TABLE 12: Air Flow Data (CFM)[1] (Continued)

Models	Blower Motor Speed	External Static Pressure (in. wc.)						
		0.10	0.20	0.30	0.40	0.50	0.60	0.70
230 Volt								
18B	High	806	780	745	687	623	508	380
	Medium	640	614	563	500	405	284	216
	Low	461	414	325	188	156	N/A	N/A
24B	High	1142	1114	1078	1051	988	931	778
	Medium	854	840	826	800	738	688	605
	Low	684	663	633	578	510	445	322
30B	High	1261	1231	1174	1116	1051	977	891
	Medium	1117	1091	1048	984	934	863	699
	Low	864	846	795	754	663	575	488
36B	High	1601	1552	1485	1414	1337	1258	1178
	Medium	1385	1352	1302	1252	1193	1106	1057
	Low	1117	1103	1079	1044	1001	945	889
36C	High	1671	1636	1581	1513	1439	1330	1210
	Medium	1326	1310	1280	1238	1162	1081	994
	Low	1125	1102	1059	1014	950	894	827
37C	High	1681	1630	1572	1493	1427	1175	1031
	Medium	1308	1284	1250	1213	1022	951	859
	Low	1109	1096	1063	964	856	807	723
42C	High	1924	1861	1778	1707	1618	1442	1271
	Medium	1629	1585	1541	1470	1403	1226	1073
	Low	1323	1295	1271	1232	1111	1045	954
48C	High	1775	1727	1668	1596	1513	1431	1190
	Medium	1591	1551	1500	1447	1380	1312	1059
	Low	1392	1363	1317	1267	1206	1025	924
48D	High	2150	2069	1988	1894	1812	1690	1481
	Medium	1878	1812	1752	1677	1604	1497	1258
	Low	1583	1543	1493	1437	1332	1164	1075
60C	High	1931	1889	1808	1739	1655	1566	1472
	Medium	1845	1798	1731	1659	1581	1498	1249
	Low	1726	1692	1640	1578	1503	1416	1174
60D	High	2060	2006	1922	1829	1717	1613	1224
	Medium	1949	1900	1817	1735	1640	1547	1176
	Low	1600	1563	1527	1476	1400	1132	1022

1. Air handler units have been tested to UL 1995 / CSA 22.2 No. 236 standards up to 0.50" wc. external static pressure.
   Dry coil conditions only, tested without filters.
   For optimal performance, external static pressures of 0.2" to 0.5" are recommended. Heating applications tested at 0.50" w.c. esp.

SECTION XIII: MAINTENANCE

Filters must be cleaned or replaced when they become dirty. Inspect at least once per month. The frequency of cleaning depends upon the hours of operation and the local atmospheric conditions. Clean filters keep unit efficiency high.

COIL CLEANING

⚠ CAUTION

Ensure adequate precautions are taken to protect electrical components from liquid.

If the coil needs to be cleaned, it should be cleaned with water.

As an alternative to water, EVAP-Green by Nu-Calgon is the only pH neutral coil cleaner approved to be used when it is properly diluted. ENSURE THE CLEANED COILS ARE THOROUGHLY RINSED AFTER USE OF EVAP-GREEN.

LUBRICATION

The bearings of the blower motor are permanently lubricated.

CONDENSATE DRAINS

During the cooling season check the condensate drain lines to be sure that condensate is flowing from the primary drain but not from the secondary drain. If condensate ever flows from the secondary drain the unit should be promptly shut off and the condensate pan and drains cleaned to insure a free flowing primary drain.

SECTION XIV: AIR SYSTEM ADJUSTMENT

To check the Cubic Feet per Minute (CFM), measure the external duct static using a manometer and static pressure tips. To prepare coil for static pressure measurements run the fan only to assure a dry coil.

NOTICE

Refer to Table 12 for coil Air Flow Data of Cubic Feet Per Minute (CFM).

Drill 2 holes, one 12" away from the air handler in the supply air duct and on 12" away from the air handler in the return air duct (before any elbows in the duct work). Insert the pressure tips, and energize the blower motor. See Table 12 to determine the air flow, and make adjustments to keep the CFM within the airflow limitations of the coil.

EXTERNAL DUCT STATIC

Measure the supply air static pressure. Record this positive number. Measure the return air static pressure. Record this negative number. Treat the negative number as a positive, and add the two numbers together to determine the total external system static pressure. If a filter rack is installed on the return air end of the air handler or indoor coil section, make sure to measure the return air duct static between the filter and the indoor coil.

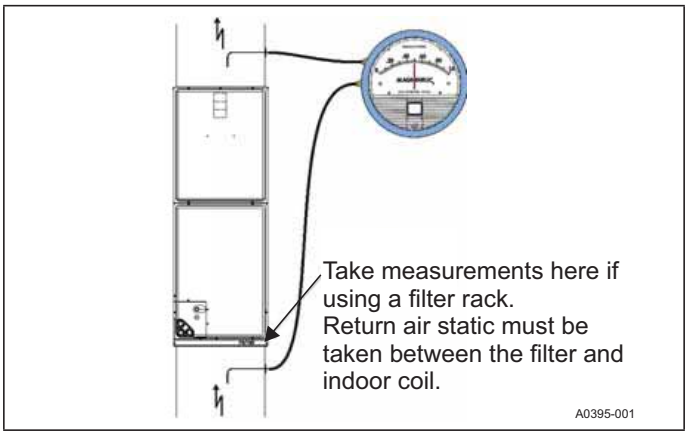

FIGURE 25: Duct Static Measurements

SECTION XV: INSTALLATION VERIFICATION

Prior to and during the accomplishment of the installation procedures, verify all tasks are accomplished as indicated in these instructions.

THERMAL EXPANSION VALVE (TXV) CHECK LIST

- ☐ Is coil metering device installed correctly?
- ☐ Was the correct TXV installed per the outdoor unit Technical Guide?
- ☐ Is the TXV bulb positioned correctly?
- ☐ Is temperature bulb insulated?
- ☐ Is equalizer line connected?

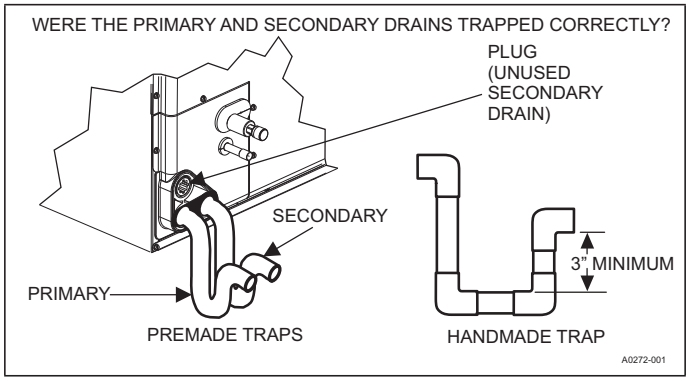

FIGURE 26: Drain Traps

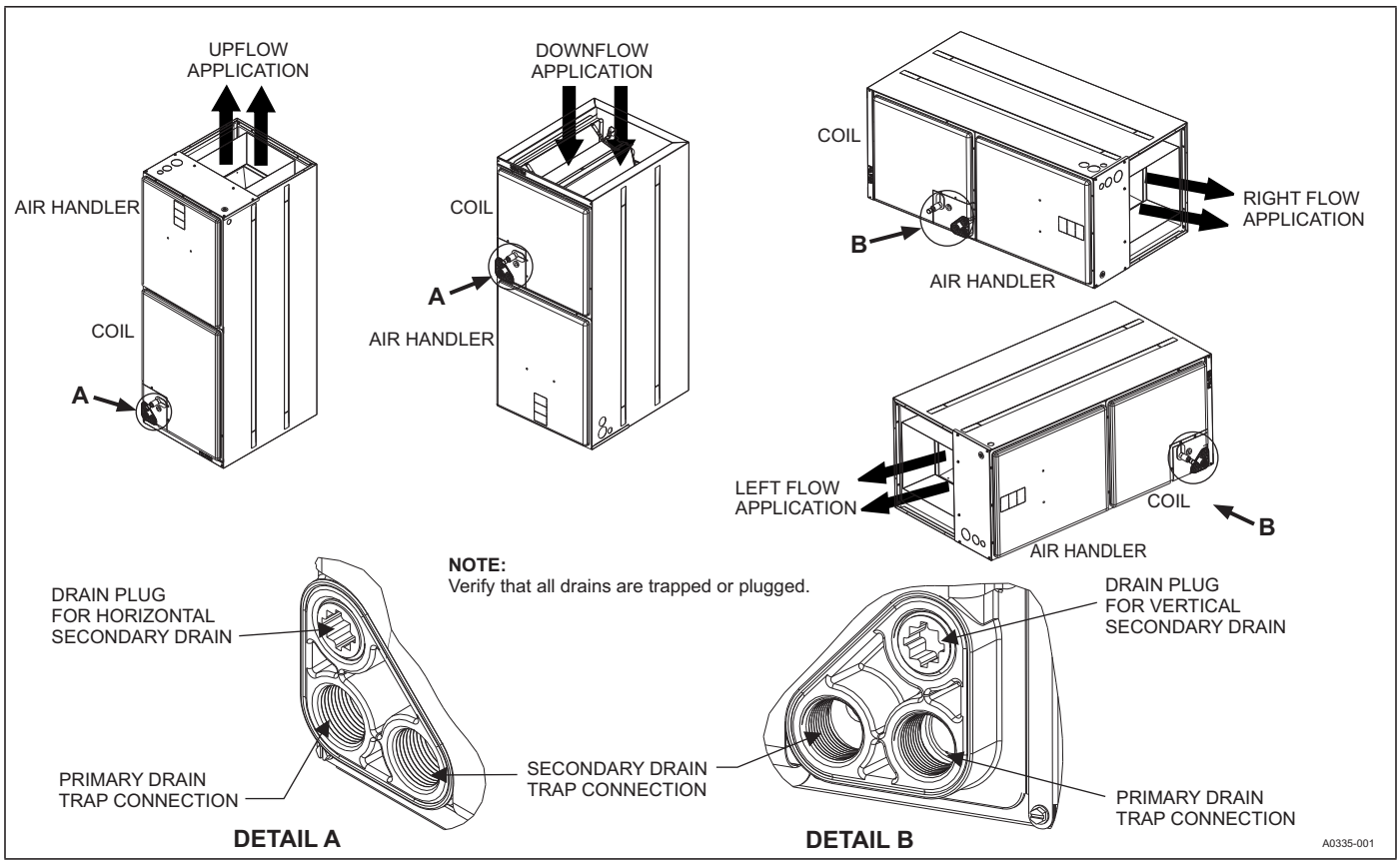

FIGURE 27: Location of Coil Trapped and Plugged Drain Connections

SECTION XVI: WIRING DIAGRAM

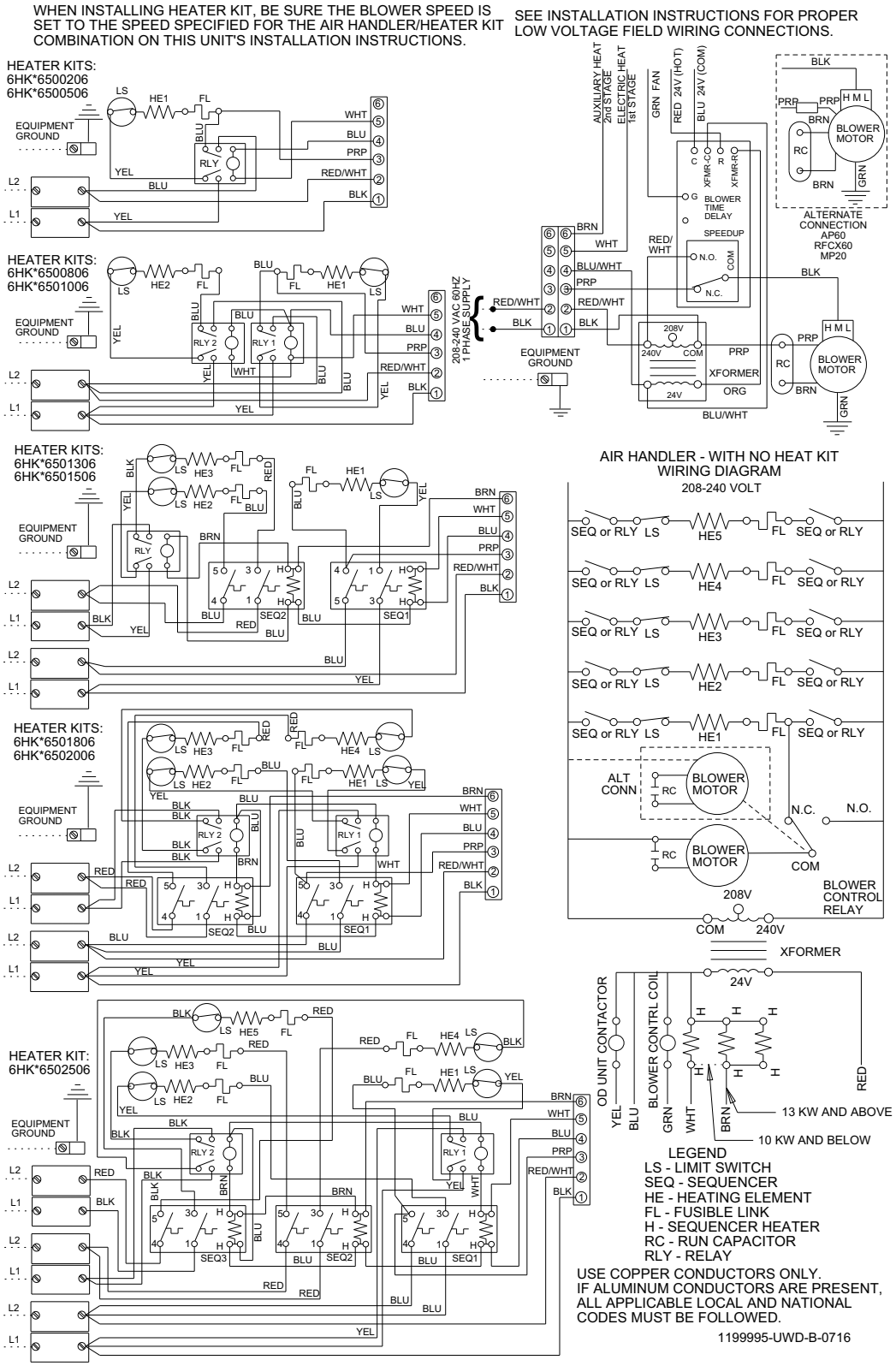

FIGURE 28: Wiring Diagram - PSC - Single Phase Heat Kits

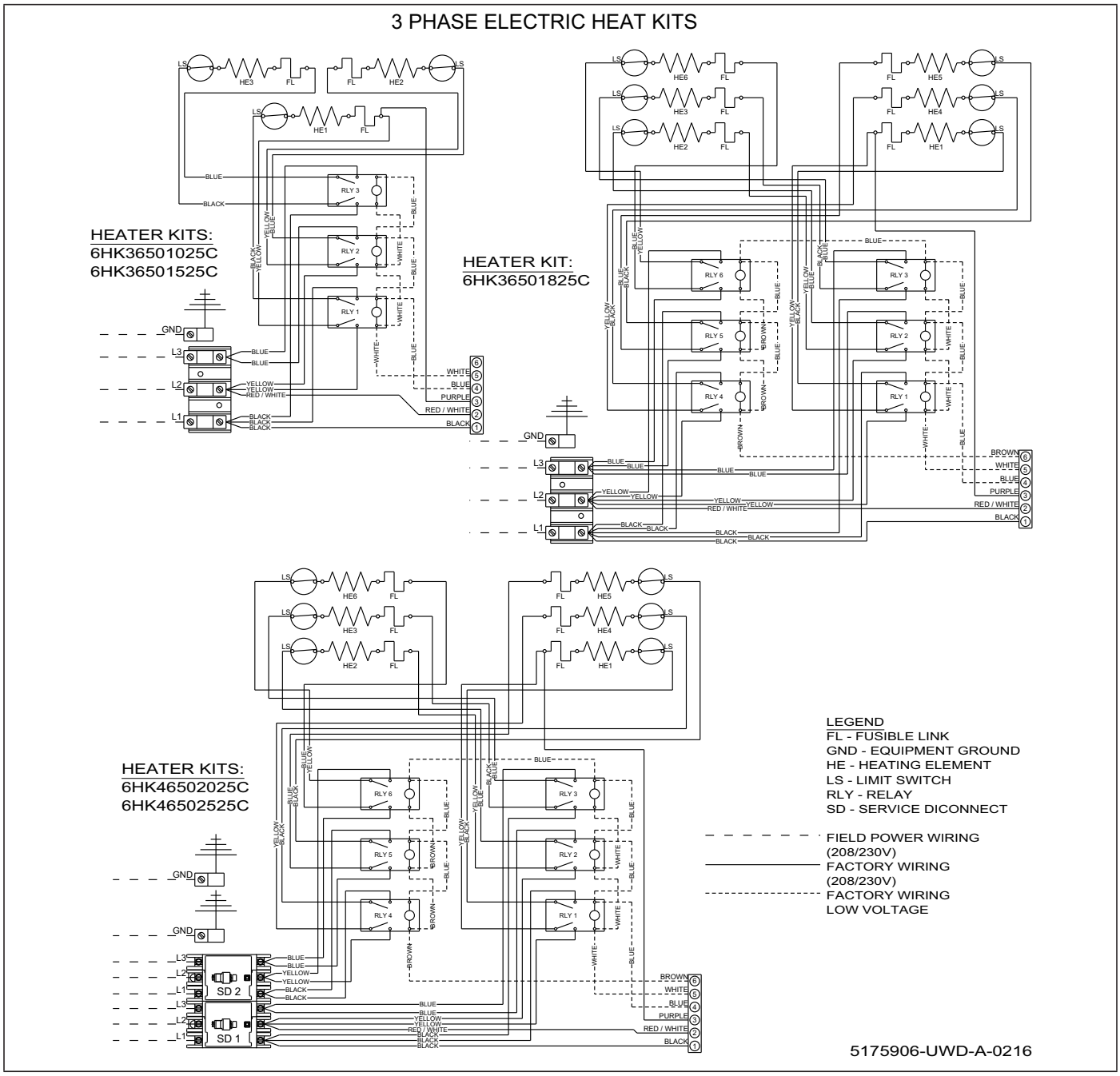

FIGURE 29: Wiring Diagram - Three Phase Heat Kits 208-230V

SECTION XVII: TYPICAL THERMOSTAT CONNECTIONS

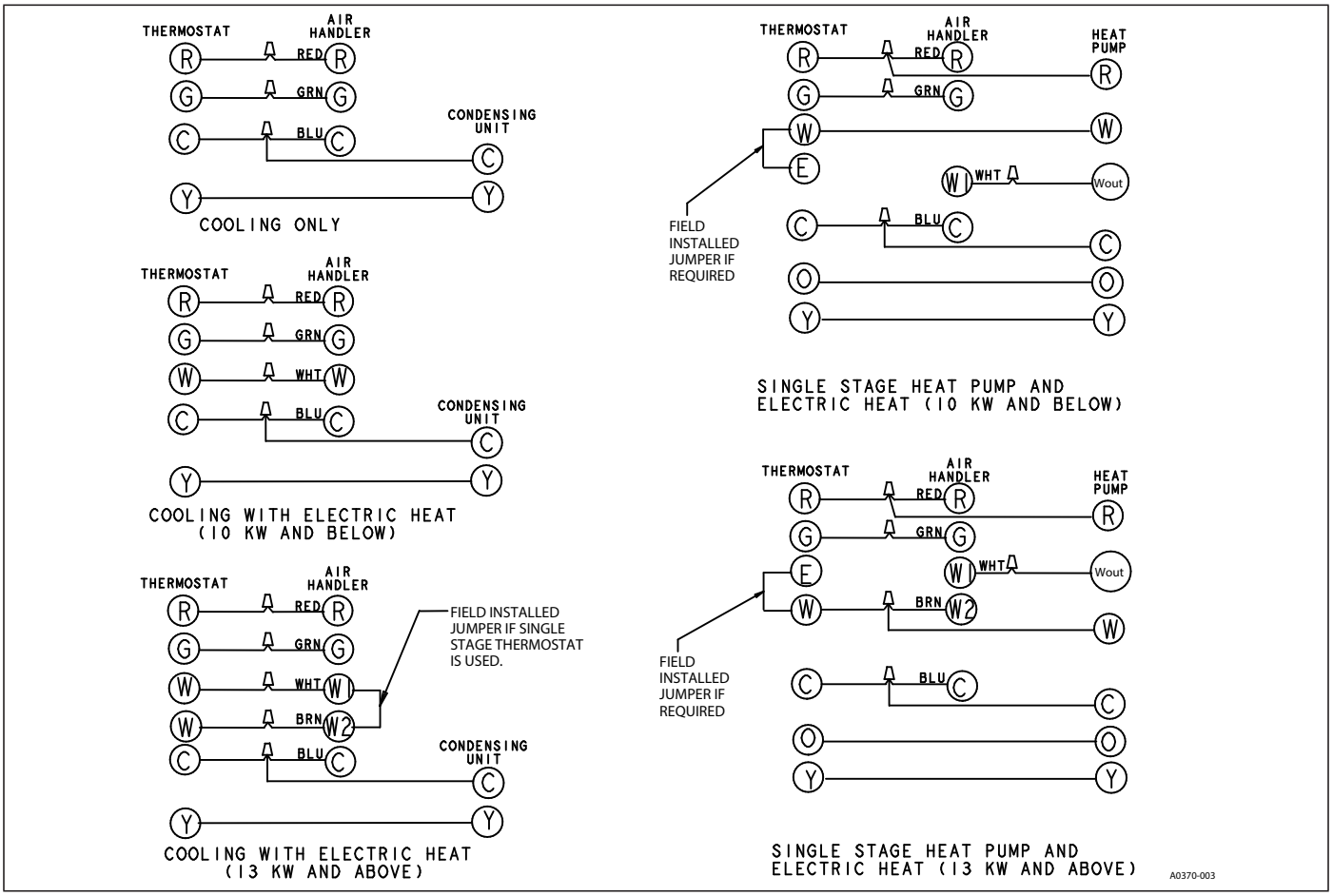

FIGURE 30: Typical Wiring Diagram

NOTES

SECTION XVIII: START UP SHEET

Print Form

Residential Air Handler with Electric Heat Start-Up Sheet

Reset Form

Proper start-up is critical to customer comfort and equipment longevity

Start-Up Date | Company Name | Start-Up Technician

Owner Information

Name | Address | Daytime Phone

City | State or Province | Zip or Postal Code

Equipment Data

Unit Model # | Unit Serial #

General Information (Check all that apply)

◯ New Construction	◯ Up flow	◯ Horizontal Left
◯ Retrofit	◯ Down flow	◯ Horizontal Right

Unit Location and Connections (Check all that apply)

☐ Unit is level ☐ Duct connections are complete: ☐ Supply ☐ Return

☐ Condensate drain properly connected per the installation instructions ☐ Condensate trap has been primed with water

Filters

☐ Filters installed Number of filters | Filter size

Electrical Connections & Inspection (Complete all that apply)

◯ 208 volts AC ◯ 230 volt AC

☐ Inspect wires and electrical connections ☐ Transformer wired properly for primary supply voltage ☐ Ground connected

Line Voltage Measured (Volts AC) | Low voltage value between "R" and "C" at control board (Volts AC)

☐ Thermostat wiring is complete ☐ Thermostat cycle rate or heat anticipator adjusted to Installation Manual specifications

Air Flow Setup

Blower Type & Set-Up						
	◯ ECM	COOL	◯ A	◯ B	◯ C	◯ D
		ADJUST	◯ A	◯ B	◯ C	◯ D
		DELAY	◯ A	◯ B	◯ C	◯ D
		HEAT	◯ A	◯ B	◯ C	◯ D
	◯ X-13	◯ 1	◯ 2	◯ 3	◯ 4	◯ 5
	◯ PSC	◯ Low	◯ Medium Low	◯ Medium	◯ Medium High	◯ High

Supply static (inches of water column)	Supply air dry bulb temperature	Outside air dry bulb temperature
Return static (inches of water column)	Return air dry bulb temperature	Return air wet bulb temperature
Total external static pressure	Temperature drop	Supply air wet bulb temperature

Other Jumpers (Check all that apply)

HUM STAT ◯ YES ◯ NO AC/HP ◯ AC ◯ HP CONT FAN ◯ L ◯ M ◯ H

Continued on next Page

Electric Heat (Complete all that apply)

Electric heat kit - Model number		Serial number		Rated KW		
Number of elements		Measured Amperage	Heater 1		Heater 2		Heater 3	
			Heater 4		Heater 5		Heater 6	
		Measured Voltage	Heater 1		Heater 2		Heater 3	
			Heater 4		Heater 5		Heater 6	
Heating return air dry bulb temperature		Heating supply air dry bulb temperature		Air temperature rise		

Clean Up Job Site

- ☐ Job site has been cleaned, indoor and outdoor debris removed from job site
- ☐ Tools have been removed from unit
- ☐ All panels have been installed

Unit Operation and Cycle Test (Complete all that apply)

- ☐ Operate the unit through continuous fan cycles from the thermostat, noting and correcting any problems
- ☐ Operate the unit through cooling cycles from the thermostat, noting and correcting any problems
- ☐ Operate the unit through mechanical heating cycles from the thermostat, noting and correcting any problems
- ☐ Operate the unit through emergency heating cycles from the thermostat, noting and correcting any problems

Owner Education

- ☐ Provide owner with the owner's manual
- ☐ Explain operation of system to equipment owner
- ☐ Explain thermostat use and programming (if applicable) to owner
- ☐ Explain the importance of regular filter replacement and equipment maintenance

Comments and Additional Job Details

5493972-UIM-A-0718
Supersedes: 5373256-UIM-C-0717

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