTPUTS Operating mode	40	DEFROST Duration of last defrost
21	Air on temperature	240	Refrigeration %	71	Compressor input state	41	Time since end of last defrost
22	Air off temperature	241	Average refrigeration %	360	Refrigerant leak input state	42	Duration of this defrost
23	Evaporator temperature	364	Compressor 1 restart timer	72	Defrost output state	46	Communications defrost command
24	Suction line temperature	365	Compressor 2 restart timer	73	Compressor output states	77	Forced defrost
520	Cabinet temperature (second case)			74	Fan output state	78	Inhibit defrost
521	Air on temperature (second case)		Jnet NETWORK FUNCTIONS	391	Trim Heaters output (%)	79	Forced refrigeration
141	Termination sensor temperature	63	Network shutdown and fans only command states			261-272	Learned defrost schedule
482	Accumulated temperature warning time	394	Trim heater adjustment (%)	111	LIGHTING Communications lighting command	219	Defrost arrangement from network
		239	Network timer command state	112	Lighting override input state	221	Forced defrost requirement
				113	Lighting output state	222	Enable forced defrost requirement
				114	Force lights on		
				115	Force lights off		

OUTPUT STATE DIAGRAM FOR JTL CONTROLLER					UAIC
MODE OF OPERATION					
		RL2	RL3	RL4	RL5 & RL6
		Fans (N/O) can be set to run always (108) (See note 1)	TRIM HEATER (N/O)	DEFROST (C/O)	COMPRESSOR 1 & 2 (N/O)
N O R M A L R E F R I G E R A T I O N C Y C L E	REFRIGERATION	ON	ON	OFF	CYCLE ON TEMPERATURE
	PUMP DOWN Adjustable time [61]	OFF	ON	OFF	OFF
	DEFROST Time/temp terminated [57]/[50]	OFF	ON	CYCLES ON TERMINATION TEMP	OFF
	DRAIN DOWN Adjustable time [59]	OFF	ON	OFF	OFF
	LIQUID HOLD OFF Adjustable time [49]	OFF	ON	OFF	OFF
	RECOVERY TIME Time/temp terminated	TEMPERATURE OR TIME CONTROLLED (See Note 3)	ON	OFF	CYCLE ON TEMPERATURE
	REFRIGERATION	ON	ON	OFF	CYCLE ON TEMPERATURE
PLANT FAULT		OFF	ON	OFF	OFF
UNIT SHUTDOWN		OFF	OFF	OFF	OFF
FANS ONLY SHUTDOWN		ON	OFF	OFF	OFF
FORCED DEFROST		ON	ON	ON	OFF
FORCED REFRIGERATION		ON	ON	OFF	ON
INHIBIT DEFROST		ON	ON	OFF	CYCLE ON TEMPERATURE

NOTE 1: CAN BE SET TO OFF USING ITEM 106
NOTE 2: RL1 IS FOR LIGHTING CONTROL
NOTE 3: FANS OFF UNTIL TIME SET ON ITEM 109 REACHED.

Relay Output Rating

2 A resistive.

Supply Requirements

230 V ac 48-62 Hz Supply 3 VA maximum inputs 2 mA maximum



This unit conforms with the relevant EU standards when fitted in accordance with its installation instructions.

Note

The information contained in this document applies to the current version of the unit supplied with it. Full operating manuals, item number and software variation information can be obtained from your supplier or JTL Systems.

Applicable Documentation

Item Numbers
Doc No. 04109

Firmware Variations
Doc No. 04110

Connections Diagram
Doc No. 04092

Evaporator Manual
Doc No. 01923

Installation Requirements
Doc No. 03852

PREDICT® is the patented JTL pattern recognition algorithm for providing defrost on demand for the cabinets on a system.