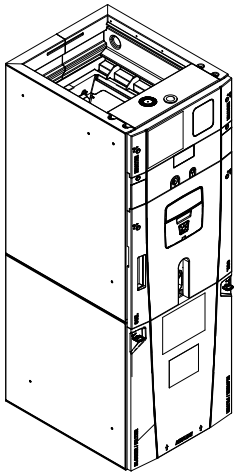
Service Facts

Communicating / 24 Volt control Variable Speed Outdoor Compatible Convertible Air Handlers

TAM9A0A24V21DA
TAM9A0B30V31DA
TAM9A0C36V31DA
TAM9A0C42V41DA
TAM9A0C48V41DA
TAM9A0C60V51DA



Note: *"Graphics in this document are for representation only. Actual model may differ in appearance."*

Note: *For use with BAYEA series heaters ONLY*

⚠ SAFETY WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

June 2017

TAM9-SF-1A-EN

Ingersoll Rand

PRODUCT SPECIFICATIONS

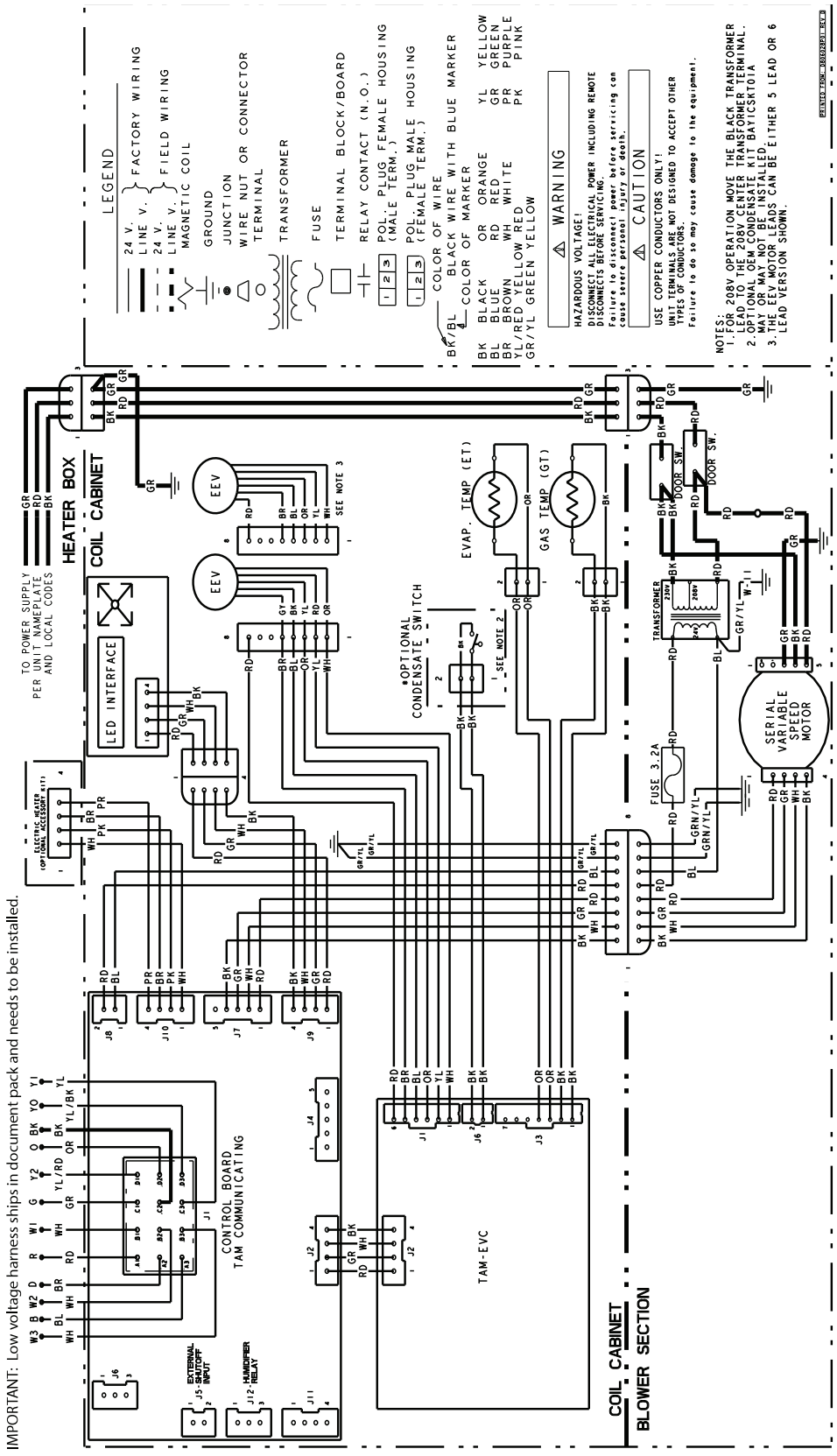
MODEL	TAM9A0A24V21DA	TAM9A0B30V31DA	TAM9A0C36V31DA
RATED VOLTS/PH/HZ.	200 — 230/1/60	200 — 230/1/60	200 — 230/1/60
RATINGS [a]	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	3 — 14	3 — 14	3 — 14
Face Area (sq. ft.)	3.67	5.04	5.50
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.)[b]	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 x 8	11 x 10	11 x 10
No. Used	1	1	1
Drive — No. Speeds	Direct — Variable	Direct — Variable	Direct — Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 — 1/2	1 — 1/2	1 — 1/2
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208–230/1/60	208–230/1/60	208–230/1/60
F.L. Amps	3.0 — 3.5 [c]	3.0 — 3.5 [c]	3.0 — 3.5 [c]
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 — 16 x 20 — 1 in.	1 — 20 x 20 — 1 in.	1 — 22 x 20 — 1 in.
REFRIGERANT	**R-410A**	**R-410A**	**R-410A**
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size-in. Gas	3/4	3/4	7/8
Coupling or Conn. Size-in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	51 x 20 x 24.5	56.8 x 23.5 x 24.5	58 x 25.5 x 24.5
Uncrated	49.9 x 17.5 x 21.8	55.7 x 21.3 x 21.8	56.9 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	126/116	150/138	157/146

[a] These Air Handlers are AHRI certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240).
[b] 3/4" Male Plastic Pipe (Ref.:ASTM 1785–76)
[c] Check motor nameplate for actual FLA

MODEL	TAM9A0C42CV41DA	TAM9A0C48V41DA	TAM9A0C60V51DA
RATED VOLTS/PH/HZ.	200 — 230/1/60	200 — 230/1/60	200 — 230/1/60
RATINGS [a]	See O.D. Specifications	See O.D. Specifications	See O.D. Specifications
INDOOR COIL — Type	Plate Fin	Plate Fin	Plate Fin
Rows — F.P.I.	4— 14	4— 14	4— 14
Face Area (sq. ft.)	5.04	5.96	5.96
Tube Size (in.)	3/8	3/8	3/8
Refrigerant Control	EEV	EEV	EEV
Drain Conn. Size (in.)[b]	3/4 NPT	3/4 NPT	3/4 NPT
DUCT CONNECTIONS	See Outline Drawing	See Outline Drawing	See Outline Drawing
INDOOR FAN — Type	Centrifugal	Centrifugal	Centrifugal
Diameter-Width (In.)	11 x 10	11 x 10	11 x 10
No. Used	1	1	1
Drive — No. Speeds	Direct — Variable	Direct — Variable	Direct — Variable
CFM vs. in. w.g.	See Fan Performance Table	See Fan Performance Table	See Fan Performance Table
No. Motors — H.P.	1 — 1/2	1 — 3/4	1 — 1
Motor Speed RPM	Variable ECM	Variable ECM	Variable ECM
Volts/Ph/Hz	208–230/1/60	208–230/1/60	208–230/1/60
F.L. Amps	3.0 — 3.5 [c]	5.0	6.4
FILTER			
Filter Furnished?	No	No	No
Type Recommended	Throwaway	Throwaway	Throwaway
No.-Size-Thickness	1 — 22 x 20 — 1 in.	1 — 22 x 20 — 1 in.	1 — 22 x 20 — 1 in.
REFRIGERANT	**R-410A**	**R-410A**	**R-410A**
Ref. Line Connections	Brazed	Brazed	Brazed
Coupling or Conn. Size-in. Gas	7/8	7/8	7/8
Coupling or Conn. Size-in. Liq.	3/8	3/8	3/8
DIMENSIONS	H x W x D	H x W x D	H x W x D
Crated (In.)	58 x 25.5 x 24.5	62.8 x 25.5 x 24.5	62.8 x 25.5 x 24.5
Uncrated	56.9 x 23.5 x 21.8	61.7 x 23.5 x 21.8	61.7 x 23.5 x 21.8
WEIGHT			
Shipping (Lbs.)/Net (Lbs.)	162/150	174/162	175/163

[a] These Air Handlers are AHRI certified with various Split System Air Conditioners and Heat Pumps (AHRI STANDARD 210/240).
[b] 3/4" Male Plastic Pipe (Ref.:ASTM 1785–76)
[c] Check motor nameplate for actual FLA.

Wiring — D806028P01RevD



TAM9 Sequence of Operation

Abbreviations

- AFC = Airflow Control
- EVC = Expansion Valve Control
- EEV = Electronic Expansion Valve

Note: *When used with variable speed outdoor units, indoor airflow and EEV starting position is controlled by the outdoor unit IVSC through the data line between the units.*

Note: *Use variable speed outdoor Sequence of Operation in conjunction with the TAM9 Sequence of Operation.*

The installing and servicing technician should have an understanding of the sequence of operation to be able to properly setup and diagnose functions of the air handler.

See unit, electric heat, and field wiring diagrams for additional information.

Continuous Fan

Important: *If the indoor air exceeds 60% relative humidity or simply feels uncomfortably humid, it is recommended that the indoor fan only be used in the AUTO mode.*

1. When a fan request is received from the thermostat, the AFC sends a command to the serial communicating blower motor to run. Airflow can be adjusted through the thermostat.
2. Humidity Control – When enabled at the thermostat, this feature will disable any blower off delays and disable continuous fan mode when the humidity is above the dehumidification setpoint. This will help prevent coil condensation from being evaporated back into the air stream.

Cooling Mode

1. When a request for 1st stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage cooling airflow. (Delay profiles from the thermostat may change blower motor timing and actual airflow demand)
2. The EVC will receive input from the two temperature sensors and start to control 1st stage superheat. .
3. When a request for 2nd stage cooling is received, the AFC sends a command to the serial communicating blower motor to run at 100 % cooling airflow.
4. The EVC will now control superheat for 2nd stage.
5. When a request for cooling is removed, the AFC will turn off the blower motor after any user selected fan-off delays have expired.

Note: *Delay profiles from the thermostat may change blower motor timing and actual airflow demand.*

Heat pump (compressor only)

1. When a request for 1st stage heat is received, the AFC sends a command to the serial communicating blower motor to run at 1st stage heating airflow.
2. Humidifier contacts close on demand from thermostat.
3. The EVC will drive the EEV to the heating position and refrigerant will flow in the reverse cycle.
4. When a request for 2nd stage mechanical heat is received, the AFC sends a command to the serial communicating blower motor to run at 100 % heating airflow.
5. When a request for heat pump is removed, the AFC will turn off the blower motor after any user selected fan-off delays have expired.

Note: *Delay profiles from the thermostat may change blower motor timing and actual airflow demand.*

Electric Heat

1. When a request for electric heat is received, the AFC will energize the on board 24 volt relays per the amount of heat requested from the thermostat and the size of the heater installed.
2. The AFC sends a command to the serial communicating blower motor to run proper airflow and close the blower interlock relay on the EHC.

Hydronic Heat

1. When a request for hydronic heat is received, the AFC will energize the on board W1 relay.
2. The AFC sends a command to the serial communicating blower motor to run at the requested CFM.

Defrost

1. The OD unit will initiate defrost and send a message to the AFC.
2. The AFC will communicate to the EVC that the OD is in defrost and the EVC will start to control the correct superheat.
3. Electric or hydronic heat will be energized to help temper the air.

Freeze Protection

1. The EVC control has the ability to sense when the indoor coil is beginning to ice. If this event should occur, the AFC will send a message to de-energize the OD unit.
2. The indoor blower motor will continue running to aid in defrosting the coil.

3. After 5 minutes, the OD will be turned back on. (*CONT900 and the 1st release of the *ZONE950 will disable the indoor blower motor and OD unit for 30 minutes)

Unit Test Mode

Unit Test Mode will exit if any demand is given to the unit.

To enter Unit Test Mode:

1. Set System Switch on comfort control to Off.
2. Scroll to the Control Menu on the Display Assembly.
3. Scroll down to the Unit Test selection and push the "Enter" button.

Sequence of Unit Test Mode (OD unit is not energized during the Unit Test Mode)

1. EVC drives the EEV motor to the 1st stage position for 5 seconds.
2. EVC drives the EEV motor to the 2nd stage position for 5 seconds.
3. AFC energizes the blower at 50% and then continues to ramp until it reaches 100% cooling airflow.
4. Humidifier contacts close when the blower starts.
5. AFC energizes the W relays in 10 second intervals. The blower remains at 100% air flow.
6. All relays de-energize and the blower shuts off five seconds after the last bank of heat is energized.

Note: *If an error occurs during the Unit Test Mode, the Fault LED will flash a code and continue the test.*

Fault Reporting

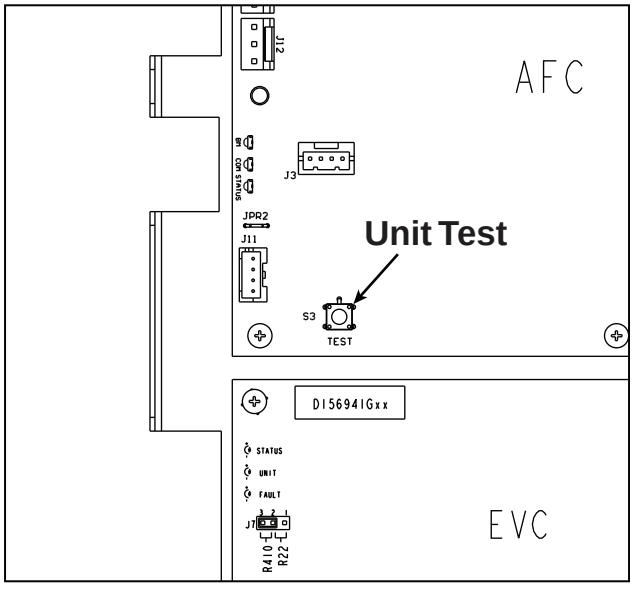
Fault Reporting
Control boards in this unit store active and historical faults. Each control board will report active faults continuously and will report the last four faults stored after a power cycle of the unit. See Fault Table in the Service Facts for list of fault codes.
The active and historical faults can also be accessed through the Alert Menu in the Display Assembly.

Clearing Fault History
Option 1:

1. Scroll to the Alert Menu in the Display Assembly.
2. Scroll to the Alert History section.
3. Scroll to the Clear History selection and push the Enter key. At the "Are You Sure" question, push the Enter again.

Option 2:

1. Press and hold the Unit Test Button for 10-12 seconds.
2. Release the Unit Test button and wait 5 seconds.
3. Cycle 230VAC power to the unit. (the blower panel can be removed to achieve this)



TAM9 Air Flow Performance Tables

TAM9A0A24 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM	407 / 546	430 / 403	398 / NA	347 / NA	255 / NA	290 CFM/ton	CFM	416	426	401	330	291
		Watts	22 / 40	51 / 48	77 / NA	103 / NA	133 / NA		Watts	22	49	76	101	134
	350 CFM/ton	CFM	534 / 630	549 / 531	542 / 360	509 / NA	445 / NA	350 CFM/ton	CFM	532	550	542	507	434
		Watts	39 / 57	71 / 68	103 / 73	132 / NA	156 / NA		Watts	37	69	101	129	152
	400 CFM/ton	CFM	617 / 697	633 / 617	632 / 501	604 / NA	559 / NA	400 CFM/ton	CFM	660	680	679	658	614
		Watts	54 / 72	90 / 86	125 / 96	156 / NA	181 / NA		Watts	62	99	136	169	197
	450 CFM/ton	CFM	691 / 762	710 / 693	707 / 602	688 / 478	649 / NA	450 CFM/ton	CFM	690	710	709	690	651
		Watts	72 / 91	111 / 106	148 / 119	183 / 127	212 / NA		Watts	69	108	145	180	208
2 tons †	290 CFM/ton	CFM	593 / 680	613 / 595	607 / 470	583 / 208	527 / 132	290 CFM/ton	CFM	593	613	608	582	527
		Watts	54 / 68	85 / 81	119 / 90	150 / 94	175 / 138		Watts	48	82	116	147	172
	350 CFM/ton	CFM	717 / 783	733 / 717	733 / 632	714 / 519	678 / 355	350 CFM/ton	CFM	714	734	734	716	679
		Watts	79 / 98	118 / 114	157 / 127	192 / 136	222 / 143		Watts	75	115	153	189	218
	400 † CFM/ton	CFM	810 / 868	827 / 811	827 / 740	813 / 652	782 / 543	400 [a] CFM/ton	CFM	862	881	884	874	849
		Watts	108 / 128	152 / 146	194 / 161	233 / 173	265 / 182		Watts	122	168	213	254	290
	450 CFM/ton	CFM	903 / 954	918 / 902	920 / 839	909 / 764	884 / 674	450 CFM/ton	CFM	899	917	921	912	889
		Watts	144 / 165	192 / 182	238 / 201	280 / 215	316 / 224		Watts	136	184	231	273	310
2.5 tons	290 CFM/ton	CFM	741 / 820	757 / 759	757 / 681	739 / 582	705 / 452	290 CFM/ton	CFM	738	757	758	742	707
		Watts	86 / 110	126 / 127	166 / 141	202 / 152	232 / 159		Watts	81	122	162	198	229
	350 CFM/ton	CFM	880 / 947	896 / 895	896 / 832	885 / 757	859 / 665	350 CFM/ton	CFM	876	895	898	888	864
		Watts	134 / 162	182 / 181	226 / 198	267 / 211	302 / 221		Watts	127	174	220	261	297
	400 CFM/ton	CFM	996 / 1059	1011 / 1011	1014 / 954	1006 / 887	985 / 807	400 CFM/ton	CFM	1064	1083	1089	1084	1066
		Watts	188 / 220	241 / 240	291 / 257	336 / 271	375 / 280		Watts	215	272	326	375	418
	450 CFM/ton	CFM	1120 / 1180	1135 / 1134	1137 / 1081	1129 / 1019	1108 / 946	450 CFM/ton	CFM	1115	1133	1139	1133	1116
		Watts	260 / 297	319 / 317	373 / 334	422 / 347	463 / 355		Watts	244	304	360	410	453
3 tons	290 CFM/ton	CFM	875 / 943	891 / 891	892 / 891	880 / 751	854 / 659	290 CFM/ton	CFM	871	890	894	883	859
		Watts	132 / 160	179 / 179	224 / 196	265 / 209	300 / 218		Watts	125	172	217	259	295
	350 CFM/ton	CFM	1045 / 1106	1060 / 1059	1063 / 1004	1055 / 939	1035 / 862	350 CFM/ton	CFM	1040	1058	1064	1059	1041
		Watts	215 / 248	270 / 268	321 / 285	369 / 299	409 / 308		Watts	202	257	310	358	401
	400 CFM/ton	CFM	1200 / 1257	1212 / 1211	1212 / 1159	1200 / 1099	1129 / 1030	400 CFM/ton	CFM	1291	1302	1300	1220	1138
		Watts	315 / 354	376 / 374	432 / 390	480 / 402	481 / 409		Watts	368	432	487	478	470
	450 CFM/ton	CFM	1358 / 1403	1333 / 1359	1256 / 1308	1177 / 1251	1095 / 1187	450 CFM/ton	CFM	1355	1360	1286	1208	1128
		Watts	447 / 484	482 / 502	472 / 517	466 / 527	460 / 531		Watts	422	483	476	468	462

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.3" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0A24 Minimum Heating Airflow Settings						
MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1
TAM9A0A24	638/713	638/900	675/900	600/713	-	-	-
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE FOR APPROVED COMBINATIONS							

[a] Factory heating default setting is 430 CFM/ton

TAM9A0B30 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
1.5 tons	290 CFM/ton	CFM Watts	492 / 581 22 / 30	442 / 397 45 / 41	408 / NA 71/ NA	353 / NA 98 / NA	221 / NA 129 / NA	290 CFM/ton	CFM Watts	485 21	437 44	393 69	349 97	300 130
	350 CFM/ton	CFM Watts	576 / 664 30 / 40	553 / 515 58 / 54	527 / NA 87 / NA	493 / NA 117 / NA	472 / NA 150 / NA	350 CFM/ton	CFM Watts	574 29	545 56	517 85	489 115	457 146
	400 CFM/ton	CFM Watts	644 / 730 38 / 49	633 / 598 70 / 65	612 / 403 102 / 72	590 / NA 134 / NA	563 / NA 167 / NA	400 CFM/ton	CFM Watts	643 37	624 67	605 99	583 132	559 165
	450 CFM/ton	CFM Watts	711 / 794 47 / 60	708 / 673 83 / 77	691 / 510 118 / 86	678 / NA 154 / NA	656 / NA 189 / NA	450 CFM/ton	CFM Watts	709 45	698 80	684 115	669 151	649 186
2 tons †	290 CFM/ton	CFM Watts	627 / 713 36 / 47	611 / 576 66 / 62	589 / 369 98 / 68	568 / NA 130 / NA	542 / NA 163 / NA	290 CFM/ton	CFM Watts	625 35	603 64	582 95	559 127	533 160
	350 CFM/ton	CFM Watts	734 / 815 51/ 64	730 / 698 87 / 82	717 / 541 124 / 91	705 / NA 161 / NA	684 / NA 197 / NA	350 CFM/ton	CFM Watts	731 49	722 84	710 120	696 157	677 193
	400 † CFM/ton	CFM Watts	822 / 898 66 / 81	824 / 792 107 / 101	817 / 657 149 / 112	811 / NA 191 / NA	797 / NA 231 / NA	400 [a] CFM/ton	CFM Watts	817 63	815 103	811 145	801 186	788 226
	450 CFM/ton	CFM Watts	910 / 982 85 / 102	916 / 884 131 / 123	916 / 763 178 / 136	914 / 610 226 / 140	904 / NA 270 / NA	450 CFM/ton	CFM Watts	902 80	907 126	908 172	904 219	895 263
2.5 tons	290 CFM/ton	CFM Watts	755 / 860 54 / 73	753 / 749 92 / 91	742 / 606 130 / 102	732 / 397 168 / 104	712 / NA 205 / NA	290 CFM/ton	CFM Watts	753 52	745 88	735 126	723 164	706 201
	350 CFM/ton	CFM Watts	887 / 985 80 / 102	893 / 887 125 / 124	891 / 767 170 / 137	888 / 614 217 / 141	876 / NA 260 / NA	350 CFM/ton	CFM Watts	881 75	884 120	884 165	879 210	868 253
	400 CFM/ton	CFM Watts	998 / 1094 107 / 134	1010 / 1003 160 / 158	1017 / 895 213 / 173	1018 / 765 266 / 179	1008 / NA 315 / NA	400 CFM/ton	CFM Watts	989 100	1001 152	1008 205	1008 257	1000 306
	450 CFM/ton	CFM Watts	1116 / 1212 143 / 176	1135 / 1126 205 / 201	1147 / 1027 267 / 219	1148 / 911 325 / 227	1134 / NA 376 / NA	450 CFM/ton	CFM Watts	1104 133	1124 194	1136 255	1139 314	1128 366
3 tons	290 CFM/ton	CFM Watts	883 / 981 79 / 101	888 / 882 124 / 122	887 / 762 169 / 136	881 / 608 214 / 140	870 / NA 257 / NA	290 CFM/ton	CFM Watts	877 74	880 118	879 164	874 208	863 252
	350 CFM/ton	CFM Watts	1043 / 1140 120 / 150	1059 / 1051 177 / 174	1068 / 947 233 / 190	1069 / 823 288 / 197	1059 / NA 339 / NA	350 CFM/ton	CFM Watts	1034 112	1049 168	1058 224	1061 279	1053 330
	400 CFM/ton	CFM Watts	1190 / 1304 170 / 203	1214 / 1221 238 / 231	1226 / 1126 304 / 251	1223 / 1016 364 / 261	1201 / 886 414 / 261	400 CFM/ton	CFM Watts	1177 157	1201 224	1215 291	1215 352	1198 403
	450 CFM/ton	CFM Watts	1355 / 1471 241 / 282	1376 / 1391 318 / 311	1375 / 1302 386 / 333	1353 / 1201 441 / 345	1296 / 1086 472 / 345	450 CFM/ton	CFM Watts	1338 221	1363 299	1368 369	1350 427	1314 472

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.

- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0B30 Minimum Heating Airflow Settings							
MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1
TAM9A0B30	723/808	723/1020	765/1020	680/808	765/1063	850/1105	–
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE							

[a] Factory heating default setting is 430 CFM/ton

TAM9A0C36 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
2 tons	290 CFM/ton	CFM Watts	605 / 747 31 / 48	573 / 565 59 / 58	553 / 306 88 / 62	548 / NA 120 / NA	546 / NA 153 / NA	290 CFM/ton	CFM Watts	606 31	574 58	557 87	551 119	549 152
	370 CFM/ton	CFM Watts	755 / 880 50 / 70	745 / 738 85 / 85	737 / 575 121 / 93	738 / 367 160 / 97	735 / NA 197 / NA	350 CFM/ton	CFM Watts	720 43	705 77	695 111	694 148	691 184
	400 CFM/ton	CFM Watts	810 / 929 58 / 80	804 / 797 97 / 96	800 / 650 136 / 106	802 / 478 176 / 111	802 / 231 216 / 120	400 CFM/ton	CFM Watts	810 56	805 95	800 134	803 174	802 214
	450 CFM/ton	CFM Watts	900 / 1011 75 / 98	900 / 893 118 / 117	902 / 764 162 / 129	905 / 624 207 / 136	906 / 462 251 / 140	450 CFM/ton	CFM Watts	900 72	900 115	903 159	906 204	907 248
2.5 tons	290 CFM/ton	CFM Watts	742 / 891 48 / 72	729 / 752 82 / 87	722 / 592 118 / 96	721 / 394 155 / 99	720 / NA 193 / NA	290 CFM/ton	CFM Watts	742 46	731 81	722 117	722 154	720 191
	370 CFM/ton	CFM Watts	922 / 1055 80/ 109	923 / 942 124 / 128	927 / 820 170 / 142	930 / 690 215 / 150	931 / 546 260 / 154	350 CFM/ton	CFM Watts	877 68	877 110	876 152	880 196	880 239
	400 CFM/ton	CFM Watts	989 / 1118 95 / 127	995 / 1012 143 / 148	1002 / 899 193 / 163	1008 / 779 242 / 173	1010 / 652 290 / 177	400 CFM/ton	CFM Watts	989 90	995 139	1000 188	1008 258	1008 285
	450 CFM/ton	CFM Watts	1103 / 1228 125 / 162	1117 / 1131 181 / 185	1129 / 1028 238 / 203	1137 / 921 294 / 215	1137 / 809 346 / 221	450 CFM/ton	CFM Watts	1102 119	1116 175	1127 231	1137 288	1138 340
3 tons †	290 CFM/ton	CFM Watts	872 / 1009 70 / 97	871 / 890 111 / 116	871 / 761 154 / 128	874 / 620 197 / 135	874 / 457 240 / 139	290 CFM/ton	CFM Watts	871 67	872 109	871 151	874 195	875 237
	370 † CFM/ton	CFM Watts	1089 / 1214 121 / 157	1102 / 1116 176 / 180	1114 / 1013 232 / 198	1121 / 905 287 / 209	1122 / 791 339 / 215	350 CFM/ton	CFM Watts	1033 101	1043 152	1051 204	1059 257	1061 307
	400 CFM/ton	CFM Watts	1175 / 1298 147 / 188	1193 / 1205 208/ 212	1208 / 1107 270 / 231	1215 / 1006 329 / 244	1211 / 899 382 / 251	400 [a] CFM/ton	CFM Watts	1171 139	1191 200	1205 262	1215 322	1212 376
	450 CFM/ton	CFM Watts	1329 / 1447 204/ 253	1353 / 1361 276 / 279	1366 / 1270 345 / 299	1363 / 1176 406 / 313	1343 / 1077 456 / 321	450 CFM/ton	CFM Watts	1324 192	1349 264	1364 334	1364 396	1347 448
3.5 tons	290 CFM/ton	CFM Watts	1002 / 1131 98 / 130	1009 / 1026 147 / 152	1017 / 914 198 / 167	1023 / 797 248 / 177	1024 / 671 296 / 182	290 CFM/ton	CFM Watts	997 92	1010 143	1016 197	1022 248	1027 293
	370 CFM/ton	CFM Watts	1270 / 1391 181 / 227	1293 / 1302 249 / 252	1308 / 1210 316 / 272	1311 / 1113 377 / 286	1297 / 1012 429 / 293	350 CFM/ton	CFM Watts	1196 146	1217 210	1231 272	1241 334	1234 387
	400 CFM/ton	CFM Watts	1383 / 1499 227 / 278	1407 / 1414 303 / 305	1416 / 1325 372 / 325	1406 / 1233 431 / 340	1380 / 1136 478 / 348	400 CFM/ton	CFM Watts	1379 214	1404 289	1415 360	1330 378	1390 473
	450 CFM/ton	CFM Watts	1579 / 1669 326 / 375	1583 / 1587 402 / 402	1567 / 1502 464 / 423	1474 / 1413 475 / 437	1357 / 1320 468 / 444	450 CFM/ton	CFM Watts	1499 268	1508 342	1586 460	1504 478	1390 472

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C36 Minimum Heating Airflow Settings							
MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1
TAM9A0C36	876/979	876/1236	927/1236	824/979	927/1288	1030/1339	–
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE							

[a] Factory heating default setting is 420 CFM/ton

TAM9A0C42 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
2.5 tons	290 CFM/ton	CFM Watts	747 / 905 48 / 77	743 / 764 87 / 94	742 / 591 127 / 102	741 / 342 168 / 106	739 / NA 207 / NA	290 CFM/ton	CFM Watts	744 51	741 90	740 130	738 170	734 209
	370 CFM/ton	CFM Watts	937 / 1072 80 / 118	942 / 956 129 / 139	946 / 823 179 / 151	947 / 655 227 / 155	944 / 458 273 / 155	350 CFM/ton	CFM Watts	889 76	892 123	894 169	894 215	890 259
	400 CFM/ton	CFM Watts	1006 / 1136 95 / 138	1014 / 1027 148 / 159	1020 / 903 201 / 173	1022 / 760 253 / 178	1019 / 586 302 / 177	400 CFM/ton	CFM Watts	1006 103	1016 156	1018 209	1019 160	1016 308
	450 CFM/ton	CFM Watts	1122 / 1247 125 / 176	1135 / 1146 185 / 200	1143 / 1035 245 / 216	1146 / 911 303 / 224	1142 / 768 357 / 223	450 CFM/ton	CFM Watts	1124 136	1135 196	1142 256	1144 313	1140 366
3 tons	290 CFM/ton	CFM Watts	885 / 1026 70 / 106	889 / 904 116 / 125	891 / 763 163 / 136	892 / 590 209 / 139	889 / 341 254 / 143	290 CFM/ton	CFM Watts	884 75	887 121	889 168	889 214	885 257
	370 CFM/ton	CFM Watts	1108 / 1233 121 / 171	1120 / 1132 181 / 195	1128 / 1019 240 / 210	1131 / 893 297 / 218	1128 / 747 350 / 217	350 CFM/ton	CFM Watts	1053 115	1062 171	1067 227	1069 280	1066 330
	400 CFM/ton	CFM Watts	1194 / 1316 147 / 204	1208 / 1220 212 / 229	1218 / 1115 276 / 246	1221 / 999 337 / 255	1215 / 868 393 / 256	400 CFM/ton	CFM Watts	1196 160	1209 225	1218 289	1219 349	1212 403
	450 CFM/ton	CFM Watts	1343 / 1463 200 / 272	1361 / 1374 275 / 300	1371 / 1279 348 / 320	1368 / 1175 413 / 331	1352 / 1061 469 / 334	450 CFM/ton	CFM Watts	1347 220	1363 295	1371 367	1366 430	1342 480
3.5 tons †	290 CFM/ton	CFM Watts	1020 / 1149 99 / 142	1028 / 1041 152 / 164	1034 / 919 206 / 178	1037 / 779 259 / 183	1034 / 609 308 / 182	290 CFM/ton	CFM Watts	1020 107	1028 160	1033 214	1173 327	1031 315
	370 † CFM/ton	CFM Watts	1287 / 1408 179 / 245	1304 / 1317 250 / 272	1314 / 1218 320 / 291	1315 / 1110 384 / 301	1304 / 981 441 / 303	350 CFM/ton	CFM Watts	1220 169	1234 236	1243 301	1244 362	1236 417
	400 CFM/ton	CFM Watts	1395 / 1514 221 / 299	1413 / 1427 300 / 328	1421 / 1334 374 / 348	1415 / 1233 440 / 361	1369 / 1124 480 / 364	400 † CFM/ton	CFM Watts	1440 244	1416 322	1421 395	1411 458	1355 475
	450 CFM/ton	CFM Watts	1584 / 1687 313 / 405	1593 / 1605 399 / 435	1576 / 1518 467 / 458	1474 / 1425 477 / 472	1350 / 1326 468 / 477	450 CFM/ton	CFM Watts	1589 347	1592 428	1545 474	1434 473	1315 463
4 tons	290 CFM/ton	CFM Watts	1156 / 1302 135 / 197	1169 / 1205 197 / 222	1178 / 1098 259 / 239	1181 / 981 319 / 248	1174 / 848 383 / 249	290 CFM/ton	CFM Watts	1157 147	1169 209	1177 271	1179 330	1174 383
	370 CFM/ton	CFM Watts	1487 / 1618 288 / 359	1500 / 1534 369 / 389	1496 / 1445 441 / 411	1445 / 1350 481 / 425	1319 / 1248 470 / 429	350 CFM/ton	CFM Watts	1400 244	1416 322	1421 395	1411 458	1335 475
	400 CFM/ton	CFM Watts	1616 / 1728 363 / 433	1614 / 1646 443 / 464	1543 / 1543 475 / 475	1423 / 1423 472 / 472	1301 / 1301 463 / 463	400 CFM/ton	CFM Watts	1615 363	1615 444	1545 474	1431 471	1313 462
	450 CFM/ton	CFM Watts	1711 / 1711 432 / 432	1621 / 1621 456 / 456	1514 / 1514 465 / 465	1393 / 1393 460 / 460	1273 / 1273 453 / 453	450 CFM/ton	CFM Watts	1716 430	1629 453	1528 462	1411 458	1297 452

- † Factory Setting
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.35" water column.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C42 Minimum Heating Airflow Settings							
MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1
TAM9A0C42	978/1093	978/1380	1035/1380	920/1093	1035/1438	1150/1495	1380/1610
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE							

TAM9A0C48 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE														
OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque)					HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE				
			0.1	0.3	0.5	0.7	0.9			0.1	0.3	0.5	0.7	0.9
3 tons	290 CFM/ton	CFM Watts	894 / 1018 69 / 91	900 / 897 114 / 114	896 / 767 157 / 130	886 / 622 195 / 137	871 / 445 229 / 136	290 CFM/ton	CFM Watts	893 72	900 118	893 159	883 197	864 230
	350 CFM/ton	CFM Watts	1067 /1180 106 / 132	1073 / 1078 158 / 160	1072 / 972 208 / 180	1065 / 859 252 / 192	1053 / 738 292 / 194	350 CFM/ton	CFM Watts	1068 112	1073 164	1070 213	1062 257	1049 295
	400 CFM/ton	CFM Watts	1205 /1314 145 / 176	1212 / 1222 203 / 206	1213 / 1128 259 / 229	1208 / 1029 309 / 244	1199 / 926 354 / 249	400 CFM/ton	CFM Watts	1207 154	1212 212	1212 266	1206 315	1196 359
	450 CFM/ton	CFM Watts	1343 / 1451 193 / 232	1352 / 1367 259 / 264	1355 / 1280 320 / 289	1353 / 1190 377 / 305	1346 / 1098 427 / 313	450 CFM/ton	CFM Watts	1344 206	1352 270	1354 331	1352 387	1344 436
3.5 tons	290 CFM/ton	CFM Watts	1034 / 1149 98 / 123	1041 / 1044 149 / 150	1038 / 934 197 / 170	1031 / 817 240 / 181	1018 / 690 279 / 182	290 CFM/ton	CFM Watts	1034 103	1040 154	1037 202	1028 244	1014 281
	350 CFM/ton	CFM Watts	1228 /1336 152 / 185	1235 / 1246 212 / 215	1236 / 1153 268 / 238	1232 / 1056 319 / 253	1224 / 955 365 / 259	350 CFM/ton	CFM Watts	1229 162	1235 221	1236 276	1230 326	1220 371
	400 CFM/ton	CFM Watts	1389 /1498 212 / 253	1399 / 1415 280 / 286	1403 / 1331 343 / 311	1401 / 1244 402 / 328	1395 / 1154 455 / 336	400 CFM/ton	CFM Watts	1392 226	1400 293	1403 356	1400 413	1394 465
	450 CFM/ton	CFM Watts	1558 /1669 290 / 343	1570 / 1592 367 / 377	1575 / 1514 439 / 404	1575 / 1434 505 / 422	1568 / 1351 563 / 432	450 CFM/ton	CFM Watts	1561 310	1572 386	1576 457	1574 521	1567 577
4 tons †	290 CFM/ton	CFM Watts	1168 /1298 133 / 170	1175 / 1205 191 / 200	1175 / 1109 244 / 223	1170 / 1010 293 / 237	1160 / 905 336 / 242	290 CFM/ton	CFM Watts	1168 141	1176 198	1174 251	1168 299	1157 341
	350 † CFM/ton	CFM Watts	1389 /1517 212 / 262	1399 / 1436 280 / 295	1403 / 1352 343 / 321	1401 / 1266 402 / 338	1395 / 1177 455 / 346	350 CFM/ton	CFM Watts	1392 226	1400 293	1403 356	1400 413	1394 465
	400 CFM/ton	CFM Watts	1583 /1714 303 / 370	1595 / 1639 382 / 546	1601 / 1562 455 / 431	1600 / 1483 521 / 450	1593 / 1401 580 / 459	400 † CFM/ton	CFM Watts	1586 325	1597 402	1601 474	1599 538	1591 595
	450 CFM/ton	CFM Watts	1790 /1918 429 / 511	1800 / 184 8515 / 546	1808 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	450 CFM/ton	CFM Watts	1794 459	1801 544	1800 620	1766 665	1667 655
4.5 tons**	290 CFM/ton	CFM Watts	1301 /1429 177 / 222	1310 / 1344 241 / 253	1312 / 1256 300 / 278	1309 / 1165 355 / 294	1302 / 1071 404 / 302	290 CFM/ton	CFM Watts	1302 189	1310 252	1311 310	1309 355	1301 403
	350 CFM/ton	CFM Watts	1558 / 1688 290 / 354	1570 / 1613 367 / 389	1575 / 1535 439 / 415	1575 / 1455 505 / 434	1568 / 1373 563 / 444	350 CFM/ton	CFM Watts	1557 290	1570 367	1575 439	1575 505	1569 563
	400 CFM/ton	CFM Watts	1790 / 1918 429 / 511	1800 / 1848 515 / 546	1801 / 1775 594 / 573	1793 / 1701 663 / 592	1698 / 1625 660 / 601	400 CFM/ton	CFM Watts	1789 428	1799 515	1801 594	1794 663	1701 659
	450 CFM/ton	CFM Watts	2018 / 2018 605 / 605	1973 / 1973 656 / 656	1857 / 1857 645 / 645	1749 / 1749 637 / 637	1651 / 1651 631 / 631	450 CFM/ton	CFM Watts	2018 605	1975 656	1863 643	1757 634	1660 628

- † Factory Setting
- ** Not an actual OD size
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.4" water column.
- If the air handler is applied in downflow or horizontal configurations, the airflow should not exceed 2000 CFM. Airflow above 2000 CFM could result in water blow-off.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C48 Minimum Heating Airflow Settings								
MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1	BAYEACC25BK1
TAM9A0C48	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE								

TAM9A0C60 AIRFLOW PERFORMANCE CONSTANT CFM MODE / CONSTANT TORQUE MODE

OUTDOOR MULTIPLIER (TONS)	COOLING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE (Constant CFM / Constant Torque) 0.1	0.3	0.5	0.7	0.9	HEATING AIRFLOW SETTING	AIRFLOW POWER	EXTERNAL STATIC PRESSURE 0.1	0.3	0.5	0.7	0.9
3.5 tons	290 CFM/ton	CFM	1040 / 1151	1068 / 1056	1075 / 941	1066 / 799	1046 / 607	290 CFM/ton	CFM	1039	1065	1071	1063	1045
		Watts	94 / 119	151 / 148	203 / 168	247 / 175	283 / 165		Watts	95	151	203	247	283
	370 CFM/ton	CFM	1312 / 1343	1332 / 1264	1336 / 1174	1329 / 1068	1314 / 945	350 CFM/ton	CFM	1247	1266	1270	1263	1248
		Watts	171 / 178	236 / 210	296 / 235	349 / 250	392 / 251		Watts	150	213	270	321	363
	400 CFM/ton	CFM	1408 / 1496	1425 / 1426	1429 / 1346	1423 / 1256	1410 / 1154	400 CFM/ton	CFM	1407	1423	1426	1421	1409
		Watts	206 / 238	274 / 273	337 / 301	393 / 319	440 / 325		Watts	206	274	337	392	439
	450 CFM/ton	CFM	1565 / 1650	1579 / 1585	1584 / 1512	1580 / 1432	1569 / 1343	450 CFM/ton	CFM	1564	1578	1582	1578	1569
		Watts	274 / 312	348 / 348	416 / 378	477 / 398	529 / 407		Watts	274	348	416	476	529
4 tons	290 CFM/ton	CFM	1186 / 1304	1208 / 1223	1213 / 1128	1206 / 1018	1189 / 887	290 CFM/ton	CFM	1185	1206	1210	1203	1187
		Watts	131 / 164	192 / 196	248 / 220	297 / 234	337 / 233		Watts	131	192	248	297	337
	370 CFM/ton	CFM	1480 / 1514	1495 / 1444	1499 / 1365	1495 / 1277	1482 / 1177	350 CFM/ton	CFM	1407	1423	1426	1421	1409
		Watts	235 / 245	306 / 280	372 / 308	430 / 327	479 / 334		Watts	206	274	337	392	439
	400 CFM/ton	CFM	1587 / 1689	1602 / 1625	1606 / 1554	1602 / 1475	1592 / 1399	400 CFM/ton	CFM	1587	1600	1604	1601	1592
		Watts	285 / 332	360 / 369	429 / 399	490 / 420	543 / 430		Watts	285	360	428	490	543
	450 CFM/ton	CFM	1770 / 1873	1784 / 1813	1789 / 1747	1788 / 1675	1782 / 1597	450 CFM/ton	CFM	1770	1783	1788	1788	1782
		Watts	386 / 443	468 / 481	543 / 512	612 / 534	671 / 546		Watts	385	467	543	611	671
4.5 tons **†	290 CFM/ton	CFM	1322 / 1431	1340 / 1358	1345 / 1274	1338 / 1179	1323 / 1069	290 CFM/ton	CFM	1321	1338	1342	1336	1322
		Watts	174 / 211	240 / 245	300 / 271	353 / 288	397 / 292		Watts	174	240	300	352	396
	370 † CFM/ton	CFM	1646 / 1667	1660 / 1602	1665 / 1530	1662 / 1451	1653 / 1363	350 CFM/ton	CFM	1564	1578	1582	1578	1569
		Watts	315 / 320	392 / 357	463 / 386	527 / 407	582 / 417		Watts	274	348	416	476	529
	400 CFM/ton	CFM	1770 / 1873	1784 / 1813	1789 / 1747	1788 / 1675	1781 / 1597	400 † CFM/ton	CFM	1770	1783	1788	1788	1782
		Watts	386 / 443	468 / 481	543 / 512	612 / 534	671 / 546		Watts	385	467	543	611	671
	450 CFM/ton	CFM	1989 / 2099	2004 / 2042	2012 / 1980	2013 / 1913	2009 / 1842	450 CFM/ton	CFM	1989	2003	2011	2014	2011
		Watts	535 / 612	627 / 650	712 / 681	788 / 703	855 / 716		Watts	534	626	711	788	856
5 tons	290 CFM/ton	CFM	1452 / 1557	1469 / 1489	1473 / 1413	1468 / 1327	1455 / 1231	290 CFM/ton	CFM	1452	1467	1471	1466	1454
		Watts	224 / 265	294 / 301	358 / 329	415 / 348	463 / 356		Watts	224	294	358	415	463
	370 CFM/ton	CFM	1817 / 1826	1831 / 1765	1837 / 1698	1837 / 1624	1831 / 1544	350 CFM/ton	CFM	1723	1736	1741	1740	1734
		Watts	415 / 451	499 / 451	576 / 481	647 / 503	708 / 515		Watts	357	437	511	578	636
	400 CFM/ton	CFM	1964 / 2073	1978 / 2015	1986 / 1953	1987 / 1886	1983 / 1814	400 CFM/ton	CFM	1964	1978	1985	1988	1985
		Watts	516 / 590	607 / 629	690 / 660	766 / 682	832 / 695		Watts	515	606	690	766	833
	450 CFM/ton	CFM	2231 / 2347	2245 / 2292	2252 / 2233	2252 / 2171	2185 / 2104	450 CFM/ton	CFM	2232	2245	2252	2252	2186
		Watts	741 / 842	842 / 879	934 / 908	1015 / 930	1024 / 941		Watts	741	842	934	1016	1023

- † Factory Setting
- ** Not an actual OD size
- Status LED will blink once per 100 CFM requested. In torque mode, actual airflow may be lower.
- Torque mode will reduce airflow when static is above approximately 0.4" water column.
- If the air handler is applied in downflow or horizontal configurations, the airflow should not exceed 2000 CFM. Airflow above 2000 CFM could result in water blow-off.
- All heating modes default to Constant CFM.
- Cooling airflow values are with wet coil, no filter

TAM9A0C60 MINIMUM HEATING AIRFLOW CFM — HEATER MATRIX

MODEL NO.	BAYEAAC04BK1 BAYEAAC04LG1 BAYEAAC05BK1 BAYEAAC05LG1	BAYEAAC08BK1 BAYEAAC08LG1	BAYEAAC10BK1 BAYEAAC10LG1	BAYEAAC10LG3	BAYEABC15BK1	BAYEACB15LG3	BAYEABC20BK1	BAYEACC25BK1
TAM9A0C60	1063 / 1188	1063 / 1500	1125 / 1500	1000 / 1188	1125 / 1563	1250 / 1625	1500 / 1750	1625 / 1813
WITHOUT HEAT PUMP / WITH HP — SEE AIR HANDLER NAMEPLATE								

HEATER ATTRIBUTE DATA

Note: *Heater size must be set in Configuration Menu.*

TAM9A0A24V21DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.5 **	4	15	-	-	3.5 **	4	15
BAYEAAC04++1	1	3.84	13100	16.0	24	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	26	30
BAYEAAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	39	40
BAYEAAC10++1[a]	1	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
Note: ** Motor Amps											

[a] Heater not qualified for 208V when installed in horizontal left position without Heat Pump

TAM9A0B30V31DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampaci-ty	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.5 **	4	15	-	-	3.5 **	4	15
BAYEAAC04++1	1	3.84	13100	16.0	24	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	26	30
BAYEAAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	39	40
BAYEAAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEABC15BK1 - Circuit 1[a] BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Note: ** Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

TAM9A0C36V31DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.5 **	4	15	-	-	3.5 **	4	15
BAYEAAC04++1	1	3.84	13100	16.0	24	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	26	30
BAYEAAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	39	40
BAYEAAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEABC15BK1 - Circuit 1 [a] BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25

TAM9A0C36V31DA											
BAYEABC20BK1 - Circuit 1 [a] BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
Note: ** Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

TAM9A0C42V41DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	3.5 **	4	15	-	-	3.5 **	4	15
BAYEAAC04++1	1	3.84	13100	16.0	24	25	2.88	9800	13.8	22	25
BAYEAAC05++1	1	4.80	16400	20.0	29	30	3.60	12300	17.3	26	30
BAYEAAC08++1	1	7.68	26200	32.0	44	45	5.76	19700	27.7	39	40
BAYEAAC10++1	1	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	33	35	7.20	24600	20.0	29	30
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	47	50	10.80	36900	30.0	41	45
BAYEABC15BK1 - Circuit 1 [a] BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 [a] BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	54	60	7.20	24600	34.6	48	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
Note: ** Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

TAM9A0C48V41DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	5.0 **	6	15	-	-	5.0 **	6	15
BAYEAAC04++1	1	3.84	13100	16.0	26	30	2.88	9800	13.8	26	30
BAYEAAC05++1	1	4.80	16400	20.0	31	35	3.60	12300	17.3	28	30
BAYEAAC08++1	1	7.68	26200	32.0	46	50	5.76	19700	27.7	41	45
BAYEAAC10++1	1	9.60	32800	40.0	56	60	7.20	24600	34.6	50	50
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	34	35	7.20	24600	20.0	31	35
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	49	50	10.80	36900	30.0	43	45
BAYEABC15BK1 - Circuit 1 [a] BAYEABC15BK1 - Circuit 2	2	9.60	32800	40.0	56	60	7.20	24600	34.6	50	50
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 [a] BAYEABC20BK1 - Circuit 2	2	9.60	32800	40.0	56	60	7.20	24600	34.6	50	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEACC25BK1 — Circuit 1 [a] BAYEACC25BK1 — Circuit 2 BAYEACC25BK1 — Circuit 3	3	9.60	32800	40.0	56	60	7.20	24600	34.6	50	50
		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Note: ** Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps

HEATER ATTRIBUTE DATA

TAM9A0C60V51DA											
Heater Model No.	No. of Circuits	240 Volt					208 Volt				
		Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection	Capacity		Heater Amps per Circuit	Minimum Circuit Ampacity	Maximum Overload Protection
		kW	BTUH				kW	BTUH			
No Heater	0	-	-	6.4 **	8	15	-	-	6.4 **	8	15
BAYEAAC04++1	1	3.84	13100	16.0	28	30	2.88	9800	13.8	25	25
BAYEAAC05++1	1	4.80	16400	20.0	33	35	3.60	12300	17.3	30	30
BAYEAAC08++1	1	7.68	26200	32.0	48	50	5.76	19700	27.7	43	45
BAYEAAC10++1	1	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
BAYEAAC10LG3	1-3 PH	9.60	32800	23.1	36	40	7.20	24600	20.0	32	35
BAYEABC15LG3	1-3 PH	14.40	42000	34.6	50	50	10.80	36900	30.0	45	45
BAYEABC15BK1 - Circuit 1 [a]	2	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
BAYEABC15BK1 - Circuit 2		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
BAYEABC20BK1 - Circuit 1 [a]	2	9.60	32800	40.0	58	60	7.20	24600	34.6	51	60
BAYEABC20BK1 - Circuit 2		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEACC25BK1 [b] - Circuit 1 [a]	3	9.60	32800	40.0	57	60	7.20	24600	34.6	51	60
BAYEACC25BK1 - Circuit 2		9.60	32800	40.0	50	50	7.20	24600	34.6	43	45
BAYEACC25BK1 - Circuit 3		4.80	16400	20.0	25	25	3.60	12300	17.3	22	25
Note: ** Motor Amps											

[a] MCA and MOP for circuit 1 contains the motor amps
[b] Heater not qualified for 208V when installed in horizontal left position without Heat Pump

Note: *See Product Data or Air Handler nameplate for approved combinations of Air Handlers and Heaters.*

Note: *Heater model numbers may have additional suffix digits.*

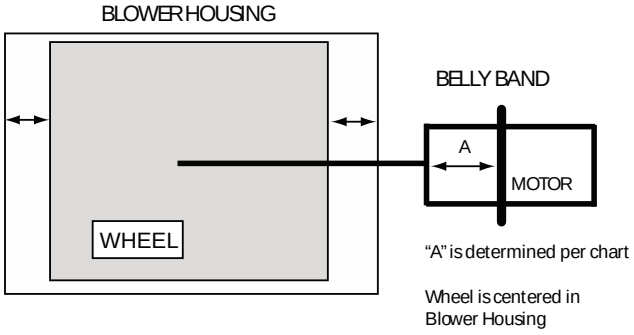
SUBCOOLING ADJUSTMENT

System Matched with:	Indoor Unit Model No.	Outdoor Unit Model No.	Subcooling
Single Compressor 2–Stage HP	TAM9A0B30V21DA	4A6H6024E/G, 4TWX6024E/G 4A6H7024, 4TWX8024	9 °
	TAM9A0B36V31DAA	4A6H6036E/G, 4TWX6036E/G 4A6H7036, 4TWX8036	10°
	TAM9A0C48V41DA	4A6H6048E/G, 4TWX6048E/G 4A6H7048, 4TWX8048	8 °
Single Compressor 2–Stage AC	TAM9A0B30V21DA	4A7A6024E/G, 4TTX6024E/G 4A7A7024, 4TTX8024	8 °
	TAM9A0C36V31DA	4A7A6036E/G, 4TTX6036E/G 4A7A7036, 4TTX8036	8 °
	TAM9A0C48V41DA	4A7A6048E/G, 4TTX6048E/G 4A7A7048, 4TTX8048	8 °
Two Compressor 2–Stage HP	TAM9A0B30V21DA	4A6Z0024A, 4TWZ0024A,	9 °
	TAM9A0C36V31DA	4A6Z0036A/B, 4TWZ0036A/B	10 °
	TAM9A0C48V41DA	4A6Z0048A/B 4TWZ0048A/B	12 °
	TAM9A0C60V51DA	4A6Z0060A, 4TWZ0060A	12 °
Two Compressor 2–Stage HP	TAM9A0B30V21DA	4A7Z0024A, 4TTZ0024A	9 °
	TAM9A0C36V31DA	4A7Z0036A/B, 4TTZ0036A/B	11 °
	TAM9A0C48V41DA	4A7Z0048A/B, 4TTZ0048A/B	12 °

Notes:

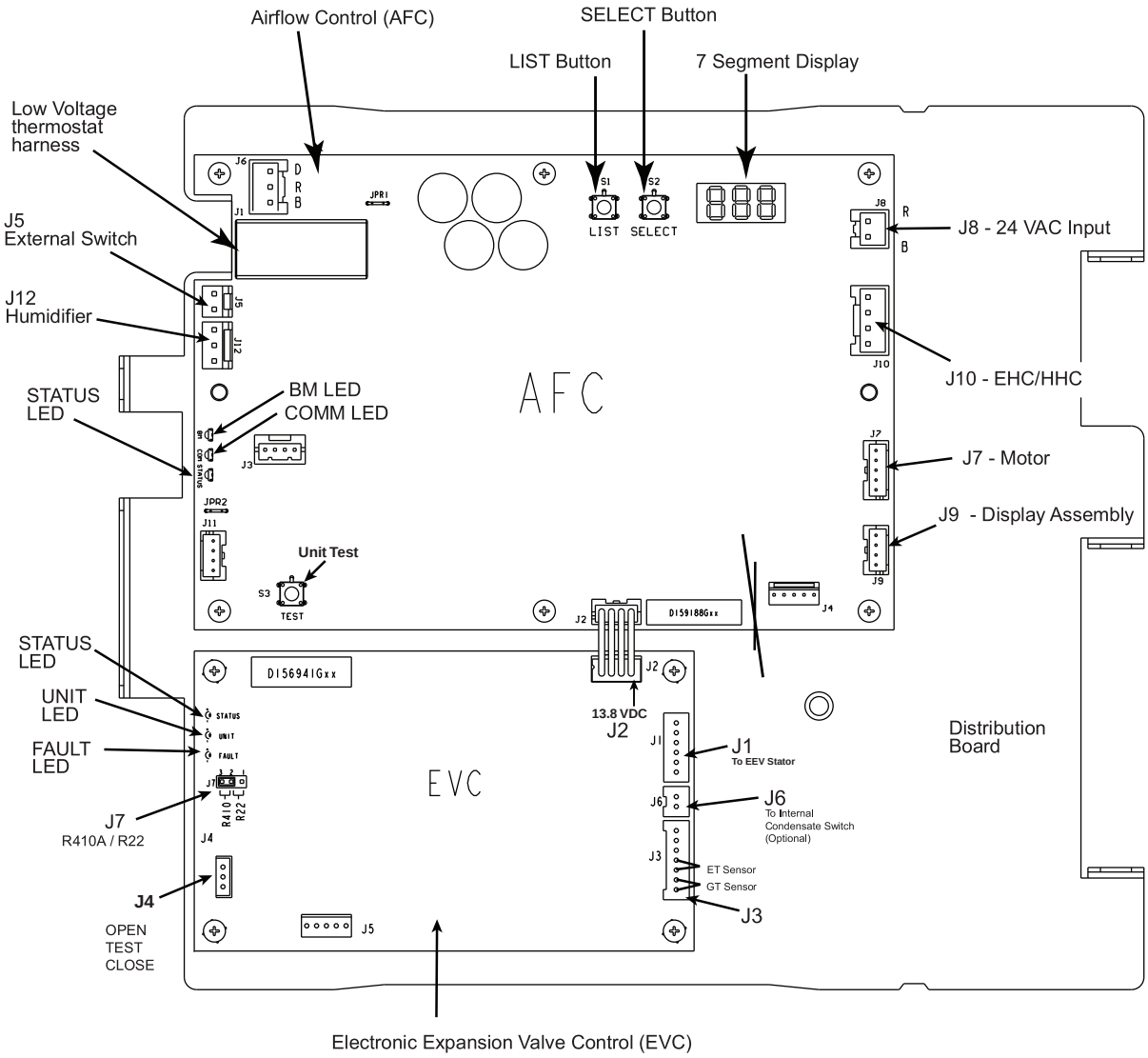
1. *Variable Speed Outdoor units must be charged per the outdoor unit instructions.*
2. *All other matches must be charged per the nameplate charging instructions.*

DISTANCE FROM BELLY BAND TO SHAFT FACE OF MOTOR FOR MINIMUM VIBRATION



MODEL	DIM " A "
TAM9A0A24V21DA	2–3/8
TAM9A0B30V21DA	2–3/8
TAM9A0C36V31DA	2–3/8
TAM9A0C42V31DA	2–3/8
TAM9A0C48V41DA	2–3/8
TAM9A0C60V51DA	2–3/8

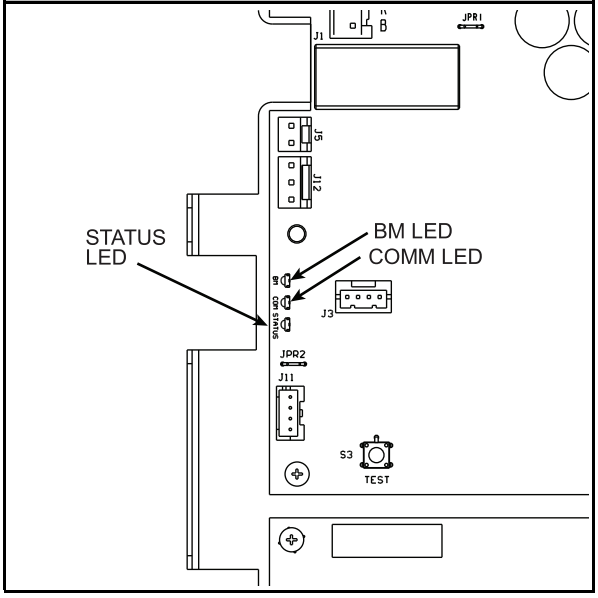
Air Handler Control Panel - LEDs



Note: *Low voltage harness ships in supplied document pack.*

TAM9 LED Codes

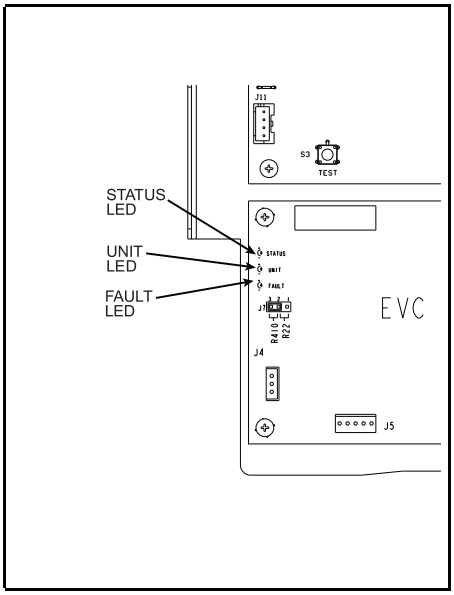
AFC BM (Bit Master) LED (GREEN)	DESCRIPTION
ON in Communicating Mode Off in 24 Volt Mode	Normal Operation
AFC COMM LED (AMBER)	**DESCRIPTION**
Device Count in Communicating Mode Off in 24 Volt Mode	Number of communicating devices [(a)]
AFC STATUS LED (GREEN)	**DESCRIPTION**
On solid for 2 seconds after power up, then 1 flash per second. Reference the 7 SEG display for airflow.	Normal operation

LED LOCATIONS


(a) Examples: communicating thermostat, communicating air cleaner, etc.

EVC STATUS LED (GREEN) (Non Heat Pump Systems)	DESCRIPTION
Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling
3	Active call for 2nd stage cooling [a]

EVC STATUS LED (GREEN) (Heat Pump Systems)	DESCRIPTION
Flash	
1	Cool mode selected / No active call
2	Active call for 1st stage cooling or defrost
3	Active call for 2nd stage cooling or defrost [a]
4	Heat mode selected or Thermostat system switch off
5	Active call for 1st stage heating
6	Active call for 2nd stage heating[a]



[a] Single stage OD systems will report 2nd stage flash codes

EVC UNIT LED (BLUE)	DESCRIPTION
1 Flash	Normal (1 flash every 4 seconds)
Rapid	Communication Busy Error (2 flashes per second)
SOLID ON	Communications cannot be established with the AFC
OFF	No Power

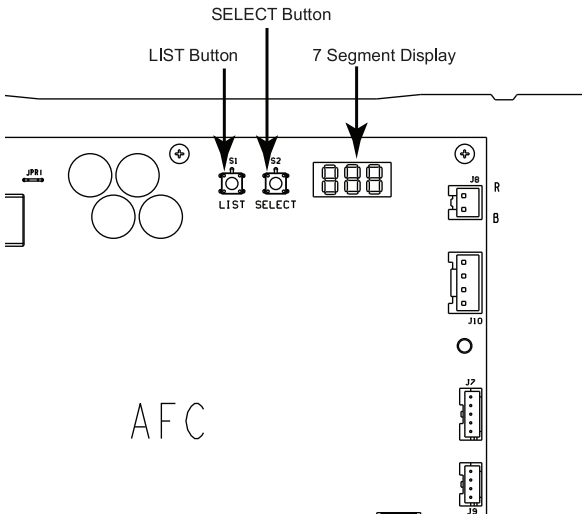
EVC FAULT (RED)	DESCRIPTION	POSSIBLE CAUSES
OFF	No fault	
1	Stepper Motor coil has an open circuit or intermittent short	Faulty EEV motor / wiring harness
2	Control has detected an internal failure (Replace EEV control, EVC)	Verify EEV motor & harness resistance. EEV motor drive, motor feedback, or 12v failure
3	Evaporator Temperature Sensor (ET) input out of range (Verify resistance, 5VDC output from control) [a]	Sensor open / shorted, unplugged, wiring harness problem. Verify 5VDC output from control
4	Gas Temperature Sensor (GT) input out of range (Verify resistance, 5VDC output from control) [a]	Sensor open / shorted, unplugged, wiring harness problem. Verify 5VDC output from control
5	Stepper Motor Coil is shorted [b]	Faulty EEV motor / wiring harness
6	Valve is not responding to a change in position. (Possible stuck valve)	Possible stuck valve, check ET/GT calibration
7	High superheat (Low charge or restriction)	System low on charge, liquid line restriction, ET/GT sensor calibration
10	Low superheat (Check airflow, possible stuck valve) [c]	Stuck valve, ET/GT sensor calibration, restricted distributor line that ET is connected to, check valve leaking
11	Condensate drain switch activated for 100 seconds (Check condensate switch and drain) [b]	Condensate line clogged, clean switch
13	Indoor frost protection activated. TAM9 unit will disable all operation for 5 minutes to allow coil defrost. [b]	Low / incorrect airflow, low refrigerant charge, ET sensor calibration. Normal for low ambient cooling
14	Internal communication fault (All operation is terminated) (Cycle power & check wire terminations)	Verify harness continuity between J2 of the EVC and J4 of the Distribution Board
15	Configuration fault (All operation is terminated) (Cycle power & check if PM error is present)	Check if PM error is present, cycle power to the unit
16	Outdoor status fault (All operation is terminated)	Cycle power to the unit, replace EVC if error persists

[a] EEV will try to go to a safe position, cooling attempt allowed
[b] Cooling Disabled
[c] Cooling attempt allowed, 5 consecutive Y calls with same condition disables cooling.

TAM9 7–Segment Display Fault Codes

Fault Codes can be read from the 7 segment display on the air handler AFC board.

Note: *For the TAM9 air handler, all of the fault codes can be read from the CDA.*



TAM9 ALERT CODE ADDENDUM

Alert Code	Alert Group	Display Assembly Text	A/TCONT900	A/TZONE 950	Notification Level	AFC Fault Code	EVC Fault Code	Code Alert Description	Possible Cause
19	Twinning fault	TWIN ERR	ERR19	ERR 19.0	Information	15		Air handler twinning error	More than one ID unit connected on the communicating bus is not allowed
90	Communica-tion busy fault	SYS COM CRC	N/A	N/A	Information	3.3		Excessive communication errors	R & B to thermostat reversed polarity
91	Communica-tion inactive fault	SYS COMM ERR	ERR91	ERR 91.02	Critical	3.2		Loss of Heat/Cool demand message	Open / Shorted data line / CCM communication error
91	Communica-tion inactive fault	NO SYS CLK	ERR91	ERR 91.03	Critical	3.1		Loss of Bit Master	Control fault, replace AFC
106	External shutdown fault	EXT SW OPEN	ERR106	ERR 106.0	User Display	13		External shutdown input open error	External float switch, other device open
114	ID motor error	ID MTR ERR	ERR114	ERR 114.02	User Display	2.1		Motor HP is < than PM value (Operation not allowed)	Incorrect VS motor or PM installed
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.03	Critical	1.2		PM missing with good local copy (Operation allowed)	PM error
114	PM bad or missing fault	PM MISSING	ERR114	ERR 114.06	Critical	1.1		PM missing with no local copy (Operation not allowed)	PM error
114	ID motor error	MTR PWR HI	ERR114	ERR 114.07	User Display	2.4		Motor HP is > than PM value (Operation allowed)	Incorrect VS motor or PM installed
123	Demand configuration fault	EH CFG1 ERROR	ERR 123	ERR 123.0	User Display	6.1		Electric heat configuration error	AFC configured for zero stages of indoor heat and received a W call.
123	Demand configuration fault	EH CFG2 ERROR	ERR 123	ERR 123.0	User Display	6.2		Electric heat configuration error	AFC received a higher W request than AFC was configured for.
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.0	User Display	5.1	5	EEV motor fault has been detected for 8 consecutive times and valve is locked out	Faulty EEV motor / wiring harness
155	Indoor electronic expansion valve motor fault	EEV MTR ERR	ERR155	ERR 155.01	User Display	5.1	1	EEV electric motor current indicates open or short	Faulty EEV motor / wiring harness
156	System low on charge fault	SYSTEM1 ERR	ERR156	ERR 156.0	User Display	5.1	7	System 1 - High superheat	System low on charge, liquid line restriction, ET/GT sensor calibration
157	Condensate fault	CONDESAT FLT	ERR157	ERR 157.0	Critical	5.1	11	Condensate overflow condition detected on EVC	Condensate line clogged
159	Unit Bus fault	AFC COMM ERR	ERR159	ERR 159.0	Critical	4.4	14	AFC communication error	Wire harness between AFC and distribution board
159	Unit Bus fault	EVC COMM ERR	ERR159	ERR 159.03	User Display	4.2	14	EVC communication error	Wire harness between EVC and distribution board
159	Unit Bus fault	CDA COMM ERR	ERR159	ERR 159.04	Information	4.3		Display Assembly communication error	Wire harness between Display Assembly and distribution board
160	Indoor EEV control configuration error	CONFIG FLT	ERR160	ERR 160.0	User Display	5.1	15	Configuration group index or evap temperature sensor type are not configured	PM programming or internal communication error
161	Evaporator temperature sensor fault	ET SEN ERR	ERR161	ERR 161.0	User Display	5.1	3	Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem
161	Gas temperature sensor fault	GT SEN ERR	ERR161	ERR 161.01	User Display	5.1	4	Indoor coil temperature sensor reading is out of range, indicates open or short	Sensor open / shorted, unplugged, wiring harness problem

Alert Code	Alert Group	Display Assembly Text	A/TCONT900	A/TZONE 950	Notification Level	AFC Fault Code	EVC Fault Code	Code Alert Description	Possible Cause
163	Indoor EEV control fault	EEV CNTL FLT	ERR163	ERR 163.0	User Display	5.1	2	EEV electric motor drive or feedback or 12 V failure detected	EEV motor drive or motor feedback or 12v failure, wiring harness
164	Indoor EEV fault	EEV CLSE ERR	ERR164	ERR 164.0	User Display	5.1	6	EEV migrated to 'Close' position but superheat is not at the desired set point, valve is not responding to a change in position	Possible stuck valve, ET/GT sensor calibration
164	Indoor electronic expansion Valve fault	EEV OPEN ERR	ERR164	ERR 164.01	User Display	5.1	6	EEV migrated to 'Open' position but superheat is not at the desired set point, valve is not responding to a change in position Possible	Possible stuck valve, ET/GT sensor calibration
166	Superheat is flooding fault	SYSTEM4 ERR	ERR166	ERR 166.0	User Display	5.1	10	System 4 - Low superheat	Stuck valve, ET/GT sensor calibration, restricted distributor line that ET is connected to. leaking indoor check valve
167	Indoor electronic expansion valve control is not controlling because outdoor status is unknown	OD DATA MISS	ERR167	ERR 167.0	User Display	5.1	16	OD status unknown to EVC	If Comm LED on OD unit is flashing the correct device count, replace AFC
171	Communica-tion inactive fault	BLW COMM ERR	ERR171	ERR 171.0	Critical	2.2		Blower Communication is not detected	Faulty wiring harness, VS motor
172	Display Assembly stuck key	KEY FAULT	ERR172	ERR 172.0	User Display	5.2		Display Assembly has a stuck key	Faulty Display Assembly

Notes:

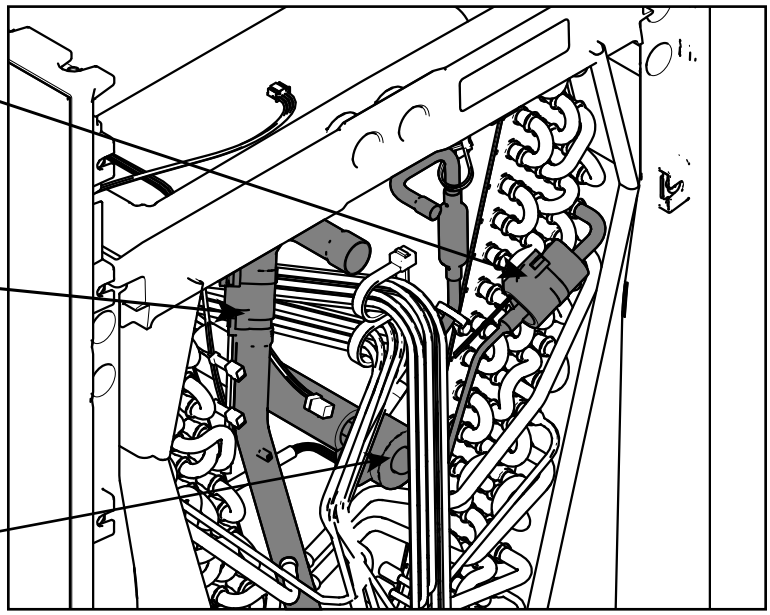
1. COMM LED (amber) will flash the number of communicating devices connected.
2. BM LED should be ON Solid when power is applied.
3. STATUS LED will be on solid for 2 seconds after power up, then flash once per second in normal operation. Reference the 7 SEG display for air flow.
4. UNIT LED (blue) will flash once every four seconds when communications are normal.
5. All tables and charts refer to the CDA menus.
6. The AFC board has a 7 segment display.

Sensor Locations

Evaporator Temperature Sensor (ET)
- located on 3/8” Aluminum distributor tube (orange wires)

Gas Temperature Sensor (GT)
- located on copper section of manifold (black wires)

EEV Stepper Motor



Stepper Motor Tables —For use with Low and High Superheat Troubleshooting

Table 1 — For use with FIG 1		
Common Terminal	to Terminal	Measurement
Gray	Orange	46 ohms
Gray	Red	46 ohms
Gray	Yellow	46 ohms
Gray	Black	46 ohms

Table 2— For use with FIG 2		
Common Terminal	to Terminal	Measurement
Brown	Blue	46 ohms
Brown	Yellow	46 ohms
Red	Orange	46 ohms
Red	White	46 ohms

FIG 1

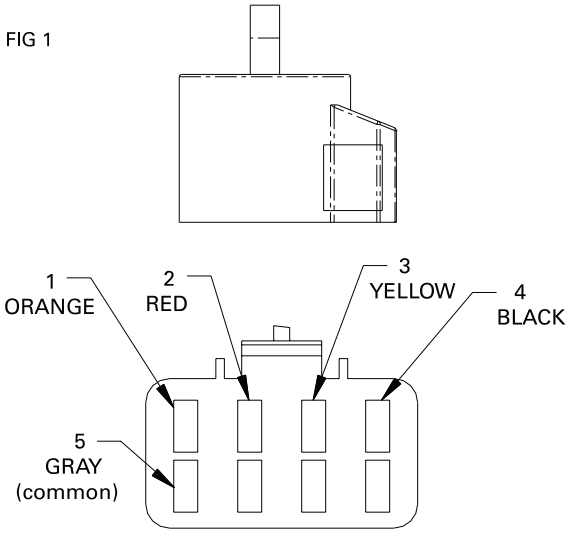
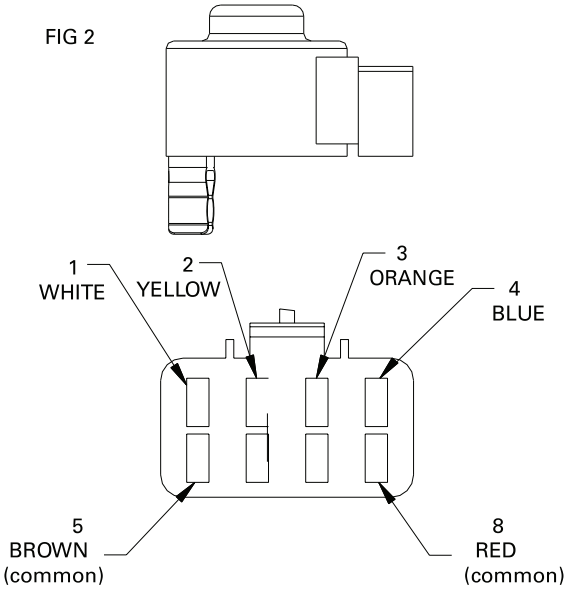


FIG 2



EEV TEST OPTIONS

Electronic Expansion Valve Test Option 1

Access the Unit Test option through Display Assembly under the Control Menu.

Electronic Expansion Valve Test Option 2

Note: Close Valve and Open Valve Tests are active in any mode of operation

Test Pins: OPEN, CLOSE, TEST (See J4 on EVC Board)

Close Valve Test-Touch CLOSE pin to TEST pin.

EEV drives closed (5 seconds max) and stays closed for 1.5 minutes (90 seconds).

1) Status LED will be flashing.

2) Gauges should indicate suction pressure dropping.

- Valve is working.
- LPCO may trip.

Note: *: The Close Valve Test will exit after 1.5 minutes (90 seconds) and will not reinitiate (requires a break and make to initialize). To clear faults stored in memory, apply a jumper between Close and Test pins for 10 seconds.*

Open Valve Test-Touch OPEN pin to TEST pin.

EEV drives open (5 sec max) and stays open for 30 seconds.

1. 1) Status LED will be flashing.
2. Temperature probe should indicate superheat falling.

- Valve is working.

Note: *: If jumper is left on pins, the OPEN VALVE TEST will be cleared after 30 seconds and will not reinitiate (requires a break and make to reinitialize).*

Exit Test Mode-The Open Valve Test or Closed Valve Test can be cancelled by momentarily jumping to the opposite mode Test pin. The system will return to normal super heat control.

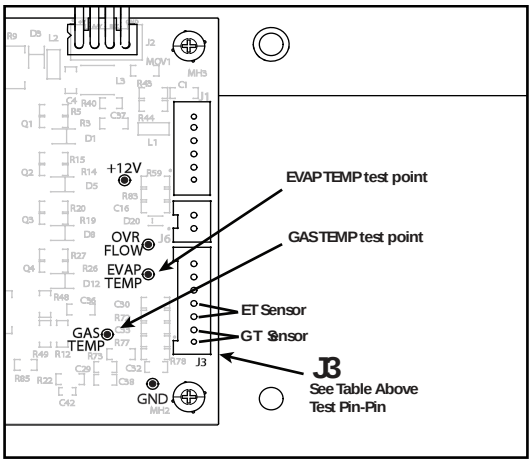
EVC THERMAL RESISTANCE AND VOLTAGE TABLE

TEMP F	TEMP C	THERMISTOR RESISTANCE (OHMS) *	Volts DC at plug J3 EVAP TEMP (ET) Orange to Orange GAS TEMP (GT) Black to Black
20	– 6.7	45076	3.20
21	– 6.1	43764	3.17
22	– 5.6	42494	3.14
23	– 5.0	41266	3.10
24	– 4.4	40077	3.07
25	– 3.9	38927	3.04
26	– 3.3	37813	3.00
27	– 2.8	36736	2.97
28	– 2.2	35692	2.93
29	– 1.7	34681	2.90
30	– 1.1	33703	2.86
31	– 0.6	32755	2.83
32	0.0	31838	2.80
33	0.6	30949	2.76
34	1.1	30087	2.73
35	1.7	29253	2.69
36	2.2	28445	2.66
37	2.8	27661	2.62
38	3.3	26902	2.59
39	3.9	26166	2.56
40	4.4	25452	2.52
41	5.0	24761	2.49
42	5.6	24090	2.45
43	6.1	23440	2.42
44	6.7	22810	2.39
45	7.2	22198	2.35
46	7.8	21605	2.32
47	8.3	21030	2.29
48	8.9	20472	2.25
49	9.4	19931	2.22
50	10.0	19405	2.19
51	10.6	18896	2.16
52	11.1	18401	2.12
53	11.7	17921	2.09
54	12.2	17455	2.06
55	12.8	17002	2.03
56	13.3	16563	2.00
57	13.9	16137	1.97
58	14.4	15723	1.94
59	15.0	15320	1.91
60	15.6	14930	1.88
61	16.1	14550	1.85
62	16.7	14182	1.82
63	17.2	13824	1.79
64	17.8	13476	1.76
65	18.3	13138	1.73
66	18.9	12810	1.70
67	19.4	12491	1.67
68	20.0	12181	1.65
69	20.6	11879	1.62
70	21.1	11586	1.59
72	22.2	11024	1.54
74	23.3	10492	1.49
76	24.4	9990	1.44
78	25.6	9515	1.39
80	26.7	9065	1.34
82	27.8	8639	1.29
84	28.9	8236	1.25
86	30.0	7855	1.20
88	31.1	7493	1.16
90	32.2	7150	1.12
92	33.3	6825	1.08
94	34.4	6516	1.04
96	35.6	6224	1.01
98	36.7	5946	0.97
100	37.8	5682	0.93
102	38.9	5432	0.90
104	40.0	5194	0.87
106	41.1	4968	0.84
108	42.2	4753	0.81
110	43.3	4548	0.78
112	44.4	4354	0.75
114	45.6	4169	0.72
116	46.7	3992	0.70
118	47.8	3825	0.67
120	48.9	3665	0.65
122	50.0	3513	0.62
124	51.1	3368	0.60
126	52.2	3230	0.58
128	53.3	3098	0.56
130	54.4	2972	0.54
132	55.6	2853	0.52
134	56.7	2738	0.50
136	57.8	2629	0.48
138	58.9	2525	0.46
140	60.0	2425	0.45
142	61.1	2330	0.43
144	62.2	2239	0.42
146	63.3	2153	0.40
148	64.4	2070	0.39
150	65.6	1990	0.37

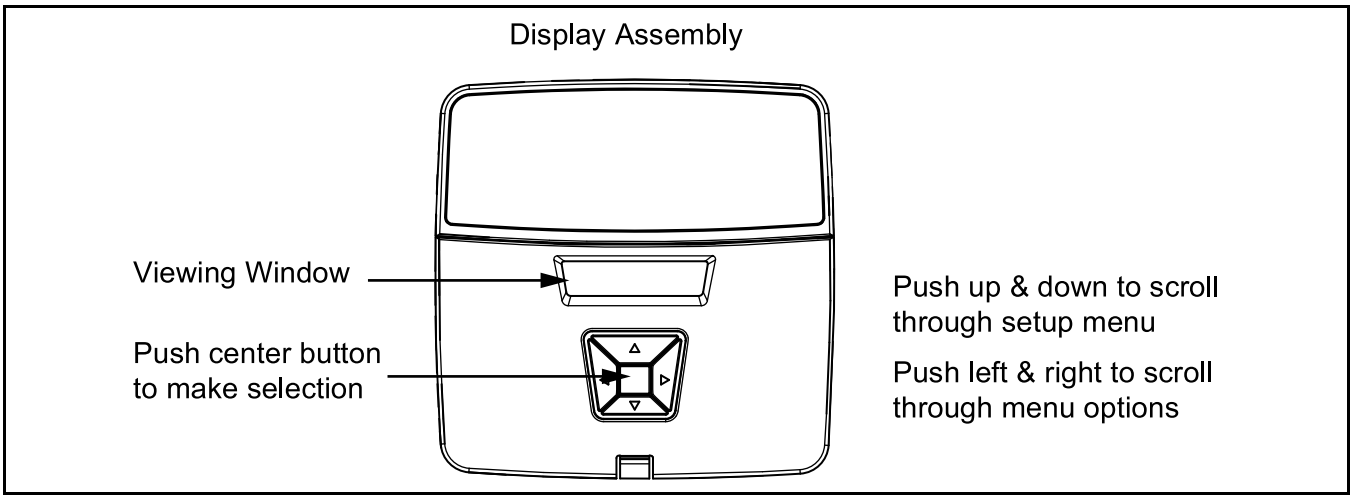
Values should be within +/- 5%

Test Methods

1. When measuring DC voltage, use Evap Temp and Gas Temp points to GND (ground) test point.
2. When measuring DC voltage, measure from ET Sensor pin to pin and GT Sensor pin to pin at J3 connector.
3. When measuring resistance, remove J3 harness and measure ET and GT pin to pin

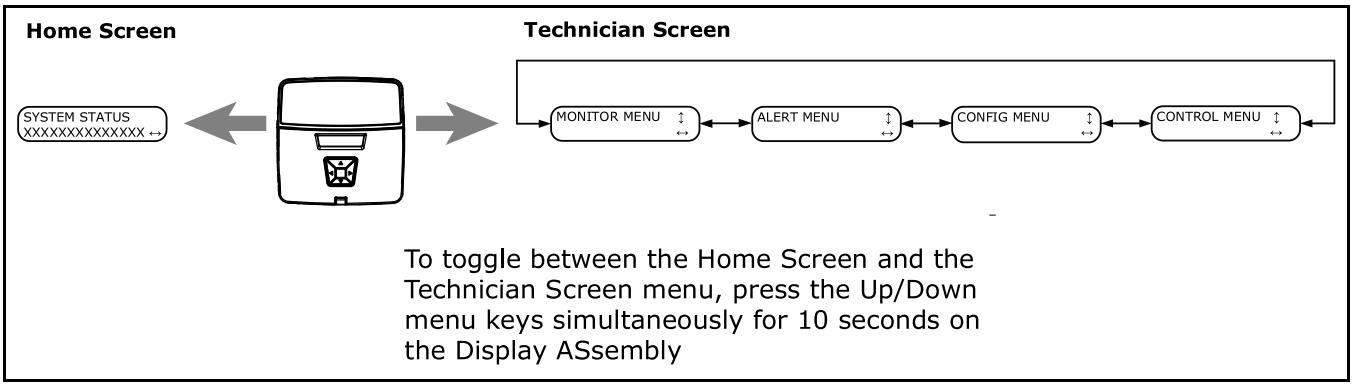


Display Assembly / Human Interface



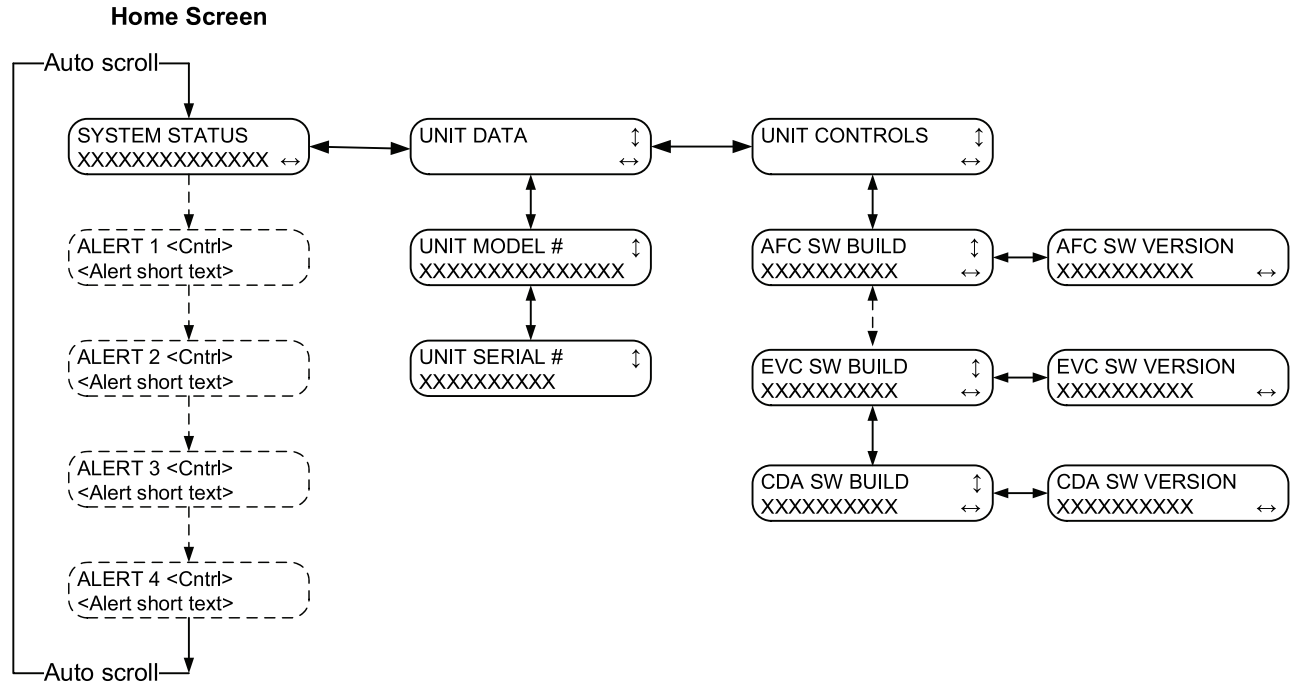
Display Assembly General Notes

- Home Screen
  - The System Status is shown continuously on the Home Screen. The System Status will alternate with fault information if there is an active fault. Low level faults do not appear on the Home Screen.
- Technician Screens
  - To Enter the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.
  - To Exit the technician menu section, press the Up/Down menu keys simultaneously for 10 seconds.
  - To move to the top of any menu tree, press the Left/Right menu keys simultaneously for 1-2 seconds. Press the Left/Right menu keys a second time for 1-2 seconds to return to the Home Screen.
  - While in a technician menu, after 5 minutes of inactivity, the Home Screen will be displayed. This time can be increased to 20 minutes by pressing the Enter menu key for 2-3 seconds.



TAM9 — Technician Menu and Configuration tree

Table 1. CDA Home Screen



- UNIT CONTROLS
  - o AFC = Airflow Control
  - o EVC = Expansion Valve Control
  - o DA = Display Assembly

  <Cntrl> = Control declaring fault
  <Alert Short Text> = Short Text for Alarm (located in Alert Code Addendum)

Note 1: *System Status will rotate automatically with active alerts. Only alerts with a notification level of aUser or Critical re shown (same as the thermostat); up to four (4) alerts will be shown, most recent first.*

Note 2: *Alerts shown will be only AFC faults for initial release. Specific control alerts are in Alert menu section.*

- SYSTEM STATUS Messages
  - o STANDBY = Idle, no demand is present
  - o FAN = Continuous fan call
  - o ON CLG# = Compressor cooling, 1st or 2nd stage
  - o ON HP# = Heatpump heating, 1st or 2nd stage
  - o HP# + EH ■■■ = Heatpump heating + electric heating
  - o ON HPD# = Heatpump heating in defrost, 1st or 2nd stage
  - o HPD# + EH ■■■= Heatpump heating in defrost + electric heating
  - o EH □□□□□□ = Electric heat, elements detected but not active
  - o EH ■■■■□□ = Electric heat, elements active
  - o EH ■⊟■■⊟□ = Electric heat, element faulty
  - o HH = Hydronic heating
  - o ON HP# + HH = Heatpump heating + hydronic heating
  - o ON HPD# + HH = Heatpump heating in defrost + hydronic heating

Table 2. CDA Monitor Menu

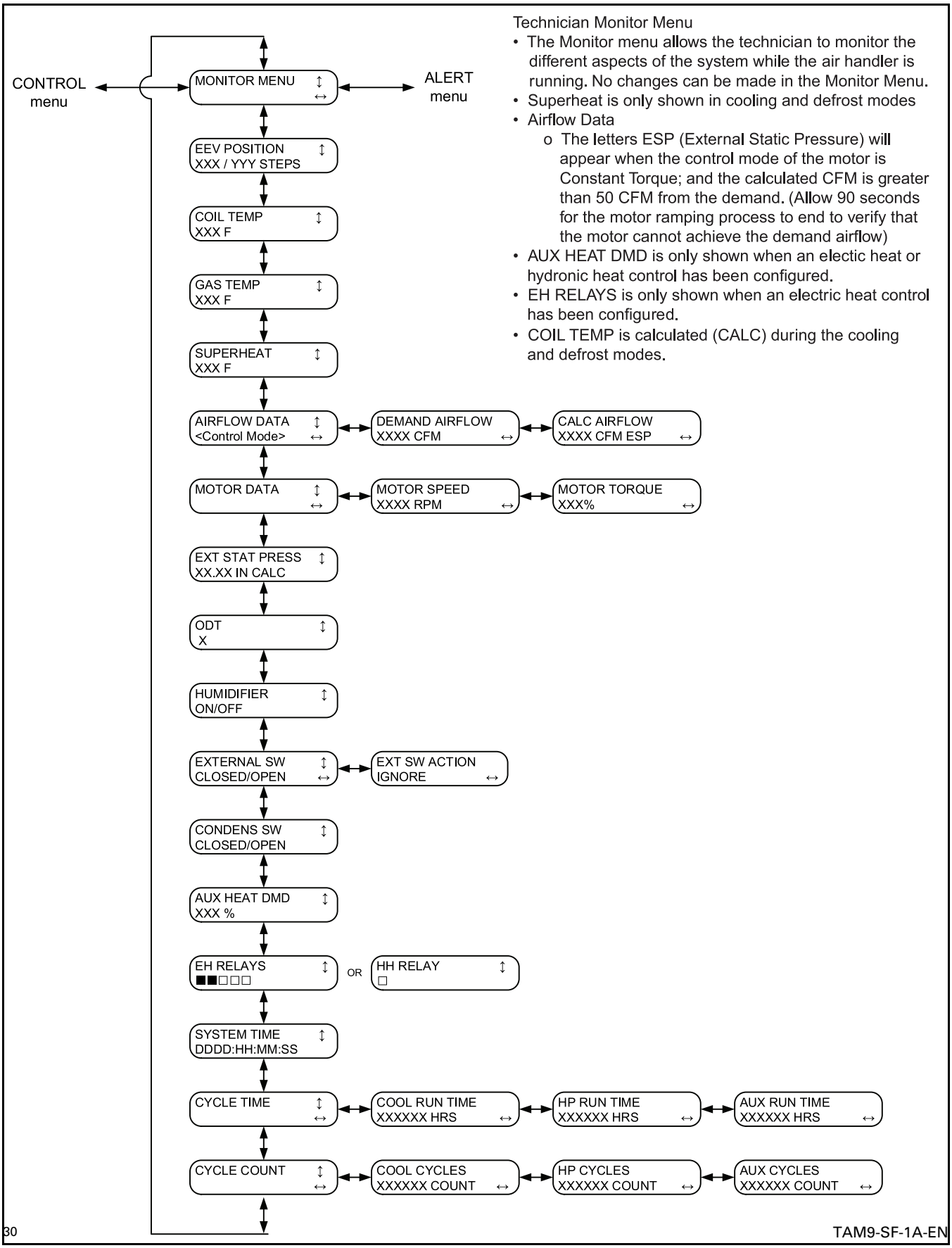
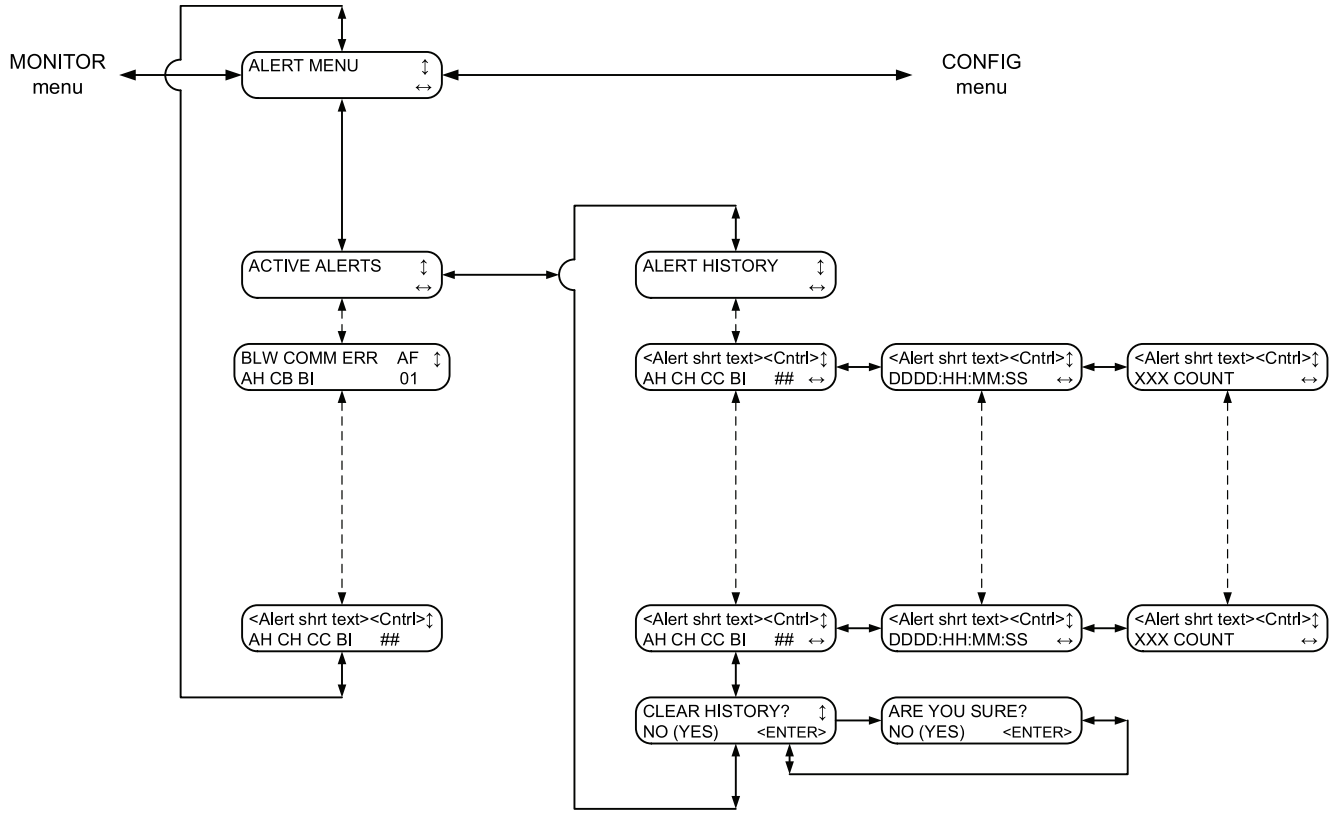


Table 3. CDA Alert Menu



- The Alert menu allows the technician to view active and historical faults that have occurred. Alerts are grouped by the control declaring the fault.
  - o AFC
  - o EVC
  - o DA
- The first line of text contains the description of the fault and the component that reported it. The abbreviations for the components are:
  - o AF = Air Flow control
  - o EV = Expansion Valve control
  - o DA = Display Assembly
- The second line of text contains any action that may take place because of the fault and the order that the faults occurred. Some faults will shutdown all or part of the system. See the System Actions below.
  - o AH = Auxiliary Heat is prohibited (electric or hydronic)
  - o CH = Compressor Heat is prohibited
  - o CC = Compressor Cooling is prohibited
  - o CB = Compressor Heat and Cooling is prohibited
  - o BI = Blower operation is prohibited*

    * Applies only to states that are prohibited
- Timestamp (DDDD:HH:MM:SS)
  - o The elapsed time the fault occurred from when the unit was installed.
- COUNT
  - o The number of times the fault has occurred.

  Note: *When the fault history is cleared, the COUNT will also be cleared.*

Table 4. CDA Config Menu

ALERT menu

CONFIG MENU ↕ ↔ — CONTROL menu

RESTORE DFLT? NO (YES) <ENTER> → ARE YOU SURE? NO (YES) <ENTER>

AIRFLOW MODE ↔↕ TRQ* ✓TRQ → AIRFLOW MODE ↔ CFM ✓TRQ

- The Airflow Mode has an option for CFM or Torque. Torque is recommended for high static conditions. Torque mode will deliver reduced air flow with lower blower watts in high static conditions. CFM is required when zoning is applied. Evaluate the blower performance tables in relation to the duct design when selecting this configuration option.

EXT SW CL ↔↕ IGNORE* ✓IGNORE → EXT SW CL ↔ DS-CLG ✓IGNORE → EXT SW CL ↔ DS-ALL ✓IGNORE

EXT SW HT ↔↕ IGNORE* ✓IGNORE → EXT SW HT ↔ DS-HTG ✓IGNORE → EXT SW HT ↔ DS-ALL ✓IGNORE

- The External Switch is to be configured independently for heating and cooling modes of operation.
  - DS-CLG will disable compressor operation in cooling mode
  - DS-HTG will disable indoor heat in heating mode
  - DS-ALL will disable all operation in per the mode selected

OD TYPE ↔↕ HP* ✓HP → OD TYPE ↔↕ AC* ✓HP

OD TONNAGE ↔↕ XX*

OD UNIT TYPE ↔↕ 1-1* ✓1-1 → OD UNIT TYPE ↔↕ 2-1* ✓1-1 → OD UNIT TYPE ↔↕ 2-2* ✓1-1

- The OD unit type must be configured for 24 volt systems only
  - 1-1 is a single stage single compressor OD unit
  - 2-1 is a two stage single compressor OD unit
  - 2-2 is a dual stage dual compressor OD unit

CONT FAN MULT ↔↕ XX*

- Continuous fan can be set between 35 & 100% in 5% increments

COOL CFM/TON ↔↕ XXX* ✓XXX

- Cooling & Heating CFM per ton options are from 290 through 450 in 10 CFM increments.
- The CFM per ton setting must be at 400 when Zoning or a Variable Speed OD unit is installed

CL DLY PR ↔↕ CLPR X*

- The blower delay profile is to be configured for heating and cooling modes of operation. There are 4 blower off delay options:
  - Option 1 = 90 seconds at 100% air flow
  - Option 2 = No Delay
  - Option 3 = 180 seconds at 50% air flow
  - Option 4 = Enhanced Mode

HEAT CFM/TON ↔↕ XXX* ✓XXX

HT DLY PR ↔↕ HPPR X*

- This configuration will provide an option for an 08 or 011 coil if Hydronic is selected with a "C" width TAM9 cabinet

ID HEAT TYPE ↔↕ EH* ✓EH → ID HEAT TYPE ↔ HH ✓EH

EH CFG #PH ↔↕ XX* ✓XX

Select heater size
- See EH menu (electric heater)

EHC AIRFLOW ↔↕ LOW* ✓LOW → EHC AIRFLOW ↔↕ MED* ✓LOW → EHC AIRFLOW ↔↕ HI* ✓LOW

Note:
"✓" denotes active value
"" indicates factory value*

Note: *Wiring to the External Switch inputs must be a normally closed circuit with no power applied.*

Note: *Disable cool (DS-CLG) and disable all (DS-ALL) will generate an error on the thermostat.*

EH menu (electric heater) options
PARK (default)
- 4K
- 5K
- 8K
- 10K
- 15K
- 20K
- 25K

Heater size availability is based on unit size for this menu.

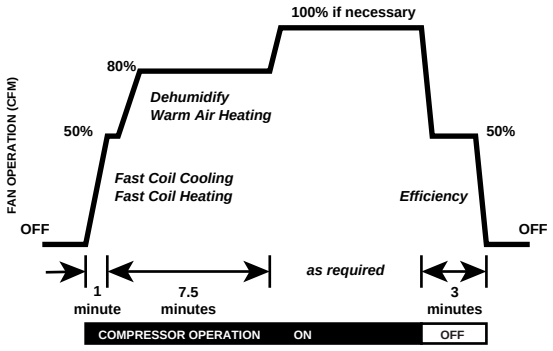
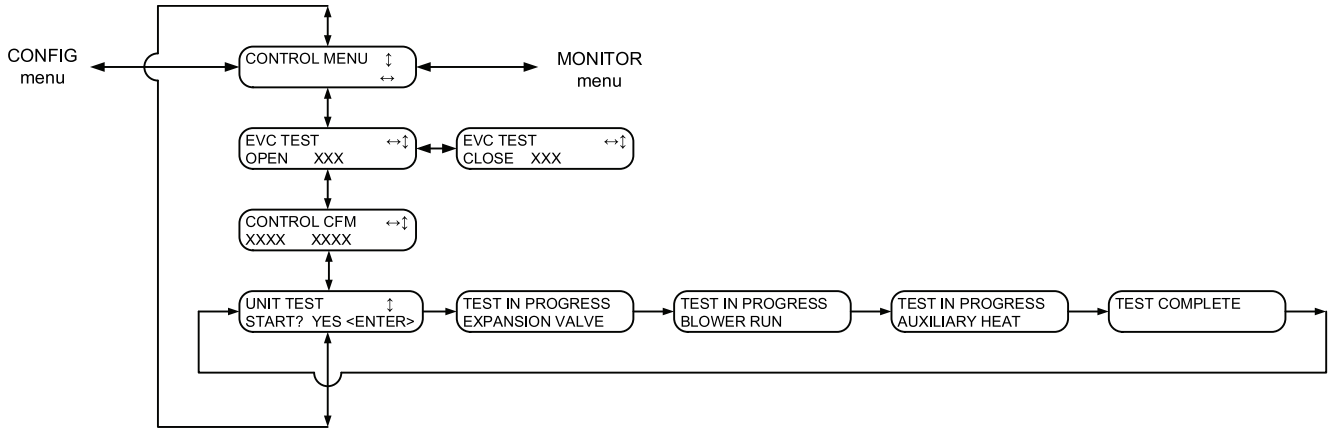


Table 5. CDA Control Menu



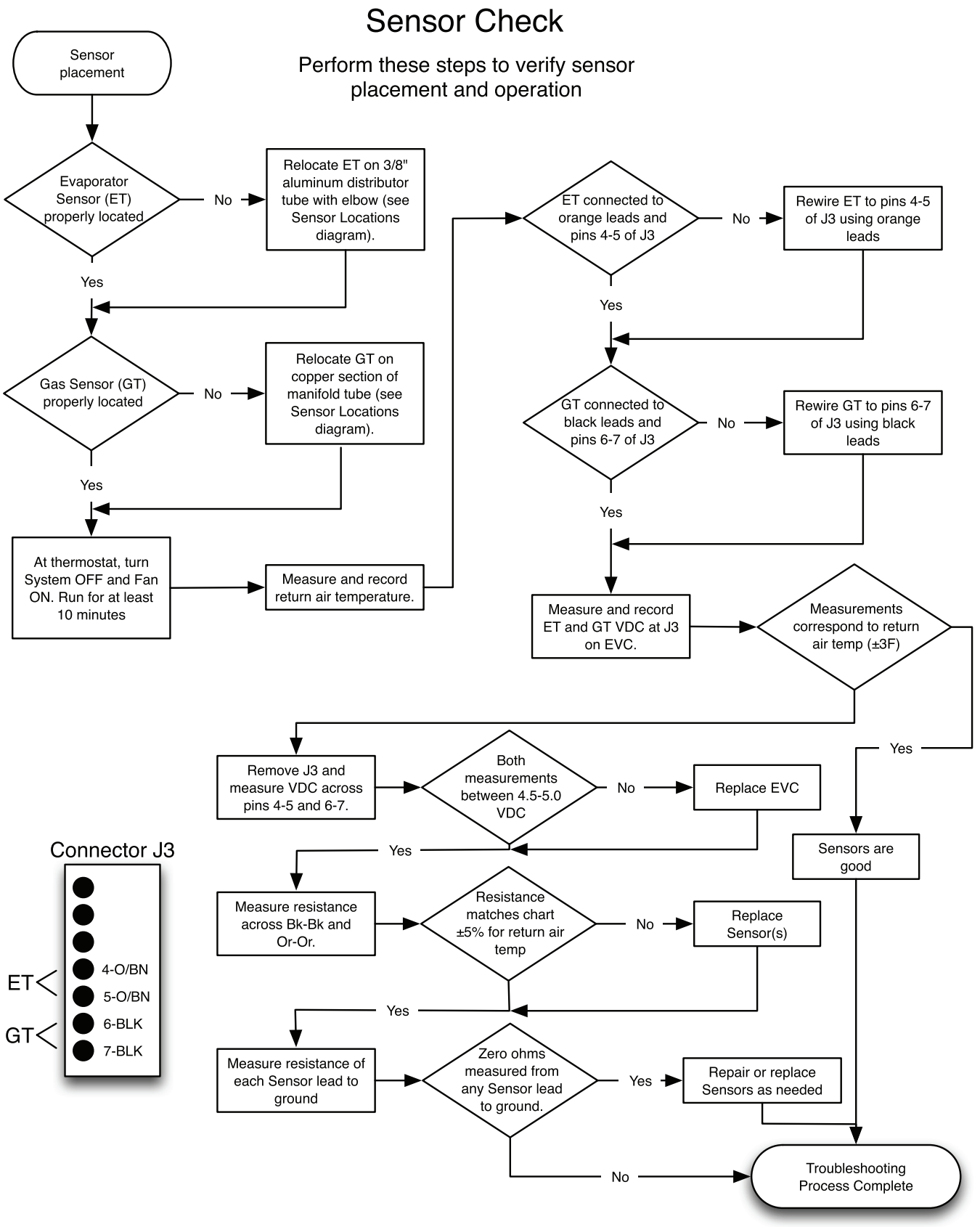
- EVC TEST: Scroll to desired test and push the <Enter> key.
  - o OPEN - When selected, the EEV will drive to the full open position (OPEN 500).
  - o CLOSE - When selected, the EEV will drive to the closed position (CLOSE 056).

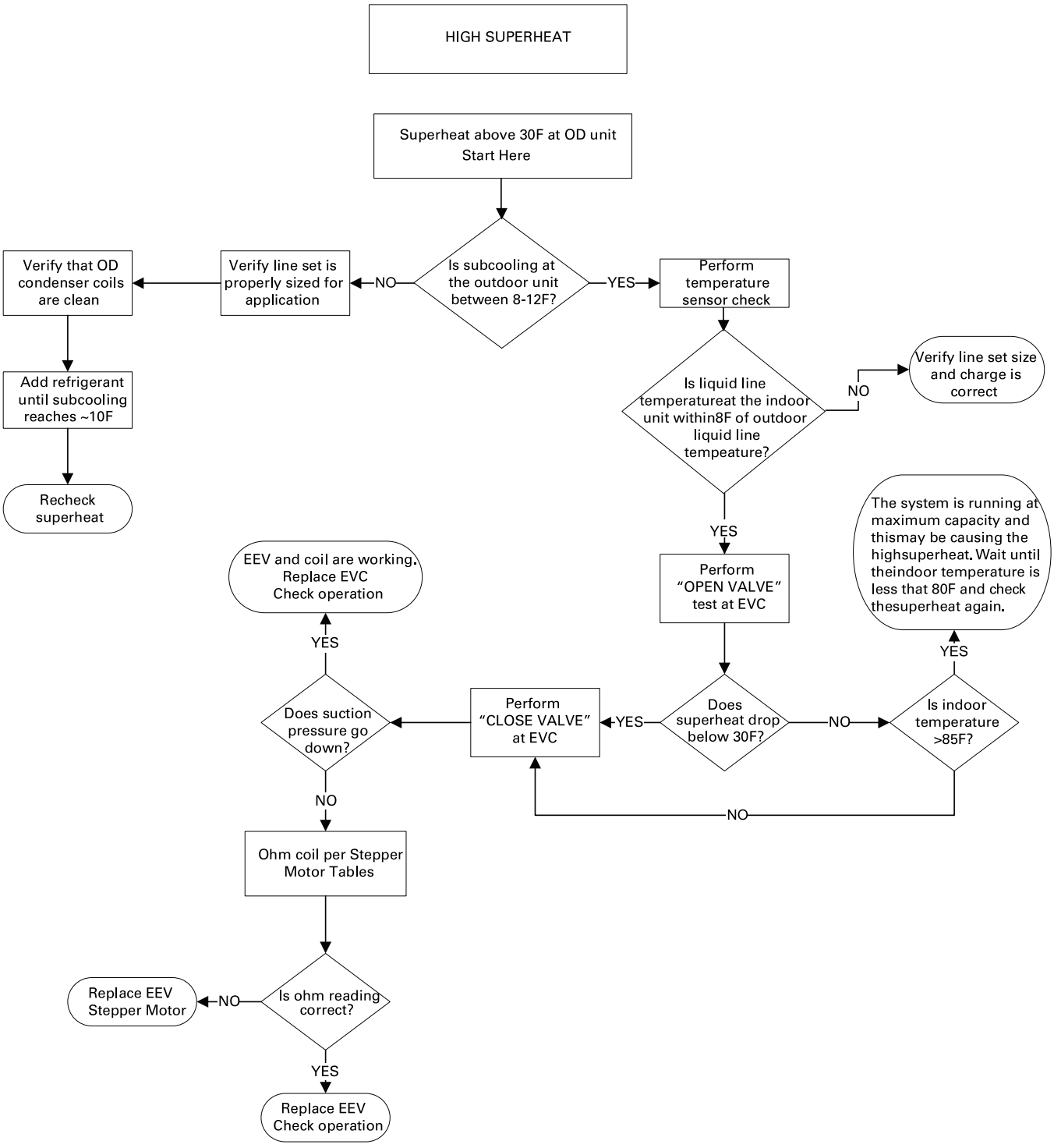
- CONTROL CFM: Press <Enter> key to initiate control.
  - o First value is current selection, Second value is actual airflow.
  - o Use left or right menu keys to decrease or increase airflow in 100 CFM increments.
  - o Press ENTER to initiate new CFM demand. Actual airflow is updated every six seconds.

- UNIT TEST: Press <Enter> key to initiate test. (Unit must be in Standby or Idle mode)
  - o Once test is started, the screen update automatically and navigation is not allowed.
  - o UNIT TEST may only be interrupted by a thermostat demand or turning off the power.

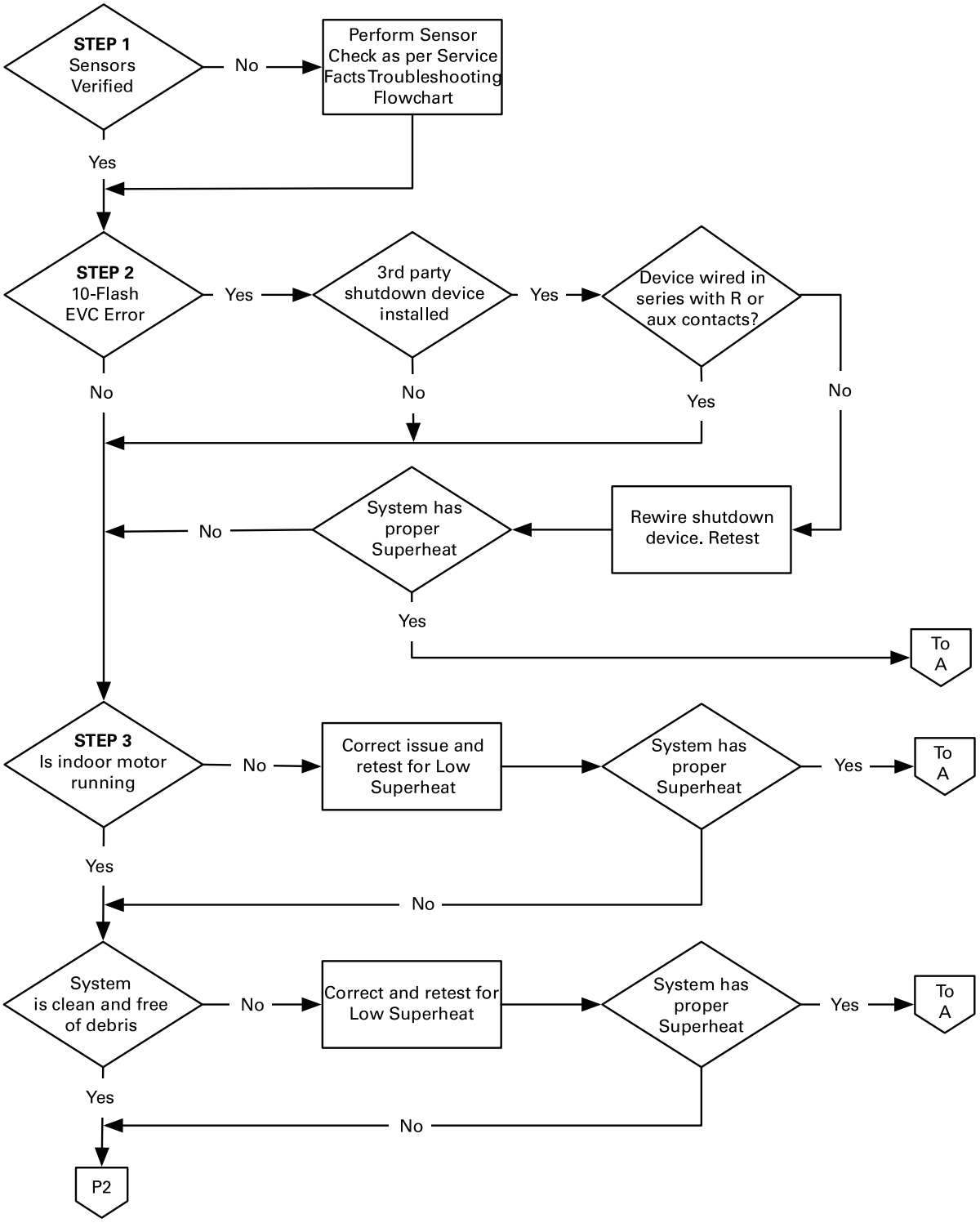
NOTE: *EVC TEST and/or AUX HEAT TEST will be skipped if the associated control(s) id?are not discovered.*

Troubleshooting

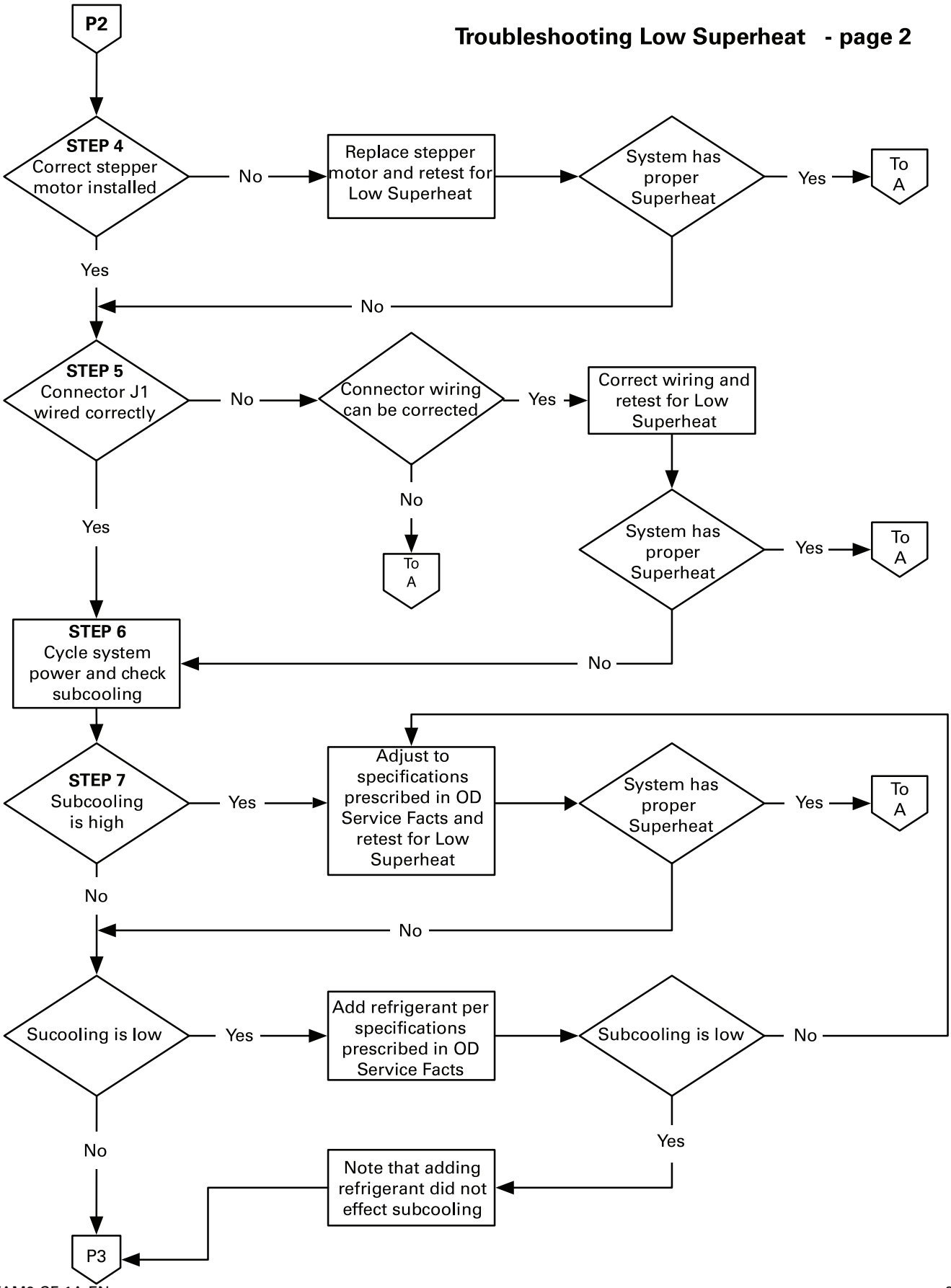



HIGH SUPERHEAT
Superheat above 30F at OD unit Start Here
Is subcooling at the outdoor unit between 8-12F?
NO
YES
Verify line set is properly sized for application
Verify that OD condenser coils are clean
Add refrigerant until subcooling reaches ~10F
Recheck superheat
Perform temperature sensor check
Is liquid line temperatureat the indoor unit within8F of outdoor liquid line tempeature?
NO
Verify line set size and charge is correct
YES
Perform "OPEN VALVE" test at EVC
Does superheat drop below 30F?
YES
NO
Perform "CLOSE VALVE" at EVC
Is indoor temperature >85F?
YES
The system is running at maximum capacity and thismay be causing the highsuperheat. Wait until theindoor temperature is less that 80F and check thesuperheat again.
NO
Does suction pressure go down?
YES
EEV and coil are working. Replace EVC Check operation
NO
Ohm coil per Stepper Motor Tables
Is ohm reading correct?
NO
Replace EEV Stepper Motor
YES
Replace EEV Check operation

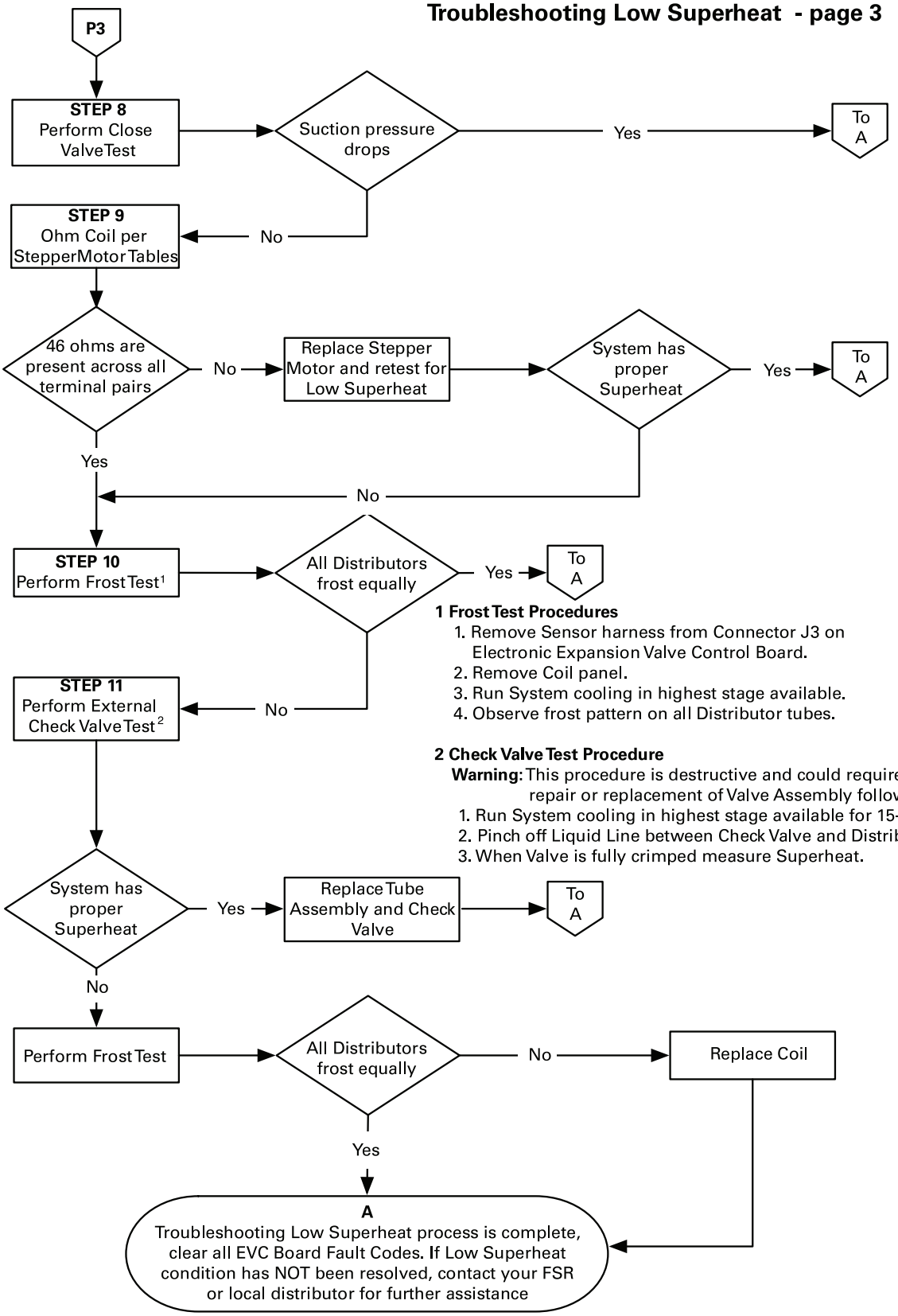
Troubleshooting Low Superheat
Perform these steps if Superheat is less than 3°F



Troubleshooting Low Superheat - page 2



Troubleshooting Low Superheat - page 3



1 Frost Test Procedures

1. Remove Sensor harness from Connector J3 on Electronic Expansion Valve Control Board.
2. Remove Coil panel.
3. Run System cooling in highest stage available.
4. Observe frost pattern on all Distributor tubes.

2 Check Valve Test Procedure

Warning: This procedure is destructive and could require repair or replacement of Valve Assembly following test.

1. Run System cooling in highest stage available for 15-20 minutes.
2. Pinch off Liquid Line between Check Valve and Distributor Assembly.
3. When Valve is fully crimped measure Superheat.

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