INSTALLATION INSTRUCTIONS
RXAU-A01 MINIMUM RUN TIMER
FOR SAWL-078 & SAWL-090

⚠ Recognize this symbol as an indication of Important Safety Information!

⚠ WARNING

THESE INSTRUCTIONS ARE INTENDED AS AN AID TO QUALIFIED SERVICE PERSONNEL FOR PROPER INSTALLATION, ADJUSTMENT, AND OPERATION OF THIS KIT. READ THESE INSTRUCTIONS THOROUGHLY BEFORE ATTEMPTING INSTALLATION, ADJUSTMENT, OR OPERATION. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN IMPROPER INSTALLATION, ADJUSTMENT, SERVICE OR MAINTENANCE, POSSIBLY RESULTING IN FIRE, ELECTRICAL SHOCK, PROPERTY DAMAGE, PERSONAL INJURY, OR DEATH.

PARTS LIST

DESCRIPTION	PART NUMBER	QTY.
MINIMUM RUN TIMER (TMIN)	42-105273-01	1
RELAY (BR)	42-101208-04	1
WIRE NUT	45-18058-01	1
WASHER SZ10 FLAT	63-17180-01	1
SCREW - #8-18 X 1/2 TYPE B	63-22153-01	2
SCREW - #6-20 X 1 1/2 TYPE B	63-24368-02	1
WIRE TIE	64-17606-03	1
WIRING DIAGRAM	90-42456-17	1
18 GA RED 2/64 12”	AS-50202-19-AE	1
18 GA YELLOW 2/64 20”	AS-50205-27-AE-Y1	1
18 GA BROWN 2/64 6”	AS-50207-09-DD	1
18 GA BROWN 2/64 10”	AS-50207-17-EE	1
18 GA YELLOW/BLUE 2/64 4”	AS-52880-05-EE	1
18 GA YELLOW/BLUE 2/64 8”	AS-52880-13-AE	1
18 GA YELLOW/BLUE 2/64 12”	AS-52880-19-DD	1
18 GA GRAY 2/64 12”	AS-53386-19-AJ-G	1
18 GA GREEN/BLACK 2/64 12”	AS-58286-19-AE-IBM	1

⚠ WARNING

BEFORE BEGINNING ANY MODIFICATION, BE SURE MAIN DISCONNECT SWITCH IS IN THE “OFF” POSITION. FAILURE TO DO SO CAN CAUSE ELECTRICAL SHOCK RESULTING IN PROPERTY DAMAGE, PERSONAL INJURY OR DEATH. TAG DISCONNECT WITH A SUITABLE WARNING LABEL.

TOOLS/SUPPLIES REQUIRED

A. ¼” nut driver with 4” or less handle length.

B. Box Cutter (to open packaging).

C. Pliers

The purpose of this accessory is to force the condensing unit and air handler to run a minimum of 200 seconds whenever there is a call for cooling. Short run times tend to pump oil out of the compressor on startup. On split systems with ultra-long refrigerant line sets it is important that the compressor runs long enough to circulate refrigerant oil through the system and back to the compressor before the cooling call expires.

TIMER INSTALLATION PROCEDURE

A. Remove parts from box and compare to parts list.

B. Remove control panel cover from condensing unit.

C. Install the minimum run timer (TMIN) in the control box using the single #6 screw and washer. Set the “Delay on Make” knob to 1 second. Set the “Delay on Break” knob to 200 seconds (minimum run time).

D. Install the indoor blower relay (BR) using the two #8 screws.

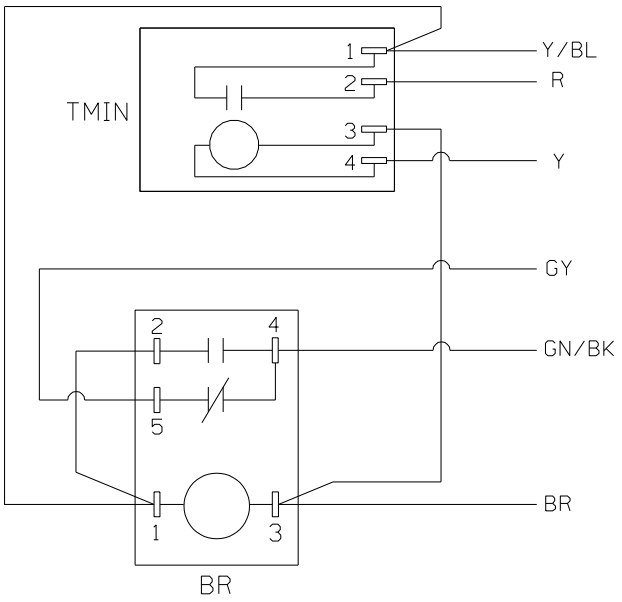
E. Reference the attached wiring diagram to perform the following installation and wiring steps.

F. Connect the 6” brown wire to the 24 VAC coil terminal on the contactor. The existing brown wire on the coil terminal may need to be removed first and reinstalled on the spare terminal of the 6” brown wire.

G. Remove the wire nut securing the yellow transformer wire to the red (R) pigtail wire inside the control box. Add the red wire from terminal 3 on the minimum run timer (TMIN) and reinstall the wire nut.

H. Using pliers, remove strain relief bushing from thermostat wire “pigtails” in the control box.

FIGURE 1
OPTIONAL MINIMUM RUN TIMER



I. Remove the wire nut connecting the high pressure refrigerant switch to the yellow (Y) pigtail inside the control box. Connect the yellow wire from the refrigerant high pressure switch to the yellow wire with blue stripe from the minimum run timer (TMIN) terminal 1 using the wire nut. Discard the yellow (Y) pigtail wire and replace it with the new yellow (Y1) pigtail wire from terminal 4 of the minimum run timer (TMIN).

J. Run the yellow (Y1), Green with Black Strip (IBM), and Gray (G) wires in addition to the existing Red and Brown wire through the pigtail hole in the control box and reinstall the strain relief bushing in the control box to secure the pigtail wires.

K. Connect the new yellow (Y1) pigtail wire to the thermostat "Y" terminal (first stage cooling).

L. Connect the Gray wire to the thermostat "G" or indoor fan signal.

M. Connect the Green wire with Black stripe (IBM) to the indoor fan contactor 24 VAC coil terminal on the air handler.

N. Secure wires together inside control box using included wire tie.

O. Paste over existing wiring diagram with new wiring diagram included with this accessory.

P. If the refrigerant lines are connected and the rest of the system is capable of running, test the minimum timer by first putting the thermostat in the "OFF" position, momentarily connecting the red (R) pigtail outside of the control box to the new yellow (Y1) pigtail. The compressor and the indoor fan should start and run for a minimum of 200 seconds and then both should stop. Momentarily connect and disconnect Gray wire "G" to Red wire. The indoor fan connected to IBM should turn on and off as "G" is connected and disconnected from the Red wire. If any other action occurs, please recheck the wiring.

Q. Reinstall control box cover.

FIGURE 2

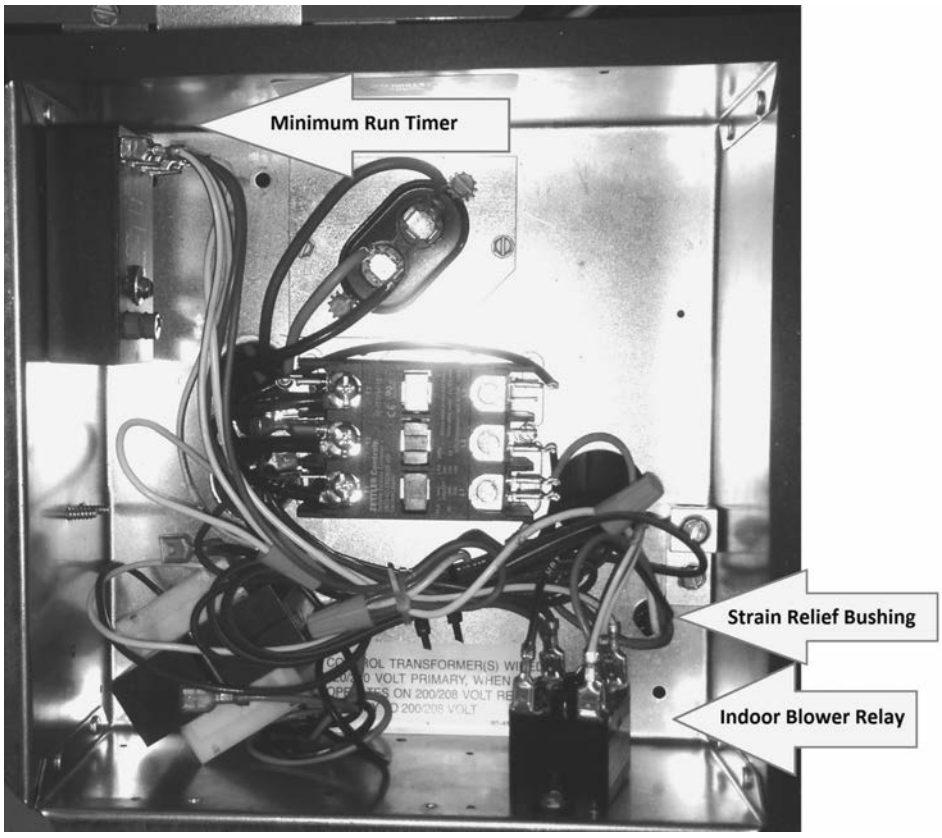
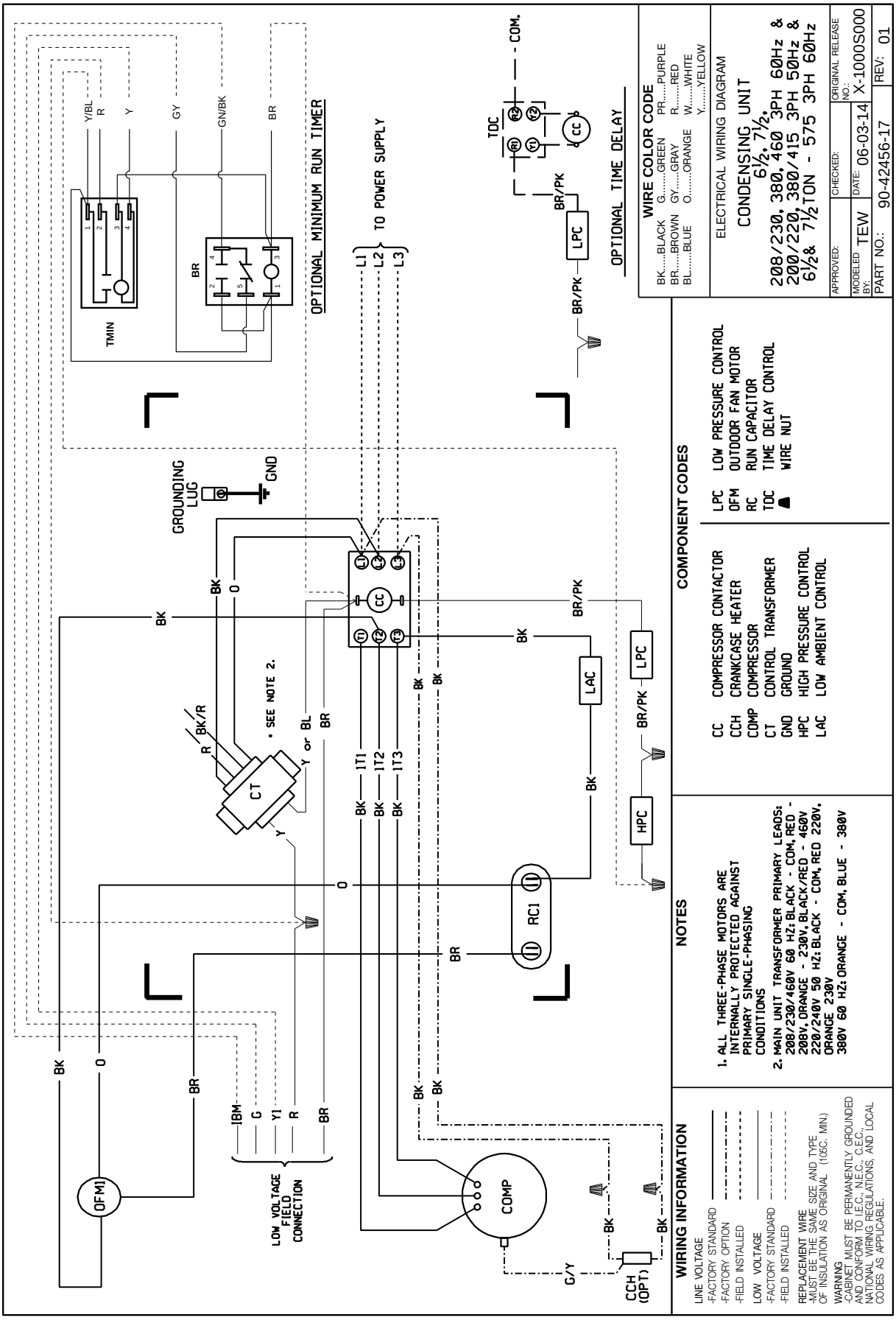


FIGURE 3


WIRE COLOR CODE
BK.....BLACK G.....GREEN PR.....PURPLE
BR.....BROWN GY.....GRAY R.....RED
BL.....BLUE O.....ORANGE W.....WHITE
Y.....YELLOW
ELECTRICAL WIRING DIAGRAM
CONDENSING UNIT
6½, 7½,
208/230, 380, 460 3PH 60Hz &
200/220, 380/415 3PH 50Hz &
6½& 7½TON - 575 3PH 60Hz
APPROVED:
CHECKED:
ORIGINAL RELEASE NO.
MODELED BY: TEW
DATE: 06-03-14
X-1000S000
PART NO.: 90-42456-17
REV: 01
COMPONENT CODES
CC COMPRESSOR CONTACTOR
CCH CRANKCASE HEATER
COMP COMPRESSOR
CT CONTROL TRANSFORMER
GND GROUND
HPC HIGH PRESSURE CONTROL
LAC LOW AMBIENT CONTROL
LPC LOW PRESSURE CONTROL
OFM OUTDOOR FAN MOTOR
RC RUN CAPACITOR
TDC TIME DELAY CONTROL
WIRE NUT
NOTES
1. ALL THREE-PHASE MOTORS ARE INTERNALLY PROTECTED AGAINST PRIMARY SINGLE-PHASING CONDITIONS
2. MAIN UNIT TRANSFORMER PRIMARY LEADS: 208/230/460V 60 HZ: BLACK - COM, RED - 208V, ORANGE - 230V, BLACK/RED - 460V 220/240V 50 HZ: BLACK - COM, RED 220V, ORANGE 230V 380V 60 HZ: ORANGE - COM, BLUE - 380V
WIRING INFORMATION
LINE VOLTAGE
-FACTORY STANDARD
-FACTORY OPTION
-FIELD INSTALLED
LOW VOLTAGE
-FACTORY STANDARD
-FIELD INSTALLED
REPLACEMENT WIRE
-MUST BE THE SAME SIZE AND TYPE OF INSULATION AS ORIGINAL (105C. MIN.)
WARNING
-CABINET MUST BE PERMANENTLY GROUNDED AND CONFORM TO I.E.C., N.E.C., C.E.C., NATIONAL WIRING REGULATIONS, AND LOCAL CODES AS APPLICABLE.
OPTIONAL MINIMUM RUN TIMER
OPTIONAL TIME DELAY
TO POWER SUPPLY
GROUNDING LUG
GND
TMIN
TDC
COM.
LPC
BR/PK
CC
CT
HPC
LAC
RC1
COMP
OFM1
CCH (OPT)
LOW VOLTAGE FIELD CONNECTION
• SEE NOTE 2.
Y/BL
R
Y
GY
GN/BK
BR
BK
O
BK/R
Y or BL
IBM
G
Y1
L1
L2
L3
T1
T2
T3
G/Y