



# DESCRIPTION • INSTALLATION • MAINTENANCE INSTRUCTIONS

*Life-Linestarter*\*

**Class 11-200N.0**

**Single-Phase, 2 Pole**

**Type N Size 0**

**THE TYPE N, LIFE-LINESTARTER** \* will give protection against overloads (but not against short circuit currents) when wired in accordance with Fig. 2 and provided with an overload heater selected from the Heater Application Tables.

The starter should be protected against short circuits by fuses not exceeding four times the rated motor current, by a time limit circuit breaker set at not more than four times the full load motor current, or by an instantaneous trip circuit breaker.

## MAXIMUM A-C RATINGS FOR A-C MOTORS WHEN PROVIDED WITH A SUITABLE O.L. RELAY HEATER

VOLTS	MAXIMUM HORSEPOWER
	Single Phase
115	1
208-230	1½
440-600	1½

## STARTER IDENTIFICATION

This LIFE-LINESTARTER complete is identified by style (shown on carton and as listed in Price List) and consists of two basic parts: (1) the starter unit without coil, and (2) the coil.

The style number of the starter unit (without coil) is S#1532 860 and appears on the metal nameplate attached to the unit.

The coil style is marked on the coil itself along with its voltage and frequency rating.

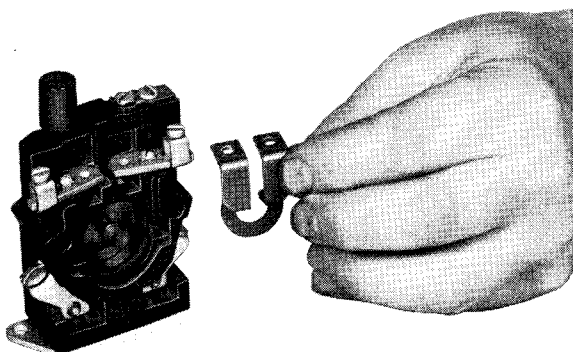


FIG. 1. Thermal Overload Relay Showing Heater and Installation Method.

Style identification for use in ordering either a complete Linestarter or individual coils is given in the table below:

## STYLE IDENTIFICATION

VOLTS	CYCLES	COIL STYLE	COMPLETE STYLE
115 208 230	60 60 60	*1605 513	1587 694
115 208 230	25 60 60	1470 242	1587 695
230 380 440 480	25 50 60 60	1470 243	1587 696
550 600 115 230	60 60 50 50	1470 244 1470 245 1470 246 1470 247	1587 697 1587 698 1587 699 1587 700
440 550 440 550	50 50 25 25	1470 248 1470 249 1470 250 1470 251	1587 701 1587 702 1587 703 1587 704

\* Dual Voltage Coil

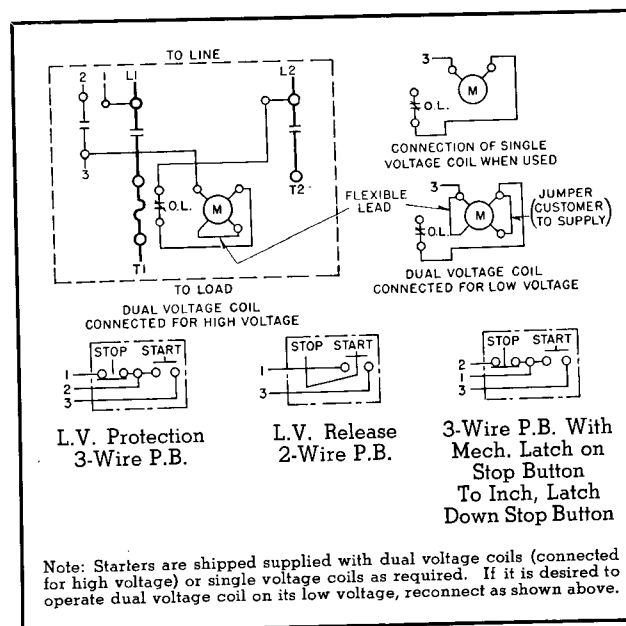


FIG. 2. Wiring Diagram

## INSTALLATION

1. Clean the magnet surfaces.
2. Operate the armature by hand to be sure that all moving parts move freely.
3. The overload heater is shipped in a separate carton. First check the heater marking (adjacent mounting holes) against the Heater Application Tables to see that the full load current marking of the motor nameplate comes within the current range of the heater. Install heater as shown in Fig. 1, making sure that heater mounting screws are tight.
4. Below the top mounting hole in the starter backplate an opening is provided for the purpose of supporting the weight of the starter during installation if the customer wishes to provide a peg or shoulder pin on the mounting surface for this purpose.

## ELECTRICAL INTERLOCKS

This starter comes equipped with one normally open interlock mounted on the left hand side. A second interlock may be obtained by ordering either S# 1314 880, normally open, or S# 1314 881, normally closed. A third or fourth interlock may be obtained by ordering either S# 1314 882, normally open, or S# 1314 883, normally closed. The above normally open interlocks may readily be installed as normally closed interlocks per instructions enclosed with each interlock.

## OVERLOAD RELAY

The overload relay may be set for Automatic reset, Hand reset, or Hand reset with no manual means of opening the contacts. "Automatic" should not be used with two wire master switch. The type of operation is determined by the position of the control spring in the notches of the pushrod on the opposite side of the relay from the side the heater is inserted. The relay is furnished with the control spring set in the "Hand" reset position. The respective operations are indicated by "Auto", "Hand", and "No Stop" as lettered on the back of the plate of the relay.

## PRINCIPAL RENEWAL PARTS

Moving Contact.....S# 1314 978  
Stationary Contact.....S# 1314 979  
Contact Spring.....S# 1314 960  
Overload Relay Complete.....S# 1577 761  
For other parts refer to Renewal Parts Catalog.

## MAINTENANCE

The sealing surfaces on the magnet frame and armature should be kept clean.

Do not lubricate the contact tips or bearings. Fine silver contacts need no dressing throughout their life.

*To Remove Contactor Coil*, remove the three round head magnet mounting screws and withdraw the coil and magnet.

*When Installing Contactor Coil*, make sure that round head magnet mounting screws are securely tightened.

The bi-metallic disc trip unit of the overload relay has been carefully calibrated at the factory and should not be disturbed. In case of damage remove complete relay unit and replace with complete unit.

## HEATER APPLICATION TABLES

HEATER STYLE NUMBER	HEATER CODE MARKING	TABLE 15 RELAY AMBIENT APPROX. SAME AS MOTOR AMBIENT		TABLE 16 RELAY AMBIENT APPROX. 15° ABOVE MOTOR AMBIENT	
		125% Overload Protection Full Load Current of Motor (Amperes)	Heater Current Rating (Amperes)	125% Overload Protection Full Load Current of Motor (Amperes)	Heater Current Rating (Amperes)
1129 372	X .49	0.45 to 0.49	.56	39 to .43	.49
1129 373	Y .55	0.50 to 0.56	.63	44 to .49	.55
1129 374	Z .63	0.57 to 0.62	.72	50 to .56	.63
966 465	AA .71	0.63 to 0.71	.79	.57 to .65	.71
966 466	AB .82	0.72 to 0.79	.90	.66 to .73	.82
966 467	AC .93	0.80 to 0.89	1.00	.74 to .81	.93
966 468	AD 1.0	0.90 to 0.99	1.13	.82 to .92	1.00
966 469	AE 1.1	1.00 to 1.04	1.25	.93 to 1.02	1.16
966 470	AF 1.2	1.05 to 1.18	1.31	1.03 to 1.07	1.29
966 471	AG 1.4	1.19 to 1.32	1.49	1.08 to 1.21	1.35
966 472	AH 1.5	1.33 to 1.49	1.66	1.22 to 1.36	1.53
966 473	AI 1.7	1.50 to 1.71	1.88	1.37 to 1.53	1.71
966 474	AK 1.9	1.72 to 1.89	2.15	1.54 to 1.76	1.93
966 475	AL 2.1	1.90 to 2.09	2.37	1.77 to 1.95	2.22
966 476	AM 2.5	2.10 to 2.35	2.63	1.96 to 2.15	2.44
966 477	AN 2.7	2.36 to 2.65	2.95	2.16 to 2.42	2.71
966 478	AO 3.0	2.66 to 2.98	3.32	2.43 to 2.73	3.02
966 479	AP 3.4	2.99 to 3.35	3.74	2.74 to 3.07	3.42
966 480	AR 3.8	3.36 to 3.75	4.20	3.08 to 3.45	3.85
966 481	AS 4.3	3.76 to 4.21	4.73	3.46 to 3.86	4.32
966 482	AT 4.8	4.22 to 4.71	5.28	3.87 to 4.33	4.87
966 483	AU 5.4	4.72 to 5.33	5.91	4.34 to 4.85	5.43
966 484	AW 6.1	5.34 to 5.94	6.67	4.86 to 5.49	6.09
966 485	AX 6.8	5.95 to 6.63	7.44	5.50 to 6.13	6.86
966 486	AY 7.7	6.64 to 7.52	8.30	6.14 to 6.83	7.65
966 487	AZ 8.5	7.53 to 8.51	9.41	6.84 to 7.74	8.54
966 488	BA 9.6	8.52 to 9.31	10.6	7.75 to 8.75	9.69
966 489	BB 11	9.32 to 10.5	11.64	8.76 to 9.57	10.96
966 490	BC 12	10.6 to 11.5	13.09	9.58 to 10.8	11.90
966 491	BD 13	11.6 to 12.4	14.50	10.9 to 11.3	13.50
966 492	BE 14	12.5 to 13.4	15.6	11.4 to 12.8	14.90
966 493	BF 16	13.5 to 14.9	16.9	12.9 to 13.8	16.10
966 494	BG 18	15.0 to 17.5	18.7	13.9 to 15.4	17.40
966 495	BH 19	17.6 to 18.2	20.3	15.5 to 16.8	19.25
966 496	BI 21	18.3 to 19.0	22.5	16.9 to 18.4	20.90
966 497	BK 23	19.1 to 20.5	23.9	18.5 to 19.5	23.18
966 498	BL 25	20.6 to 22.6	25.9	19.6 to 21.3	24.60
966 499	BM 27	22.7 to 25.7	28.4	21.4 to 23.3	26.7
1040 588	BN 29	25.8 to 28.4	32.5	23.4 to 24.9	29.0
974 084	BO 31	28.5 to 32.7	35.5	25.0 to 28.4	31.0
1040 589	BR 36	32.8 to 36.4	41.4	28.5 to 32.2	36.0
1040 590	BS 40	36.5 to 42.5	46.5	32.3 to 36.2	40.0



**WESTINGHOUSE ELECTRIC CORPORATION**

**BEAVER PLANT • STANDARD CONTROL DIVISION • BEAVER, PA.**

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