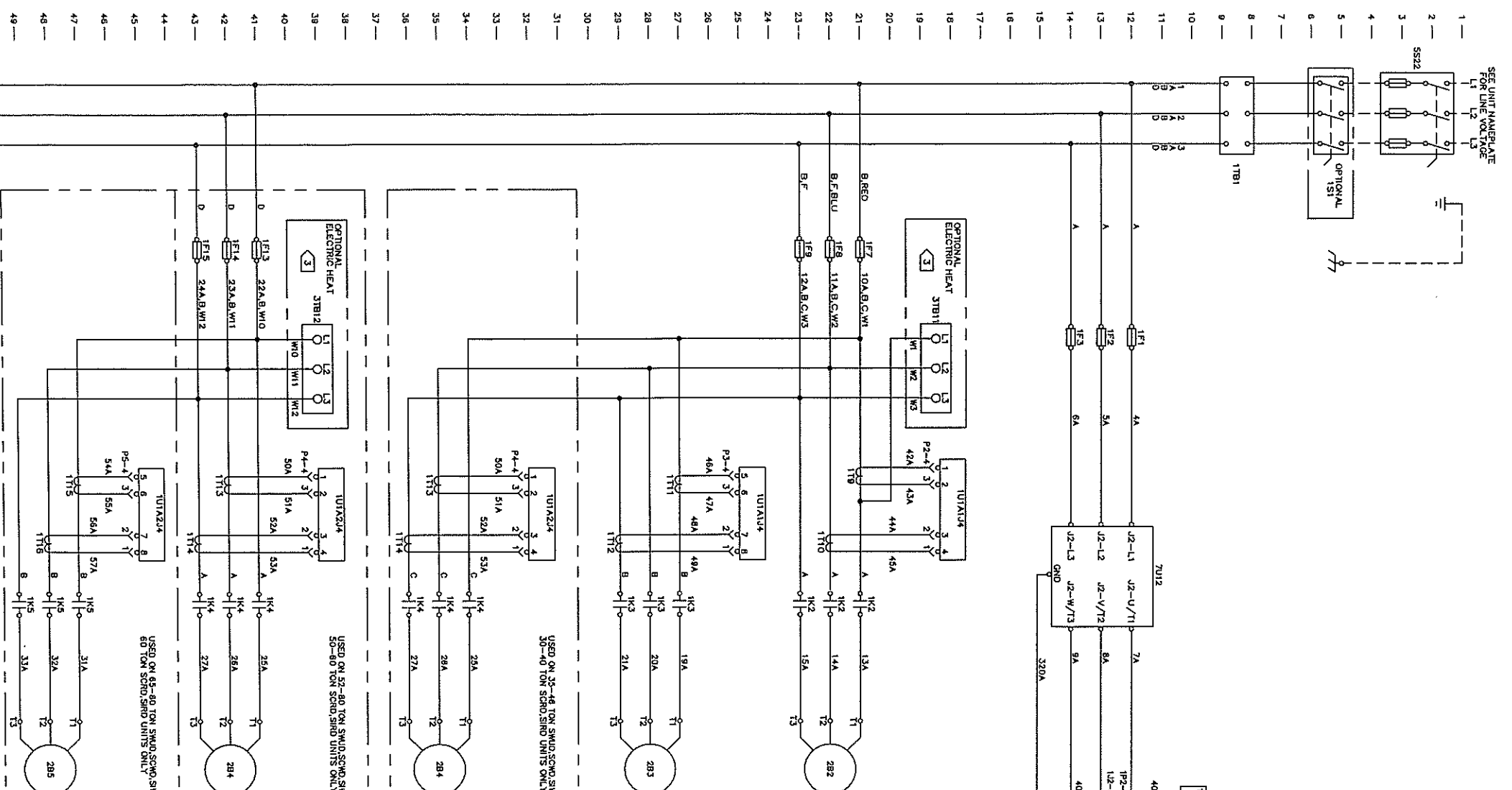


AREA	DEVICE PREFIX LOCATION CODE
1	UNIT CONTROL PANEL
2	COMPRESSOR SECTION
3	ELECTRIC HEATER CONTROL PANEL
4	SUPPLY FAN & COIL SECTION
5	FIELD INSTALLED DEVICE
6	STEAM/HOT WATER HEAT SECTION
7	INVERTER/PHASS CONTROL PANEL

DEVICE DESIGNATION	DESCRIPTION	LINE NUMBER
7A12	LINE RELAY	75
4E14	SOLENOID VALVE	76
4E12	SOLENOID VALVE	76
1F1,2,3	SUPPLY FAN FUSE	12,13,14
1F4,5	TRANSFORMER FUSE	51,52
1F6	CONTROL CIRCUIT FUSE	61
1F7,8,9	COMPRESSOR FUSE	21,22,23
1F13,14,15	CLASS 2 TRANSFORMER FUSE	41,42,43
1F19,20	COMPRESSOR CONTACTOR	67,69,70,72
1K6	FAN RUN REQUEST RELAY	86
1K7	FAN RUN RELAY	89
1K13	HEAT OVERIDE RELAY	91
1S1	NON-FUSED DISCONNECT SWITCH	95
1S2	UNIT SCHED. OVERIDE SWITCH	123
1I1	CONTROL POWER TRANS (115V)	58
1I2	ILLI POWER SUPPLY TRANS	56
1I4,5	CONTROL POWER TRANS (24V)	64,67
1I6,9,10,11,12	CURRENT TRANSFORMER	14,21,22,23,28
1I13,14	CURRENT TRANSFORMER	33,38,42,43
1I15,16	POWER TERMINAL BLOCK	47,48
1I18	CONTROL TERMINAL BLOCK	8
1I23,3,4,5,6	UNIT CONTROL MODULE	10,16,25, 32,39,45, 83,98,122
1U1	UNIT CONTROL MODULE	60,65
1U2	POWER SUPPLY/OUTPUT MODULE	62,65
1U3	RELAY OUTPUT MODULE	63,93,98
1U4	INVERTER INTERFACE MODULE	98
1U10	TIME CLOCK	124
1U11	SPLY AIR PRESS. TRANSDUCER	166
2B2,3	COMPRESSOR	22,28
2B4,5	COMPRESSOR	35,42,48
2B2510,2B3511	OPRSH WINDING THERMOSTAT	148,150
2B4512,2B5513	OPRSH WINDING THERMOSTAT	144,166
2R12	ENT ECON WATER TEMP SENSOR	153
2R11	ENT ECON WATER TEMP SENSOR	153
2R12	LEAVING COND WATER TEMP SENSOR	152
2S24,3	HIGH PRESSURE CUTOFF	67,68
2S4,5	HIGH PRESSURE CUTOFF	69,70
2S6	COND WATER FLOW SWITCH	132
2S19,19	LOW PRESSURE CUTOFF	132,154
2S20,21	LOW PRESSURE CUTOFF	169,170
2U5	MIXED AIR TEMP PROT DEVICE	158
2U5	ECON MODULATING WATER VALVE ACTUATOR	80
2U6	CONDENSING PRESS CONTROL VALVE ACTUATOR	111
2U8	ENERGY SAVING WATER VALVE ACTUATOR	106
3I1B1,12	POWER TERMINAL BLOCK	16,39
3I1B1,4	CONTROL TERMINAL BLOCK	63,64
4B1	SUPPLY FAN MOTOR	13
4R14	SUPPLY AIR TEMP SENSOR	150
4R12	ENTERING AIR TEMP SENSOR	157,160
4E17,18	EVAI SUCTION TEMP SENSOR	157,159
4E19,110	EVAI SUCTION TEMP SENSOR	173,175
4S8	DIRTY FILTER SWITCH	141
4S27	STEAM/HOT WATER HEAT LEAVING AIR TEMP CUTOFF	95
5R13	ZONE/NIGHT HEAT TEMPERATURE SENSOR	136
5R1359	NIGHT SETBACK OVERIDE TEMPERATURE SENSOR	157
5R15	WAY MORNING WAKUP TEMPERATURE SENSOR	163
5R16	SPLY AIR TEMP RESET SENSOR	171
5S7	ENTHALPY CONTROL	138
5S22,23	FUSED DISCONNECT SWITCH	2,11,5
5U9	AIRSIDE ECONOMIZER DAMPER ACTUATOR	105
6L1	SAFETY SHUTOFF VALVE SOL	96
6R113	ST/WHI COIL LEAVING AIR TEMPERATURE SENSOR	98
6S28	MIXED AIR TEMP PROT DEVICE	158
6U13	STEAM/HOT WATER HT V ACTR	92,117
6U13,116	ST/WHI V ACTR TRANSFORMER	91
6U14	ST/WHI TEMP CONTROLLER	92
7U12	INVERTER CONTROL	13,98,167
1U1,2	UOM JACK CONNECTOR	
P1-P49	PLUG CONNECTOR	



- NOTES:
- UNLESS OTHERWISE NOTED, ALL SWITCHES ARE SHOWN AT 230°C (77°F) AT ATMOSPHERIC PRESSURE. A 30K RELAY IS A UNIT WITH NORMAL SHUTDOWN HAS OCCURRED.
 - DASHED LINES INDICATE RECOMMENDED FIELD WIRING BY OTHERS. DASHED LINE ENCLOSURES AND/OR DASHED DEVICE OUTLINES INDICATE USER'S FIELD WIRING. FIELD WIRING IS NOT A WARRANTY OR AVAILABLE SALES OPTION. SOLID LINE INDICATES WIRING BY TRANE CO.
 - FOR REMAINDER OF ELECTRIC HEATER CIRCUITS, SEE ELECTRICAL SCHEMATIC DIAGRAM LOCATED ON ELECTRIC HEATER CONTROL PANEL COVER.

WARNING
HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.
FAILURE TO DISCONNECT POWER TO VARIOUS PARTS OF THE UNIT MAY CAUSE SEVERE PERSONAL INJURY OR DEATH.
SEE ELECTRICAL SCHEMATIC DIAGRAM FOR VOLTAGE HAZARDOUS!

AVERTISSEMENT
DÉCONNECTEZ TOUTES LES SOURCES D'ÉLECTRICITÉ INCLUANT LES DÉCONNECTEURS À DISTANCE AVANT DE RÉPARER L'UNITÉ. L'ÉLECTRIQUE PEUT ENTRAINER DES BLESSURES CORPORELLES SÈVERES OU LA MORT.

CAUTION
USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

REV	1	FILE NUMBER: X39670700
DRAWING NUMBER:	X39670700	
VERTICAL AIR CONDITIONER		
COMMERCIAL SPLIT CONDENSING SYSTEMS		
SCHEMATIC WIRING 1 OF 5		
SCWD-SW-0027		
REVISION DATE:		
REVISION BY:		
DRAWN BY:		
DATE:	06/07/96	
DE/07/96		
SIMILAR TO:		
REVISION OF:		
THE TRANE COMPANY		
A DIVISION OF		
TRANE		

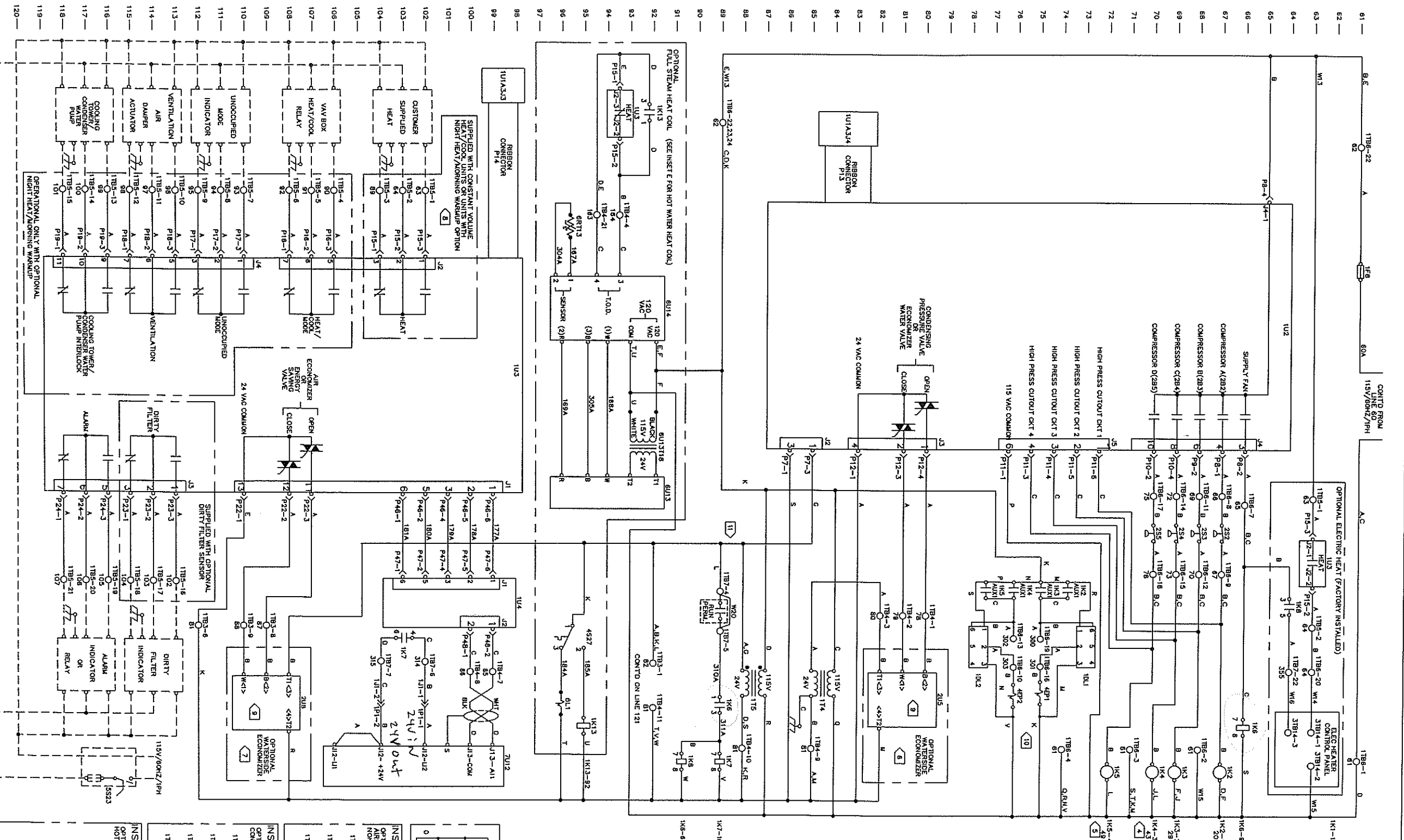
WARNING
 HAZARDOUS VOLTAGE! DISCONNECT ALL ELECTRIC POWER BEFORE SERVICING. FAILURE TO DISCONNECT POWER BEFORE SERVICING CAN CAUSE SEVERE PERSONAL INJURY OR DEATH.

AVERTISSEMENT
 DANGER DANGEREUX! DÉCONNECTEZ TOUS LES SOURCES D'ÉLECTRICITÉ AVANT D'ENTREPRENDRE LES TRAVAUX D'ENTRETIEN. L'ÉLECTRICITÉ EN COURS PEUT CAUSER DE GRAVES BLESSURES CORPORELLES, SERIEUSES OU LA MORT.

CAUTION
 USE COPPER CONDUCTORS ONLY. UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF WIRING. FAILURE TO USE COPPER CONDUCTORS MAY CAUSE DAMAGE TO THE EQUIPMENT.

AREA	DEVICE PREFIX	LOCATION	CODE
1	UNIT CONTROL PANEL		
2	COMPRESSOR SECTION		
3	ELECTRIC HEATER CONTROL PANEL		
4	SUPPLY FAN & COIL SECTION		
5	FIELD INSTALLED DEVICE		
6	STEAM/HOT WATER HEAT SECTION		
7	INTERFERE/BYPASS CONTROL PANEL		

- NOTES:
- UNLESS OTHERWISE NOTED, ALL SWITCHES ARE 250 VOLT, 30 AMP. RELAYS ARE 250 VOLT, 10 AMP. ALL UTILITIES TURNED OFF, AND AFTER A NORMAL SHUTDOWN HAS OCCURRED.
 - DASHED LINES INDICATE RECOMMENDED FIELD WIRING. SOLID LINES INDICATE FIELD WIRING PROVIDED BY THE FIELD. PHANTOM LINE ENCLOSURES INDICATE ALTERNATE WIRING. SOLID LINE INDICATES WIRING BY TRANE CO.
 - NUMBERS ALONG THE RIGHT SIDE OF THE SCHEMATIC DESIGNATE THE LOCATION OF THE CONTACTS BY LINE NUMBER. AN UNDERLINED NUMBER INDICATES A NORMALLY CLOSED CONTACT.
 - 254 I/K4 AND ASSOCIATED WIRING ARE USED ONLY ON 35-60 TON SMD, SMD SWG & 30-60 TON SMD, SMD UNITS.
 - 255 I/K5 AND ASSOCIATED WIRING ARE USED ONLY ON 65-80 TON SMD, SMD SWG & 60 TON SMD, SMD UNITS.
 - WHEN OPTIONAL CONDENSING PRESSURE CONTROL VALVE IS USED, SEE INSET A.
 - WHEN OPTIONAL AIRSIDE ECONOMIZER IS USED, SEE INSET B.
 - WHEN OPTIONAL FACTORY ELECTRIC HEAT IS INSTALLED, THE RETURN VALVE ACTUATOR/HOT WATER HEAT FULL COIL IS USED. SEE LINE NO. 80. WHEN CUSTOMER SUPPLIED HEAT IS USED, SEE LINE NO. 101.
 - FIELD OR LOCAL SPRING RETURN VALVE ACTUATOR (R/V)/A/E2, 101/102, AUX AND ASSOCIATED WIRING ARE PRESENT ONLY ON SMD/SMD UNITS. SEE INSET F FOR REVERSE CONDENSER WIRING.
 - FIELD OR LOCAL SPRING RETURN VALVE ACTUATOR (R/V)/A/E2, 101/102, AUX AND ASSOCIATED WIRING ARE PRESENT ONLY ON SMD/SMD UNITS. SEE INSET F FOR REVERSE CONDENSER WIRING.
 - FAN RUN INDICATOR CIRCUIT IS AN ADDITIONAL SWIRLY CIRCUIT THAT WILL ENERGIZE THE FAN WHEN PERMISSION IS GRANTED FOR THE FAN TO RUN. SEE INSET D.



INSET A
 OPTIONAL CONDENSING PRESSURE CONTROL VALVE

INSET B
 OPTIONAL AIRSIDE ECONOMIZER

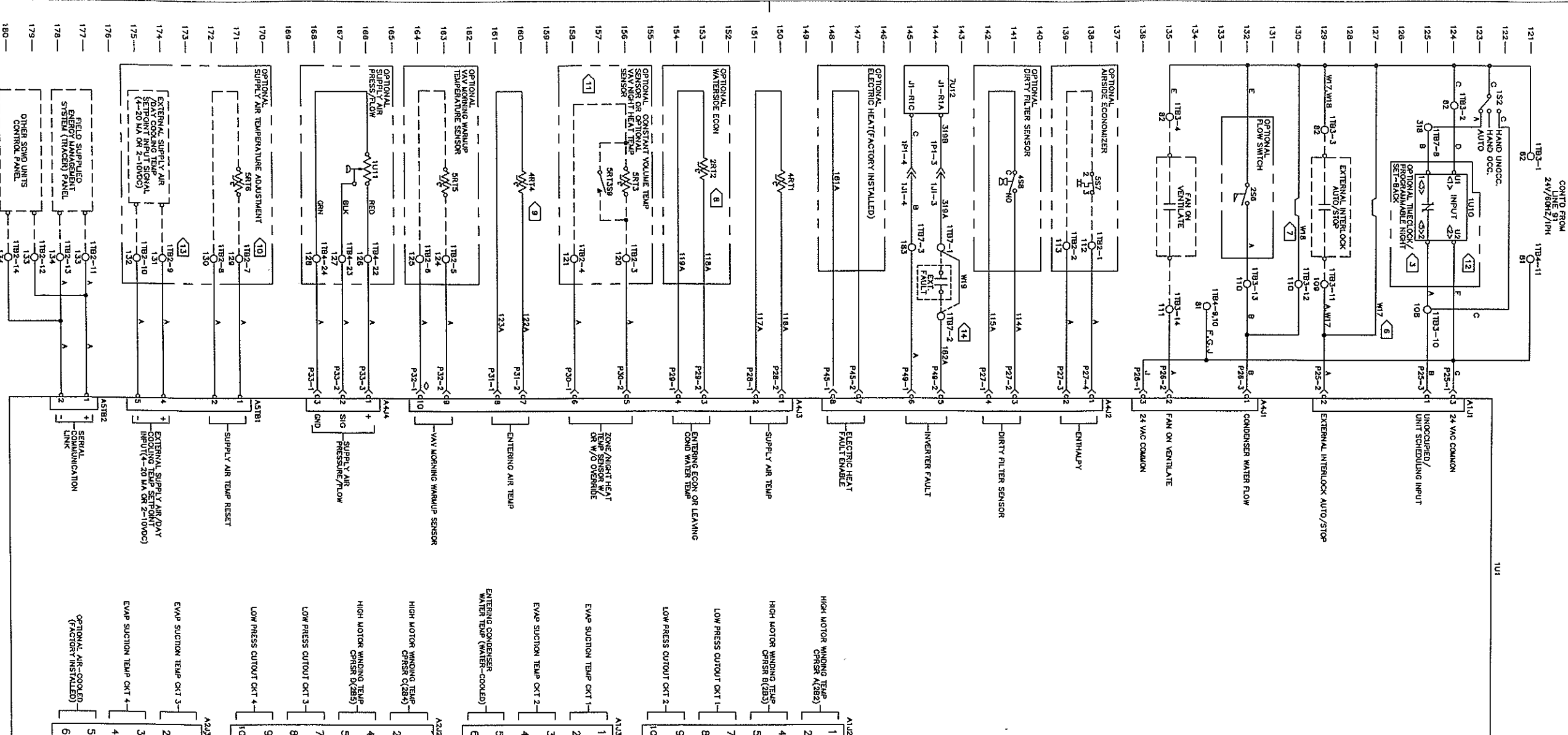
INSET C
 FAN RUN REQUEST

INSET D
 FAN RUN INDICATOR

INSET E
 OPTIONAL HOT WATER HEAT FULL COIL

INSET F
 OPTIONAL REVERSE CONDENSER WIRING

REPLACES: X39670876
 DRAWN BY: THE TRANE COMPANY
 REVISION DATE: 08/12/96
 DATE: SCWD-SW-0028
 COMMERCIAL SELF-CONTAINED VERTICAL AIR CONDITIONER
 DRAWING NUMBER: X39670716

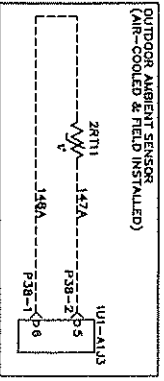
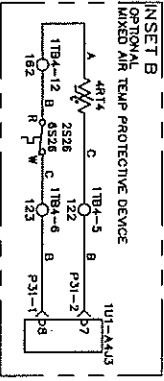
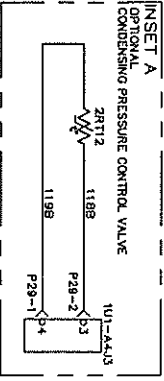


AREA	LOCATION	DEVICE PREFIX LOCATION CODE
1	UNIT CONTROL PANEL	
2	COMPRESSOR SECTION	
3	ELECTRIC HEATER CONTROL PANEL	
4	SUPPLY FAN & COIL SECTION	
5	FIELD INSTALLED DEVICE	
6	STEAD/NOT WATER HEAT SECTION	
7	INVERTER/BYPASS CONTROL PANEL	

WARNING
 HAZARDOUS VOLTAGE!
 DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.
 NEVER SERVICER CONTACT POWER BEFORE PERSONAL INJURY OR DEATH.
AVERTISSEMENT
 VOLTAJE PELIGROSO!
 DESCONECTE TODA LA ENERGIA ELECTRICAS INCLUIDA LOS DISYUNTORES SITUADOS A DISTANCIA ANTES DE SERVICIAR. L'ENTRETIEN, LA REPARATION, LE DEBRAYAGE, LE RETRAITEMENT PEUT ENTRAINER DES BLESSURES CORPORAELLES SEVERES OU LA MORT.

CAUTION
 USE COPPER CONDUCTORS ONLY UNIT TERMINALS ARE DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
 FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

- NOTES:
- UNLESS OTHERWISE NOTED, ALL SWITCHES ARE TO BE TURNED OFF AND ALL UTILITIES TURNED OFF, AND AFTER A NORMAL SHUTDOWN HAS OCCURRED.
 - DASHED LINES INDICATE RECOMMENDED FIELD WIRING. DOTTED LINES INDICATE FIELD WIRING PROVIDED BY THE MANUFACTURER. COMPONENTS PROVIDED BY THE FIELD, PHANTOM LINE ENCLOSURES INDICATE ALTERNATE FIELD WIRING. A SOLID LINE INDICATES WIRING BY TRANE CO.
 - CONTROL CIRCUITS TO THE UNOCCUPIED INPUT OF UNIT ARE CUSTOMER SUPPLIED. UNOCCUPIED INPUTS ARE NOT FACTORY INSTALLED.
 284512, 28500, 48170 AND ASSOCIATED WIRING ARE USED ONLY ON 35-80 TON SWD/SWDD & 30-80 TON SCSD UNITS.
 285513, 2521, 48110 AND ASSOCIATED WIRING ARE USED ONLY ON 65-80 TON SWD/SWDD & 60 TON SCSD.
 - WHEN EXTERNAL INTERLOCK IS INSTALLED, JUMPER WIRE W18 IS REMOVED.
 - WHEN FLOW SWITCH IS INSTALLED, JUMPER WIRE W19 IS REMOVED.
 - FOR NON-VAV UNITS WITHOUT WATER-SIDE ECONOMIZER OPTION, SEE INSET A.
 - WHEN MIXED AIR TEMPERATURE PROTECTIVE DEVICE 2526 OR 6528 IS INSTALLED, SEE INSET B.
 - CUSTOMER MAY USE EITHER 4-20 MA/2-10VDC SIGNAL FOR SUPPLY AIR /DAY COOLING TEMPERATURE SETPOINT INPUT OR 0-15 VDC/0-30 VDC FIELD SIGNAL. DAY COOLING TEMPERATURE SETPOINT INPUT AND DAY COOLING TEMPERATURE SETPOINT INPUT RANGES MUST BE FACTORY CONFIGURED FOR DATE SENSOR RESET. INSTALLATION, OPERATION & MAINTENANCE MANUALS CONTAIN INFORMATION ON EXTERNAL SETPOINT INPUT.
 - ONLY UNITS WITH OPTIONAL NIGHT HEAT ARE SUPPLIED WITH 581359 OVERRIDE BUTTON.
 - WHEN OPTIONAL GRASSQUIT TRUCKLOCK IS USED, BE TERMINAL CONNECTIONS AS INDICATED BY THE TRAPEZOIDAL ARROWS < >.
 - EXTERNAL SETPOINT INPUT RATINGS: 0-15 VDC/0-30 VDC FIELD SIGNAL DEVICE MUST BE A FLOATING GROUND.
 - REMOVE JUMPER W19, WHEN EXTERNAL FAULT IS INSTALLED.



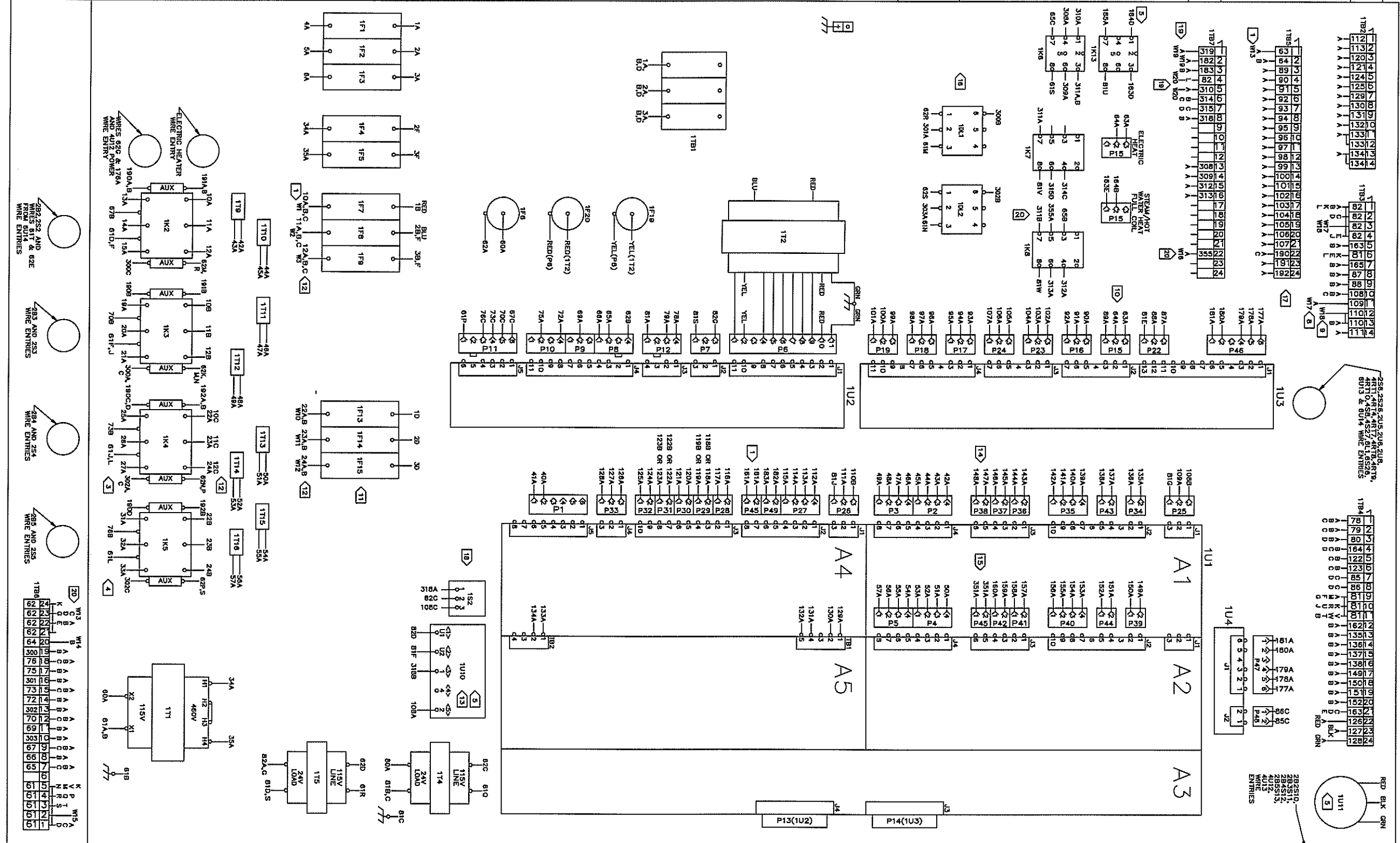
REV	DATE	DESCRIPTION
A	08/12/96	SCHEMATIC WIRING 3 OF 3
	02/12/95	SCHEMATIC WIRING 2 OF 3
	09/03/99	SCHEMATIC WIRING 1 OF 3
		SQUARE D INVERTER DRIVE

REPLACES: X29870643 THE TRANE COMPANY
 CAD/CAM: SCWD-SW-0029
 FILE NUMBER: X39670701
 DRAWING NUMBER: VERTICAL AIR CONDITIONER

REV	1
FILE NUMBER	SCWD-SW-0030
DRAWING NUMBER	X39670706
DATE	05/01/98
REVISION DATE	05/12/98
DESIGN BY	K. HENNING
CHECKED BY	J. HENNING
APPROVED BY	J. HENNING
THE TRANE COMPANY	COMMERCIAL SELF CONTAINED VERTICAL AIR CONDITIONER
FILE NUMBER	SCWD-SW-0030
DRAWING NUMBER	X39670706
DATE	05/01/98
REVISION DATE	05/12/98
DESIGN BY	K. HENNING
CHECKED BY	J. HENNING
APPROVED BY	J. HENNING
THE TRANE COMPANY	COMMERCIAL SELF CONTAINED VERTICAL AIR CONDITIONER
FILE NUMBER	SCWD-SW-0030
DRAWING NUMBER	X39670706
DATE	05/01/98
REVISION DATE	05/12/98
DESIGN BY	K. HENNING
CHECKED BY	J. HENNING
APPROVED BY	J. HENNING
THE TRANE COMPANY	COMMERCIAL SELF CONTAINED VERTICAL AIR CONDITIONER

WIRING FOR COMPRESSOR CONTACTORS FOR 20 - 29 TON SCRD. **(17)**

191A,10A 11A 12A 62A,10B 11B 12B 62A,11C 13A 14A 15A 300A 190A 191A 192A 193A 20A 21A 300A 67B 67D,F



WARNING
HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRIC POWER INCLUDING REMOTE DISCONNECTS BEFORE SERVICING.
FAILURE TO DISCONNECT POWER OR SERVICING WITH POWER ON MAY CAUSE SEVERE PERSONAL INJURY OR DEATH. SEE PERSONAL SAFETY INSTRUCTIONS ON THE EQUIPMENT.

AVERTISSEMENT
VOLTAJE PELIGROSO!
DECONECTEZ TOUTES LES SOURCES ELECTRIQUES Y COMPRIS LES DISCONNECTS LOINTAINS A DISTANCE AVANT D'EXECUTER L'ENTRETIEN. LA FALUTE DE DECONECTER LA SOURCE ELECTRIQUE PEUT ENTRAÎNER DES BLESSURES CORPORELLES SEVERES OU LA MORT.

CAUTION
USE COPPER CONDUCTORS ONLY!
UNIT TERMINALS ARE NOT DESIGNED TO ACCEPT OTHER TYPES OF CONDUCTORS.
FAILURE TO DO SO MAY CAUSE DAMAGE TO THE EQUIPMENT.

- NOTES:**
- 1 Wires W1, W2, W3, 648, 191A and W10 thru W16 ARE SUPPLIED WITH THE ELECTRIC HEAT OPTION. WIRE #1 PASSES THRU 1F1 ONE TIME.
 - 2 Wires W17, W18 and W19 ARE ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 3 1F13, 1F14, 1F15 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 4 288310, 288412, 288513, 40113, 40114 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 5 288310, 288412, 288513, 40113, 40114 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 6 288310, 288412, 288513, 40113, 40114 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 7 288310, 288412, 288513, 40113, 40114 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 8 WHEN CUSTOMER SUPPLIES EXTERNAL INTERLOCK IS INSTALLED. WIRE W17 IS REMOVED. WHEN W10 SWITCH 268 IS INSTALLED, JUMPER WHEN W10 IS REMOVED.
 - 9 WIRE #10 CONNECTIONS SHOWN TO THE PLUG HEAT. SEE ADJACENT PLUG PIS CONNECTIONS STEAM/HOT WATER HEAT.
 - 10 WIRE #10 CONNECTIONS SHOWN TO THE PLUG HEAT. SEE ADJACENT PLUG PIS CONNECTIONS STEAM/HOT WATER HEAT.
 - 11 1F13, 1F14, 1F15 AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS.
 - 12 WIRE #10, 11C, 12C ARE USED ONLY ON 35, 40, 45, 50, 55, 60 TON SCRD AND UNITS.
 - 13 WHEN OPTIONAL GRASSLIN THERMLOCK IS USED, USE TERMINAL CONNECTIONS AS INDICATED BETWEEN OPPOSITE ARROWS <->.
 - 14 SEND 2ND ENTERING CONDENSER WATER TEMPERATURE (FACTORY INSTALLED SENSOR (FIELD INSTALLED)).
 - 15 SCRD/SRD JUMPER INSTALLED FOR AIR-COOLED UNITS.
 - 16 NEP/NE2, 10E1/10E2 AUX AND ASSOCIATED WIRING ARE 30-60 TON SCRD AND UNITS. **WARNING** INCOMING LINE VOLTAGE IS SUPPLIED FROM AN EXTERNAL SOURCE.
 - 17 SWITCH CONTACTS ARE NUMBERED BY HOLDING THE NOTCH ON THE SWITCH, AT THE TOP, AND COUNTING DOWN TO THE RIGHT. A - C.
 - 18 REMOVE JUMPER WIRE, W19, IF EXTERNAL FAULT IS INSTALLED. REMOVE JUMPER WIRE, W20, IF NON PERMISSIBL IS INSTALLED.
 - 19 WIRE# 300A, 609 AND W18 ARE ONLY REQUIRED WITH THE ELECTRIC HEAT OPTION.
 - 20