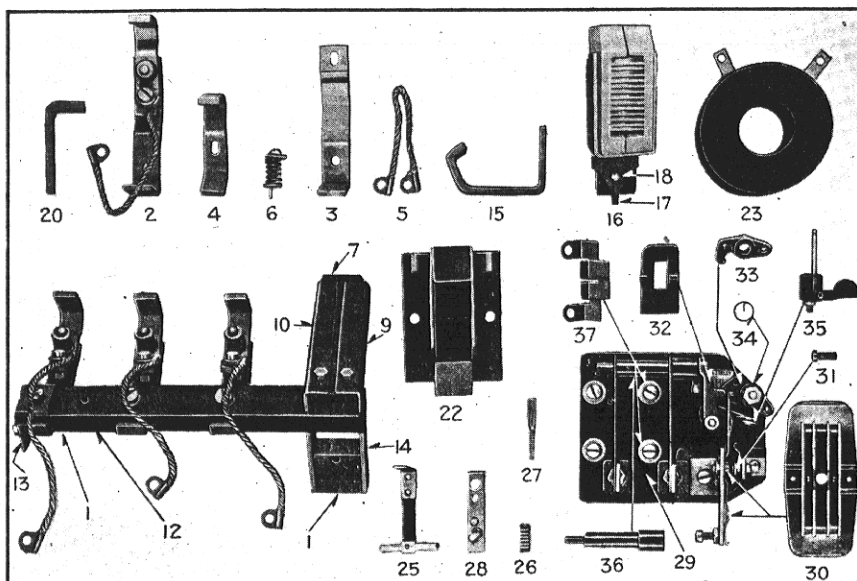


## CLASS 11-200-B6, B3 AND CLASS 11-200-C6, C3, CB LINESTARTERS

## RENEWAL PARTS DATA



This is a list of the Renewal Parts and the quantities of each that we recommend should be stocked by the user of this apparatus to minimize service interruptions caused by breakdowns. The parts recommended are those most subject to wear in normal operation, or to damage or breakage due to possible abnormal conditions.

This list of Renewal Parts is given only as a guide. When continuous operation is a primary consideration, additional insurance against shutdowns is desirable. Under such conditions more renewal parts stock should be carried, considering the severity of the service and the time required to secure replacements.

## ORDERING INSTRUCTIONS

Name the part and give its style number. Give the complete name plate reading. State whether shipment is desired by express, freight or by parcel post. Send all orders or correspondence to nearest Sales Office of the company. Small orders should be combined so as to amount to a value of at least one dollar, as order-handling and shipping expenses prevent us from billing a smaller amount.

## RECOMMENDED STOCK OF RENEWAL PARTS

For LINESTARTERS in use up to and including.....		1	5	Style No. of Part
Ref. No.	Name of Part	No. Per Starter	Recommended for Stock	
1	Armature Complete.....	1	0	842514
2	Moving Contact Element.....	3	0	765347
3	Moving Contact Support.....	3	0	676118
4	Moving Contact.....	3	3	557317
5	Shunt.....	3	1	674002
6	Contact Spring and Pin.....	3	0	549727
X 7	%Cross Bar with Floating Armature.....	1	0	845328
7	Floating Armature with Supports.....	1	0	845740
x 8	Shading Coil.....	2	0	152692
12	Cross Bar.....	1	0	842509
14	Moving Bearing Bracket—R.H.....	1	0	844433
13	Moving Bearing Bracket—L.H.....	1	0	512898
15	Stationary Contact.....	3	3	518692
16	†De-ion Arc Quencher.....	3	0	684922
17	†Arc Quencher Mounting Spring.....	3	0	712564
18	†Rivet for Mounting Spring.....	3	0	712565
x 19	†Arc Shield.....	3	0	712563
20	Stationary Bearing Bracket.....	2	0	512909
x 21	Armature Shaft.....	1	0	662241
22	Stationary Core.....	1	0	512897
23	Operating Coil for Contactor.....	1	1	See Table
x 24	Type L-33 Interlock.....	1	0	507437
25	Moving Contact Complete.....	1	0	484229
26	Moving Contact Spring.....	1	0	478769
27	Stationary Contact.....	2	0	516544
28	Interlock Support.....	1	0	484230
29	ΔType TA-2 Relay with Base.....	1	0	Δ576184
29	ØType TA-2 Relay with Base.....	1	0	Ø599174
30	Moving Contact.....	1	0	541356
31	Stationary Contact with Holder.....	1	0	659346
32	Operating Lever.....	1	0	597586
33	Latch.....	1	0	597585
34	Latch Spring.....	1	0	597590
35	Calibrating Lever.....	1	0	597584
36	Latch Push Rod.....	1	0	597587
37	\$Heater for Relay.....	2	2	4

Parts indented are included in the part under which they are indented.

x Not listed on illustration.

† Used only on B3-B6-C3 and C6 Linestarters.

‡ Used only on CB Linestarters.

Δ Used only on B3 and B6 Linestarters.

Ø Used only on C3-C6 and CB Linestarters.

§ When ordering Heaters specify Style Number obtained from Table of Heater Ratings.

% For Contactors having 1/2" thick riveted or bolted Cross Bar, Style No. 845328 (3/4" thick) should be ordered for Renewals.

OPERATING COIL—TABLE  
Complete LINESTARTER Style Nos.

11-200, B3 With Dust Tite Cabinet	11-200, B6 With Standard Cabinet	11-200, B6 Without Cabinet	11-200, C3 With D at Tite Cabinet	Volts	Cycles	Operating Coil Style No.
757406	684695	684707	757419	110	60	512076
757407	684696	678908	757420	220	60	512077
757408	684697	678909	757421	440	60	512078
757409	684698	678910	757422	550	60	512079
757410	684699	.....	757423	600	60	523221
757411	684700	.....	757424	110	50	512092
757412	684701	688929	757425	110/220	25/50	512080
757413	684702	688930	757426	220/440	25/50	512081
757414	684703	.....	757427	550	50	512093
757415	684704	.....	757428	440	25	512082
757416	684705	.....	757429	550	25	512083
.....	684706	.....	.....	480	60	696624

11-200, C6 With Standard Cabinet	11-200, C6 With Ventilated Cabinet	11-200, C6 Without Cabinet	11-200, CB With Standard Cabinet	11-200, CB Without Cabinet	Volts	Cycles	Operating Coil Style No.
688931	.....	688951	757396	757401	110	60	512076
688932	688978	688973	757397	757402	220	60	512077
688933	.....	688974	.....	.....	440	60	512078
688934	.....	688975	.....	.....	550	60	512079
688935	.....	.....	.....	.....	600	60	523221
688944	.....	.....	757398	757403	110	50	512092
688945	688979	688976	757399	757404	110/220	25/50	512080
688946	688980	688977	757400	757405	220/440	25/50	512081
688947	.....	.....	.....	.....	550	50	512093
688948	.....	.....	.....	.....	440	25	512082
688949	.....	.....	.....	.....	550	25	512083
688950	.....	.....	.....	.....	480	60	696624

\* For 220 Volts, 25 Cycles only.

Westinghouse Electric Corporation

East Pittsburgh, Pa.

	Volt	110	
		Min.	Max.
All	Hp.	7½	7½

\*That is, Motors designed for low-sta  
 †This rating may be increased to 30 f

## SS 11-200-B6, B3 AND CLASS 11-200-C6, C3, CB LINESTARTERS

## MAXIMUM HORSEPOWER RATINGS

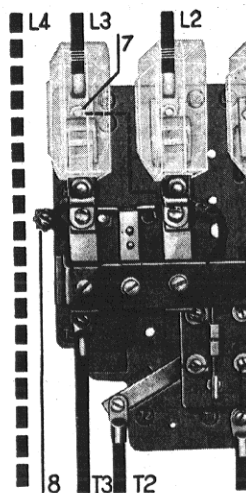


Fig. 1—View of LINESTARTER showing

Phase or 4-Wire				2-Phase, 3-Wire				1-Phase				3-Phase or 2-Phase, 4-Wire				2-Phase, 3-Wire			
220	440	550	600	110	220	440	550	110	220	440	550	110	220	440	550	110	220	440	550
(40 AMP. MAX.)—GENERAL SERVICE										JOGGING SERVICE									
10	25	30		5	10	25	30	3	5	10	15	5	10	25	30	5	10	25	30
75 Amp. Max.)—GENERAL SERVICE										JOGGING SERVICE									
\$25	40	40		10	20	40	40	5	10	20	20	10	25	40	40	7½	15	35	35
\$25	50	50		10	20	40	50	—	—	—	—	10	25	50	50	7½	20	35	35
\$25	60	60		10	20	40	50	—	—	—	—	—	—	—	—	—	—	—	—
0 Amp. 220 Volt Max.)—GENERAL SERVICE										JOGGING SERVICE									
220	110	220		110	220	110	220	110	220	110	220	110	220	110	220	110	220	110	220
Max	Min.	Max		Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max	Min.	Max
7½	15	15		7½	15	15	15	3	3	5	10	7½	15	15	15	7½	15	15	15

GENERAL starting currents. †Up to and including 75 Amp. Max.

30 Hp. 75 Amp. Max. when starter is furnished with ventilated cabinet.

The Classes 11-200-B6, B3, C6, C3, CB are for use on non-reversing polyphase motors. They consist of a type TA2 thermal overload relay and a type T1 thermal relay.

## INSTALLATION

Disconnecting switch and fuses ahead of the LINESTARTER. Fuse four times the full load current.

BEFORE MAKING ANY CONNECTIONS, TAIN THAT ALL THE LINES ARE DEAD.

CHECK ALL CONNECTIONS BEFORE TURNED ON.

Mount case on wall, make connections in leads. Leads should facilitate connecting. Connect diagram, Fig. 2 for Push Button

For a THREE-PHASE SYSTEM, Fig. 1.

For a SINGLE-PHASE SYSTEM, L-2 to L-3 (See Fig. 1); connect L-2; connect motor leads to T-1

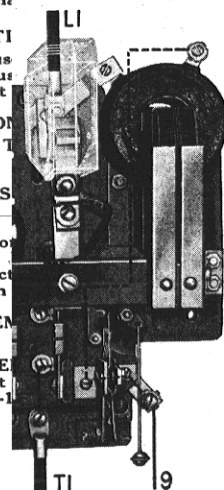


Fig. 2—Wiring Connections

## GENERAL

C6, C3 and CB LINESTARTER are for use with single or two phase motors. They consist of a three pole contactor and an overload relay. The number of fuses should be installed. Fuses should not exceed rating of the motor.

## INSTALLATION

Fuses should be installed ahead of the motor.

## CLASS

CONNECTIONS BE CAREFULLY HANDLED ARE

## CONNECTIONS BEFORE POWER IS

Make conduit connections, and make leads reasonably long to connect leads according to diagram or Master Switch.

Standard Motor Types

Volts

3-Phase, 2-Phase, 110 220

CLASS 11-200-B6, B3, (40 AMP. MAX.)—GENERAL SERVICE

All Hp. 5 10

CLASS 11-200-C6, C3 (75 AMP. MAX.)—GENERAL SERVICE

Standard Squirrel Cage Motors

Hp.

10

\$25

\*LINESTARTER Squirrel Cage Motors

Hp.

10

\$25

Wound Rotor Motors

Hp.

10

\$25

## INSTRUCTIONS

For a TWO-PHASE THREE-WIRE SYSTEM, L-3 is the common lead. Connect T-4 to T-3 on panel.

For a TWO-PHASE FOUR-WIRE SYSTEM, connect L-4 directly to T-4 of motor; phase 1=L-1, L-3; phase 2=L-2, L-4.

INSPECT STARTER UNIT to see that parts work freely and that nuts are tight, terminals and current carrying parts clean and in good contact and arc box in place.

OVERLOAD RELAY HEATERS are supplied separately. Before installing them, check rating against above table. Ampere rating is stamped on heater adjacent to mounting hole. Install heaters as shown in Fig. 3. Starter is shipped for use with two-wire master switch providing HAND RESET. To reset from outside of cabinet, remove cord from latch arm, insert cord through hole in bottom of cabinet and attach free end of cord to latch arm.

When used with 3-wire Master Switch for AUTOMATIC RESET, remove latch and spring as indicated in Fig. 3. Trip overload relay by hand to insure that relay functions properly.

Before starting motor see that CALIBRATION LEVER on overload relay is at proper setting; current stamped on heater will just trip the relay at the 100% setting.

To decrease tripping current, move relay adjusting lever toward 90; to increase, move toward 120. Adjustment gives approximately 10 percent below and 20 percent above normal value. Tripping value should be changed only by means of calibration lever.

On starting motor, if the rotation is wrong, reverse two leads of a phase, preferably at the motor terminals. (If the power system is two-phase three-wire, do not change the common lead.)

## INSPECTION AND MAINTENANCE

Before opening cover to inspect or adjust starter, see that the disconnecting switch is open. Inspect the starter monthly or often enough to see that parts are in good operating condition. Shunts should not be broken or touch other parts. To prevent noise, see that armature sealing surfaces are clean. Pitted or burned contact tips may be dressed with sandpaper. Do not use emery cloth. Do not oil the mechanism of this unit.

## RENEWAL PARTS

The parts most likely to need renewal are stationary contact, Style No. 518692; moving contact, Style No. 557317; shunt, Style No. 674002 operating coil (for Style No. see tag attached to coil) and relay complete on its base without heating elements, Style 576184 for B6, B3 and Style 599174 for C6, C3, CB. Keep these on hand, if starter is in heavy service.

TABLE NO. 1, B6, B3  
HEATERS FOR THERMAL RELAY

Full Load Current of Motor	Amp. Rating of Heaters	Style No. of Heater
.70-.90	1.0	511342
.91-1.20	1.4	511341
1.21-1.45	1.7	511263
1.46-1.65	1.9	511264
1.66-1.80	2.1	511265
1.81-2.00	2.3	511261
2.01-2.25	2.6	511262
2.26-2.70	3.1	551944
2.71-3.1	3.6	551941
3.2-3.6	4.2	551942
3.7-4.1	4.7	551943
4.2-4.9	5.7	551937
5.0-5.8	6.7	551938
5.9-6.7	7.7	551939
6.8-7.3	8.4	551940
7.4-7.8	9.0	511343
7.9-9.5	11.0	474419
9.6-11.0	13.0	474420
11.1-13.0	15.0	474421
13.1-14.5	17.0	474422
14.6-17.5	20.0	502915
17.6-20.0	23.0	474425
20.1-22.0	26.0	474426
22.1-25.0	29.0	474427
25.1-27.0	32.0	501695
27.1-31.0	36.0	474429
31.1-35.0	40.0	474431

TABLE NO. 2, C6, C3, CB

32-35	41.0	501694
35-42	48.0	760593
42-50	58.0	474432
50-58	68.0	474433
58-62	71.0	474434
62-70	81.0	474436
70-83	95.0	539018

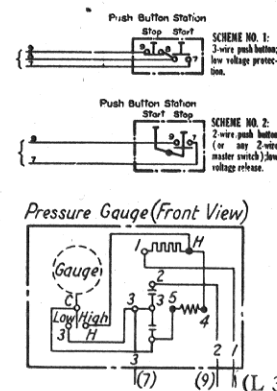


Fig. 2—Wiring Diagram of Connections to Master Switches.

To install Heaters, remove screws and washers from binding posts; set Heater in place and replace washers and screws.

When tightening in place adjust Heater to obtain 1/8 to 1/4 clearance between Bimetal Strip and Heater.

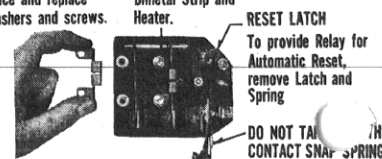


Fig. 3—Thermal Relay, Showing How Heaters Are Installed.