Lead / Lag Control Panel

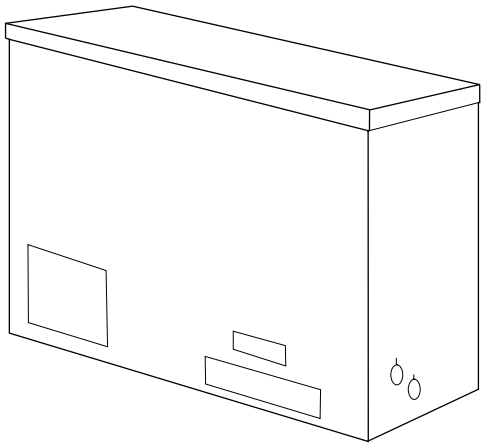
Model TLC1 / TLC2

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

PRODUCT DATA & INSTALLATION

Bulletin T40-TLC-PDI-5
Part # 1068826

PRODUCT SUPPORT
web: **t-rp.com/tlc**
email: **smcu@t-rp.com**
call: **1-844-893-3222 x521**
scan:



NOMENCLATURE

TLC 1 - I S2 A

Model
Trenton 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

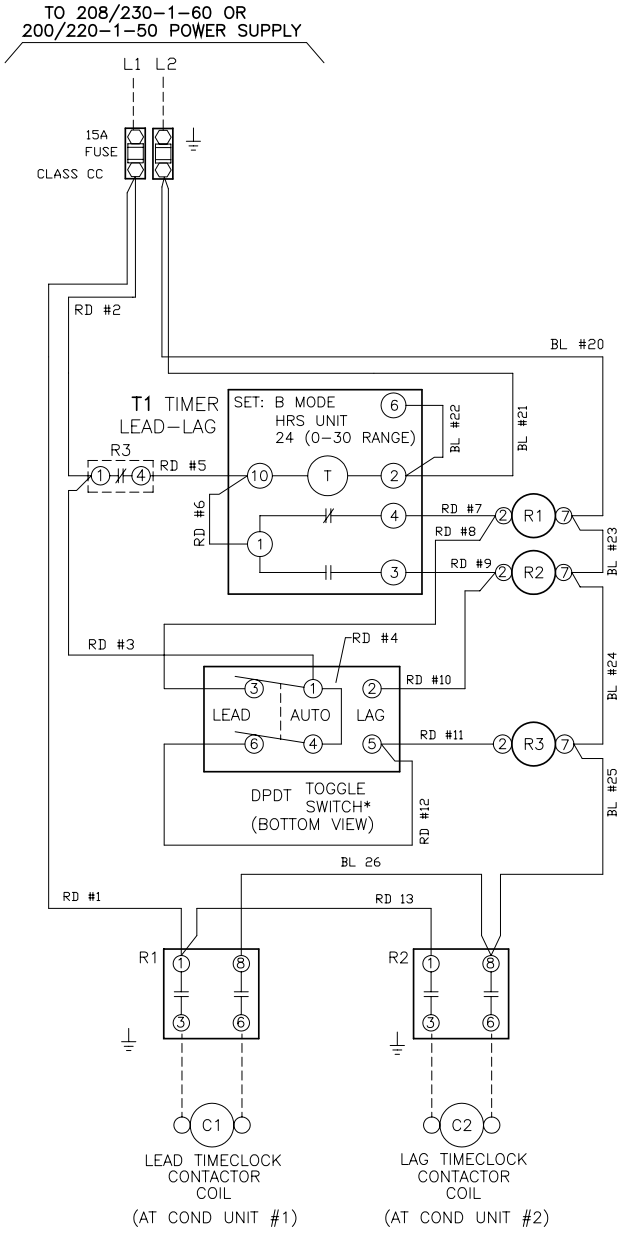
Series / Generation
A = 1st Generation

- 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).

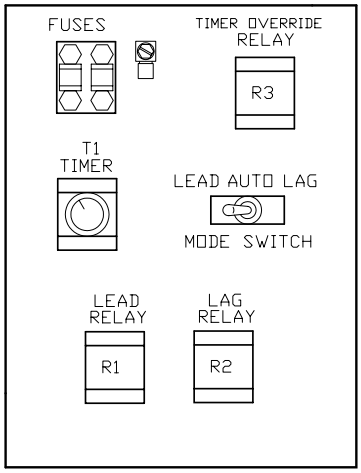
  Three position toggle switch provides:
  1. Condensing Unit #1 runs only.
  2. Lead Lag mode. (alternates unit #1 and unit #2 automatically).
  3. Condensing unit #2 runs only.
- TLC1 model offers low cost simple operation by automatically (pre-set time) or manually alternating each unit.
- TLC2 model offers the same as TLC1 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)

PANEL LEAD-LAG WIRING - TLC1

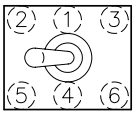
CONTROL PANEL WIRING DIAGRAM: 230−1−60 Hz _LC1−IS2A CP1215A−S2B−0008	LEAD−LAG CONTROL PANEL− STANDARD BASIC PANEL 230V CONTROL CIRCUIT



CONTROL PANEL COMPONENT LAYOUT



✳ LEAD AUTO LAG MODE SWITCH (TOP VIEW)



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

INSPECTOR:

DATE:

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/WIRNG

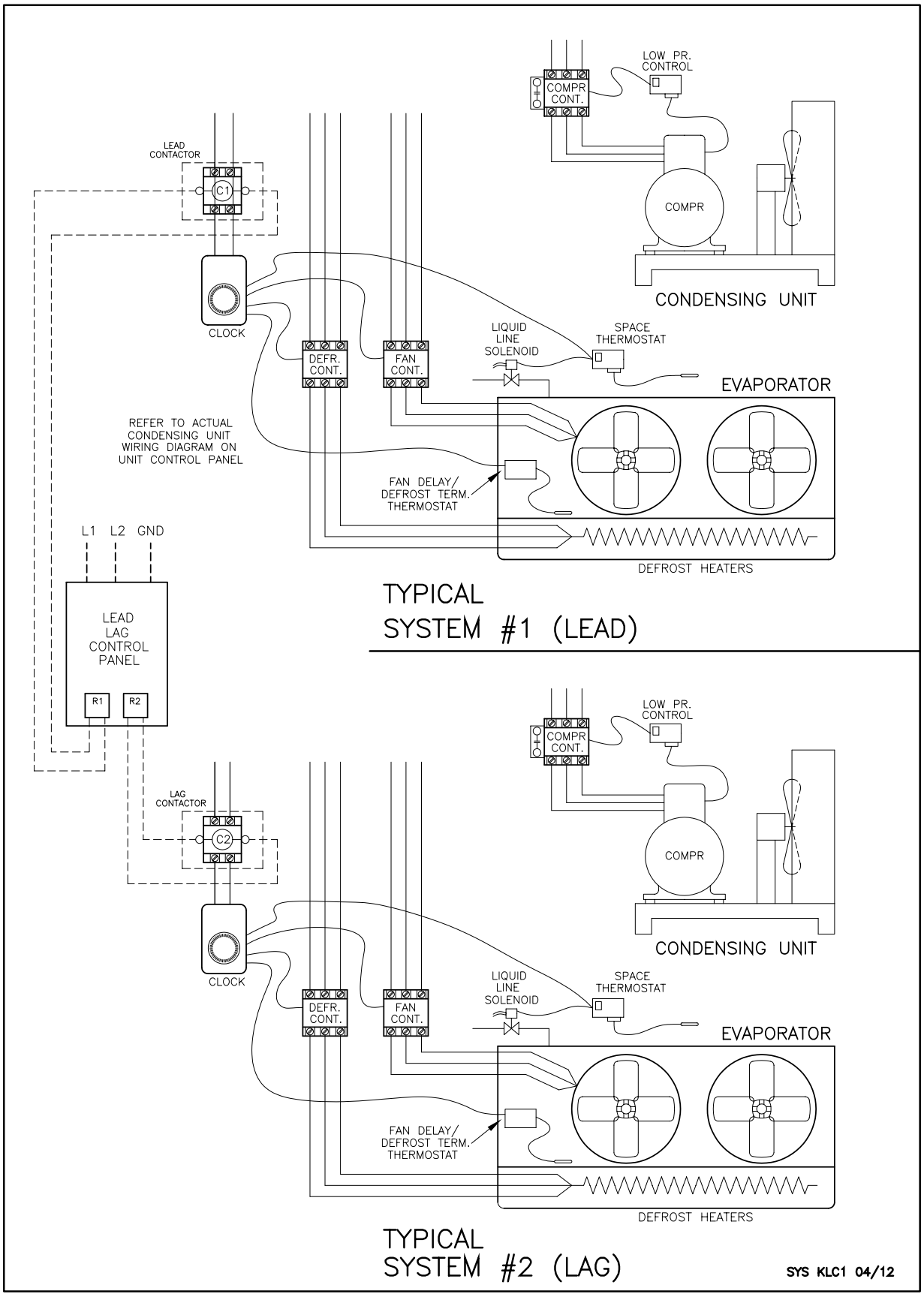
———————— FACTORY WIRING
- - - - - - - - - - WIRING BY OTHERS
———·———·——— OPTIONAL COMPONENT WIRING (SOME OPTIONAL COMPONENTS MAY BE FACTORY WIRED.)

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

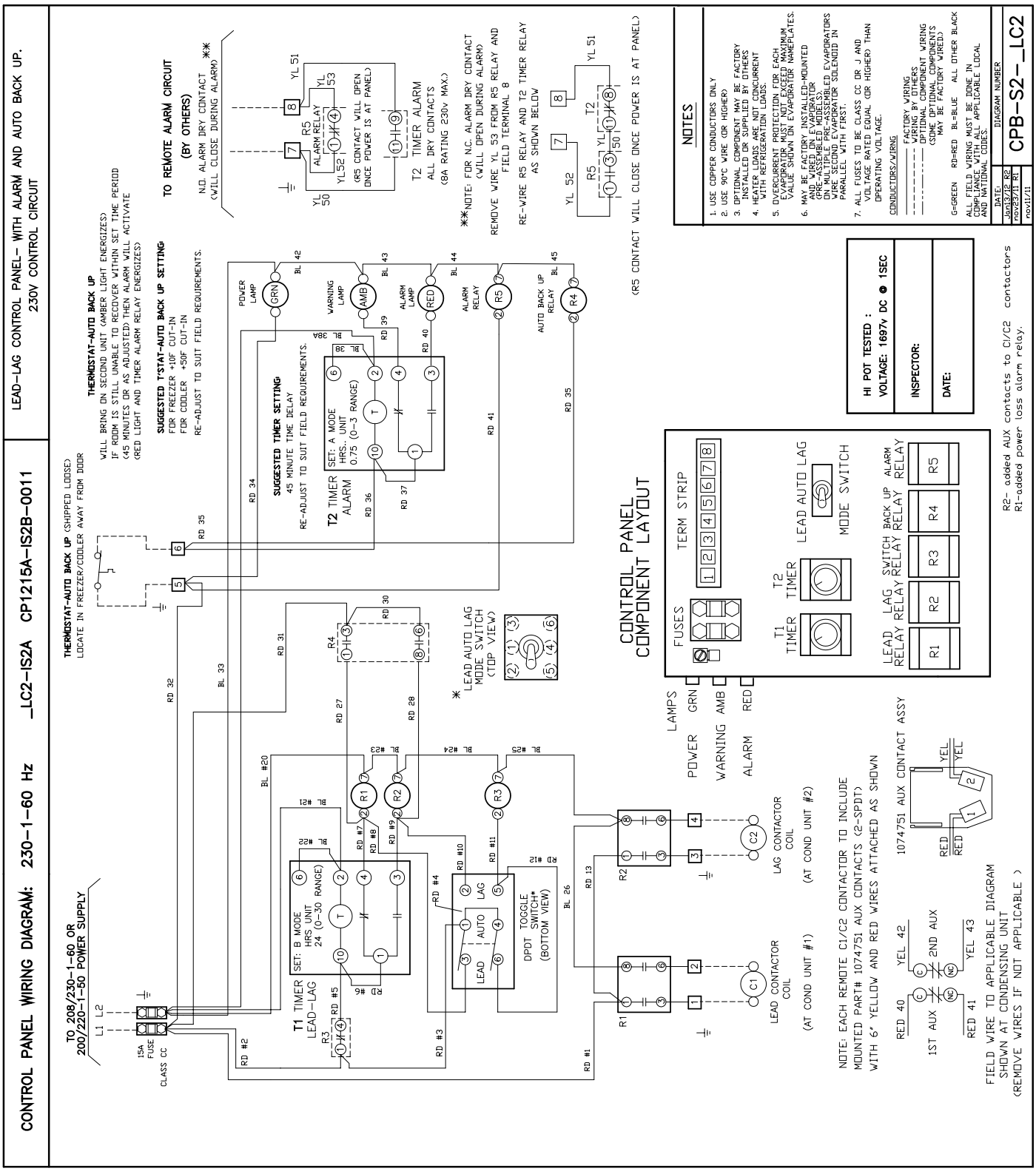
ALL FIELD WIRING MUST BE DONE IN COMPLIANCE WITH ALL APPLICABLE LOCAL AND NATIONAL CODES.

DATE:	DIAGRAM NUMBER
R1 JAN25/12 feb7/07	CPB−S2−_LC1

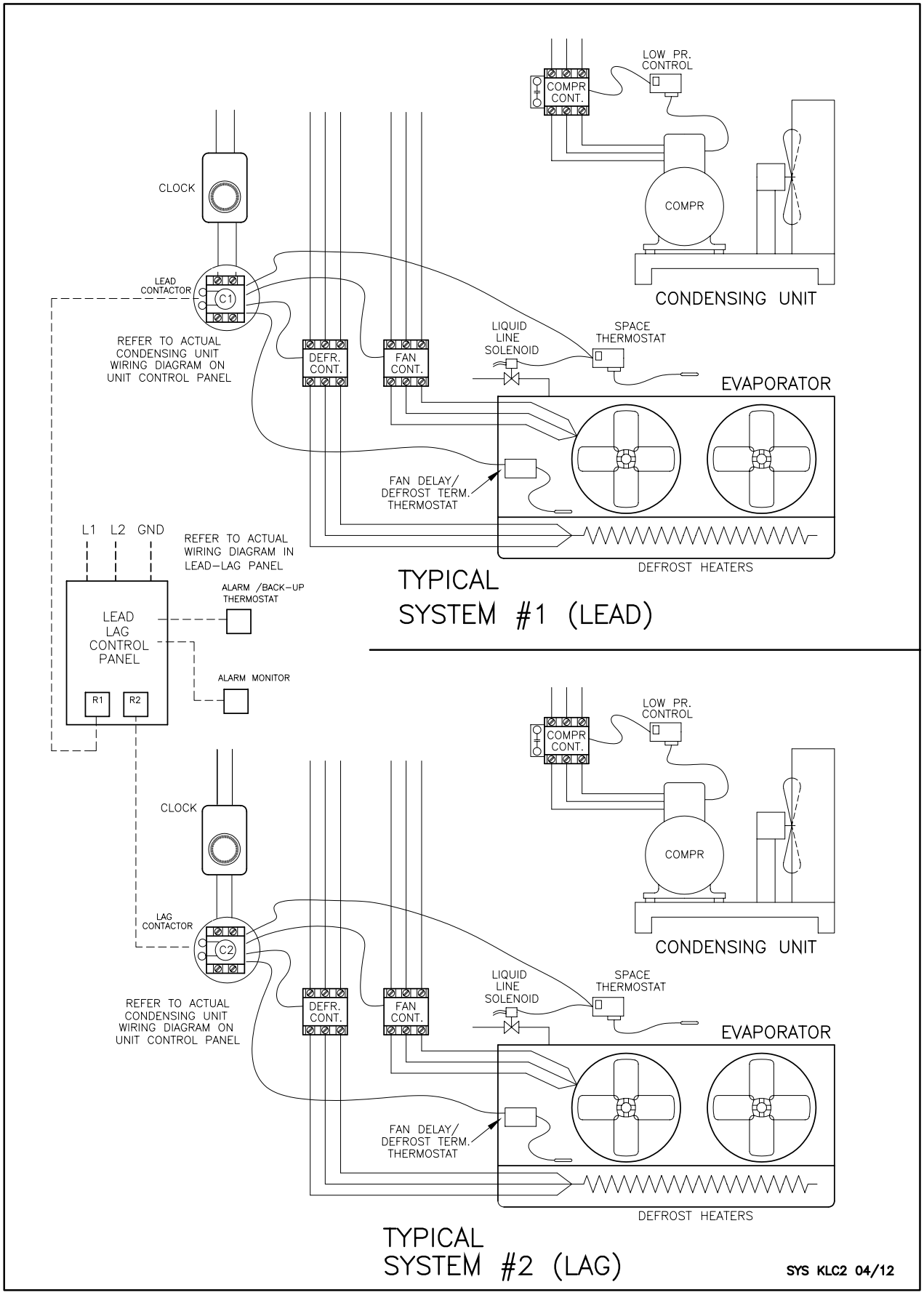
SYSTEM LEAD-LAG WIRING - TLC1



PANEL LEAD-LAG WIRING - TLC2



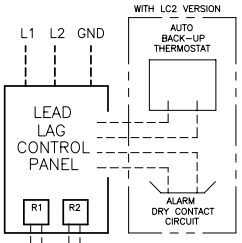
SYSTEM LEAD-LAG WIRING - TLC2



DETAILED SYSTEM LEAD-LAG WIRING - TLC2

LEAD/LAG 2 PANEL AND EVAP. WIRING

REMOTE LEAD/LAG PANEL



TO LEAD C1 CONTACTOR COIL AT COND UNIT#1

TO LAG C2 CONTACTOR COIL AT COND UNIT#2

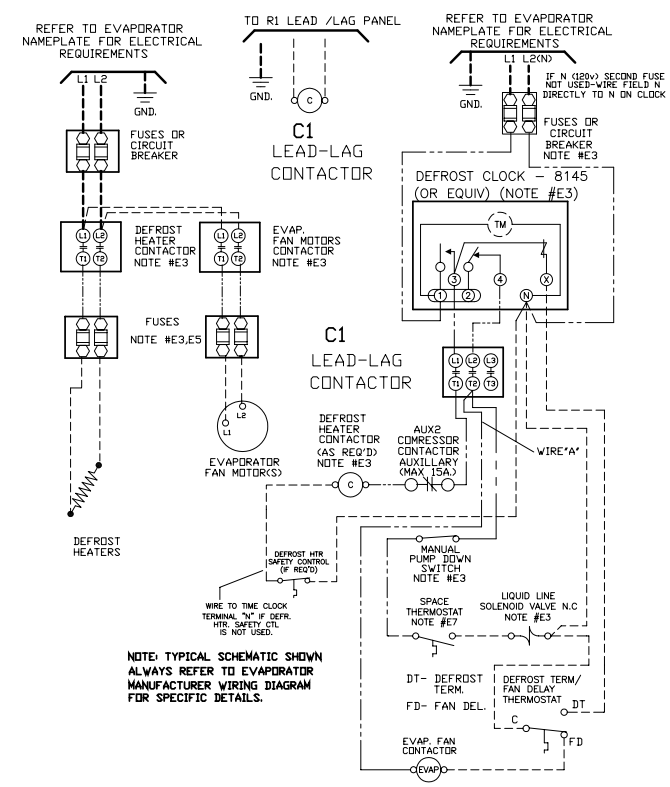
REFER TO ACTUAL LEAD–LAG PANEL DIAGRAM AND CONDENSING UNIT WIRING DIAGRAM ON CONTROL PANELS.

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).

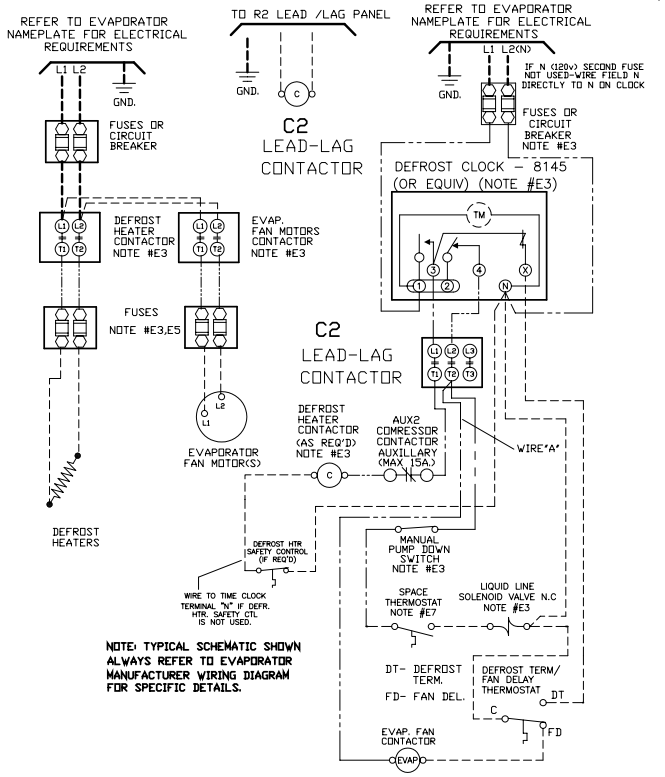
LEAD UNIT#1 EVAPORATOR

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

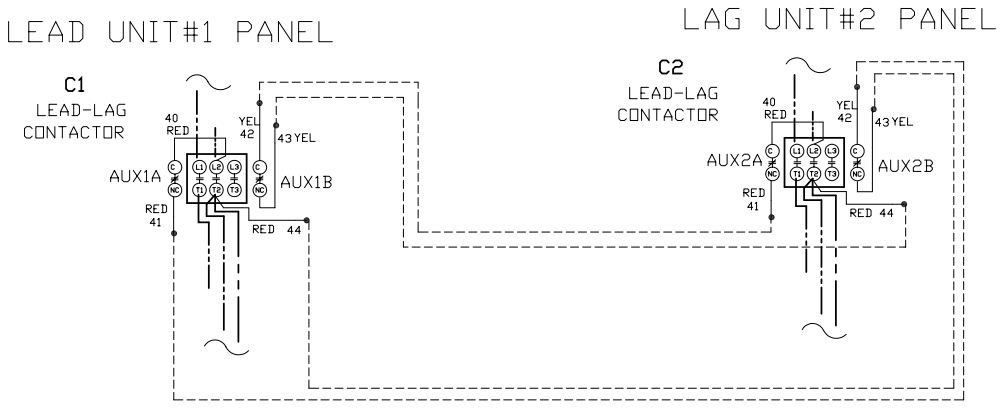
P1 of 2 LIT AMMEND DEC23/11

OPTIONAL FIELD WIRING FOR PANEL POWER LOSS - TLC2

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



NOTE: SEE COMPLETE DIAGRAM ON P.1

P2 of 2 LIT AMMEND. DEC 23/11

PRODUCT SUPPORT RESOURCES

 PRODUCT SUPPORT	*web:* **t-rp.com/tlc** *email:* **smcu@t-rp.com** *call:* **1-844-893-3222 x521**
 TROUBLESHOOTING	*email:* **troubleshooting@t-rp.com** *call:* **1-844-893-3222 x529**
 SERVICE PARTS	*web:* **t-rp.com/parts** *email:* **parts@t-rp.com** *call:* **1-844-893-3222 x501**
 WARRANTY	*web:* **t-rp.com/warranty** *email:* **warranty@t-rp.com** *call:* **1-844-893-3222 x501**
 ORDERS	*email:* **orders@t-rp.com** *call:* **1-844-893-3222 x501**
 SHIPPING	*email:* **shipping@t-rp.com** *call:* **1-844-893-3222 x503**

NATIONAL REFRIGERATION &
AIR CONDITIONING CANADA CORP.
159 Roy Blvd.
Brantford Ontario Canada N3R 7K1
PHONE: (519) 751-0444 800-463-9517
FAX (519) 753-1140 www.t-rp.com