

 **WARNING**
HAZARDOUS VOLTAGE!
DISCONNECT ALL ELECTRIC POWER
INCLUDING REMOTE DISCONNECTS
BEFORE SERVICING.

FAILURE TO DISCONNECT POWER
BEFORE SERVICING CAN CAUSE SEVERE
PERSONAL INJURY OR DEATH.

 **AVERTISSEMENT**
VOLTAGE HASARDEUX!
DECONNECTEZ TOUTES LES SOURCES
ELECTRIQUES INCLUANT LES
DISJONCTEURS SITUES A DISTANCE

AVANT D'EFFECTUER L'ENTRETIEN.
FAUTE DE DECONNECTER LA SOURCE
ELECTRIQUE AVANT D'EFFECTUER
L'ENTRETIEN 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.

** LEGEND **		
DEVICE DESIGNATION	DESCRIPTION	LINE NUMBER
CC1	COMPRESSOR CONTACTOR #1	136
CC2	COMPRESSOR CONTACTOR #2	137
CFS	CLOGGED FILTER SWITCH	171
C02 SENSOR	C02 SENSOR	175
COMM	COMMUNICATIONS MODULE	159
DT5	DISCHARGE TEMP SENSOR	165
ECA	ECONOMIZER ACTUATOR	167
F	IDM FAN CONTACTOR	135
F	IDM FAN RELAY	180
FIRE PANEL	FIRE PANEL	175
FFS	FAN FAILURE SWITCH	173
FOS1	FROST STAT 1	179
HPC1	HIGH PRESSURE CUTOUT #1	136
HPC2	HIGH PRESSURE CUTOUT #2	137
IGVA	INLET GUIDE VANE ACTUATOR	155
LPC1	LOW PRESSURE CUTOUT #1	141
MAS	MIXED AIR SENSOR	167
OAS	OUTSIDE AIR SENSOR	139

* * * LEGEND * * *		
DEVICE DESIGNATION	DESCRIPTION	LINE NUMBER
ODF20	OUTDOOR FAN RELAY #20	143
OHS	OUTSIDE HUMIDITY SENSOR	173
RAS	RETURN AIR SENSOR	169
RHS	RETURN HUMIDITY SENSOR	171
RHT	RETURN HIGH TEMP.	139
RMP	REMOTE MINIMUM POSITION	171
RTAM	YAW MODULE	151,179
RTOM	OPTIONS MODULE	153
RTRM	REFRIGERATION MODULE	134,168
SHT	SUPPLY HIGH TEMP.	139
SPT	STATIC PRESS. TRANSDUCER	151
THERMOSTAT	THERMOSTAT	148
TNS2	CONTROL TRANSFORMER	134
VFD	VARIABLE FREQUENCY DRIVE	176,179
VHR	VAV BOX RELAY	146,147 151
WTL1	WINDING TEMP LIMIT #1	136
WTL2	WINDING TEMP LIMIT #2	137
XFR	EXHAUST FAN RELAY	173
ZSM	ZONE SENSOR MODULE	156,166

NOTES:

- 1 WIRING SHOWN IS FOR 460V. FOR 575V MOVE ALL WIRES FROM 460V TERMINAL TO 575V TERMINAL ON TNS2.

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|---|--|
| 3 | WIRE NUMBER 36AE IS NOT USED FOR TE_420 |
| 4 | REQUIRED FOR OPTIONAL REFERENCE ENTHALPY CONTROL |
| 5 | REQUIRED FOR OPTIONAL COMPARATIVE ENTHALPY CONTROL |

- 6 LPC1 IS A LOW PRESSURE CUTOUT SWITCH USED FOR COMPRESSOR PROTECTION. CAUTION!! DO NOT JUMPER ACROSS SWITCH UNDER ANY CIRCUMSTANCES. TO DISABLE COMPRESSORS, REMOVE JUMPERS AND CONNECT FIELD SUPPLIED DEVICE.

- 7 WIRING SHOWN IS FOR UNIT WITH INDOOR FAN MOTOR DRIVES.
WHEN UNIT HAS OPTIONAL VARIABLE FREQUENCY DRIVE SEE
INSETS A, B, AND C.

- 8 NOT USED ON UNITS WITH VARIABLE FREQUENCY DRIVES
(SEE INSET B).
- 9 XFR CAN BE FOUND ON LINES 21,26 & 173.

- 9 XFR CAN BE FOUND ON LINES 21,26 & 173.

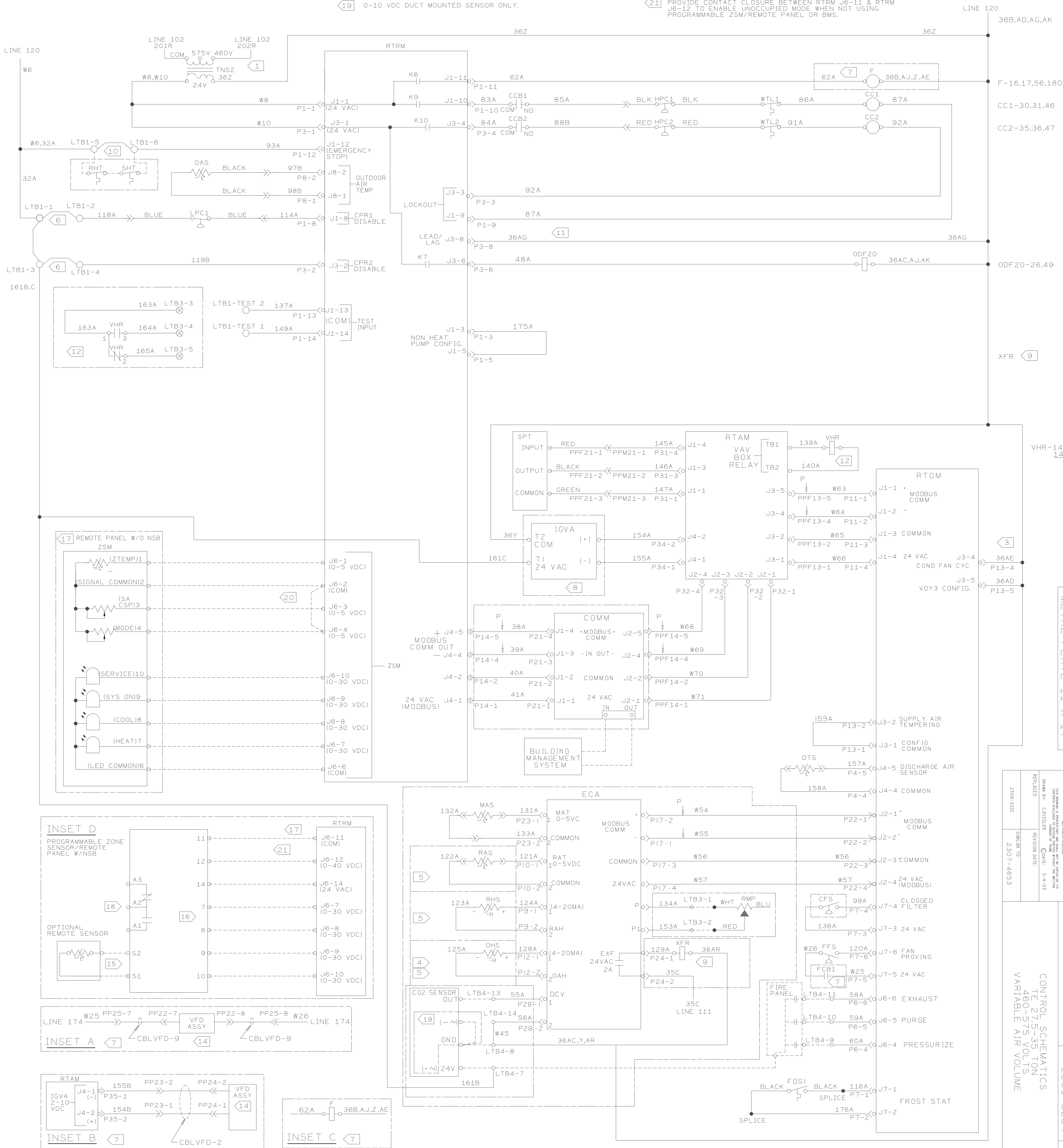
- 10 REMOVE JUMPER BETWEEN LTB-5 AND LTB-6 AND INSTALL FIELD PROVIDED DEVICE WHEN REQUIRED.
- 11 TO ENABLE COMPRESSOR LEAD/LAG OPERATION, CUT WIRE 36AG.
- 12 RELAY ENERGIZED DURING ALL CV MODES: UNOCC, DWU, MWU.

- 14 SEE APPLICABLE VARIABLE FREQUENCY DRIVE DIAGRAM FOR BALANCE OF CIRCUIT.
- 15 INSTALL OPTIONAL REMOTE SENSOR TO TERMINALS S1 AND S2 WHEN REQUIRED. SEE PROGRAMMABLE ZONE SENSOR / REMOTE PANEL W/NSB LITERATURE FOR OPTION CONFIGURATION.

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|----|--|
| 16 | TERMINALS 7,8,9 & 10 ARE FOR OPTIONAL INDICATORS. |
| 17 | INSET D IS FOR OPTIONAL PROGRAMMABLE ZONE SENSOR. |
| 18 | AUXILIARY RELAY ENERGIZED DURING OCCUPIED PERIODS. |
| 19 | 0-10 VDC DUCT MOUNTED SENSOR ONLY. |

- 20 PROVIDE JUMPER BETWEEN RTRM J6-2 & RTRM J6-4 TO
ENABLE AUTO MODE WHEN NO OTHER MODE INPUT IS USED.

- 21 PROVIDE CONTACT CLOSURE BETWEEN RTRM J6-11 & RTRM J6-12 TO ENABLE UNOCCUPIED MODE WHEN NOT USING PROGRAMMABLE ZSM/REMOTE PANEL OR BMS.



METAL PLATE 11 X 17

4 DIVISION TRANE TRANE BUILDING 110 WEST 17TH STREET CHICAGO, ILL. 60604-4200 PHONE (312) 470-1000 CABLE: TRANE INC FAX (312) 470-1001	FILE NUMBER: 230
REVISION DATE: 5-4-03	DRAWING NUMBER: 230
REVISIONS:	CONTROL SCHEMATICS E27.53 TON 40-55 VOLTS VARIABLE AIR VOLUME
DATE: 2009-12-22	SHEET NO: 2-207-4852

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REV