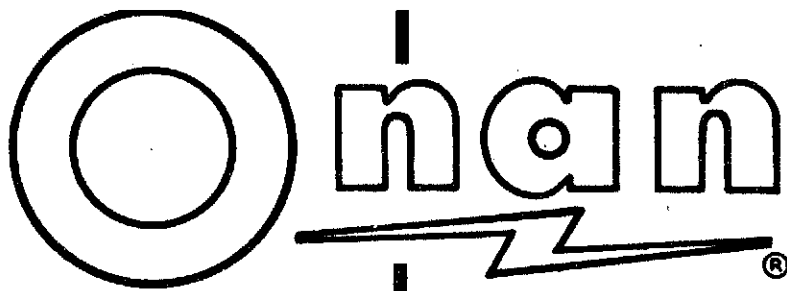
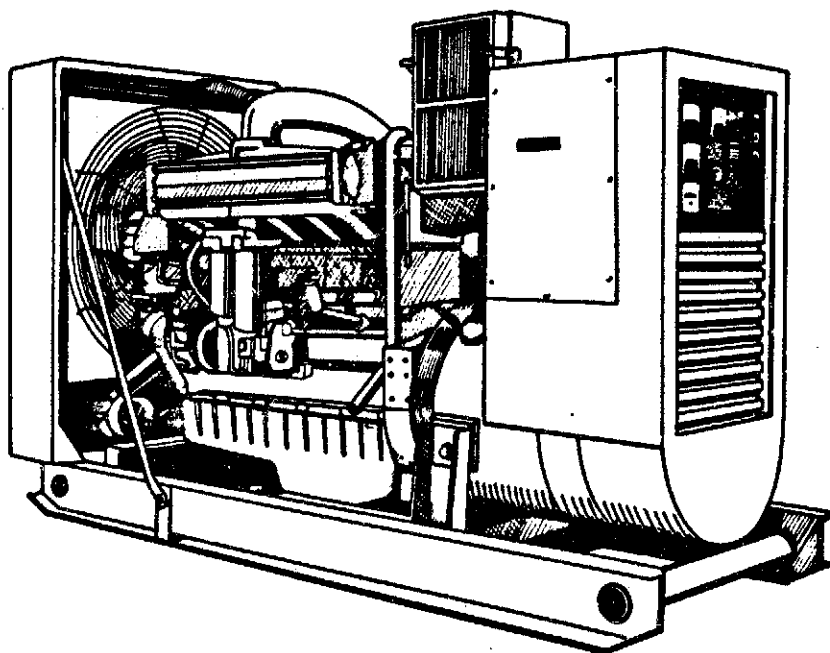


The following catalog has gaps in its page numbers, or doesn't have any numbers. We have chosen to leave the page numbering in the order that Acrobat assigns it.



# **PARTS CATALOG**

## **DYB SERIES ELECTRIC GENERATING SETS**



**BEGIN SPEC. D**

**11D73**

# GENERAL INFORMATION

## INSTRUCTIONS FOR ORDERING REPAIR PARTS

For parts or service, contact the dealer from whom you purchased this equipment or refer to your Nearest Authorized Onan Parts and Service Center.

To avoid errors or delay in filling your parts order, please furnish all information requested.

Always refer to the nameplate on your unit.

1. Always give the MODEL, SPEC NO. and SERIAL NO.

**McGRAW-EDISON**

**Onan**

MODEL AND SPEC NO.

SERIAL NO.

M-1149

For handy reference, insert "YOUR" nameplate information in the spaces above.

2. Do not order by reference number; always use part number and description.
3. Give the part number, description and quantity needed of each item. If an older part cannot be identified, return the part prepaid to your dealer or nearest Onan Parts and Service Center. Print your name and address plainly on the package. Write a letter to the same address stating the reason for returning the part.
4. State definite shipping instructions. Any claim for loss or damage to your unit in transit should be filed promptly against the transportation company making the delivery. Shipments are complete unless the packing list indicates items are back ordered.

Prices are purposely omitted from this Parts Manual due to the confusion resulting from fluctuating costs, import duties, sales taxes, exchange rates, etc.

For current parts prices, consult your Onan Dealer, Distributor or Parts and Service Center.

"En esta lista de partes los precios se omiten de proposito, ya que bastante confusion resulto de fluctuaciones de los precios, derechos aduanales, impuestos de venta, cambios extrajeros, etc."

Consiga los precios vigentes de su distribuidor de productos "ONAN."

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This parts catalog applies to the standard generator sets listed below. Any engine parts modified or added by Onan will be listed in this catalog and have been assigned Onan part numbers for identification. These modified or added parts supersede similar parts listed in the Engine Manufacturer's manuals. The illustrations are arranged in groups of related items, and each part or assembly is identified by a reference number. All parts illustrated are typical, and unless otherwise mentioned, parts are interchangeable. These typical illustrations are subject to change and reflect only the latest replacement parts arrangement. The Right and Left generator set sides are determined by facing the front end of the engine.

### SET DATA TABLE

MODEL IDENTIFICATION	RATING	MODEL IDENTIFICATION	RATING
209.0DYB —*/#£	209,000 WATTS	250.0DYB —*/#£	250,000 WATTS

### ELECTRICAL DATA TABLE

*VOLTAGE CODES	VOLTS	HERTZ	WIRE	PHASE	NOTES
5D	120/240	60	4	3	
6D	240/480	60	4	3	
7	220/380	60	4	3	
9X	347/600	60	4	3	
17	120/208, 127/220, 139/240, 240/416, 254/440, 277/480	60	12	3	+
517	110/190, 115/200, 120/208, 127/220, 220/380, 230/400, 240/416, 254/440	50	12	3	+

\* - Voltage codes follow model letters designations.

# - Specification number; number 1 is standard, all others indicate variations.

£ - Specification letter; letter advances (A to B, B to C, etc.) with major manufacturing changes.

+ - These generators are reconnectible, refer to Operator's manual for wiring data.

### NOTICE!

ITEMS REFERENCED AS OPTIONAL INDICATE PART IS FACTORY INSTALLED AND MAY NOT BE APPLICABLE TO ALL MODELS. FOR FIELD CONVERSIONS ADDITIONAL PARTS ARE USUALLY REQUIRED.

## REPLACEMENT ENGINE

### ONAN PART NO.

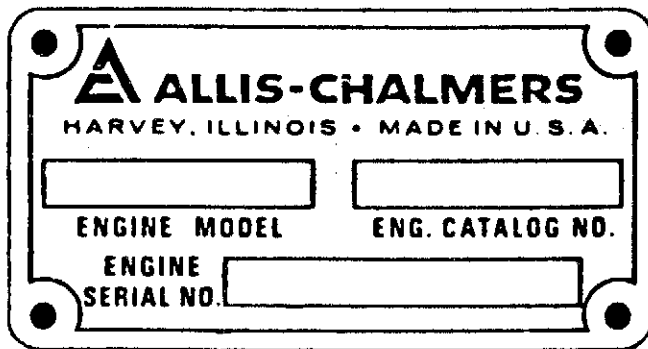
100-1217

**\*Engine, Replacement**  
Standard 60 Hertz Sets

**Includes:** Complete Cylinder Block, Fuel Pump, Fuel Oil Filter, Air Cleaner, Governor, Fan Blades (pusher type), Flywheel, Water Pump, Oil Pan, Exhaust Manifold, Fan Belt and Fuel Shut-off Valve.

**Excludes:** Alternator, Alternator Mounting Brackets, Alternator Belt, Temperature Sender, Oil Pressure Sender, Starter and Radiator.

**\*NOTE:** This replacement engine is for Onan's Standard Spec 1 generator sets, for all other refer to the factory for replacement information.

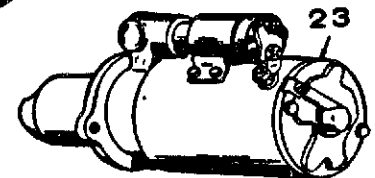
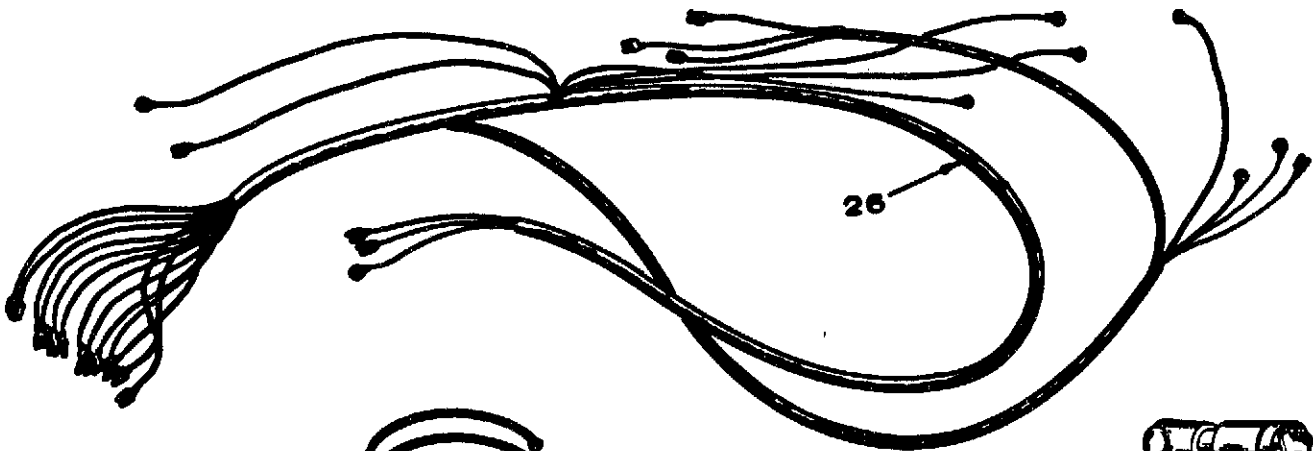
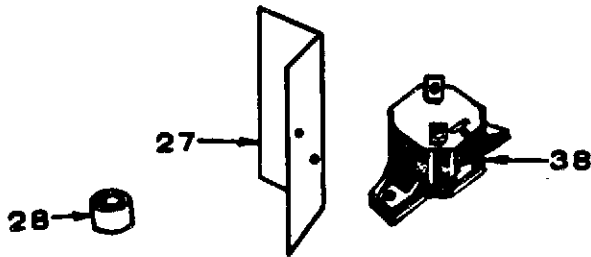
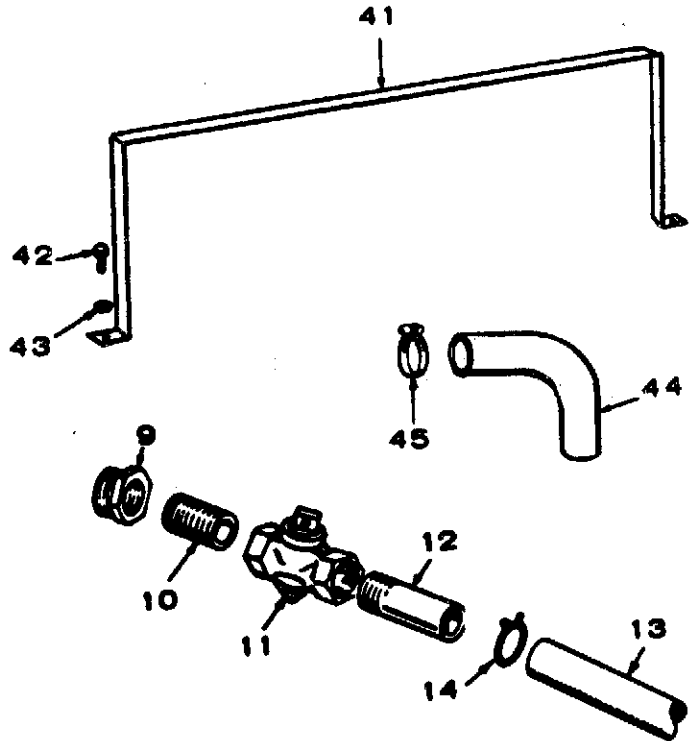
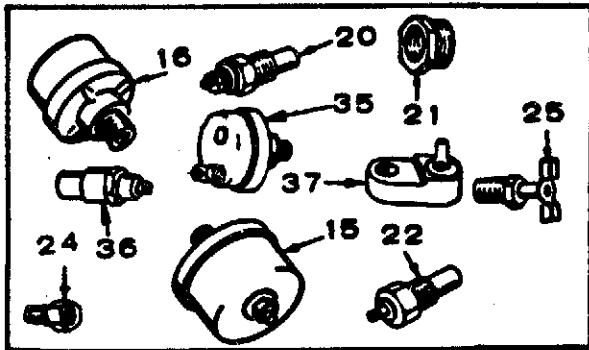
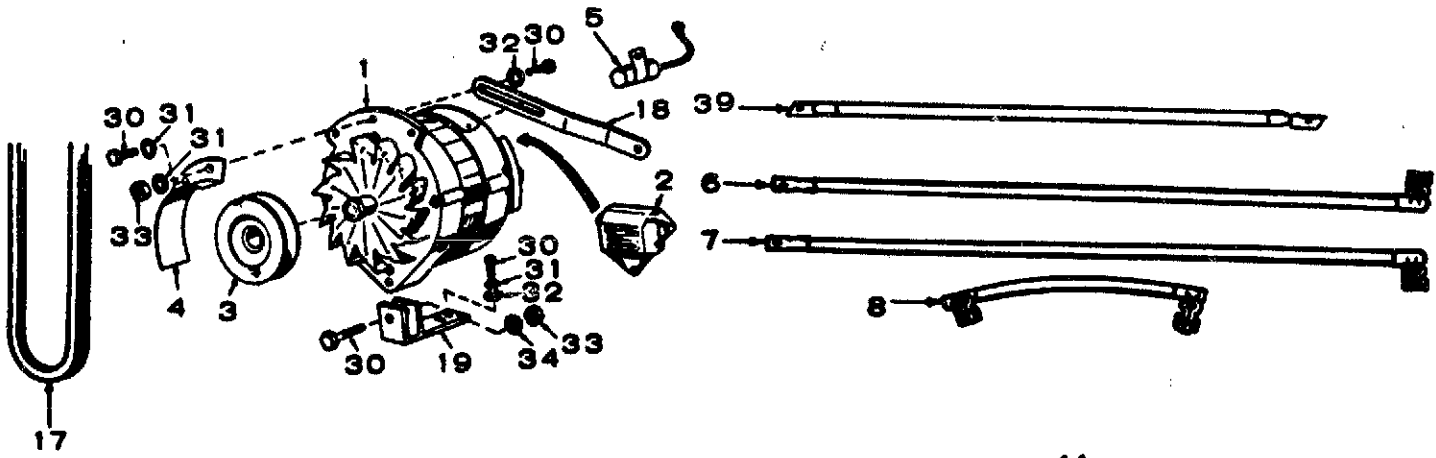


For handy reference, insert "YOUR" nameplate information in the spaces above.

### ENGINE REPLACEMENT PARTS

All engine replacement parts must be ordered from the engine manufacturer, except those modified or added by Onan. When ordering engine parts, refer to the manufacturer's nameplate and supply the Model, Spec, Serial numbers and other available information. Refer to the engine manufacturer's manuals for your nearest authorized distributor or parts center; or contact the Onan distributor from whom you purchased this set for assistance in ordering replacement parts.

# MISCELLANEOUS ENGINE PARTS GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0688	1	*Alternator, Charge - Includes Regulator & Fan (Motorola #70D44039B04)
2	191-0733	1	Regulator, Alternator
3	191-0781	1	Pulley, Alternator
4	191-0725	1	Guard, Alternator Belt
5	312-0058	1	Condenser, Alternator - .10MFD
6	416-0636	1	Cable, Battery - Positive
7	416-0445	1	Cable, Battery - Negative
8	416-0472	1	Cable, Jumper
9	505-0022	1	Bushing, Reducer (1 x 1/2")
10	505-0100	1	Nipple, Close (1/2 x 1-1/8")
11	504-0011	1	Valve, Shutoff - Oil Drain
12	505-0185	1	Nipple, Half (1/2 x 1-1/2")
13			Hose, Drain (3/4 x 1") - Order 12" of Bulk Hose #503-0098
14	503-0197	1	Clamp, Hose
15	193-0108	1	Sender, Oil Pressure
16	309-0272	1	Switch, Oil Pressure Cutoff
17	511-0092	1	Belt, Alternator
18	191-0856	1	Bracket, Alternator Adjusting
19	191-0858	1	Bracket, Alternator
20	193-0109	1	Sender, Water Temperature
21	505-0117	1	Bushing (1/2 x 3/8"), Brass Reducer
22	309-0178	1	Switch, High Water Temperature
23	191-0852	1	*Motor, 24 V Starting (Delco Remy #1113892)
24	502-0175	2	Adapter (1/8"), Pipe
25	504-0028	1	Valve, Drain - Radiator
26	338-0706	1	Harness, Engine
27	309-0246	1	Shield, Heat
28	403-0851	8	Spacer
29	416-0632	1	Lead, Starter Ground
30	SCREW, HEX HEAD 800-0048	2	Alternator Mounting Bracket (3/8-16 x 3/4")
	800-0025	1	Alternator Belt Guard (5/16-18 x 5/8")
	800-0030	1	Alternator to Adjusting Bracket (5/16-18 x 1-1/4")
	800-0095	1	Alternator to Mounting Bracket (1/2-13 x 2-1/4")
	800-0135	3	Starter Motor Mounting (5/8-11 x 2-1/4")

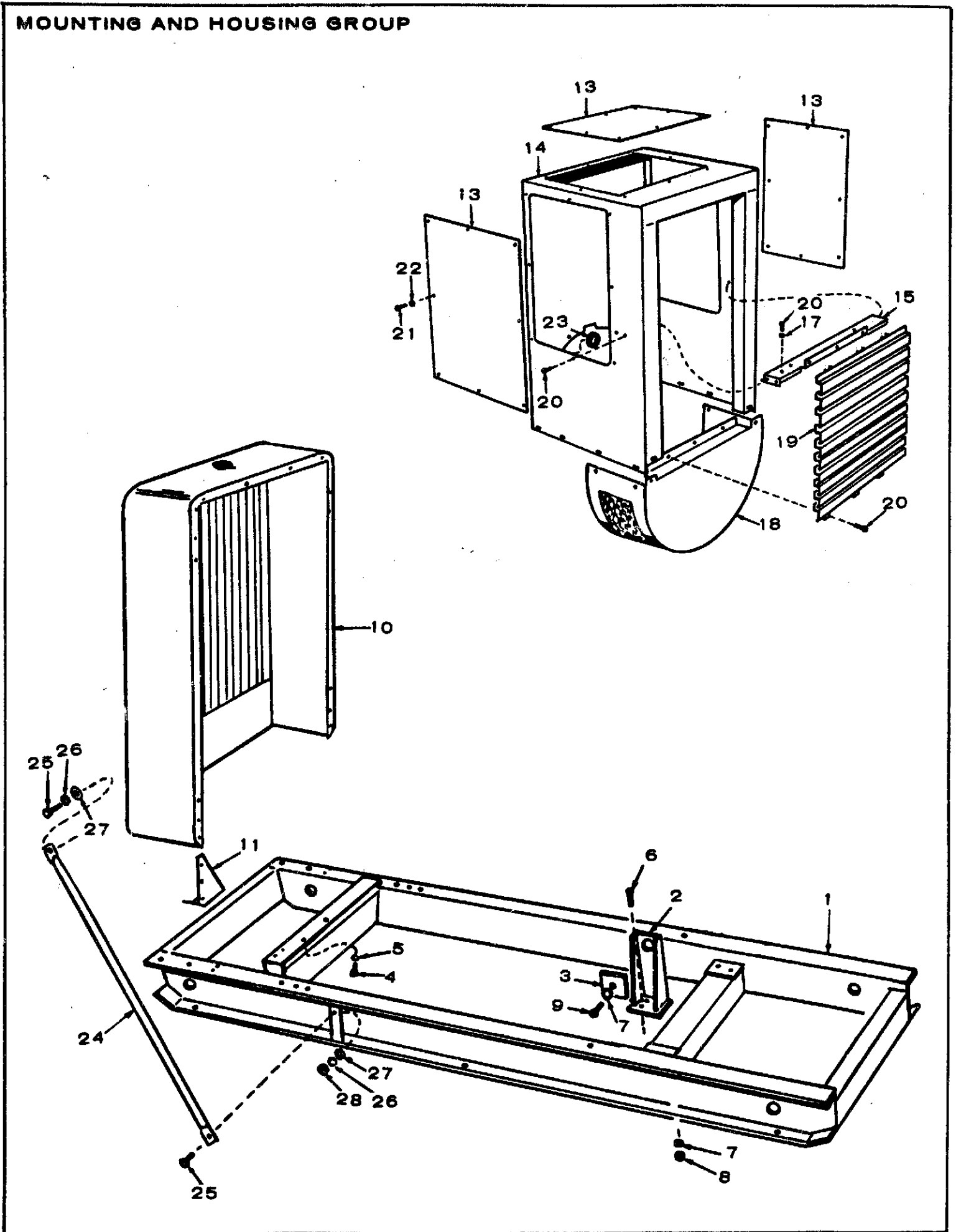
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
31	WASHER, LOCK 850-0050	2	Alternator Mounting Bracket (3/8")
	850-0045	2	Alternator Belt Guard (5/16")
	850-0070	3	Starter Motor Mounting (5/8")
32	WASHER, FLAT 526-0183	2	Alternator Mounting Bracket (3/8")
	526-0022	1	Alternator to Adjusting Bracket (5/16")
33	NUT, HEX 862-0015	1	Alternator to Adjusting Bracket (5/16-18)
	862-0016	1	Alternator to Mounting Bracket (1/2 x 13)
34	850-0060	1	Washer, Lock - Alternator to Mounting Bracket (1/2")
35	309-0169	1	Switch, Oil Pressure (Pre-Alarm) - Optional
36	309-0179	1	Switch, High Engine Temperature (Pre-Alarm) - Optional
37	309-0269	1	Switch, Low Engine Temperature (Pre-Alarm) - Optional
38	320-0240	1	Circuit Breaker, Starter - 12.5 Amp.
39	416-0632	1	Cable Assembly, Starter
41	416-0635	2	Strap, Battery Holddown
42	800-0035	4	Screw (5/16-18 x 2-1/2")
43	850-0045	4	Washer (5/16"), Lock
44	503-0441	1	Hose - Breather Tube
45	503-0365	1	Clamp, Hose

\* - For components, contact your nearest Motorola Dealer or Motorola Automotive Products, Inc. 9401 W. Grand Ave., Franklin Park, Illinois 60131.

\* - For components, contact your nearest Delco Remy Dealer or Delco Remy Division of General Motors Corporation, Anderson, Indiana 46011.



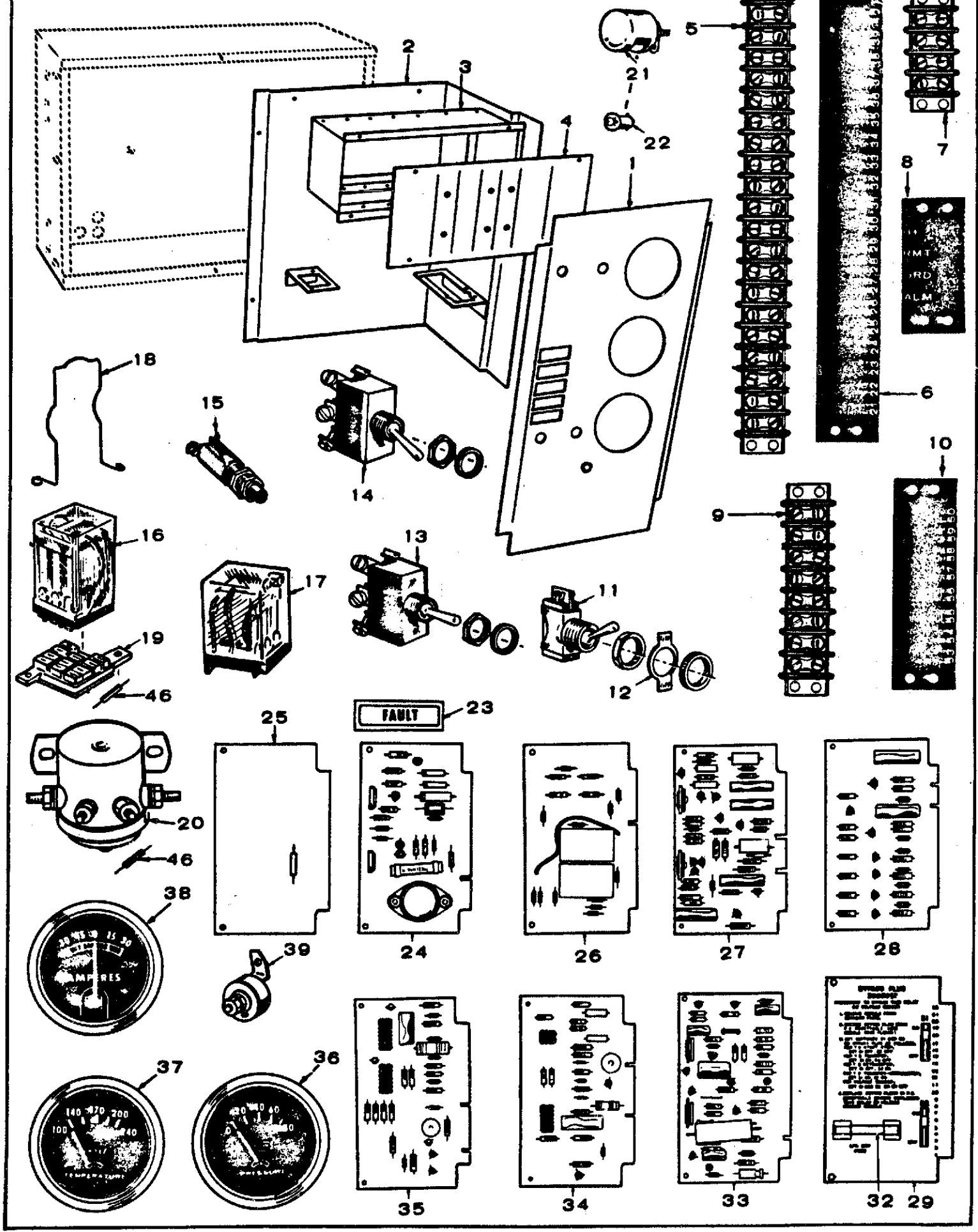
# MOUNTING AND HOUSING GROUP

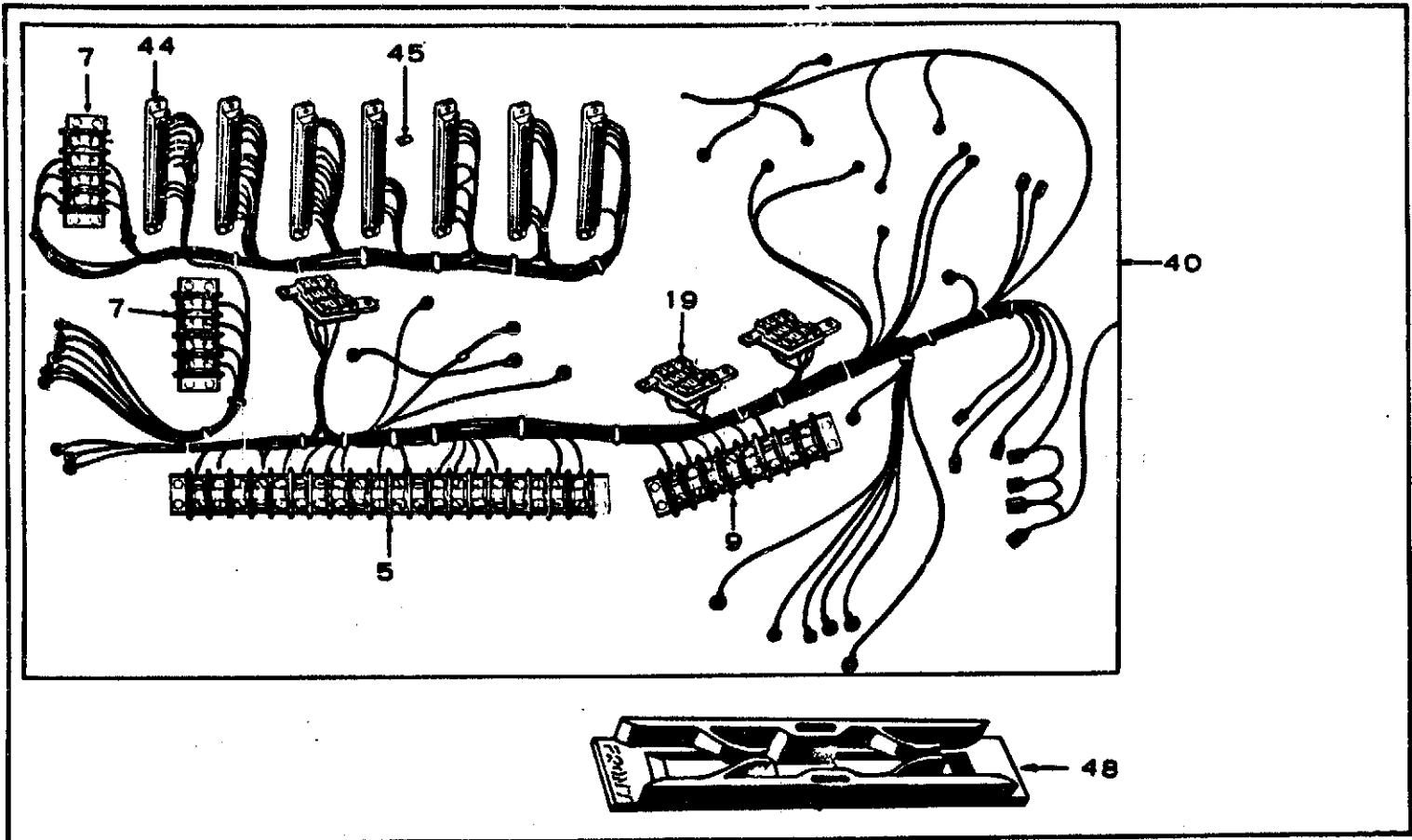


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-1025	1	Base, Skid
2	232-2389	2	Bracket, Generator Mounting
3	232-2385	2	Plate, Generator Mounting Retainer
4	800-0132	2	Screw (5/8-11 x 1-1/2")
5	850-0070	2	Washer (5/8"), Lock
6	800-0156	4	Screw (3/4-10 x 2-1/4") - Generator to Skid
7	850-0079	6	Washer (3/4"), Lock
8	862-0020	4	Nut (3/4-10)
9	800-0153	2	Screw (3/4-10 x 1-1/2") - Retainer Plate
10	405-1884	1	Panel, Front
11	BRACKET, PANEL MOUNTING		
	405-2016	1	Right Hand
	405-2017	1	Left Hand

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	301-3731	3	Plate, Control Box
14	301-3605	1	Housing, Control Box
15	301-3604	1	Shelf, Control Box Housing
17	856-0006	2	Washer (1/4"), Shakeproof EIT
18	234-0489	1	Cover, End Bell
19	234-0490	1	Grille, Generator Air Inlet
20	821-0010	9	Screw (1/4-20 x 1/2")
21	815-0241	24	Screw (1/4-20 x 1/2"), Truss Head
22	853-0013	24	Washer (1/4"), Shakeproof ET
23	508-0001	1	Grommet, Rubber
24	405-1888	2	Brace, Radiator Support
25	800-0050	4	Screw (3/8-16 x 1")
26	850-0050	4	Washer (3/8"), Lock
27	526-0013	4	Washer (3/8")
28	862-0003	2	Nut (3/8-16)

# CONTROL GROUP (ENGINE INSTRUMENTS PORTION)



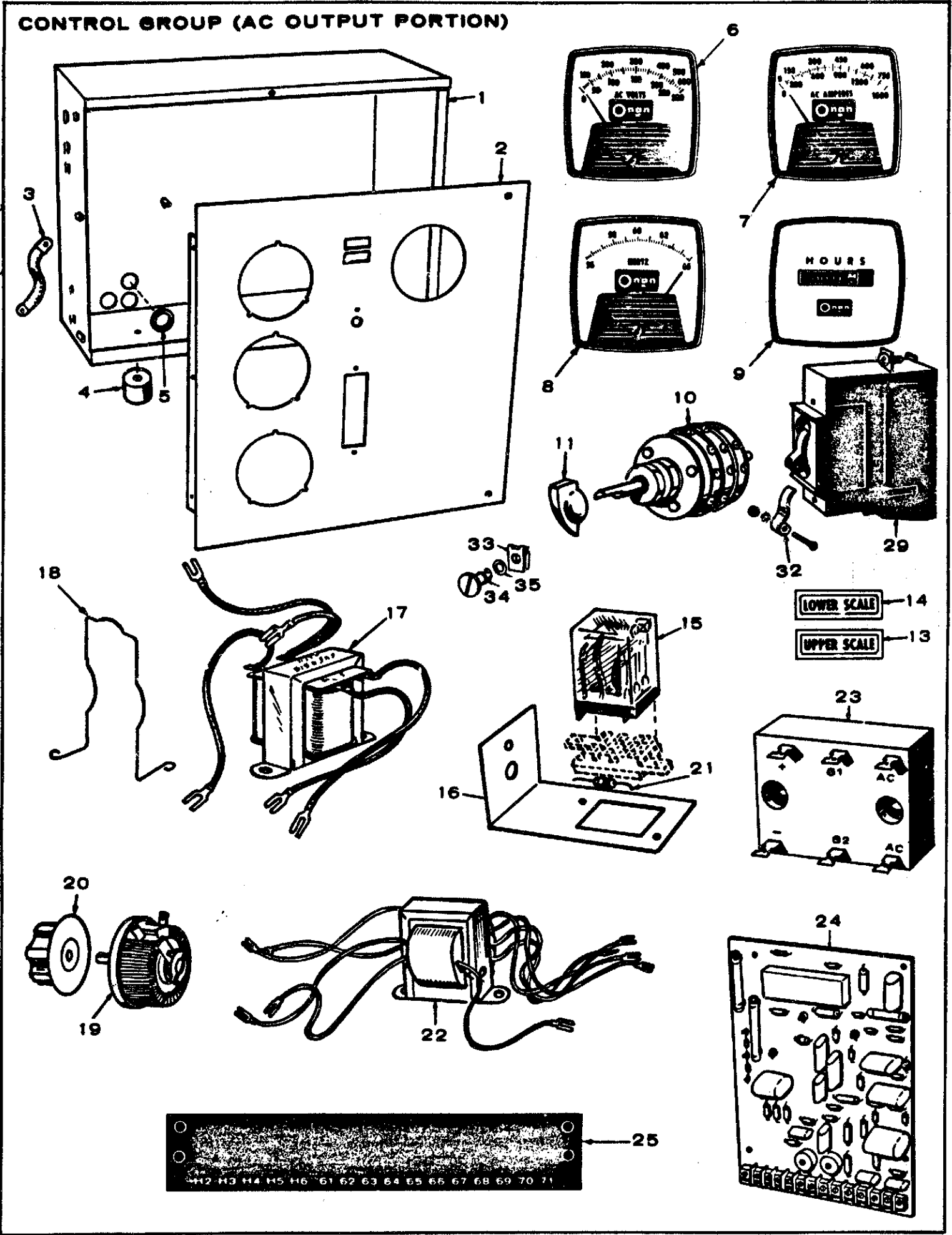


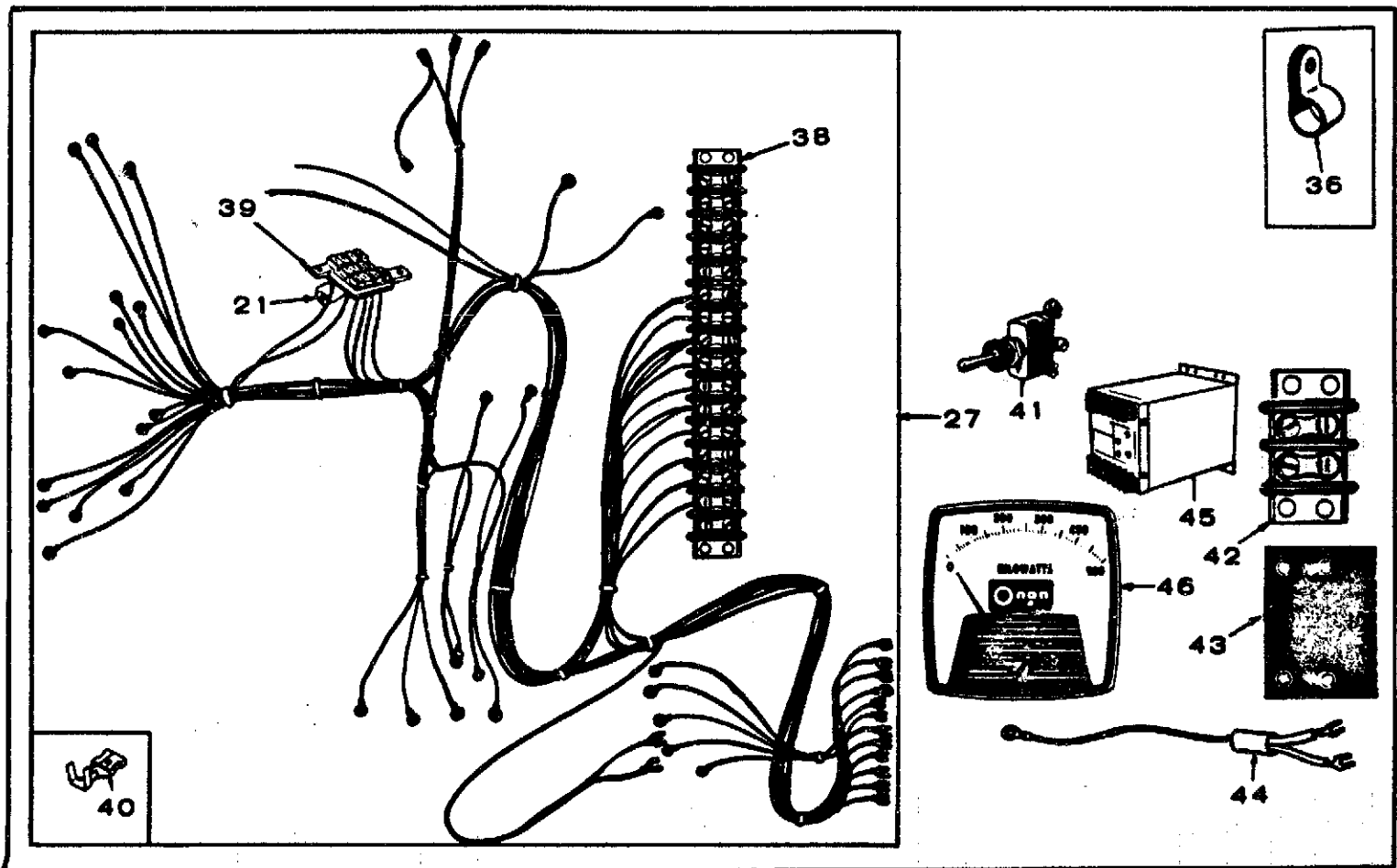
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	PANEL, ENGINE CONTROL		
	301-3661	1	Sets With One Fault Light
	301-3629	1	Sets With Five Fault Lights
2	301-3621	1	Bracket, Engine Control
3	301-3588	1	Rack, Module
4	301-3635	1	Cover Assembly, Rack
5	332-1005	1	*Block, Terminal - 20 Place
6	332-1559	1	Strip, Terminal Block Marker (21-40)
7	332-0537	2	*Block, Terminal - 4 Place
8	STRIP, TERMINAL BLOCK MARKER (4-Place)		
	332-1239	1	B+, Remote, Ground, Alarm
	332-1561	1	1-4
9	332-0899	1	*Block, Terminal - 8 Place - Set With Five Fault Lights
10	332-1560	1	Strip, Terminal Block Marker (53-60) - Sets With Five Fault Lights
11	308-0002	1	Switch, Panel Light
12	308-0003	1	Plate, On-Off Switch
13	SWITCH, SELECTOR		
	308-0220	1	Standard Control
	308-0347	1	Penn State Models (Optional)
14	308-0337	1	Switch, Lamp Test
15	308-0091	1	Switch, Reset
16	307-1056	2	Relay (1) Start Disconnect (1) Ignition
17	307-1061	1	Relay, Starter Protection
18	307-1157	3	Spring, Relay Holddown
19	323-0765	3	*Socket, Relay - 11 Place
20	307-0061	1	Relay, Start Solenoid
21	322-0149	1	Holder, Lamp
22	322-0017	1	Lamp, Panel
23	LAMP, FAULT		
	322-0129	1	Standard
	322-0119	1	Overcrank (Optional)
	322-0123	1	Overspeed (Optional)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
	322-0120	1	Low Oil Pressure (Opt.)
	322-0121	1	High Engine Temperature (Optional)
	322-0122	1	Low Engine Temperature (Optional)
24	300-0956	1	Control, Cycle Cranker (Optional)
25	300-0977	1	Control, Standard Cranker
26	300-0954	1	Control, Engine Shutdown -
27	300-0953	1	Control, Engine Monitor
28	300-0955	1	Control, Remote Indicator - Sets With Five Fault Lights
29	300-0987	1	Module, Bypass Plug
32	321-0168	1	Fuse, 1/4 Amp (Part of 300-0987 Module)
33	300-0973	1	Module, Time Delay Start-Stop (Optional)
34	300-0957	1	Control, Overspeed Sensor
35	300-0958	1	Control, Starter Disconnect -
36	193-0107	1	Gauge, Oil Pressure
37	193-0106	1	Gauge, Water Temperature
38	302-0061	1	Ammeter, Charge (30-0-30)
39	193-0189	2	Resistor, Gauge (1) Start Solenoid (1) Start Disconnect Relay
40	Harness, Wiring (Includes Parts Marked *)		
	338-0715	1	Sets With One Fault Light
	338-0705	1	Sets With Five Fault Lights
44	332-1271	6	*Housing, Printed Circuit Board Terminal (Seven on Sets With Five Fault Lights)
45	332-1276	As Req.	*Plug, Keying
46	357-0004	2	*Rectifier, Diode
48	323-0814	12	Guide, Printed Circuit Board (14 Used on Sets with Five Fault Lights)

\* - Included in Wiring Harness Assembly.

**CONTROL GROUP (AC OUTPUT PORTION)**



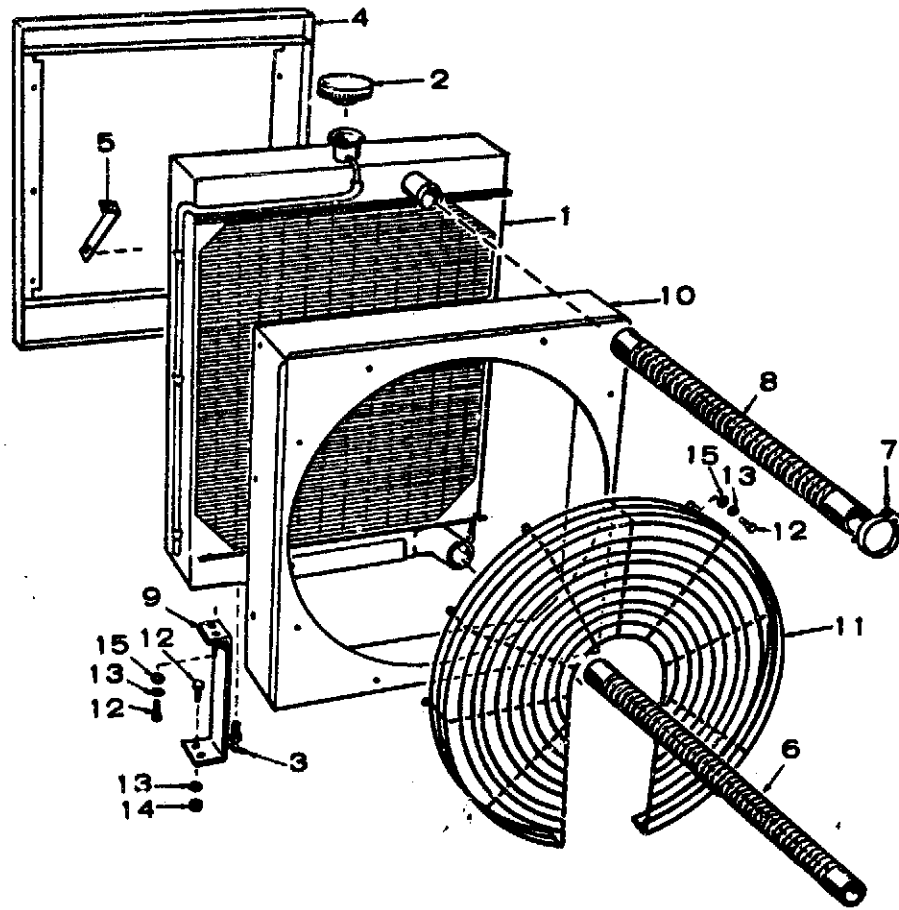


REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	301-3158	1	Box, Control
2	PANEL, CONTROL BOX		
	301-3170	1	Standard Units
	301-3312	1	Units With Wattmeter
3	337-0049	1	Strap, Bond
4	402-0070	4	Dampener, Vibration
5	508-0001	4	Grommet (1-1/16"), Rubber
6	302-0718	1	Voltmeter, AC - Dual Scale 0-300, 0-600
7	302-0878	1	Ammeter, AC - Dual Scale 0-500, 0-1000
8	METER, FREQUENCY		
	302-0810	1	60 Hertz
	302-0894	1	50 Hertz
9	METER, RUNNING TIME		
	302-0466	1	60 Hertz
	302-0489	1	50 Hertz
10	308-0284	1	Switch, Voltage & Ammeter
11	303-0076	1	Knob
13	322-0131	1	Light, Upper Scale
14	322-0130	1	Light, Lower Scale
15	307-1061	1	Relay, Voltage Selector
16	301-3244	1	Bracket, Relay Mounting
17	315-0384	1	Reactor Assembly, Comm
18	307-1157	1	Spring, Relay Holddown
19	303-0170	1	Rheostat, Voltage Adj.
20	303-0032	1	Knob, Rheostat
21	350-0556	1	*Resistor
22	315-0342	1	Transformer, Voltage

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
23	305-0524	1	Bridge, Rectifier
24	332-1268	1	Board Assembly, Printed Circuit Voltage Regulator
25	332-1242	1	Strip, Marker (H2-H6, 61-71)
27	338-0730	1	Harness, Wiring - AC Control (Includes Parts Marked *)
29	320-0455	1	Circuit Breaker (3 Amp)
32	320-0307	1	Lock, Circuit Breaker Handle (Penn State Models) - Optional
33	406-0332	2	Receptacle, Fastener
34	406-0333	2	Stud, Fastener
35	406-0334	2	Washer, Stud Fastener
36	332-0050	1	Clip, Tinnerman
38	332-0795	1	*Block, Terminal - 16 Place
39	323-0764	1	*Socket, Relay
40	332-1280	As Req.	*Terminal, Crimp
41	308-0154	1	Switch, Governor Control - Optional (Used With Motorized Governor)
42	332-0609	1	Block, Terminal (2 Place) - Optional (Motorized Governor)
43	332-0610	1	Strip, Marker (2 Place) - Optional
44	357-0019	1	Diode Assembly - Optional (Used With Motorized Governor)
45	302-0921	1	Transducer, Watt - Optional
46	302-0927	1	Wattmeter, AC (Scale Reads 0-300)

\* - Included in Wiring Harness Assembly.



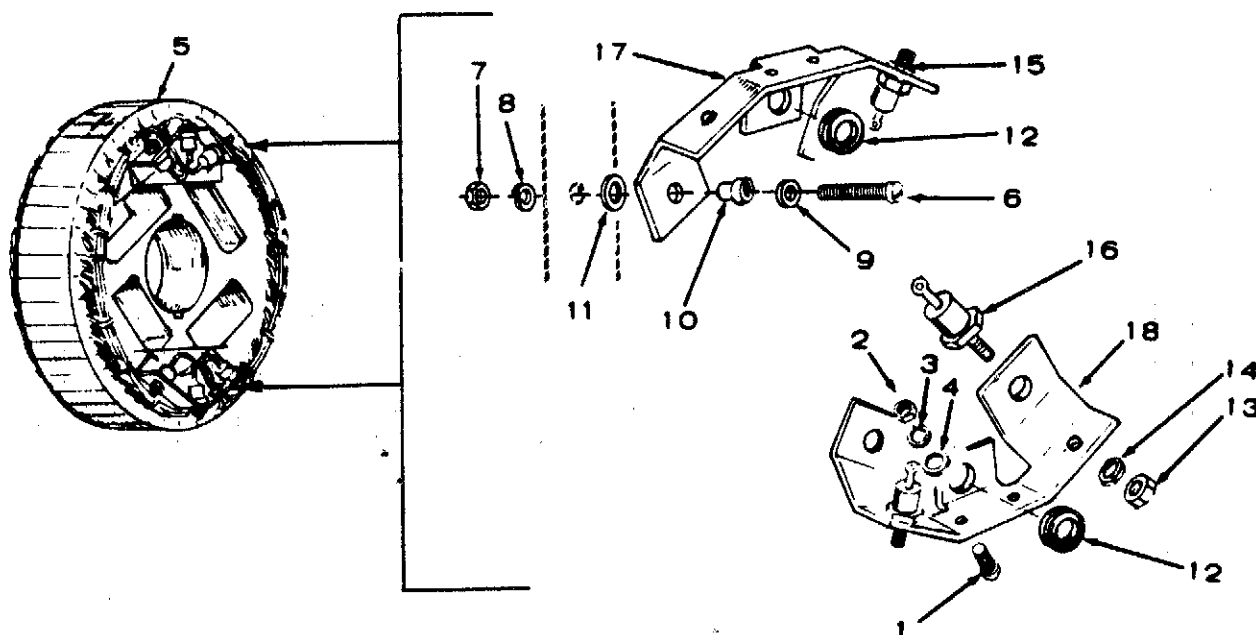


**COOLING SYSTEM GROUP**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0836	1	Radiator
2	130-0449	1	Cap, Radiator
3	504-0028	1	Valve, Radiator Drain
4	130-0842	1	Shroud, Radiator
5	130-0848	2	Brace, Radiator Support
6	503-0615	1	Hose, Radiator - Lower
7	503-0354	4	Clamp, Hose
8	503-0616	1	Hose, Radiator - Upper
9	130-0917	2	Bracket, Radiator Support
10	130-0918	1	Shroud, Fan
11	130-0924	1	Guard, Fan
12	SCREW, HEX HEAD 800-0092	4	(1/2-13 x 1-1/2") - Support Bracket Mounting
	800-0005	8	(1/4-20 x 3/4") - Fan Guard Mounting
	821-0010	6	(1/4-20 x 1/2") - Radiator Mounting
	800-0130	4	Support Bracket to Radiator (5/8-11 x 1-1/4")

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
13	WASHER, LOCK 850-0060	4	(1/2") - Support Bracket Mounting
	850-0040	8	(1/4") - Fan Guard Mounting
	850-0070	4	Support Bracket to Radiator (5/8")
14	NUT, HEX 862-0016	4	(1/2-13) - Support Bracket Mounting
	870-0257	2	(3/4-10) - Mount Support to Vibration Mount
15	WASHER, FLAT 526-0045	8	Washer (1/4") - Fan Guard Mounting
	526-0112	4	Support Bracket to Radiator (5/8")

## EXCITER ROTOR



G-1092

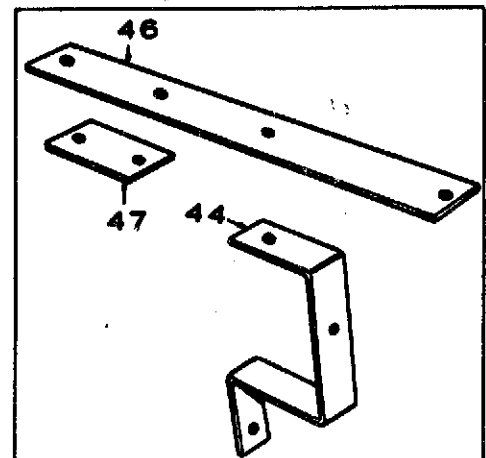
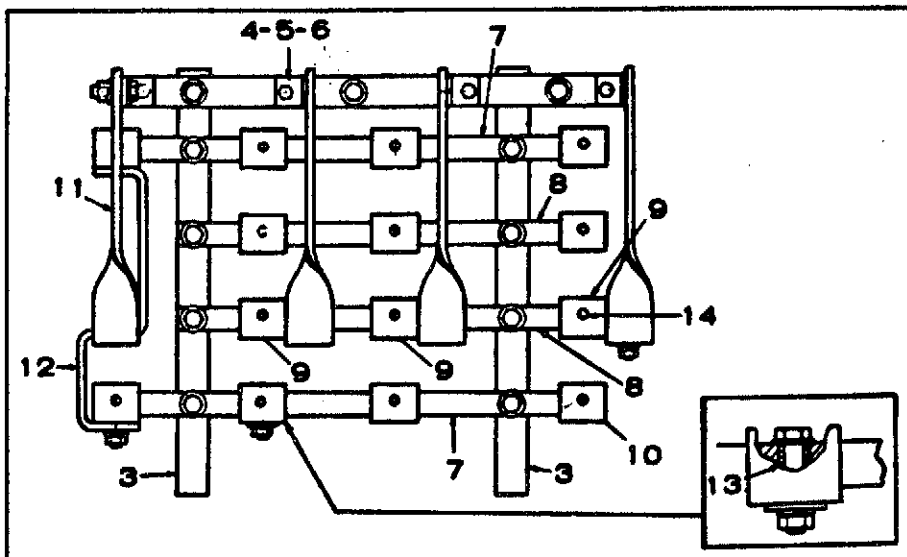
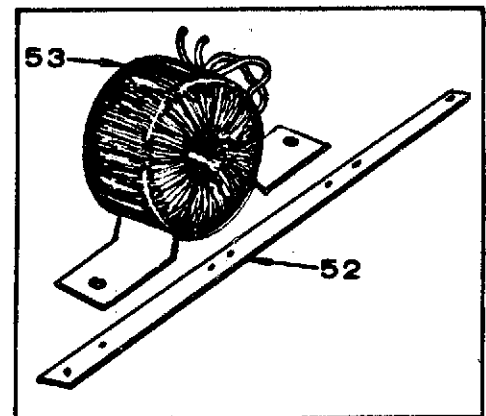
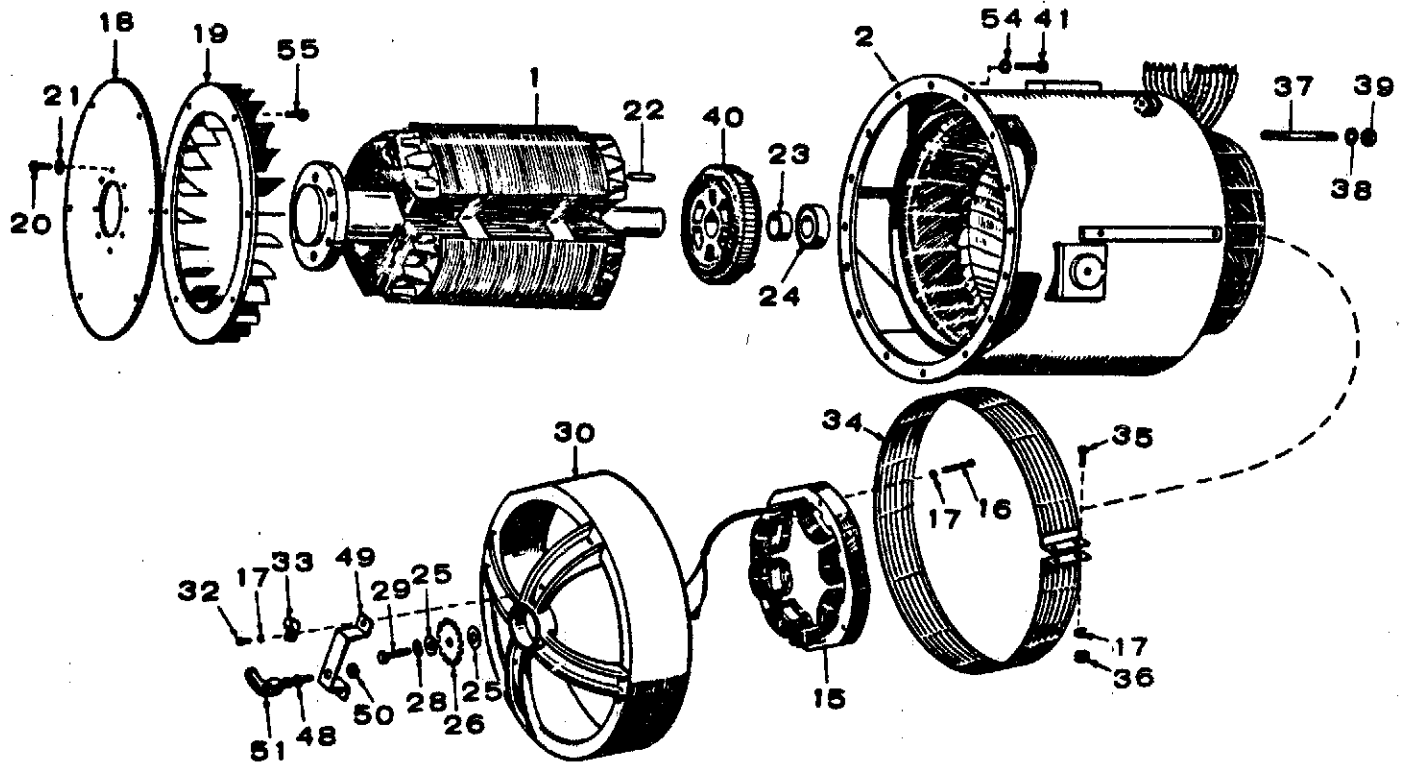
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	813-0100	2	Screw, Machine - Round Head (#10-32 x 1/2")
2	870-0053	2	Nut, Hex (#10-32)
3	850-0030	2	Washer, Lock - Spring (#10)
4	526-0008	2	Washer, Flat (13/64" ID x 7/16" OD x 1/32" Thk)
5	ROTOR ASSEMBLY, EXCITER (Includes parts marked *)		
	201-1902	1	Standard
	201-2453	1	Environmental Protected
6	813-0110	4	*Screw, Machine - Round Head (#10-32 x 2")
7	870-0053	4	*Nut, Hex (#10-32)
8	850-0030	4	*Washer, Lock - Spring (#10)
9	526-0009	4	*Washer, Flat (7/32" ID x 1/2" OD x 1/16" Thk)
10	508-0187	4	*Spacer, Stepped
11	508-0156	4	*Washer, Insulating
12	508-0093	2	*Grommet, Rubber
13	862-0001	6	*Nut, Hex (1/4-28)
14	850-0040	6	*Washer, Lock - Spring (1/4")
15	358-0011	3	*Diode, Rectifier - Positive (CR1, CR2, CR3)
16	358-0012	3	*Diode, Rectifier - Negative (CR4, CR5, CR6)
17	363-0049	1	*Heat, Sink - Positive Diodes
18	363-0050	1	*Heat, Sink - Negative Diodes

\* - Parts included in Exciter Rotor Assembly.

3



# GENERATOR GROUP



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	*	1	Rotor Assembly, Wound
2	*	1	Stator Assembly, Wound
3	232-2249	2	Bracket, Terminal Board Mounting
4	232-2237	1	Bracket, Bus Bar Support
5	232-2245	1	Board, Insulating - Bus Bar Support
6	232-2387	4	Bracket, Bus Bar
7	232-2243	2	Board, Insulating
8	232-2242	2	Board, Insulating
9	232-2343	3	Bar, Bus
10	232-2241	11	Bar, Bus
11	232-2240	4	Bar, Bus
12	232-2238	1	Bracket, Bus Bar
13	232-2344	32	Spacer, Terminal Connection
14	520-0142	14	Stud (5/16-18 x 1-1/4")
15	220-1920	1	Stator Assembly, Wound - Exciter
16	800-0009	4	Screw (1/4-20 x 1-1/2") - Stator Assembly
17	850-0040	12	Washer (1/4"), Lock
18	232-2308	2	Disc, Generator Drive
19	205-0095	1	Fan, Generator
20	805-0035	8	Bolt (5/8-11 x 1-1/2") - Drive Disc to Hub
21	526-0002	8	Washer - Drive Disc to Hub
22	515-0145	1	Key, Exciter Rotor
23	232-2317	1	Spacer, Bearing
24	510-0108	1	Bearing
25	526-0252	2	Washer (3/4")
26	150-1405	1	Wheel, Speed Sensor
28	850-0060	1	Washer (1/2"), Lock
29	800-0092	1	Screw (1/2-13 x 1-1/2")

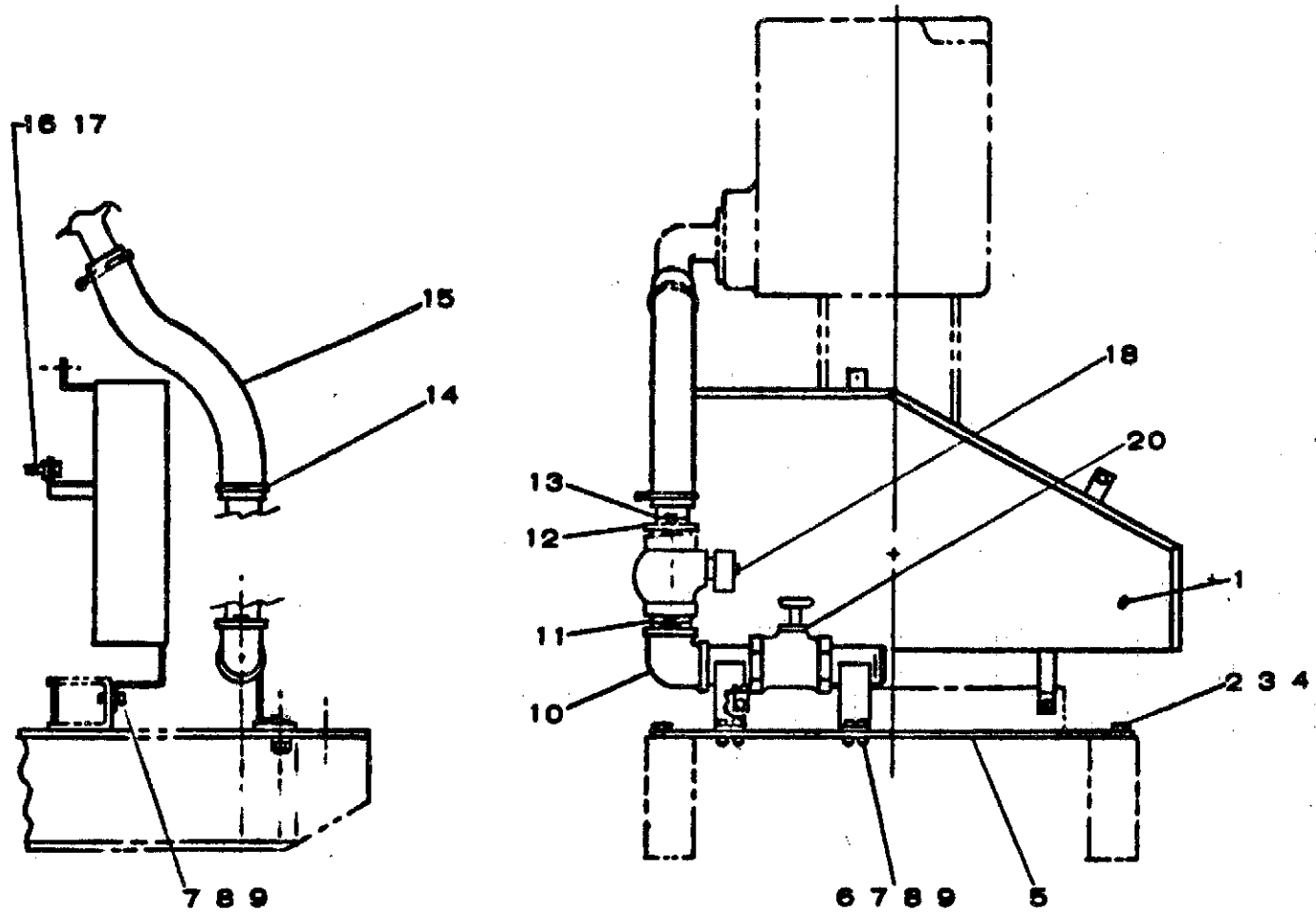
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
30	211-0214	1	End Bell, Generator
32	800-0005	2	Screw (1/4-20 x 3/4") - Speed Sensor Mounting
33	332-1554	1	Clamp, Loop
34	234-0455	1	Screen Assembly, Fan
35	800-0008	2	Screw (1/4-20 x 1-1/4") - Screen Mounting
36	862-0001	2	Nut (1/4-20)
37	520-0780	4	Stud (1/2" x 6-1/2") - End Bell Mounting
38	850-0060	4	Washer (1/2"), Lock
39	862-0016	4	Nut (1/2-13)
40	201-1902	1	Rotor Assembly - Exciter - (See Separate Group for Parts)
41	800-0073	12	Screw (7/16-14 x 1-1/2") - Stator to Engine Adapter
44	232-2342	2	Bracket, Terminal Board Mounting
45	332-1402	1	Clamp
46	232-2246	2	Bar, Reconnection
47	232-2248	3	Bar, Reconnection
48	150-1406	1	Sensor, Speed
49	150-1407	1	Bracket, Speed Sensor
50	870-0289	1	Nut (3/4-16)
51	150-1410	1	Cap, Insulator
52	315-0389	1	Plate, Transformer Mounting
53	302-0547	3	Transformer, Current
54	850-0055	12	Washer, Lock (7/16")
55	805-0032	8	Bolt (1/2-13 x 1-1/4")

\* - Refer to factory giving complete Model, Spec and Serial Number from the Onan nameplate.

## **OPTIONAL EQUIPMENT SECTION**

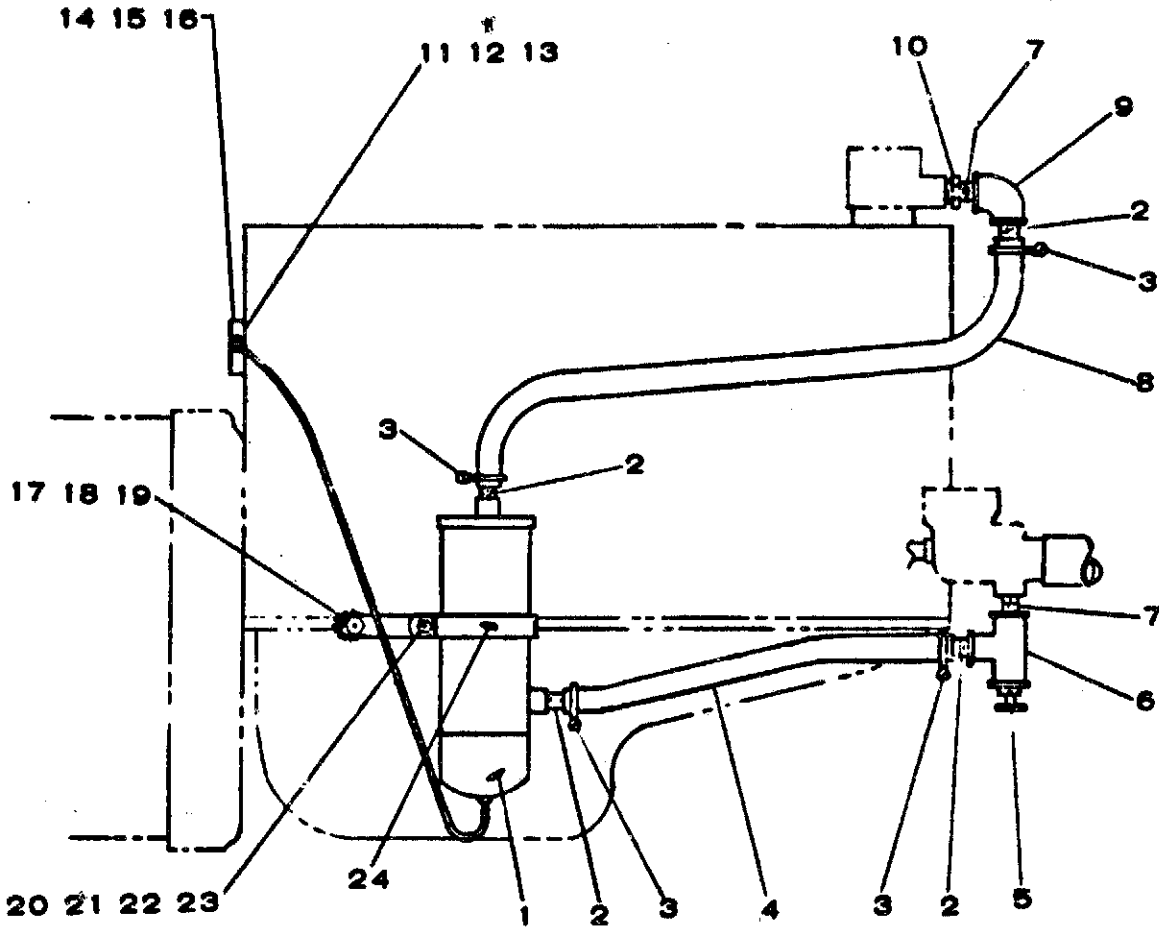
This section contains parts listing of factory installed options.  
**NOTE:** options may not be applicable to all models; for field installations, additional parts are usually required.

## REGULATOR & SOLENOID INSTALLATION



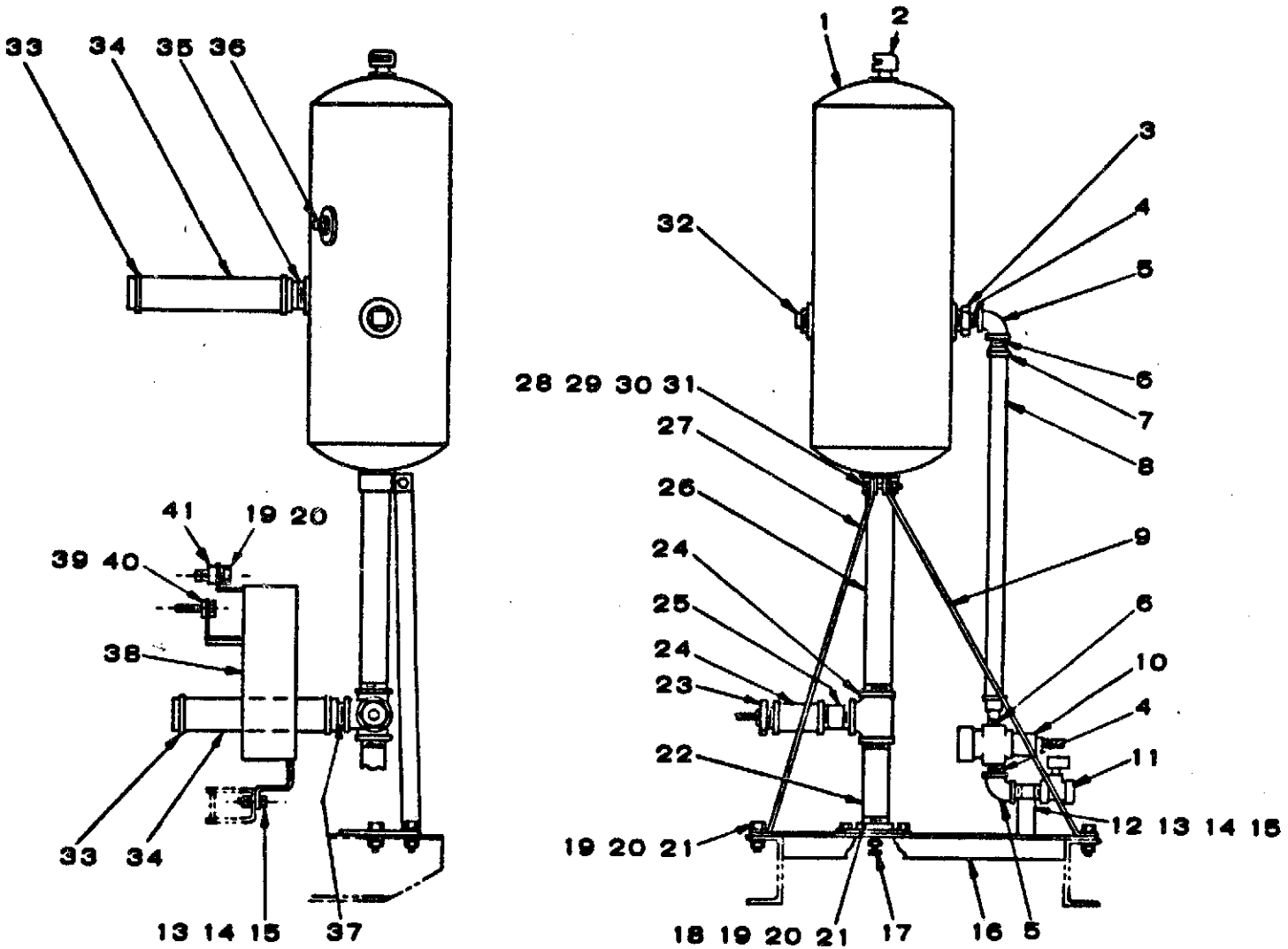
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	191-0878	1	Guard, Belt
2	800-0092	2	Screw (1/2-13 x 1-1/2")
3	850-0060	2	Washer (1/2"), Lock
4	862-0005	2	Nut (1/2-13)
5	130-0926	1	Plate, Solenoid and Regulator Mounting
6	130-0801	2	Bracket and Nipple Assembly
7	800-0007	6	Screw (1/4-20 x 1")
8	850-0040	6	Washer (1/4"), Lock
9	862-0001	6	Nut (1/4-20)
10	505-0175	1	Elbow (2" x 90°), Pipe
11	505-0172	1	Nipple (2 x 2"), Close
12	505-0187	1	Bushing (2' x 1-1/2"), Reducer
13	505-0385	1	Nipple (1-1/2 x 2"), Half
14	503-0385	2	Clamp, Hose
15	503-0835	1	Hose, Radiator
16	526-0030	1	Washer (3/8"), Flat
17	800-0058	1	Screw (3/8-16 x 3")
18	307-0844	1	Valve, Solenoid
19	504-0057	1	Valve, Gate

## WATER JACKET HEATER INSTALLATION - 120 VOLT



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	333-0053	1	Heater (2000 Watt, 120 Volt)
2	505-0135	4	Nipple (3/8 x 1-1/2"), Half
3	503-0183	4	Clamp, Hose
4		1	Hose (Order 19" of Bulk Hose #503-0386)
5	504-0028	1	Cock (3/8"), Drain
6	505-0060	1	Tee (3/8"), Pipe
7	505-0101	2	Nipple (3/8 x 1"), Close
8		1	Hose (Order 44" of Bulk Hose #503-0386)
9	505-0039	1	Elbow (3/8 x 90°), Pipe
10	505-0455	1	Bushing (1 x 3/8"), Reducer
11	332-0446	2	Stud
12	850-0030	2	Washer (#10), Lock
13	870-0053	2	Nut (10-32)
14	309-0108	1	Thermostat
15	333-0012	1	Box, Thermostat
16	333-0013	1	Cover, Thermostat Box
17	856-0013	1	Washer (1/2"), Shakeproof EIT
18	850-0060	1	Washer (1/2"), Lock
19	800-0091	1	Screw (1/2-13 x 1-1/2")
20	800-0031	1	Screw (5/16-18 x 1-1/2")
21	526-0115	2	Washer (5/16")
22	856-0008	2	Washer (5/16"), Shakeproof
23	862-0015	1	Nut (5/16-18)
24	130-0755	1	Bracket

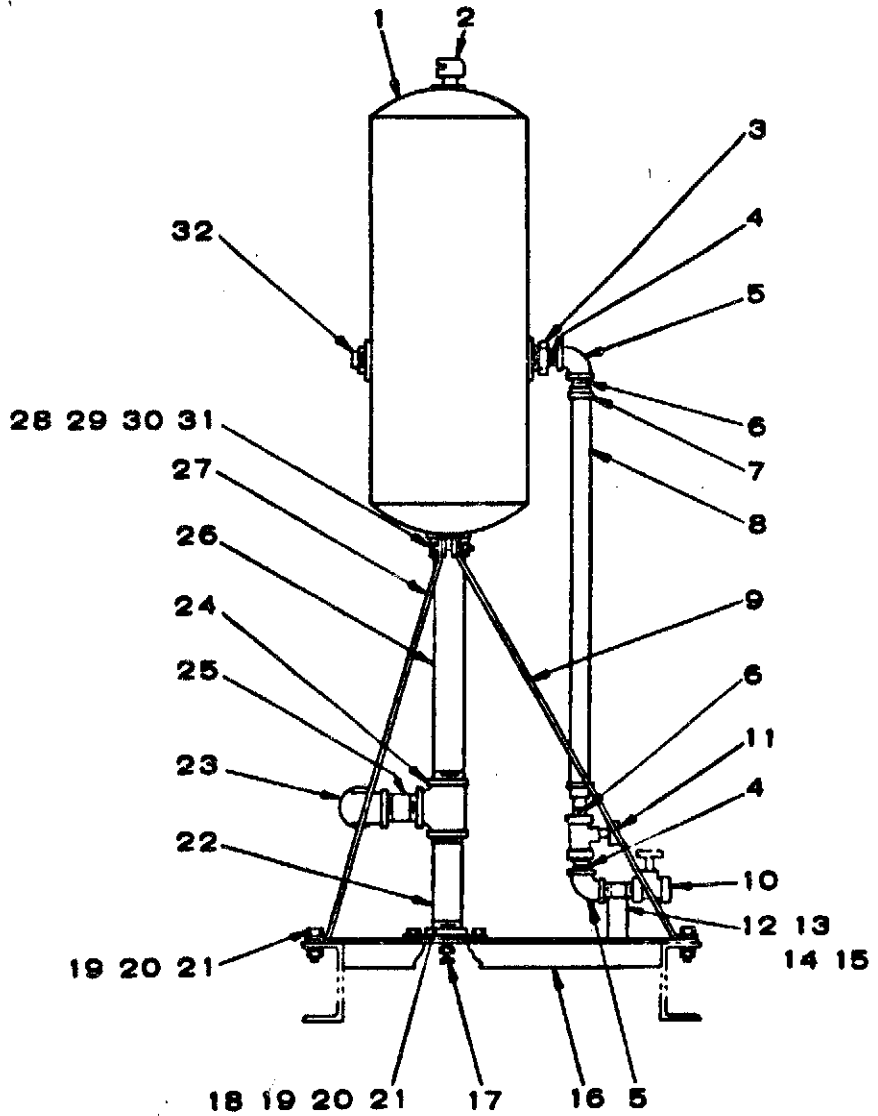
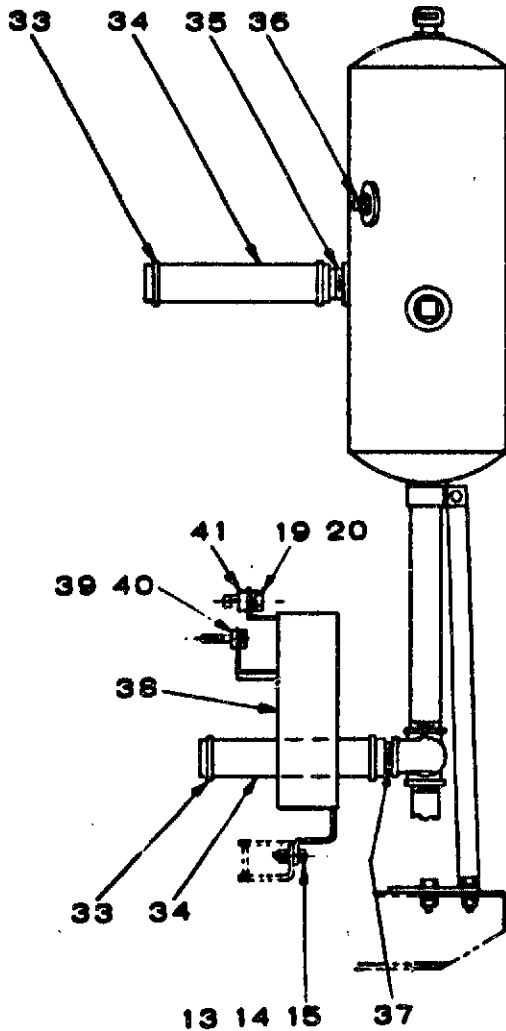
## STANDPIPE INSTALLATION (With Marsh Regulator)



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0425	1	Standpipe
2	504-0062	1	Valve, Vacuum Relief
3	505-0023	1	Bushing (1-1/4 x 1")
4	505-0004	2	Nipple (1 x 1-1/2"), Close
5	505-0041	2	Elbow (1" x 90°), Pipe
6	505-0330	2	Nipple (1 x 2"), Half
7	503-0189	2	Clamp, Hose
8	503-0361	1	Hose (1-1/4 I.D. x 36")
9	130-0869	1	Brace, Standpipe
10	309-0242	1	Valve, Water Temperature Control
11	307-1135	1	Valve, Solenoid
12	130-0797	1	Nipple Assembly, Waterline
13	800-0007	4	Screw (1/4-20 x 1")
14	850-0040	4	Washer (1/4"), Lock
15	862-0001	4	Nut (1/4 x 20)
16	130-0927	1	Support, Standpipe Mounting
17	504-0006	1	Valve, Drain
18	130-0442	1	Base, Standpipe
19	800-0092	9	Screw (1/2-13 x 1-1/2")
20	850-0060	9	Washer (1/2"), Lock
21	862-0005	8	Nut (1/2-13)

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
22	505-0421	1	Nipple (2 x 8"), Pipe
23	505-0351	1	Bushing (2 x 3/4"), Reducer
24	505-0374	2	Tee (2"), Pipe
25	505-0405	1	Nipple (2 x 5"), Pipe
26	505-0377	1	Nipple (2 x 18-1/2"), Pipe
27	130-0870	1	Brace, Standpipe
28	130-0871	1	Clamp, Standpipe Mounting
29	800-0051	1	Screw (3/8-16 x 1-1/4")
30	850-0050	1	Washer (3/8"), Lock
31	862-0003	1	Nut (3/8-16)
32	505-0359	1	Plug (1-1/4"), Square Head
33	503-0354	4	Clamp, Hose
34	503-0631	2	Hose, Radiator
35	505-0204	1	Nipple (2 x 2"), Half
36	505-0140	1	Plug (1"), Square Head
37	505-0764	1	Nipple (2 x 4"), Half
38	191-0878	1	Guard, Belt
39	526-0030	1	Washer (3/8"), Flat
40	800-0058	1	Screw (3/8 x 16 x 3")
41	191-0879	1	Spacer, Belt Guard

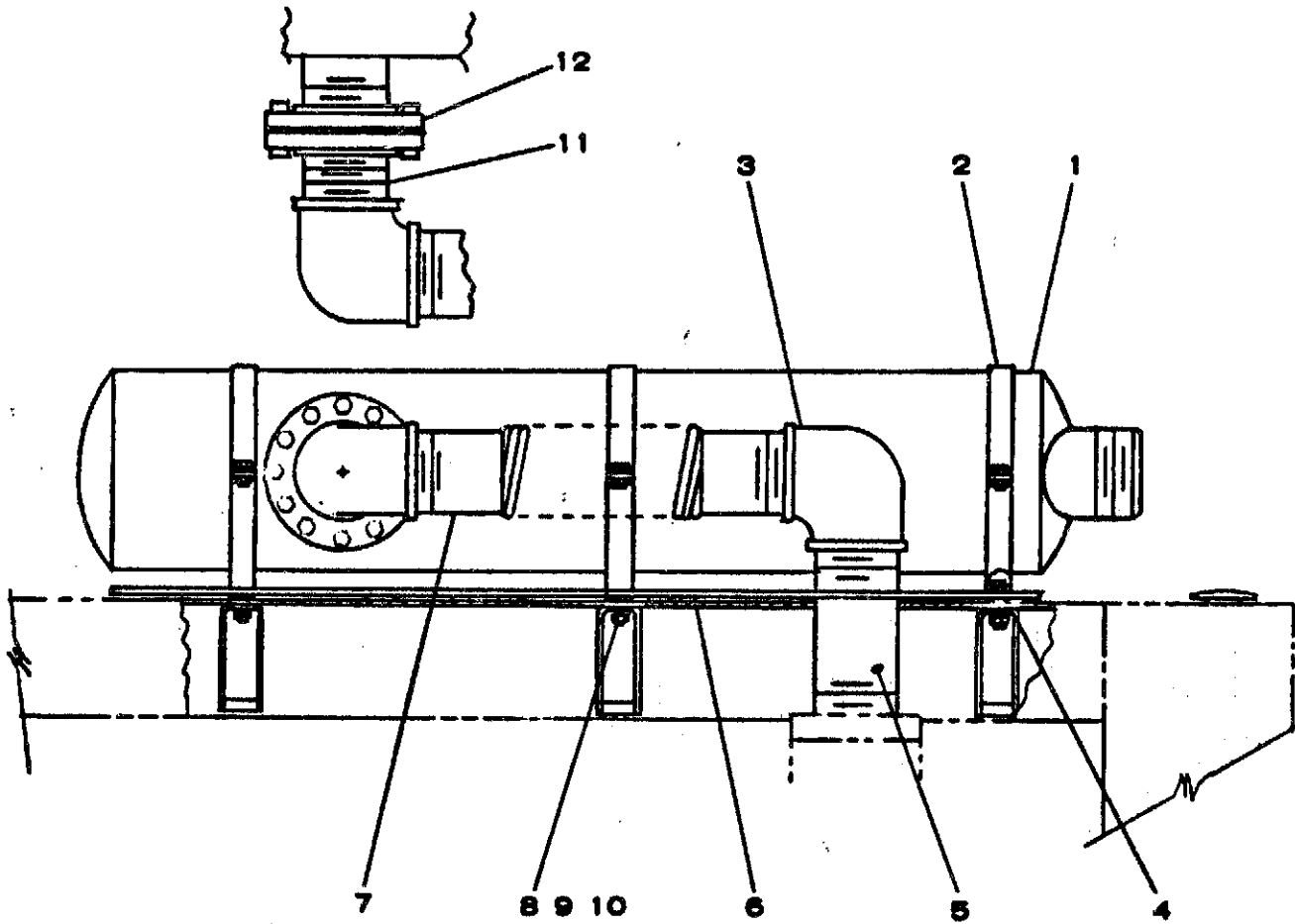
## STANDPIPE INSTALLATION



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	130-0425	1	Standpipe
2	504-0082	1	Valve, Vacuum Relief
3	505-0023	1	Bushing (1-1/4 x 1")
4	505-0004	2	Nipple (1 x 1-1/2"), Close
5	505-0041	2	Elbow (1" x 90°), Pipe
6	505-0330	2	Nipple (1 x 2"), Half
7	503-0189	2	Clamp, Hose
8	503-0361	1	Hose (1-1/4 I.D. x 36")
9	130-0889	1	Brace, Standpipe
10	504-0090	1	Valve, Globe
11	307-1135	1	Valve, Solenoid
12	130-0797	1	Nipple Assembly, Waterline
13	800-0007	4	Screw (1/4-20 x 1")
14	850-0040	4	Washer (1/4"), Lock
15	862-0001	4	Nut (1/4 x 20)
16	130-0927	1	Support, Standpipe Mounting
17	504-0008	1	Valve, Drain
18	130-0442	1	Base, Standpipe
19	800-0092	9	Screw (1/2-13 x 1-1/2")
20	850-0060	9	Washer (1/2"), Lock
21	862-0005	8	Nut (1/2-13)

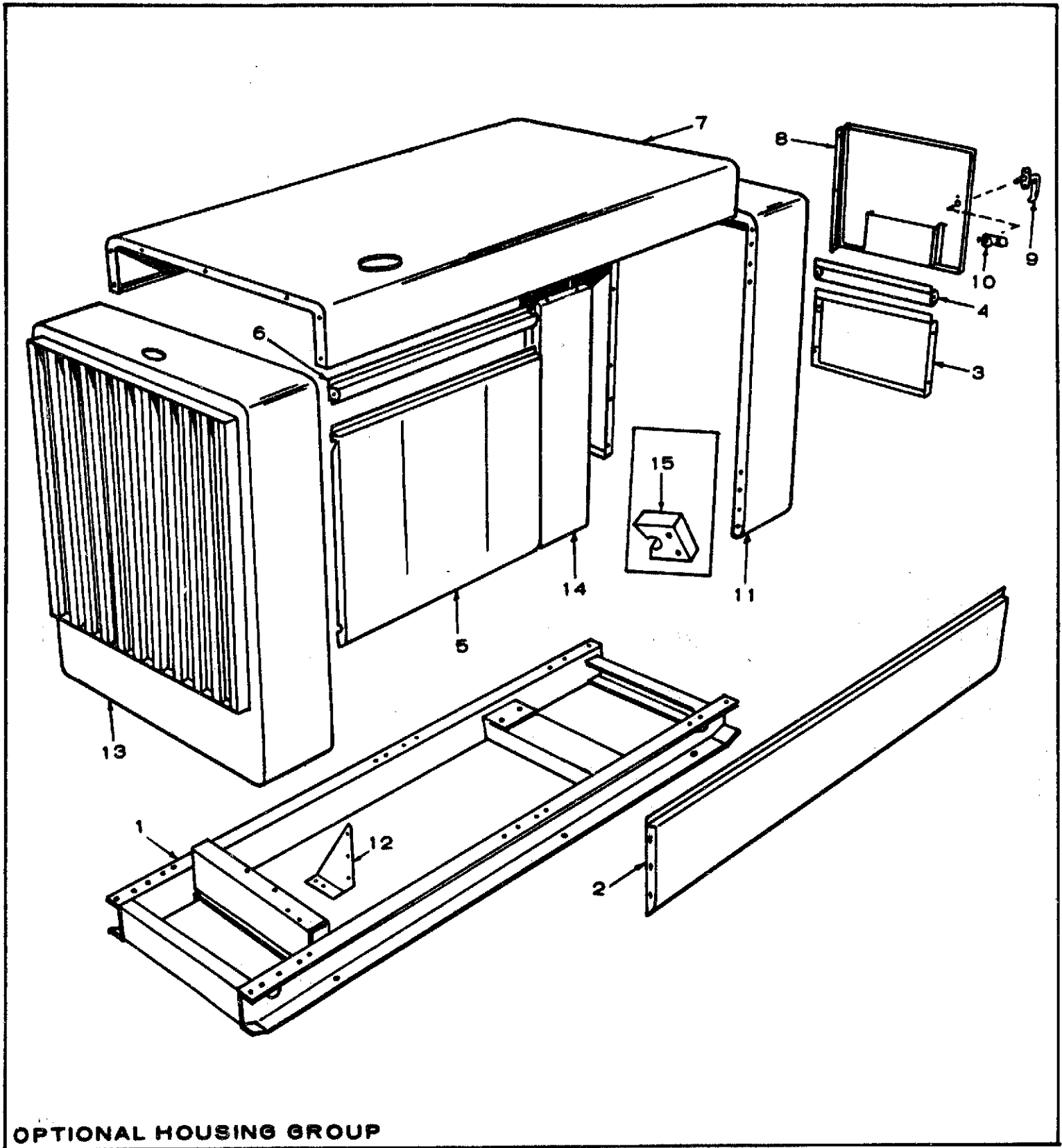
REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
22	505-0421	1	Nipple (2 x 8"), Pipe
23	505-0175	1	Elbow (2" x 90°), Pipe
24	505-0374	1	Tee (2"), Pipe
25	505-0405	1	Nipple (2 x 5"), Pipe
26	505-0377	1	Nipple (2 x 18-1/2"), Pipe
27	130-0870	1	Brace, Standpipe
28	130-0871	1	Clamp, Standpipe Mounting
29	800-0051	1	Screw (3/8-16 x 1-1/4")
30	850-0050	1	Washer (3/8"), Lock
31	862-0003	1	Nut (3/8-16)
32	505-0359	1	Plug (1-1/4"), Square Head
33	503-0354	4	Clamp, Hose
34	503-0631	2	Hose, Radiator
35	505-0204	1	Nipple (2 x 2"), Half
36	505-0140	1	Plug (1"), Square Head
37	505-0764	1	Nipple (2 x 4"), Half
38	191-0878	1	Guard, Belt
39	526-0030	1	Washer (3/8"), Flat
40	800-0058	1	Screw (3/8 x 16 x 3")
41	191-0879	1	Spacer, Belt Guard

## MUFFLER INSTALLATION



REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	155-1158	1	Muffler
2	140-0757	3	Clamp, Muffler
3	505-0741	2	Elbow (6" x 90°)
4	526-0172	6	Washer (1/4")
5	505-0739	1	Nipple (6 x 14-1/2")
6	155-1161	1	Shield, Muffler Heat
7	155-1160	1	Tube Assembly, Exhaust
8	862-0002	6	Nut (5/16-18)
9	850-0045	6	Washer, Lock (5/16")
10	800-0030	6	Screw (5/16-18 x 1-1/4")
11	505-0740	1	Nipple, Short (6 x 4-1/2")
12	155-0680	1	Package, Flange





**OPTIONAL HOUSING GROUP**

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
1	403-1025	1	Base, Skid
2	405-2015	2	Panel, Base
3	405-1856	1	Panel, Lower Rear Housing
4	405-1858	2	Panel, Rear Louver
5	405-2011	4	Door, Housing (Each include 4 Door Clips)
6	405-2014	8	Panel, Louver
7	405-2013	1	Panel, Top
8	405-1880	1	Panel, Rear Door

REF. NO.	PART NO.	QTY. USED	PART DESCRIPTION
9	406-0157	1	Handle, Door
10	406-0089	1	Catch, Door
11	405-1883	1	Panel, Rear
12	BRACKET, PANEL MOUNTING		
	405-2016	4	Right Hand
	405-2017	4	Left Hand
13	405-1884	1	Panel, Front
14	405-1873	2	Panel, Center
15	818-0150	16	Clip, Door