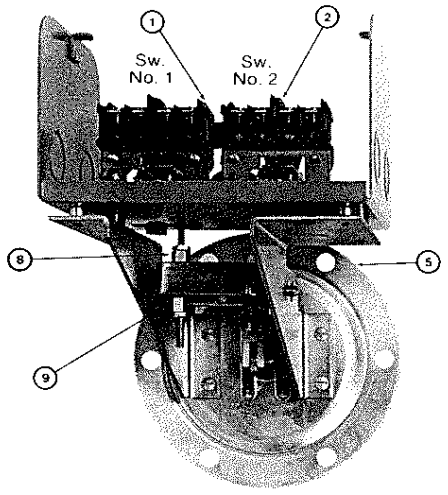
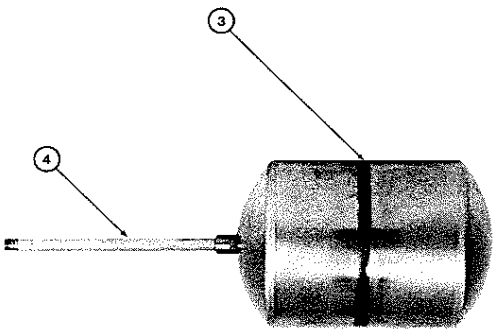
848AS
SERVICE
BULLETIN

Class 9038 Types BG 21-23

MECHANICAL ALTERNATOR

FLANGE MOUNTED





REPLACEMENT PARTS

Item Number	Description	Nbr. Req'd.	Part Number
1	Switch mechanism BG (including Form R)	1	1551-C7-G1
2	Set of movable and stationary contacts (includes all attaching parts)	2	9998 PC-242
5	Flange assembly	1	1551-B11-G1
	Float rod lever	1	1226-L25-G1 Fig. 1 1226-L32-G2 Fig. 2 1226-L32-G1 Fig.3

When ordering replacement parts, always give complete Nameplate data.

ACCESSORIES

Item Number	Description	Nbr. Req'd.	Part Number
3	Float 4.5 x 7.313 (304 stainless steel)	1	9049 BF-1
	Float 4.5 x 7.313 (316 stainless steel)	1	9049 BF-2
4	Float rod 3" brass	1	9049 GBR-3
	Float rod 3" stainless steel	1	9049 GSR-3
	Float rod 5" brass	1	9049 GBR-5
	Float rod 5" stainless steel	1	9049 GSR-5
	Float rod 7" brass	1	9049 GBR-7
	Float rod 7" stainless steel	1	9049 GSR-7
	Float rod 9" brass	1	9049 GBR-9
	Float rod 9" stainless steel	1	9049 GSR-9
	Float rod 11" brass	1	9049 GBR-11
	Float rod 11" stainless steel	1	9049 GSR-11
	Float rod 13" brass	1	9049 GBR-13
	Float rod 13" stainless steel	1	9049 GSR-13

INSTRUCTIONS

WARNING — To avoid shock hazard, disconnect all power before installing or servicing device.

APPLICATION — A means of mechanically alternating the operation of two pumps installed in duplex system with a common tank. Under peak condition, both pumping units are automatically placed in operation.

STANDARD ACTION — Contacts close on liquid rise.

REVERSE ACTION — Contacts open on liquid rise. IT IS NOT RECOMMENDED THAT A CHANGE BE MADE IN THE FIELD FROM STANDARD TO REVERSE ACTION OR VICE VERSA.

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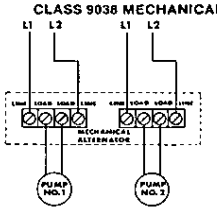
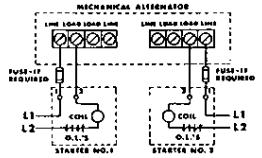
CLASS 9038 MECHANICAL ALTERNATOR - WIRING DIAGRAMS*



SINGLE PHASE MOTOR CONTROL



AC OPERATION OF MOTOR STARTERS

*WHERE SEPARATE POWER SUPPLIES ARE PROVIDED THE DISCONNECT MEANS FOR EACH MOTOR MUST BE GROUPED TOGETHER AND PROVIDED WITH SUITABLE WARNINGS IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE AND ALL OTHER APPLICABLE CODES AND STANDARDS

INSTRUCTIONS

ADJUSTMENT — Vertical float travel of the BG may be varied by means of adjusting nuts 8 and 9. Nut 8 controls the lower limit of float travel, at which the switch is activated, and nut 9 controls the upper limit. Extreme caution should be exercised in making this adjustment. For maximum vertical float travel, ultimately limited by internal stops, the adjustment nuts should be spaced so that both switch units have been actuated at the point of full float travel. For minimum float travel do not bind nuts 8 and 9 on actuating lever.

MANUAL TRANSFER (LEAD-LAG) SELECTOR (FORM N3) — These switches have a manually engaged selector which voids alternation. When the N3 lever is lifted up and positioned to the left, the pump controlled by Switch No. 2 will lead and Switch No. 1 will lag. By lifting up on the lever and swinging it to the right, Switch No. 1 will lead and Switch No. 2 will lag. Placing the lever in its mid position returns the control to normal alternator operation.

NON-ALTERNATING MECHANISM (FORM N4) — On these alternators, the pump wired to lead (which is Switch No. 1) always comes on first with the second pump operating only under peak conditions or when first pump fails.

MOUNTING — Six bolt holes are provided in flange for direct mounting to tank. Flange gaskets are not provided.

MOTOR PROTECTION — A control of this type does not afford motor protection. However, it is quite frequently used as a pilot to operate a starter providing this desirable feature. Square D Company manufactures a complete line of motor protective devices, information on which will be sent upon request.

ELECTRICAL RATINGS

Voltage	Single Phase AC	Polyphase AC	DC
115	2 H.P.	3 H.P.	½ H.P.
230	3 H.P.	5 H.P.	½ H.P.
460/575	—	1 H.P.	—
32	—	—	¼ H.P.

Contact Circuit Rating: NEMA 600A

TABLES OF FLOAT TRAVEL ADJUSTMENTS FLANGE MOUNTED ALTERNATORS — TYPES BG

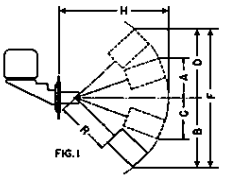


FIG. 1

		Minimum					Maximum				
"R"	"H"	A	B	C	D	F	A	B	C	D	F
3"	13"	4⅛"	6¼"	4⅛"	6¼"	12⅛"	6"	8¼"	6"	8¼"	16⅛"
5"	15"	4⅜"	7"	4⅜"	7"	14"	6⅜"	9⅛"	6⅜"	9⅛"	19"
7"	17"	5"	7⅞"	5"	7⅞"	15¼"	7⅛"	10⅜"	7⅛"	10⅜"	21⅛"
9"	19"	5½"	8½"	5½"	8½"	17"	8¼"	12"	8¼"	12"	24"
11"	21"	6"	9¼"	6"	9¼"	18½"	9"	13"	9"	13"	26"
13"	23"	6½"	10"	6½"	10"	20"	9¾"	14¼"	9¾"	14¼"	28½"

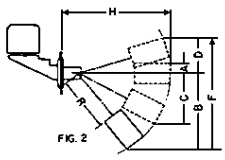


FIG. 2

		Minimum					Maximum				
"R"	"H"	A	B	C	D	F	A	B	C	D	F
3"	13"	2¼"	6¾"	6"	5¼"	12"	2¼"	10¼"	9¼"	5"	15⅛"
5"	15"	2¼"	7¾"	6¾"	5¾"	13⅛"	2¼"	12"	10¼"	5⅛"	17⅛"
7"	17"	2¼"	8⅛"	7⅛"	6¼"	14¾"	2¼"	13⅛"	12"	6"	19⅛"
9"	19"	2¼"	9¼"	8"	6¾"	16"	2¼"	15¼"	13⅛"	6¾"	22"
11"	21"	2¼"	10¼"	8¾"	7⅛"	17¾"	2¼"	16¾"	14¾"	7¼"	24"
13"	23"	2¼"	11"	9⅛"	8"	19"	2¼"	18¼"	16"	7¾"	26"

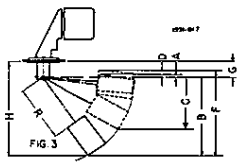


FIG. 3

		Minimum						Maximum					
"R"	"H"	A	B	C	D	F	G	A	B	C	D	F	G
3"	12⅛"	⅛"	9⅛"	9"	⅛"	10⅜"	2⅜"	⅛"	9⅛"	9"	1⅛"	11⅜"	1⅜"
5"	14⅛"	2"	11⅜"	11"	⅜"	10⅜"	3⅜"	⅛"	11⅜"	11"	1⅛"	13⅜"	1⅜"
7"	16⅛"	3"	14"	13"	1⅛"	12⅛"	4⅛"	⅛"	14"	13"	1⅛"	15⅛"	1⅜"
9"	18⅛"	4⅛"	15⅛"	13¾"	2⅛"	13⅛"	5⅛"	1⅛"	16"	13¾"	1⅛"	17⅛"	1⅜"
11"	20⅛"	6"	17⅛"	16"	3⅛"	14⅛"	6"	1⅛"	17⅛"	16"	1⅛"	18⅛"	1⅜"
13"	22⅛"	7⅛"	20"	17"	4⅛"	15⅛"	7⅛"	2⅛"	20"	17"	1⅛"	21⅛"	1⅜"