



RECLOSING RELAY

TYPE NLR21N

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 NLR21N relay. All information pertinent to the NLR21N relay which is not covered by this supplement is as indicated in GEK-34123.

DESCRIPTION

The NLR21N is similar to the NLR21A except it is a dual rated DC relay. The NLR21N 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 NLR21N relay.

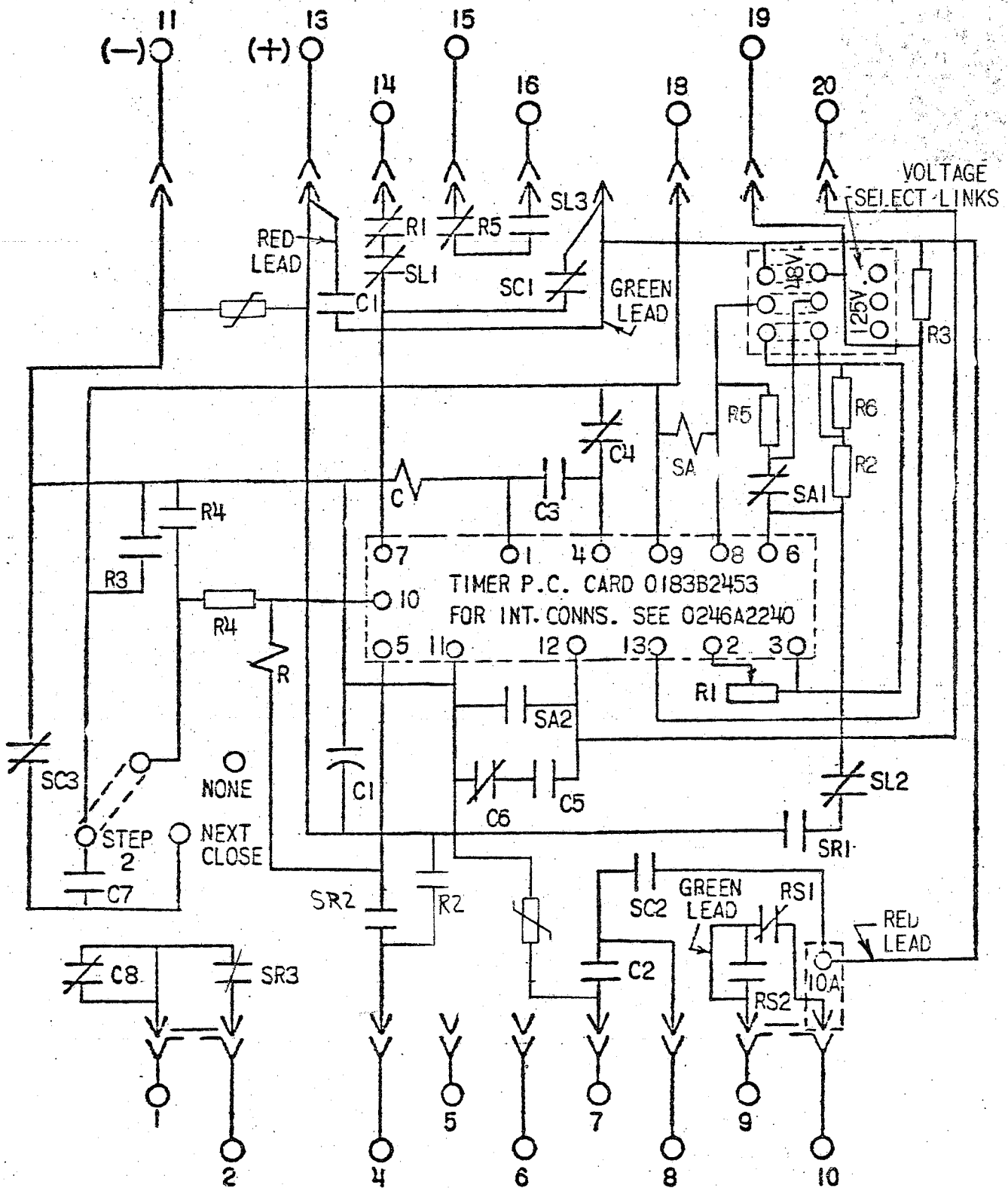
Figure 2 shows the external connections for the NLR21N relay.

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.

POWER SYSTEMS MANAGEMENT DEPARTMENT

GENERAL  ELECTRIC

PHILADELPHIA, PA.



○ = POST NO. ON PRINTED CIRCUIT CARD

FIG. 1 (0246A3334-2 SH. 1) Type NLR21N Internal Connection Diagram

STEPPING SWITCH CONTACTS

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

MODEL	FORM		
12NLR21N(-)A	1		
VOLTS DC	48/125		
RESISTANCE IN OHMS			
C COIL	500		
R COIL	600		
SA COIL	70		
R1	1MEG.		
R2	2,000		
R3	1,200		
R4	600		
R5	180		
R6	6,000		
CAPACITANCE VALUE			
C1	1uf		

FIG. 1 (0246A3334-1 SH. 2) Type NLR21N Internal Connection Diagram

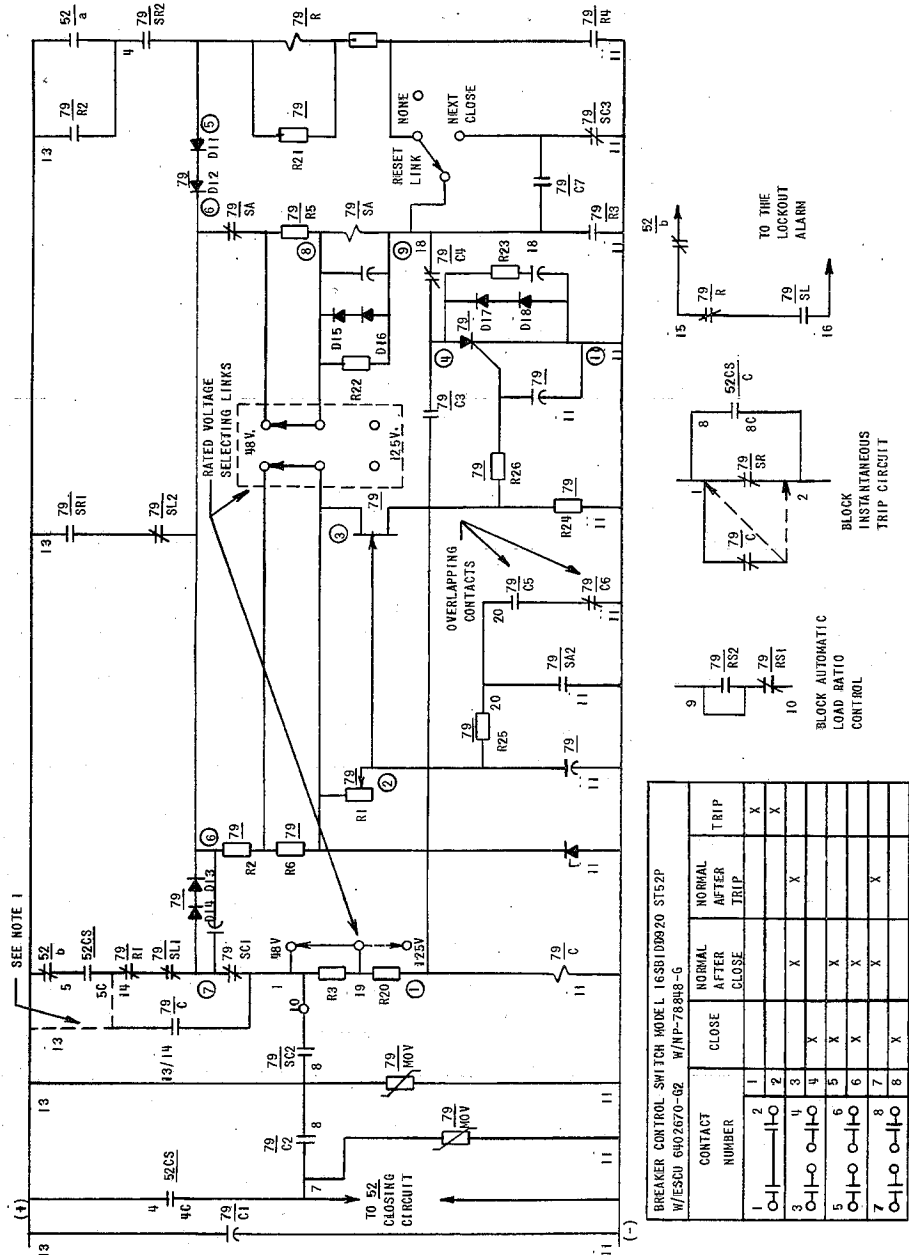
NOTE 1: USE STUD 13 CONNECTION NORMALLY FOR NON-PUMP FREE CONTROL SCHEMES SHIFT INTERNAL RED LEAD FROM 13 TO 14 WHEN USING STUD 14 DO NOT USE STEP 2 RESET POSITION.

NOTE 2: NLR21N SHOWN SET FOR INSTANTANEOUS RECLOSURE

CAN OPERATED CONTACTS	RESET STEP 0	STEPS 1-94	LOCKOUT STEP 35
SL	X	X	X
SR	X	X	X
SL	X	X	X
SC	X, AND 3 NON-ADJACENT STEPS	X	X
SR	OPEN WHEN SC-1 IS X	X	X
SR	X IN ANY 4 ADJACENT STEPS	X	X
SR	OPEN WHEN RS-1 IS X	X	X

DEVICE NO.	TYPE	INCL. ELEM.	DESCRIPTION
52CS	SB		CONTROL SWITCH
52			AC CIRCUIT BREAKER
79	NLR		AC RECLOSING RELAY
		C	CLOSING UNIT
		R	RESETTING UNIT
		RS	CAN 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
NLR21N	0246A332B	K-6209272
NLR21N	0246A333B	K-6209272



BREAKER CONTROL SWITCH MODEL 16S8108920 ST52P
W/ESCU 0402670-02 W/RT-76948-G

CONTACT NUMBER	CLOSE	NORMAL AFTER CLOSE	NORMAL AFTER TRIP	TRIP
1				X
2				X
3		X	X	
4	X			
5	X			
6	X			
7	X			
8	X			

FIG. 2 (0165B2638-0) Type NLR21N External Connections Diagram