

Document Name

Unit Type

IAQ Grow Room Program Versions GR 3.0.4 & Above

#	Description	Туре	R/W Status	Comments	
1	Network Lights On Input	BV	Read/ Write	Write 0 = Lights Off, 1 = Lights On.	
	l l		Read	Time of Lights only	
2	Lights On Status	BV	Only	Confirmation of 0 = Lights Off, 1 = Lights On.	
3	Alarm Active	BV	Read Only	Confirmation of Alarm Status. 0 = Alarm, 1 = Normal.	
4	Air Flow	BV	Read Only	Confirmation of Air Flow. 0 = No Flow, 1 = Flow.	
5	Supply Fan	BV	Read Only	Confirmation of Supply Fan, 0 = Off, 1 = On.	
	Сирргу Гал	DV	Read	Commitment of Cuppiy Fam, 0 = Cm, 1 = Cm.	
6	Compressor #1	BV	Only	Confirmation of Compressor #1, 0 = Off, 1 = On.	
7	Compressor #2	BV	Read Only	Confirmation of Compressor #2, 0 = Off, 1 = On.	
			Read	,, ,,	
8	Compressor #3	BV	Only	Confirmation of Compressor #3, 0 = Off, 1 = On.	
9	Compressor #4	BV	Read Only	Confirmation of Compressor #4, 0 = Off, 1 = On.	
10	Condenser Fan #1	BV	Read Only	Confirmation of Condenser Fan #1, 0 = Off, 1 = On.	
11	Condenser Fan #2	BV	Read Only	Confirmation of Condenser Fan #2, 0 = Off, 1 = On.	
12	Condenser Fan #3	BV	Read Only	Confirmation of Condenser Fan #3, 0 = Off, 1 = On.	
12	Condenser Fair #3	ΒV	Read	Semination of Condensor Fair #0, 0 = On, 1 = On.	
13	Condenser Fan #4	BV	Only	Confirmation of Condenser Fan #4, 0 = Off, 1 = On.	
14	Remote Reset	BV	Read/ Write	Write 1 to Reset. 0 is set after a program scan.	
15	Photo Cell	BV	Read Only	Status of Photo Cell Input.	
10	1 Hoto Cell	ΒV	Read/	Status of Prioto Cell Input.	
16	ROC Active	BV	Write	Write 0 = ROC Inactive, 1 = ROC Active.	
17	Alarm Point	BV	Read Only	Inverted Alarm Condition.	
28	Digital Input 7	BV	Read Only	Confirmation of Digital Input 7.	
19	HPC On	BV	Read/ Write	Write 1 to Reset. 0 is set after a program scan.	

#	Description	Туре	R/W Status	Comments
			Read	
1	Suction Pressure	AV	Only	In Tenths, linear from 0 to 250 psig.
			Read	
2	Discharge Pressure	AV	Only	In Tenths, linear from 0 to 650 psig.
			Read	
3	Intake Air Relative Humidity	AV	Only	In Tenths, linear from 0 to 100 %.
			Read	
4	Intake Air Temperature	AV	Only	In Tenths, linear from -42°F to 137°F.
			Read	
5	Intake Air Dew Point	AV	Only	In Tenths, calculated value in °F.
			Read	
6	Supply Air Temperature	AV	Only	In Tenths, linear from -58 to 212 °F.
			Read	
7	Supply Air Relative Humidity	AV	Only	In Tenths, linear from 0 to 100 %.
			Read	
8	Supply Air Dew Point	AV	Only	In Tenths, calculated value in °F.
			Read	
9	Zone Air Temperature	AV	Only	In Tenths, linear from -58 to 212 °F.
			Read	
10	Zone Air Relative Humidity	AV	Only	In Tenths, linear from 0 to 100 %.



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11	Zone Air Dew Point	AV	Read Only	In Tenths, calculated value in °F.	
12	Suction Press Circuit B	AV	Read Only	In Tenths, linear from 0 to 250 psig.	
13	Discharge Press Circuit B	AV	Read Only	In Tenths, linear from 0 to 650 psig.	
14	Auxiliary Heating Comm.	AV	Read Only	In Tenths, linear from 0 to 100 %.	
15	Outside Air Damper Comm.	AV	Read Only	In Tenths, linear from 0 to 100 %.	
16	Recirc. Damper Command	AV	Read Only	In Tenths, linear from 0 to 100 %.	
17	Off Evap Temperature A	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
18	Off Evap Temperature B	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
19	Outside Air Temperature	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
20	Lights On Temp. Set Point	AV	Read/ Write	In Tenths, settable from 45.0 to 90.0 °F.	
21	Lights Off Temp. Set Point	AV	Read/ Write	In Tenths, settable from 45.0 to 90.0 °F.	
22	Lights On RH Set Point	AV	Read/ Write	In Tenths, settable from 0 to 100 %.	
23	Lights Off RH Set Point	AV	Read/ Write	In Tenths, settable from 0 to 100 %.	
24	Cooling Dead Band	AV	Read/ Write	In Tenths, settable from 0.0 to 99.9 °F.	
25	Heating Dead Band	AV	Read/ Write	In Tenths, settable from 0.0 to 99.9 °F.	
26	Cool Stage Dead Band	AV	Read/ Write	In Tenths, settable from 0.0 to 99.9 °F.	
27	Heat/Cool Differential	AV	Read/ Write	In Tenths, settable from 0.0 to 9.9 °F.	
28	Dew Point Dead Band	AV	Read/ Write	In Tenths, settable from 0.0 to 100.0 %.	
29	Dew Point Differential	AV	Read/ Write	In Tenths, settable from 0.0 to 100.0 %.	
30	Calculated Temp. Set Point	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
31	Calculated Dew Point Set Point	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
32	Zone Reset Proportional Band	AV	Read/ Write	In Tenths, settable from 0.0 to 999.9 °F.	
33	Hot Gas Proportional Band	AV	Read/ Write	In Tenths, settable from 0.0 to 999.9 °F.	
34	Circuit A Super Heat	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
35	Circuit B Super Heat	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
36	Circuit A Suction Temp.	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
37	Circuit B Suction Temp.	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
38	Circuit A Liquid Pressure	AV	Read Only	In Tenths, linear from 0.0 to 650.0 psi.	
39	Circuit B Liquid Pressure	AV	Read Only	In Tenths, linear from 0.0 to 650.0 psi.	
40	Circuit A Liquid Temp.	AV	Read Only	In Tenths, linear from -58 to 212 °F.	
41	Circuit B Liquid Temp.	AV	Read Only	In Tenths, linear from -58 to 212 °F.	



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#	Description	Туре	R/W Status	Comments
42	Water Inlet Temperature	AV	Read Only	In Tenths, linear from -58 to 212 °F.
43	Water Outlet Temperature	AV	Read Only	In Tenths, linear from -58 to 212 °F.
44	EC Speed Command	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
45	EXV 1-1 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
46	EXV 1-2 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
47	EXV 2-1 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
48	EXV 2-2 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
49	EXV 3-1 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
50	EXV 3-2 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
51	EXV 4-1 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
52	EXV 4-2 Position	AV	Read Only	In Tenths, linear from 0.0 to 100.0%.
53	Temperature High Limit	AV	Read/ Write	In Tenths, settable from 45.0 to 90.0 °F.
54	Temperature Low Limit	AV	Read/ Write	In Tenths, settable from 45.0 to 90.0 °F.
55	Zone Dew Point Proportional Band	AV	Read/ Write	In Tenths, settable from 0.0 to 999.9 °F.
56	Dew Point High Limit Factor	AV	Read/ Write	In Tenths, settable from 0.0 to 9.9 °F.
57	Dew Point Low Limit	AV	Read/ Write	In Tenths, settable from 0.0 to 99.9 °F.
58	Network Zone Temperature	AV	Read/ Write	In Tenths, settable from 0.0 to 99.9 °F.
59	Network Zone RH	AV	Read/ Write	In Tenths, settable from 0.0 to 100.0%.

#	Description	Туре	R/W Status	Comments	
1001	Unit Status	INT	Read Only	Unit Status. See Table 1 at end of list.	
1002	Zone Reset Integral Term	INT	Read/ Write	0 to 32767.	
1003	Zone Reset Derivative Term	INT	Read/ Write	0 to 32767.	
1004	Hot Gas Integral Term	INT	Read/ Write	0 to 32767.	
1005	Hot Gas Derivative Term	INT	Read/ Write	0 to 32767.	
1006	Alarm Code	INT	Read Only	Alarm code. See Table 2 at end of list.	
1007	Supply Blower Pressure Drop	INT	Read Only	Inches of water column, in thousandths, ie.14452 = 14.452 "wc	
1008	First Compressor Start Delay	INT	Read Only	0 - 99 seconds.	
1009	SAT/Zone Reset Selection	INT	Read/ Write	0 = SAT, 1 = Zone Reset.	
1010	Zone Dew Point Integral Term	INT	Read/ Write	0 to 32767.	
1011	Zone Dew Point Derivative Term	INT	Read/ Write	0 to 32767.	



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CODE	STATUS DESCRIPTION
0	Unit Satisfied / Unit Off
1	Heating Required
2	Cooling Required
3	Dehumidification Required
4	Dehum and Heating Required
5	Dehum and Cooling Required
6	Low Suction Pressure Condition
7	EXV Initialization
8	Damper Opening
9	High Discharge Pressure Limiting
10	Pump Down Required
11	Compressor Switched Off
12	Variable Speed Comp. Limiting

Table 1

CODE	ALARM DESCRIPTION
1	Low Suction Pressure
2	Motor Overloads
3	High Discharge Pressure A
4	High Discharge Pressure B
5	Multiple Low Pressure A
6	Multiple Low Pressure B
7	Temperature Sensor Fault
8	pAD Network Fault
9	SAT Out of Range
10	Air Filter Clogged
11	Low Voltage Fault
12	High Condensate Level
13	Low Water Flow
14	Smoke Alarm
15	Low Air Flow
16	Freeze 'Stat Alarm
17	Condenser Overload Alarm
18	ModBus Comm. Fault
19	High Refr. Discharge Temperature
20	High Super Heat
21	Low Oil Level Alarm
22	Fixed Speed Comp. Phase Fault

Table 2

Revision (Rev.) History							
Rev.	Description	Date	Initials	ECN#			
00	Initial Release	8/26/2016	MTW	n/a			