



SOLID STATE STARTER PARTS

BREAKDOWN BY PRODUCT LINE

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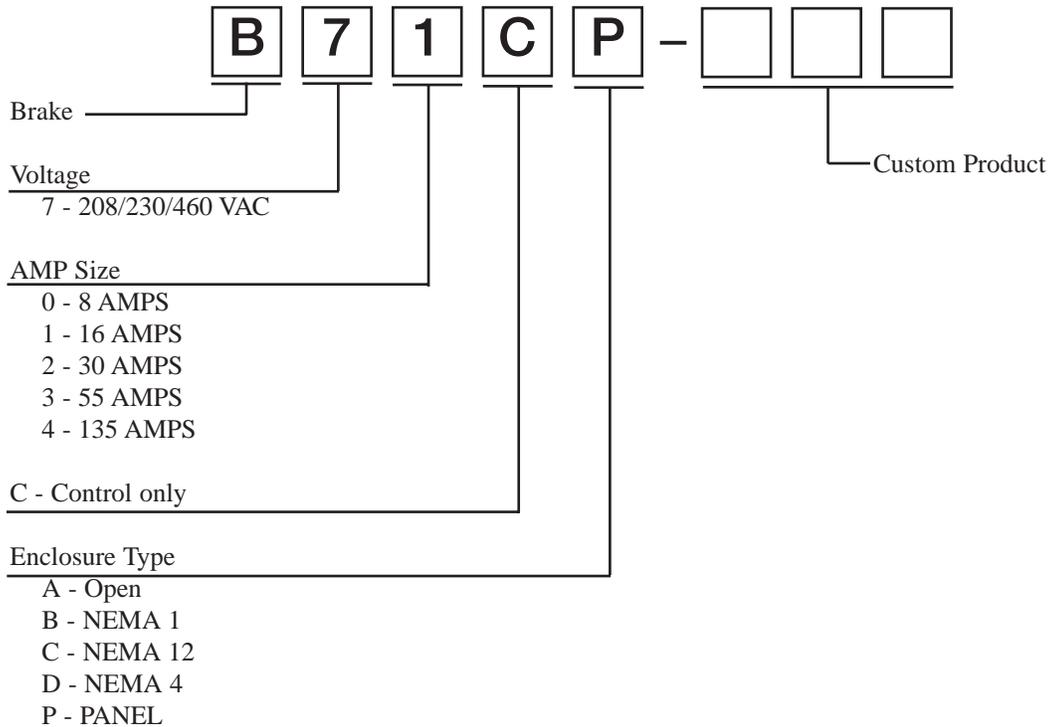
This should be used as a guide to help identify parts primarily for older controls. Current products have a parts list in the manuals. The parts have been cataloged in MN805. This will allow a user to locally find parts like fuses, transformers, and circuit breakers we no longer stock.

Note: Older controls are often modified and may not have the original factory supplied parts.

Dynamic Brakes

There are 2 styles of brakes built by Baldor. Verify the type of brake first.

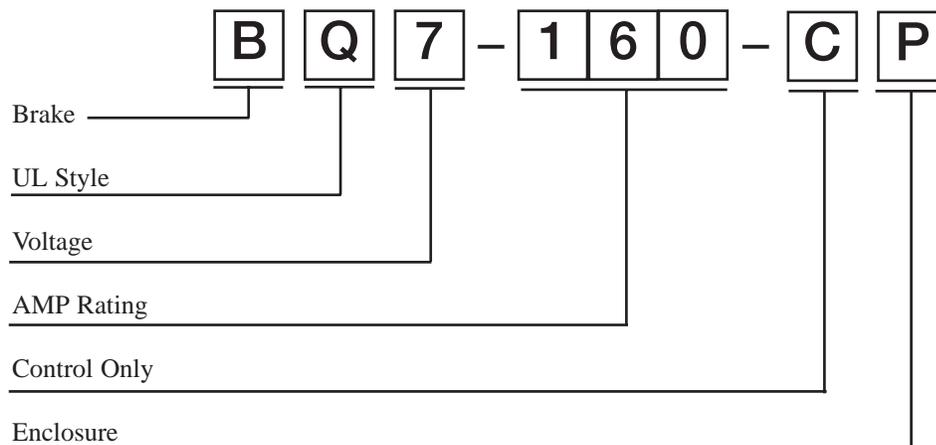
Manual: see PR802 Binder. **Old Style**



The “old style” brake has most parts still available. The major exception is the braking module (Ⓐ) which is no longer available.

Manual: MN802.

New Style

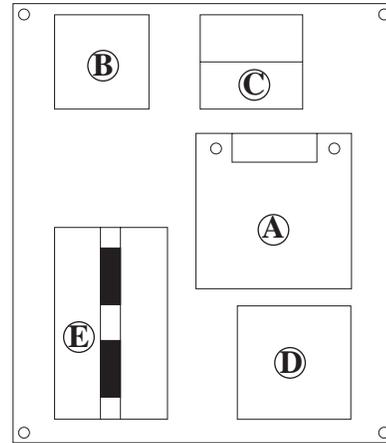
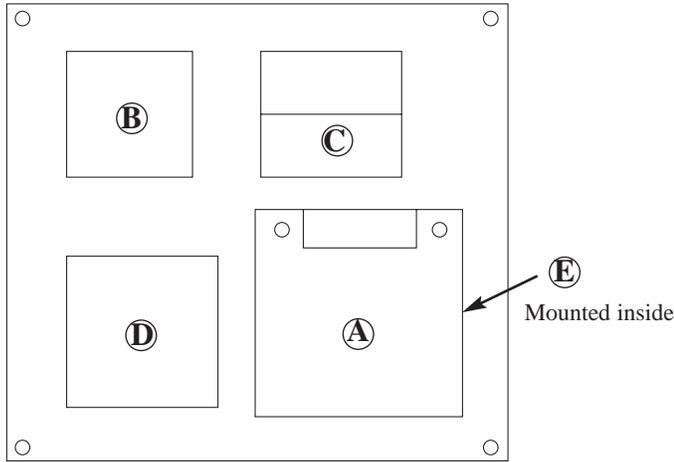


The New style brake parts list is covered in the brake manual. Please see the manual for detail parts information.

Old Style (Non UL) Spare Parts

Size 0, 1 and 2

Size 3, 4 and 5



Ⓐ Braking Module

This module is not available. If the module can not be repaired the brake must be replaced. Sizes 0, 1 and 2 have the SCRs in the module and can be replaced.

Ⓑ Control Transformer

Over a 15 year period many brands of transformers have been used., Control transformers are locally available. Baldor may stock a similar transformer. To check, get the VA, Voltage, of the existing transformer. See MN805.

Ⓒ Fuses

Size	Power Fuses			Control Transformer		
	Baldor	Buss	Gould	Baldor	Buss	Gould
0,1	FU50020	FWP0020	A70P30	FUS0005	FNM1/2	TRM 1/2
2	FU50030	FWP60	A70P60	FUS0005	FNM1/2	TRM 1/2
3	FU50045	FWP150	A70P150	FUS0005	FNM1/2	TRM 1/2
4	FUS0050	FWP350	A70P350	FUS0010	FNM1	TRM 1

Baldor still uses the control transformer fuses. All of these fuses should be locally available.

There are 2 types of fuses. The large power fuses are in the fuse holder mounted on the panel. There are two brands available, Buss and Gould. The second type of fuse is a single fuse for the control power transformer.

Ⓓ Braking Contactor

Over a 15 year period several brands of contactors have been used. They are available locally. Baldor may stock a similar contactor. To check, get the part number of the existing device.

Ⓔ Replacement SCRs/Diode and power cells

Sizes 0-3: The SCR and Diode are in the same package. Size 0, 1 and 2 are mounted in the module. The SCR/Diode in the size 4 are separate.

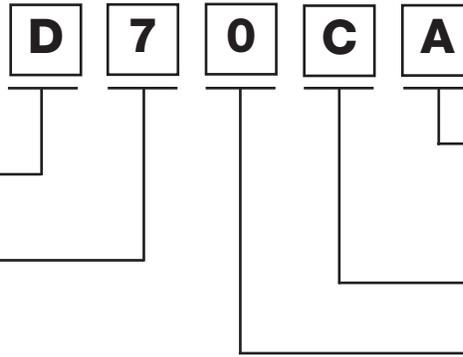
Size	SCR/Diode		Power Cell	
	460 VAC	575 VAC	460 VAC	575 VAC
0/1/2	SCR0075	SCR0080	–	–
3	SCR085	SCR0087	BPC3A	BPC3B
4 ^⓪	SCR0120	SCR0123	BPC4A	BPC4B
	SCR055	SCR0060		

① If the SCR/Diode are replaced an SCR kit is also required.

DEFINITE PURPOSE

Manual: MN830.

Part Numbering



TYPE OF CONTROL

D - Definite Purpose Control

VOLTAGE CODE

7 - 208/230/460 VAC 60 Hz.
8 - 208/230/460/575 VAC 60 Hz.
9 - 380/415 VAC 50 Hz.

ENCLOSURE

A - Open
B - NEMA 1
C - NEMA 12/3R
P - Panel Mount

CONFIGURATION

C - Control only

AMP RATING

0 - 8 amp
1 - 16 amp
2 - 30 amp
3 - 50 amp
4 - 70 amp
5 - 135 amp

A Module (LCM)

*TYPE	SIZE	AMP	60Hz	50Hz
I	0,1,2	8,16,30	REPLACE ENTIRE UNIT	
II	3,4	50,70	D8X	D9X
III, IV	3,4,5	50,70,135	L8X	L9X

D MOV-All Sizes

INPUT VOLTAGE	PART
208-460 VAC	MOV505EL
575 VAC	MOV620EL

B SCR/Power Cell(s)

SIZE	AMP	SCR/DIODE		POWER CELL ②	
		208-460VAC	575VAC		
0,1	8,16	SCR0035	SCR0040	—	—
2	30	SCR0045	SCR0050	—	—
3	50	SCR0085	SCR0087	DO55B	DO55B
4	70	SCR0150	SCR0150	D080B	D080B
5①	135	SCR0120 SCR0055	SCR0123 SCR0060	D160A	D160B

① Top number is diode.

- Requires a part (SCRKIT) for proper installation.
- Complete power cell D160A.

② Power cell contains SCR/Diode and heatsink for one phase.
The 50 and 70 power cell contains all 3 phases.

E Thermostat

*TYPE	SIZE	AMP	PART
III, IV	3,4,5	50,70,135	TSW0010

C Fans

*TYPE	SIZE	AMP	PART NUMBER
III	3,4	50,70	FAN0005
IV	5	135	FAN0005

F Line Load Terminals

*TYPE	SIZE	AMP	PART NUMBER
I	—	—	—
II	3,4	50,70	TBK0155
III	3,4	50,70	TBK0155
IV	5	135	TBK0065

G Control Terminals

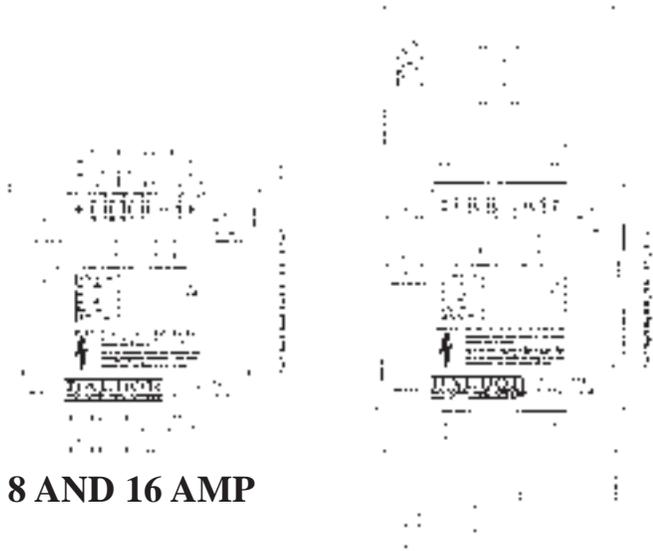
*TYPE	SIZE	AMP	PART NUMBER
III	3,4	50,70	TBK0180 BLK
IV	5	135	TBK0185 END PIECE

* See page D2.

Definite Purpose Controls Reference

I

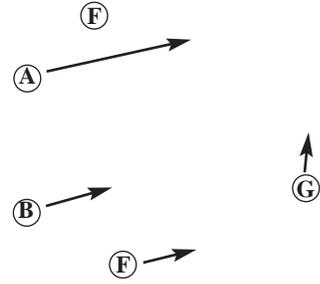
II



8 AND 16 AMP

30 AMP

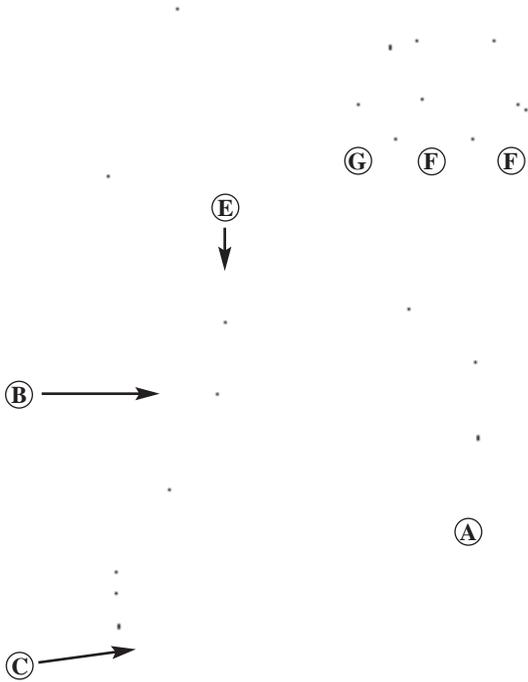
OPEN



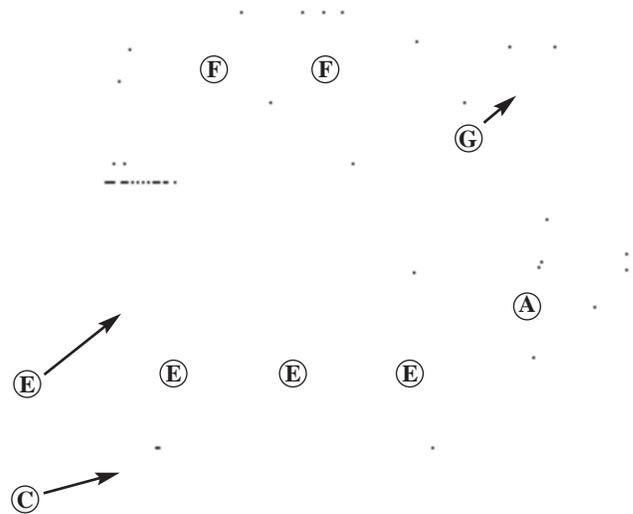
**8-70 AMP
NEMA 12/3R**

III

IV



**50 AND 70 AMP
PANEL AND NEMA 1**



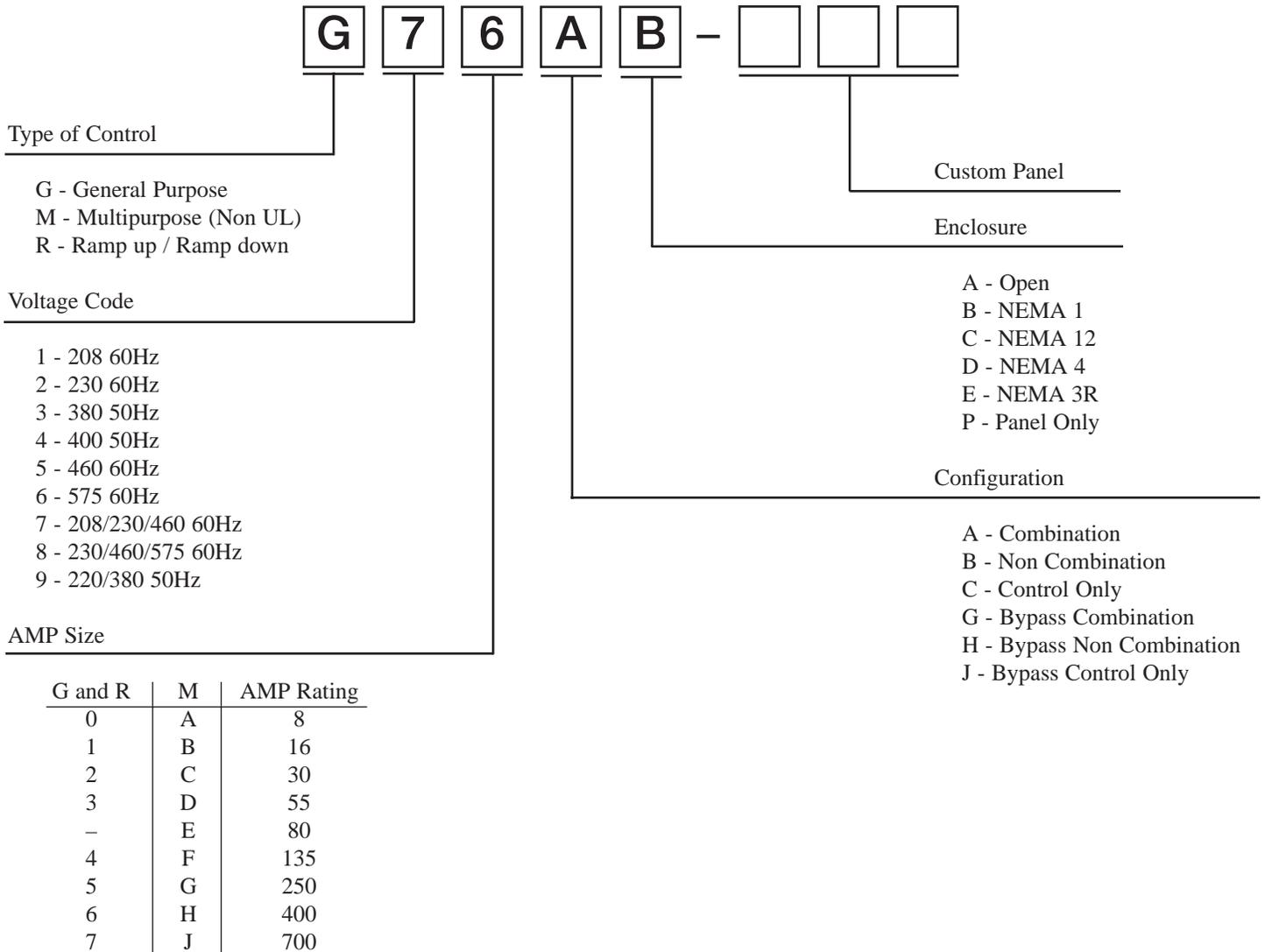
**135 AMP
PANEL AND NEMA 1**

General Purpose/Ramp Up - Ramp Down and non UL Versions of Multipurpose Control

The General Purpose (G controls) and the Ramp Up / Ramp Down (R controls) are no longer available. However, some parts are still available.

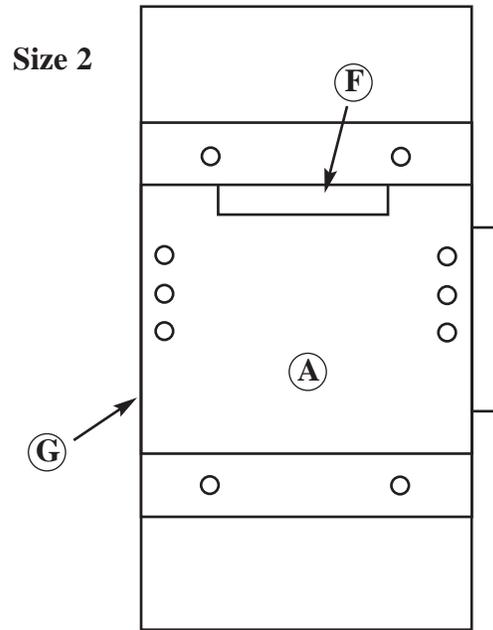
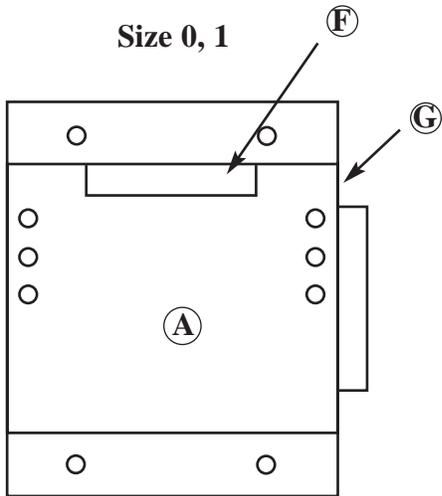
The first Multipurpose Softstarter used the same parts as the G and R controls except for the module. The current Multipurpose product line has a complete spare parts list in the manual.

Manual: see PR802 Binder.

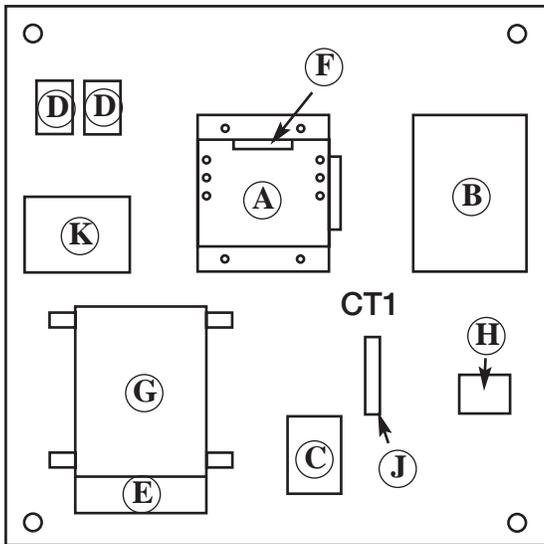


In the Soft Starter Binders (PR802) there are layout drawings, wiring diagrams and manuals.

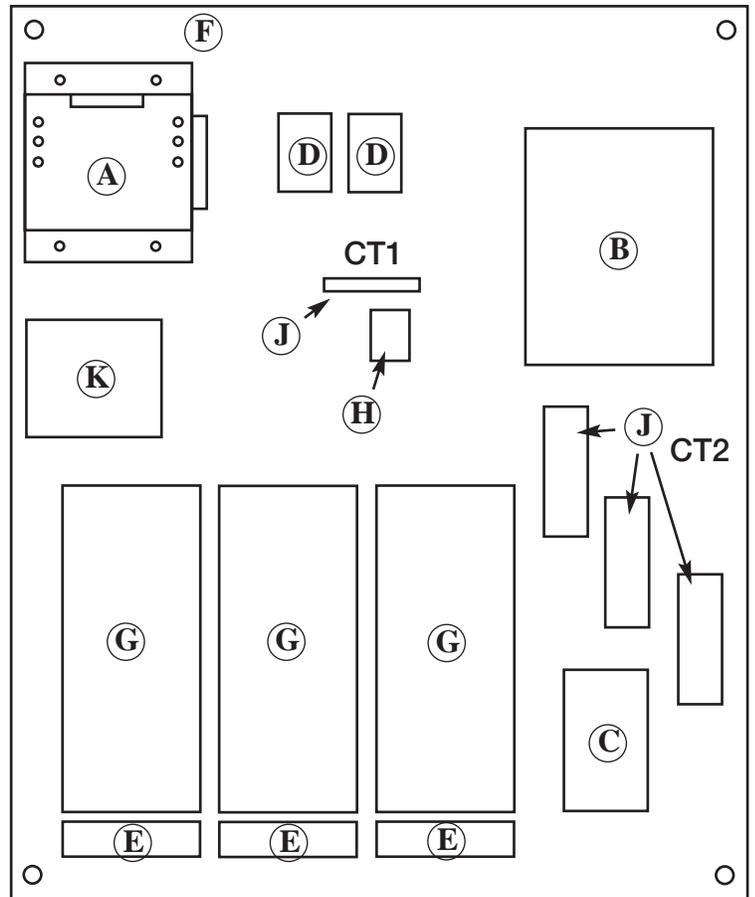
General Purpose/Ramp Up - Ramp Down and non UL Versions of Multipurpose Control



Size 3



Size 4, 5, 6, 7



Ⓐ Control Module

The Control Module is no longer available. The Multipurpose module can be used as a replacement. For sizes 0, 1, 2 (G and R controls), a replacement control is required. For sizes 4-7 and D-J a replacement module can be used. For 60Hz applications use the MB8X, and for 50Hz applications use the MB9X. A conversion manual is included with each Multipurpose module.

Ⓑ Circuit Breakers

The Circuit breakers used were Westinghouse and later on Square D. Baldor no longer stocks these breakers and we no longer have an OEM buying agreement from these manufactures. Westinghouse and Square D breakers should be locally available.

Ⓒ Overload Relays

There were several brands of overload relays used in the G, R and M controls. If a new heater is required for the starter contact your team with the control size, the motor AMPS and the brand of overload that is installed.

Ⓓ Relays

The plug in relays in the controls are very standard and are available locally. Baldor does stock most of the relays. It is common for relays to be added to controls by the end users.

To determine if the relays are available from Baldor. The following information is required.:

- What is the coil voltage of the relay?
- What is the number of pins or blades in the bottom of the relay?
- Are there pins or blades coming from the bottom of the relay?
- Is there a part number on the relay?

See catalog MN805.

Ⓔ Fans

SIZES		PART NUMBER
G AND R	M	
3, 4	D, E, F	Fan 0005
5, 6, 7	G, H, I	Fan 0010

Ⓕ Current Calibrators

The G and R modules require a current calibrator. The current calibrator is nothing more than a resistor that sets the current during starting. If the user needs to change this resistor (current calibrator). Contact your team with the motor current and the control size.

⑥ Power Cells and SCRs

AMP SIZE	CONTROL TYPE		POWER CELL		REPLACEMENT SCR
	G and R	NON UL M	MAX VAC	CAT. NO.	CAT. NO.
8, 16	0, 1	A, B	460	–	SCR0005
			575	–	SCR0010
30	20	C	466	–	SCR0015
			575	–	SCR0020
55	3	D	460	PC1B	SCR0025(3)
			575	PC1B	SCR0025(3)
80	–	E	460	PC2B	SCR0130(3)
			575	PC2B	SCR130(3)
135	4①	F①	460	PC4A	SCR0055(2)
			575	PC4B	SCR0060(2)
250	5①	G①	460	PC4A	SCR0065(2)
			575	PC4B	SCR0070(2)
400	6①	H①	460	PC7B	SCR0095(2)
			575	PC7B	SCR0095(2)
700	7①	J①	460	PC7B	SCR0095(2)
			575	PC7B	SCR0095(2)

⑧ MOVs

There are only two types of MOVs depending upon the voltage rating of the control.

208 - 460VAC 50 - 60Hz - MOV505EL
 575VAC 60Hz - MOV620EL

⑨ CT (Current Transformers)

There are two CT's on some controls; a small one – CT1, and a larger doughnut type – CT2.

CT1 - CT6K1 (used on G and R sizes 3-7, M sizes D - J).

CT 2

G and R	M	CT2
4, 5, 6	F, G, H	CTX0025
7	J	CTX 0020

Ⓚ Control Transformers

Control Transformers are locally available. Baldor stocks similar transformers but may require panel modification to fit.

Ⓛ Bypass Contactors

The bypass used for G and R controls have varied during the years. Currently Baldor is using ASEA or ABB contactors which were used for several years of production of the G, R and M controls. The ASEA/ABB contactors are normally stocked by Baldor. If the contactor is not a ASEA/ABB Baldor does not stock replacements. A replacement should be found locally.

Cross Over Chart

To convert an Old Style General Purpose, Ramp Up/Down, or Non UL Style Multipurpose, use the chart below. The last digits remain the same. The Multipurpose Soft Starter will be in a larger enclosure than the old control.

SIZE	GENERAL PURPOSE	RAMP UP/DOWN	NON UL MULTIPURPOSE	UL MULTIPURPOSE
0	G70**	R70**	MA7A**	MA7-008-**
1	G71**	R71**	MA7B**	MA7-016-**
2	G72**	R72**	MA7C**	MA7-030-**
3	G73**	R73**	MA7D**	MB7-055-**
			MB7E**	MB7-080-**
4	G74**	R74**	MB7F**	MB7-160-**
5	G75**	R75**	MB7G**	MB7-250-**
6	G76**	R76**	MB7H**	MB7-420-**
7	G77**	R77**	MB7J**	MB7-840-**

** These digits remain the same.

Example #1:
General Purpose
Starter G76AB is
now MB7-420-AB.

Example #2:
Non UL
Multipurpose Starter
MA7BAP is now
MA7-016-AP.

Ⓚ Control Transformers

Control Transformers are locally available. Baldor stocks similar transformers but may require panel modification to fit.

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2	G72**	R72**	MA7C**	MA7-030-**
3	G73**	R73**	MA7D**	MB7-055-**
			MB7E**	MB7-080-**
4	G74**	R74**	MB7F**	MB7-160-**
5	G75**	R75**	MB7G**	MB7-250-**
6	G76**	R76**	MB7H**	MB7-420-**
7	G77**	R77**	MB7J**	MB7-840-**

** These digits remain the same.

Example #1:
General Purpose
Starter G76AB is
now MB7-420-AB.

Example #2:
Non UL
Multipurpose Starter
MA7BAP is now
MA7-016-AP.