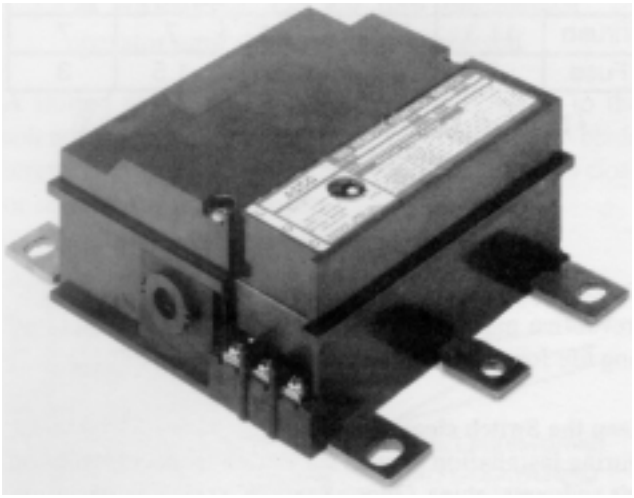
Installation Manual

ASCO® 920
Remote Control Switches
30 through 225 amp sizes



Only experienced licensed electricians should install the switch.

⚠ **DANGER: is used in this manual to warn of high voltages capable of causing shock, burns, or death.**

⚠ **WARNING**: is used in this manual to warn of possible personal injury.

⚠ ***CAUTION:*** *is used in this manual to warn of possible equipment damage.*

ASCO 920 RC Switches are pre–tested and ready to use. Installation simply requires mounting, and connecting service cables (or bus) and control circuit wires. Do not remove protective packing until ready for complete installation. Protect the switch at all times from excessive moisture, construction grit, and metal chips.

Unpacking: Carefully unpack the switch and check it for damage. Report any damage immediately to your nearest ASCO source.

Note: This Installation Manual is for green nameplate ASCO 920s only. For black nameplate ASCO 920s refer to Owner's Manual 2D4920 R16.

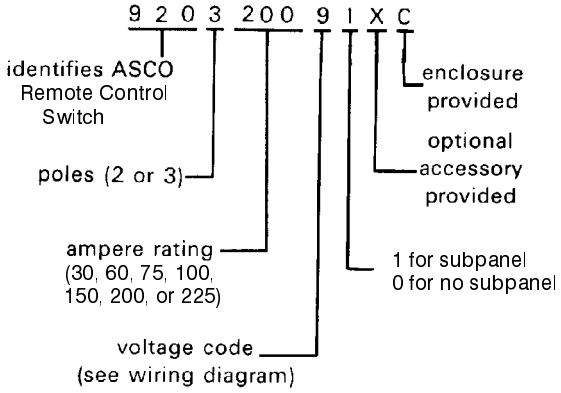
Rating/Identification Label

Each ASCO 920 Remote Control Switch has a rating/identification label defining loads ratings. The label includes data for each specific ASCO 920. Use the switch only within the limits shown on the identification label.

Note: Refer to the label on the Remote Control Switch for specific values.

⚠ **WARNING**: Do not exceed the values on rating label. Exceeding the rating can cause personal injury or serious equipment damage.

A typical Catalog Number is shown below with its elements explained. Be sure to check the label to determine the specific ratings of the ASCO 920 that you are installing.



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ASCO Controls are designed and manufactured by Automatic Switch Co., 50-60 Hanover Road, Florham Park, New Jersey 07932 (973) 966–2000

381333–005 2D4920 R19

INSTALLATION

Mounting: Two *Outline and Mounting Diagrams* are furnished in back of the manual. One diagram is for enclosed switches. The other is for open type switches. Select the appropriate diagram and mount the ASCO 920 switch (it can be mounted in any position). All mounting details and instructions are shown on the diagram.

> ⚠ **WARNING**: Switches on subpanels must be mounted with supplied insulator bushings and backing insulator.

Service Connections: For panelboard mounting, the extended bus plates provide both the mechanical support and the electrical connection. Switches on subpanels are furnished with solderless lugs to accommodate copper or aluminum wire. Wire sizes accepted are listed on the *Outline and Mounting Diagram*.

Remove surface oxides from wires by cleaning with a wire brush. When aluminum conductor is used, apply joint compound to conductor. Tighten conductor and carefully wipe away excess compound. Maintain proper electrical clearance between live metal parts and grounded metal.

Control Line Connections: Control circuit connections designated *L*, *O*, *C* are supplied with clamp type terminals. These terminals accept wire sizes #14–10 AWG Cu. Simply insert appropriate control wires and tighten terminal clamp screws. See the *Wiring Diagram*.

Table A lists the maximum distances and minimum wire sizes that can be run between a control station and one ASCO 920 switch.

Table A – Line Run

Min. Wire Size AWG	Maximum Distance (feet) [1] for these AC Control Voltages			
	120 V	208 V	240 V	277 V
14	750	1650	2760	3950
12	1200	2600	4300	6350
10	2000	4200	6900	10000

[1] For ambient temperatures to 40°C.

> ⚠ ***CAUTION**: Do not exceed these distances for proper switch operation.*

Line run can be extended by use of Auxiliary Control Relays. See page 3.

Table B provides the ASCO 920 coil inrush current and minimum control circuit fuse sizes.

Table B – Inrush Current / Minimum Fuse

Amps	Inrush Current / Fuse (amps) [2] for these AC Control Voltages				
	120 V	208 V	240 V	277 V	480 V
Inrush	11.3	5.15	6.4	7	7
Fuse	3	1.5	1.5	1.5	3

[2] Fuse value listed will also protect ASCO 920 against abnormal operating conditions.

MAINTENANCE

Preventive maintenance will insure high reliability and long life for the ASCO 920 RC Switch.

Keep the Switch clean.
During installation protect the switch from construction grit and metal chips. Once a year de–energize all sources, then brush and vacuum away any excessive dust accumulation.

Maintain Switch Lubrication.
Under normal service, relubrication is not required. Renew factory lubrication if the switch is subjected to severe dust or abnormal operating conditions, and if the coil is replaced. Only use ASCO Lubrication Kit 625549; do not use oil or any other type of lubricant.

Inspect Main Current–Carrying Contacts.
Once a year de–energize all sources, then remove the cover to check the condition of the contacts. Discoloration or slight pitting does not affect contact efficiency. Replace the contacts when they become pitted, excessively worn, or if there are signs of overheating.

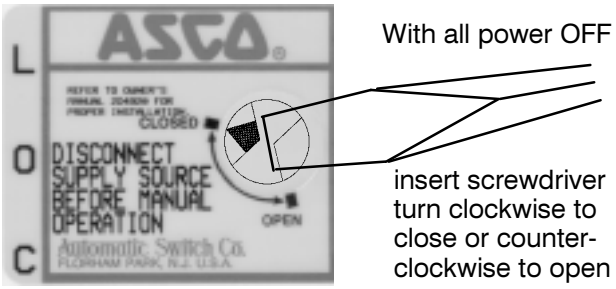
> ⚠ ***CAUTION**: The arc chutes are held in place by the cover. If the arc chutes are removed, be sure they are put back in place with "top" visible. Make sure the cover is fully seated before tightening the cover screws. (Do not over–tighten*

MANUAL OPERATION

A means for manual operation is provided for maintenance purposes only. The switch must be completely de–energized. Open the supply source circuit breaker to the ASCO 920. Label, tape, and disconnect the control circuit wires from terminals *L*, *0*, and C.

⚠ **WARNING**: Do not turn the manual operator until all power is disconnected.

A slotted socket in the cover directly connects to the solenoid operator mechanism. Use a medium blade screwdriver to turn the socket 1/4 turn clockwise to close or counterclockwise to open.



Socket in Nameplate

IN CASE OF TROUBLE

Note any Optional Accessories that may have been furnished with the ASCO 920 and review their operation.

⚠ **WARNING**: The ASCO 920 is energized; proceed with care!

RC Switch opens and closes repeatedly.

1. Check Wiring. Make sure control stations are not calling on the ASCO 920 to open and to close at the same time. See Wiring Diagram.
2. Check Control Station. Make sure control stations do not have overlapping contacts.

RC Switch tries to open or close, but cannot.

1. Check Voltage. Make sure control line voltage is at least 90% of nameplate coil voltage.
2. Check Line Run & Wire Size. Make sure control line size and distance is within the requirements of Table A, page 1.
3. Check VA Burden of Transformer. If a transformer is used in the control line, make sure it can handle the VA burden required. See Table B, page 1.

REPLACEMENT PARTS KITS

For convenience, replacement contacts and coils are sold in kit form. Select kits by noting switch ampere size, number of poles, and coil control voltage as specified on the nameplate. The kits can be ordered from any ASCO Control Distributor.

For other parts, and service procedures, refer to Service Bulletin 2M4921. This publication is supplied with the kits. When converting to a control voltage different from originally furnished, request a new nameplate.

Coil Kits for these AC Control Voltages			
110–120 V	208–240 V	265–277 V	440–480 V
605326–001	605326–008	605326–002	605326–003

ASCO 920 amp size	Contact Kits		Coil Control Contact Kit	Lubrication Kit [3]
	2 Pole	3 Pole		
30–100	331709	331703	331713	625549
150–225	331710	331704		

[3] Lubrication points: core and link inside the core tube, operator spring, and rotating weight pin.

OPTIONAL ACCESSORIES

Pilot Lights, Optional Accessory 9

These pilot lights, if furnished, are connected and installed in the enclosure door, or are supplied loose for open type switches. Each neon light requires a 1/2" diameter round hole and can be installed in panels up to 0. 1" thick. See the Wiring Diagram. Acc. 9s can be added later in Kit form. Kit voltage must be the same as RC Switch control voltage (coil).

Acc. 9A light comes on when main contacts are closed.

Acc. 9B light comes on when main contacts are open.

A resistor is used for 208–277 V RC control. It is supplied on a terminal block with connections labeled 1, 2.

Acc.	Description	Kit
9A	110–120 V	333270–006
	208–277 V	333270–007
9B	110–120 V	333271–006
	208–277 V	333271–007

Auxiliary Contacts, Optional Accessory 14

Acc. 14 auxiliary contacts are installed on the right side of the ASCO 920. Terminals accept wire size #14 AWG Cu.

Acc.	Description	Kit
14A 14B	two auxiliary contacts (14A & 14B) with bracket, cam, and screws	607039

Auxiliary Relays, Optional Acc. 47, 48, 49

Optional auxiliary relays (Acc. 47, 48, 49) are useful:

•When the control station is located at a distance greater than allowable ASCO 920 line run (see Table A, page 1).

•When controlling device doesn't have adequate current–carrying capability to control RC (Table B, page 1).

•When the controlling device is a single–pole single–throw contact, which requires a 2–wire control line.

•When Form 3 (start–stop) control is required.

The relays have a low VA burden: Acc. 47 has 3.0 VA for ac, 2.5 watts for dc; Acc. 48 & 49 have 2.0 VA for ac, 1.2 watts for dc. Acc. 47 & 48 terminals accept wire sizes #22–12 AWG Cu; Acc. 49 accepts #18–12 AWG Cu. The relays are mounted and wired to the RC on enclosed switches, or supplied loose with open type switches.

Two–Wire Control, Optional Accessory 47

Acc. 47 is an auxiliary relay panel for 2–wire control of the ASCO 920, The relay panel must be energized to close the ASCO 920 contacts, and de–energized to open the ASCO 920 contacts. Therefore, use a single–pole, maintained–type control station (Acc. 53B or 53C). Order **Catalog 32lA40** and specify relay coil voltage.

Three–Wire Control, Optional Accessory 48

Acc. 48 is an auxiliary relay panel for 3–wire control of the ASCO 920. It has two relays. One relay must be energized to open the ASCO 920 contracts; the other relay must be energized to close the ASCO 920 contacts. Therefore, use a single–pole, double–throw, momentary–type control station (Acc. 53A). Order **Catalog 321A36** and specify relay coil voltage. See the Wiring Diagram.

Form 3 Control, Optional Accessory 49

Acc. 49 is an auxiliary relay for Form 3 control of the ASCO 920. This relay must be energized to close the ASCO 920 contacts; the relay must be de–energized to open the ASCO 920 contacts. Therefore, use one normally open and one normally closed separate control stations (Acc. 53D). Order a mounting socket kit and plug–in relay listed below (specify relay control voltage).

Acc.	Description				Kit
49	mounting socket kit				295855
Acc.	AC Control	Relay	Acc.	DC Control	Relay
49A	24 V	115206	49F	12 V	115274
49B	120 V	115201	49G	24 V	115277
49C	208 V	115210	49H	32 V	115279
49D	240 V	115202	49I	48 V	115283
49E	277 V	115213	49J	110 V	115271

Control Line Fuses, Optional Accessory 52

These control line fuses are mounted for enclosed switches, or are supplied loose for open type switches. Fuse block has #10–32 terminal screws. The cartridge fuses are suitable for ac only as listed on *Wiring Diagram*.

Acc.	Description	Kit
52A	one 15 amp, 300 Vac type SC fuse for 300 Vac max. grounded	333272
52B	two 15 amp 300 Vac type SC fuses for 300 Vac max. ungrounded	333273
52C	two 15 amp 600 Vac type KTK fuses for 301–600 Vac max. ungrounded	333274

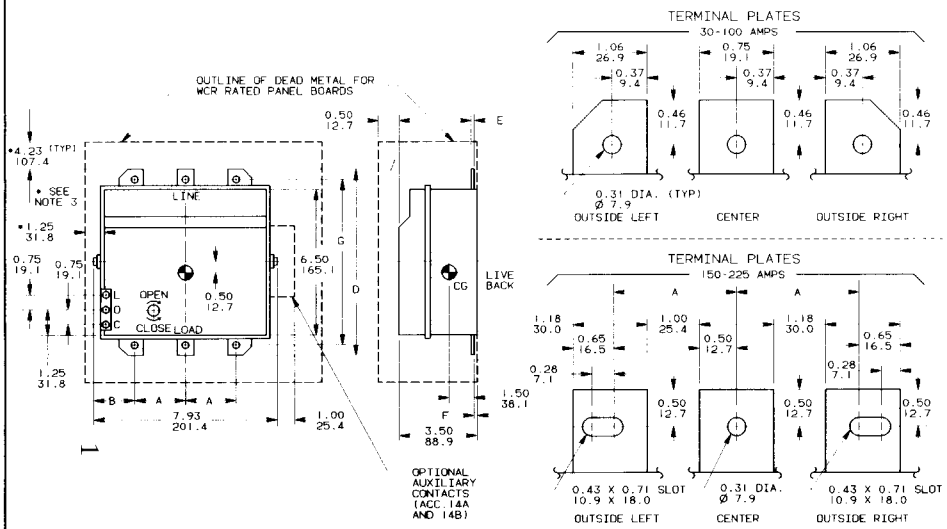
Door–Mounted Controls, Optional Acc. 53

These manual controls are connected and mounted on the enclosure door, or are supplied loose for open type switches. See the *Composite Wiring Diagram*.

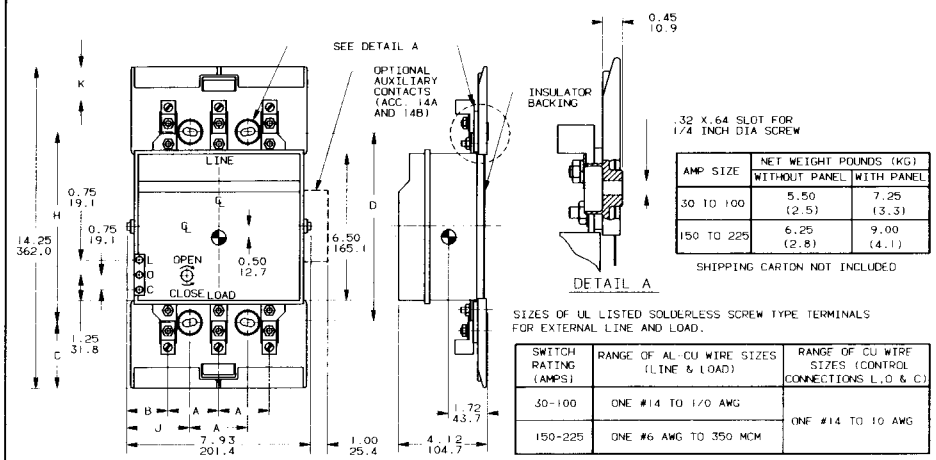
Acc.	Description	Kit
53A	momentary toggle switch with center–off position for 3–wire control	333275
53B	3–position selector switch (HOA) used with Acc. 47 for 2–wire control	333276
53C	maintained toggle switch used with Acc. 47 for 2–wire control	333277
53D	2 momentary toggle switches (1 normally closed, 1 norm. open) used with Acc. 49 for form 3 control	333278

AMP SIZE	OPEN TYPE DIMENSIONS (WITH AND WITHOUT SUB PANEL)									
	A	B	C	D	E	F	G	H	J	K
30A-100A	2.25 57.2	1.71 43.4	2.94 74.7	8.31 211.1	0.12 0.3	0.16 4.1	7.37 187.2	8.37 212.6	2.83 71.9	1.44 36.6
150A-225A	2.87 72.9	1.08 27.4	2.87 72.9	9.50 241.3	0.18 4.6	0.09 2.3	8.50 215.9	8.50 215.9	2.52 64.0	0.31 7.9

30 THRU 225 AMP WITHOUT SUB PANEL



30 THRU 225 AMP WITH SUB PANEL



AMP SIZE	NET WEIGHT POUNDS (KG)	
	WITHOUT PANEL	WITH PANEL
30 TO 100	5.50 (2.5)	7.25 (3.3)
150 TO 225	6.25 (2.8)	9.00 (4.1)

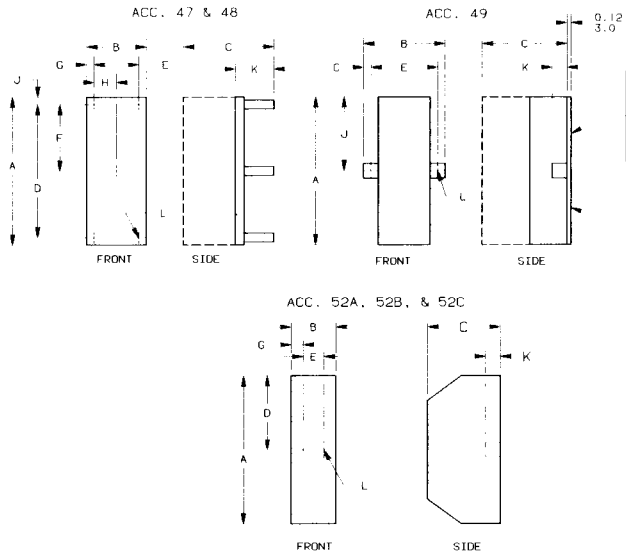
SHIPPING CARTON NOT INCLUDED

SIZES OF UL LISTED SOLDERLESS SCREW TYPE TERMINALS FOR EXTERNAL LINE AND LOAD.

SWITCH RATING (AMPS)	RANGE OF AL-CU WIRE SIZES (LINE & LOAD)	RANGE OF CU WIRE SIZES (CONTROL CONNECTIONS L,O & C)
30-100	ONE #14 TO 1/0 AWG	ONE #14 TO 10 AWG
150-225	ONE #6 AWG TO 350 MCM	

OPT ACC	DESCRIPTION	OPTIONAL ACCESSORIES OPEN TYPE DIMENSIONS									
		A	B	C	D	E	F	G	H	J	K	L
47	RELAY FOR TWO WIRE CONTROL	6.50 165.1	2.00 50.8	3.37 85.6	6.12 155.4	1.62 41.1	3.06 77.7	0.18 4.6	0.81 20.6	0.18 4.6	0.87 22.1	0.17 Ø4.3
48	RELAY FOR THREE WIRE CONTROL											
49	FORM THREE CONTROL RELAY	3.18 80.7	1.87 47.5	3.12 79.2		1.62 41.1		0.12 3.0		1.59 40.4	0.25 6.4	0.16 Ø4.1
52A	ONE(1) FUSE-300V AC MAXIMUM GROUNDED											
52B	TWO(2) FUSES-300V AC MAXIMUM-UNGROUNDED	3.00 76.2	0.85 21.6	1.14 29.0	1.50 38.1	0.36 9.1		0.25 6.4			0.16 4.1	0.14 Ø3.6
52C	TWO(2) FUSES-301-600V AC-UNGROUNDED											

OPTIONAL ACCESSORIES



WARNING
ACC. 49 MUST BE MOUNTED WITH PANEL INSULATOR WHEN RELAY CONTACTS OR COIL ARE CONNECTED IN CIRCUITS 301 V AND ABOVE.

GENERAL NOTES

1. FOR TWO POLE SWITCHES OMIT CENTER POLE.
2. LINE AND LOAD CONNECTIONS ARE REVERSABLE.
3. THESE DIMENSIONS FOR MINIMUM PROXIMITY TO GROUNDED METAL PARTS BASED ON 22KA SYM. QUALIFICATION TESTS.
4. PUBLICATION 2D4920 OWNER'S MANUAL IS FURNISHED WITH EACH REMOTE CONTROL SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.

FOR ENCLOSED TYPE DIMENSIONS REFER TO COMPOSITE ENCLOSURE DRAWING GS 331-850.

FOR WIRING DIAGRAM REFER TO COMPOSITE DRAWING GS 331-851.

COMPUTER GENERATED DRAWING

Automatic Switch Co.©
FLORHAM PARK, NEW JERSEY, 07932
PRINTED IN U.S.A.

	BY	DATE
DRAWN	TEK	4/83
CHECKED	CR	4/83
DFTG APVL	FM	4/83
ENGR APVL	PDG	4/83

AL DR | AP DR

COMPOSITE OUTLINE AND MOUNTING DIMENSIONS FOR OPEN TYPE 2 OR 3 POLE

ASCO® 920 REMOTE CONTROL SWITCHES

CATALOG NO. _____
CERTIFIED
TO ASCO ® S. O. _____
DATE _____ BY _____

ER NO	ITEM CHGD	CHG	DATE	APVL
133964	SEE ECN	K	03/22/95	JW
124926	SEE ECN	J	03/01/93	RJ
119013	SEE ECN	H	12/20/91	RJ
112512	SEE ECN	G	04/17/90	RJ
91955	SEE ER	F	1/9/86	FM
84344	SEE ER	E	10/16/84	FM

JS331849

CHG LTR: K

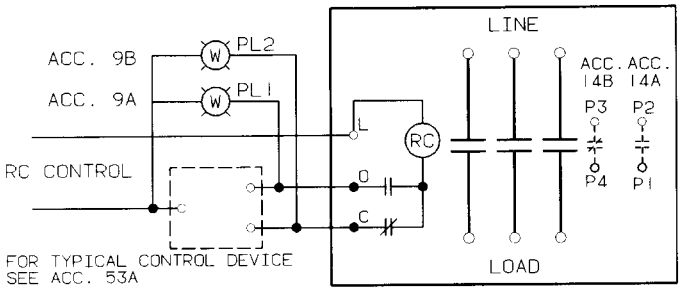
OPTIONAL ACCESSORIES

ACC. 9 PILOT LIGHTS

NOTE: INSTALLED AND CONNECTED FOR ENCLOSED TYPES. SHIPPED LOOSE FOR OPEN TYPES.

☐ ACC. 9A-PILOT LIGHT INDICATES MAIN CONTACTS ARE CLOSED.

☐ ACC. 9B-PILOT LIGHT INDICATES MAIN CONTACTS ARE OPEN.



ACC. 14 AUXILIARY CONTACTS

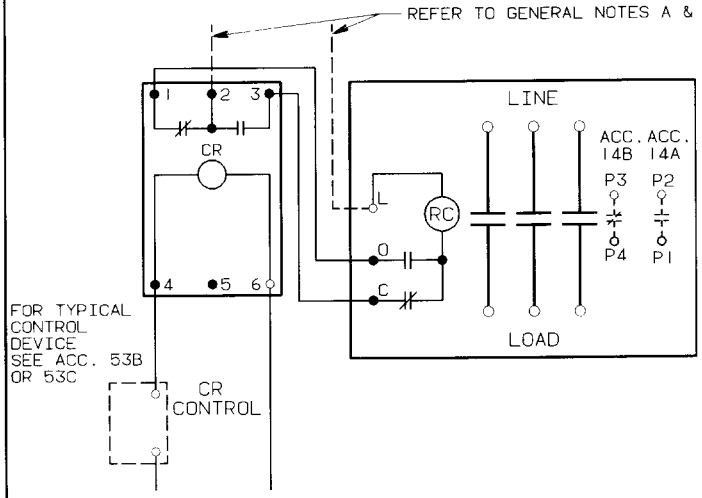
☐ ONE (1) ACC. 14A & ONE (1) ACC.14B SUPPLIED.
ACC. 14A-AUXILIARY CONTACT, P1/P2, CLOSED WHEN MAIN CONTACTS ARE CLOSED.
RATED 10A AT 480V 60HZ, GENERAL USE.
ACC. 14B-AUXILIARY CONTACT, P3/P4, CLOSED WHEN MAIN CONTACTS ARE OPEN.
RATED 10A AT 480V 60HZ, GENERAL USE.

ACC. 22 NEUTRAL PLATE

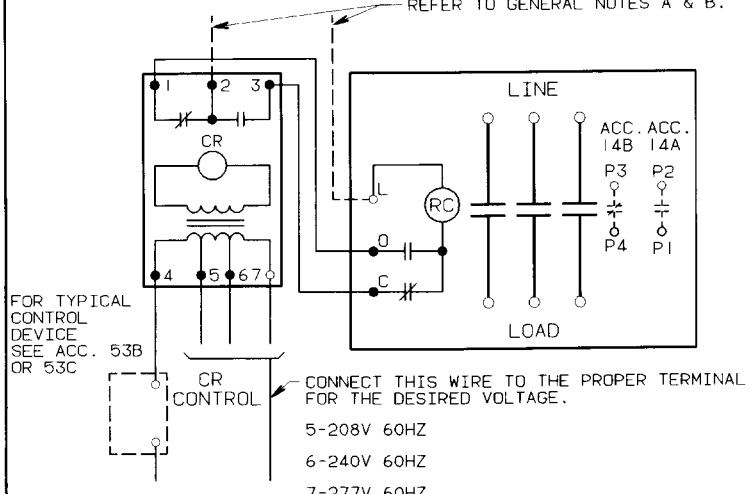
☐ SOLID NEUTRAL, FULL RATED TERMINALS AL-CU. MOUNTED ON ENCLOSED TYPES. SHIPPED LOOSE FOR OPEN TYPES.

ACC. 47 AUXILIARY RELAY FOR 2 WIRE CONTROL

☐ ACC. 47A-120V 60HZ OR 120VDC
☐ ACC. 47C- 24V 60HZ OR 24VDC

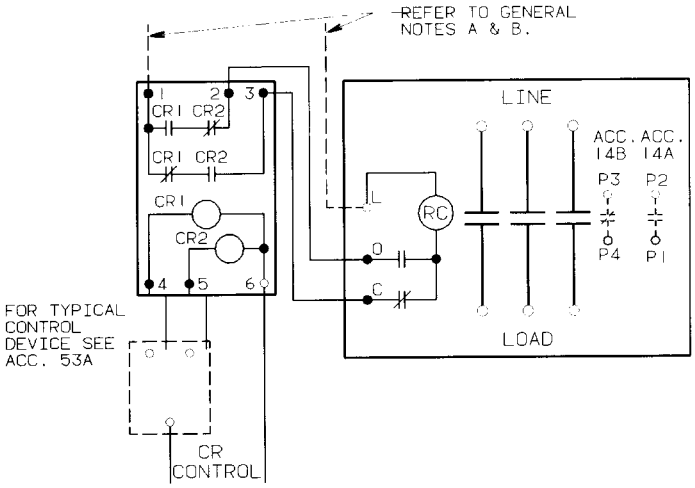


☐ ACC. 47B-208V, 240V, OR 277V 60HZ



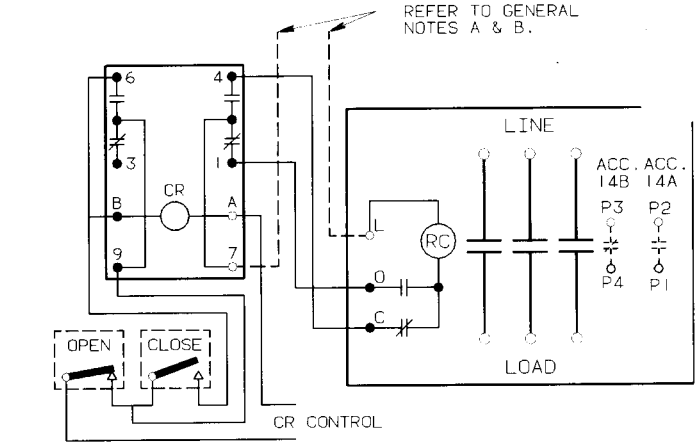
ACC. 48 AUXILIARY RELAY FOR 3 WIRE CONTROL

☐ ACC. 48A- 24V 60HZ
☐ ACC. 48B-120V 60HZ
☐ ACC. 48C-208V 60HZ
☐ ACC. 48D-240V 60HZ
☐ ACC. 48E-277V 60HZ
☐ ACC. 48F- 12V DC
☐ ACC. 48G- 24V DC
☐ ACC. 48H- 32V DC
☐ ACC. 48I- 48V DC
☐ ACC. 48J-110V DC



ACC. 49 AUXILIARY RELAY FOR FORM 3 CONTROL

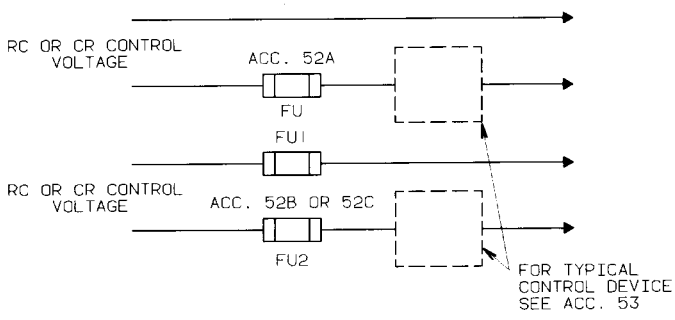
☐ ACC. 49A- 24V 60HZ
☐ ACC. 49B-120V 60HZ
☐ ACC. 49C-208V 60HZ
☐ ACC. 49D-240V 60HZ
☐ ACC. 49E-277V 60HZ
☐ ACC. 49F- 12V DC
☐ ACC. 49G- 24V DC
☐ ACC. 49H- 32V DC
☐ ACC. 49I- 48V DC
☐ ACC. 49J-110V DC



ACC. 52 CONTROL LINE FUSE(S)

NOTES: INSTALLED AND CONNECTED ON ENCLOSED TYPES. SHIPPED LOOSE FOR OPEN TYPES.
CONTROL LINE FUSE(S) SUITABLE FOR AC ONLY.

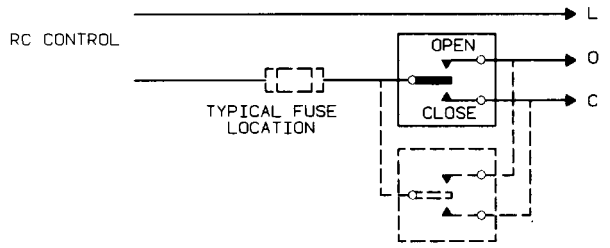
☐ ACC. 52A-ONE 15A,300V,TYPE SC FUSE FOR 300V MAXIMUM-GROUNDED.
☐ ACC. 52B-TWO 15A,300V,TYPE SC FUSES FOR 300V MAXIMUM-UNGROUNDED.
☐ ACC. 52C-TWO 15A,600V TYPE KTK FUSES FOR 301-600V MAXIMUM-UNGROUNDED.



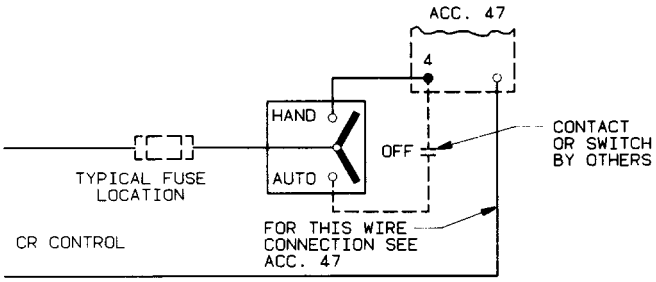
ACC. 53 DOOR MOUNTED CONTROL

NOTES: INSTALLED AND CONNECTED ON ENCLOSED TYPES. SHIPPED LOOSE FOR OPEN TYPES.

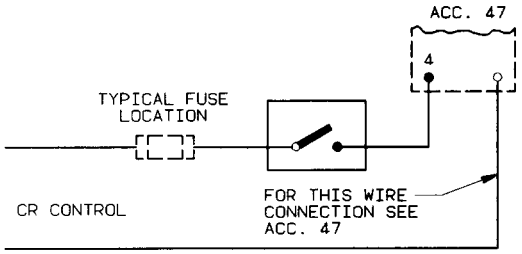
☐ ACC. 53A-MOMENTARY TOGGLE SWITCH WITH CENTER OFF POSITION FOR 3 WIRE CONTROL. TWO CONTROL STATIONS SHOWN IN PARALLEL.



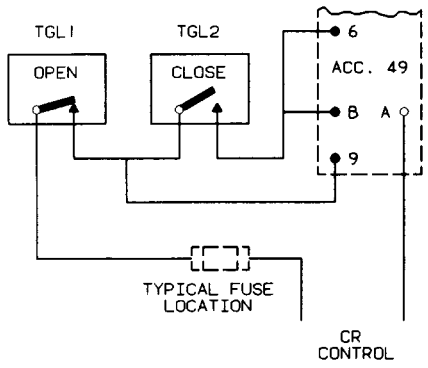
☐ ACC. 53B-H.O.A. SWITCH - CAN ONLY BE USED WITH ACC. 47; RELAY FOR 2 WIRE CONTROL.



☐ ACC. 53C-ONE POLE, SINGLE THROW, MAINTAINED TYPE TOGGLE SWITCH FOR USE WITH ACC. 47; RELAY FOR 2 WIRE CONTROL.



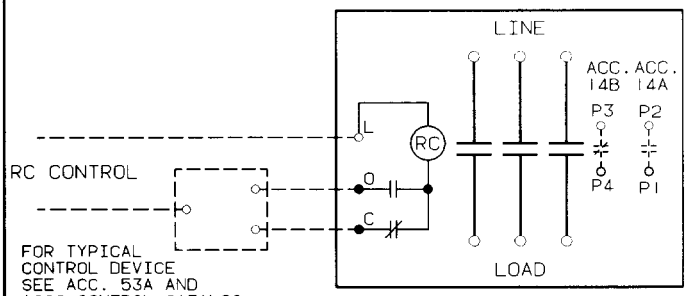
☐ ACC. 53D-TWO MOMENTARY ACTION TOGGLE SWITCHES, USED WITH ACC. 49; RELAY FOR FORM 3 CONTROL.



FOR OPEN TYPE DIMENSIONS REFER TO COMPOSITE OUTLINE DRAWING GS 331-849.

FOR ENCLOSED TYPE DIMENSIONS REFER TO COMPOSITE ENCLOSURE DRAWING GS 331-850.

STANDARD REMOTE CONTROL SWITCH



FOR TYPICAL CONTROL DEVICE SEE ACC. 53A AND ASCO CONTROL CATALOG 1000, ORDERING SECTION 7.

FOR AUXILIARY CONTACTS SEE OPTIONAL ACC. 14 NOTE.

GENERAL NOTES

A. ACCESSORY INTERWIRING IS SUPPLIED ON ENCLOSED TYPE SWITCHES ONLY.

B. WHEN RC COIL AND LINE VOLTAGE ARE THE SAME THE RC CONTROL VOLTAGE CAN BE DERIVED FROM THE LINE POLES OF THE RC SWITCH.

C. OMIT CENTER POLE FOR TWO POLE SWITCHES.

D. ○ INDICATES CUSTOMER CONNECTION POINTS.
● INDICATES FACTORY CONNECTION POINTS.

E. CONNECTION POINTS THAT HAVE BOTH CUSTOMER AND FACTORY CONNECTIONS ARE SHOWN AS CUSTOMER CONNECTIONS.

F. MAIN CONTACTS ARE SHOWN IN OPEN POSITION WITH CONTROL LINE DE-ENERGIZED SEE RATINGS BELOW.

G. FOR RC INRUSH AND LINE RUN VALUES REFER TO ORDERING SECTION 2 OF CATALOG 1000.

H. DEVICE SYMBOLS AND DESIGNATIONS ARE IN ACCORDANCE WITH NEMA PUB. ICS-1970, PART 1-101, EXCEPT FOR THOSE LISTED IN LEGEND BELOW.

J. LINE AND LOAD TERMINALS ARE REVERSIBLE.

K. PUBLICATION 2D4920 OWNER'S MANUAL IS FURNISHED WITH EACH REMOTE CONTROL SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF THE SWITCH.

MAIN CONTACT MAXIMUM VOLTAGE RATINGS
OPEN OR CLOSED

LOAD TYPE	POLES TO LOAD	
	1	2 FOR 1Ø & DC, 3 FOR 3Ø
BALLAST	277VAC	480VAC
TUNGSTEN	250VAC	250VAC
GENERAL	347VAC	600VAC
*DC-RESISTANCE ONLY	125VAC	250VAC
* 75 AMPS OR SWITCH RATING, WHICHEVER IS LESS		

LEGEND

DEVICE DESIGNATOR	DEVICE
RC	REMOTE CONTROL SWITCH
PL	PILOT/INDICATING LIGHT
CR	CONTROL RELAY

COMPUTER GENERATED DRAWING

BASIC CATALOG NUMBERS ASCO	POLES	AMPS	VOLT CODE	SUB PNL CODE	OPT ACC CODE	ENCLOSURE CODE
920	2 OR 3	30	3	0 (WITHOUT)	X	C
		60	6			
		75	7			
		100	9	1 (WITH)		
		150	G			
		200	X			
		225				OPEN TYPE

ADD SUFFIX LETTER FOR ENCLOSED TYPE

CONTROL VOLTAGE CODE DESCRIPTION
OPERATING FREQUENCIES 50-60 HZ

3	110-120V
6	208-240V
7	265-277V
9	440-480V
G	550-600V
X	OTHER VOLTAGES

CATALOG NUMBER _____
CERTIFIED
TO ASCO ® S.O. _____
DATE _____ BY _____

COMPOSITE WIRING DIAGRAM
ASCO ® 920 REMOTE CONTROL SWITCH

	BY	DATE
DRAWN	TEK	4/83
CHECKED	CR	4/83
DFTG. APL	FM	4/83
ENG. APL.	PDG	4/83

Automatic Switch Co. FLORHAM PARK, N.J. 07932 PRINTED IN U.S.A.

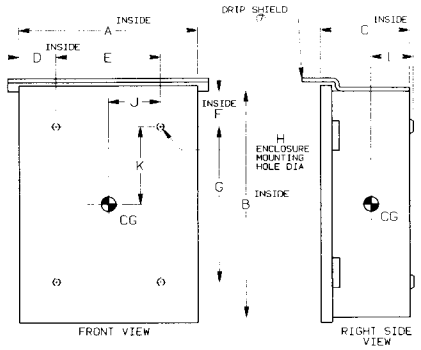
AL ☒ AP ☒

ECR NO	ITEM CHGD	CHG	DATE	APVD
119013	SEE ECN	J	12/20/91	RC
102418	REVISED	H	10/05/87	FM
84344	REVISED	G	1/19/84	FM
83652	SEE CR	F	2/24/84	PDG
79822	REDRAWN	E	19 APR 83	PDG

JS331-851

CHG LTR: J

NEMA TYPE 1 & 2 ENCLOSURES



NEMA TYPE 1 SURFACE MOUNTED, NEMA TYPE 1 FLUSH MOUNTED ⓟ NEMA TYPE 1 WITH GASKET, & NEMA TYPE 2 ⑦ ENCLOSURES WITH 2 & 3 WIRE FUSED OR UNFUSED CONTROL OR FORM 3 CONTROL, OR WITH NEUTRAL PLATE ONLY.

AMP SIZE	DIMENSIONAL DATA										
	A	B	C	D	E	F	G	H	J	K	L
30 TO 100	13.00 330.2	18.25 463.6	4.50 114.3	1.00 25.4	11.00 279.4	1.00 25.4	16.25 412.8	0.31 Ø7.9	5.10 129.5	7.83 198.8	2.20 55.9
150 TO 225	13.00 330.2	24.00 609.6	4.50 114.3	1.00 25.4	11.00 279.4	1.00 25.4	22.00 558.8	0.31 Ø7.9	5.10 129.5	10.80 274.3	2.00 50.8

NET WEIGHT POUNDS (KG)	
NEMA TYPE 1	NEMA TYPE 2
23.00 (10.4)	24.50 (11.1)
28.50 (12.9)	30.00 (13.6)

SOUNDPROOF ENCLOSURES

NEMA TYPE 1 SURFACE MOUNTED, NEMA TYPE 1 FLUSH MOUNTED ⓟ & NEMA TYPF 1 WITH GASKET ENCLOSURES WITH 2 & 3 WIRE FUSED OR UNFUSED CONTROL OR FORM 3 CONTROL, WITH OR WITHOUT NEUTRAL PLATE.

AMP SIZE	DIMENSIONAL DATA										
	A	B	C	D	E	F	G	H	J	K	L
30 TO 100	20.00 508.0	20.00 508.0	6.62 168.1	2.50 63.5	15.00 381.0	1.06 26.9	17.87 453.9	0.31 Ø7.9	7.40 188.0	9.04 229.6	3.00 76.2
150 TO 225	20.00 508.0	24.00 609.6	6.62 168.1	2.50 63.5	15.00 381.0	1.06 26.9	21.87 555.5	0.31 Ø7.9	7.50 190.5	11.04 280.4	3.20 81.3

NET WEIGHT POUNDS (KG)
NEMA TYPE 1
45.00 (20.8)
50.31 (22.8)

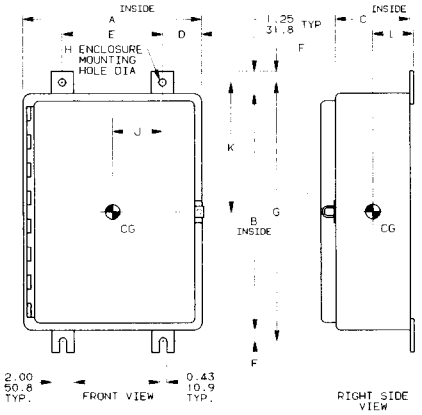
NOTES

1. ENCLOSURES CONSTRUCTED IN ACCORDANCE WITH UL STANDARD 508 (ANSI C33.76-1971)
2. MATERIAL-16 GAUGE (.0598, 1.5 MM) SHEET STEEL
3. STANDARD FINISH-LIGHT GREY ANSI #61.
4. SINGLE DOOR, HINGED ON RIGHT SIDE WITH PULL RING FRICTION CATCH ON 30-100 AMP (13 X 18.25, 330.2 X 463.6 MM) SIZE AND KEY LOCKING PANEL BOARD CATCH ON 30-100 AMP (20.00 X 20.00, 508.0 X 508.0 MM) AND ALL 150-225 AMP SIZES.
5. FULL WIRING GUTTERS AND 0.5 DIA, Ø12.7 MM PILOT KNOCKOUT PROVIDED TOP AND BOTTOM.
6. FLUSH MOUNTED ENCLOSURES HAVE REMOVABLE FLUSH DOOR TRIM. TRIM OVERLAPS 1.00, 25.4 MM ON ALL SIDES.
7. NEMA TYPE 2 ENCLOSURES ARE PROVIDED WITH GASKETING AND TOP MOUNTED DRIP SHIELD THAT EXTENDS 1.00, 25.4 MM BEYOND THE FRONT AND SIDES OF THE ENCLOSURE. PILOT KNOCKOUTS PROVIDED IN BOTTOM ONLY.
8. PUBLICATION 2D4920, OWNER'S MANUAL, IS FURNISHED WITH EACH REMOTE CONTROL SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF SWITCH.

SIZES OF UL LISTED SOLDERLESS SCREW TYPE TERMINALS FOR EXTERNAL LINE AND LOAD.

SWITCH RATING (AMPS)	RANGE OF AL CU WIRE SIZES (LINE & LOAD)	RANGE OF CU WIRE SIZES (CONTROL CONNECTIONS L, O, & C)
30-100	ONE #14 TO #1/0 AWG	ONE #14 TO #10 AWG
150-225	ONE #6 AWG TO 350 MCM	

NEMA TYPE 3R, 4, & 12 ENCLOSURES



NEMA TYPE 3R, 4, & 12 ENCLOSURES WITH 2 AND 3 WIRE FUSED OR UNFUSED CONTROL OR FORM 3 CONTROL, WITH OR WITHOUT NEUTRAL PLATE.

AMP SIZE	DIMENSIONAL DATA										
	A	B	C	D	E	F	G	H	J	K	L
30 TO 100	20.00 508.0	20.00 508.0	6.00 152.4	3.00 76.2	14.00 355.6	0.62 15.7	21.25 539.8	0.43 Ø10.9	7.00 177.8	10.73 272.5	3.10 78.7
150 TO 225	20.00 508.0	24.00 609.6	6.00 152.4	3.00 76.2	14.00 355.6	0.62 15.7	25.25 641.4	0.43 Ø10.9	7.00 177.8	12.73 323.3	3.10 78.7

NET WEIGHT POUNDS (KG)
NEMA TYPES 3R, 4, & 12
50.00 (22.7)
61.25 (27.8)

NOTES

1. ENCLOSURES CONSTRUCTED IN ACCORDANCE WITH UL STANDARD 508 (ANSI C33.76-1971)
2. MATERIAL-14 GAUGE (.0747, 1.9 MM) SHEET STEEL WITH CONTINUOUSLY WELDED SEAMS
3. STANDARD FINISH-LIGHT GREY ANSI #61.
4. SINGLE DOOR, HINGED ON LEFT SIDE WITH PADLOCK HASP, PLATED DOOR CLAMPS ON THREE (3) SIDES FOR NEMA TYPE 3R AND 4, AND ONE (1) SIDE FOR NEMA TYPE 12.
5. NO KNOCKOUTS PROVIDED.
6. FULL WIRING GUTTERS PROVIDED ON TOP AND BOTTOM.
8. PUBLICATION 2D4920, OWNER'S MANUAL, IS FURNISHED WITH EACH REMOTE CONTROL SWITCH. REFER TO THIS PUBLICATION PRIOR TO INSTALLATION AND OPERATION OF SWITCH.

FOR OPEN TYPE DIMENSIONS REFER TO COMPOSITE OUTLINE DRAWING JS331-849.

FOR WIRING DIAGRAM REFER TO COMPOSITE DRAWING JS331-851.

1

INCHES / MM

THIRD ANGLE PROJECTION

CATALOG NO. _____
CERTIFIED
TO ASCO © S. O. _____
DATE _____ BY _____

COMPUTER GENERATED DRAWING

Automatic Switch Co.©
FLORHAM PARK, NEW JERSEY, 07932
PRINTED IN U.S.A.

	BY	DATE
DRAWN	JTT	4/83
CHECKED	ER	4/83
DFTG APVL	FM	4/83
ENGR APVL	PDG	4/83

AL NO | APPR

COMPOSITE OUTLINE AND MOUNTING DIMENSIONS FOR ENCLOSED TYPE 2 OR 3 POLE ASCO©920 REMOTE CONTROL SWITCHES

ER NO	ITEM CHGD	CHG	DATE	APVL
11252	SEE ECN	G	04/18/90	RJ
84344	SEE ER	F	10/16/84	FM
93652	SEE ER	E	2/24/84	PDG
79822	REDRAWN	D	19APR83	PDG

JS331850

CHG LTR G