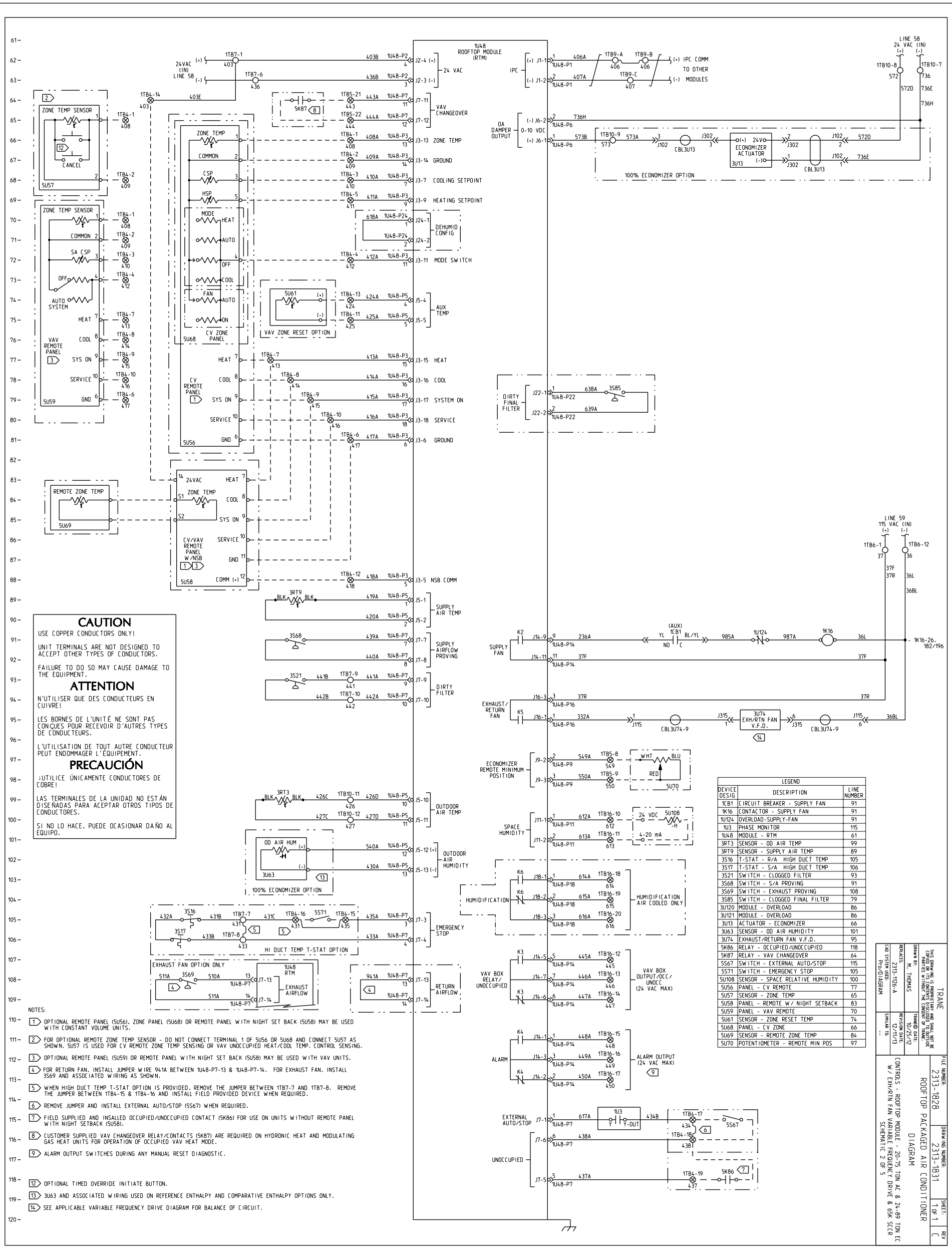
1U48 ROOFTOP MODULE (RTM)
24VAC (IN) LINE 58
24 VAC
ZONE TEMP SENSOR
CANCEL
5U57
VAV CHANGEOVER
ZONE TEMP
COMMON
CSP
HSP
MODE
HEAT
AUTO
OFF
COOL
FAN
ON
CV ZONE PANEL
5U68
ZONE TEMP
GROUND
COOLING SETPOINT
HEATING SETPOINT
DEHUMID CONFIG
MODE SWITCH
SA CSP
AUTO SYSTEM
VAV REMOTE PANEL
SYS ON
SERVICE
GND
5U59
AUX TEMP
VAV ZONE RESET OPTION
5U61
CV REMOTE PANEL
5U56
HEAT
COOL
SYSTEM ON
SERVICE
GROUND
REMOTE ZONE TEMP
5U69
24VAC
CV/VAV REMOTE PANEL W/NSB
5U58
COMM (+)
NSB COMM
SUPPLY AIR TEMP
SUPPLY AIRFLOW PROVING
DIRTY FILTER
OUTDOOR AIR TEMP
OD AIR HUM
3U63
OUTDOOR AIR HUMIDITY
100% ECONOMIZER OPTION
HI DUCT TEMP T-STAT OPTION
EMERGENCY STOP
EXHAUST FAN OPTION ONLY
EXHAUST AIRFLOW
RETURN AIRFLOW
IPC
IPC COMM TO OTHER MODULES
OA DAMPER OUTPUT
0-10 VDC
ECONOMIZER ACTUATOR
3U13
CBL3U13
LINE 58 24 VAC (IN)
DIRTY FINAL FILTER
SUPPLY FAN
LINE 59 115 VAC (IN)
EXHAUST/ RETURN FAN
3U74 EXH/RTN FAN V.F.D.
ECONOMIZER REMOTE MINIMUM POSITION
SPACE HUMIDITY
HUMIDIFICATION
HUMIDIFICATION AIR COOLED ONLY
VAV BOX RELAY/ UNOCCUPIED
VAV BOX OUTPUT/OCC/ UNOCC (24 VAC MAX)
ALARM
ALARM OUTPUT (24 VAC MAX)
EXTERNAL AUTO/STOP
UNOCCUPIED
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.
ATTENTION
N'UTILISER QUE DES CONDUCTEURS EN CUIVRE!
LES BORNES DE L'UNITÉ NE SONT PAS CONÇUES POUR RECEVOIR D'AUTRES TYPES DE CONDUCTEURS.
L'UTILISATION DE TOUT AUTRE CONDUCTEUR PEUT ENDOMMAGER L'ÉQUIPEMENT.
PRECAUCIÓN
¡UTILICE ÚNICAMENTE CONDUCTORES DE COBRE!
LAS TERMINALES DE LA UNIDAD NO ESTÁN DISEÑADAS PARA ACEPTAR OTROS TIPOS DE CONDUCTORES.
SI NO LO HACE, PUEDE OCASIONAR DAÑO AL EQUIPO.
NOTES:
1 OPTIONAL REMOTE PANEL (5U56). ZONE PANEL (5U68) OR REMOTE PANEL WITH NIGHT SET BACK (5U58) MAY BE USED WITH CONSTANT VOLUME UNITS.
2 FOR OPTIONAL REMOTE ZONE TEMP SENSOR - DO NOT CONNECT TERMINAL 1 OF 5U56 OR 5U68 AND CONNECT 5U57 AS SHOWN. 5U57 IS USED FOR CV REMOTE ZONE TEMP SENSING OR VAV UNOCCUPIED HEAT/COOL TEMP. CONTROL SENSING.
3 OPTIONAL REMOTE PANEL (5U59) OR REMOTE PANEL WITH NIGHT SET BACK (5U58) MAY BE USED WITH VAV UNITS.
4 FOR RETURN FAN, INSTALL JUMPER WIRE 941A BETWEEN 1U48-P7-13 & 1U48-P7-14. FOR EXHAUST FAN, INSTALL 3S69 AND ASSOCIATED WIRING AS SHOWN.
5 WHEN HIGH DUCT TEMP T-STAT OPTION IS PROVIDED, REMOVE THE JUMPER BETWEEN 1TB7-7 AND 1TB7-8. REMOVE THE JUMPER BETWEEN 1TB4-15 & 1TB4-16 AND INSTALL FIELD PROVIDED DEVICE WHEN REQUIRED.
6 REMOVE JUMPER AND INSTALL EXTERNAL AUTO/STOP (5S67) WHEN REQUIRED.
7 FIELD SUPPLIED AND INSALLED OCCUPIED/UNOCCUPIED CONTACT (5K86) FOR USE ON UNITS WITHOUT REMOTE PANEL WITH NIGHT SETBACK (5U58).
8 CUSTOMER SUPPLIED VAV CHANGEOVER RELAY/CONTACTS (5K87) ARE REQUIRED ON HYDRONIC HEAT AND MODULATING GAS HEAT UNITS FOR OPERATION OF OCCUPIED VAV HEAT MODE.
9 ALARM OUTPUT SWITCHES DURING ANY MANUAL RESET DIAGNOSTIC.
12 OPTIONAL TIMED OVERRIDE INITIATE BUTTON.
13 3U63 AND ASSOCIATED WIRING USED ON REFERENCE ENTHALPY AND COMPARATIVE ENTHALPY OPTIONS ONLY.
14 SEE APPLICABLE VARIABLE FREQUENCY DRIVE DIAGRAM FOR BALANCE OF CIRCUIT.
LEGEND
DEVICE DESIG | DESCRIPTION | LINE NUMBER
1CB1 | CIRCUIT BREAKER - SUPPLY FAN | 91
1K16 | CONTACTOR - SUPPLY FAN | 91
1U124 | OVERLOAD-SUPPLY-FAN | 91
1U3 | PHASE MONITOR | 115
1U48 | MODULE - RTM | 61
3RT3 | SENSOR - OD AIR TEMP | 99
3RT9 | SENSOR - SUPPLY AIR TEMP | 89
3S16 | T-STAT - R/A HIGH DUCT TEMP | 105
3S17 | T-STAT - S/A HIGH DUCT TEMP | 106
3S21 | SWITCH - CLOGGED FILTER | 93
3S68 | SWITCH - S/A PROVING | 91
3S69 | SWITCH - EXHAUST PROVING | 108
3S85 | SWITCH - CLOGGED FINAL FILTER | 79
3U120 | MODULE - OVERLOAD | 86
3U121 | MODULE - OVERLOAD | 86
3U13 | ACTUATOR - ECONOMIZER | 66
3U63 | SENSOR - OD AIR HUMIDITY | 101
3U74 | EXHAUST/RETURN FAN V.F.D. | 95
5K86 | RELAY - OCCUPIED/UNOCCUPIED | 118
5K87 | RELAY - VAV CHANGEOVER | 64
5S67 | SWITCH - EXTERNAL AUTO/STOP | 115
5S71 | SWITCH - EMERGENCY STOP | 105
5U108 | SENSOR - SPACE RELATIVE HUMIDITY | 100
5U56 | PANEL - CV REMOTE | 77
5U57 | SENSOR - ZONE TEMP | 65
5U58 | PANEL - REMOTE W/ NIGHT SETBACK | 83
5U59 | PANEL - VAV REMOTE | 70
5U61 | SENSOR - ZONE RESET TEMP | 74
5U68 | PANEL - CV ZONE | 66
5U69 | SENSOR - REMOTE ZONE TEMP | 84
5U70 | POTENTIOMETER - REMOTE MIN POS | 97
TRANE
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DRAWN BY: M. THOMAS
TRANE® DATE: 10/25/12
REPLACES: 2313-1126-A
REVISION DATE: 12/11/13
CAD SYSTEM USED: PTD/DIAGRAM
SIMILAR TO: --
FILE NUMBER: 2313-1828
DRAWING NUMBER: 2313-1831
SHEET: 1 OF 1
REV C
ROOFTOP PACKAGED AIR CONDITIONER DIAGRAM
CONTROLS - ROOFTOP MODULE - 20-75 TON AC & 24-89 TON EC W/ EXH/RTN FAN VARIABLE FREQUENCY DRIVE & 65K SCCR SCHEMATIC 2 OF 5