



PRODUCT DATA & INSTALLATION

Bulletin K40-KLC-PDI-4

1068825

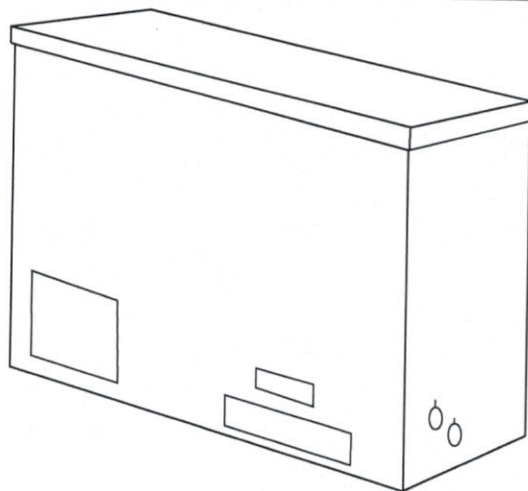


Latest product updates and further information at www.keepriterefrigeration.com

Lead Lag Control Panel

Model KLC1 / KLC2

Electrical Power: 115/1/60,
208-230/1/60,
200-220/1/50



NOMENCLATURE

KLC 1 - I S2 A

Model
KeepRite Lead Lag Control Panel

Model Code
1 = Standard
2 = With Alarm/Auto Back-Up

Application
I = Indoor

Voltage
S1 = 115/1/60
S2 = 208-230/1/60
S6 = 200-220/1/50

Series / Generation
A = 1st Generation

- For use on TWO independent refrigeration systems using pumpdown control mode. (Thermostat wired into liquid line solenoid valve).
- Panel can be mounted at condensing unit on indoor installations or can be mounted remote inside on a wall when used with outdoor condensing units.
- Designed to alternate each system automatically at a preset 24 hour time period. (can be readjusted from a 6 to 300 hour time period).

Three position toggle switch provides:

1. Condensing Unit #1 runs only.
2. Lead Lag mode. (alternates unit #1 and unit #2 automatically).
3. Condensing unit #2 runs only.

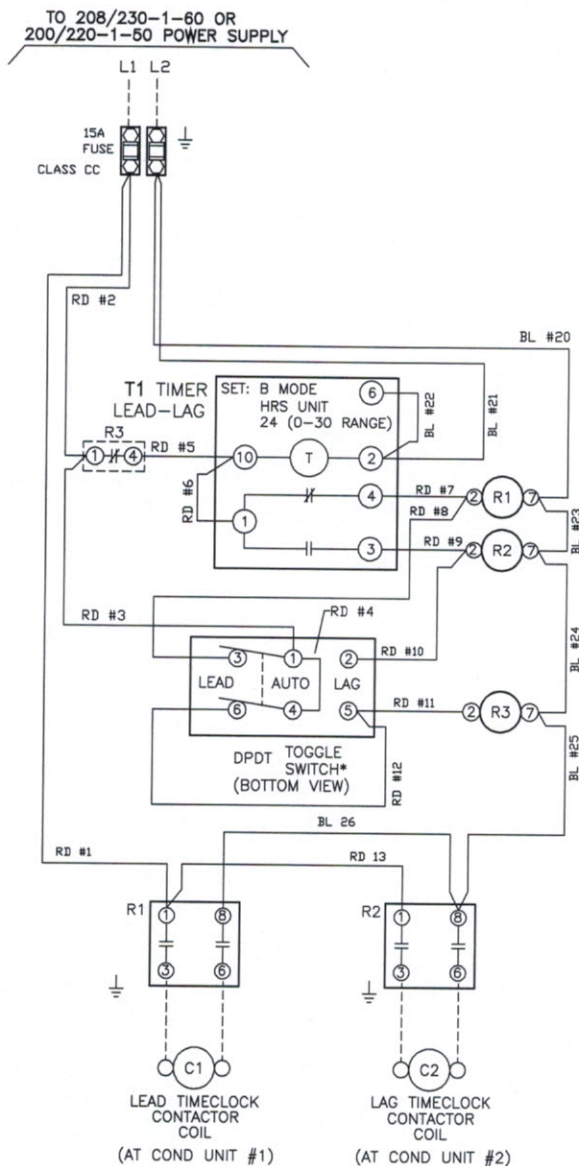
- KLC1 model offers low cost simple operation by automatically (pre-set time) or manually alternating each unit.
- KLC2 model offers the same as KLC1 and includes supplemental refrigeration backup during abnormal load situations or in the event one refrigeration system fails. (Includes alarm dry contacts)
- Panel is suitable for use with Air, Electric and Hot Gas defrost systems.
- Custom designed panels available to suit any specific customer requirement (contact factory)

KLC1

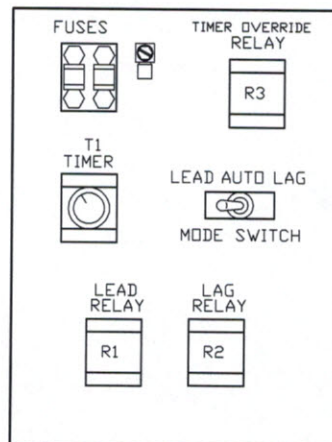
PANEL LEAD-LAG WIRING - KLC1

CONTROL PANEL WIRING DIAGRAM: 230-1-60 Hz
_LC1-IS2A CP1215A-S2B-0008

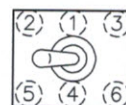
LEAD-LAG CONTROL PANEL- STANDARD BASIC PANEL
230V CONTROL CIRCUIT



CONTROL PANEL COMPONENT LAYOUT



*
LEAD AUTO LAG
MODE SWITCH
(TOP VIEW)



NOTES

1. USE COPPER CONDUCTORS ONLY
2. USE 90°C WIRE (OR HIGHER)
3. OPTIONAL COMPONENT MAY BE FACTORY INSTALLED OR SUPPLIED BY OTHERS
4. HEATER LOADS ARE NOT CONCURRENT WITH REFRIGERATION LOADS.
5. OVERCURRENT PROTECTION FOR EACH EVAPORATOR MUST NOT EXCEED MAXIMUM VALUE SHOWN ON EVAPORATOR NAMEPLATES.
6. MAY BE FACTORY INSTALLED-MOUNTED AND WIRED ON EVAPORATOR (PRE-ASSEMBLED MODELS). ON MULTIPLE PRE-ASSEMBLED EVAPORATORS WIRE SECOND EVAPORATOR SOLENOID IN PARALLEL WITH FIRST.
7. ALL FUSES TO BE CLASS CC OR J AND VOLTAGE RATED EQUAL (OR HIGHER) THAN OPERATING VOLTAGE.

CONDUCTORS/WIRING

- FACTORY WIRING
- WIRING BY OTHERS
- OPTIONAL COMPONENT WIRING (SOME OPTIONAL COMPONENTS MAY BE FACTORY WIRED.)

G=GREEN RD=RED BL=BLUE ALL OTHER BLACK

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

DATE: R1 JAN25/12
Feb7/07

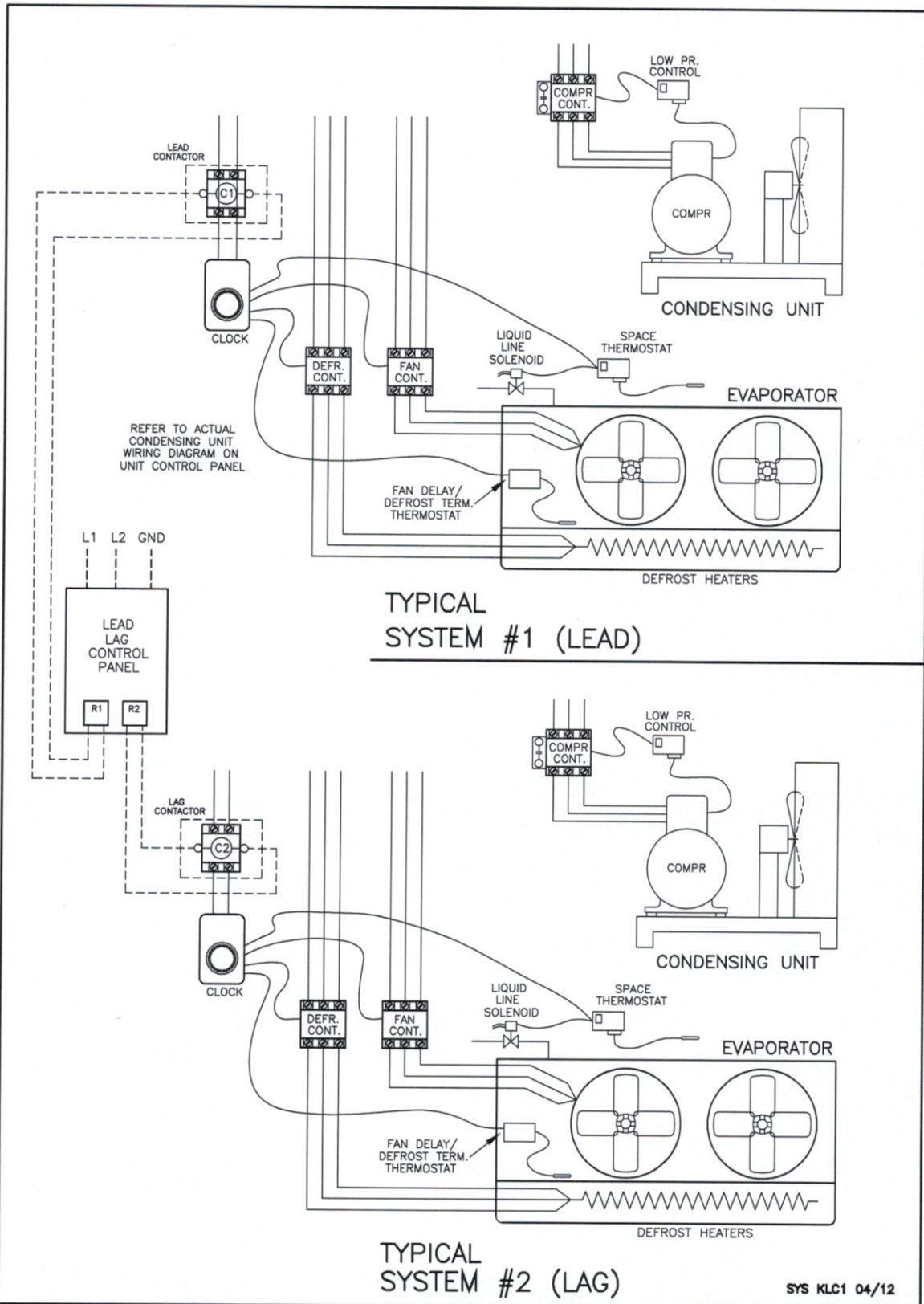
DIAGRAM NUMBER
CPB-S2-_LC1

HI POT TESTED :
VOLTAGE: 1697v DC@ 1SEC

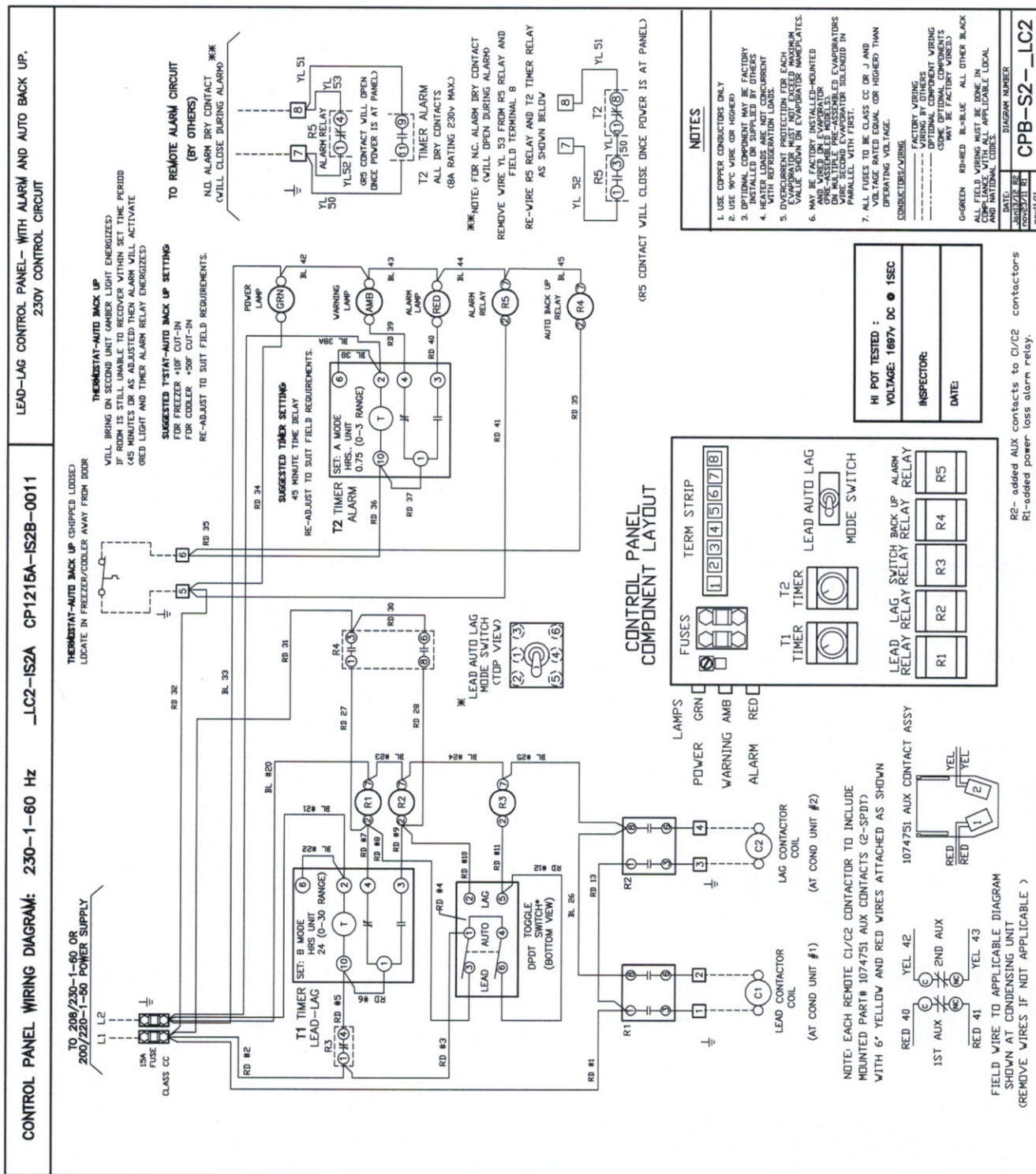
INSPECTOR:

DATE:

SYSTEM LEAD-LAG WIRING - KLC1



PANEL LEAD-LAG WIRING - KLC2

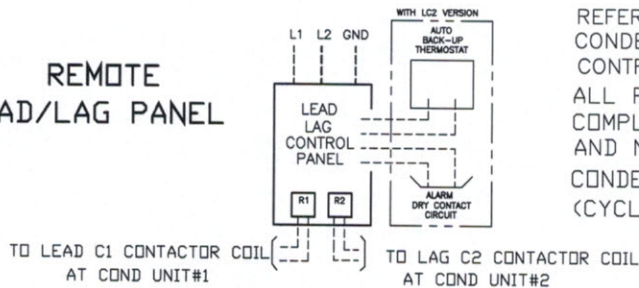


SYSTEM LEAD-LAG WIRING - KLC2



LEAD/LAG 2 PANEL AND EVAP. WIRING

REMOTE LEAD/LAG PANEL



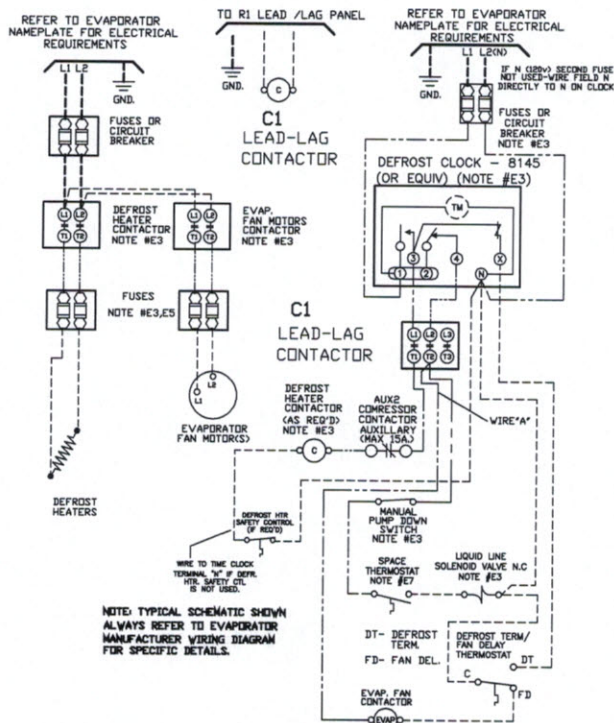
REFER TO ACTUAL LEAD-LAG PANEL DIAGRAM AND CONDENSING UNIT WIRING DIAGRAM ON CONTROL PANELS.

ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

CONDENSING UNITS ARE WIRED FOR PUMPDOWN MODE (CYCLE OFF ON LP CONTROL DURING PUMPDOWN).

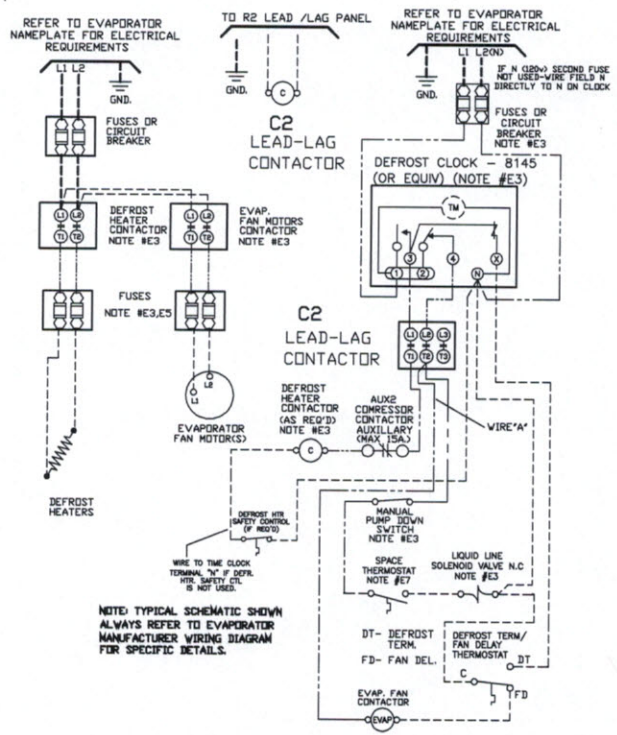
LEAD UNIT#1 EVAPORATOR

ELECTRIC DEFROST



LAG UNIT#2 EVAPORATOR

ELECTRIC DEFROST



NOTE: FOR CONSTANT EVAP FAN OPERATION DURING LAG MODE RE-LOCATE WIRE 'A' FROM T2 TO L2 ON LEAD-LAG CONTACTOR

P1 of 2 LIT AMMEND DEC23/11

OPTIONAL FIELD WIRING FOR PANEL POWER LOSS - KLC2

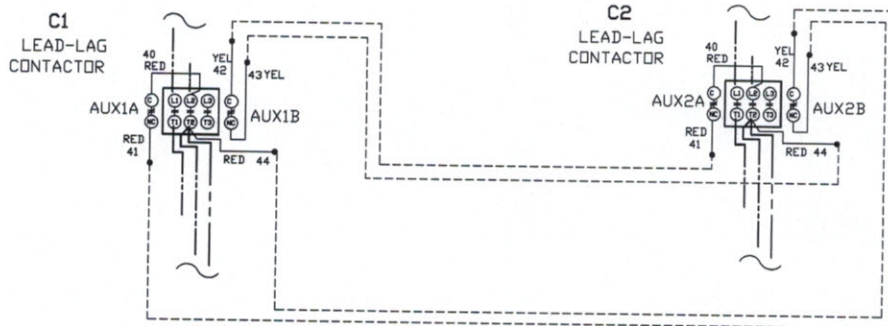
OPTIONAL FIELD WIRING FOR LEAD/LAG 2 PANEL POWER LOSS

IN THE EVENT THE MAIN LEAD-LAG PANEL LOSES POWER A MASTER ALARM WILL BE ACTIVATED. TO ENSURE POWER IS STILL AVAILABLE TO THE LIQUID LINE SOLENOID CIRCUIT, WIRE THE FOLLOWING BYPASS CIRCUIT ALLOWING CIRCUIT POWER TO THE LIQUID SOLENOID AND FANS (NOTE MAX TOTAL 12A)

ADDITIONAL WIRING TO C1/C2 CONTACTORS

LEAD UNIT#1 PANEL

LAG UNIT#2 PANEL



NOTE: SEE COMPLETE DIAGRAM ON P.1

P2 of 2 LIT AMMEND. DEC 23/11



SERVICE PARTS LIST (50/60Hz)

KLC1 & KLC2

DESCRIPTION	120V	230V
Timeclock power Contactors (C1, C2)	1043345	1049602
Lead-Lag Timer (Dual volt/Freq) - T1	1065232	1065232
11 Pin Socket Base	1065233	1065233
Control Relay (R3)	1047767	104534
8 pin Socket Base	1062258	1062258
Lead / Lag Relay (R1, R2)	1043345	1049602
3 Position Toggle Switch	1067407	1067407

KLC2 ONLY

DESCRIPTION	120V	230V
Lead-Lag Timer (Dual volt/Freq) - T2	1065232	1065232
Control Relay (R4, R5)	1047767	104534
Alarm Temperature Control	1085500	1085500
Lamp - Red	1090031	1090273
Lamp - Green	1090032	1090274
Lamp - Amber	1090033	1090275



**NATIONAL REFRIGERATION &
AIR CONDITIONING CANADA CORP.**

CANADA

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