



INSTRUCTIONS

GEK-45347 A
Insert Booklet -
GEK-34123

RECLOSING RELAY

TYPE NLR21U

INTRODUCTION

These instructions are a supplement to Instruction Book GEK-34123 which is included in this book. The combination of the two provide instructions for the NLR21U relay. All information pertinent to the NLR21U relay which is not covered by this supplement is as indicated in GEK-34123.

DESCRIPTION

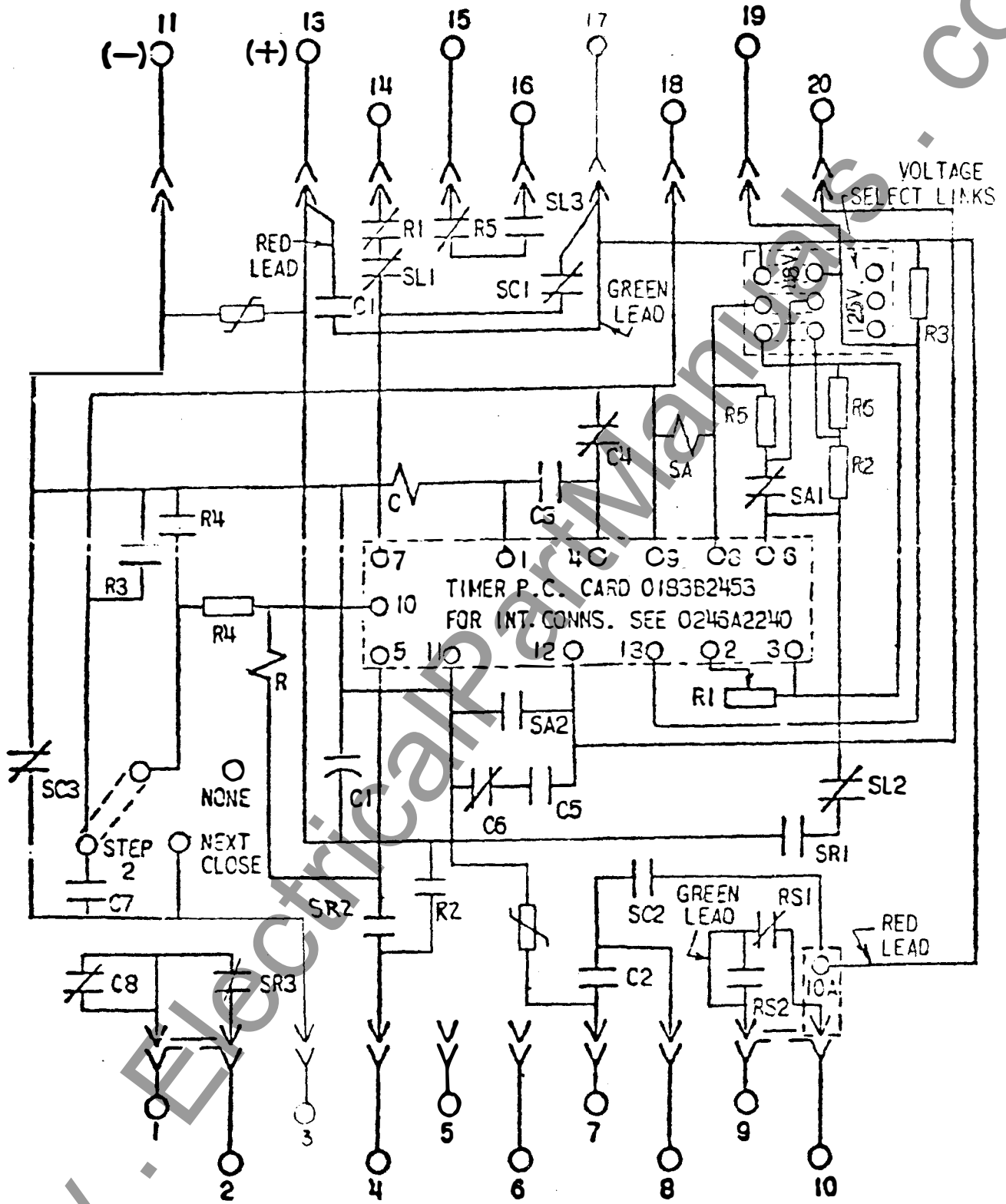
The NLR21U is similar to the NLR21A except it is a dual rated DC relay. The NLR21U relay contains rated voltage selecting links to provide means of adjusting the relay to operate on the control voltage available.

Figure 1 shows the internal connections for the NLR21U relay.

Figure 2 shows the external connections for the NLR21U relay.

These instructions do not purport to cover all details or variations in equipment nor to provide for every possible contingency to be met in connection with installation, operation or maintenance. Should further information be desired or should particular problems arise which are not covered sufficiently for the purchaser's purposes, the matter should be referred to the General Electric Company.

To the extent required the products described herein meet applicable ANSI, IEEE and NEMA standards; but no such assurance is given with respect to local codes and ordinances because they vary greatly.



○ = POST NO. ON PRINTED CIRCUIT CARD

FIG. 1 (0257A5059-0 Sh-1) Type NLR21U Internal Connections Diagram

FIG. 1 (0257A5059-2 Sh-2) Type NLR21U Internal Connections Diagram

STEPPING SWITCH CONTACTS

CONTACTS	SWITCH CONTACTS		
	RESET	STEPS 1-34 INC.	LOCKOUT
SL (X)	CLOSED	CLOSED	OPEN
SL (⊥)	OPEN	OPEN	CLOSED
SR (⊥)	OPEN	CLOSED	CLOSED
SR (X)	CLOSED	OPEN	OPEN
SC (⊥)	CLOSED BY ADJUSTABLE CAMS IN ANY 3 NON-ADJACENT STEPS		
SC (X)	CLOSED WHEN SC CONTACTS (⊥) ARE OPEN		
SA (⊥)	CLOSED WHEN STEPPING SW. COIL IS ENERGIZED		
SA (X)	OPEN WHEN STEPPING SW. COIL IS ENERGIZED		

MODEL	FORM			
12NLR21U(-)A	1			
VOLTS DC	48/125			
RESISTANCE IN OHMS				
C COIL	500			
R COIL	600			
SA COIL	70			
P1	1MFG.			
P2	2,000			
R3	620			
R11	600			
R5	100			
R6	6,000			
CAPACITANCE VALUE				
C1	1uf			

FIG. 2 (01088924-1) Type NLR21U External Connections Diagram

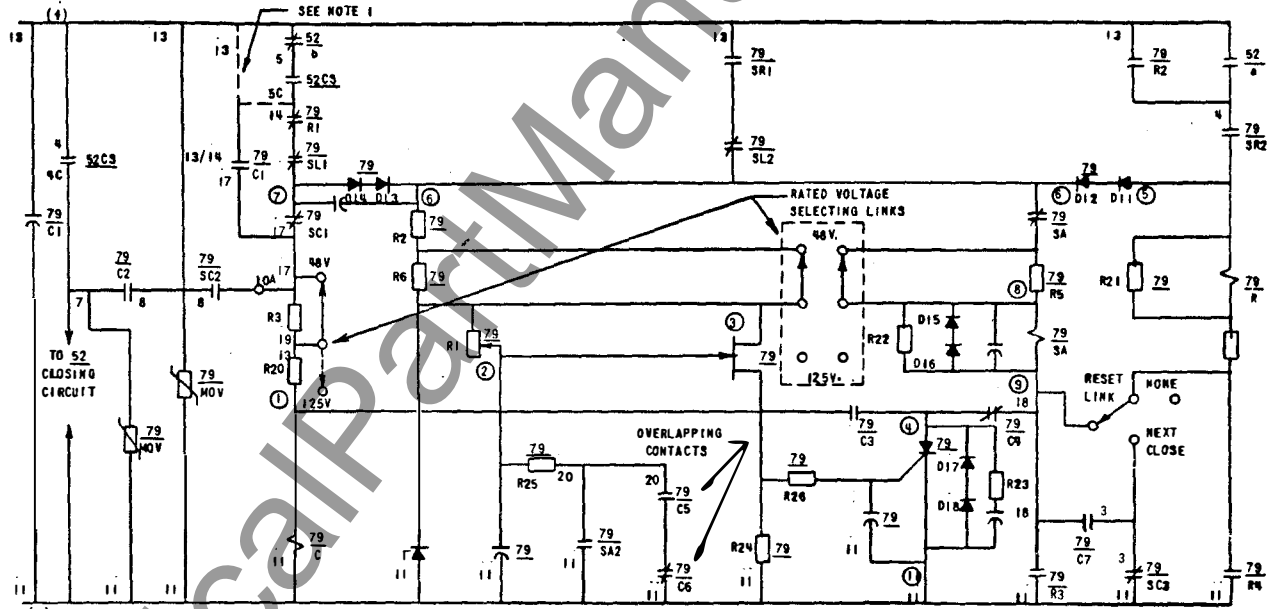
NOTE 1: USE STUD 13 CONNECTION NORMALLY FOR NON-PUMP FREE CONTROL SCHEMES SHIFT INTERNAL RED LEAD FROM 13 TO 14 WHEN USING STUD 14 DO NOT USE STEP 2 RESET POSITION.

NOTE 2: NLR21U SHOWN SET FOR INSTANTANEOUS RECLOSURE

CAM OPERATED CONTACTS	RESET STEP 0	STEPS 1-34	LOCKOUT STEP 35
SR	X		X
SR		X	X
SL	X	X	
SC		1, AND 3 NON-ADJACENT STEPS	
SC		OPEN WHEN SC → 13 X	
SR		X IN ANY 4 ADJACENT STEPS	
SR		OPEN WHEN RS → 13 X	

LEGEND			
DEVICE NO.	TYPE	INCL. ELEM.	DESCRIPTION
52CS	SR		CONTROL SWITCH
52			AC CIRCUIT BREAKER
79	NLR		AC RECLOSING RELAY
		C	CLOSING UNIT
		R	RESETTING UNIT
		RS	CAM OPER. AUX-FUNCTION SW
		SA	ARMATURE OF STEPPING SWITCH
		SC	CLOSING CONT'S OF STEPPING SWITCH
		SL	LOCKOUT CONT'S OF STEPPING SWITCH
		SR	RESETTING CONT'S OF STEPPING SWITCH

DESCRIPTION OF DEVICE	INTERNAL	OUTLINE
NLR21M	022043225	K-6209272
NLR21U	025745059	K-6209272



BREAKER CONTROL SWITCH MODEL 165B10D920 ST52P W/ESCU 6402670-G2 W/NP-78848-G				
CONTACT NUMBER	CLOSE	NORMAL AFTER CLOSE	NORMAL AFTER TRIP	TRIP
1				X
2				X
3	X		X	
4	X			
5	X	X		
6	X	X		
7		X	X	
8	X			

