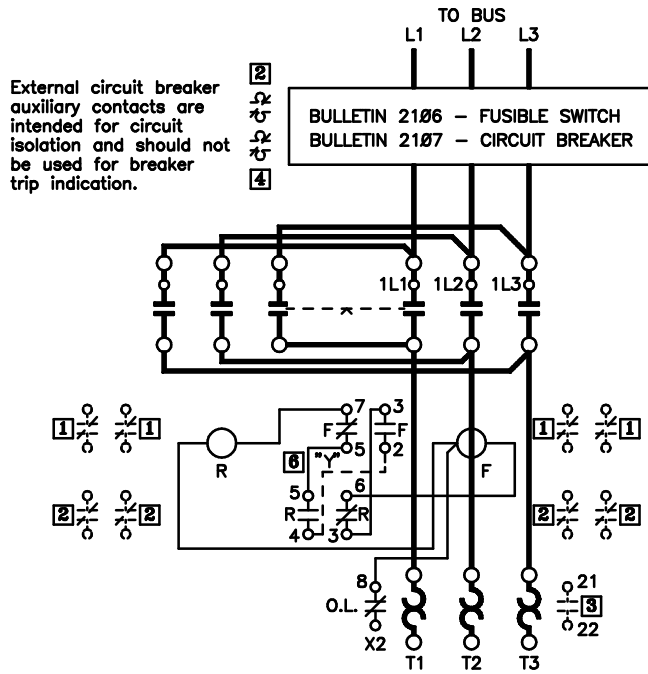


CENTERLINE® MOTOR CONTROL CENTERS

Bulletins 2106 & 2107 • Full Voltage Reversing Combination Starters • Sizes 1-3

CONNECTION DIAGRAMS

See reverse side for control devices and schematic diagrams

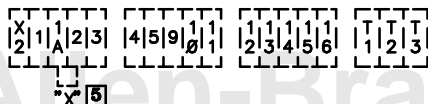


SURGE SUPPRESSORS
(if furnished)

- 8 --SUPP-- 6
- 8 --SUPP-- 7

COMMON CONTROL	SEPARATE CONTROL	TRANSFORMER CONTROL	
CONTROL SOURCE FUSES 1FU 1L1 --[]-- 1 2FU 1L2 --[]-- X2	CONTROL SOURCE FUSES (if furnished) FU 1 --[]-- See A-B Ref.	PRIMARY FUSES (if furnished) 1FU 1L1 --[]-- See A-B Ref. 2FU 1L2 --[]--	TRANSFORMER 1L1 "J" 1L2 H1O H2O H3O H4O GRD. II X2 X1 1 FU

TERMINAL BLOCKS (Type "B" only)



ALLEN-BRADLEY REFERENCES

TRANSFORMER CONTROL
Dual Voltage Primary
For higher line voltages, connect as shown. For lower line voltages, remove jumper "J" and connect "H1" to "H3" and "H2" to "H4".

Single Voltage Primary
Connect "1L1" to "H1" and "1L2" to "H2".

Fused Primary
Connect fuse between "1L1" and "H1", "1L2" and "H4" (or "H2" if single voltage primary).

Note: In accordance with N.E.C. article 430-72(c), primary fusing or other approved means, such as an inherently protected control circuit transformer marked ("Primary Protection Provided Internally"), is required.

SEPARATE CONTROL
Wire per Control Source Schematic.

COMMON CONTROL
Connect fuses between "1" and "1L1", and "X2" and "1L2".

GENERAL NOTES

Auxiliaries - (if furnished)

- 1 N.O. or N.C. auxiliary contacts as specified. Connect to terminal blocks if Type "B".
For possible auxiliary contact connections, see table 1 on last page.
- 2 N.O. or N.C. auxiliary contacts as specified. (Unwired).
- 3 N.O. overload auxiliary. Connect to the next two unused terminal blocks after all specified starter auxiliaries have been wired.
- 4 If N.O. auxiliary contact is used for Separate Control, wire per Control Source Schematic.

Jumper "X"

- 5 If unit supplied without selector switch, supply Jumper "X".
On Type "B", Jumper "X" will be located at terminal blocks.
On Type "A", Jumper "X" will be on door mounted push buttons.

Jumper "Y"

- 6 If unit supplied without selector switch, supply Jumper "Y".

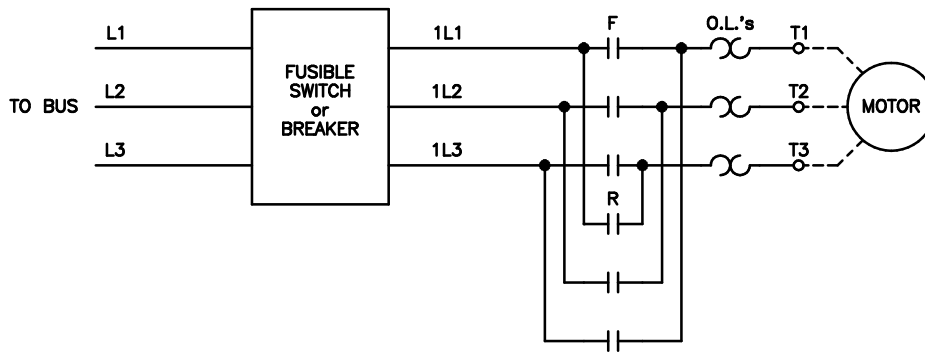
Customer _____

User _____

C.O. Number _____

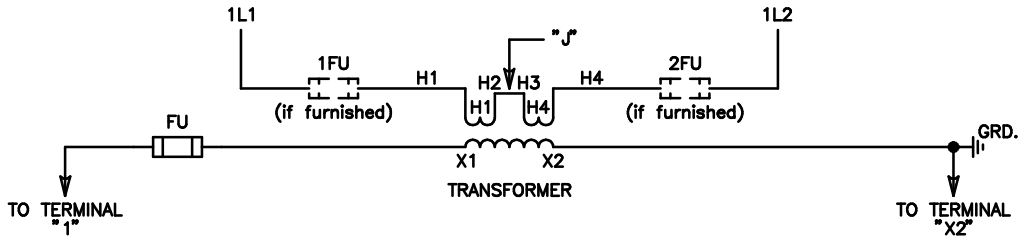
A-B Order Number _____

POWER SCHEMATIC

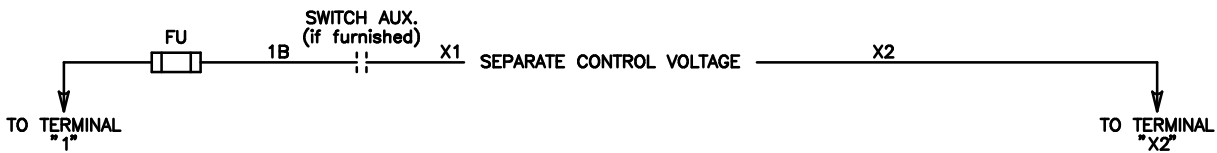


CONTROL SOURCE

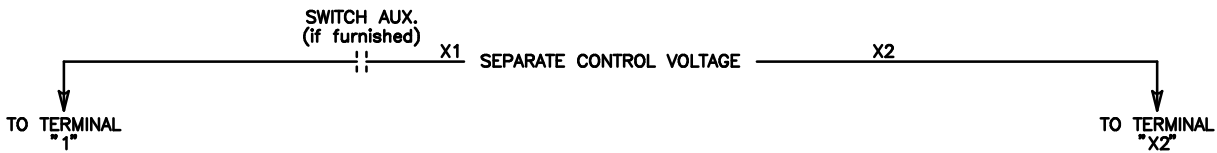
TRANSFORMER CONTROL



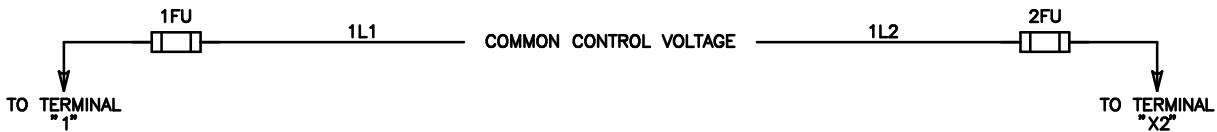
FUSED SEPARATE CONTROL



UNFUSED SEPARATE CONTROL



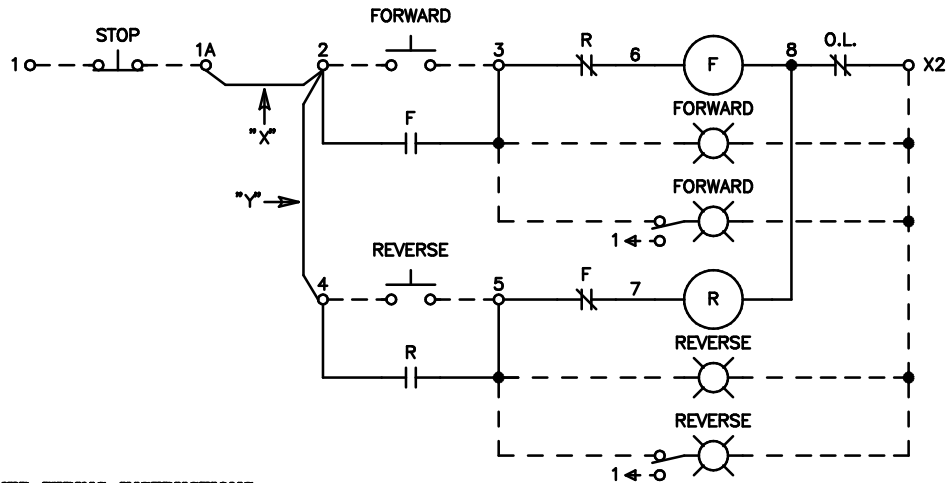
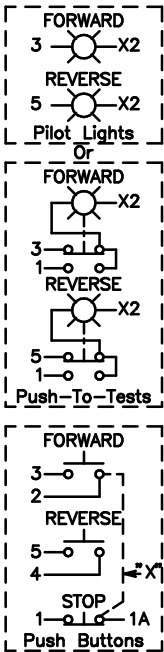
COMMON CONTROL



CONTROL DEVICES

CONTROL SCHEMATIC

WITH PUSH BUTTONS (ALSO USED WHEN NO CONTROL DEVICES FURNISHED)

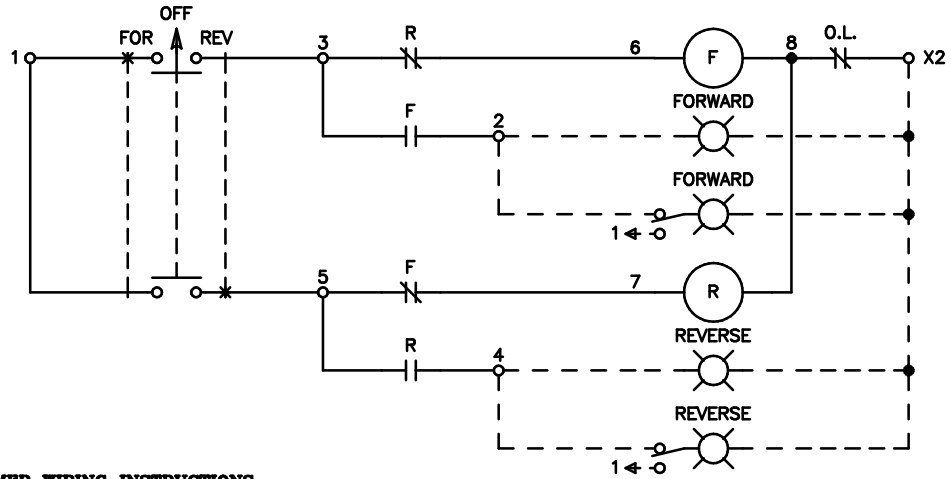
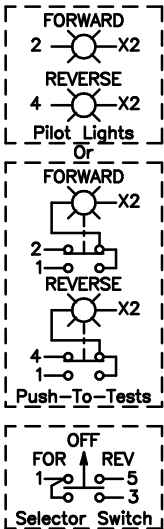


CUSTOMER WIRING INSTRUCTIONS

1. If unit supplied without selector switch, supply Jumpers "X" and "Y".
On Type "B", Jumper "X" will be located at terminal blocks.
On Type "A", Jumper "X" will be on door mounted push buttons.
2. For additional remote Stop button, remove jumper "X" and wire button between 1A and 2.
3. If disconnect auxiliary contact(N.O.) is furnished to isolate separate control source, connect source to X1 and X2.

GENERAL NOTE: Wiring must comply with applicable codes, standards and laws. Additional control circuit overcurrent protection may be required when the control circuit conductors extend beyond the enclosure. A control circuit disconnecting means will be required when control source is external to starter enclosure. Refer to the National Electrical Code.

WITH SELECTOR SWITCH



CUSTOMER WIRING INSTRUCTIONS

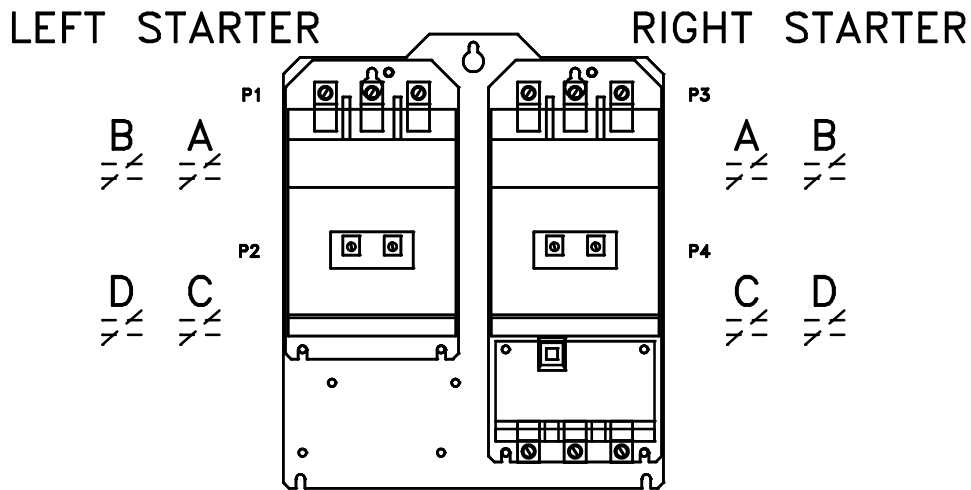
1. If disconnect auxiliary contact(N.O.) is furnished to isolate separate control source, connect source to X1 and X2.

GENERAL NOTE: Wiring must comply with applicable codes, standards and laws. Additional control circuit overcurrent protection may be required when the control circuit conductors extend beyond the enclosure. A control circuit disconnecting means will be required when control source is external to starter enclosure. Refer to the National Electrical Code.

Table 1

Auxiliary Contact Arrangement Specified per Starter	Mounting Location/Terminal Numbering							
	A	B	C	D	A	B	C	D
	Left Starter (Reverse)				Right Starter (Forward)			
(1)N.O.	11- -12				9- -1Ø			
(1)N.C.	11- -12				9- -1Ø			
(2)N.O.	11- -12	15- -16			9- -1Ø	13- -14		
(2)N.C.	11- -12	15- -16			9- -1Ø	13- -14		
(1)N.O. & (1)N.C.	11- -12	15- -16			9- -1Ø	13- -14		
(3)N.O.	11- -12	15- -16	- -		9- -1Ø	13- -14	- -	
(3)N.C.	11- -12	15- -16	- -		9- -1Ø	13- -14	- -	
(2)N.O. & (1)N.C.	11- -12	15- -16	- -		9- -1Ø	13- -14	- -	
(1)N.O. & (2)N.C.	11- -12	15- -16	- -		9- -1Ø	13- -14	- -	
(4)N.O.	11- -12	15- -16	- -	- -	9- -1Ø	13- -14	- -	- -
(4)N.C.	11- -12	15- -16	- -	- -	9- -1Ø	13- -14	- -	- -
(3)N.O. & (1)N.C.	11- -12	15- -16	- -	- -	9- -1Ø	13- -14	- -	- -
(2)N.O. & (2)N.C.	11- -12	15- -16	- -	- -	9- -1Ø	13- -14	- -	- -
(1)N.O. & (3)N.C.	11- -12	15- -16	- -	- -	9- -1Ø	13- -14	- -	- -

Maximum number of auxiliary contacts wired to terminal blocks is 4(2 on forward and 2 on reverse starter).





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Allen-Bradley Headquarters, 1201 South Second Street, Milwaukee, WI 53204 USA, Tel: (1) 414 382-2000 Fax: (1) 414 382-4444

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