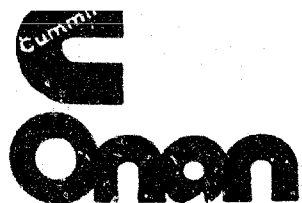


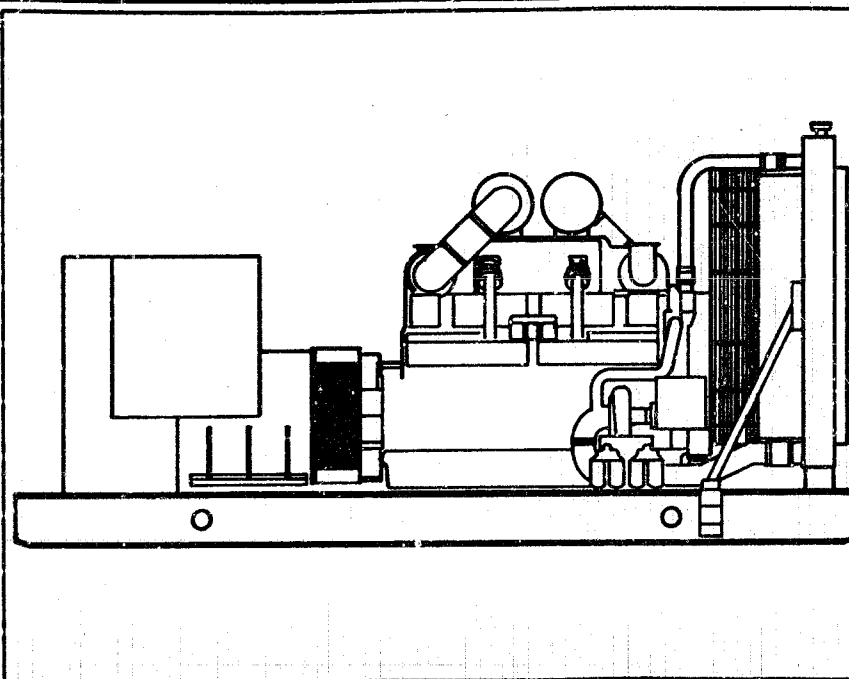
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# PARTS CATALOG

| Onan Model | Cummins Model | Onan Model | Cummins Model |
|------------|---------------|------------|---------------|
| DFLA       | KTA51         | DFLD       | KTA54         |
| DFLB       | KTA52         | DFMB       | KTT52         |
| DFLC       | KTA53         |            |               |

## Generating Sets



960-0264  
1-93 (Spec E - H)  
Printed in U.S.A.

This parts catalog issue replaces:  
960-0254 DFLA/KTA51 Spec E, Dated 2-90  
960-0255 DFLB/KTA52 Spec E, Dated 2-90  
960-0256 DFCL/KTA53 Spec E, Dated 2-90  
960-0245 DFLD/KTA54 Spec E, Dated 2-90  
960-0247 DFMB/KTT52 Spec E, Dated 12-89

## Introduction

This catalog applies to Onan Generator Models DFLA, DFLB, DFLC, DFLD, DFMB and Cummins Generator Models KTA51, KTA52, KTA53, KTA54 and KTT52 as listed in the Generator Set Data Table. Parts are arranged in groups of related items and each illustrated part is identified by a reference number corresponding to the same reference number in the parts list. Parts illustrations are typical. Unless otherwise mentioned in the description or page heading, parts are interchangeable between models. Throughout this catalog left and right sides are determined by facing the engine end (front) of the set.

Some parts groups lists a second source for obtaining service replacement parts. A list of distributors and their addresses are located toward the rear of this catalog.

Engine parts that have been modified or added by Onan are identified in this catalog. All other engine replacement parts must be ordered from the engine manufacturer by referring to the engine manufacturer's nameplate and supplying all available information. Contact your nearest engine parts dealer for assistance in ordering replacement parts.

## Replacement Engine

| <u>Onan/Cummins<br/>Generator Model</u> | <u>Cummins<br/>Generator Model</u> | <u>Cummins<br/>Engine Model</u> |
|-----------------------------------------|------------------------------------|---------------------------------|
| 880DFLA                                 | 880KTA51                           | KTA50-G1                        |
| 1000DFLA                                | 1000KTA51                          | KTA50-G1                        |
| 1100DFLB                                | 1100KTA52                          | KTA50-G2                        |
| 1120DFLC                                | 1120KTA53                          | KTA50-G3                        |
| 1250DFLC                                | 1250KTA53                          | KTA50-G3                        |
| 1200DFLD                                | 1200KTA54                          | KTA50-G4                        |
| 1280DFMB                                | 1280KTT52                          | KTTA50-G2                       |
| 1500DFMB                                | 1500KTT52                          | KTTA50-G2                       |

Replacement engines cannot be ordered from Onan.  
Order from your nearest Cummins distributor.

## Generator Set Data Table

| MODEL AND<br>SPECIFICATION | ELECTRICAL DATA |       |       |      |        | BATTERY<br>VOLTAGE |
|----------------------------|-----------------|-------|-------|------|--------|--------------------|
|                            | WATTS           | VOLTS | HERTZ | WIRE | PHASE  |                    |
| 880DFLA/*<br>880KTA51      | 880,000         | #     | 50    | 12   | 1 or 3 | 24VDC              |
| 1000DFLA/*<br>1000KTA51    | 1,000,000       | #     | 60    | 12   | 1 or 3 | 24VDC              |
| 1100DFLB/*<br>1100KTA52    | 1,100,000       | #     | 60    | 6    | 1 or 3 | 24VDC              |
| 1120DFLC/*<br>1120KTA53    | 1,120,000       | #     | 50    | 6    | 1 or 3 | 24VDC              |
| 1250DFLC/*<br>1250KTA53    | 1,250,000       | #     | 60    | 6    | 1 or 3 | 24VDC              |
| 1200DFLD/*<br>1200KTA54    | 1,200,000       | #     | 50    | 6    | 1 or 3 | 24VDC              |
| 1280DFMB/*<br>1280KTT52    | 1,280,000       | #     | 50    | 6    | 1 or 3 | 24VDC              |
| 1500DFMB/*<br>1500KTT52    | 1,500,000       | #     | 60    | 6    | 1 or 3 | 24VDC              |

- \* - The diagonal line (/) in the model and specification number separates generator set characteristics from the specification number and letter. The specification number denotes customer requested options or deviations from a standard model. The specification letter advances (E to F, F to G, etc.) with major manufacturing changes.

- # - Broad range reconnectible.

**GENERATOR 12016**

| ONAN/CUMMINS<br>IDENTIFICATION NUMBER | NEWAGE FRAME<br>NUMBER | NEWAGE<br>MODEL NUMBER |
|---------------------------------------|------------------------|------------------------|
| 249-0176-04                           | 6                      | HC634C-312-D62-4170    |
| 249-0177-01                           | 7                      | HC734A-----D73-4142    |
| 249-0177-02                           | 7                      | HC734B-----D73-4142    |
| 249-0177-05                           | 7                      | HC734C-----D73-4143    |
| 249-0185-09                           | 6                      | HC634D-07-D62-4171     |
| 249-0186-02                           | 7                      | HC734B-07-D73-4172     |
| 249-0186-05                           | 7                      | HC734C-07-D73-4173     |
| 249-0192-01                           | 7                      | MV734WE-----D77-1026   |
| 249-0192-02                           | 7                      | MV734WF-----D77-1026   |
| 249-0192-03                           | 7                      | MV734WG-----D77-1027   |
| 249-0192-04                           | 7                      | MV734WE-----D77-1026   |
| 249-0192-05                           | 7                      | MV734WF-----D77-1026   |
| 249-0192-06                           | 7                      | MV734WG-----D77-1027   |
| 249-0192-07                           | 7                      | MV734WH-----D77-1027   |
| 249-5063-03                           | 6                      | HC634J-312-D66-1032    |
| 249-5063-07                           | 6                      | HC634K-312-D66-1033    |
| 249-5064-01                           | 7                      | HC734E-312-D76-1026    |
| 249-5064-02                           | 7                      | HC734F-312-D76-1026    |
| 249-5064-04                           | 7                      | HC734F-312-D76-1026    |
| 249-5064-05                           | 7                      | HC734G-312-D76-1027    |
| 249-5064-06                           | 7                      | HC734G-312-D76-1027    |
| 249-5064-07                           | 7                      | HC734H-312-D76-1027    |
| 249-5065-03                           | 6                      | HC634J-311-D66-1032    |
| 249-5065-07                           | 6                      | HC634K-311-D66-1033    |
| 249-5066-03                           | 6                      | HC634J-07-D66-1032     |
| 249-5066-07                           | 6                      | HC634K-07-D66-1033     |
| 249-5067-01                           | 7                      | HC734E-07-D76-1026     |
| 249-5067-02                           | 7                      | HC734F-07-D76-1026     |
| 249-5067-03                           | 7                      | HC734E-07-D76-1026     |
| 249-5067-05                           | 7                      | HC734G-07-D76-1027     |

**Paint**

| REF<br>NO. | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION                | REF<br>NO.  | PART<br>NO. | QTY<br>USED | PART<br>DESCRIPTION             |
|------------|-------------|-------------|------------------------------------|-------------|-------------|-------------|---------------------------------|
|            |             |             | Onan Green Enamel<br>(Non-Metalic) |             |             |             | Cummins Beige Enamel            |
| 525-0305   | -           | -           | 13 oz. Pressurized Spray<br>Can    | 525-0551-02 | -           | -           | 13 oz. Pressurized Spray<br>Can |
| 525-0306   | -           | -           | Quart Can                          | 525-0551-03 | -           | -           | Quart Can                       |
| 525-0304   | -           | -           | Gallon Can                         | 525-0551-04 | -           | -           | Gallon Can                      |



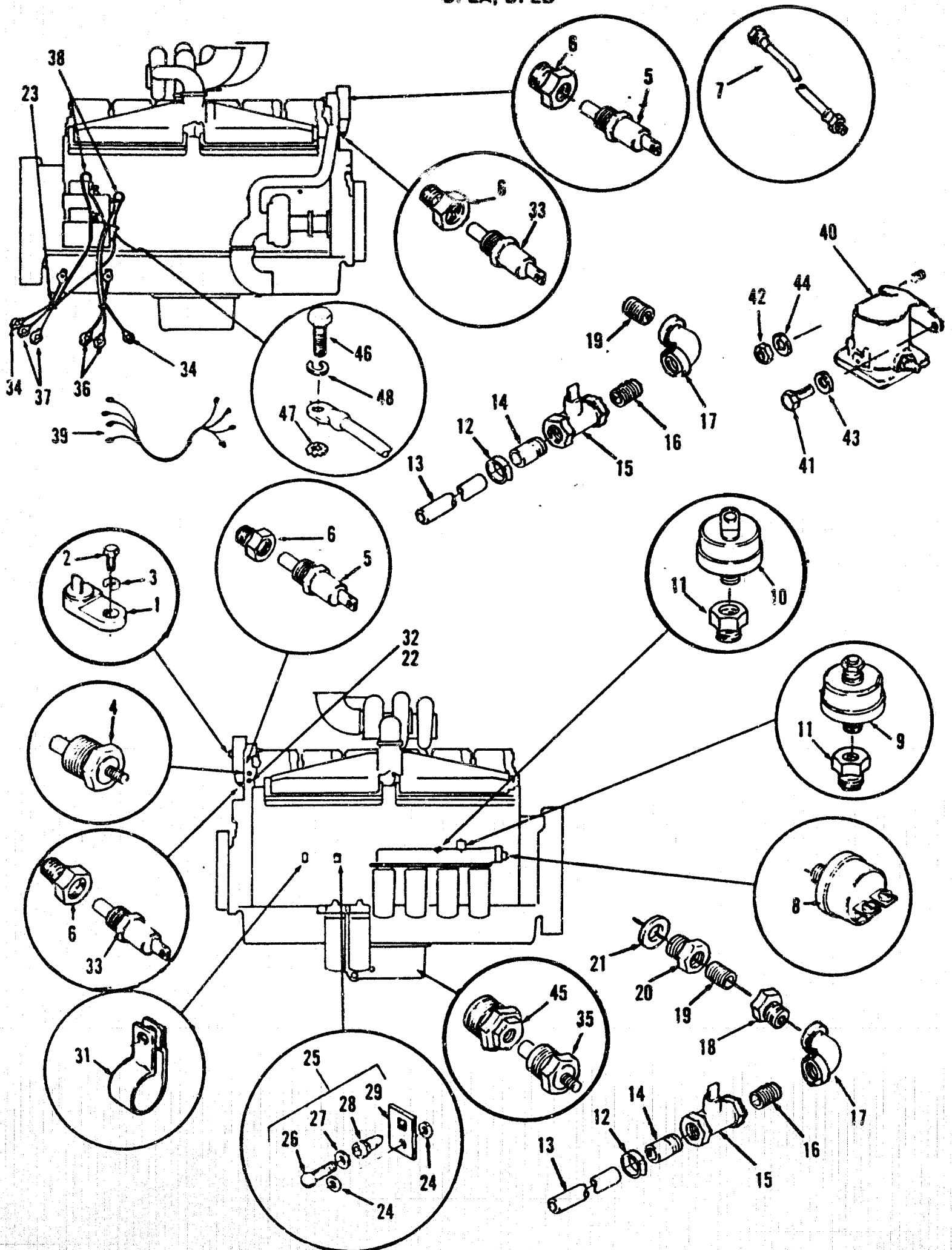
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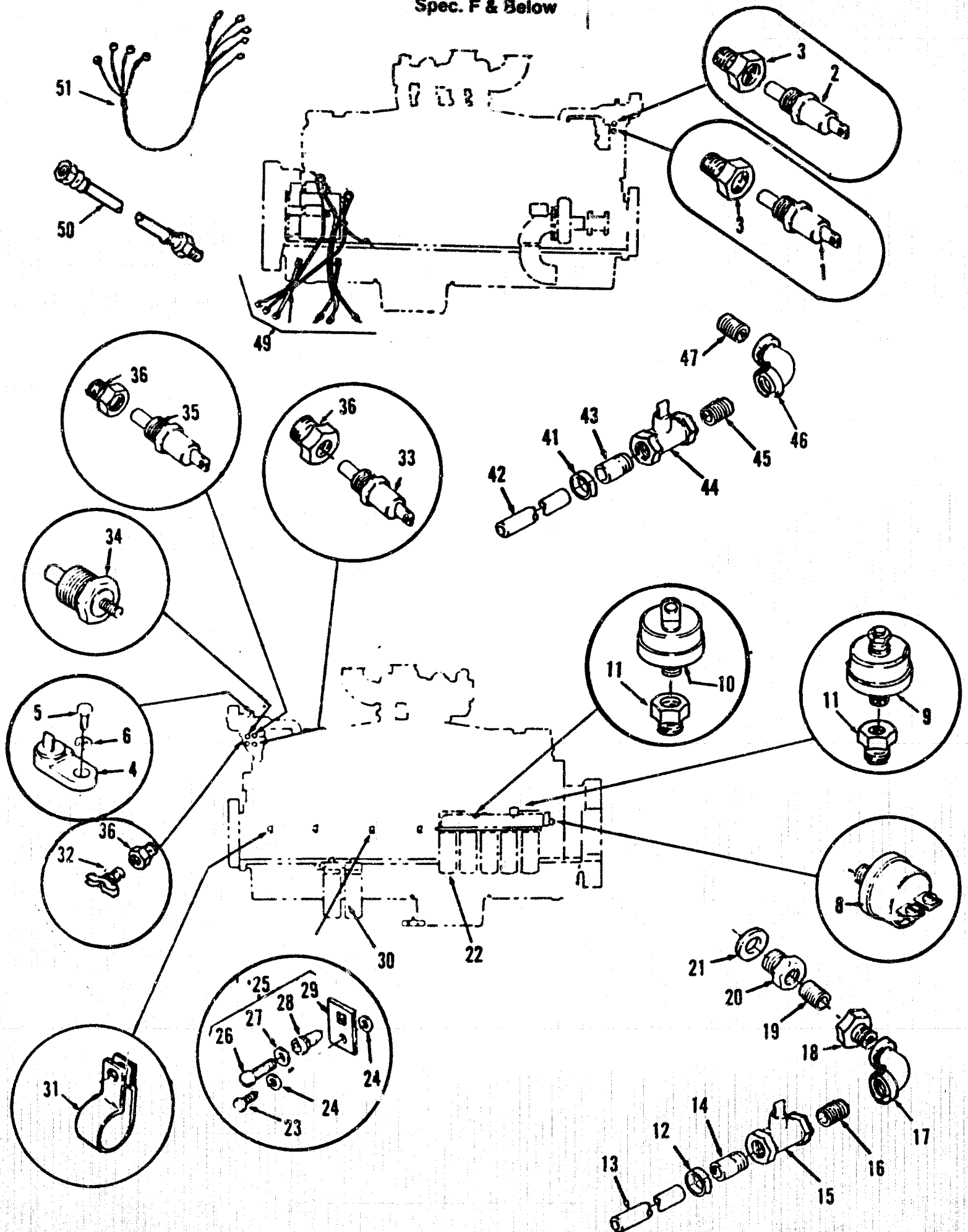
# External Parts DCLA, DFLB



**External Parts  
DFLA, DFLB**

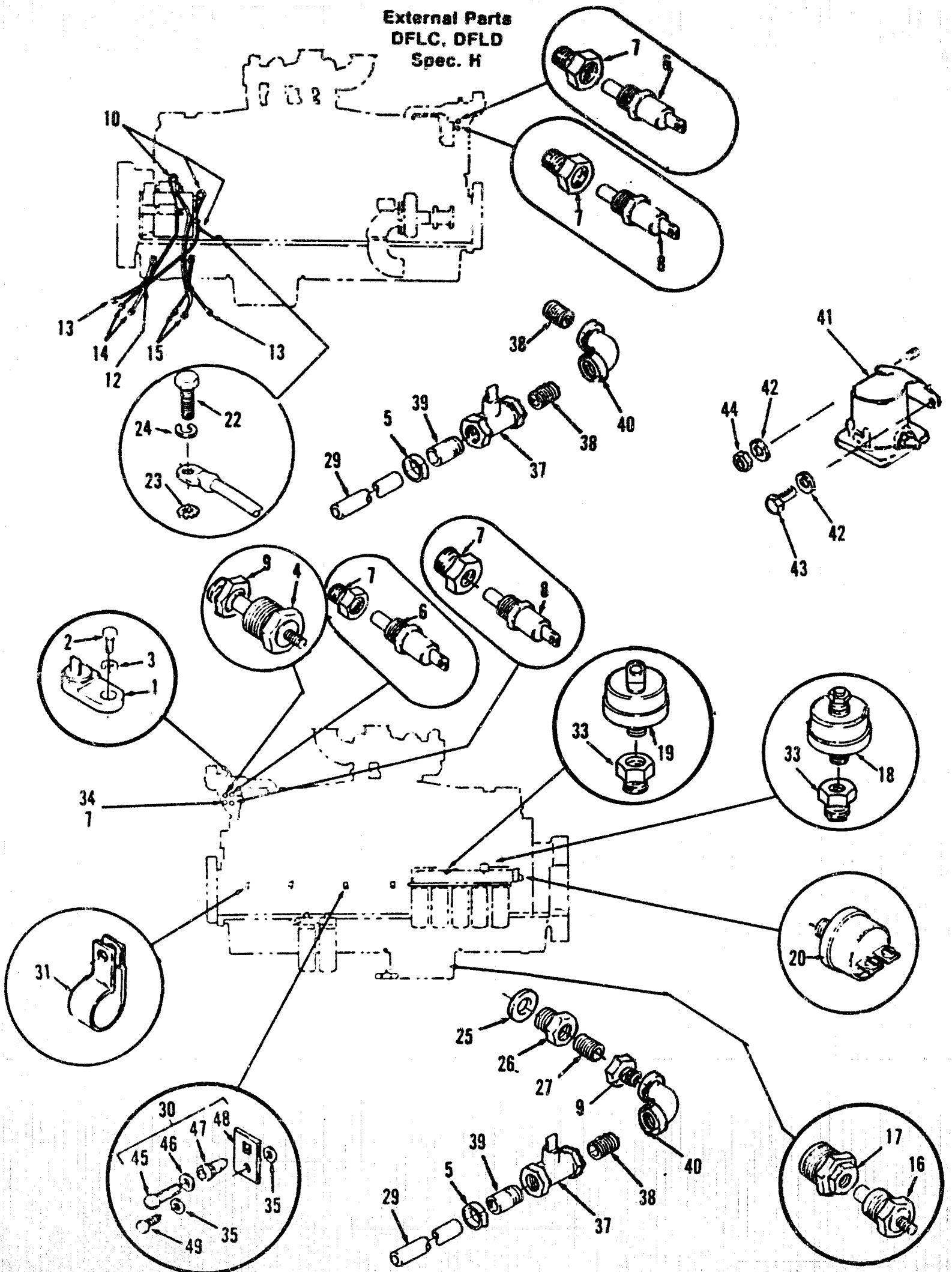
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                       | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                  |
|----------|----------|-----------|----------------------------------------------------------------------------------------|----------|----------|-----------|-------------------------------------------------------------------|
| 1        | 309-0269 | 1         | Switch, Thermostatic - Low Engine Temperature                                          | 22       | 505-0019 | 1         | Bushing-Reducer (1/2 x 3/8)                                       |
| 2        | 800-0062 | 1         | Screw, Cap - Hex Head (3/8-16 x 4")                                                    | 23       | 332-0941 | 4         | Cable, Tie                                                        |
| 3        | 850-0050 | 1         | Washer, Lock - Spring (3/8")                                                           | 24       | 856-0010 | 2         | Washer, Lock - EIT (3/8")                                         |
| 4        | 193-0375 | 1         | Sender, Water Temperature                                                              | 25       | 332-1292 | 1         | Terminal Assembly (includes Replaceable Items 26 thru 29)         |
| 5        | 309-0437 | 2         | Switch, Thermostatic - High Water Temperature (SHUTDOWN) (222°F)                       | 26       | 809-0035 | 1         | Screw, Tapping - Round Head (#8 x 3/4")                           |
| 6        | 505-0131 | 4         | Bushing, Reducer - Flush (3/4 NPT x 3/8 NPT)                                           | 27       | 508-0015 | 1         | Washer, Insulating                                                |
| 7        | 501-0520 | 1         | Line, Fuel - Flexible "FUEL OUT" (37" 7/8-14 Female Swivel x 3/4-14 Male x 50" LG)     | 28       | 870-0196 | 1         | Nut, Insulated                                                    |
|          | 501-0524 | 1         | Line, Fuel - Flexible "FUEL IN" (37" 1 5/16-12 Female Swivel x 1-11 5/8 Male x 50" LG) | 29       | 332-1281 | 1         | Board, Terminal                                                   |
| 8        | 309-0561 | 1         | Switch, Pressure Oil, 14# PSI (SHUTDOWN) With Dual Terminals                           | 30       |          |           |                                                                   |
| 9        | 193-0244 | 1         | Sender, Pressure - Oil                                                                 | 31       | 332-2634 | 6         | Clamp, J                                                          |
| 10       | 309-0272 | 1         | Switch, Pressure - Oil, 20# PSI (PRE-ALARM)                                            | 32       | 504-0028 | 1         | Cock, Drain                                                       |
| 11       | 505-0007 | 2         | Bushing, Reducer (1/4 NPT x 1/8 NPT)                                                   | 33       | 309-0436 | 2         | Switch, Thermostatic - High Water Temperature (PRE-ALARM) (216°F) |
| 12       | 503-0189 | 2         | Clamp, Hose                                                                            | 34       | 416-0446 | 2         | Cable, Battery - Jumper (12-1/2" LG)                              |
| 13       | 503-1731 |           | Hose, Bulk (Sold by the Foot) Three Feet Required                                      | 35       | 193-0353 | 1         | Sender, Oil Temperature                                           |
| 14       | 505-0324 | 2         | Nipple, Pipe - Half (3/4 NPT x 2" LG)                                                  | 36       | 416-0964 | 2         | Cable, Battery (35" LG)                                           |
| 15       | 504-0171 | 2         | Valve, Shutoff - Brass (3/4 NPT)                                                       | 37       | 416-0639 | 2         | Cable, Battery (60" LG)                                           |
| 16       | 505-0102 | 3         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                                             | 38       | 416-0680 | 3         | Cable, Electrical - Jumper (10" LG)                               |
| 17       | 505-0132 | 2         | Elbow, Pipe - 90° (3/4 NPT)                                                            | 39       | 338-2925 | 1         | Harness, Wiring - Engine to Control (Includes Replaceable Items)  |
| 18       | 505-0021 | 1         | Bushing, Reducer (3/4 NPT x 1/2 NPT)                                                   |          | 338-1306 | 1         | Housing, Connector - 8 Pin (Less Pins)                            |
| 19       | 505-0100 | 1         | Nipple, Pipe - Close (1/2 NPT x 1-1/8" LG)                                             |          | 323-1200 | 8         | Pin, Contact                                                      |
| 20       | 102-1335 | 1         | Plug, Drain (Modified)                                                                 |          | 323-1304 | 1         | Housing, Connector - 6 Pin (Less Pins)                            |
| 21       | 508-0292 | 1         | Washer, Sealing                                                                        |          | 323-1200 | 6         | Pin Contact                                                       |
|          |          |           |                                                                                        | 40       | 307-2167 | 1         | Relay, Solenoid - Start                                           |
|          |          |           |                                                                                        | 41       | 821-0010 | 2         | Screw, Locking - Hex Washer Head (1/4-20 x 1/2")                  |
|          |          |           |                                                                                        | 42       | 862-0013 | 1         | Nut, Hex (1/4-20)                                                 |
|          |          |           |                                                                                        | 43       | 856-006  | 2         | Washer, Lock-EIT (1/4")                                           |
|          |          |           |                                                                                        | 44       | 526-0066 | 1         | Washer, Flat (3/8")                                               |
|          |          |           |                                                                                        | 45       | 505-0151 | 1         | Bushing, Reducer (1/2" x 1/8")                                    |
|          |          |           |                                                                                        | 46       | 800-0090 | 1         | Screw, Cap - Hex Head (1/2-13 x 1.00)                             |
|          |          |           |                                                                                        | 47       | 856-0013 | 1         | Washer, Lock - EIT (1/2)                                          |
|          |          |           |                                                                                        | 48       | 850-0060 | 1         | Washer, Lock (1/2)                                                |

External Parts  
DFLC, DFLD  
Spec. F & Below



**External Engine Parts  
DFLC, DFLD  
Spec. F & Below**

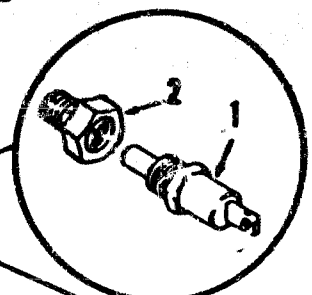
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                  | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                     |
|----------|----------|-----------|-------------------------------------------------------------------|----------|----------|-----------|--------------------------------------------------------------------------------------|
| 1        | 309-0436 | 1         | Switch, Thermostatic - High Water Temperature (PRE-ALARM) (216°F) | 34       | 193-0375 | 1         | Sender, Water Temperature                                                            |
| 2        | 509-0437 | 1         | Switch, Thermostatic - High Water Temperature (SHUTDOWN) (222°F)  | 35       | 309-0437 | 1         | Switch, Thermostatic - High Water Temperature (SHUTDOWN) (222°F)                     |
| 3        | 505-0117 | 2         | Bushing, Reducer - Flush (1/2 NPT x 3/8 NPT)                      | 36       | 505-0117 | 3         | Bushing, Reducer - Flush (1/2 NPT x 3/8 NPT)                                         |
| 4        | 309-0269 | 1         | Switch, Thermostatic - Low Engine Temperature                     | 37       | 503-0960 | 4         | Clamp, Hose                                                                          |
| 5        | 800-0062 | 1         | Screw, Cap - Hex Head (3/8-16 x 4")                               | 38       | 503-1726 | 2         | Hose, Radiator                                                                       |
| 6        | 850-0050 | 1         | Washer, Lock - Spring (3/8")                                      | 39       | 503-1140 | 2         | Clamp, Hose                                                                          |
| 8        | 309-0561 | 1         | Switch, Pressure - Oil, 14# PSI (SHUTDOWN) With Dual Terminals    | 40       | 503-1730 | 1         | Hose, Rubber                                                                         |
| 9        | 193-0244 | 1         | Sender, Pressure - Oil                                            | 41       | 503-0183 | 1         | Clamp, Hose                                                                          |
| 10       | 309-0272 | 1         | Switch, Pressure - Oil, 20# PSI (PRE-ALARM)                       | 42       | 503-1731 | AR        | Hose, Bulk (Sold by the Foot) Two Feet Required                                      |
| 11       | 505-0007 | 2         | Bushing, Reducer (1/4 NPT x 1/8 NPT)                              | 43       | 505-0324 | 1         | Nipple, Pipe - Half (3/4 NPT x 2" LG)                                                |
| 12       | 503-0183 | 1         | Clamp, Hose                                                       | 44       | 504-0171 | 1         | Valve, Shutoff - Brass (3/4 NPT)                                                     |
| 13       | 503-1731 | AR        | Hose, Bulk (Sold by the Foot) Three Feet Required                 | 45       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                                           |
| 14       | 505-0324 | 1         | Nipple, Pipe - Half (3/4 NPT x 2" LG)                             | 46       | 505-0132 | 1         | Elbow, Pipe - 90° (3/4 NPT)                                                          |
| 15       | 504-0171 | 1         | Valve, Shutoff - Brass (3/4 NPT)                                  | 47       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                                           |
| 16       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                        | 48       |          |           | Filter, Water - W/Corrosion Inhibiting Chemical DCA4                                 |
| 17       | 505-0132 | 1         | Elbow, Pipe - 90° (3/4 NPT)                                       |          | 130-3538 | 2         | Service                                                                              |
| 18       | 505-0021 | 1         | Bushing, Reducer (3/4 NPT x 1/2 NPT)                              |          | 130-3576 | 2         | Pre-Charging Complete System                                                         |
| 19       | 505-0100 | 1         | Nipple, Pipe - Close (1/2 NPT x 1-1/8" LG)                        | 49       | 416-0446 | 2         | Cable, Battery - Jumper (12-1/2" LG)                                                 |
| 20       | 102-1335 | 1         | Plug, Drain (Modified)                                            |          | 416-0473 | 2         | Cable, Battery - Jumper (27" LG)                                                     |
| 21       | 508-0292 | 1         | Washer, Sealing                                                   |          | 416-0964 | 2         | Cable, Battery (35" LG)                                                              |
| 22       | 122-0757 | 5         | Filter, Oil                                                       |          | 416-0639 | 2         | Cable, Battery (60" LG)                                                              |
| 23       | 800-0270 | 1         | Screw, Cap - Hex Head (3/8-24 x 5/8")                             |          | 416-0680 | 3         | Cable, Electrical - Jumper (10" LG)                                                  |
| 24       | 856-0010 | 2         | Washer, Lock - EIT (3/8")                                         | 50       | 501-0520 | 1         | Line, Fuel - Flexible "FUEL OUT" (37° 7/8-14 Female Swivel x 3/4-14 Male x 50" LG)   |
| 25       | 332-1292 | 1         | Terminal Assembly (Includes Replaceable Items 26 thru 29)         |          | 501-0524 | 1         | Line, Fuel - Flexible "FUEL IN" (37° 1 5/16-12 Female Swivel x 1-11.5 Male x 50" LG) |
| 26       | 809-0035 | 1         | Screw, Tapping - Round Head (#8 x 3/4")                           | 51       | 338-2925 | 1         | Harness, Wiring - Engine to Control (Includes Replaceable Items)                     |
| 27       | 508-0015 | 1         | Washer, Insulating                                                |          | 323-1306 | 1         | Housing, Connector - 8 Pin (Less Pins)                                               |
| 28       | 870-0196 | 1         | Nut, Insulated                                                    |          | 323-1200 | 8         | Pin, Contact                                                                         |
| 29       | 332-1281 | 1         | Board, Terminal                                                   |          | 323-1304 | 1         | Housing, Connector - 6 Pin (Less Pins)                                               |
| 30       | 149-2232 | 2         | Filter, Fuel                                                      |          | 323-1200 | 6         | Pin, Contact                                                                         |
| 31       | 332-2634 | 6         | Clamp, J                                                          |          |          |           |                                                                                      |
| 32       | 504-0028 | 2         | Cock, Drain                                                       |          |          |           |                                                                                      |
| 33       | 309-0436 | 1         | Switch, Thermostatic - High Water Temperature (PRE-ALARM) (216°F) |          |          |           |                                                                                      |



**External Parts  
DFLC, DFLD  
Spec. H**

| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                                                                                        | REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                               |
|-------------|-------------|--------------|------------------------------------------------------------------------------------------------------------|-------------|-------------|--------------|---------------------------------------------------|
| 1           | 309-0269    | 1            | Switch, Temperature - Low Engine Coolant (S4)                                                              | 27          | 505-0100    | 1            | Nipple, Pipe (1/2" x 1.12)                        |
| 2           |             | 1            | Screw, Cap, Hex Head (3/8-16 x 1.50)                                                                       | 29          | 503-1731    | 3            | Hose, Drain (30")                                 |
| 3           | 850-0050    | 1            | Washer, Lock (3/8")                                                                                        | 30          | 332-1292    | 1            | Terminal Assembly (Includes Parts Marked *) (T26) |
| 4           | 193-0375    | 1            | Sender, Temperature - Water                                                                                | 31          | 332-2634    | 6            | Clamp, J                                          |
| 5           | 503-0189    | 2            | Clamp, Hose                                                                                                | 32          | 505-0050    | 2            | Elbow, Street 90° (1/2")                          |
| 6           | 309-0437    | 2            | Switch, Thermostat - High Engine Coolant Temperature (opens at 202° F - closes at 222° F) (S2)             | 33          | 505-0007    | 2            | Bushing, Reducer (1/4" to 1/8")                   |
| 7           | 505-0019    | 5            | Bushing, Reducer (1/2" x 3/8")                                                                             | 34          | 504-0028    | 1            | Draincock                                         |
| 8           | 309-0436    | 2            | Switch, Thermostat - High Engine Coolant Temperature (opens at 190° F - closes at 216° F) (S6 - Pre Alarm) | 35          | 856-0010    | 2            | Washer, Lock - EIT (3/8")                         |
| 9           | 505-0021    | 21           | Bushing, Reducer (3/4" x 1/2")                                                                             | 36          | 503-1731    | 1            | Hose, Drain (14")                                 |
| 10          | 416-0680    | 3            | Cable, Starter                                                                                             | 37          | 504-0171    | 2            | Valve, Shutoff                                    |
| 12          | 332-0941    | 4            | Cable, Tie                                                                                                 | 38          | 505-0102    | 3            | Nipple, Pipe (3/4" x 1.38)                        |
| 13          | 416-0446    | 2            | Cable, Jumper                                                                                              | 39          | 505-0324    | 2            | Nipple, Half (3/4" x 2")                          |
| 14          | 416-0639    | 2            | Cable, Battery                                                                                             | 40          | 505-0132    | 2            | Elbow, Street 90° (3/4")                          |
| 15          | 416-0964    | 2            | Cable, Battery                                                                                             | 41          | 307-2167    | 1            | Relay, Solenoid - Start                           |
| 16          | 193-0244    | 1            | Sender, Temperature - Oil (E4)                                                                             | 42          | 856-0006    | 2            | Washer, Lock - EIT (1/4")                         |
| 17          | 505-0151    | 1            | Bushing, Reducer (1/2" x 1/8")                                                                             | 43          | 821-0010    | 1            | Screw, Hex Head - Locking (1/4-20 x 1/2)          |
| 18          | 193-0244    | 1            | Sender, Pressure - Oil (E1)                                                                                | 44          | 862-0013    | 1            | Nut, Hex (1/4-20)                                 |
| 19          | 309-0272    | 1            | Switch, Pressure - Oil (Closes at 20 lbs)                                                                  | 45          | 809-0036    | 1            | *Screw, Sheet Metal - Round Head (#8 x 7/8")      |
| 20          | 309-0561    | 1            | Switch, Pressure - Oil (Closes at 14 lbs)                                                                  | 46          | 508-0015    | 1            | *Washer, Fiber                                    |
| 22          | 800-0090    | 1            | Screw, Hex Head (1/2-13 x 1.00)                                                                            | 47          | 870-0196    | 1            | *Nut, Insulation                                  |
| 23          | 856-0013    | 1            | Washer, Lock - EIT (1/2")                                                                                  | 48          | 332-1281    | 1            | *Bracket, Terminal                                |
| 24          | 850-0060    | 1            | Washer, Lock (1/2")                                                                                        | 49          | 800-0270    | 1            | Screw, Cap Hex Head (3/8-24 x 5/8")               |
| 25          | 102-1335    | 1            | Plug, Drain - Oil                                                                                          |             |             |              |                                                   |
| 26          | 508-0292    | 1            | Washer, Sealing                                                                                            |             |             |              |                                                   |

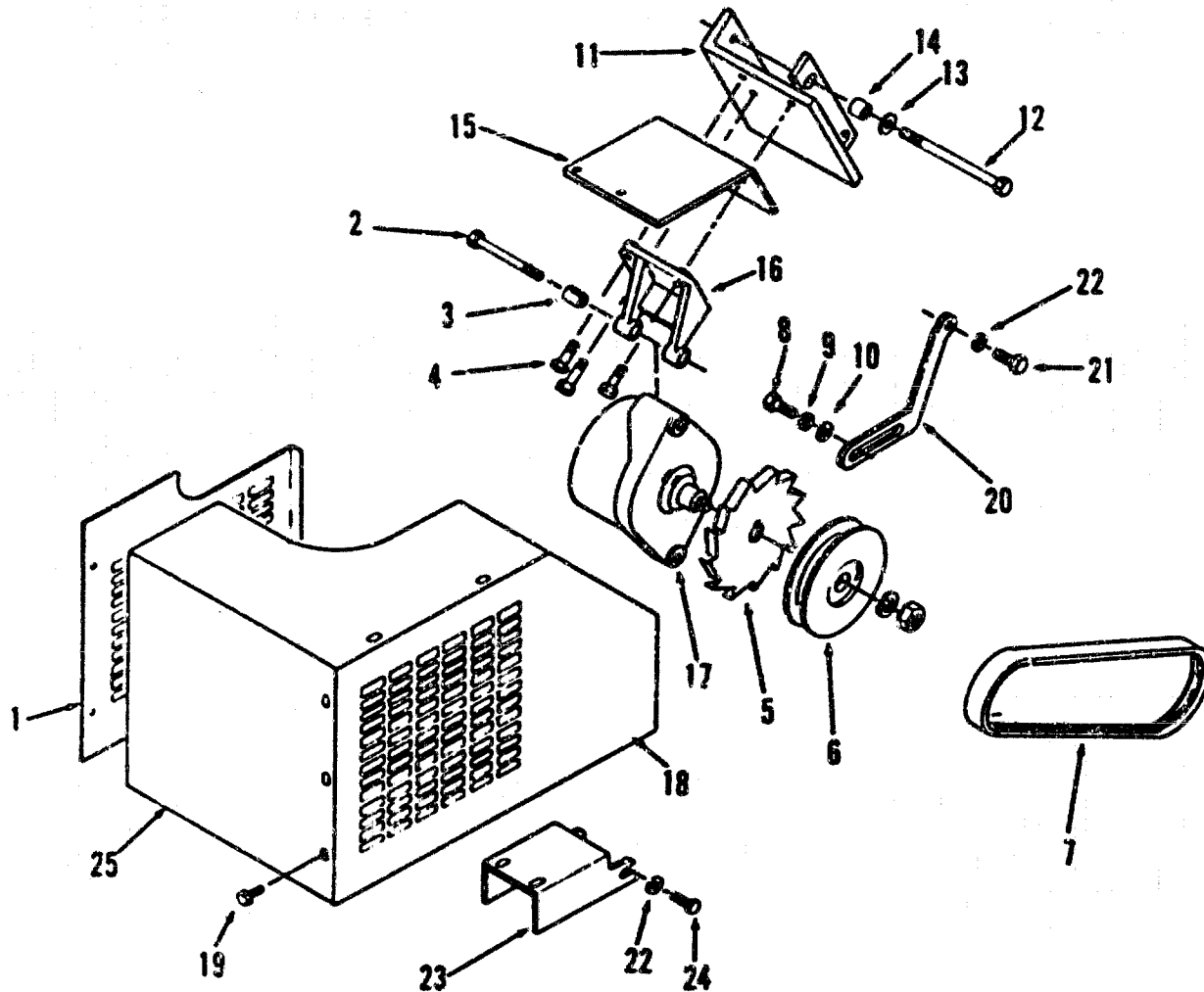




# **External Engine Parts DFMB**

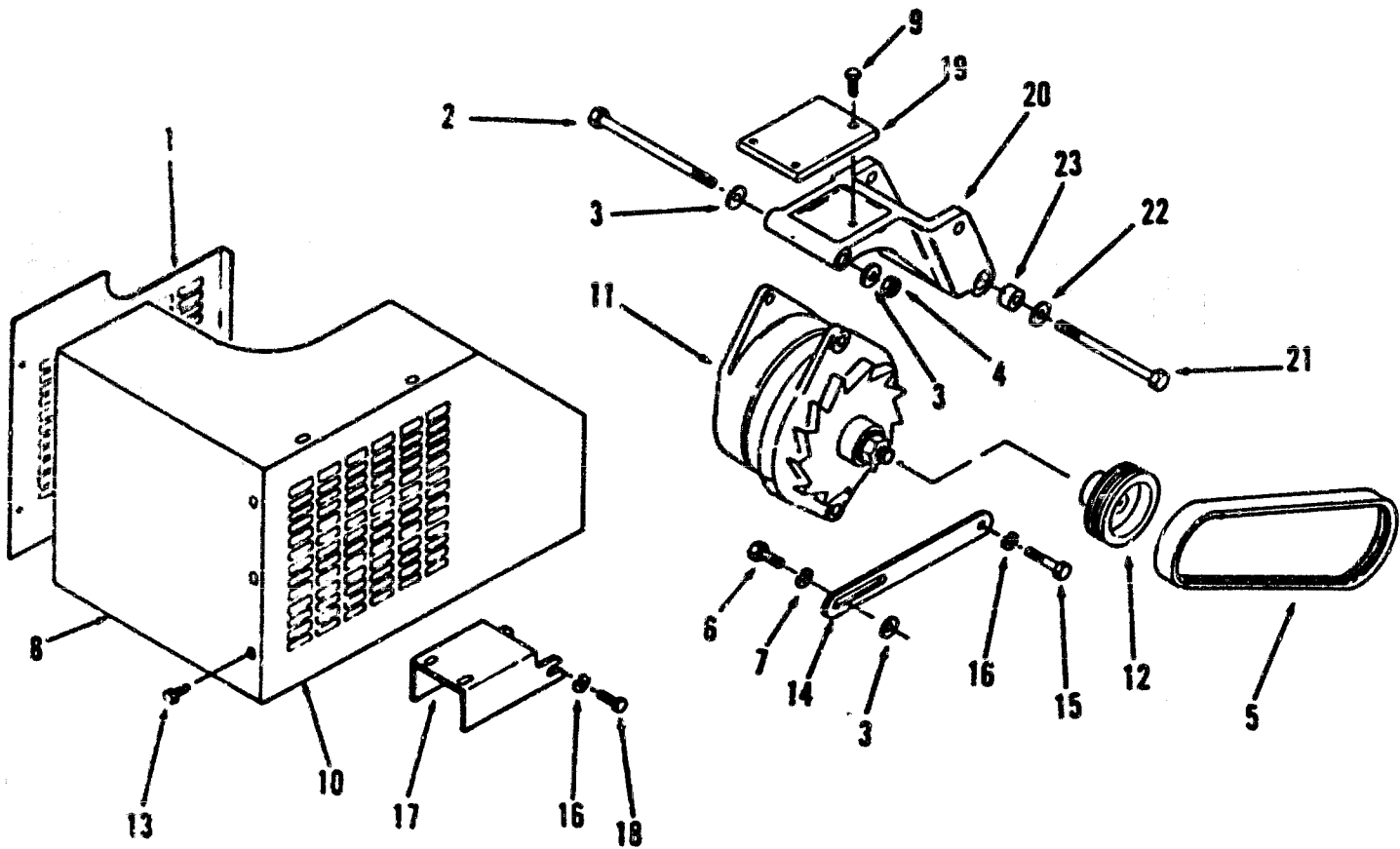
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                  | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                     |
|----------|----------|-----------|-------------------------------------------------------------------|----------|----------|-----------|--------------------------------------------------------------------------------------|
| 1        | 309-0436 | 1         | Switch, Thermostatic - High Water Temperature (PRE-ALARM) (216°F) | 24       | 856-0010 | 2         | (3/8-24 x 5/8") Washer, Lock - EIT (3/8")                                            |
| 2        | 505-0117 | 2         | Bushing, Reducer - Flush (1/2 NPT x 3/8 NPT)                      | 25       | 332-1292 | 1         | Terminal Assembly (Includes Replaceable Items 26 thru 29)                            |
| 3        | 309-0437 | 1         | Switch, Thermostatic - High Water Temperature (SHUTDOWN) (222°F)  | 26       | 809-0035 | 1         | Screw, Tapping - Round Head (#8 x 3/4")                                              |
| 4        | 338-2525 | 1         | Harness, Wiring - Engine to Control (Includes Replaceable Items)  | 27       | 508-0015 | 1         | Washer, Insulating                                                                   |
|          | 323-1306 | 1         | Housing, Connector - 8 Pin (Less Pins)                            | 28       | 870-0196 | 1         | Nut, Insulated                                                                       |
|          | 323-1200 | 8         | Pin, Contact                                                      | 29       | 332-1281 | 1         | Board, Terminal                                                                      |
|          | 323-1304 | 1         | Housing, Connector - 6 Pin (Less Pins)                            | 30       | 149-2232 | 2         | Filter, Fuel                                                                         |
|          | 323-1200 | 6         | Pin, Contact                                                      | 31       | 332-2634 | 6         | Clamp, J                                                                             |
| 5        | 193-0375 | 1         | Sender, Water Temperature                                         | 33       | 309-0436 | 1         | Switch, Thermostatic - High Water Temperature (PRE-ALARM) (216°F)                    |
| 6        | 505-0021 | 1         | Bushing, Reducer - Hex (3/4 NPT x 1/2 NPT)                        | 32       | 503-0028 | 2         | Cock, Drain                                                                          |
| 7        | 416-0446 | 2         | Cable, Battery - Jumper (12-1/2" LG)                              | 33       | 503-0183 | 1         | Clamp, Hose                                                                          |
|          | 416-0473 | 2         | Cable, Battery - Jumper (27" LG)                                  | 34       | 503-1731 | AR        | Hose, Bulk (Sold by the Foot) Two Feet Required                                      |
|          | 416-0964 | 2         | Cable, Battery (35" LG)                                           | 35       | 505-0324 | 1         | Nipple, Pipe - Half (3/4 NPT x 2" LG)                                                |
|          | 416-0639 | 2         | Cable, Battery (60" LG)                                           | 36       | 504-0171 | 1         | Valve, Shutoff - Brass (3/4 NPT)                                                     |
|          | 416-0680 | 3         | Cable, Electrical - Jumper (10" LG)                               | 37       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                                           |
| 8        | 309-0561 | 1         | Switch, Pressure - Oil, 14# PSI (SHUTDOWN) With Dual Terminals    | 38       | 505-0132 | 1         | Elbow, Pipe - 90° (3/4 NPT)                                                          |
| 9        | 193-0214 | 1         | Sender, Pressure, Oil                                             | 39       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                                           |
| 10       | 309-0272 | 1         | Switch, Pressure - Oil, 20# PSI (PRE-ALARM)                       | 40       |          |           | Filter, Water - W/Corrosion Inhibiting Chemical OCA4                                 |
| 11       | 505-0007 | 2         | Bushing, Reducer (1/4 NPT x 1/8 NPT)                              |          | 130-3538 | 2         | Service                                                                              |
| 12       | 503-0183 | 1         | Clamp, Hose                                                       |          | 130-3576 | 2         | Pre-Charging Complete System                                                         |
| 13       | 503-1731 | AR        | Hose, Bulk (Sold by the Foot) Three Feet Required                 | 41       | 309-0269 | 1         | Switch, Thermostatic - Low Engine Temperature                                        |
| 14       | 505-0324 | 1         | Nipple, Pipe - Half (3/4 NPT x 2" LG)                             | 42       | 800-0062 | 1         | Attaching Parts for Switch                                                           |
| 15       | 504-0171 | 1         | Valve, Shutoff - Brass (3/4 NPT)                                  | 43       | 850-0050 | 1         | Screw, Cap - Hex Head (3/8-16 x 4")                                                  |
| 16       | 505-0102 | 1         | Nipple, Pipe - Close (3/4 NPT x 1-3/8" LG)                        | 44       | 309-0437 | 1         | Washer, Lock-Spring (3/8")                                                           |
| 17       | 505-0132 | 1         | Elbow, Pipe - 90° (3/4 NPT)                                       | 45       | 505-0117 | 5         | Switch, Thermostatic - High Water Temperature (SHUTDOWN) (222°F)                     |
| 18       | 505-0021 | 1         | Bushing, Reducer (3/4 NPT x 1/2 NPT)                              | 46       | 501-0520 | 1         | Bushing, Reducer - Flush (1/2 NPT x 3/8 NPT)                                         |
| 19       | 505-0100 | 1         | Nipple, Pipe - Close (1 2 NPT x 1-1/8" LG)                        | 47       | 501-0524 | 1         | Line, Fuel - Flexible "FUEL OUT" (37° 7/8-14 Female Swivel x 3/4-14 Male x 50" LG)   |
| 20       | 102-1335 | 1         | Plug, Drain (Modified)                                            |          |          |           | Line, Fuel - Flexible "FUEL IN" (37° 1-5/16-12 Female Swivel x 1-11.5 Male x 50" LG) |
| 21       | 508-0292 | 1         | Washer, Sealing                                                   |          |          |           |                                                                                      |
| 22       | 122-0757 | 5         | Filter, Oil                                                       |          |          |           |                                                                                      |
| 23       | 800-0270 | 1         | Screw, Cap - Hex Head                                             |          |          |           |                                                                                      |

**Alternator  
45 AMP  
Spec. "F" to "G" - K38 and K50 Gensets**



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                              | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                            |
|----------|-------------|-----------|-----------------------------------------------|----------|-------------|-----------|---------------------------------------------|
| 1        | 130-3870    | 1         | Guard                                         | 15       | 191-2017    | 1         | Bracket                                     |
| 2        | 718-1067    | 1         | Screw, Cap Hex Head<br>(M10 x 1 5 x 90)       | 16       | 191-1990    | 1         | Support                                     |
| 3        | 191-1989-07 | 1         | Spacer                                        | 17       | 191-1983-02 | 1         | Alternator (45 Amp)                         |
| 4        | 821-0022    | 3         | Screw, Hex Head - Locking<br>(5/16-20 x 1 25) | 18       | 130-3868    | 1         | Guard                                       |
| 5        | 191-1981    | 1         | Fan                                           | 19       | 821-0018    | 21        | Screw, Hex Head, Locking<br>(1/4-20 x .62)  |
| 6        | 191-1984    | 1         | Pulley                                        | 20       | 191-2110    | 1         | Bracket                                     |
| 7        | 511-0119    | 1         | Belt, Vee                                     | 21       | 800-0071    | 1         | Screw, Hex Head - Locking<br>(7/16-14-1)    |
| 8        | 800-2058    | 1         | Screw, Cap Hex Head<br>(M8 x 1 25 x 25)       | 22       | 850-0055    | 2         | Washer, Lock (7/16")                        |
| 9        | 850-2008    | 1         | Washer, Lock (M8)                             | 23       |             |           | Bracket, Belt Guard                         |
| 10       | 526-0030    | 1         | Washer, Flat (3/8")                           |          | 130-3871-01 | 1         | DFJA, DFJB, DFJC, DFLA, DFLB,<br>DFLC, DFLO |
| 11       | 191-2021    | 1         | Bracket, Alternator                           |          | 130-3871-02 | 1         | DFMB                                        |
| 12       | 800-0500    | 2         | Screw, Cap Hex Head (7/16-14 x 5 50)          | 24       | 800-0069    | 1         | Screw, Cap Hex Head (7/16-14 x 75)          |
| 13       | 526-0342    | 2         | Washer, Flat (1/2")                           | 25       | 130-3869    | 1         | Guard, Belt                                 |
| 14       | 191-2023    | 2         | Sleeve                                        |          |             |           |                                             |

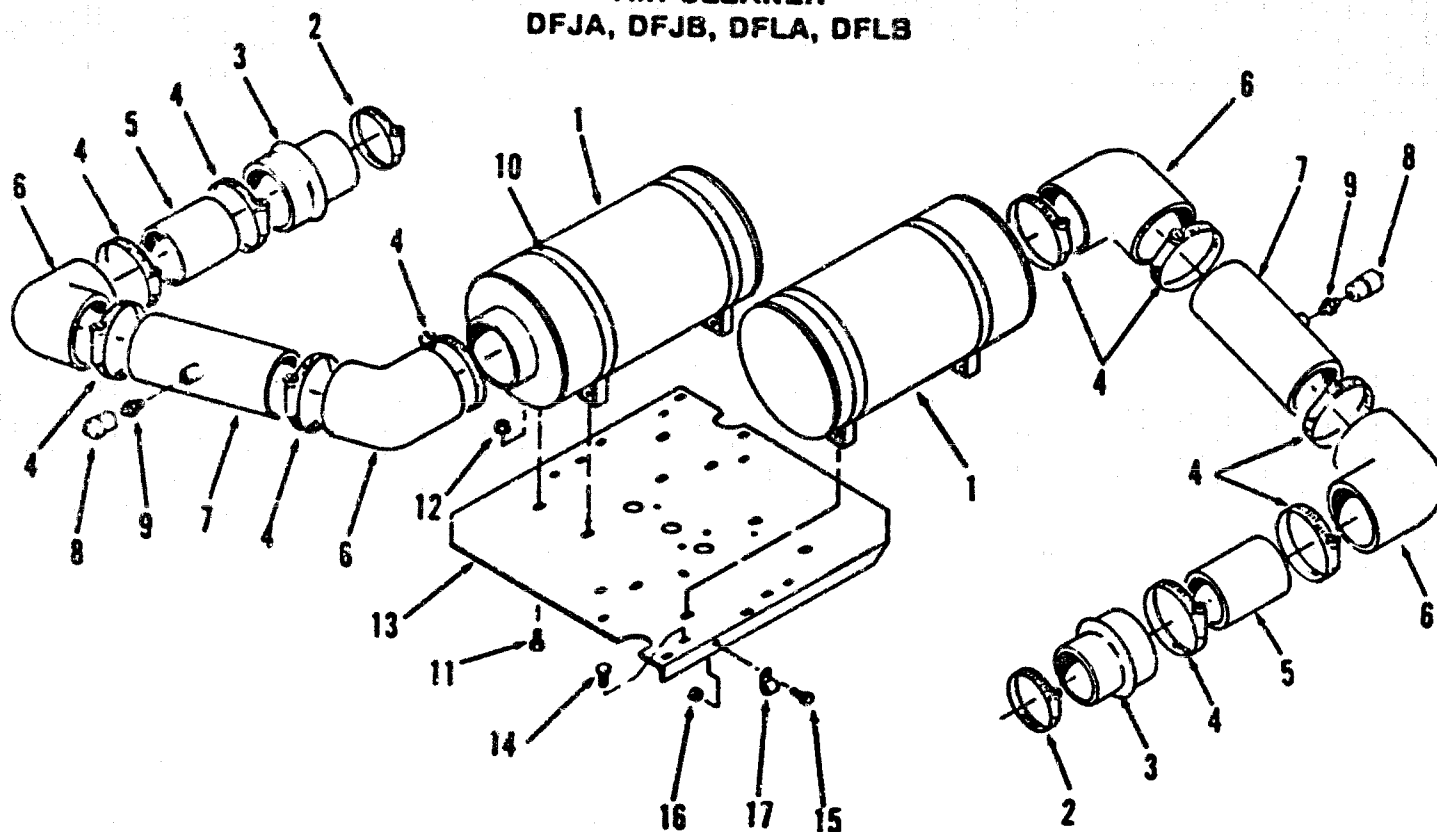
# Alternator 75 AMP



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                         |
|----------|-------------|-----------|------------------------------------------|
| 1        | 130-3870    | 1         | Cover, Belt Guard                        |
| 2        | 800-0237    | 1         | Screw, Cap Hex Head (1/2-20 x 6.50)      |
| 3        | 528-0353    | 3         | Washer, Flat (1/2")                      |
| 4        | 870-0452    | 1         | Nut, Lock (1/2-20)                       |
| 5        | 511-0161-02 | 1         | Belt (Poly-V 5 Rib)                      |
| 6        | 800-0092    | 1         | Screw, Cap Hex Head, (1/2-13 x 1.5)      |
| 7        | 850-0060    | 1         | Washer, Lock (1/2")                      |
| 8        | 130-3869    | 1         | Guard                                    |
| 9        | 821-0030    | 1         | Screw, Hex Head - Locking (3/8-16 x 1)   |
| 10       | 130-3868    | 1         | Bracket                                  |
| 11       | 191-1926-02 | 1         | Alternator (75 Amp)                      |
| 12       | 191-2112    | 1         | Pulley                                   |
| 13       | 821-0018    | 21        | Screw, Hex Head - Locking (1/4-20 x .62) |

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                                   |
|----------|-------------|-----------|--------------------------------------------------------------------|
| 14       | 191-1942    | 1         | Bracket                                                            |
| 15       | 800-0074    | 1         | Screw, Cap Hex Head (7/16-14 x 1.75)                               |
| 16       | 850-0055    | 2         | Washer, Lock (7/16")                                               |
| 17       | 130-3871-01 | 1         | Bracket, Bell Guard<br>DFJA, DFJB, DFJC, DFLA, DFLB,<br>DFLC, DFLD |
|          | 130-3871-02 | 1         | DFMB                                                               |
| 18       | 800-0089    | 1         | Screw, Cap Hex Head (7/16-14 x .75)                                |
| 19       | 191-2111    | 1         | Bracket - Alternator                                               |
| 20       | 191-2109    | 1         | Support - Alternator                                               |
| 21       | 800-0500    | 2         | Screw, Cap Hex Head (7/16-14 x 5.50)                               |
| 22       | 528-0342    | 2         | Washer, Flat (1/2")                                                |
| 23       | 191-2023    | 2         | Sleeve                                                             |

# **AIR CLEANER** **DFJA, DFJB, DFLA, DFLB**

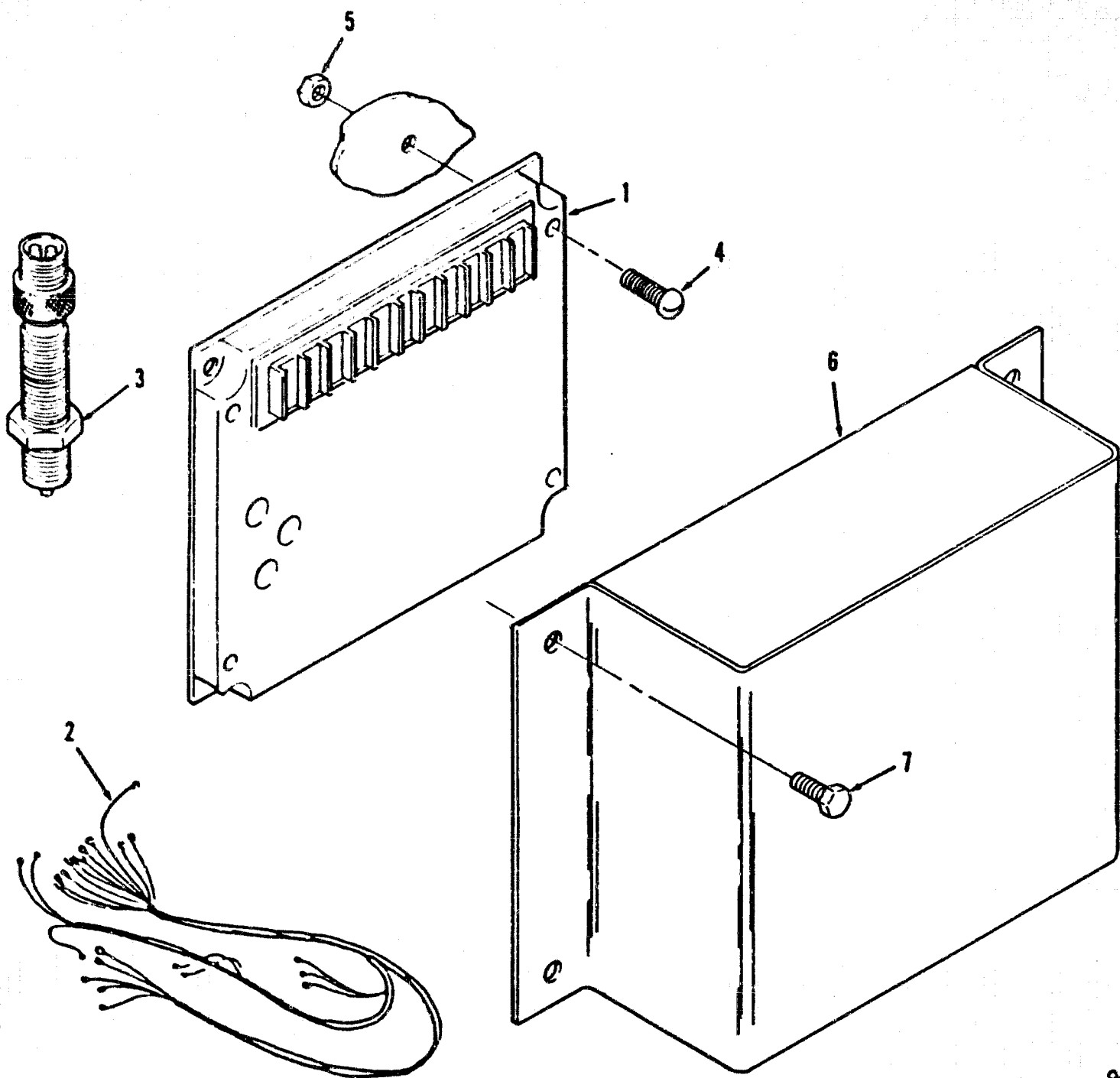


| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION        |
|----------|-------------|-----------|-------------------------|
| 1        | 140-2501    | 2         | Air Cleaner             |
| 2        | 503-1870-11 | 2         | Clamp, Hose             |
| 3        | 503-1675    | 2         | Hose, Reducer           |
| 4        | 503-1870-14 | 10        | Clamp, Hose             |
| 5        | 140-2519    | 2         | Tube, Air Inlet         |
| 6        | 503-0970    | 4         | Elbow (90°)             |
| 7        |             |           | Tube Assy - Air Inlet   |
|          | 140-2521    | 2         | DFLA, DFLB              |
|          | 140-2509    | 2         | DFJA, DFJB              |
| 8        | 140-1548    | 2         | Indicator, Service      |
| 9        | 140-1260    | 2         | Fitting - Safety Filter |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                         |
|----------|----------|-----------|------------------------------------------|
| 10       | 140-2502 | 4         | Band                                     |
| 11       | 821-0030 | 8         | Screw, Locking, Hex Head (3/8-16 x 1.00) |
| 12       | 870-0281 | 8         | Nut, Locking, Hex (3/8-16)               |
| 13       | 140-2515 | 1         | Bracket                                  |
| 14       | 821-0033 | 8         | Screw, Locking Hex Head (7/16-14 x .75)  |
| 15       | 821-0018 | 2         | Screw, Locking Hex Head (1/4-20 x .63)   |
| 16       | 870-0212 | 2         | Nut, Locking, Hex (1/4-20)               |
| 17       | 332-2634 | 2         | Clamp-J                                  |

**No Replaceable Element**

# Electronic Governor

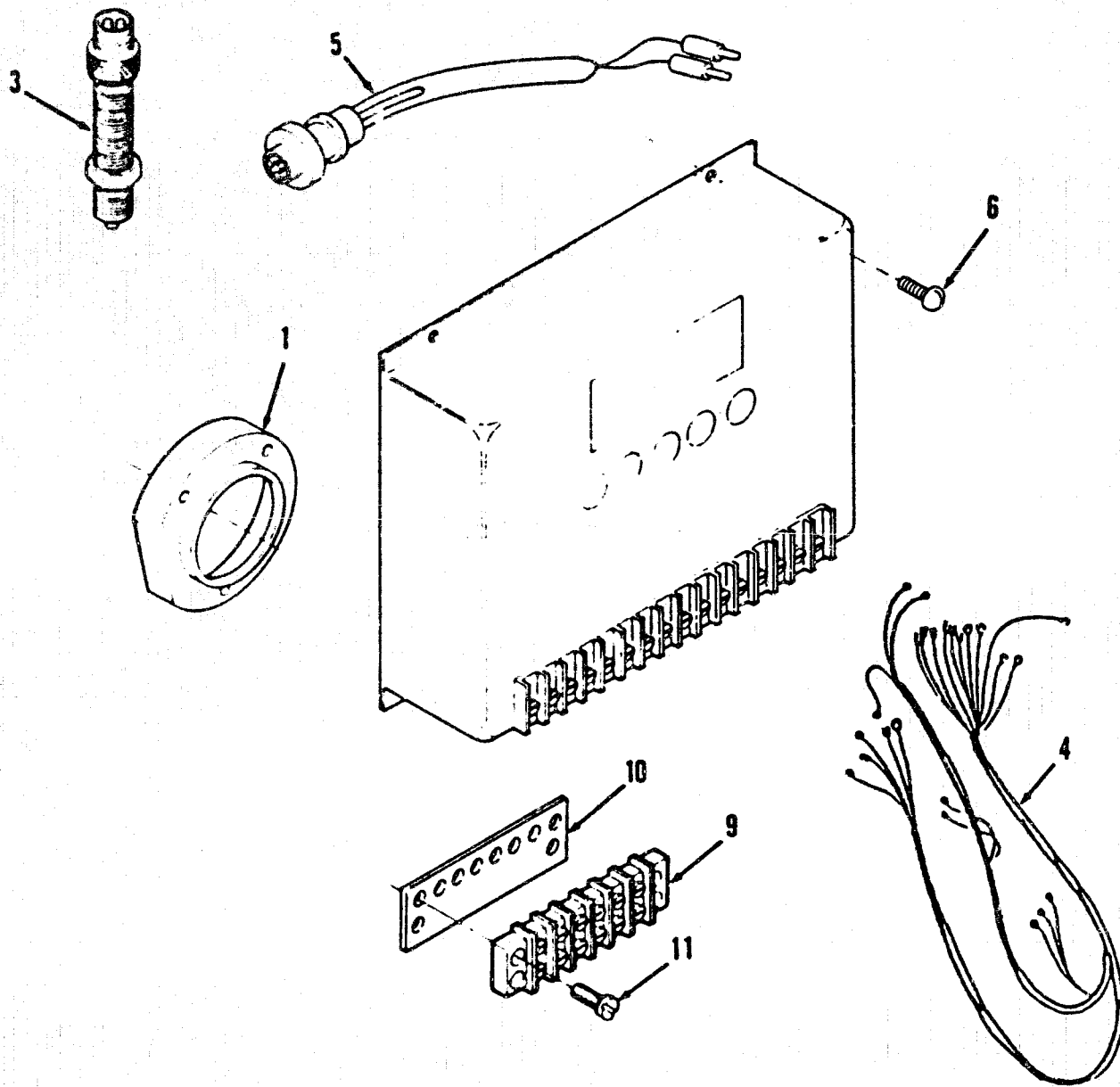


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| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                               |
|----------|----------|-----------|------------------------------------------------|
| 1        | 151 0637 | 1         | Control, Governor                              |
| 2        | 338 2526 | 1         | Harness, Wiring - Governor Control             |
| 3        | 151 0411 | 1         | Pickup, Magnetic                               |
| 4        | 813 0130 | 4         | Screw, Machine - Round Head<br>(#10 32 x 3.4') |

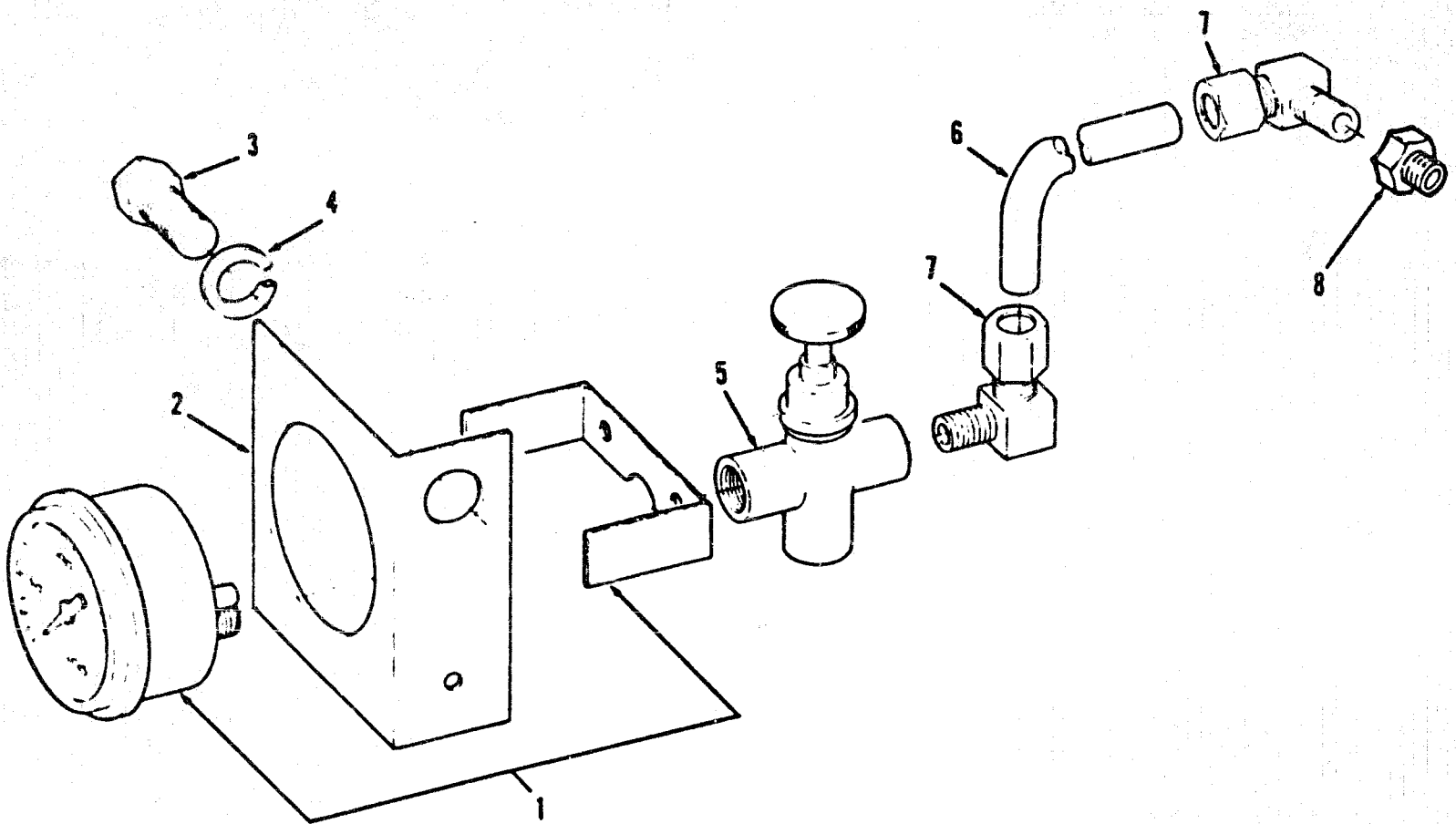
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                             |
|----------|----------|-----------|----------------------------------------------|
| 5        | 850-0030 | 4         | Washer, Lock (#10)                           |
| 6        | 150-2213 | 1         | Cover, Control                               |
| 7        | 821-0010 | 4         | Screw, Locking - Hex Head<br>(1/4-20 x 1/2") |

# Woodward Governor



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                         | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                            |
|----------|----------|-----------|----------------------------------------------------------|----------|----------|-----------|---------------------------------------------|
| 1        | 149-2287 | 1         | Plug - Fuel Pump Mod.                                    | 9        | 332-0699 | 1         | Screw, Machine - Round Head (#10-32 x 3/4") |
| 3        | 151-0411 | 1         | Pickup, Magnetic                                         | 10       | 332-0970 | 1         | Block, Terminal (6 Place)                   |
| 4        | 338-2526 | 1         | Harness, Wiring - Governor Control                       | 11       | 822-1050 | 2         | Strip, Marker (6 Place)                     |
| 5        | 338-2538 | 1         | Harness, Adapter - Wood Governor to Engine Harness (12") |          |          |           | Screw, Machine - Pan Head (#8-32 x 3/4")    |

# Fuel Pressure Gauge



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                             | REF. NO.    | PART NO. | QTY. USED              | PART DESCRIPTION                                    |
|----------|----------|-----------|----------------------------------------------|-------------|----------|------------------------|-----------------------------------------------------|
| 1        | 193-0128 | 1         | Gauge, Pressure (Includes Mounting Hardware) | 149-2291-01 | 1        | DFJA, DFJB, DFJC       |                                                     |
| 2        | 193-0029 | 1         | Bracket, Mounting                            | 149-2291-02 | 1        | DFLA, DFLB, DFLE, DFMD |                                                     |
| 5        | 504-0064 | 1         | Valve                                        | 7           | 502-0034 | 2                      | Elbow, Compression - 90°<br>(Includes Nut and Ring) |
| 6        |          |           | Tube, Copper                                 | 8           | 505-0007 | 1                      | Bushing, Reducer (1/4 to 1/8)                       |

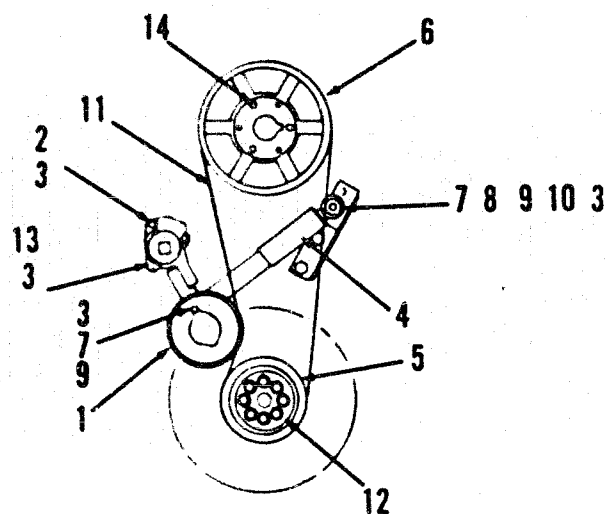


This technical drawing is an exploded view of a vehicle wheel and hub assembly. The components are labeled with numbers 1 through 61. The main assembly includes a wheel rim (6) with spokes (32), a hub (1), and a brake drum (36) with a brake shoe (37). The hub is shown with various mounting points (11, 13, 14, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 33, 34, 35, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61) and a brake drum (36) with a brake shoe (37). The diagram shows the assembly of the wheel rim, hub, and brake drum, including various mounting points and fasteners.

**Radiator**  
**DFLA, DFLB, DFCL, DFLL, DFMB**  
**Spec. H**

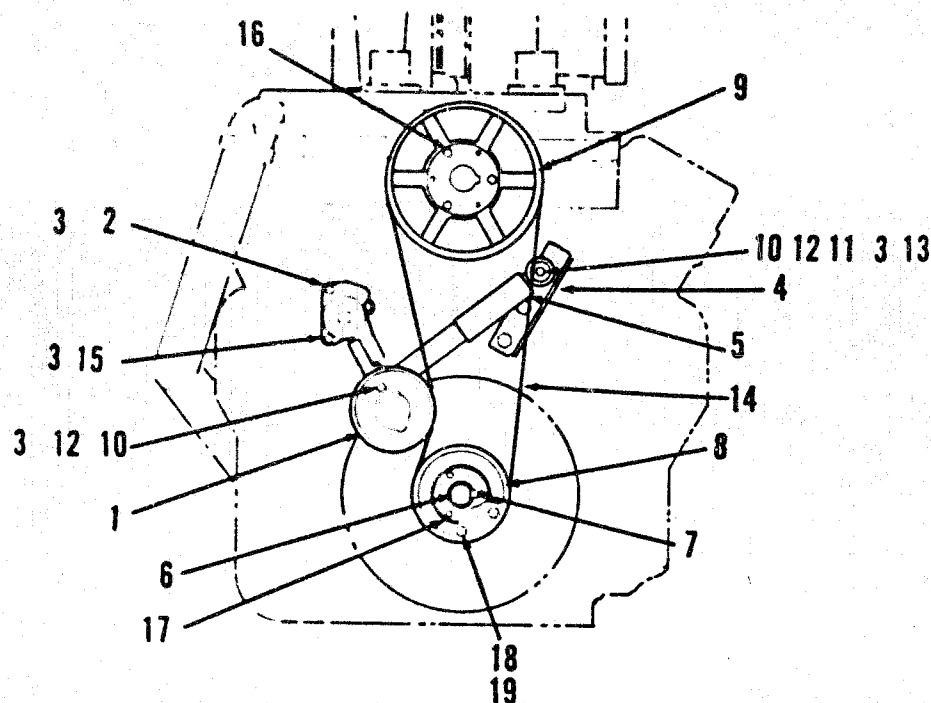
| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                          | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                |
|----------|-------------|-----------|-------------------------------------------|----------|-------------|-----------|-------------------------------------------------|
| 1        |             |           | Radiator                                  | 31       | 526-0112    | 6         | Washer, Flat (5/8")                             |
|          | 130-3616    | 1         | DFLA, DFLB, DFCL, DFLL                    | 32       | 850-0070    | 10        | Washer, Lock (5/8")                             |
|          | 130-3758    | 1         | DFMB                                      | 33       | 862-0007    | 12        | Nut, Hex (5/8-11)                               |
| 2        | 130-3642    | 2         | Spacer                                    | 34       | 815-0384    | 12        | Screw, Self Tapping Hex (3/8-16 x .75)          |
| 3        | 130-3639    | 2         | Bracket, Radiator Support                 | 35       | 870-0281    | 21        | Nut, Lock (3/8-16)                              |
| 4        | 130-3643    | 2         | Support, Radiator                         | 36       | 130-3647-01 | 1         | Guard, Fan (RH)                                 |
| 5        | 130-3644    | 2         | Support                                   | 37       | 130-3647-02 | 1         | Guard, Fan (LH)                                 |
| 6        | 130-3651    | 1         | Fan Shroud Assembly                       | 38       | 503-1730    | 1         | Hose, Radiator                                  |
|          | 130-4215    | 2         | Bearing                                   | 39       | 800-0132    | 6         | Screw, Cap Hex Head (5/8-11 x 1.50)             |
|          | 130-4216    | 1         | Shaft                                     | 40       | 505-1429    | 1         | Nipple - Combination (1.50 Dia.)                |
| 7        | 503-1872-02 | 2         | Clamp, Hose                               | 41       | 505-0183    | 1         | Elbow 90° Reducer                               |
| 8        | 503-1726    | 2         | Hose, Radiator, (5.00 Dia.)               | 42       | 870-0212    | 8         | Nut, Lock (1/4-20)                              |
| 9        | 503-1872-10 | 4         | Clamp, Hose                               | 43       | 821-0014    | 16        | Screw, Hex Head - Locking (5/16-18 x .50)       |
| 10       | 130-3650    | 1         | Tube, Inlet (5.00 Dia.)                   | 44       | 130-3827    | 2         | Grille                                          |
| 11       |             |           | Tube, Inlet (3.00 Dia.)                   | 45       | 130-3826    | 2         | Support - Grille                                |
|          | 130-3648    | 2         | DFCL, DFLL, DFMB                          | 46       | 130-3825    | 4         | Plate                                           |
|          | 130-3649    | 2         | DFLA, DFLB                                | 47       | 130-3663    | 2         | Support - Grille (Top)                          |
| 12       | 503-1728    |           | Hose, Radiator                            | 48       | 130-3662    | 2         | Support - Grille (Bottom)                       |
|          |             | 2         | DFCL, DFLL, DFMB                          | 49       | 332-3008    | 8         | Cable - Tie                                     |
|          |             | 4         | DFLA, DFLB                                | 50       | 130-3675    | 1         | Guard, Belt (LH)                                |
| 13       |             |           | Line, Flex                                | 51       | 130-3677    | 1         | Guard, Belt (Top)                               |
|          | 501-0559    | 2         | DFLA, DFLB                                | 52       | 130-3676    | 1         | Guard, Belt (RH)                                |
|          | 501-0558    | 1         | DFCL, DFLL, DFMB                          | 53       | 130-3672    | 1         | Guard, Belt (Bottom)                            |
| 14       | 503-1872-05 |           | Clamp, Hose                               | 54       |             |           | Angle, Engine                                   |
|          |             | 8         | DFCL, DFLL, DFMB                          |          | 130-3779    | 1         | DFLA, DFLB                                      |
|          |             | 6         | DFLA, DFLB                                |          | 130-3777    | 1         | DFCL, DFLL, DFMB                                |
| 15       | 800-0051    | 4         | Screw, Cap Hex Head (3/8-16 x 1.25)       | 55       | 505-0011    | 2         | Elbow, Street (90°) DFLA, DFLB                  |
| 16       | 821-0030    | 27        | Screw, Hex Head - Locking (3/8-16 x 1.00) | 56       | 503-1727    | 2         | Hose, Radiator (3.00 Dia.) DFCL, DFLL, DFMB     |
| 17       | 850-0048    |           | Washer, Lock (3/8")                       | 57       | 403-3278    | 1         | Brace, Fan                                      |
|          |             | 4         | DFLA, DFLB                                | 58       | 403-3277    | 1         | Brace, Fan                                      |
|          |             | 6         | DFCL, DFLL, DFMB                          | 59       | 800-0585    | 2         | Screw, Cap Hex Head (3/8-16 x 3.50) DFLA, DFLB  |
| 18       | 821-0010    | 21        | Screw, Hex Head - Locking (1/4-20 x .50)  | 60       | 503-1870-05 | 2         | Clamp, Hose - DFLA, DFLB                        |
| 19       | 403-2733-02 | 4         | Washer, Bevel (3/8")                      | 61       | 505-0017    | 2         | Bushing, Reducer (3/8" x 1/4") DFCL, DFLL, DFMB |
| 20       | 800-0093    | 4         | Screw, Cap Hex Head (1/2-13 x 1.75)       |          |             |           |                                                 |
| 21       | 800-0092    | 12        | Screw, Cap Hex Head (1/2-13 x 1.50)       |          |             |           |                                                 |
| 22       | 800-0091    | 4         | Screw, Cap Hex Head (1/2-13 x 1.25)       |          |             |           |                                                 |
| 23       | 800-0094    | 6         | Screw, Cap Hex Head (1/2-13 x 2)          |          |             |           |                                                 |
| 24       | 850-0060    | 26        | Washer, Lock (1/2")                       |          |             |           |                                                 |
| 25       | 526-0219    | 48        | Washer, Flat (1/2")                       |          |             |           |                                                 |
| 26       | 403-2733-01 | 4         | Washer, Bevel (1/2")                      |          |             |           |                                                 |
| 27       | 862-0016    | 26        | Nut, Hex (1/2-13)                         |          |             |           |                                                 |
| 28       |             |           | Angle, Stiffener                          |          |             |           |                                                 |
|          | 130-3776    | 1         | DFLA, DFLB                                |          |             |           |                                                 |
|          | 130-3780    | 2         | DFCL, DFLL, DFMB                          |          |             |           |                                                 |
| 29       | 505-0219    | 1         | Nipple (1-1/4" x 4-1/2")                  |          |             |           |                                                 |
| 30       | 800-0305    | 6         | Screw, Cap Hex Head (5/8-11 x 13)         |          |             |           |                                                 |

**Fan Drive**  
**DFLA, DFLB, DFLLC, DFLD**



| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                          | REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                             |
|-------------|-------------|--------------|----------------------------------------------|-------------|-------------|--------------|-------------------------------------------------|
| 1           | 130-3668    | 1            | Idler Assembly - Fan                         | 8           | 130-3660    | 1            | Spacer, Shock                                   |
| 2           | 800-0500    | 2            | Screw, Cap Hex Head (7/16-14 x 5.50)<br>Gr 8 | 9           | 526-0141    | 2            | Washer, Flat (7/16")                            |
| 3           | 800-0055    | 5            | Washer, Lock (7/16")                         | 10          | 862-0034    | 1            | Nut, Hex (7/16")                                |
| 4           | 402-0612    | 1            | Absorber - Shock                             | 11          | 511-0161-12 | 1            | Belt, V-Ribbed (Prime Power)                    |
| 5           | 130-3812    | 1            | Pulley - Fan (Dia. -7.4)                     | 12          | 815-0769-01 | 8            | Screw, 12 Point Cup                             |
| 6           | 130-3654    | 1            | Pulley - Fan (Dia. -12.0)                    | 13          | 800-0580    | 1            | Screw, Cap Hex Head<br>(7/16 x 14 x 1.62) Gr. 8 |
| 7           | 800-0078    | 2            | Screw, Cap Hex Head (7/16 x 2.75)            | 14          | 130-3652    | 1            | Bushing (2.188 ID)                              |

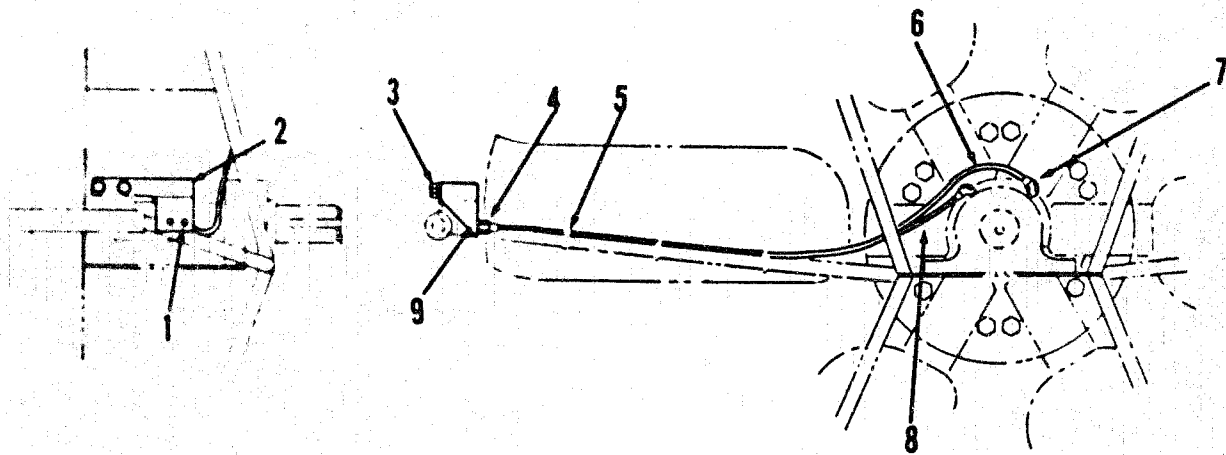
# Fan Drive DFMB



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                          |
|----------|----------|-----------|-------------------------------------------|
| 1        | 130-3668 | 1         | Idler Assembly - Fan                      |
| 2        | 800-0500 | 2         | Screw, Hex Head (7/16-14 x 5.50)<br>Gr. 8 |
| 3        | 800-0055 | 5         | Washer, Lock (7/16")                      |
| 4        | 130-3657 | 1         | Bracket, Shock Mtg.                       |
| 5        | 402-0612 | 1         | Absorber, Shock                           |
| 6        | 130-3757 | 1         | Shaft, Fan Drive                          |
| 7        | 515-0220 | 1         | Key, 1/2 x 1/2 x 3                        |
| 8        | 130-3654 | 1         | Pulley (12 Dia.)                          |
| 9        | 130-3655 | 1         | Pulley (7 4 Dia.)                         |
| 10       | 800-0078 | 1         | Screw, Hex Head (7/16-14 x 2.75)          |

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                              |
|----------|-------------|-----------|-----------------------------------------------|
| 11       | 130-3660    | 1         | Spacer                                        |
| 12       | 528-0141    | 2         | Washer, Flat (7/16")                          |
| 13       | 862-0034    | 1         | Nut, Hex (7/16")                              |
| 14       | 511-0161-03 | 1         | Belt, V-Ribbed                                |
| 15       | 130-3652    | 1         | Bushing (2.188 ID)                            |
| 16       | 800-0580    | 1         | Screw, Cap Hex Head (7/16-14 x 1.62)<br>Gr. 8 |
| 17       | 130-3653    | 1         | Bushing (2.00 ID)                             |
| 18       | 800-0092    | 6         | Screw, Cap Hex Head (1/2-13 x .50)            |
| 19       | 850-0060    | 6         | Washer, Lock (1/2")                           |

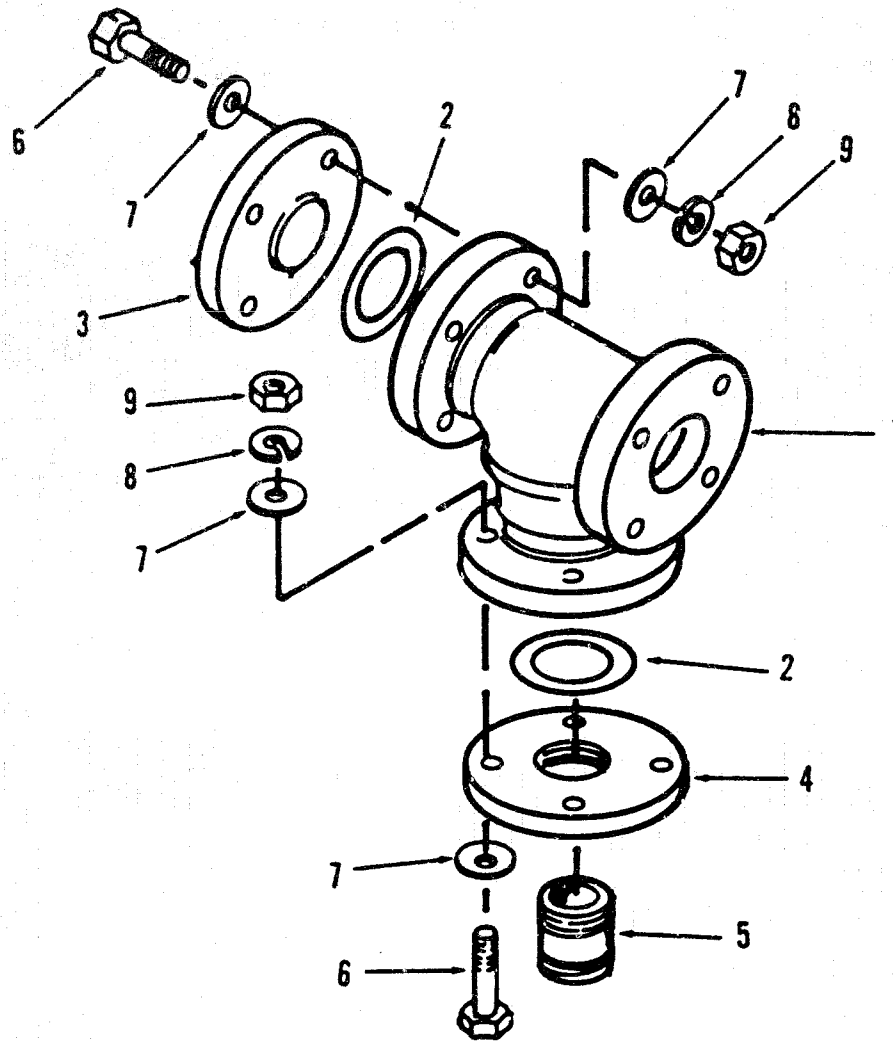
**Fan Lube**  
**DFLA, DFLB, DFLC, DFLD, DFMB**



| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                          |
|-------------|-------------|--------------|----------------------------------------------|
| 1           | 518-0064    | 2            | Fitting, Grease                              |
| 2           | 130-3728    | 1            | Bracket                                      |
| 3           | 821-0014    | 2            | Screw, Hex Head - Locking<br>(5/16-18 x .50) |
| 4           | 505-1435    | 2            | Connector - Female (1/8 NPT)                 |

| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION         |
|-------------|-------------|--------------|-----------------------------|
| 5           | 332-1389    | 4            | Cable, Tie                  |
| 6           | 503-1743-01 | 1            | Hose, Grease (37")          |
| 7           | 505-1436    | 2            | Connector - Elbow (1/8 NPT) |
| 8           | 503-1743-02 | 1            | Hose, Grease (35")          |
| 9           | 526-0346    | 2            | Washer, Flat                |

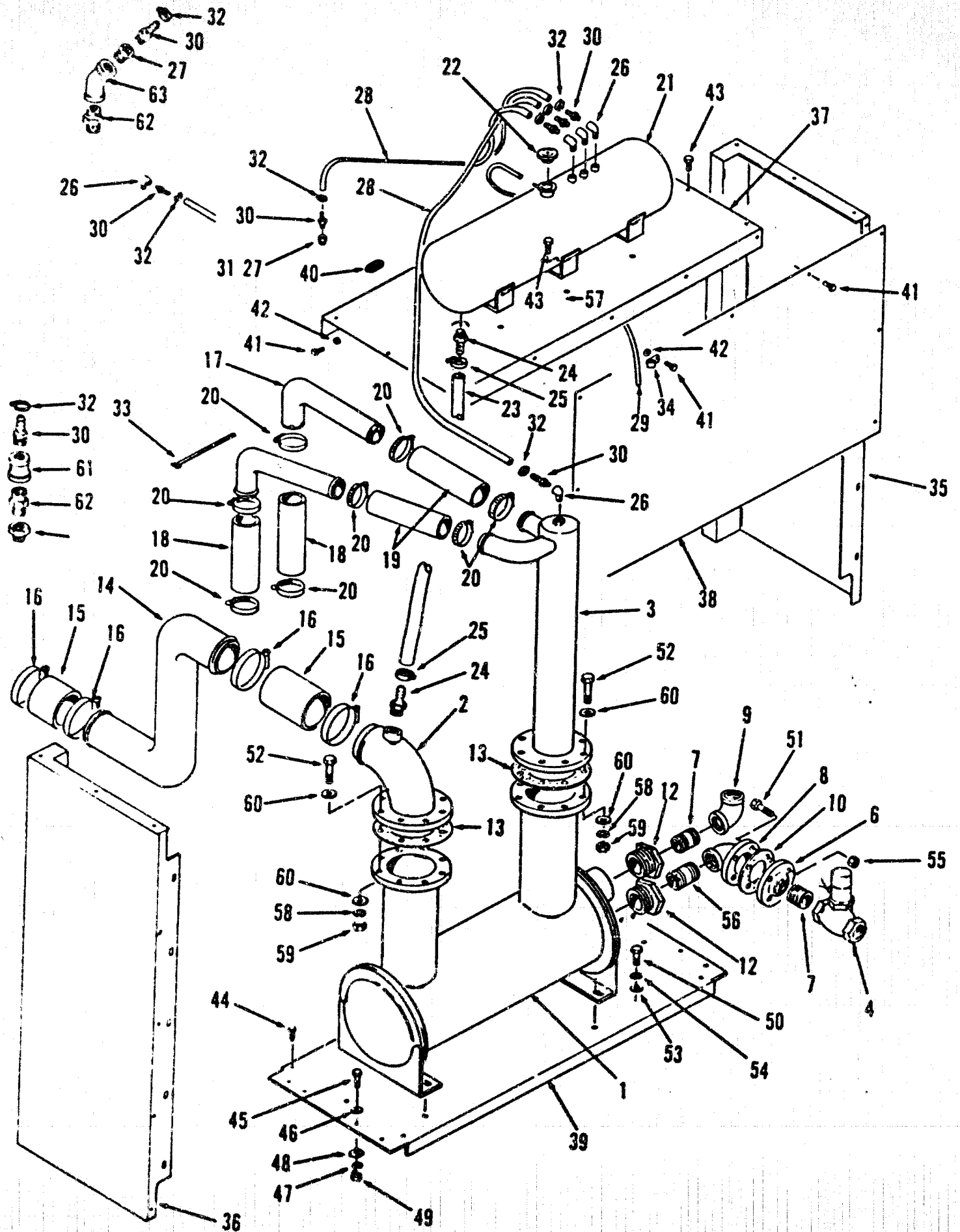
# Thermostatic Valve



| REF. NO. | PART NO.  | QTY. USED | PART DESCRIPTION                 |
|----------|-----------|-----------|----------------------------------|
| 1        | 0309-0607 | 1         | Valve - Thermostatic             |
| 2        | 0155-2514 | 2         | Gasket - Flange                  |
| 3        | 0505-1440 | 1         | Flange - Blind                   |
| 4        | 0155-0899 | 1         | Flange, Companion                |
| 5        | 0505-0103 | 1         | Nipple, Pipe (2-1/2 NPT x 2-1/2) |

| REF. NO. | PART NO.  | QTY. USED | PART DESCRIPTION             |
|----------|-----------|-----------|------------------------------|
| 6        | 0800-0138 | 8         | Screw, Hex Head (5/8-11 x 3) |
| 7        | 0526-0112 | 16        | Washer, Flat (5/8)           |
| 8        | 0850-0070 | 8         | Washer, Lock (5/8)           |
| 9        | 0862-0007 | 8         | Nut, Hex (5/8-11)            |

# Heat Exchanger

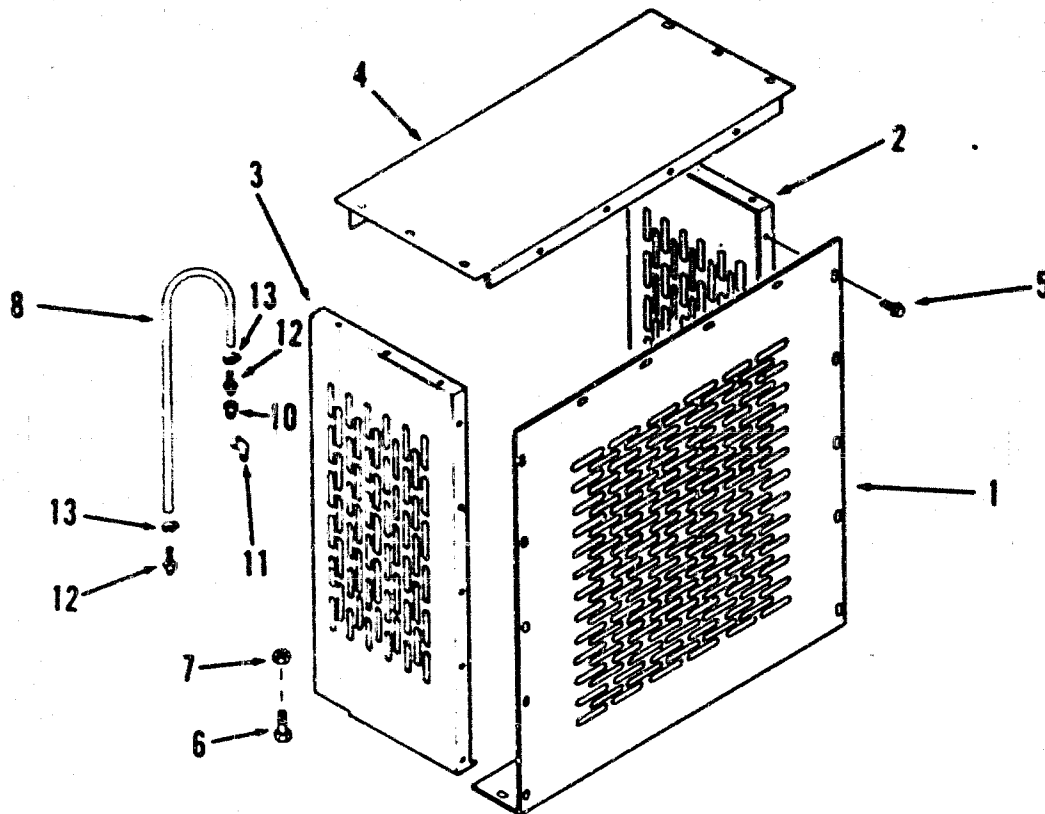


# Heat Exchanger

| REF. NO. | PART NO.     | QTY. USED | PART DESCRIPTION                               | REF. NO. | PART NO.     | QTY. USED | PART DESCRIPTION                                  |
|----------|--------------|-----------|------------------------------------------------|----------|--------------|-----------|---------------------------------------------------|
| 1        | 0130-3772    | 1         | Heat Exchanger                                 | 33       | 0332-1389    | 12        | Tie, Cable                                        |
| 2        | 1130-3773    | 1         | Elbow - Outlet, Heat Exchanger                 | 34       | 0332-2634    | 4         | Clamp-J                                           |
| 3        | 0130-3774    | 1         | Manifold - Inlet, Heat Exchanger               | 35       | 0130-3592-02 | 1         | Guard - Radiator                                  |
| 4        | 0307-2711    | 1         | Valve - Solenoid (24V)                         | 36       | 0130-3592-01 | 1         | Guard - Radiator                                  |
| 6        | 0155-0899    | 1         | Flange - Companion                             | 37       | 0130-3769    | 1         | Panel, Top - Heat Exchanger                       |
| 7        | 0505-0103    | 2         | Nipple (2-1/2" NPT x 2-1/2")                   | 38       | 0130-3767    | 1         | Panel, Front - Heat Exchanger                     |
| 8        | 0505-1442    | 1         | Elbow - 90° Flange                             | 39       | 0130-3770    | 1         | Base, Heat Exchanger                              |
| 9        | 0505-0044    | 1         | Elbow - 90° (2-1/2" NPT)                       | 40       | 0508-0051    | 1         | Grommet                                           |
| 10       | 0155-2514    | 1         | Gasket                                         | 41       | 0821-0018    | 15        | Screw, Hex Head - Locking<br>(5/16-18 x .750)     |
| 12       | 0505-1441    | 2         | Bushing, Hex (4 NPT x 2-1/2" NPT)              | 42       | 0870-0257    | 6         | Nut, Self Locking (5/16")                         |
| 13       | 0155-2503    | 2         | Gasket, Exhaust                                | 43       | 0821-0029    | 12        | Screw, Hex Head - Locking<br>(3/8"-16 x .750)     |
| 14       | 0130-3765    | 1         | Tube, Heat Exchanger Outlet                    | 44       | 0821-0033    | 6         | Screw, Hex Head - Locking<br>(7/16-14 x .750)     |
| 15       | 0503-1726    | 2         | Hose, Radiator                                 | 45       | 0800-0094    | 6         | Screw, Cap Hex Head (1/2-13 x 2)                  |
| 16       | 0503-1872-10 | 4         | Clamp, Hose                                    | 46       | 0526-0219    | 6         | Washer, Flat (1/2")                               |
| 17       | 0130-3764    | 2         | Tube, Heat Exchanger Inlet                     | 47       | 0850-0060    | 6         | Washer, Lock (1/2")                               |
| 18       | 0503-1762    | 2         | Hose, (3" ID x 8.50" LG)                       | 48       | 0403-2733-01 | 6         | Washer, Bevel (1/2")                              |
| 19       | 0503-1763    | 2         | Hose, (3" ID x 13.25" LG)                      | 49       | 0862-0160    | 16        | Screw, Cap Hex Head (3/4-10 x 3.25)               |
| 20       | 0503-1872-05 | 8         | Clamp, Hose                                    | 50       | 0862-0016    | 6         | Nut, Hex (1/2-13)                                 |
| 21       | 0130-3766    | 1         | Tank, Expansion                                | 51       | 0800-0133    | 4         | Screw, Cap Hex Head (5/8-11 x 1.75)               |
| 22       | 0130-0449    | 1         | Cap, Radiator                                  | 52       | 0800-0135    | 4         | Screw, Cap Hex Head (5/8-11 x 2.25)               |
| 23       | 0503-1764    | 1         | Hose, Flex (1-1/2" ID x 30" LG)                | 53       | 0526-0112    | 4         | Washer, Flat (5/8")                               |
| 24       | 0505-1429    | 2         | Nipple                                         | 54       | 0850-0070    | 4         | Washer, Lock (5/8")                               |
| 25       | 0503-1872-02 | 2         | Clamp, Hose                                    | 55       | 0862-0007    | 4         | Nut, Hex (5/8-11)                                 |
| 26       | 0505-0011    | 4         | Elbow, Street 1/4"                             | 56       | 505-0114     | 1         | Nipple (2.5 x 3.0 LG)                             |
|          |              | 6         | DFJC, DFJD                                     | 57       | 0870-0281    | 6         | Nut, Lock (3/8-16)                                |
|          |              | 6         | DFJA, DFJB, DFLA, DFLB                         | 58       | 0850-0079    | 16        | Washer, Lock (3/4")                               |
|          |              | 3         | DFLC, DFLO, DFMB                               | 59       | 0862-0008    | 16        | Nut, Hex (3/4-10)                                 |
| 27       | 0505-0017    |           | Bushing - Reducer - DFMB                       | 60       | 0526-0027    | 16        | Washer, Flat (3/4")                               |
| 28       | 0503-1620    | 1         | Hose (.38" ID x 160" LG)                       | 61       | 505-0153     | 2         | Coupler, Reducer                                  |
| 29       | 0503-1418    | 1         | Hose (.25" ID x 100 LG)                        |          |              | 2         | DFJC, DFLO                                        |
| 30       | 0502-1162    | 6         | Connector, Hose                                |          |              | 1         | DFLC, DFLO, DFMB                                  |
|          |              | 6         | DFJA, DFJB, DFJC, DFJD, DFLA, DFLB             | 62       | 309-0635-02  | 2         | Valve, Check - DFJA, DFJB, DFJC, DFJD, DFLA, DFLB |
|          |              | 4         | DFMB                                           | 63       | 505-0376     | 2         | Elbow, 3/8 x 45°                                  |
| 31       | 0505-0020    | 2         | Bushing, Reducer (3/4 NPT x 1/4 NPT)           |          |              | 1         | DFJA, DFJB, DFLA, DFLB                            |
|          |              |           | DFJC, DFJD                                     |          |              | 1         | DFLC, DFLO, DFMB                                  |
| 32       | 0503-0685    | 7         | Clamp, Hose                                    |          |              |           |                                                   |
|          |              | 7         | DFJA, DFJB, DFJC, DFJD, DFLA, DFLB, DFJC, DFLO |          |              |           |                                                   |
|          |              | 5         | DFMB                                           |          |              |           |                                                   |

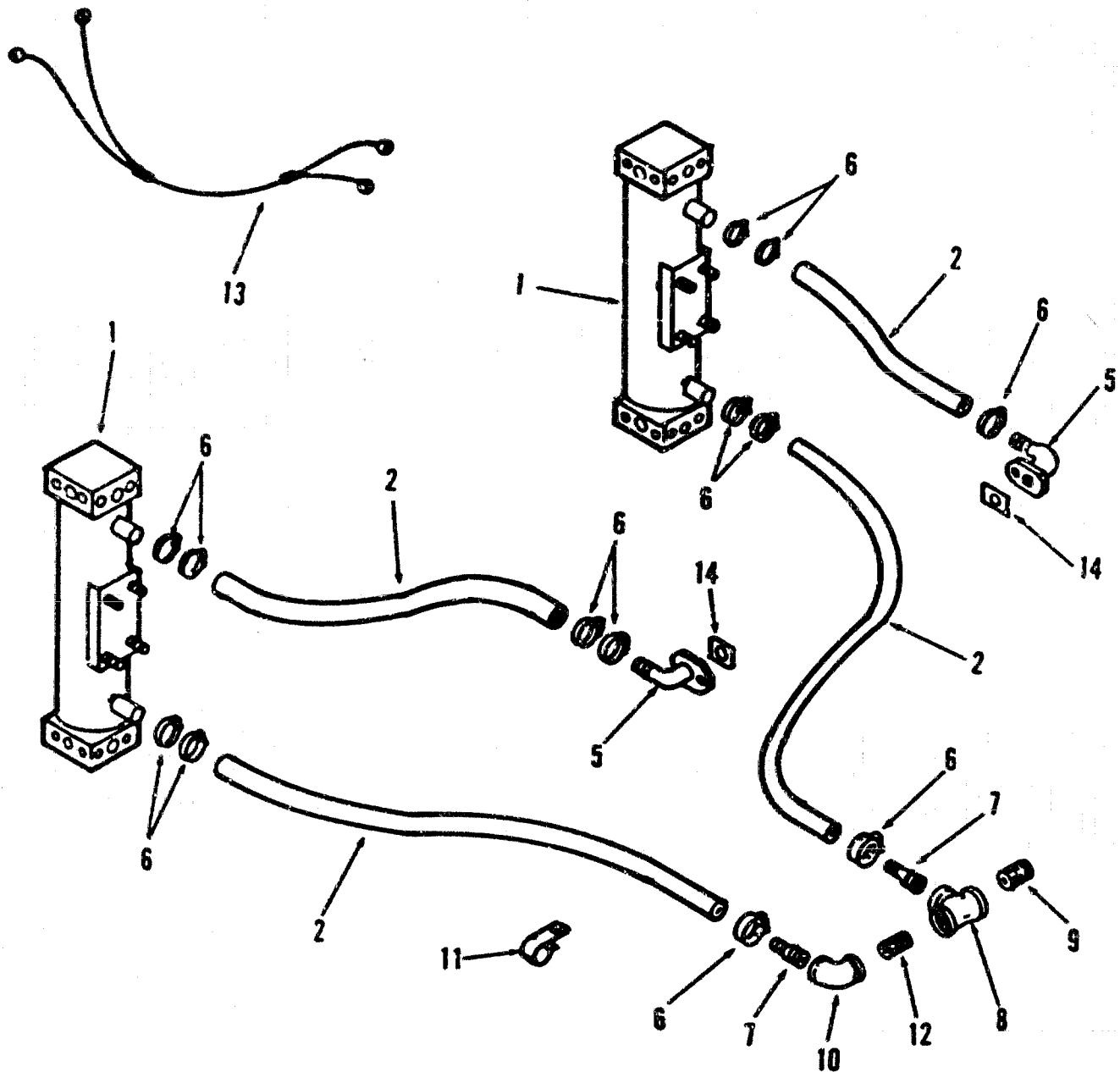


**Remote Radiator  
DFLA, DFLB, DFCL, DFLL, DFMB**



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                        | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                       |
|----------|-------------|-----------|-----------------------------------------|----------|----------|-----------|--------------------------------------------------------|
| 1        | 130-3715    | 1         | Cover - Damper                          |          | 503-1418 | 1         | (1/4" x 60") DFLA, DFLB                                |
| 2        | 130-3714-01 | 1         | Guard - Damper (RH)                     |          | 503-1418 | 1         | (1/4" x 30") DFCL, DFLL, DFMB                          |
| 3        | 130-3714-02 | 1         | Guard - Damper (LH)                     | 10       | 505-0017 | 1         | Bushing - Reducer (3/8 x 1/4) - DFCL, DFLL, DFMB       |
| 4        | 130-3713    | 1         | Guard - Damper (Top)                    | 11       | 505-0011 | 2         | Elbow - Street (1/4") - DFLA, DFLB, DFCL, DFLL, DFMB   |
| 5        | 821-0010    | 22        | Screw, Hex Head - Locking (1/4-20 x 50) | 12       | 502-0395 | 4         | Connector - Hose (1/4") - DFLA, DFLB, DFCL, DFLL, DFMB |
| 6        | 821-0030    | 2         | Screw, Hex Head - Locking (3/8-16 x 1)  |          |          | 2         |                                                        |
| 7        | R70-0281    | 2         | Nut, Hex Head - Locking (3/8-16)        | 13       | 503-0685 | 4         | Clamp, Hose (1/4") 4 DFLA, DFLB 2 DFCL, DFLL, DFMB     |
| 8        |             |           | Hose                                    |          |          |           |                                                        |

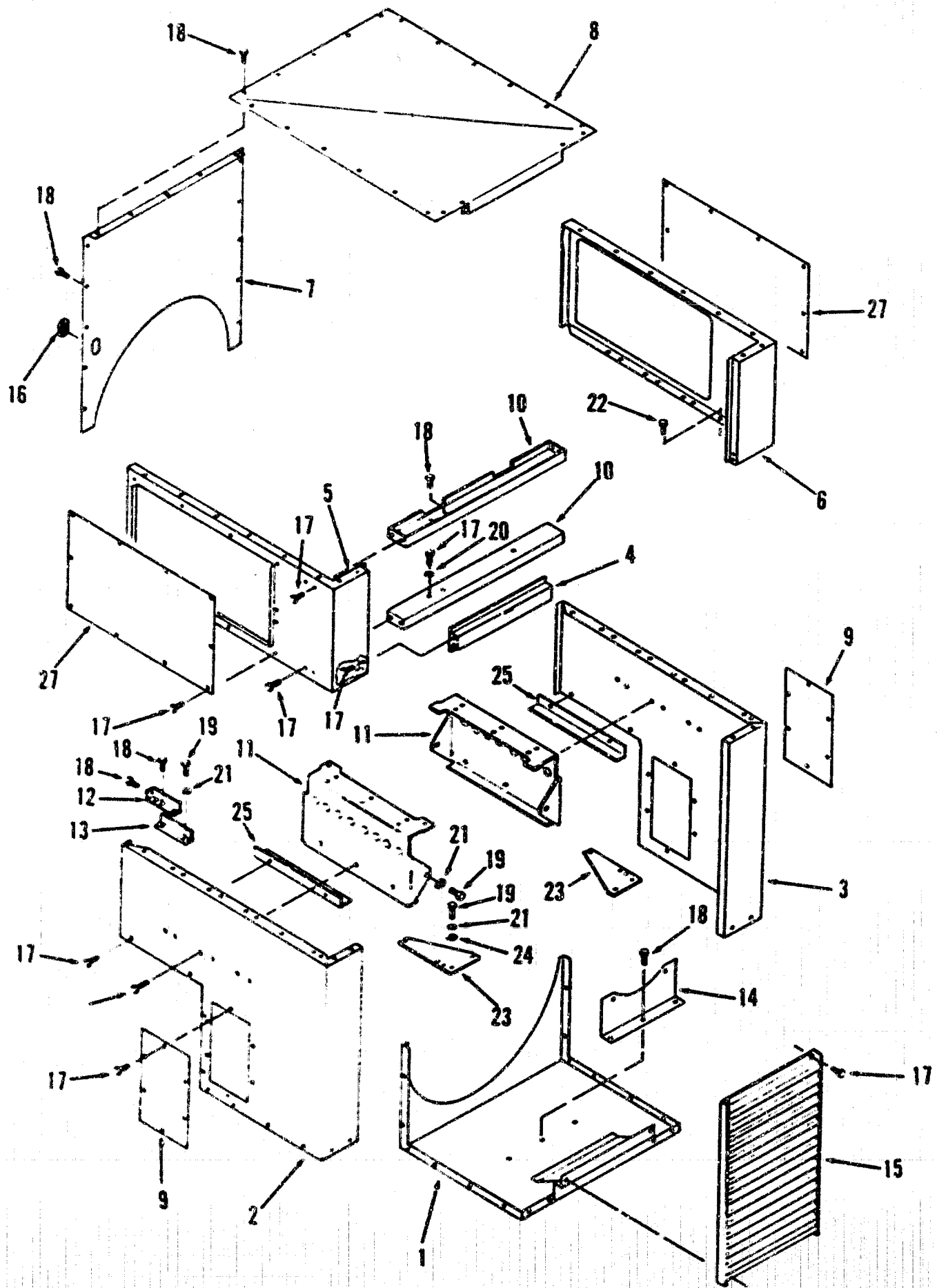
# Water Heater



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                     |
|----------|-------------|-----------|------------------------------------------------------|
| 1        |             |           | Heater, Coolant (4000 Watt)<br>(Includes Thermostat) |
|          | 333-0512-01 | 2         | 120 Volt                                             |
|          | 333-0512-02 | 2         | 208, 240, 480 Volt                                   |
|          | 333-0468    | 1         | Thermostat, Heater (Service Replacement)             |
| 2        | 503-1779    |           | Hose, Radiator (1" ID)<br>(Order by the foot)        |
| 3        | 130-3866    | 2         | Bracket, Heater Mounting                             |
| 4        | 870-0212    | 8         | Nut, Hex - Locking (1/4-28)                          |
| 5        | 130-3692    | 2         | Adapter, Heater Hose                                 |

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION              |
|----------|-------------|-----------|-------------------------------|
| 6        | 503-0189    | 12        | Clamp, Hose                   |
| 7        | 505-0759    | 2         | Nipple Combination            |
| 8        | 505-1430    | 1         | Tee, Reducing (1-1/4 x 1-5/8) |
| 9        | 505-0177    | 1         | Nipple, Pipe (1-1/4 x 1-5/8)  |
| 10       | 505-0041    | 1         | Elbow, 90° (1")               |
| 11       | 518-0548-02 | 2         | Clip                          |
| 12       | 505-0004    | 1         | Nipple - Pipe (1" x 1-1/2")   |
| 13       | 338-2760-01 | 1         | Wiring Harness, Heater        |
|          | 338-2760-02 | 1         | Wiring Harness, Heater        |
| 14       | 509-0283-01 | 2         | Seal, Rectangular Ring        |

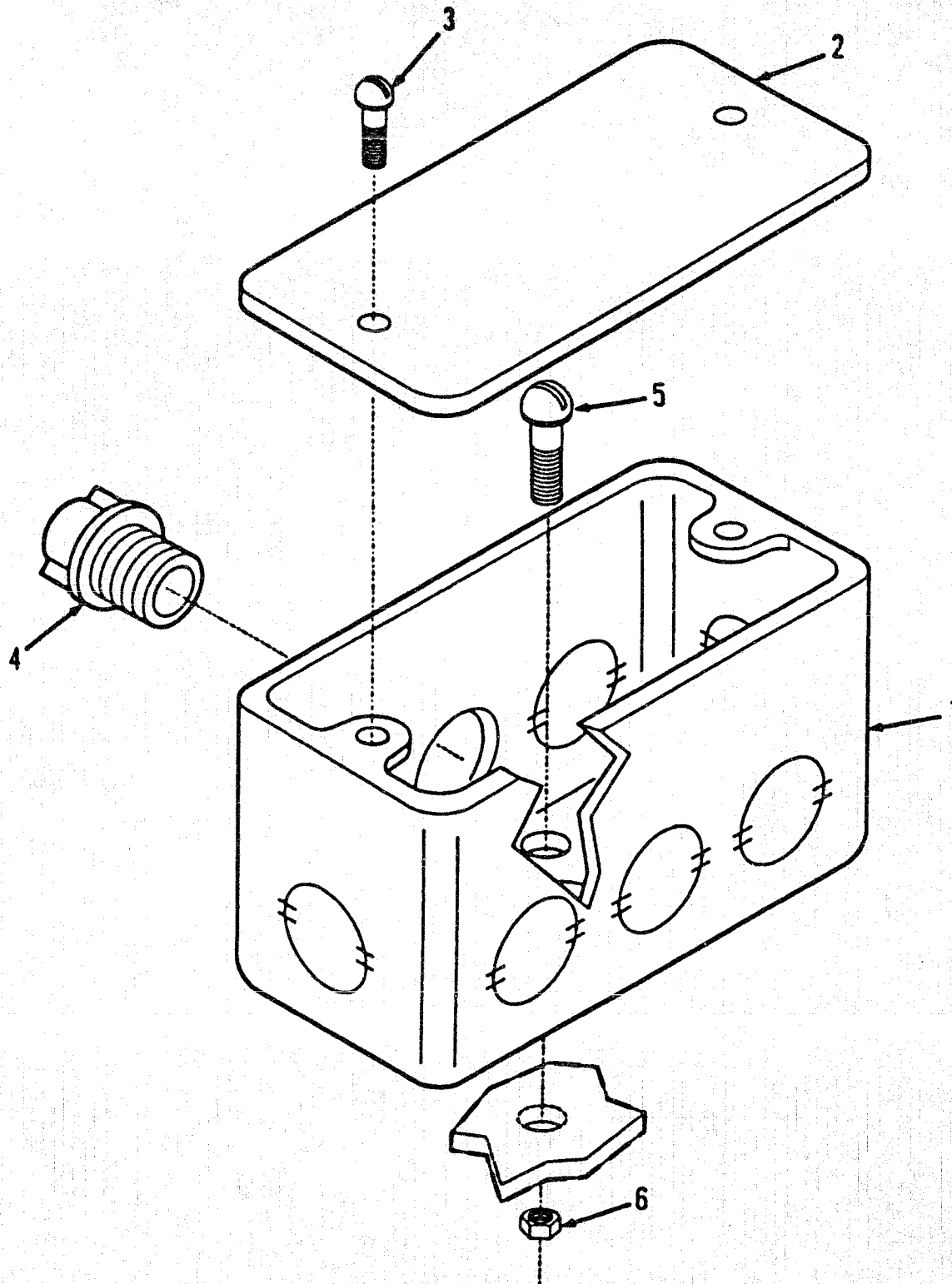
# Control Housing



# Control Housing

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION             | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                         |
|----------|-------------|-----------|------------------------------|----------|----------|-----------|----------------------------------------------------------|
| 1        |             |           | Panel - Bottom               | 17       | 821-0010 |           | Screw, Locking - Hex Head (1/4 x .50)                    |
|          | 319-1809-03 | 1         | DFJA, DFJB, DFJC, DFLD       |          |          | 29        | DFLA, DFLB, DFCL, DFLD, DFMB                             |
|          | 319-1809-04 |           | DFLA, DFLB, DFCL, DFLD, DFMB |          |          | 33        | DFJA, DFJB, DFJC, DFJD                                   |
| 2        | 319-1085-01 | 1         | Panel, Right Side            | 18       | 821-0014 | 80        | Screw, Locking - Hex Head (5/16-18 x .50)                |
| 3        | 319-1085-02 | 1         | Panel, Left Side             | 19       | 800-2086 |           | Screw, Hex Head (M10 x 1.50 x 25)                        |
| 4        | 319-1087    | 1         | Panel - Front                |          |          | 15        | DFJA, DFJB, DFJC, DFJD                                   |
| 5        | 319-1086-01 | 1         | Panel - Right Side - Top     |          |          | 11        | DFLA, DFLB, DFCL, DFLD, DFMB                             |
| 6        | 319-1086-02 | 1         | Panel - Left Side - Top      | 20       | 856-0006 | 2         | Washer, EIT Lock (1/4)                                   |
| 7        |             |           | Panel - Rear                 | 21       | 850-2010 |           | Washer, Lock (M10)                                       |
|          | 319-1089    | 1         | DFJA, DFJB, DFJC, DFJD       |          |          | 15        | DFJA, DFJB, DFJC, DFJD                                   |
|          | 319-1088    | 1         | DFLA, DFLB, DFCL, DFLD, DFMB |          |          | 11        | DFLA, DFLB, DFCL, DFLD, DFMB                             |
| 8        | 319-1093    | 1         | Cover - Top                  | 22       | 821-0016 | 8         | Screw, Locking - Hex (5/16-18 x .75)                     |
| 9        | 319-0881    | 2         | Cover, Side - Lower          | 23       | 319-1203 | 2         | Gusset                                                   |
| 10       | 319-0879    | 2         | Support - Control Box        | 24       | 526-0141 |           | Washer, Flat (3/8)                                       |
| 11       |             |           | Bracket, Saddle              |          |          | 10        | DFJA, DFJB, DFJC, DFJD                                   |
|          | 319-1096    | 2         | DFJA, DFJB, DFJC, DFJD       |          |          | 6         | DFLA, DFLB, DFCL, DFLD, DFMB                             |
|          | 319-1097    | 2         | DFLA, DFLB, DFCL, DFLD, DFMB | 25       | 319-0883 | 2         | Angle - Housing - DFJA, DFJB, DFJC, DFJD                 |
| 12       | 319-1090    | 1         | Angle - Support              | 26       | 870-0281 | 6         | Nut, Locking - Hex (3/8-16) DFLA, DFLB, DFCL, DFLD, DFMB |
| 13       | 319-1118    | 1         | Angle - Support              | 27       | 319-1094 | 2         | Cover, Box                                               |
| 14       |             |           | Bracket - Panel              |          |          |           |                                                          |
|          | 319-1091    |           | DFJA, DFJB, DFJC, DFJD       |          |          |           |                                                          |
|          | 319-1092    | 1         | DFLA, DFLB, DFCL, DFLD, DFMB |          |          |           |                                                          |
| 15       | 234-0908    | 1         | Grille                       |          |          |           |                                                          |
| 16       | 508-1057    | 1         | Grommet                      |          |          |           |                                                          |

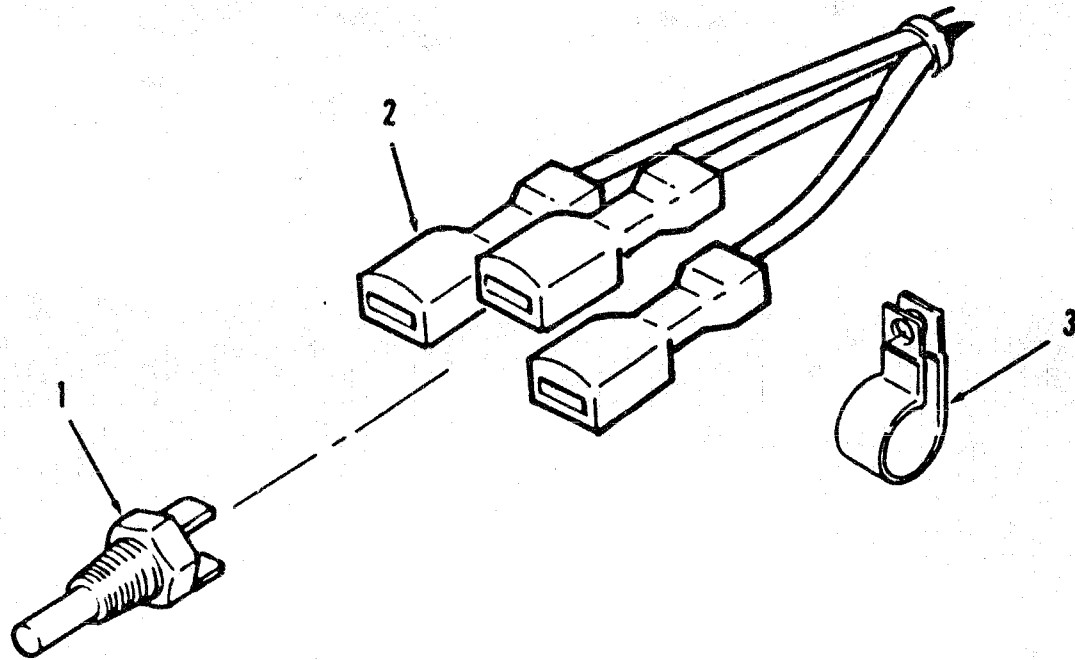
# Junction Box (Engine Coolant Heater)



| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                               |
|-------------|-------------|--------------|---------------------------------------------------|
| 1           | 330-0005    | 1            | Box, Junction                                     |
| 2           | 330-0004    | 1            | Cover                                             |
| 3           | 812-0079    | 2            | Screw, Sheet Metal - Round Head<br>(#8-32 x 1/2") |

| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                          |
|-------------|-------------|--------------|----------------------------------------------|
| 4           | 331-0027    | 2            | Connector, Knockout                          |
| 5           | 813-0105    | 2            | Screw, Machine - Round Head<br>(#10-32 x 1") |
| 6           | 870-0131    | 2            | Nut, Hex - With EIT (#10-32)                 |

# Low Coolant Level Sender

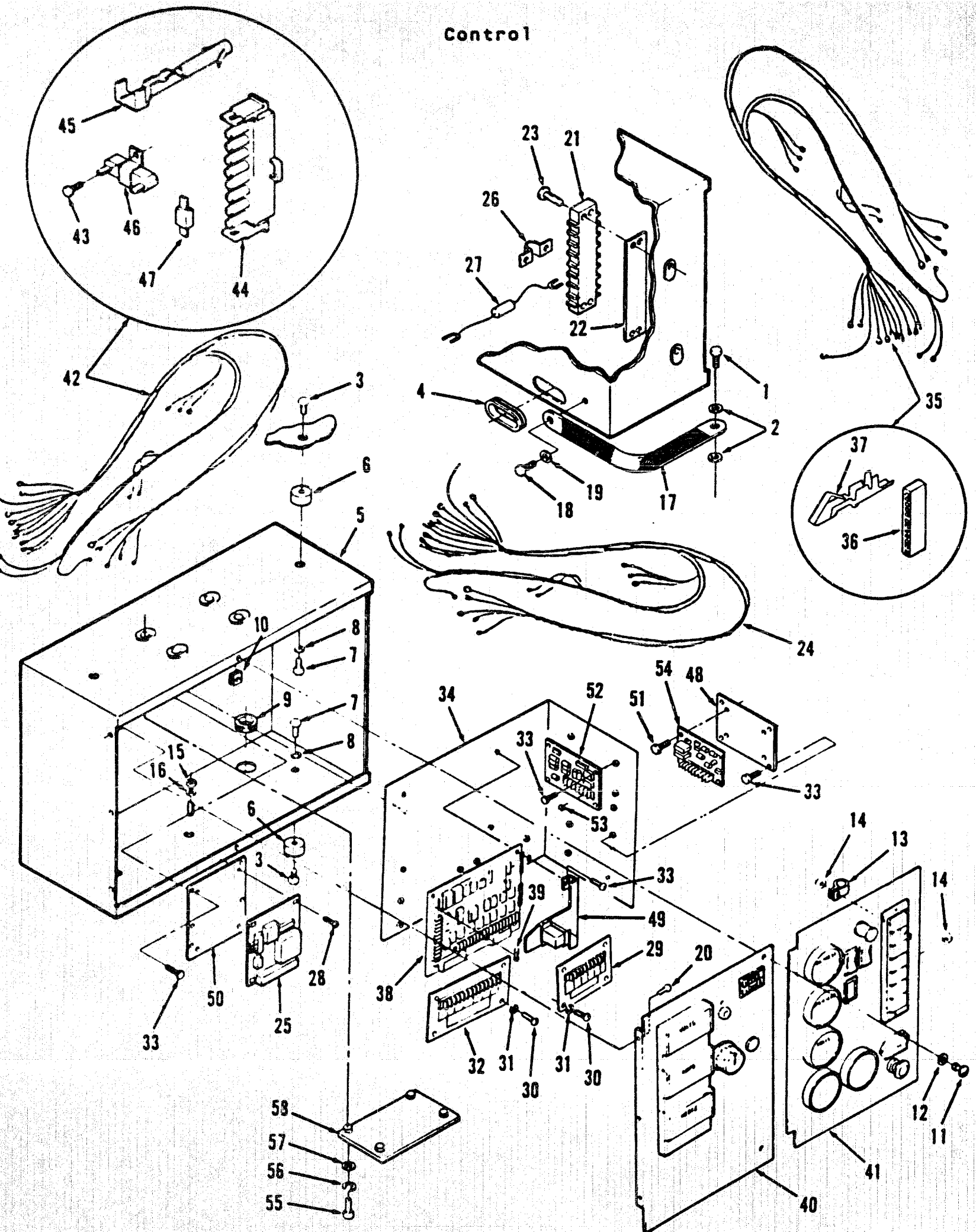


1100A

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                |
|----------|----------|-----------|---------------------------------|
| 1        | 193 0322 | 1         | Sender - Low Coolant Level (S7) |
| 2        | 338-2010 | 1         | Harness, Wiring                 |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|------------------|
| 3        | 518-0350 | 1         | Clamp, Insulated |

# Control

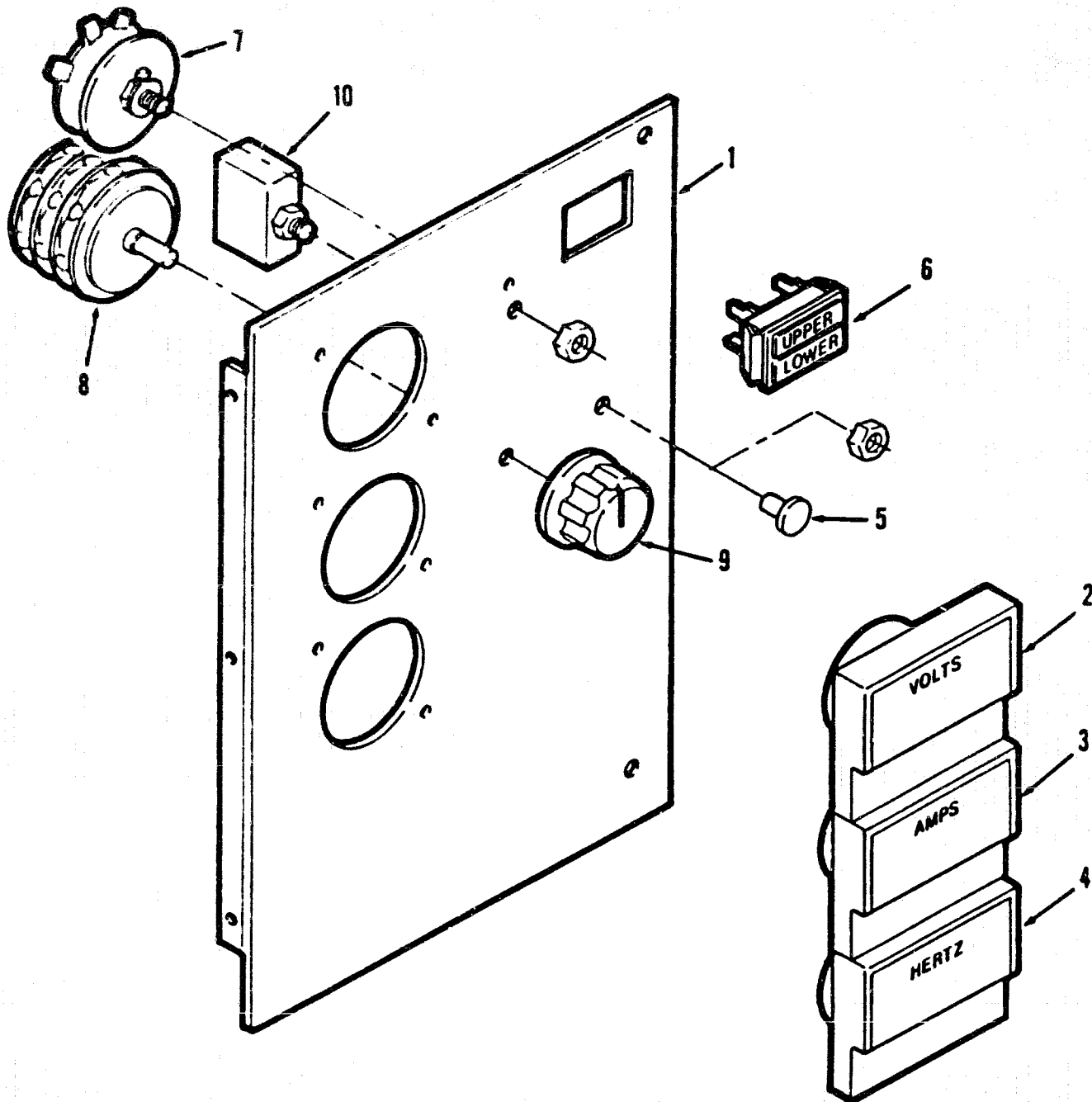


# Control

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                                                 | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                                                                        |
|----------|----------|-----------|------------------------------------------------------------------------------------------------------------------|----------|-------------|-----------|---------------------------------------------------------------------------------------------------------|
| 1        | 821-0018 | 1         | Screw, Locking - Hex Washer Head (1/4-20 x 5/8)                                                                  | 26       | 332-1043    | 1         | Jumper, Terminal (TB21-22 to 21)                                                                        |
| 2        | 856-0006 | 2         | Washer, Lock - EIT (1/4")                                                                                        | 27       | 350-1222    | 1         | Resistor (TB21-32 to 26)                                                                                |
| 3        | 821-0014 | 4         | Screw, Self-Locking - Hex Washer Head (5/16-18 x 1/2")                                                           | 28       | 815-0218    | 4         | Screw, Machine - Round Head - Cross Recessed with IT (#6-32 x 1")                                       |
| 4        | 508-0051 | 1         | Grommet (2" Hole)                                                                                                | 29       | 300-2856    | 1         | Board, Printed Circuit - Alarm Relay (12 Light Control) (A14)                                           |
| 5        | 301-8065 | 1         | Box, Control                                                                                                     | 30       | 812-0063    | 8         | Screw, Machine - Round Head (#6-32 x 1/2")                                                              |
| 6        | 402-0527 | 4         | Isolator, Vibration                                                                                              | 31       | 853-0003    | 8         | Washer, Lock - ET (#6)                                                                                  |
| 7        | 800-0045 | 4         | Screw, Cap - Hex Head (5/16-18 x 3/8")                                                                           | 32       | 300-2863    | 1         | Board, Printed Circuit - Alarm Relay (7 and 12 Light Control) (A13)                                     |
| 8        | 850-0045 | 4         | Washer, Lock - Spring (5/16")                                                                                    | 33       | 815-0544    | 18        | Screw, Machine - Round Head - Cross Recessed with IT (#6-32 x 1/2")                                     |
| 9        | 508-0001 | 1         | Grommet (1-1/16" Hole)                                                                                           | 34       | 301-8851    | 1         | Bracket, Mounting                                                                                       |
| 10       | 406-0332 | 2         | Receptacle, Fastener                                                                                             | 35       | 338-2277    | 1         | Harness, Wiring - DC (Includes Connector Housing and Contact Pins) (DC Door Assembly to Engine Monitor) |
| 11       | 406-0333 | 2         | Stud, Fastener                                                                                                   | 36       | 323-1308    | 1         | Housing, Connector - 12 Place (J4)                                                                      |
| 12       | 406-0334 | 2         | Washer, Stud Retainer                                                                                            | 37       | 323-1302    | 12        | Pin, Contact                                                                                            |
| 13       | 332-0052 | 2         | Clip, Wire                                                                                                       | 38       |             |           | Monitor, Engine (Includes Fuses) (A11)                                                                  |
| 14       | 870-0131 | 3         | Nut, Hex - With ET (#10-32)                                                                                      |          | 300-2810    | 1         | 7 Light Control                                                                                         |
| 15       | 871-0015 | 1         | Nut, Hex (1/4-20) Grounding Stud                                                                                 |          | 300-2812    | 1         | 12 Light Control                                                                                        |
| 16       | 853-0013 | 1         | Washer, Lock - ET (1/4") Grounding Stud                                                                          | 39       |             |           | Fuse                                                                                                    |
| 17       | 337-0049 | 1         | Strap, Ground                                                                                                    |          | 321-0270    | 2         | 20 Amp (F1, F2)                                                                                         |
| 18       | 800-0024 | 1         | Screw, Cap - Hex Head (5/16-18 x 1/2")                                                                           |          | 321-0231    | 1         | 15 Amp (F3)                                                                                             |
| 19       | 856-0008 | 1         | Washer, Lock - EIT (5/16")                                                                                       |          | 321-0094    | 2         | 5 Amp (F4, F5)                                                                                          |
| 20       | 821-0004 | 8         | Screw, Self-Locking - Hex Washer Head (#10-32 x 5/16")                                                           | 40       |             | 1         | Door Assembly, Control - AC (See Separate Page for Components)                                          |
| 21       | 332-0607 | 1         | Block, Terminal - 12 Place (TB21)                                                                                | 41       |             | 1         | Door Assembly, Control - DC (See Separate Page for Components)                                          |
| 22       | 332-2723 | 1         | Strip, Marker - 12 Place                                                                                         | 42       | 338-2525    | 1         | Harness, Wiring - Engine to Control                                                                     |
| 23       | 812-0065 | 2         | Screw, Machine - Round Head (#6-32 x 5/8")                                                                       | 44       |             |           | Housing, Connector                                                                                      |
| 24       |          |           | Harness, Wiring                                                                                                  |          | 323-1304    | 1         | 6 Place (J2)                                                                                            |
|          | 338-2278 | 1         | AC Door Assembly to TB21 Terminal Block (Includes TB21 Terminal Block)                                           |          | 323-1306    | 1         | 8 Place (J1)                                                                                            |
|          | 338-1835 | 1         | Alarm Relay (8 Wire) (A13 to A11TB1 and TB2)                                                                     |          | 323-1200    | 14        | Spec E                                                                                                  |
|          | 338-1836 | 1         | Alarm Relay (5 Wire) (A14 to A11TB2)                                                                             | 48       | 319-0754    | 1         | Plate, Mounting                                                                                         |
|          | 338-1904 | 1         | Time Delay Start/Stop (A15 to A11TB1-1, -5, -10 and AUX-P2, P3)                                                  | 49       |             | 1         | Relay, Run (See Separate Page for Components)                                                           |
| 25       | 338-2529 | 1         | 501-1200 KW Sets Regulator, Voltage (VR21)                                                                       | 50       | 319-0852    | 1         | Plate, Mounting, (Used With Model MX321 Voltage Regulator)                                              |
|          | 305-0824 | 1         | Used Without Permanent Magnet Exciter Generators (Model SX440) (Also available as Newage Part Number E000-24030) | 51       | 812-0084    | 4         | Screw, Machine - Round Head (#8-32 x 1")                                                                |
|          | 305-0823 | 1         | Used With Permanent Magnet Exciter Generators (Model MX321) (Also Available as Newage Part Number E000-23210)    | 52       |             |           | Board, Printed Circuit - Time Delay - Start/Stop/Preheat (A15)                                          |
|          |          |           |                                                                                                                  |          | 300-2899    | 1         | Without Preheat                                                                                         |
|          |          |           |                                                                                                                  |          | 300-2900    | 1         | With Preheat                                                                                            |
|          |          |           |                                                                                                                  | 53       | 332-2957    | 1         | Terminal, Tab (Double) (A15TB1-7)                                                                       |
|          |          |           |                                                                                                                  | 54       | 305-0818-02 | 1         | Board, Printed Circuit - Electronic Overspeed (A16)                                                     |



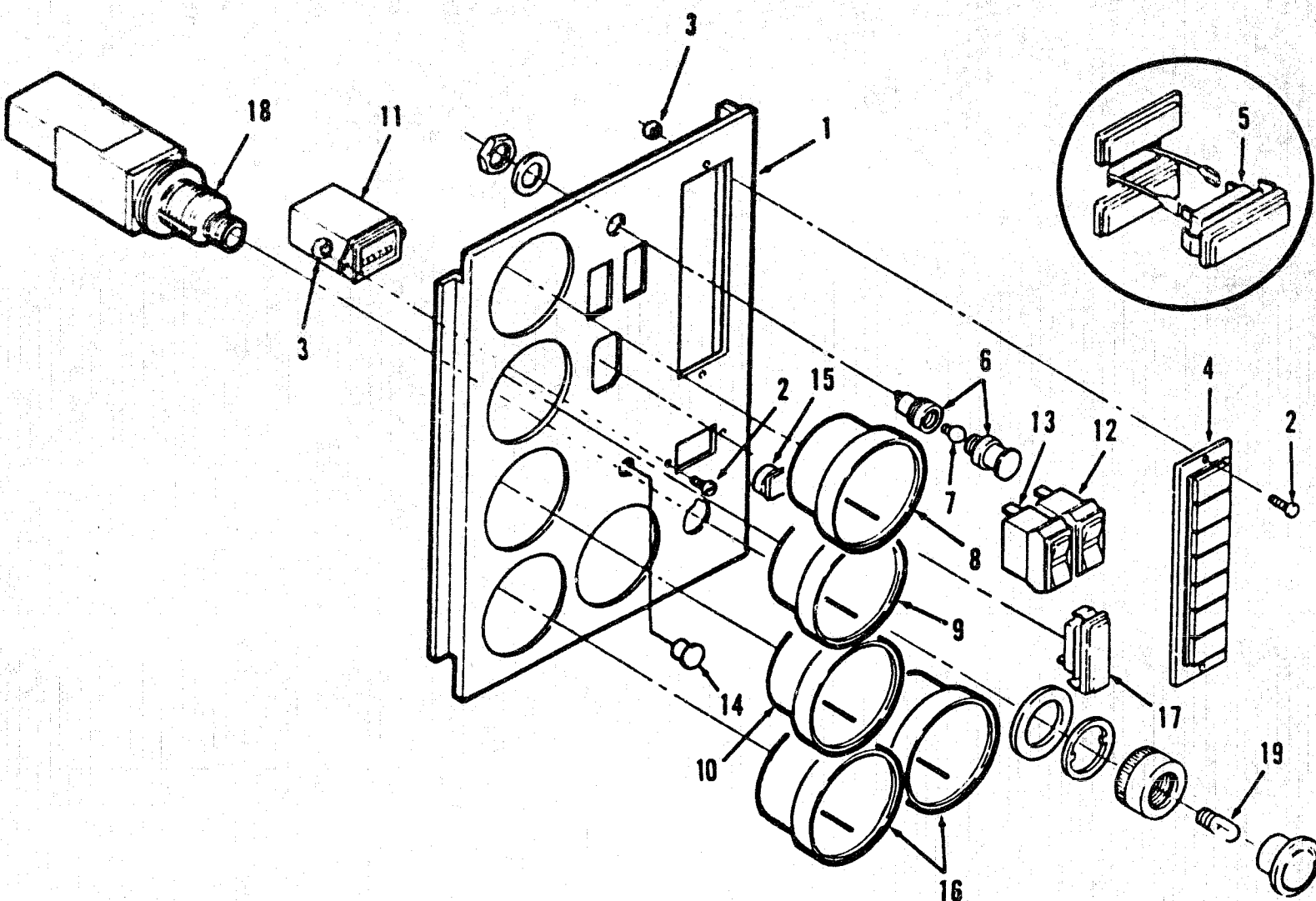
# AC Control Door Assembly



928A

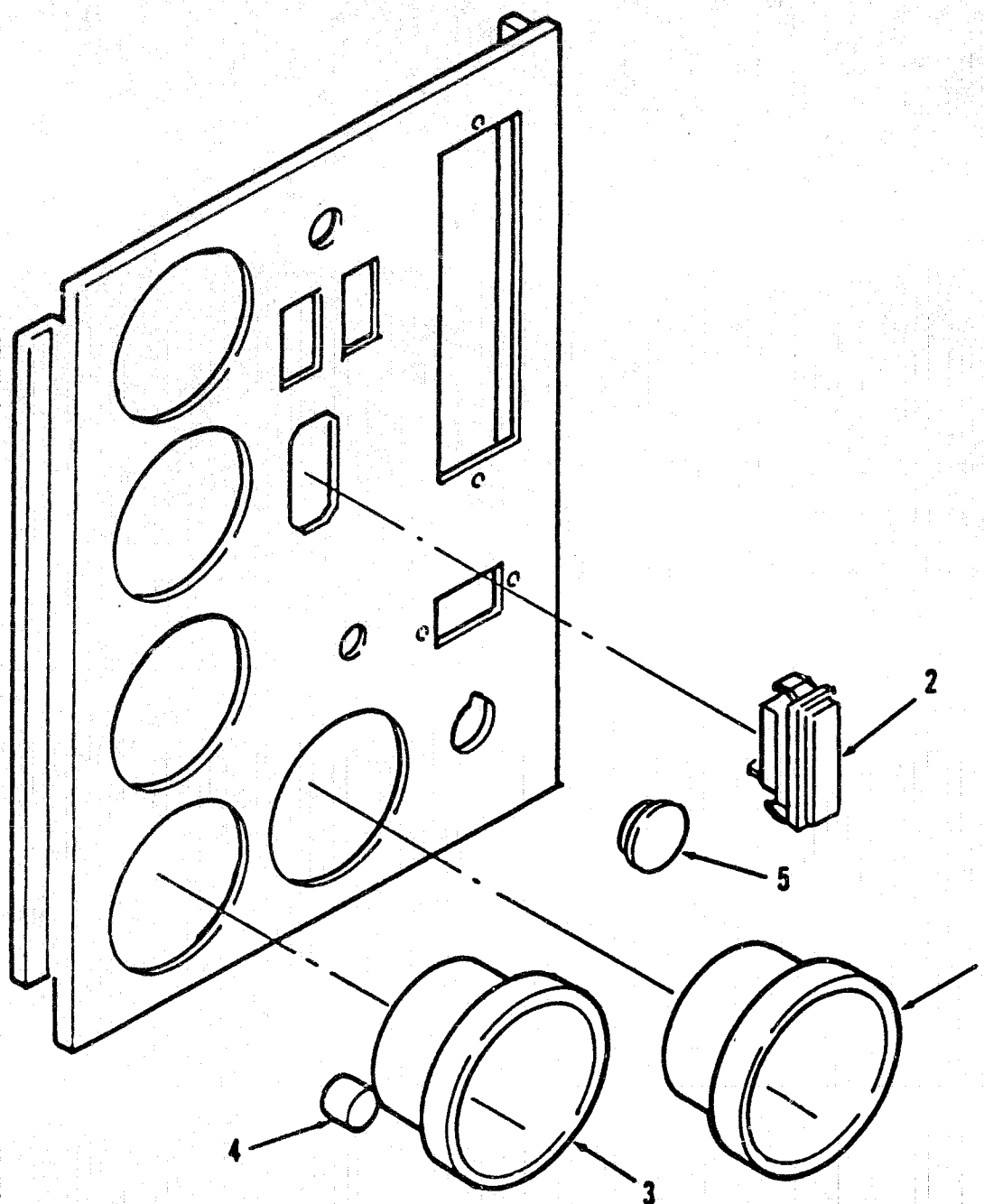
| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                      | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                             |
|----------|-------------|-----------|-------------------------------------------------------|----------|-------------|-----------|--------------------------------------------------------------|
| 1        | 301-9054-03 | 1         | Door, Control - AC<br>Doors Without Round Meter Holes | 7        |             |           | Potentiometer - Voltage Adjust (R21)                         |
|          | 301-9054-02 | 1         | Doors With Three Round Meter Holes                    |          | 303-0261    | 1         | 1.5K Ohms (Used With Model SX440 Voltage Regulator)          |
| 2        | 302-1148    | 1         | Voltmeter (M21)<br>0-300/600                          |          | 303-0285    | 1         | 5K Ohms (Used With Model MX321 Voltage Regulator)            |
|          | 302-1753    | 1         | 0-750                                                 | 8        | 308-0882    | 1         | Switch, Rotary - Voltmeter/Ammeter (Knob Not Included) (S21) |
| 3        | 302-1798    | 1         | Ammeter (M22)<br>0-1000/2000                          | 9        | 303-0032    | 1         | Knob, Rotary Switch                                          |
|          | 302-1799    | 1         | 0-1500/3000                                           | 10       |             |           | Breaker, Circuit (CB21)                                      |
|          | 302-1800    | 1         | 0-2000/4000                                           |          | 320-1688-01 | 1         | Without Auxiliary Contacts                                   |
|          | 302-1980    | 1         | 0-3000/6000                                           |          | 320-1688-02 | 1         | With Auxiliary Contacts                                      |
| 4        | 302-1720    | 1         | Meter, Frequency (M23)                                |          |             |           |                                                              |
| 5        | 517-0131    | 1         | Plug, Hole (3/8" Hole)                                |          |             |           |                                                              |
| 6        | 322-0363    | 1         | Light, Indicator - Upper/Lower Scale (DS21, DS22)     |          |             |           |                                                              |

# DC Control Door Assembly



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                                                | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                           |
|----------|-------------|-----------|---------------------------------------------------------------------------------|----------|----------|-----------|----------------------------------------------------------------------------|
| 1        | 301-9055-02 | 1         | Door, Control - DC Doors With Three Round Gauge Holes                           | 9        | 193-0351 | 1         | Gauge, Water Temperature (M12)                                             |
|          | 301-9055-01 | 1         | Doors With Five Round Gauge Holes                                               | 10       | 302-1642 | 1         | Voltmeter (M13)                                                            |
| 2        | 815-0385    | 4         | Screw, Machine - Round Head (#6-32 x 1/2")                                      | 11       | 302-0885 | 1         | Meter, Time Totalizing (M14)                                               |
| 3        | 870-0183    | 4         | Nut, Hex - With ET (#6-32)                                                      | 12       | 308-0785 | 1         | Switch, Rocker - Restart/Preheat/ Panel Light (S11)                        |
| 4        |             |           | Light Assembly, Indicator (Includes Wiring Harness and Connector Housing) (A12) | 13       | 308-0784 | 1         | Switch, Rocker - Run/Stop/Remote (S12)                                     |
|          | 322-0359-02 | 1         | 7 Light Assembly                                                                | 14       | 517-0131 | 1         | Plug, Hole (3/8" Hole)                                                     |
|          | 322-0360-02 | 1         | 12 Light Assembly                                                               | 15       | 193-0250 | 2         | Resistor (Mounted on Oil Pressure and Water Temperature Gauges) (R11, R12) |
| 5        | 322-0369-03 | 1         | Light, Indicator - Replacement                                                  | 16       | 302-1723 | 2         | Ammeter - Blank Scale                                                      |
| 6        | 322-0361    | 1         | Light, Panel (DS11)                                                             | 17       | 301-6257 | 1         | Switch - Blank                                                             |
| 7        | 322-0017    | 1         | Bulb, Panel Light - Replacement                                                 | 18       | 308-0853 | 1         | Switch, Pushbutton - Emergency Stop (Includes Bulb) (S14)                  |
| 8        | 193-0352    | 1         | Gauge, Oil Pressure (M11)                                                       | 19       | 322-0223 | 1         | Bulb, Pushbutton Switch - Replacement)                                     |

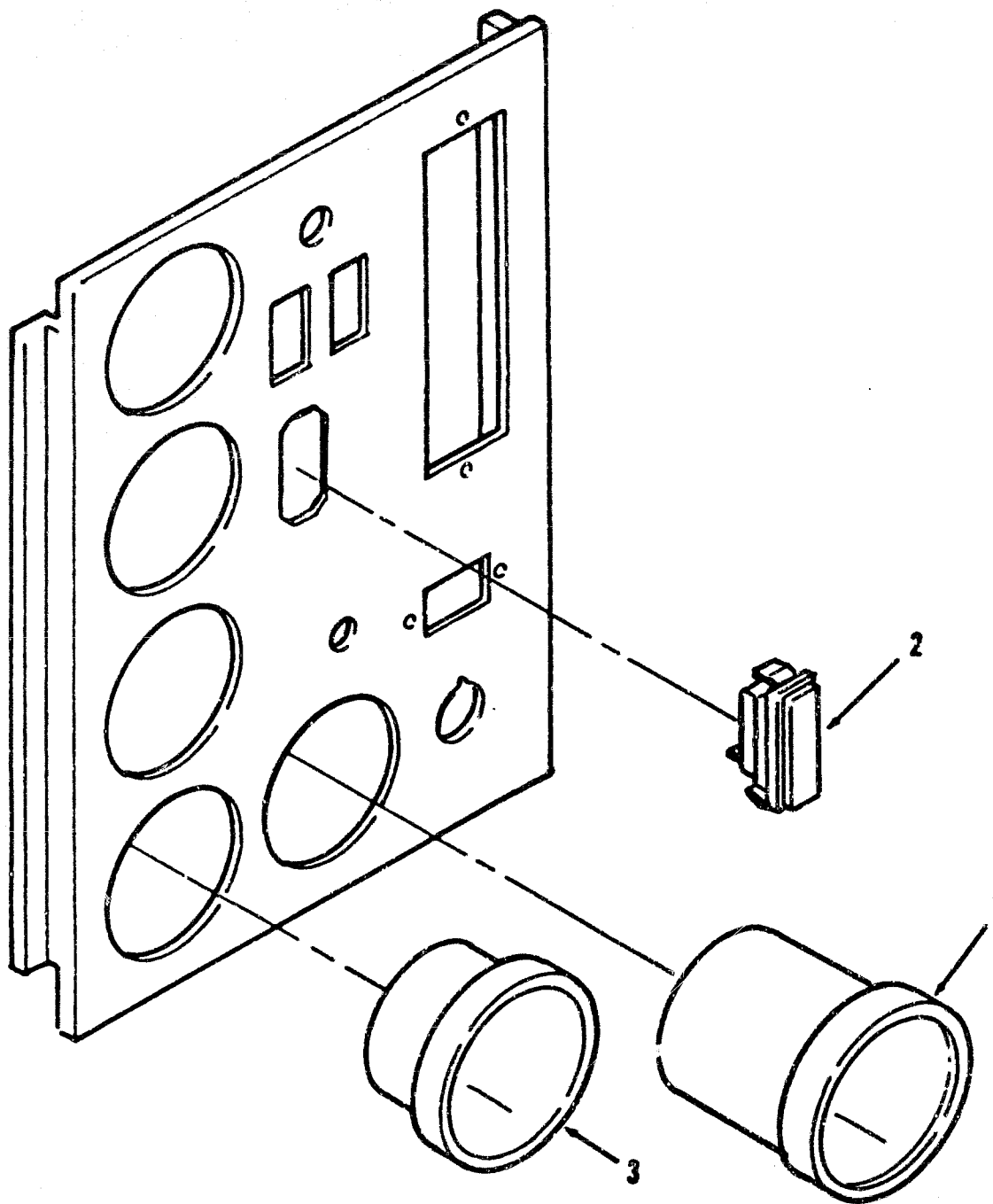
# Oil Temperature Gauge



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION               |
|----------|----------|-----------|--------------------------------|
| 1        | 302-1723 | 1         | Ammeter - Blank Scale          |
| 2        | 301-6257 | 1         | Switch - Blank                 |
| 3        | 193-0330 | 1         | Gauge, Temperature - Oil (M15) |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION       |
|----------|----------|-----------|------------------------|
| 4        | 193-0250 | 1         | Resistor, Gauge (R13)  |
| 5        | 517-0137 | 1         | Plug, Hole (7/8" Hole) |

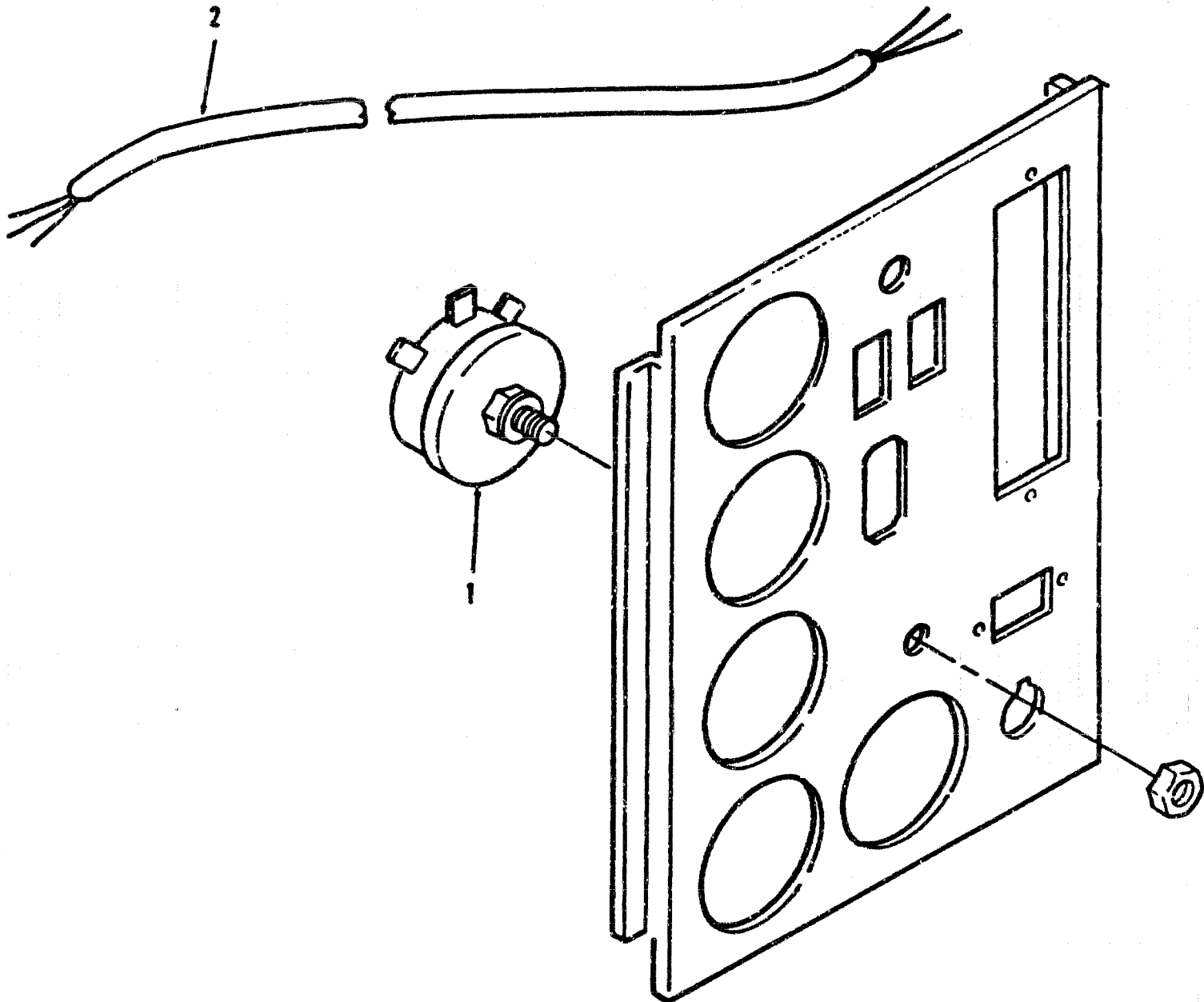
# Tachometer



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION              |
|----------|-------------|-----------|-------------------------------|
| 1        | 302-1873-01 | 1         | Tachometer (0-4000 RPM) (M16) |
| 2        | 301-6257    | 1         | Switch - Blank                |
| 3        | 302-1723    | 1         | Ammeter - Blank Scale         |

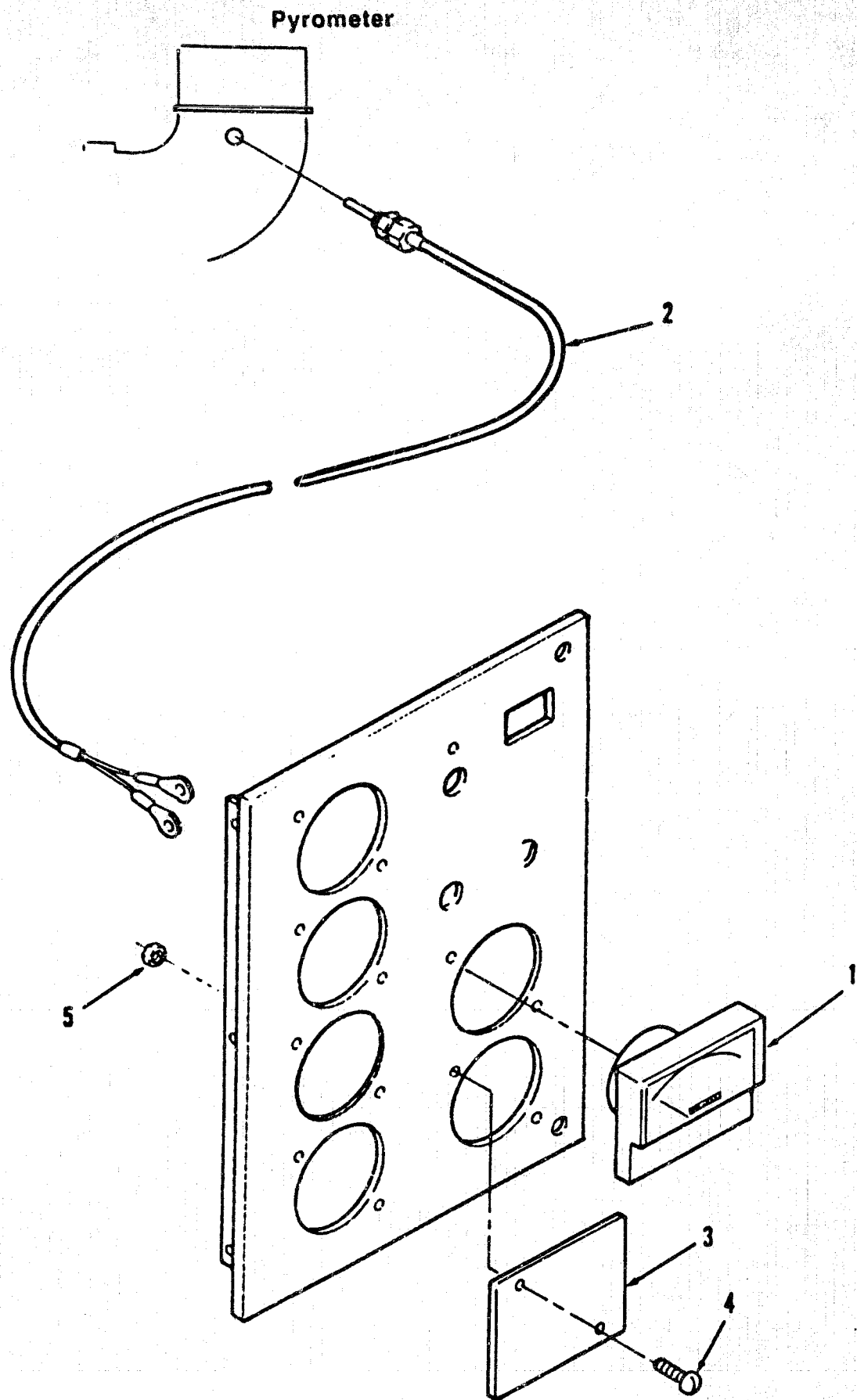
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|------------------|
|----------|----------|-----------|------------------|

Potentiometer  
(Speed Adjusting)



| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                                                                         |
|-------------|-------------|--------------|---------------------------------------------------------------------------------------------|
| 1           | 151-0402    | 1            | Potentiometer - Speed<br>Adjusting - Governor<br>Controller (No Resistor-<br>Barber Colman) |

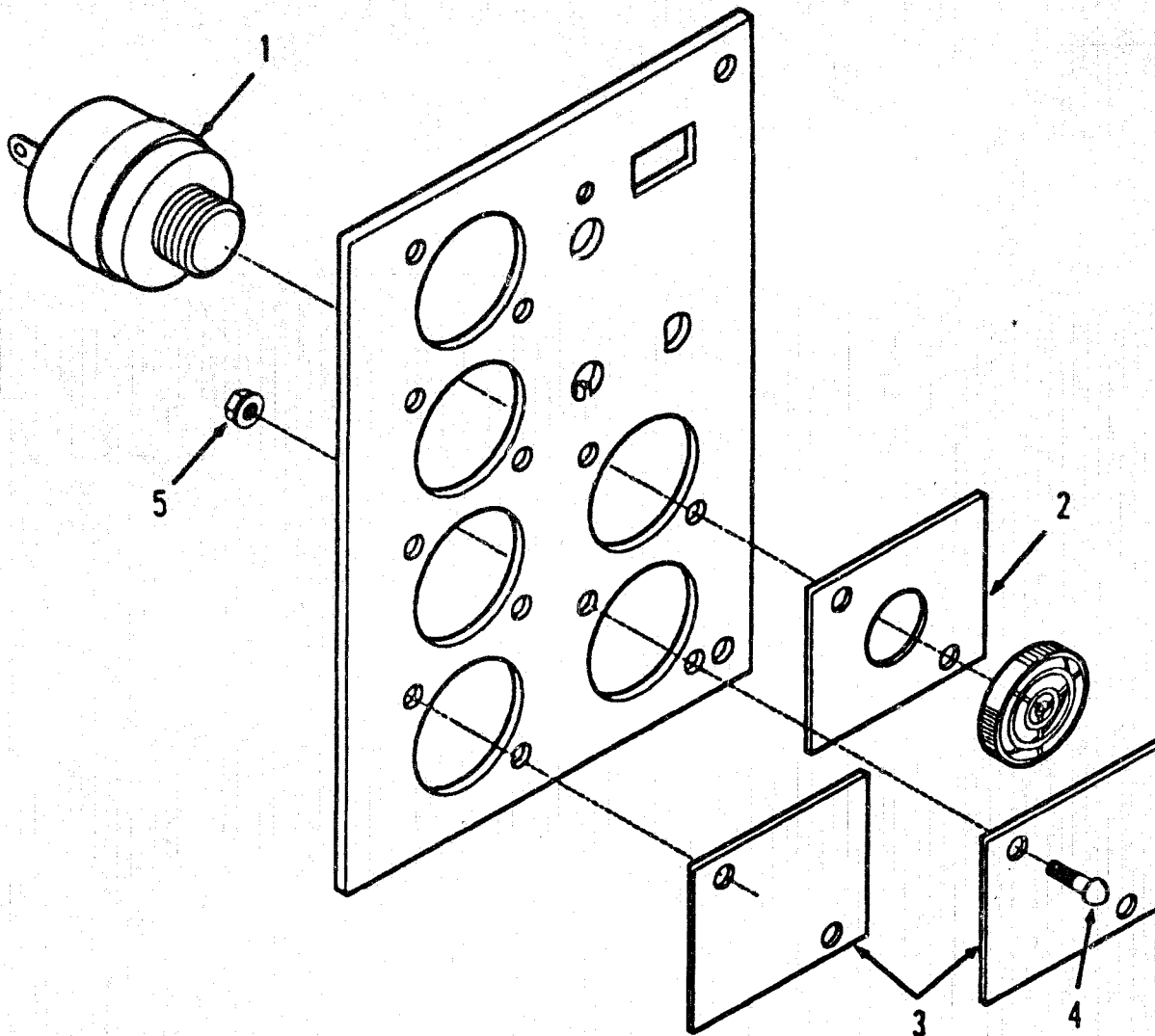
| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                          |
|-------------|-------------|--------------|----------------------------------------------|
|             | 303-0280    |              | Cable, Shield (W120K Res -<br>Barber Colman) |
|             | 303-0223-05 |              | Cable, Shielded                              |
| 2           | 334-0116    | 1            | Cable, Shielded (10')                        |



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION   |
|----------|----------|-----------|--------------------|
| 1        | 302-1874 | 1         | Pyrometer (M26)    |
| 2        | 193-0299 | 1         | Lead. Thermocouple |
| 3        | 301-9993 | 2         | Plate. Cover       |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                           |
|----------|----------|-----------|--------------------------------------------|
| 4        | 815-0385 | 4         | Screw, Machine - Round Head (#6-32 x 1/2") |
| 5        | 870-0183 | 4         | Nut, Hex - With ET (#6-32)                 |

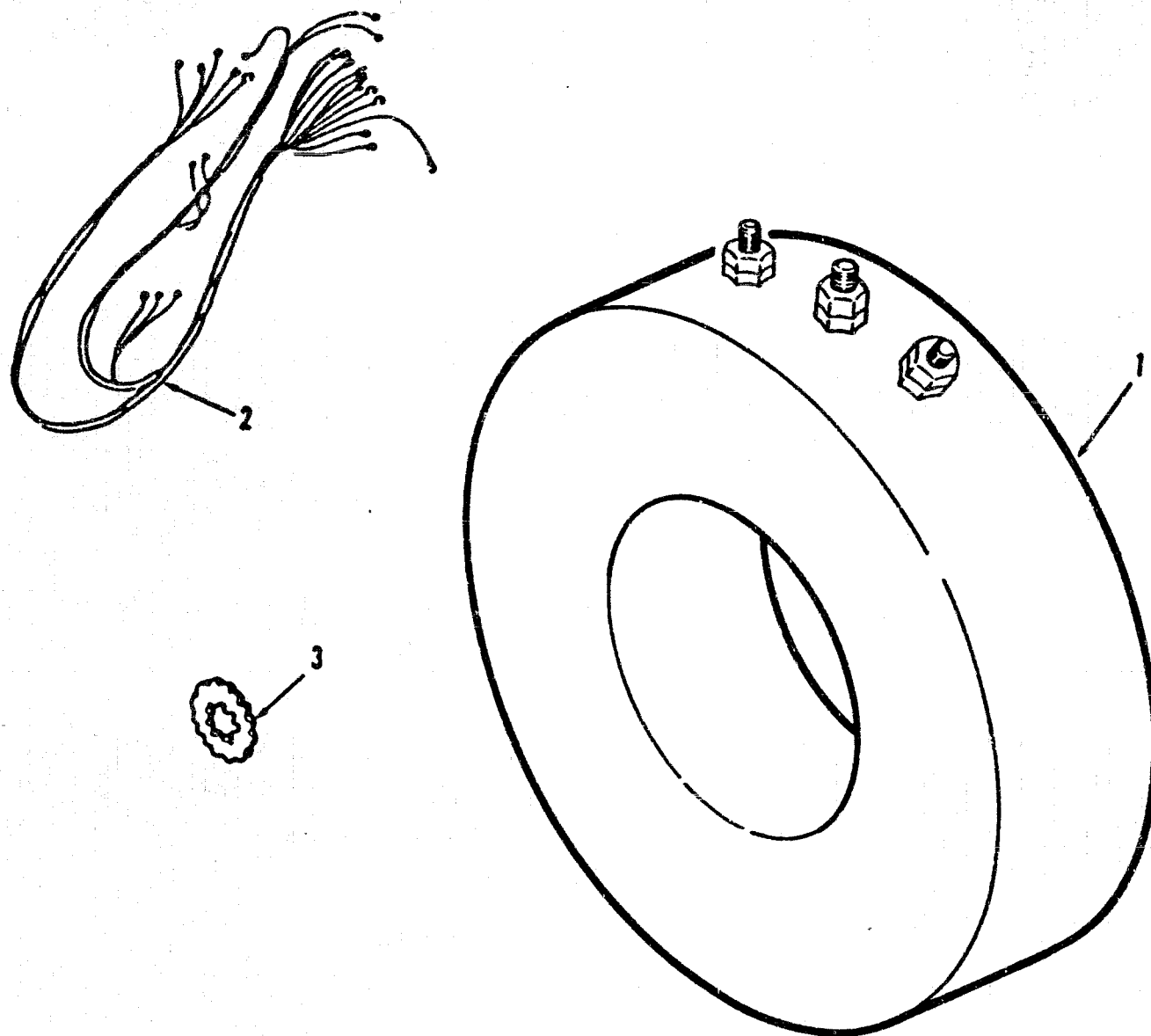
# Audible Signal



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION      |
|----------|----------|-----------|-----------------------|
| 1        | 333-0133 | 1         | Signal, Audible (DS2) |
| 2        | 319-0898 | 1         | Plate, Mounting       |
| 3        | 301-9993 | 2         | Plate, Cover          |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                           |
|----------|----------|-----------|--------------------------------------------|
| 4        | 815-0385 | 6         | Screw, Machine - Round Head (#6-32 x 1/2") |
| 5        | 870-0183 | 6         | Nut, Hex - With ET (#6-32)                 |

# Current Transformer

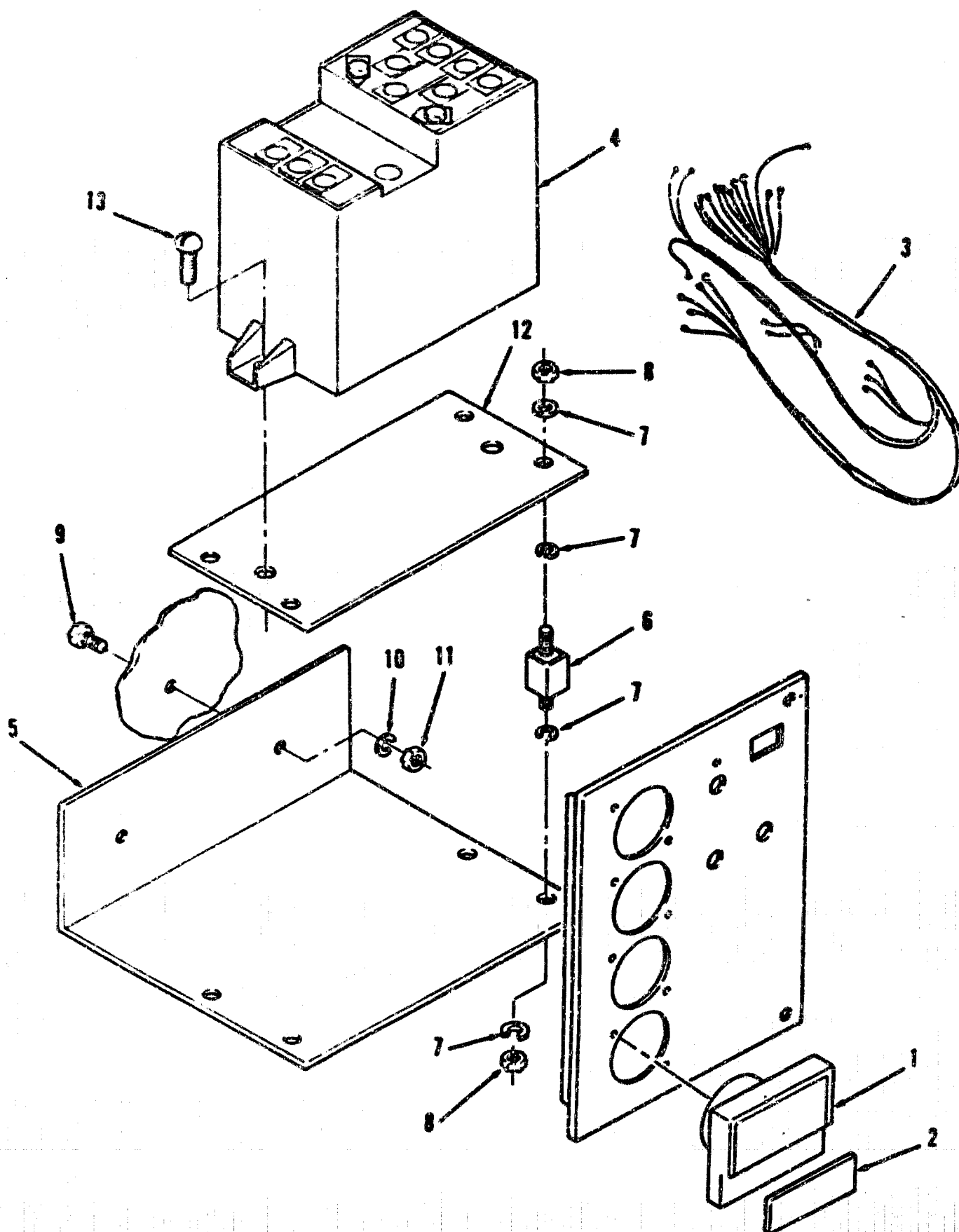


| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                        |
|----------|-------------|-----------|-----------------------------------------|
| 1        |             |           | Transformer, Current (CT21, CT22, CT23) |
|          | 302-1794-12 | 3         | Ratio 1000-2000/5                       |
|          | 302-1794-13 | 3         | Ratio 1500-3000/5                       |

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                |
|----------|-------------|-----------|-------------------------------------------------|
|          | 302-1794-14 | 3         | Ratio 2000-4000/5                               |
|          | 302-1794-15 | 3         | Ratio 3000-6000/5                               |
| 2        | 338-2532    | 1         | Harness, Wiring - Current Transformer           |
| 3        | 856-0008    | 2         | Washer, Locking - EIT (5/16") (Grounding Wires) |



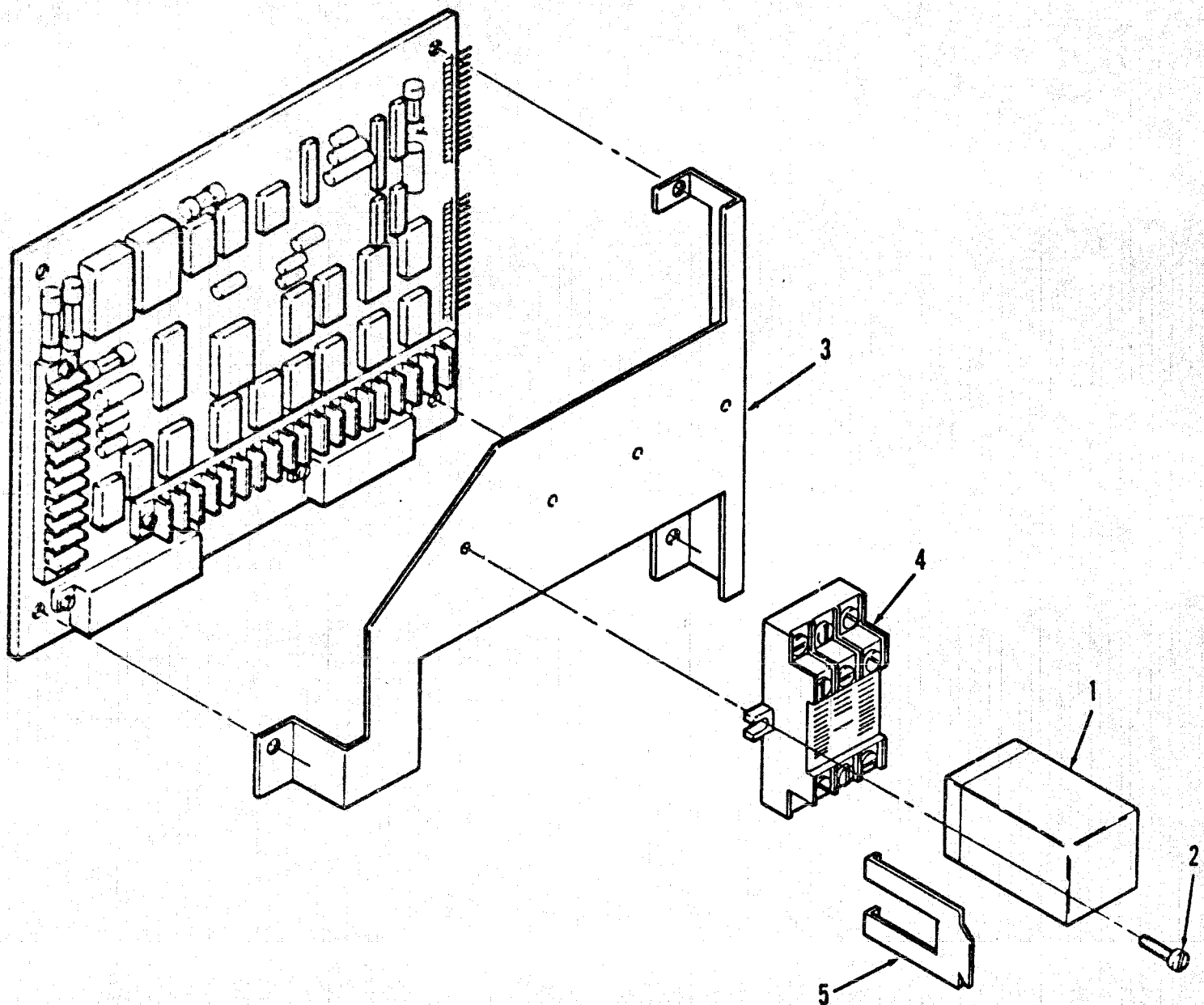
# Wattmeter



# Wattmeter

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                         | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                  |
|----------|-------------|-----------|------------------------------------------|----------|-------------|-----------|---------------------------------------------------|
| 1        | 302-1722    | 1         | Wattmeter (Dial Not Included) (M24)      |          | 302-1833-04 | 1         | 1-1/2 Element, Single Phase, Three Wire           |
| 2        |             |           | Dial, Wattmeter                          |          | 302-1833-05 | 1         | 2 Element, Three Phase, Three Wire                |
|          | 302-1721-16 | 1         | 0-800 KW Rating                          |          |             |           |                                                   |
|          | 302-1721-17 | 1         | 0-1200 KW Rating                         |          |             |           |                                                   |
|          | 302-1721-18 | 1         | 0-1500 KW Rating                         | 5        | 301-6987    | 1         | Bracket, Mounting                                 |
|          | 302-1721-19 | 1         | 0-2000 KW Rating                         | 6        | 402-0354    | 4         | Mount, Shock                                      |
| 3        |             |           | Harness, Wiring - Wattmeter              | 7        | 856-0002    | 16        | Washer, Lock - ET (#8)                            |
|          | 338-2478    | 1         | 120/240 Volt, "DELTA"                    | 8        | 860-0008    | 8         | Nut, Hex (#8-32)                                  |
|          | 338-1936    | 1         | Reconnectable WYE, Three Phase           | 9        | 821-0017    | 2         | Screw, Locking - Hex Washer Head (5/16-18 x 1/2") |
|          | 338-2479    | 1         | 120/240 Volt "SINGLE PHASE", Three Phase | 10       | 850-0045    | 2         | Washer, Lock - Spring (5/16")                     |
| 4        |             |           | Transducer, Walls (A21)                  | 11       | 862-0014    | 2         | Nut, Hex (5/16-18)                                |
|          | 302-1833-01 | 1         | 2-1/2 Element, Three Phase, Four Wire    | 12       | 319-0030    | 1         | Plate, Mounting                                   |
|          |             |           |                                          | 13       | 813-0102    | 2         | Screw, Machine - Round Head (#10-32 x 5/8")       |

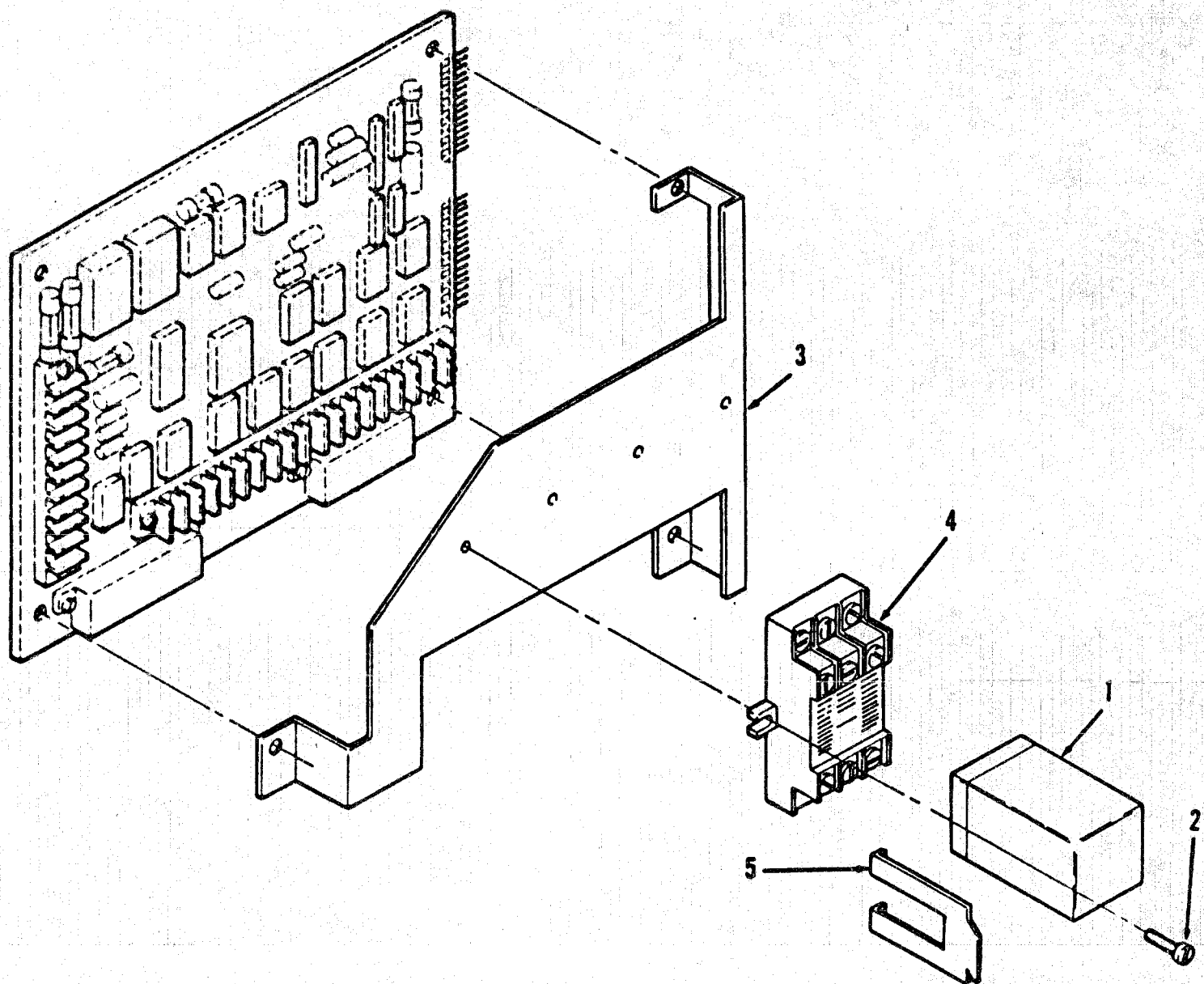
# Run Relay



577B

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                        | REF. NO.                                         | PART NO. | QTY. USED | PART DESCRIPTION                                  |
|----------|----------|-----------|---------------------------------------------------------|--------------------------------------------------|----------|-----------|---------------------------------------------------|
| 1        | 307-1058 | 1         | *Relay, Run (K11)                                       | 5                                                | 307-1987 | 2         | *Holddown, Relay                                  |
| 2        | 815-0388 | 2         | *Screw, Pan Head - Cross Recessed Thread (#6-32 x 1/2") | 6                                                | 815-0544 | 3         | Screw, Round Head w/IT Lock Washer (#6-32 x 1/2") |
| 3        | 319-0447 | 1         | Bracket, Mounting - Relay                               | * - Quantities listed are for one mounted relay. |          |           |                                                   |
| 4        | 323-0804 | 1         | *Socket, Relay                                          |                                                  |          |           |                                                   |

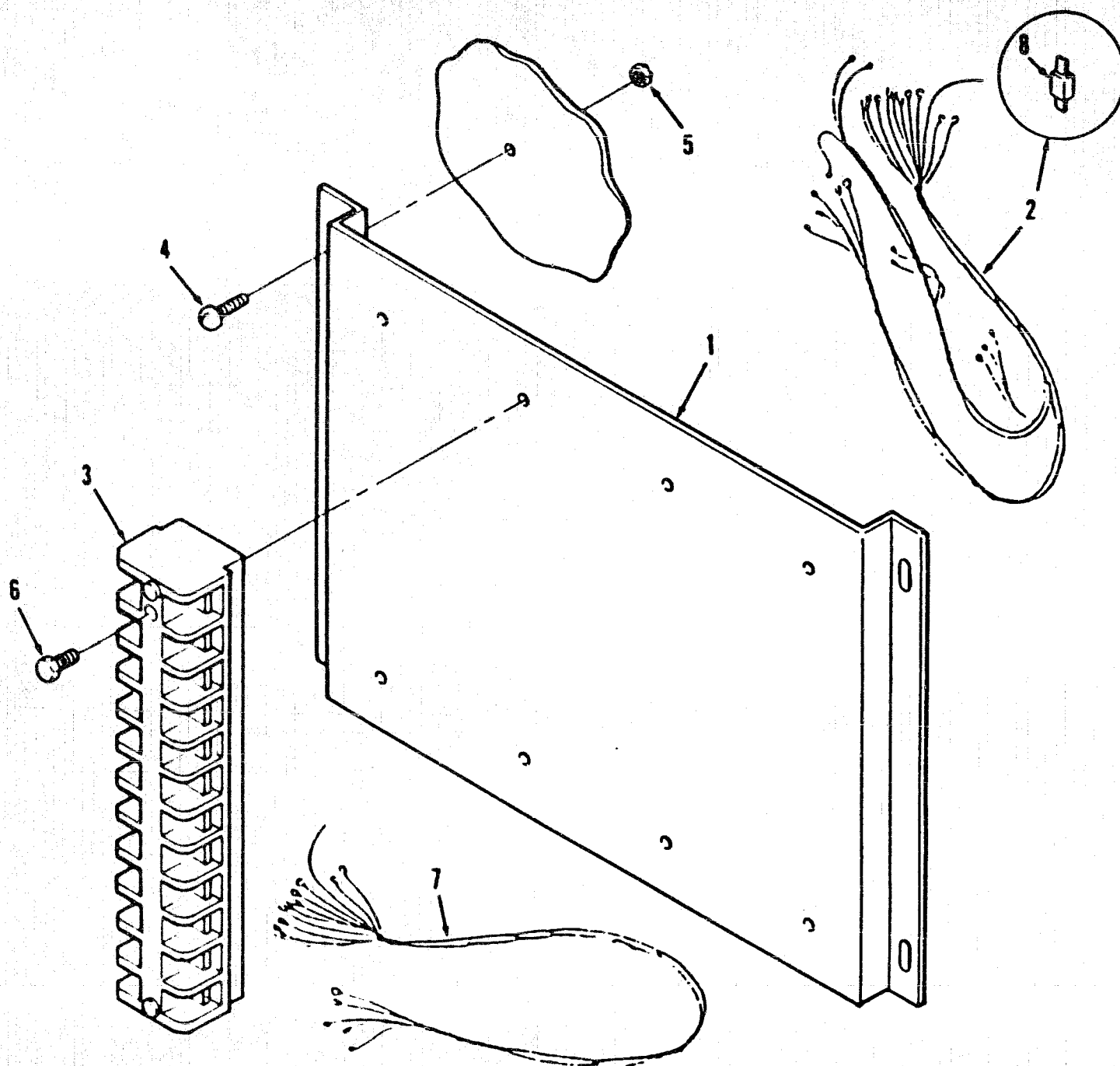
# Common Alarm Relay



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                       |
|----------|----------|-----------|--------------------------------------------------------|
| 1        | 307-1056 | 1         | Relay, Run (K11)                                       |
| 2        | 815-0388 | 2         | Screw, Pan Head - Cross Recessed Thread (#6-32 x 1/2") |

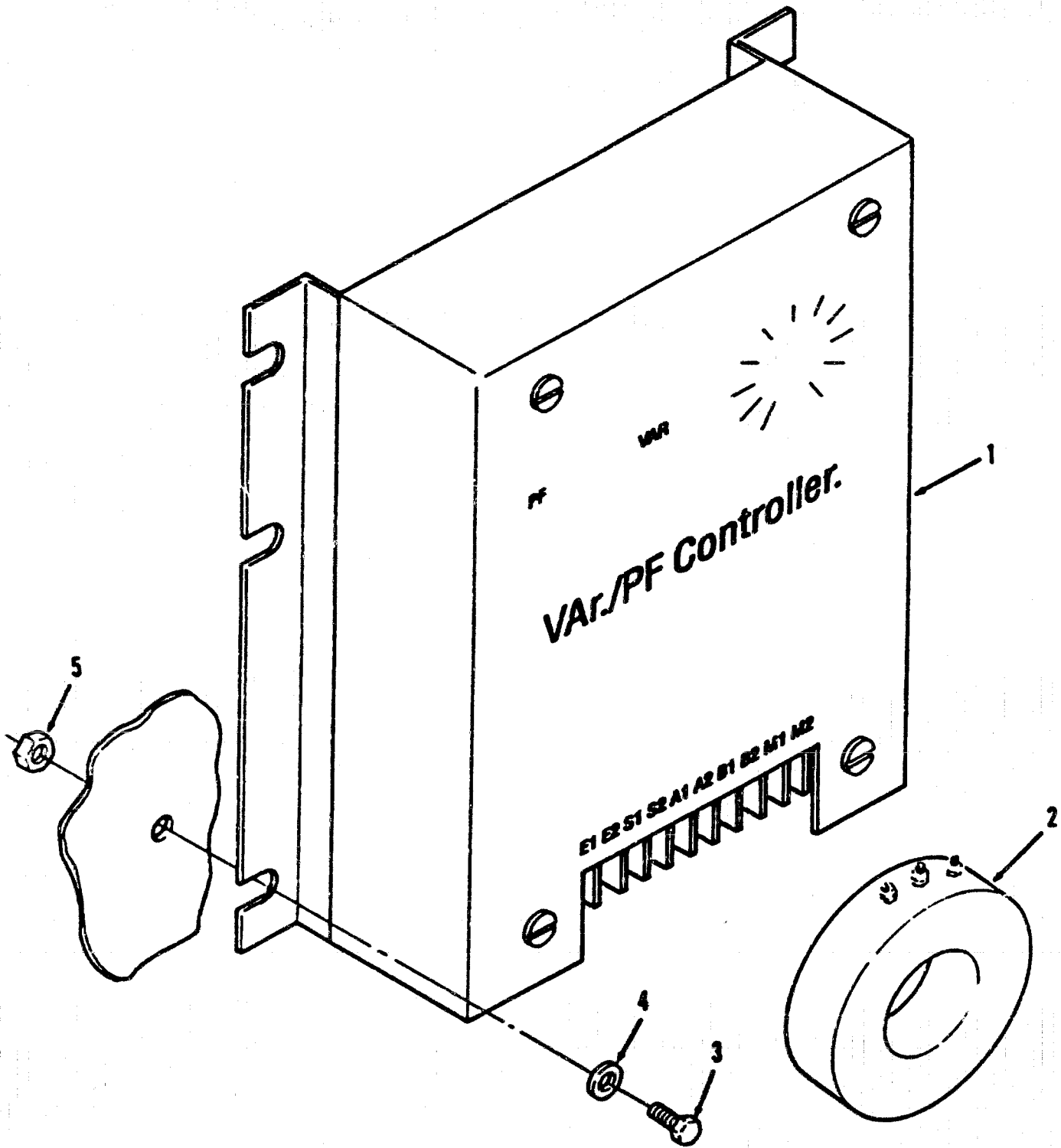
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION          |
|----------|----------|-----------|---------------------------|
| 3        | 319-0447 | 1         | Bracket, Mounting - Relay |
| 4        | 323-0804 | 1         | Socket, Relay             |
| 5        | 307-1987 | 2         | Holddown, Relay           |

# Paralleling Interconnect Terminal Blocks



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                     | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                           |
|----------|----------|-----------|--------------------------------------------------------------------------------------|----------|----------|-----------|----------------------------------------------------------------------------|
| 1        | 301 9715 | 1         | Panel, Mounting<br>With Provision for Three<br>Terminal Blocks<br>(7-1/2" x 9")      | 3        | 332-2315 | 1         | Blocks (Includes Four Terminal<br>Blocks)                                  |
|          | 319-1137 | 1         | With Provision for Four<br>Terminal Blocks<br>(7-1/2" x 12")                         | 4        | 813-0100 | 4         | Block, Terminal (Quantity Used<br>Required)                                |
| 2        |          | 1         | Harness, Wiring - Paralleling<br>(TB11 to A11, VR21, CB21)                           | 5        | 870-0131 | 4         | Screw, Machine - Round Head<br>(#10-32 x 1/2")                             |
|          | 338 2030 | 1         | Used with Three Terminal<br>Blocks (Includes Three<br>Terminal Blocks and Rectifier) | 6        |          |           | Nut, Hex - With ET (#10-32)<br>Screw, Machine - Round Head<br>(#8-32 x 1") |
|          | 338 2590 | 1         | Used with Four Terminal<br>Blocks                                                    |          | 812-0084 | 6         | Used with Three Terminal Blocks                                            |
|          |          |           |                                                                                      |          | 812-0084 | 8         | Used with Four Terminal Blocks                                             |
|          |          |           |                                                                                      | 7        | 338-2172 | 1         | Harness, Wiring - Governor (Shielded)                                      |
|          |          |           |                                                                                      | 8        | 357-0030 | 1         | Rectifier                                                                  |

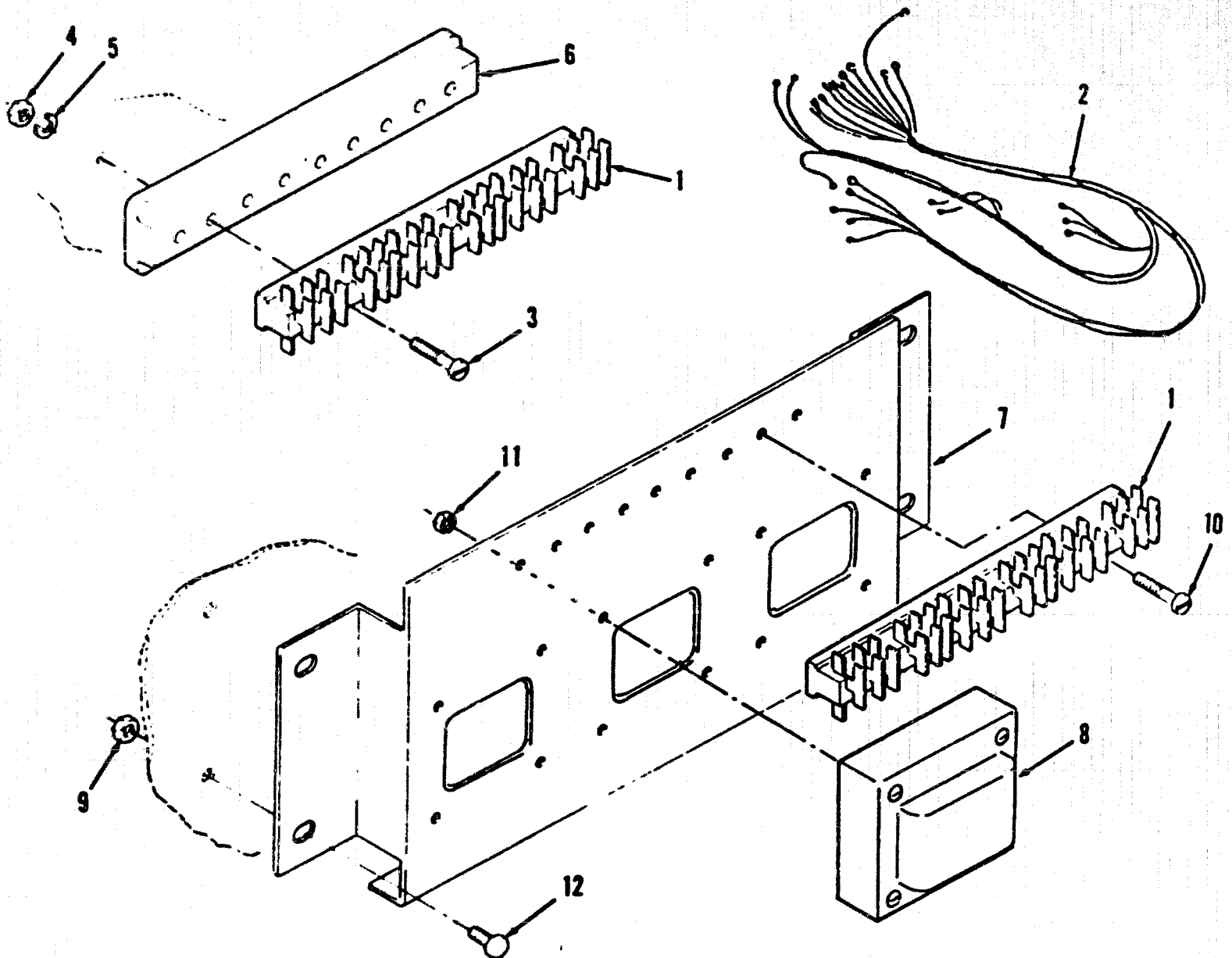
# VAR Power Factor Controller



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION            |
|----------|-------------|-----------|-----------------------------|
| 1        | 305-0870    | 1         | Controller, Power Factor    |
| 2        |             |           | Transformer, Current (CT25) |
|          | 302-1845-05 | 1         | Ratio 300/5                 |
|          | 302-1794-11 | 1         | Ratio 1500/5                |
|          | 302-1794-13 | 1         | Ratio 3000/5                |

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                            |
|----------|-------------|-----------|---------------------------------------------|
|          | 302-1794-14 | 1         | Ratio 4000/5                                |
| 3        | 813-0103    | 3         | Screw, Machine - Round Head (#10-32 x 3/4") |
| 4        | 528-008     | 4         | Washer, Flat (#10)                          |
| 5        | 870-0131    | 4         | Nut, Hex - With EIT (#10-32)                |

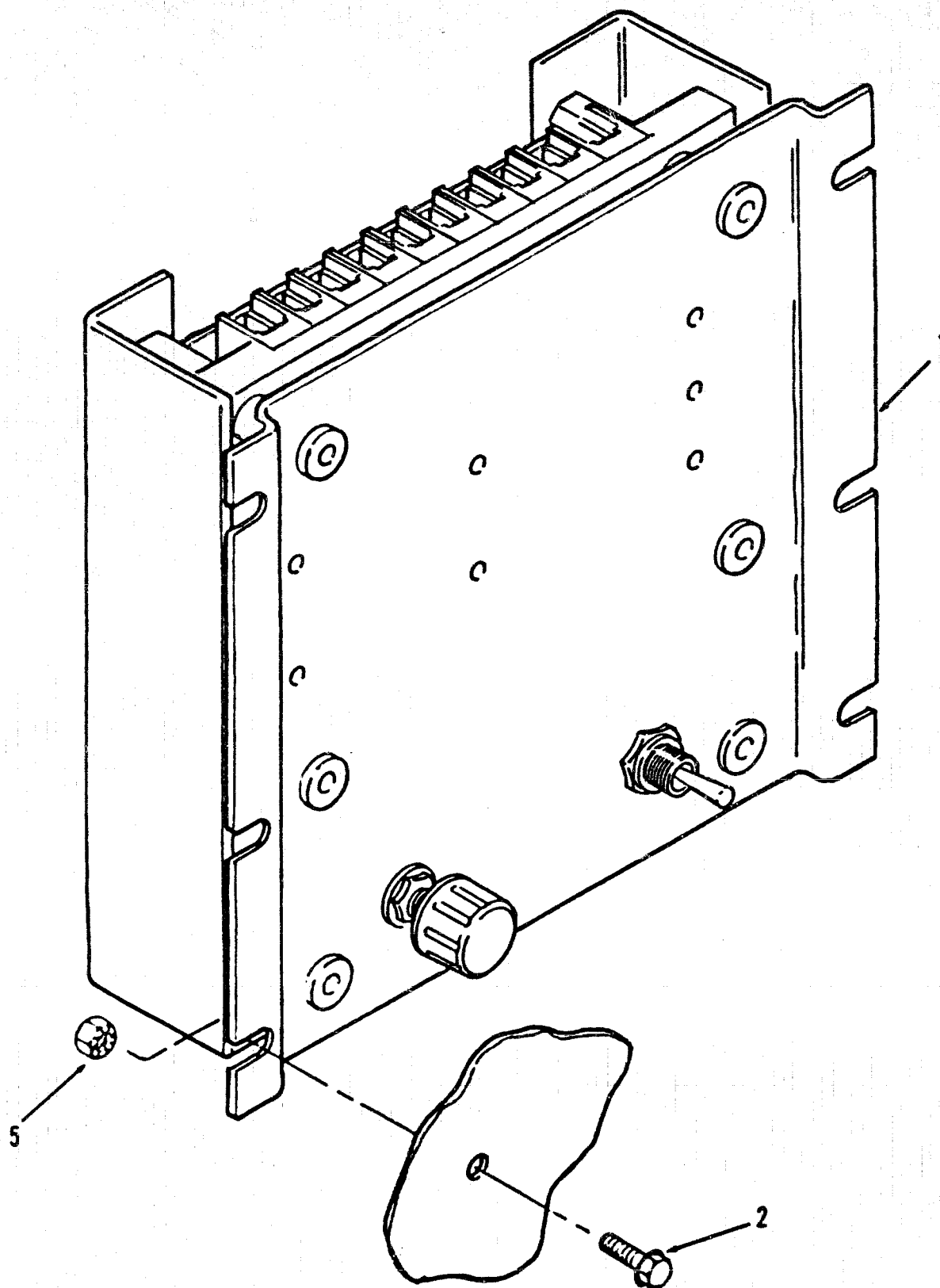
# Auxiliary Terminal Block



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                               |
|----------|----------|-----------|--------------------------------------------------------------------------------|
| 1        | 332-3107 | 2         | Block, Terminal (Also Available as Newage Part Number B450-14936)              |
| 2        | 338-2530 | 1         | Harness, Wiring - AC<br>190-240, 380-480 Volt; 12 Lead Reconnectable Generator |
|          | 338-2713 | 1         | 240-480 Volt Y; 380-480 Volt Δ, 600 Volt Y                                     |
|          | 338-2867 | 1         | 4160-2400 Y                                                                    |
| 3        | 812-0085 | 3         | Screw, Machine - Round Head (#8-32 x 1-1/8")                                   |
| 4        | 870-0221 | 3         | Nut, Hex - With IT (#8-32)                                                     |
| 5        | 850-0025 | 3         | Washer, Lock - Spring (#8)                                                     |
| 6        | 232-3536 | 1         | Base, Block - Terminal (Also                                                   |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                       |
|----------|----------|-----------|--------------------------------------------------------|
| 7        | 319-1245 | 1         | Available as Newage Part Number 130-20102)             |
| 8        | 315-0717 | 3         | Bracket, Transformer                                   |
|          |          |           | Transformer, Potential. (PTU, PTV, PTW)                |
| 9        | 870-0257 | 4         | Nut, Self-Locking - Hex Flange Head (5/16-18)          |
| 10       | 812-0082 | 2         | Screw, Machine - Round Head (#8-32 x 3/4")             |
| 11       | 870-0221 | 12        | Nut, Hex -With ET (#8-32)                              |
| 12       | 821-0016 | 4         | Screw, Self-Locking - Hex Flange Head (5/16-18 x 3/4") |

# Manual Voltage Regulator

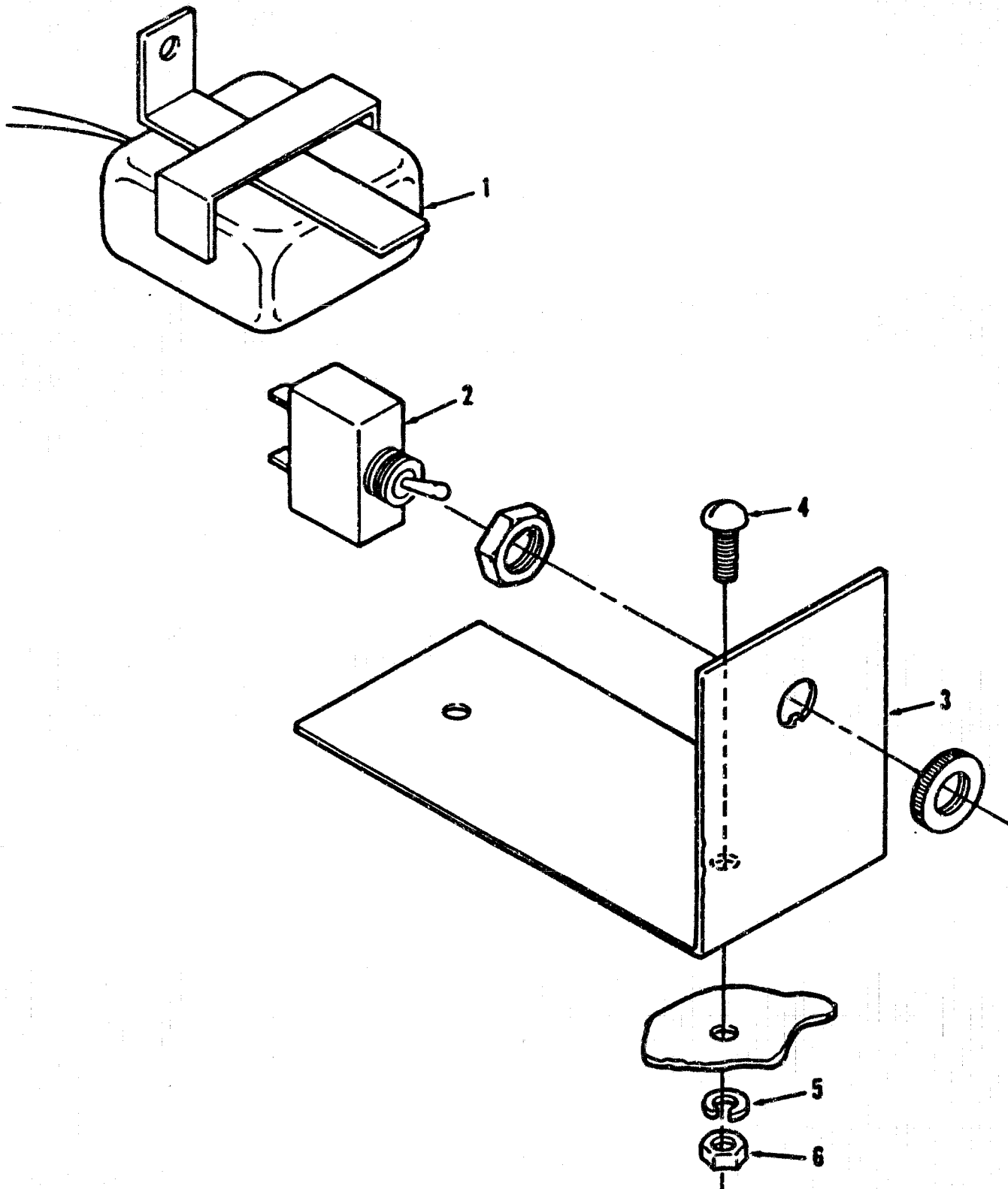


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                                                    |
|----------|----------|-----------|-------------------------------------------------------------------------------------|
| 1        | 305-0817 | 1         | Regulator, Voltage - Manual<br>(Also Available as Newage)<br>Part Number 450-11400) |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION            |
|----------|----------|-----------|-----------------------------|
| 2        | 821-0005 | 4         | Screw, Locking - Hex Flange |
| 5        | 871-0131 | 4         | Nut, Hex W/ET (#10-32)      |



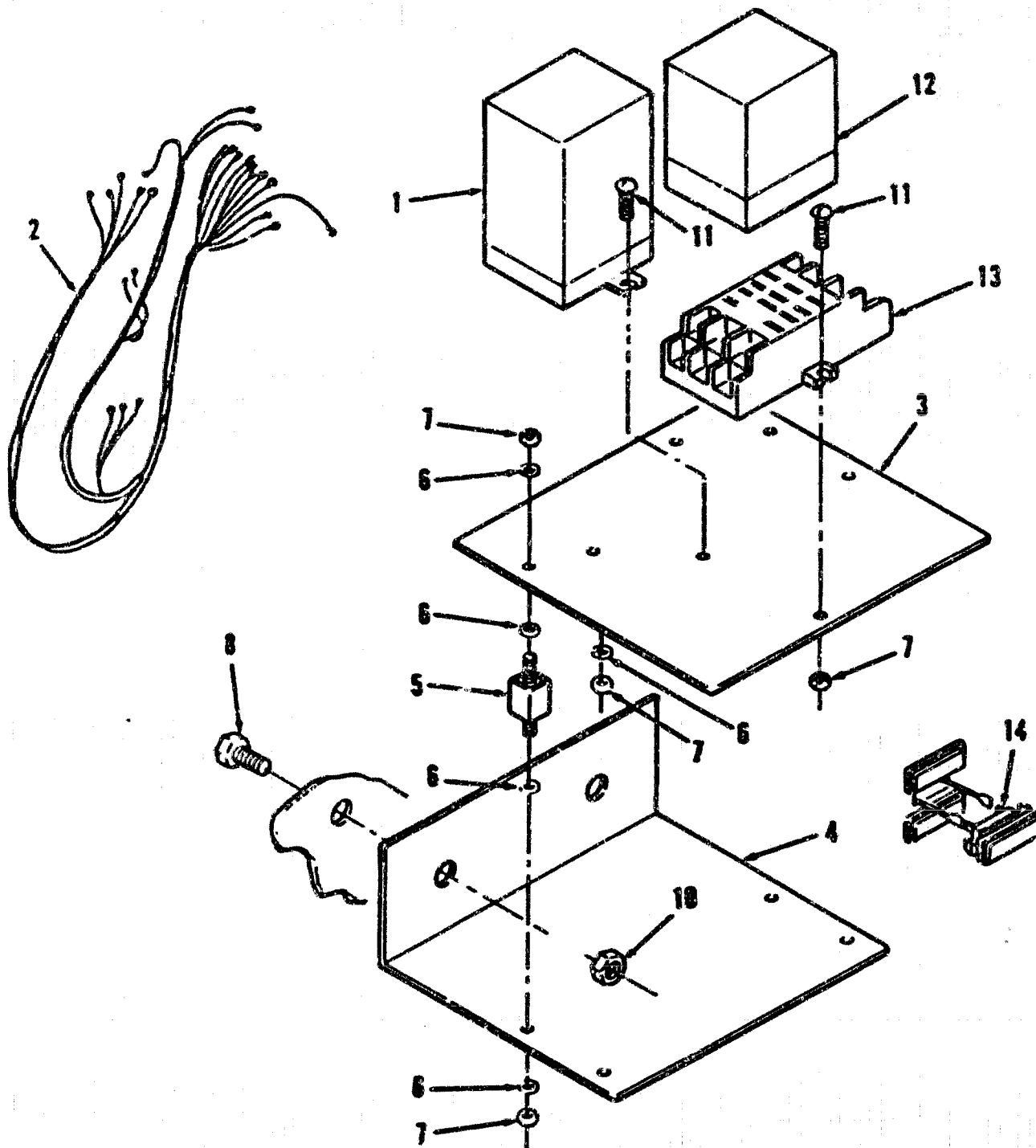
# Cross Current Compensation Circuit



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                    |
|----------|-------------|-----------|-------------------------------------|
| 1        | 302-1852-02 | 1         | Transformer, Current HC5, HC6 Frame |
|          | 302-1852-03 | 1         | HC6, HC7/MC Frame                   |
| 2        | 308-0069    | 1         | Switch, Toggle (S22)                |
| 3        | 301-9657    | 1         | Bracket, Mounting                   |

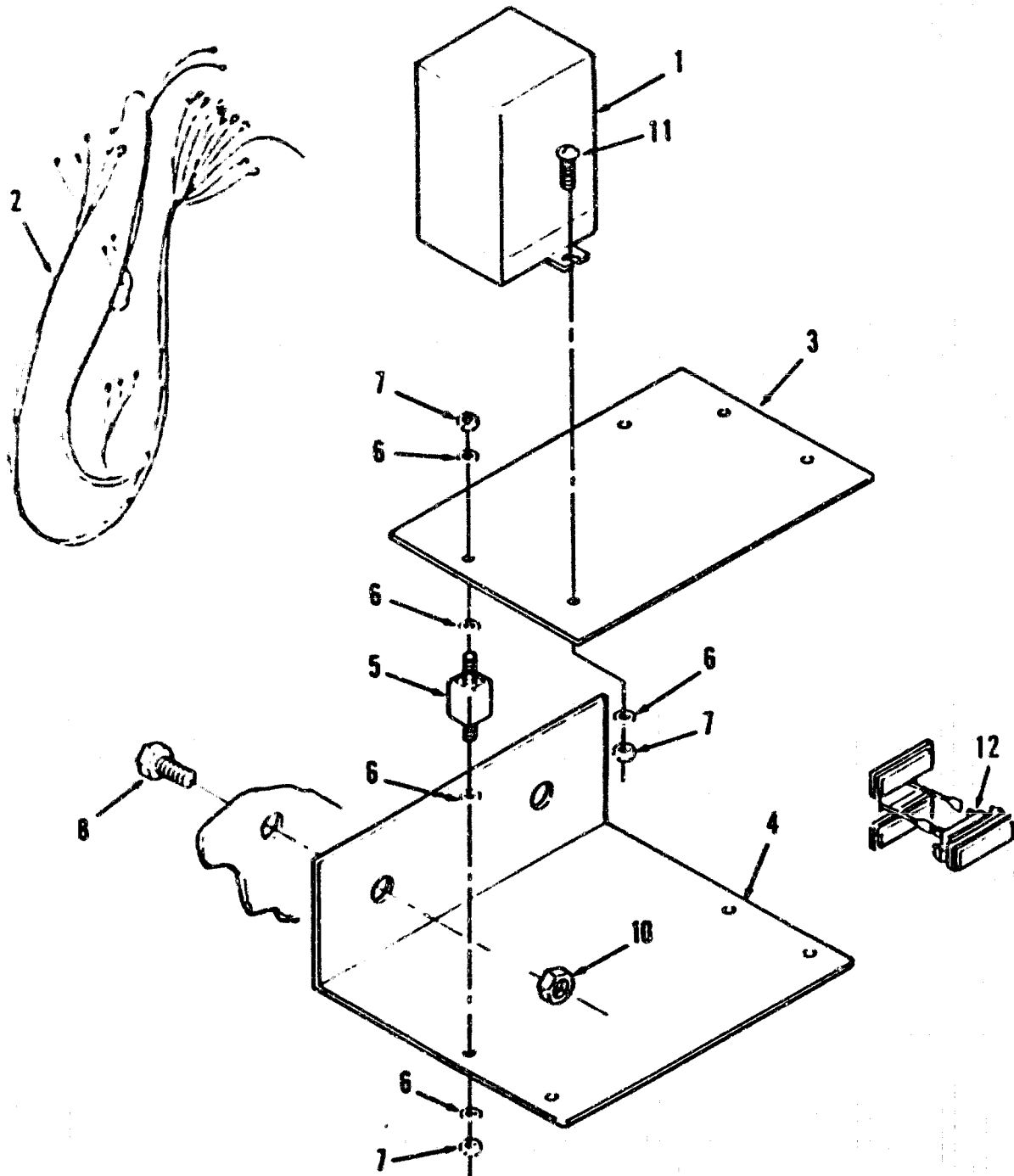
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                            |
|----------|----------|-----------|---------------------------------------------|
| 4        | 813-0100 | 2         | Screw, Machine - Round Head (#10-32 x 1/2") |
| 5        | 850-0030 | 2         | Washer, Lock - Spring (#10)                 |
| 6        | 870-0053 | 2         | Nut, Hex (#10-32)                           |

# Over/Under Voltage Relay



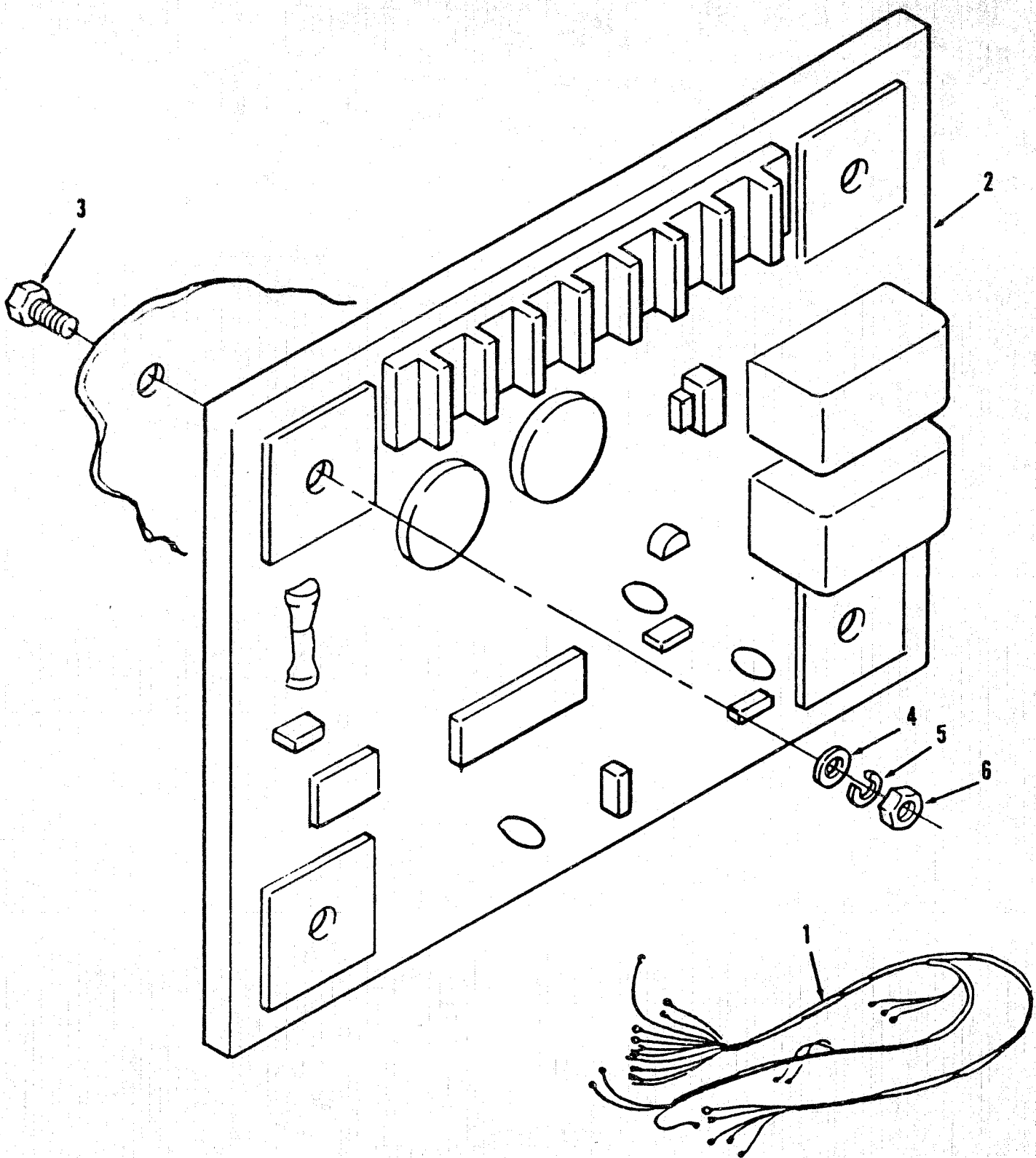
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                     | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                              |
|----------|----------|-----------|--------------------------------------|----------|-------------|-----------|---------------------------------------------------------------|
| 1        | 307-2552 | 1         | Relay, Voltage - Over/Under (A17)    | 8        | 521-0017    | 2         | Screw, Locking - Hex Washer Head (5/16-18 x 1/2")             |
|          | 307-2657 | 1         | 120 Volt, Single Phase Sets          | 10       | 870-0257    | 2         | Nut, Locking - Hex (5/16-18)                                  |
| 2        |          |           | 380 Volt, Three Phase Sets           | 11       | 812-0082    | 4         | Screw, Machine - Round Head (#8-32 x 3/4")                    |
|          | 338-2123 | 1         | Harness, Wiring - Over/Under Voltage | 12       | 307-1911    | 1         | Relay, Time Delay (.1 to 10 Seconds) (K17)                    |
|          | 338-2346 | 1         | 120 Volt, Single Phase Sets          | 13       | 323-0804    | 1         | Socket, Relay                                                 |
| 3        | 301-9933 | 1         | 380 Volt, Three Phase Sets           | 14       | 322-0384-09 | 1         | Light, Indicator - Marked "O/U VOLT" (Not used on all Models) |
| 4        | 301-6987 | 1         | Plate, Mounting                      |          |             |           |                                                               |
| 5        | 402-0354 | 4         | Bracket, Mounting                    |          |             |           |                                                               |
| 6        | 856-0002 | 18        | Mount, Shock                         |          |             |           |                                                               |
| 7        | 860-0008 | 12        | Washer, Lock - ET (#8)               |          |             |           |                                                               |
|          |          |           | Nut, Hex (#8-32)                     |          |             |           |                                                               |

# Over/ Under Frequency Relay



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                       | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                  |
|----------|----------|-----------|----------------------------------------|----------|-------------|-----------|---------------------------------------------------|
| 1        | 307 2553 | 1         | Relay Frequency - Over/Under (A18)     | 6        | 856-0002    | 18        | Washer, Lock - ET (#8)                            |
|          | 307 2709 | 1         | 50 Hertz Sets                          | 7        | 860-0008    | 10        | Nut, Hex (#8-32)                                  |
| 2        | 338 2347 | 1         | 60 Hertz Sets                          | 8        | 821-0017    | 2         | Screw, Locking - HEx Washer Head (5/16-18 x 1/2") |
|          |          |           | Harness, Wiring - Over/Under Frequency | 10       | 870-0257    | 2         | Nut, Hex Lock (5/16-18)                           |
| 3        | 301 9941 | 1         | Plate, Mounting                        | 11       | 812-0082    | 2         | Screw, Machine - Round Head (#8-32 x 3/4")        |
| 4        | 301 6987 | 1         | Bracket, Mounting                      | 12       | 322-0431-04 | 1         | Light, Indicator - Marked "O/U FREQ"              |
| 5        | 402 0354 | 3         | Mount, Shock                           |          |             |           |                                                   |

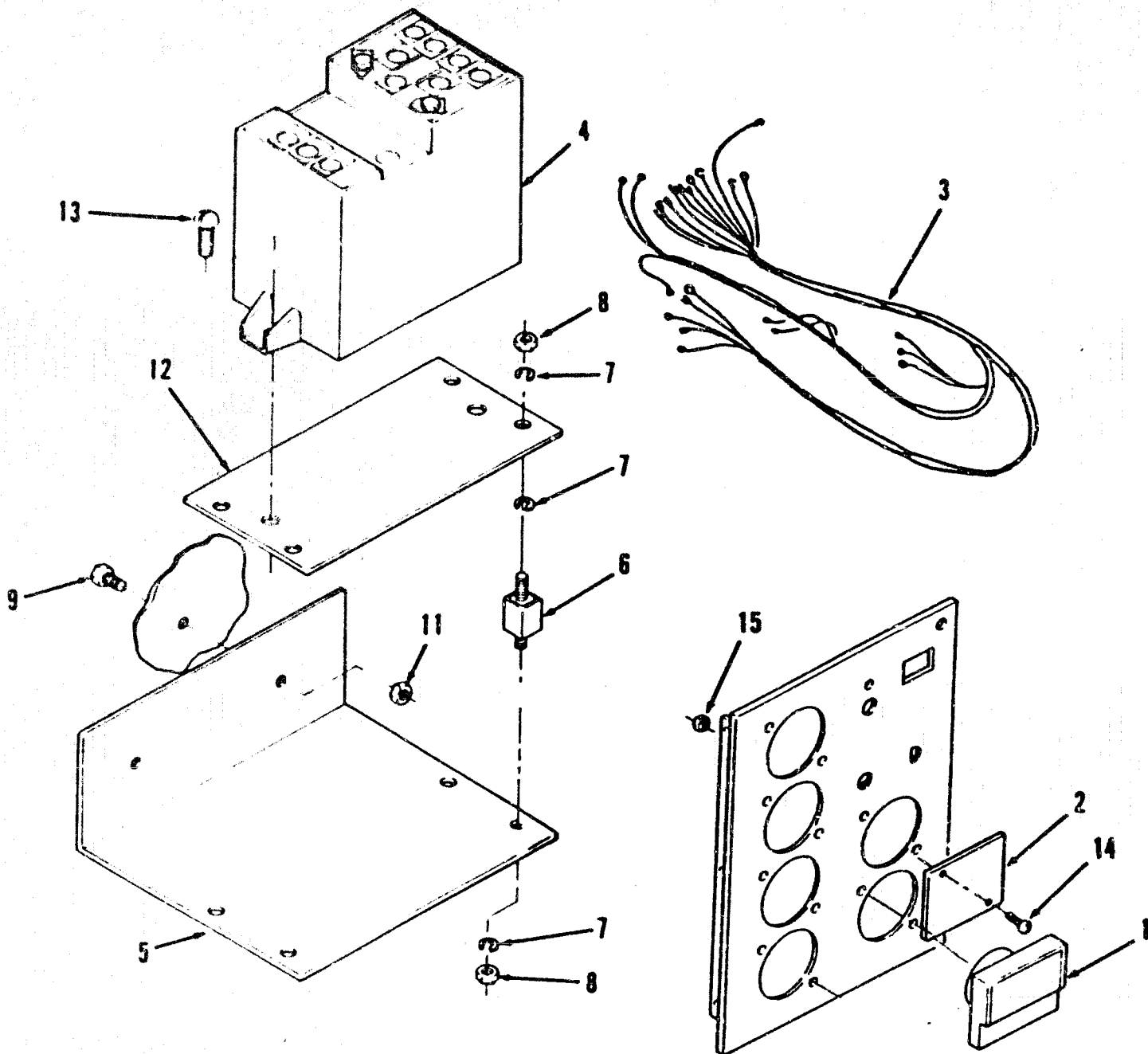
# Excitation Loss Module



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                        |
|----------|-------------|-----------|---------------------------------------------------------|
| 1        | 338 2455    | 1         | Harness, Wiring                                         |
| 2        | 305 0821-02 | 1         | Module (Also available as Newage part number 450-16300) |
| 3        | 800 2013    | 4         | Screw, Cap - Hex Head (M5 x 35mm)                       |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION           |
|----------|----------|-----------|----------------------------|
| 4        | 526-2060 | 4         | Washer, Flat (M5)          |
| 5        | 850-2005 | 4         | Washer, Lock - Spring (M5) |
| 6        | 860-2006 | 4         | Nut, Hex (M5)              |

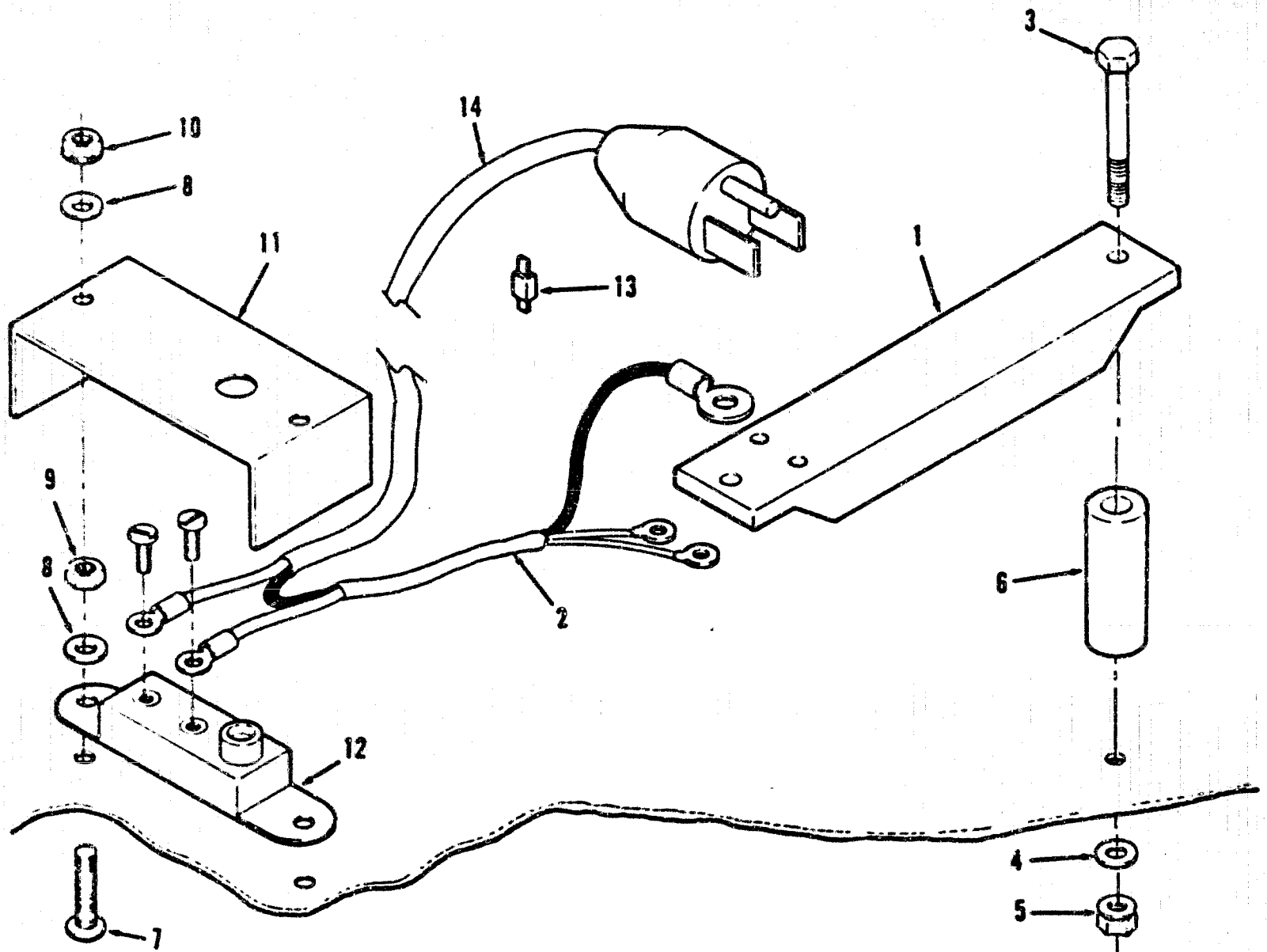
# Power Factor Meter



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                  |
|----------|-------------|-----------|---------------------------------------------------|
| 1        | 302-1883    | 1         | Meter - Power Factor (M25)                        |
| 2        | 301-9993    | 1         | Plate, Cover                                      |
| 3        | 338-2368    | 1         | Harness, Wiring - Meter                           |
| 4        | 302-1833 03 | 1         | Transducer, Watts (A21)                           |
| 5        | 301-6987    | 1         | Bracket, Mounting                                 |
| 6        | 402-0354    | 4         | Mount, Shock                                      |
| 7        | 856-0002    | 16        | Washer, Lock - ET (#8)                            |
| 8        | 860-0008    | 8         | Nut, Hex (#8-32)                                  |
| 9        | 821-0017    | 2         | Screw, Locking - Hex Washer Head (5/16-18 x 1/2") |

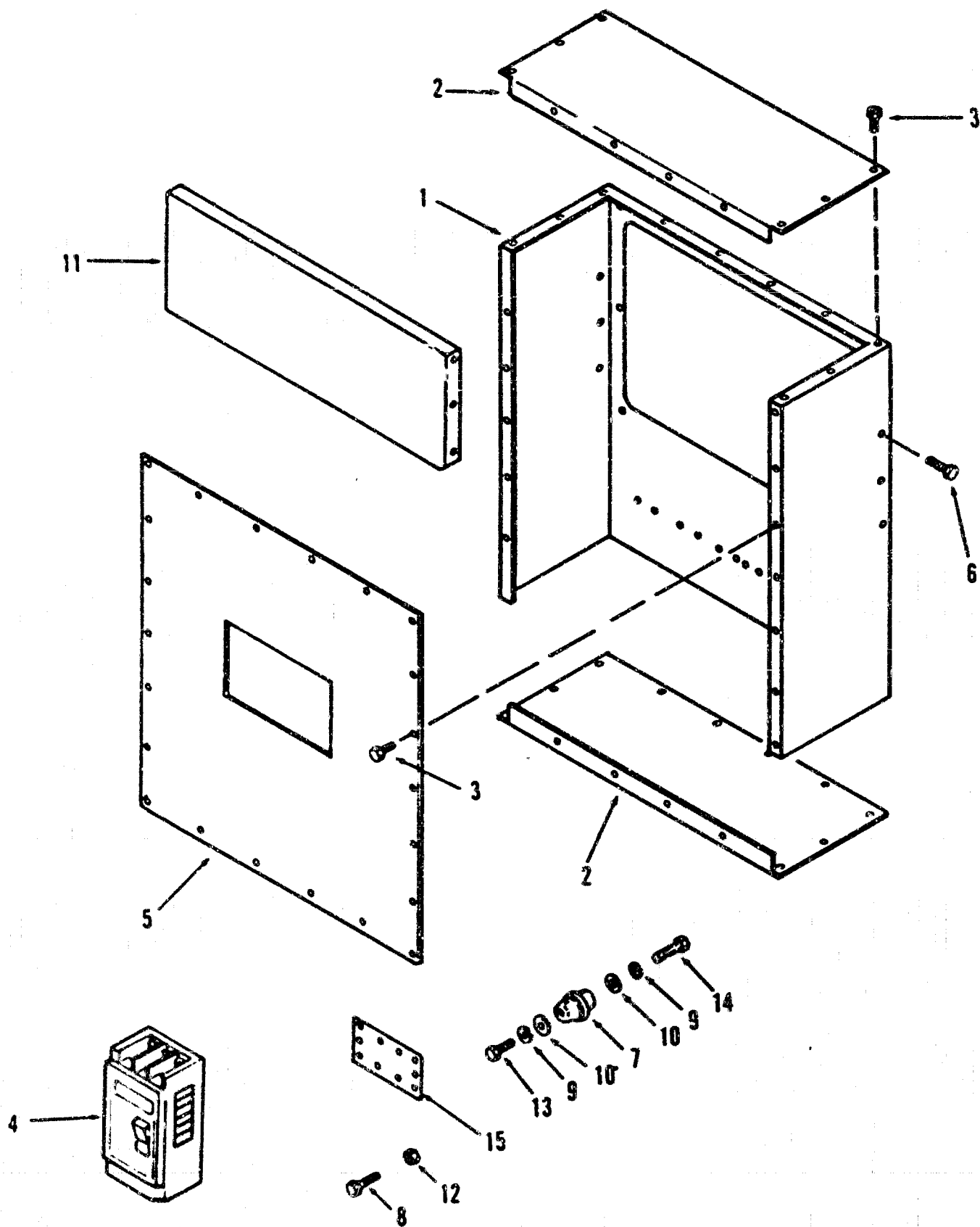
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                            |
|----------|----------|-----------|---------------------------------------------|
| 11       | 870-0257 | 2         | Nut, Locking Hex (5/16-18)                  |
| 12       | 319-0030 | 1         | Plate, Mounting                             |
| 13       | 813-0102 | 2         | Screw, Machine - Round Head (#10-32 x 5/8") |
| 14       | 815-0385 | 2         | Screw, Machine - Round Head (#6-32 x 1/2")  |
| 15       | 870-0183 | 2         | Nut, Hex - With ET (#8-32)                  |

# Control Heater



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                  | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION            |
|----------|----------|-----------|-----------------------------------|----------|----------|-----------|-----------------------------|
| 1        | 333-0151 | 1         | Heater (HR1)                      | 8        | 130-1107 | 2         | (5/16-18)                   |
|          | 333-0378 | 1         | 75 Watt, 120 Volt                 | 7        | 812-0070 | 2         | Spacer                      |
| 2        | 335-0161 | 1         | 150 Watt, 240 Volt                |          |          |           | Screw, Machine - Round Head |
|          | 338-2121 | 1         | Harness, Wiring (P1)              |          |          |           | (#6-32 x 1-1/4")            |
|          |          |           | 120 Volt Heater                   | 8        | 854-0006 | 4         | Washer, Lock - IT (#6)      |
|          |          |           | 240 Volt Heater - Includes        | 9        | 860-0006 | 2         | Nut, Hex (#6-32)            |
|          |          |           | Diode (Three Prong Plug not       | 10       | 870-0183 | 2         | Nut, Hex - With ET (#6-32)  |
|          |          |           | Included)                         | 11       | 301-1886 | 1         | Cover                       |
| 3        | 800-0034 | 2         | Screw, Cap - Hex Head             | 12       | 309-0128 | 1         | Thermostat (S1)             |
|          |          |           | (5/16-18 x 2-1/4")                | 13       | 357-0013 | 1         | Diode (3 Amp, 400 Volt DC)  |
| 4        | 526-0113 | 2         | Washer, Flat (11/32" ID x 1" OD x | 14       | 335-0181 | 1         | Cable, Electrical - 120 VAC |
|          |          |           | 3/32" Thk)                        |          |          |           | Application                 |
| 5        | 870-0257 | 2         | Nut, Self-Locking - Hex Head      |          |          |           |                             |

**Circuit Breaker  
(Non-UL Approved)**



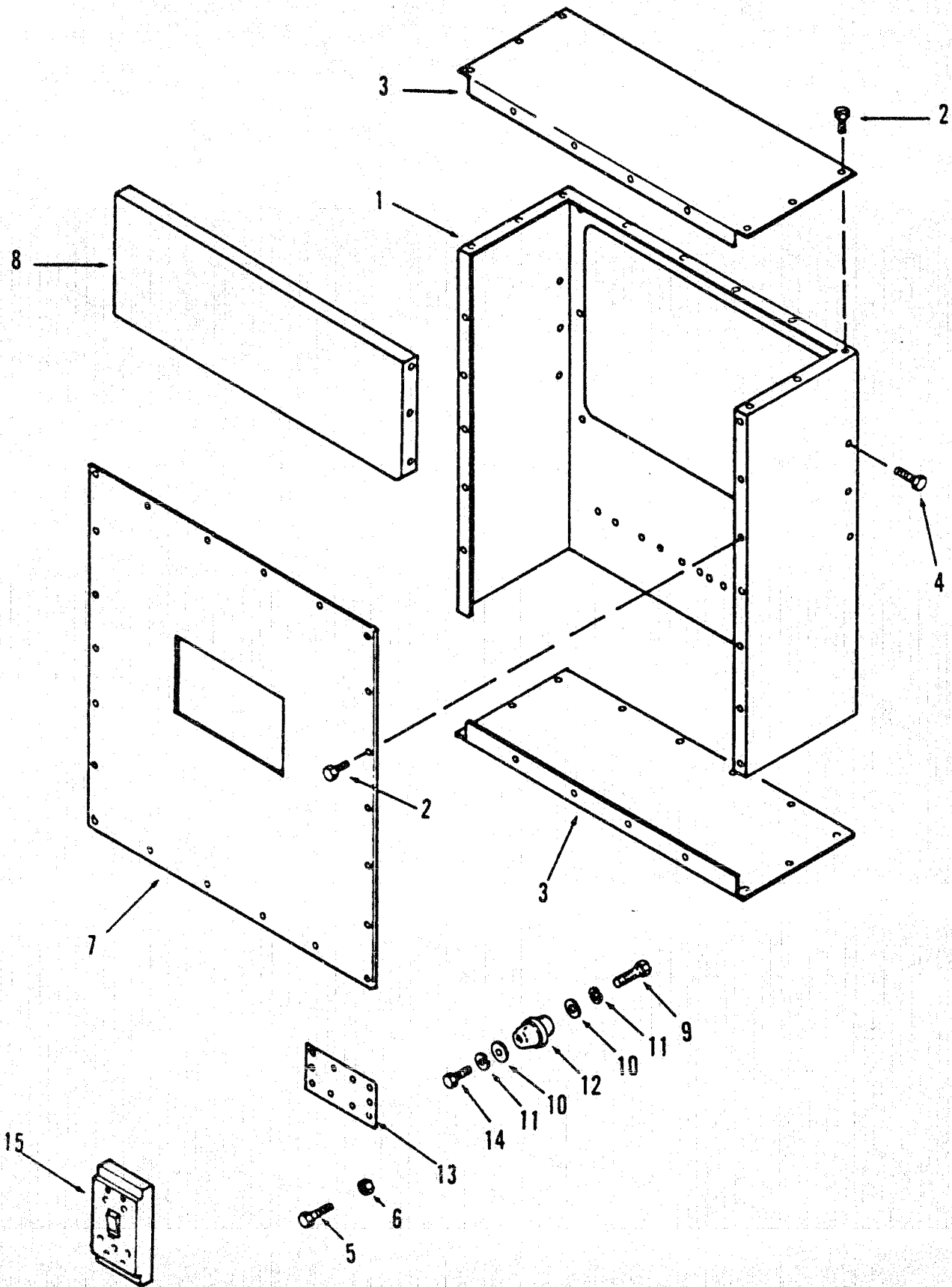
**Circuit Breaker  
(Non-UL Approved)**

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                      | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                      |
|----------|-------------|-----------|-------------------------------------------------------|----------|-------------|-----------|-------------------------------------------------------|
| 1        | 319-0890    | 1         | Wrapper, Breaker Box - Circuit                        |          | 320-1699-27 | 1         | 660 V - 2000 Amp                                      |
| 2        | 319-0892    | 2         | Panel, Box                                            |          | 320-1699-28 | 1         | 660 V - 2500 Amp                                      |
| 3        | 821-0010    | 60        | Screw, Self-Locking - Hex Washer Head (1/4-20 x 1/2") | 5        | 319-1121    | 1         | Cover, Box                                            |
| 4        |             |           | Frame - Circuit Breaker (Includes Mounting Hardware)  | 6        | 821-0031    | 6         | Screw, Self-Locking - Hex Washer Head (3/8-16 x 3/4") |
|          |             |           | Three Pole Breakers                                   | 7        | 332-2744-07 | 2         | *Standoff, Insulator                                  |
|          | 320-1699-01 | 1         | 660 V - 1250 Amp                                      | 8        | 800-0048    | 2         | *Screw, Cap - Hex Head (3/8-16 x .75)                 |
|          | 320-1699-02 | 1         | 660 V - 2000 Amp                                      | 9        | 850-0050    | 19        | *Washer, Lock-Spring (3/8")                           |
|          |             |           | Three Pole Breakers With Shunt Trip                   | 10       | 526-0030    | 30        | *Washer, Flat (3/8")                                  |
|          | 320-1699-04 | 1         | 660 V - 1600 Amp                                      | 11       | 319-1120    | 1         | Plate, Back - Box                                     |
|          | 320-1699-05 | 1         | 660 V - 1250 Amp                                      | 12       | 862-0003    | 13        | Nut, Hex (3/8")                                       |
|          | 320-1699-06 | 1         | 660 V - 2000 Amp                                      | 13       | 800-0054    | 9         | Screw, Cap - Hex Head (3/8-16 x 2)                    |
|          |             |           | Four Pole Breakers                                    | 14       | 800-0052    | 8         | Screw, Cap - Hex Head (3/8-16 x 1-1/2")               |
|          | 320-1699-21 | 1         | 660 V - 1600 Amp                                      | 15       | 337-2702    | 1         | *Neutral Bar                                          |
|          | 320-1699-23 | 1         | 660 V - 2000 Amp                                      |          |             |           |                                                       |
|          | 320-1699-24 | 1         | 660 V - 2500 Amp                                      |          |             |           |                                                       |
|          |             |           | Four Pole Breakers With Shunt Trip                    |          |             |           |                                                       |
|          | 320-1699-25 | 1         | 660 V - 1600 Amp                                      |          |             |           |                                                       |

\*Parts used on Three Pole Circuit Breakers



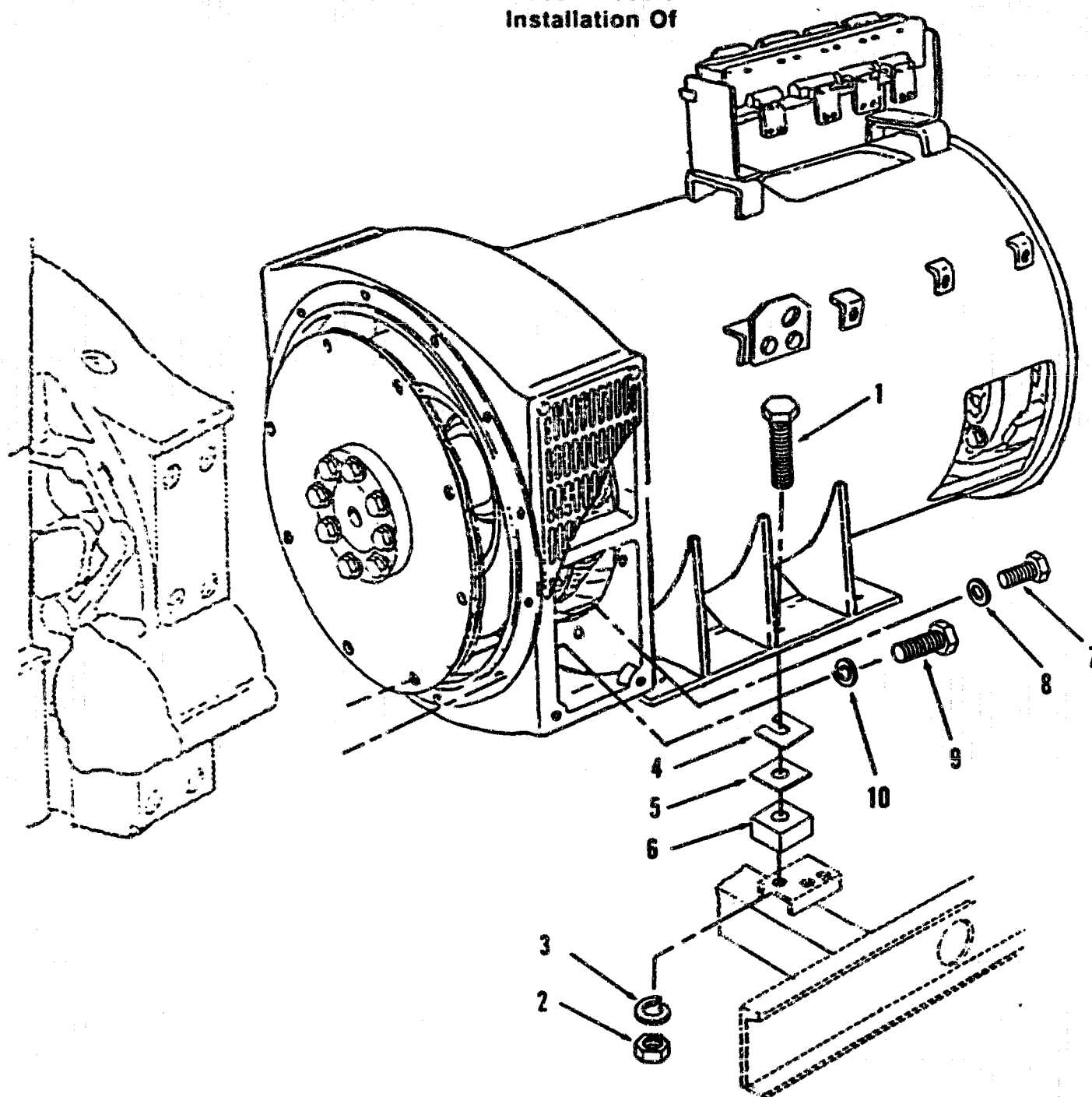
**Circuit Breaker  
(UL Approved)**



# **Circuit Breaker (UL Approved)**

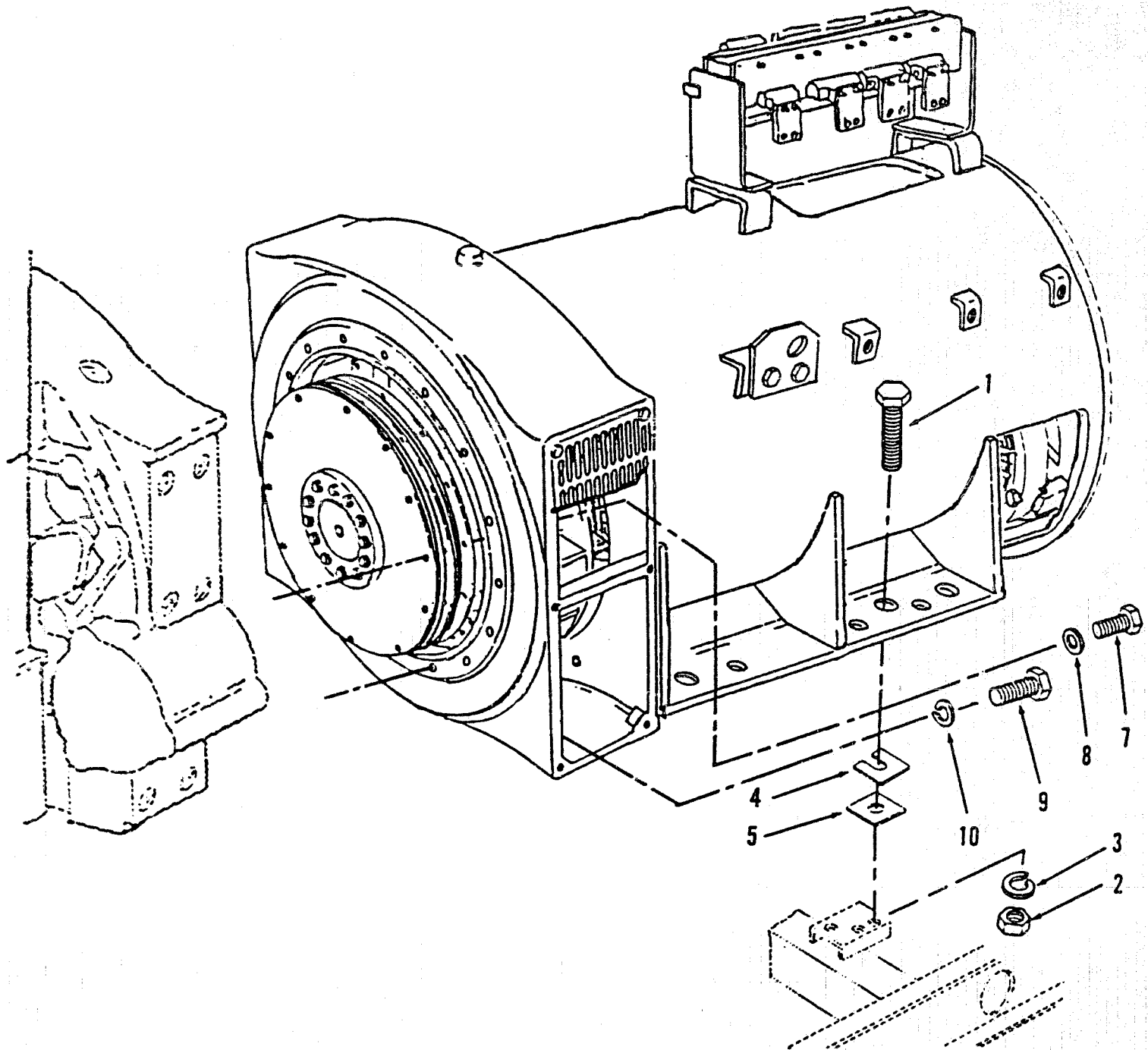
| REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION                                 | REF.<br>NO. | PART<br>NO. | QTY.<br>USED | PART<br>DESCRIPTION               |
|-------------|-------------|--------------|-----------------------------------------------------|-------------|-------------|--------------|-----------------------------------|
| 1           | 301 0890    | 1            | Wrapper, Box - Breaker - Circuit                    | 11          | 850-0050    | 19           | Washer, Lock (3/8)                |
| 2           | 821 0010    | 60           | Screw, Locking - Hex Washer Head<br>(1/4-20 x 1/2") | 12          | 332-2744-07 | 2            | Stand off, Insulator              |
| 3           | 301 0892    | 2            | Panel, Box                                          | 13          | 337-2702    | 1            | Neutral Bar                       |
| 4           |             |              | Screw                                               | 14          | 800-0048    | 2            | Screw, Cap - Hex Head (3/8 x .75) |
|             | 800 0031    | 6            | Cap - Hex Head (5/16-18 x 1-1/2")                   | 15          |             |              | Breaker, Circuit Standard         |
| 5           | 800 0054    | 9            | Screw, Cap - Hex Head (3/8 x 2)                     |             | 300-1783-00 | 1            | 3 Pole, 600 V, 1600 Amp           |
| 6           | 862 0003    | 13           | Nut, Hex (3/8)                                      |             | 300-1783-01 | 1            | 3 Pole, 600 V, 1250 Amp           |
| 7           | 319-1121    | 1            | Cover, Box                                          |             | 300-1783-02 | 1            | 3 Pole, 600 V, 2000 Amp           |
| 8           | 319-1120    | 1            | Plate, Back - Control Box                           |             | 300-1783-03 | 1            | 3 Pole, 600 V, 2500 Amp           |
| 9           | 800 0052    | 8            | Screw, Cap - Hex Head<br>(3/8-16 x 1-1/2)           |             | 300-1783-04 | 1            | 3 Pole, 600 V, 1600 Amp           |
| 10          | 526 0030    | 30           | Washer, Flat (3/8)                                  |             | 300-1783-05 | 1            | 3 Pole, 600 V, 1250 Amp           |
|             |             |              |                                                     |             | 300-1783-06 | 1            | 3 Pole, 600 V, 2000 Amp           |
|             |             |              |                                                     |             | 300-1783-07 | 1            | 3 Pole, 600 V, 2500 Amp           |

**Generator  
HC634 Models  
Installation Of**



| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                                                              | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                |
|----------|-------------|-----------|-----------------------------------------------------------------------------------------------|----------|----------|-----------|-------------------------------------------------|
|          |             |           | Generators with SAE 0 Adapter SAE 18 Drive Disc (See Separate Page for Servicable Components) | 5        | 403-2921 | 4         | Shim (1/8" THK) (Select as Required)            |
| 1        | 800-0304    | 2         | Screw, Cap - Hex Head (1-1/4" x 5-1/2")                                                       | 6        | 232-3551 | 2         | Spacer (2" THK)                                 |
| 2        | 862-0017    | 2         | Nut, Hex (1-1/4" - 7)                                                                         | 7        | 805-0035 | 6         | Bolt, Place - Hex Head (5/8-11 x 1-1/2")        |
| 3        | 850-0092    | 2         | Washer, Lock - Spring (1-1/4")                                                                | 8        | 525-0343 | 6         | Washer, Flat (5/8")                             |
| 4        |             |           | Shim (Select as Required)                                                                     | 9        | 800-0576 | 16        | Screw, Cap - Hex Head (1/2-13 x 1-3/4" Grade 8) |
|          | 232-3552-01 | 4         | 1/32" THK                                                                                     | 10       | 850-0060 | 16        | Washer, Lock - Spring (1/2")                    |
|          | 232-3552-02 | 4         | 5/64" THK                                                                                     |          |          |           |                                                 |

**GENERATOR  
HC734 MODELS  
Installation Of**



| REF. NO. | PART NO. | QTY. USED |
|----------|----------|-----------|
|----------|----------|-----------|

| PART DESCRIPTION |
|------------------|
|------------------|

|                                                                                                  |
|--------------------------------------------------------------------------------------------------|
| Generators with SAE 0 Adapter / SAE 18 Drive Disc (See Separate Page for Serviceable Components) |
|--------------------------------------------------------------------------------------------------|

|   |             |   |
|---|-------------|---|
| 1 | 800-0303    | 2 |
| 2 | 862-0017    | 2 |
| 3 | 850-0092    | 2 |
| 4 | 232-3710-01 | 4 |

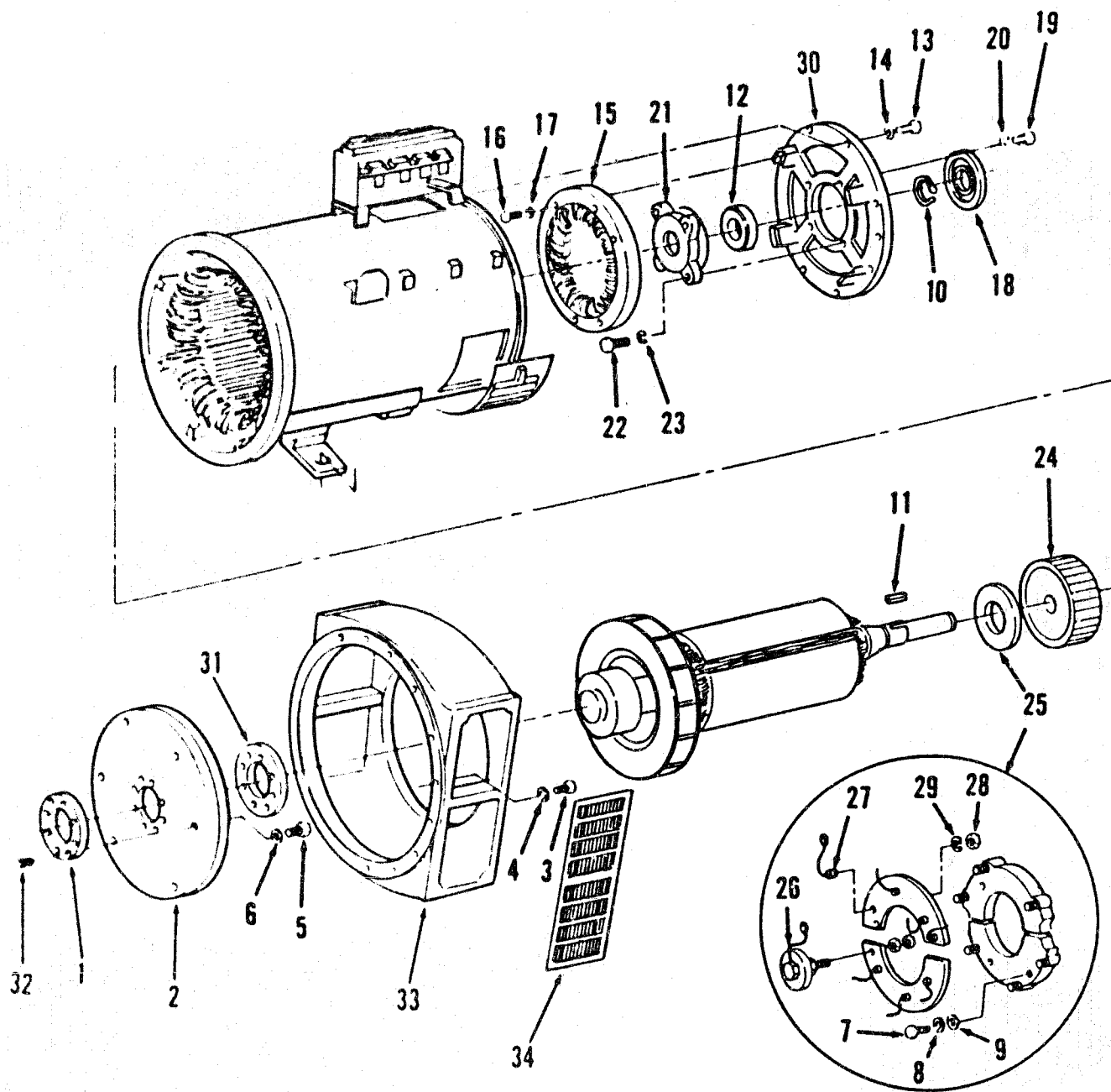
|                                          |
|------------------------------------------|
| Screw, Cap - Hex Head (1-1/4-7 x 3-1/2") |
| Nut, Hex (1-1/4-7)                       |
| Washer, Lock - Spring (1-1/4")           |
| Shim (Select as Required)                |
| 1/32" THK                                |

| REF. NO. | PART NO. | QTY. USED |
|----------|----------|-----------|
|----------|----------|-----------|

| PART DESCRIPTION |
|------------------|
|------------------|

|             |          |                                                  |
|-------------|----------|--------------------------------------------------|
| 232-3710-02 | 4        | 5/64" THK                                        |
| 232-3710-03 | 4        | (1/8" THK) (Select as Required)                  |
| 7           | 805-0035 | 6 Bolt, Place - Hex Head (5/8-11 x 1-1/2")       |
| 8           | 526-0343 | 6 Washer, Flat (5/8")                            |
| 9           | 800-0596 | 16 Screw, Cap - Hex Head (1/2-13 x 2.25 Grade 8) |
| 10          | 850-0060 | 16 Washer, Lock - Spring (1/2")                  |

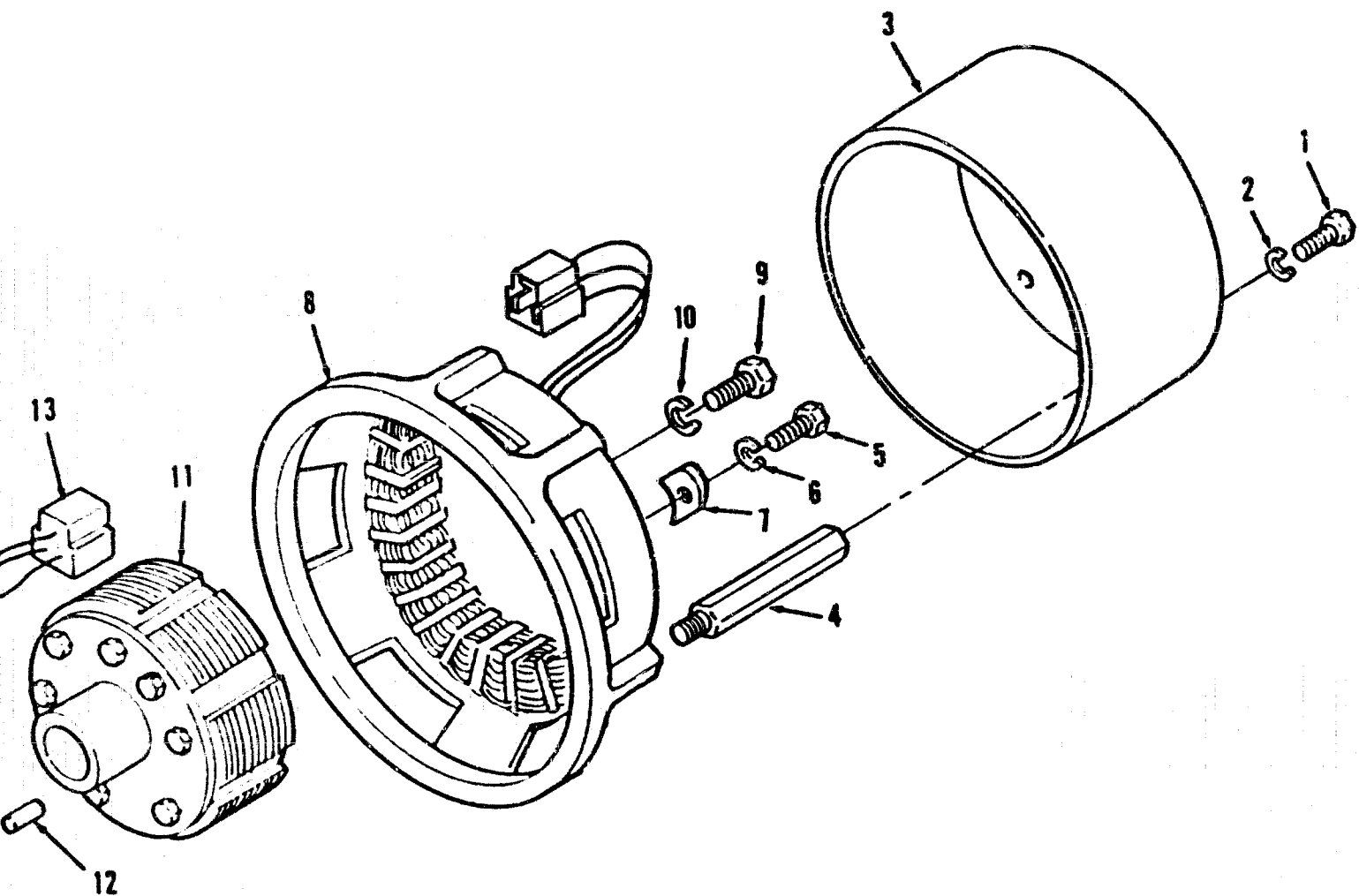
# Generator (HC634, HC734)



**Generator  
(HC634, HC734)**

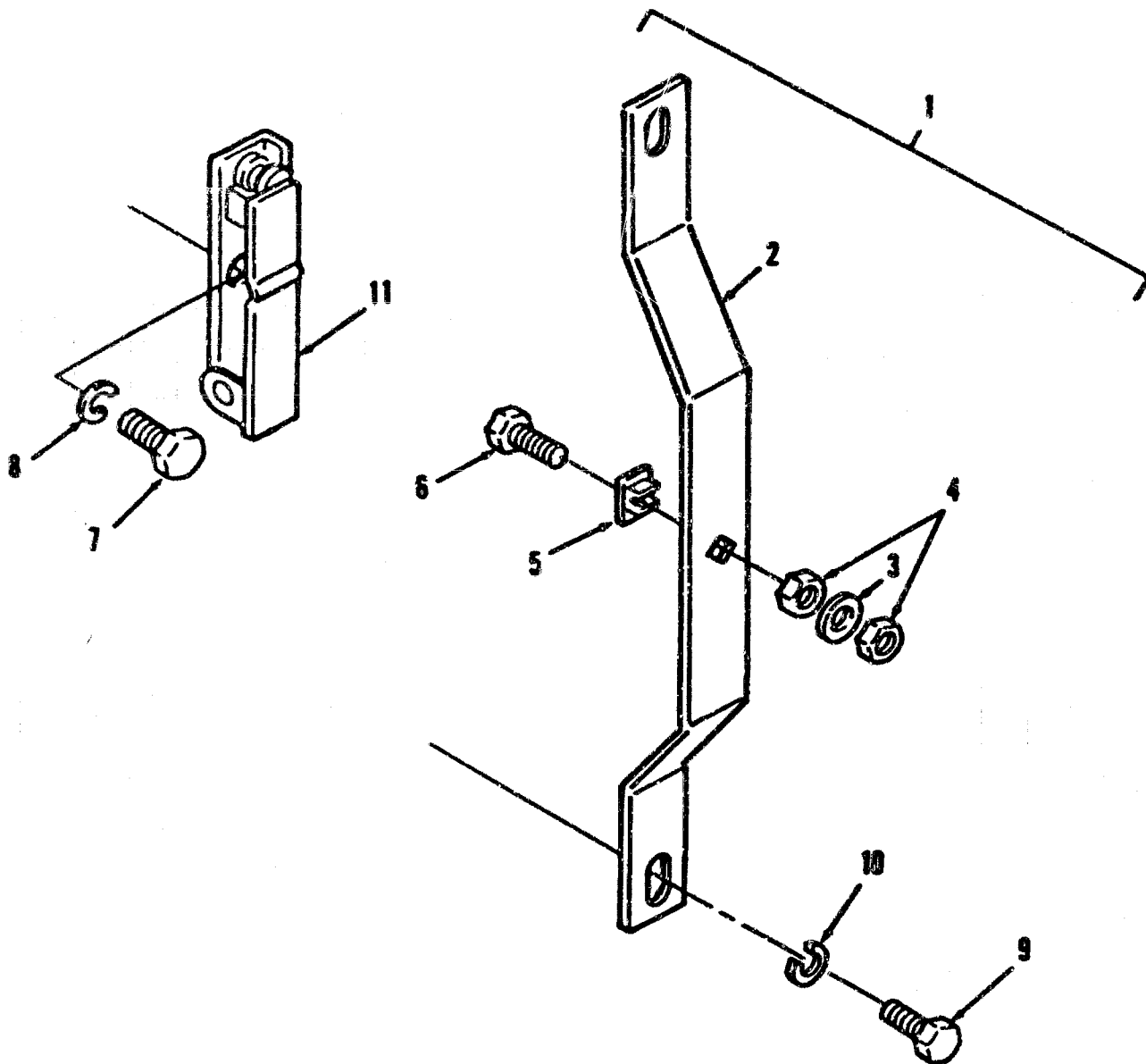
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                           | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                        |
|----------|----------|-----------|--------------------------------------------|----------|----------|-----------|---------------------------------------------------------|
| 1        |          |           | Plate, Pressure                            | 22       |          |           | Screw, Cap - Hex Head                                   |
|          | 249-0230 | 1         | HC634                                      |          | 800-2520 | 4         | (M10 x 30mm) HC634                                      |
|          | 249-0467 | 1         | HC734                                      |          | 800-2091 | 4         | (M10 x 50mm) HC734                                      |
| 2        |          |           | Disc, Drive - SAE 18                       | 23       | 850-2010 | 4         | Washer, Lock (M10)                                      |
|          | 249-0276 | 6         | HC634                                      | 24       |          |           | Rotor, Exciter                                          |
|          | 249-0469 | 6         | HC734                                      |          | 249-0512 | 1         | HC634                                                   |
| 3        | 800-0576 | 16        | Screw, Cap - Hex Head<br>(1/2-13 x 1-3/4") |          | 249-0503 | 1         | HC734                                                   |
| 4        | 850-0060 | 16        | Washer, Lock-Spring (1/2")                 | 25       | 357-0093 | 1         | Rectifier Assembly (Includes Diodes<br>and Varistor)    |
| 5        | 805-0033 | 8         | Bolt, Place (5/8-11 x 1-1/2")              | 26       |          |           | Varistor                                                |
| 6        | 526-0343 | 8         | Washer, Flat (5/8)                         |          | 249-0240 | 1         | HC634                                                   |
| 7        | 800-2043 | 4         | Screw, Cap - Hex Head (M6 x 65mm)          |          | 249-0566 | 1         | HC734                                                   |
| 8        | 850-2006 | 4         | Washer, Lock (M6)                          | 27       |          |           | Diode                                                   |
| 9        | 526-2080 | 4         | Washer, Flat (M6)                          |          | 249-0239 | 3         | Forward                                                 |
| 10       |          |           | Ring, Retaining                            |          | 249-0238 | 3         | Reverse                                                 |
|          | 249-0447 | 1         | HC634, HC734                               | 28       | 860-2006 | 6         | Nut, Hex (M5)                                           |
|          | 249-0475 | 1         | HC734, 4 1/4" Dia. Rotor                   | 29       | 850-2005 | 6         | Washer, Lock (M5)                                       |
| 11       | 249-0620 | 1         | Key                                        | 30       |          |           | Bracket, End                                            |
| 12       |          |           | Bearing, Ball                              |          | 249-0527 | 1         | HC634                                                   |
|          | 249-0448 | 1         | HC634, HC734                               |          | 249-0471 | 1         | HC734                                                   |
|          | 249-0792 | 1         | HC734, 4 1/4" Dia. Rotor                   | 31       |          |           | Spacer                                                  |
| 13       | 800-2114 | 8         | Screw, Cap-Hex Head (M12 x 40mm)           |          | 249-0277 | 1         | HC634                                                   |
| 14       | 850-2012 | 8         | Washer, Lock (M12)                         |          | 249-0468 | 1         | HC734                                                   |
| 15       | 249-0470 | 1         | Stator, Exciter                            | 32       |          |           | Screw, Cap - Hex Head                                   |
| 16       |          |           | Screw, Cap Hex Head                        |          | 249-0437 | 8         | (M20 x 75mm) HC634                                      |
|          | 249-0445 | 6         | (M6 x 65mm) HC634                          |          | 249-0444 | 8         | (M24 x 75mm) HC734                                      |
|          | 249-0438 | 6         | (M6 x 85mm) HC734                          | 33       |          |           | Adapter, Generator SAE 0                                |
| 17       | 850-2006 | 6         | Washer, Lock (M6)                          |          | 249-0533 | 1         | HC634                                                   |
| 18       |          |           | Cap. Bearing - Outer                       |          | 249-0481 | 1         | HC734                                                   |
|          | 249-0510 | 1         | HC634, HC734                               | 34       |          |           | Screen, Air - Adapter                                   |
|          | 249-0793 | 1         | HC734, 4 1/4" Dia. Rotor                   |          | 249-0534 | 2         | HC634                                                   |
| 19       | 800-2528 | 4         | Screw, Cap - Hex Head (M10 x 30mm)         |          | 249-0482 | 2         | HC734                                                   |
| 20       | 850-2010 | 4         | Washer, Lock (M10)                         | 35       | 249-0796 | 1         | O-Ring (Used on HC734 4 1/4" Dia.<br>Rotor) (Not Shown) |
| 21       |          |           | Cap. Bearing - Inner                       |          |          |           |                                                         |
|          | 249-0509 | 1         | HC634, HC734                               |          |          |           |                                                         |
|          | 249-0794 | 1         | HC734, 4 1/4" Dia. Rotor                   |          |          |           |                                                         |

# Permanent Magnet Excitler



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                  | REF. NO. | PART NO. | QTY. USED                 | PART DESCRIPTION                                                                       |
|----------|----------|-----------|-----------------------------------|----------|----------|---------------------------|----------------------------------------------------------------------------------------|
| 1        | 800-2004 | 3         | Screw, Cap - Hex Head (M5 x 12mm) | 232-3526 | 4        | HC634, HC734              |                                                                                        |
| 2        | 850-2005 | 3         | Washer, Lock - Spring (M5)        | 232-3511 | 4        | HC734, 4 1/4" Dia. Rotor  |                                                                                        |
| 3        |          |           | Cover                             | 8        |          |                           | Stator                                                                                 |
|          | 234-0890 | 1         | HC634, HC734                      | 249-0741 | 1        | HC634, HC734              |                                                                                        |
|          | 249-0791 | 1         | HC734 - 4 1/4" Dia. Rotor         | 249-0790 | 1        | HC734 - 4 1/4" Dia. Rotor |                                                                                        |
| 4        | 232-3527 | 3         | Spacer, Mounting - Cover          | 9        | 249-0495 | 1                         | Bolt, Hex Head                                                                         |
| 5        |          |           | Screw, Cap - Hex Head (M8 x 16mm) | 10       | 850-2010 | 1                         | Washer, Lock (M10)                                                                     |
|          | 800-2056 | 4         | HC634, HC734                      | 11       | 249-0644 | 1                         | Rotor                                                                                  |
|          | 718-1035 | 4         | HC734 - 4 1/4" Dia. Rotor         | 12       | 775-0049 | 1                         | Pin, Dowel                                                                             |
| 6        |          |           | Washer, Lock - Spring (M8)        | 13       | 249-0642 | 1                         | Harness, Wiring (Universal Replacement) Permanent Magnet Exciter to AUX Terminal Strip |
|          | 850-2008 | 4         | HC634, HC734                      |          |          |                           |                                                                                        |
|          | 850-2008 | 4         | HC734 - 4 1/4" Dia. Rotor         |          |          |                           |                                                                                        |
| 7        |          |           | Clamp, Stator                     |          |          |                           |                                                                                        |

# Overspeed Switch

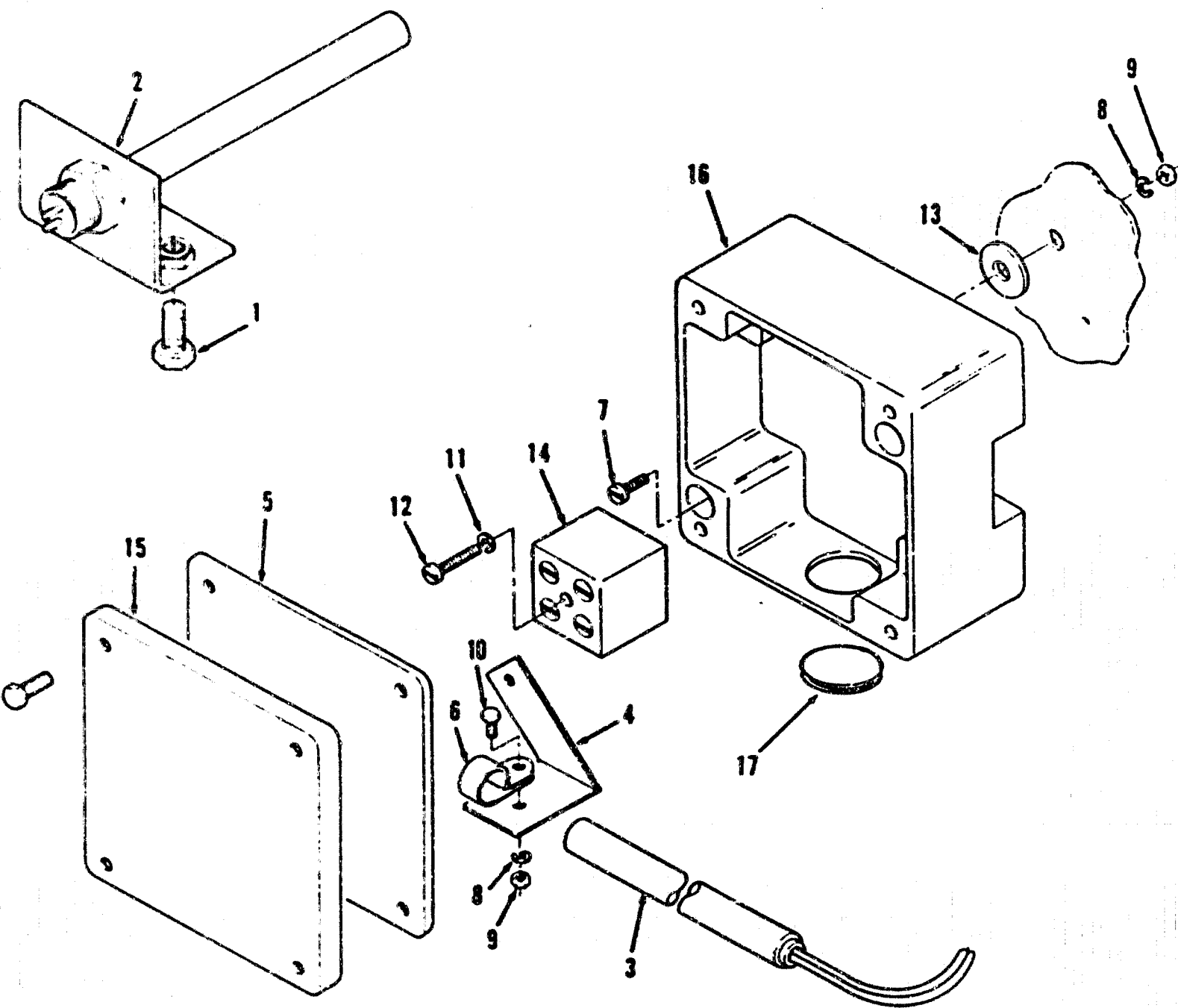


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                        |
|----------|----------|-----------|---------------------------------------------------------|
| 1        | 150-2139 | 1         | Bracket and Point Assembly<br>(Includes Parts Marked *) |
| 2        | 150-2138 | 1         | *Bracket, Mounting                                      |
| 3        | 853-0013 | 1         | *Washer, Lock - ET (1/4")                               |
| 4        | 862-0001 | 2         | *Nut, Hex (1/4-20)                                      |
| 5        | 870-0250 | 1         | *Nut, Insulator                                         |
| 6        | 150-0723 | 1         | *Point, Contact                                         |

| REF. NO.                                                   | PART NO. | QTY. USED | PART DESCRIPTION                   |
|------------------------------------------------------------|----------|-----------|------------------------------------|
| 7                                                          | 800-2088 | 1         | Screw, Cap - Hex Head (M10 x 35mm) |
| 8                                                          | 850-2010 | 1         | Washer, Lock - Spring (M10)        |
| 9                                                          | 800-2058 | 2         | Screw, Cap - Hex Head (M8 x 18mm)  |
| 10                                                         | 850-2008 | 2         | Washer, Lock - Spring (M8)         |
| 11                                                         | 150-0956 | 1         | Switch, Overspeed (S3)             |
| * - Parts Included in 150-2139 Bracket and Point Assembly. |          |           |                                    |



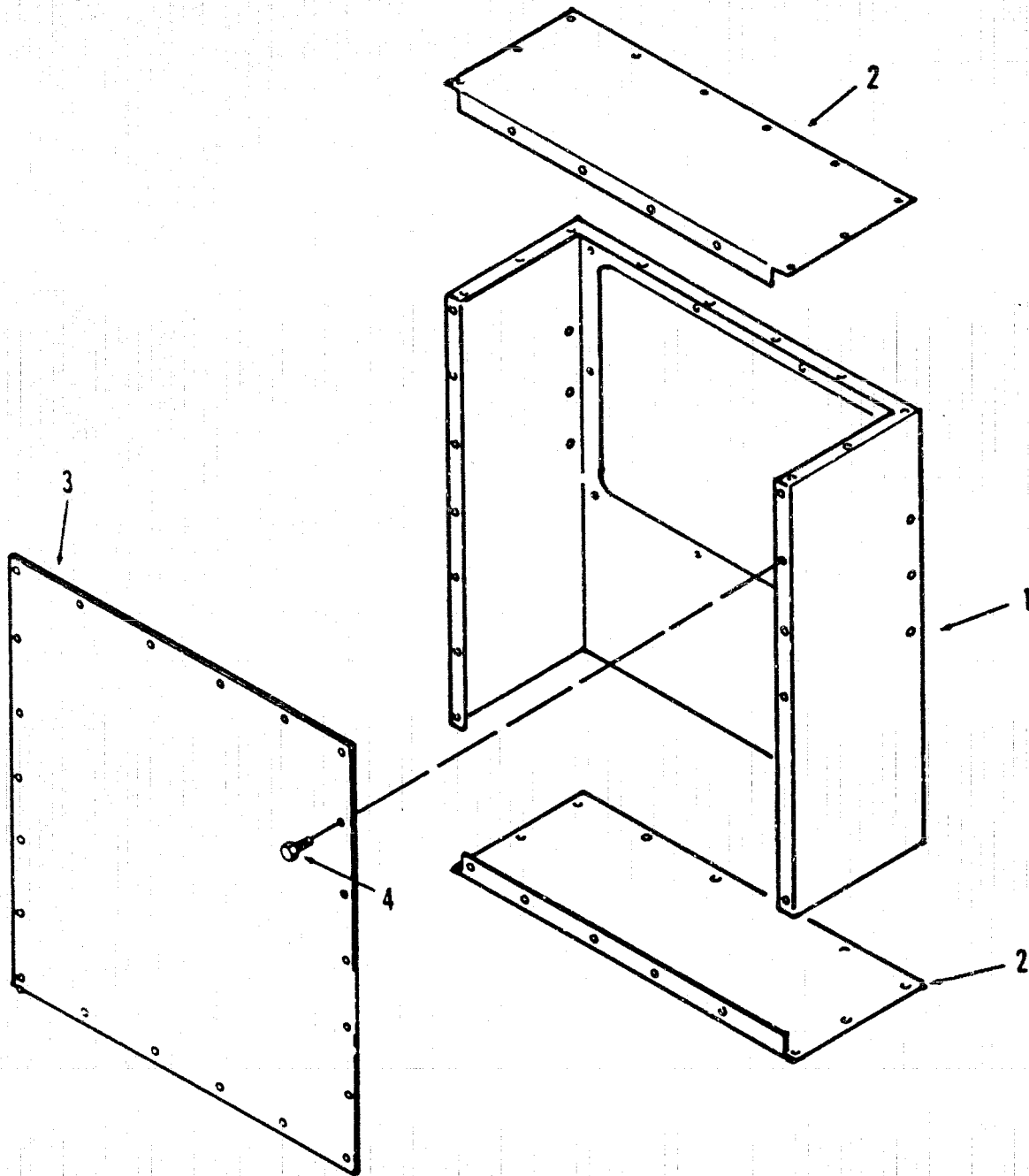
# Generator Heater



# Generator Heater

| REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                                                                             | REF. NO. | PART NO.    | QTY. USED | PART DESCRIPTION                      |
|----------|-------------|-----------|----------------------------------------------------------------------------------------------|----------|-------------|-----------|---------------------------------------|
| 1        | 800-2010    | 4         | Screw, Cap - Hex Head (M5 x 20mm)                                                            |          |             |           | One Heater Mounting Hole)             |
| 2        |             |           | Heater, Generator (Includes Mounting Brackets and Terminal Block) Newage Generator Model HC4 |          | 232-3560    | 1         | Left Side                             |
|          |             |           |                                                                                              |          | 232-3561    | 1         | Right Side                            |
|          | 333-0382-02 | 1         | 120 Volt                                                                                     | 5        | 330-0141-04 | 1         | Gasket Cover                          |
|          | 333-0382-07 | 1         | 240 Volt                                                                                     | 6        | 822-3075    | 2         | Clamp, Loop                           |
| 3        |             |           | Cartridge, Heater                                                                            | 7        | 822-3075    | 2         | Screw, Pan Head (M4 x 16mm)           |
|          |             |           | Newage Generator Model HC4                                                                   | 8        | 850-2004    | 4         | Washer, Lock - Spring (M4)            |
|          | 333-0438-03 | 2         | 120 Volt (150 Watt)                                                                          | 9        | 860-2005    | 4         | Nut, Hex (M4)                         |
|          | 333-0438-04 | 2         | 240 Volt (150 Watt)                                                                          | 10       | 800-4047    | 2         | Screw, Machine - Hex Head (M4 x 13mm) |
| 4        |             |           | Bracket, Mounting - Heater                                                                   | 11       | 850-2003    | 1         | Washer, Lock - Spring (M3)            |
|          |             |           | Newage Generator Model HC4 (With Two Heater Mounting Holes)                                  | 12       | 822-3047    | 1         | Screw, Pan Head (M3 x 20mm)           |
|          | 232-3543    | 1         | Left Side                                                                                    | 13       | 508-0228    | 1         | Grommet                               |
|          | 232-3544    | 1         | Right Side                                                                                   | 14       | 332-3032    | 1         | Block, Terminal                       |
|          |             |           | Newage Generator Model HC5 (With                                                             | 15       | 330-0141-03 | 1         | Cover, Box                            |
|          |             |           |                                                                                              | 16       | 330-0142    | 1         | Box, Terminal                         |
|          |             |           |                                                                                              | 17       | 517-0021    | 1         | Plug, Dot Button                      |

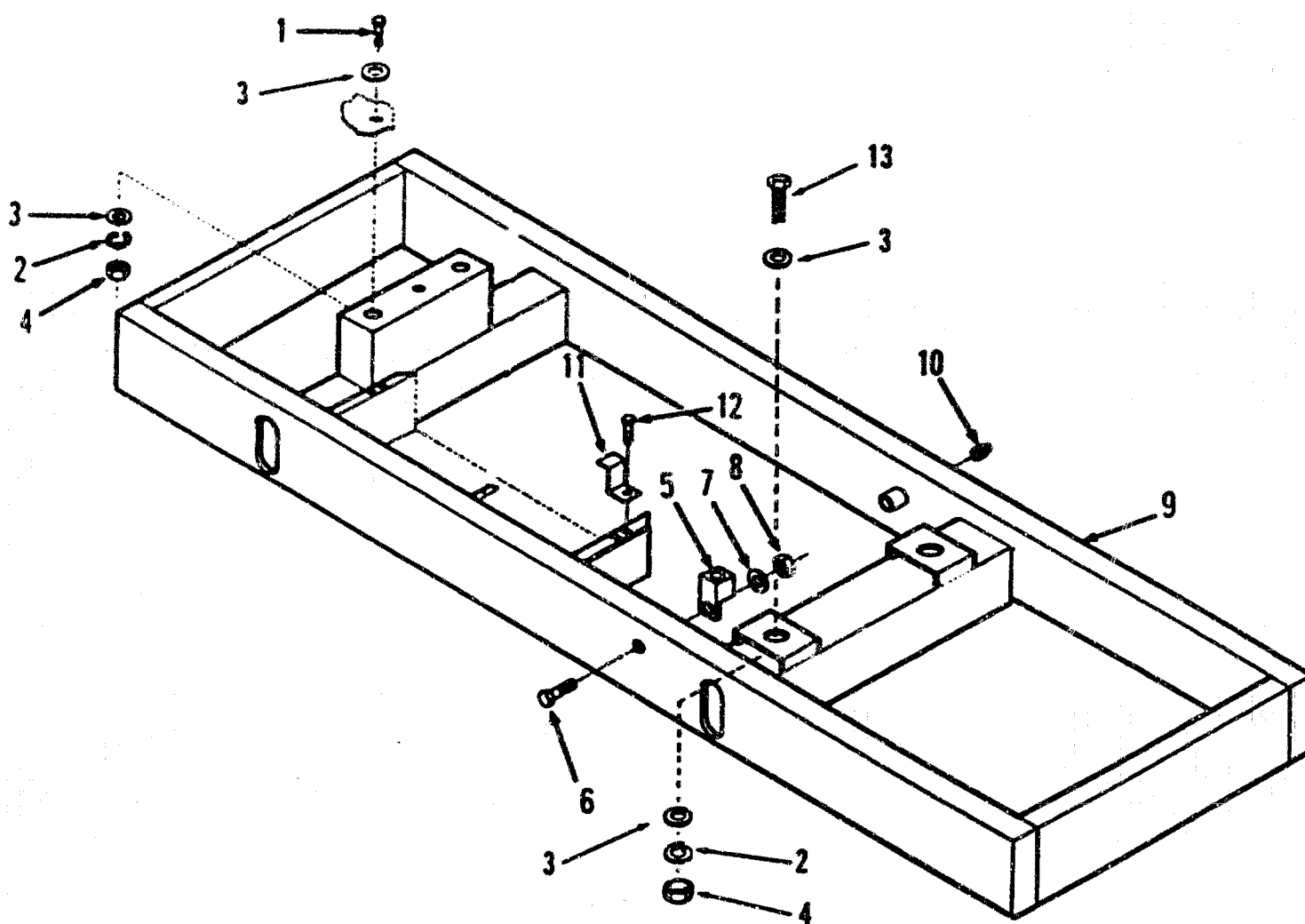
# Entrance Box



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|------------------|
| 1        | 319-0890 | 1         | Box, Entrance    |
| 2        | 319-0892 | 2         | Panel            |
| 3        | 319-0888 | 1         | Cover            |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                                    |
|----------|----------|-----------|-----------------------------------------------------|
| 4        | 821-0010 | 52        | Screw, Locking - Hex Washer Head<br>(1/4-20 x 1/2") |

# Skid



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                    |
|----------|----------|-----------|-------------------------------------|
| 1        | 800-0163 | 2         | Screw, Cap - Hex Head (3/4"-10 x 4) |
| 2        | 850-0079 | 22        | Washer, Lock - Spring (3/4)         |
| 3        | 526-0027 | 6         | Washer, Flat (3/4)                  |
| 4        | 862-0008 | 4         | Nut, Hex (3/4-10)                   |
| 5        | 332-2001 | 1         | Lug, Solderless - Grounding         |
| 6        | 800-0050 | 1         | Screw, Cap - Hex Head (3/8-16 x 1)  |
| 7        | 856-0010 | 1         | Washer, Lock - EIT (3/8")           |
| 8        | 870-0281 | 1         | Nut, Locking - Hex Head (3/8-16)    |
| 9        |          |           | Skid                                |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION                      |
|----------|----------|-----------|---------------------------------------|
|          | 403-3155 | 6         | DJFA, DFJB, DFJC, DFJD                |
|          | 403-3141 |           | DFLA, DFLB, DFLC, DFLD, DFMB          |
| 10       | 505-1379 | 1         | Plug, Pipe (1/2")                     |
| 11       | 416-0850 | 8         | Bracket, Battery                      |
| 12       | 800-0048 | 8         | Screw, Cap - Hex Head (3/8-16 x 3/4") |
| 13       | 800-0158 | 4         | Screw, Cap - Hex Head (3/4-10 x 2.75) |

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Title: DF Series Parts Catalog  
Spec Advance  
Number: As Listed Below

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This Supplementary Parts List Spec advances "DF" series generator sets as shown:

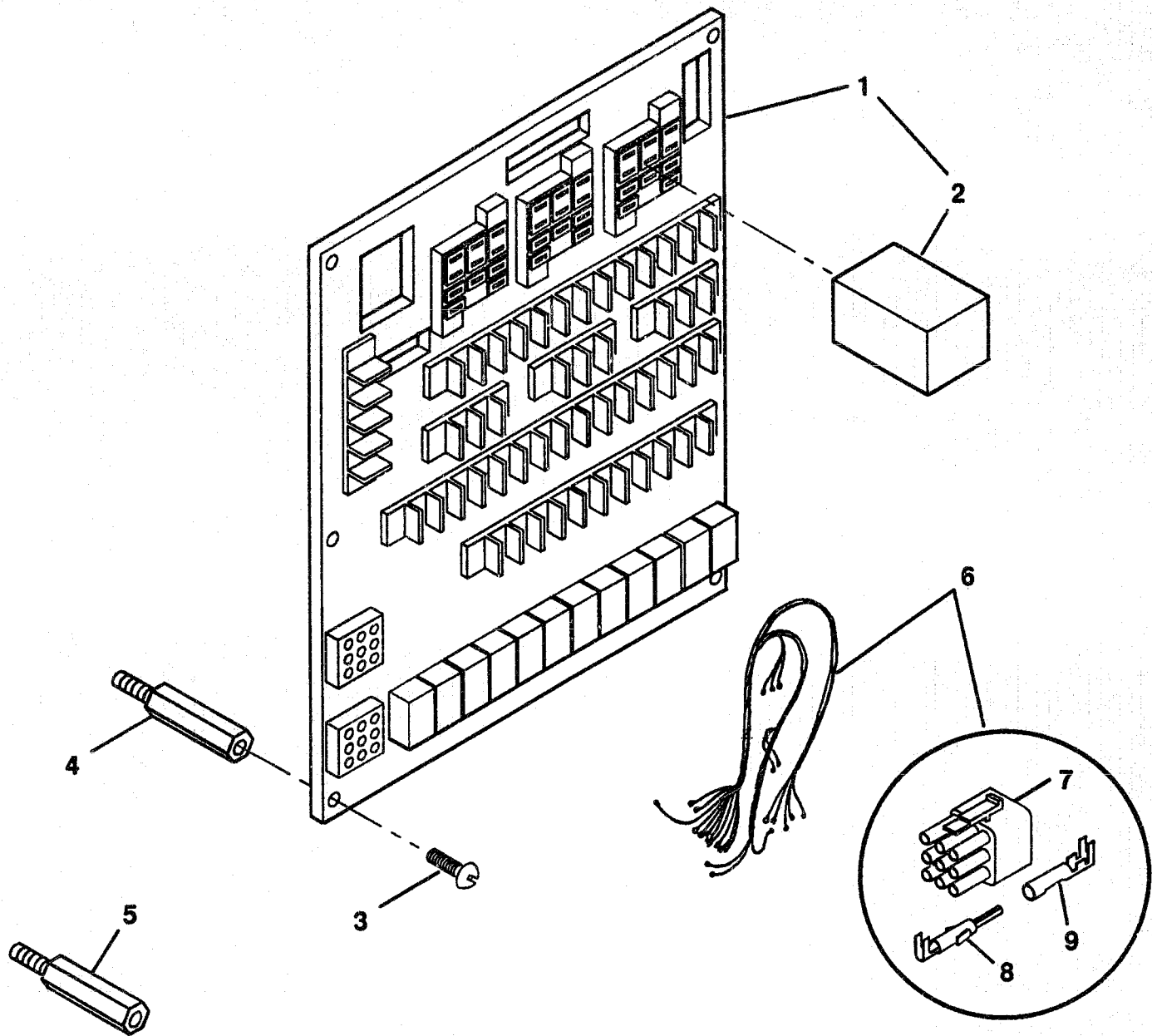
| <u>"DF" Series<br/>Models</u> | <u>New Spec<br/>Advance Letter</u> | <u>Catalog<br/>Number</u> |
|-------------------------------|------------------------------------|---------------------------|
| DFAA, DFAB, DFAC              | B                                  | 960-0260                  |
| DFBF, DFCB, DFCC              | H                                  | 960-0204                  |
| DFEB, DFFB                    | H                                  | 960-0240                  |
| DFEC                          | B                                  | 960-0240                  |
| DFGA, DFGB                    | B                                  | 960-0259                  |
| DFJA, DFJB, DFJC              | J                                  | 960-0263                  |
| DFJD                          | B                                  | 960-0263                  |
| DFLB, DFLC, DFLD, DFMB        | J                                  | 960-0264                  |

This "DF" series supplement covers the change to a circuit board containing twelve form C contact relays and three standard product run relays. The new board provides continuous monitoring of the generator set and the run relays can be configured for any of three functions (run, common alarm, isolated logic) with the movement of jumpers on the board.

In addition to the circuit board change, low coolant senders wired to shut down the set are now a standard feature. The low coolant leads are now incorporated into the main engine harness necessitating in the release of new engine harness part numbers.

On the following pages replacement parts are shown for each "DF" series model beginning with the Spec advance letters as shown above. Use these part numbers in place of those listed in the related "DF" series parts catalogs.

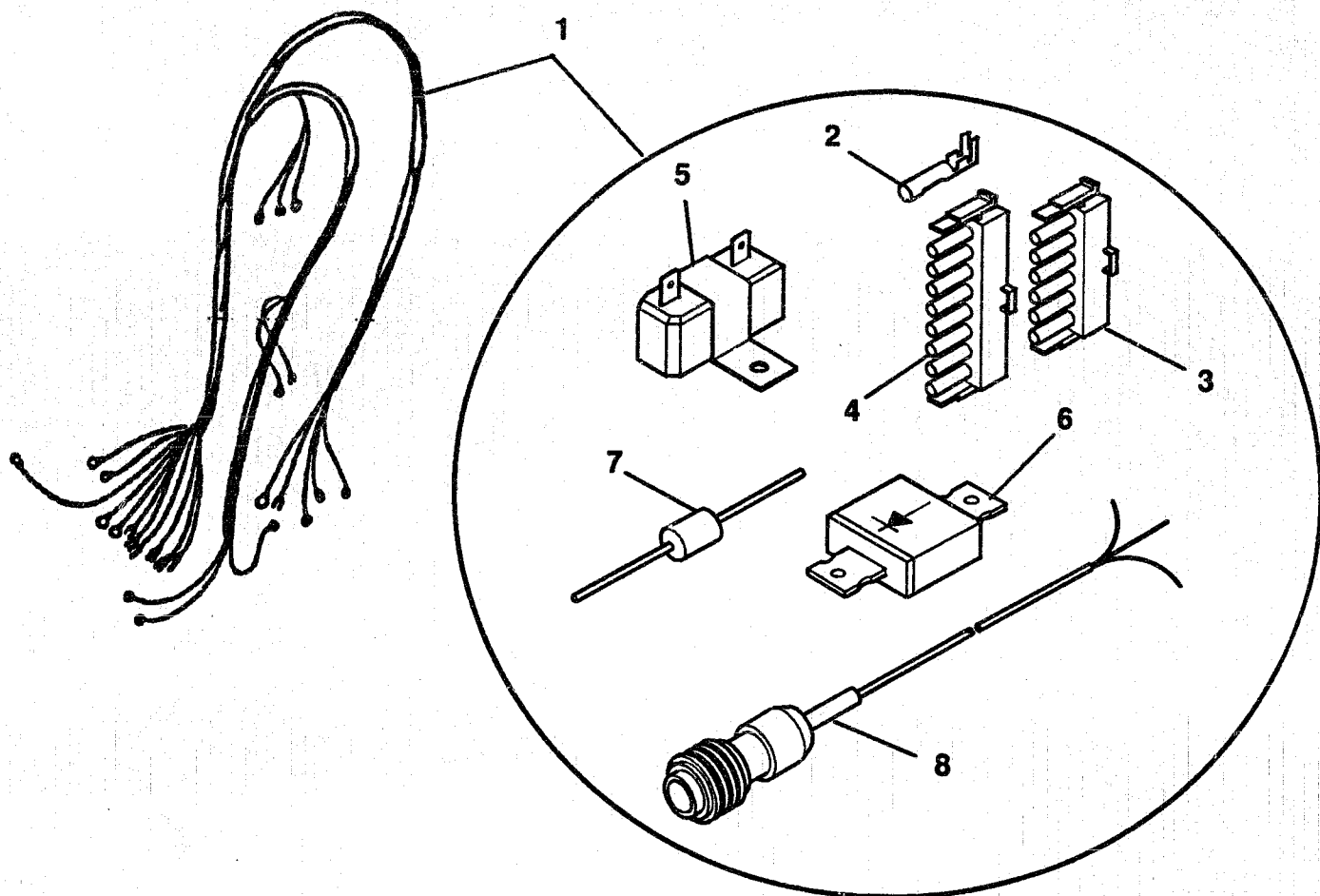
# Alarm Relay Board



300-4228

| REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                                | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                                |
|---------|-------------|----------|---------------------------------------------------------------------------------|---------|-------------|----------|---------------------------------------------------------------------------------|
| 1       |             |          | Board, Relay - Alarm (Includes Relay)                                           | 5       | 870-0517-02 | 2        | Standoff (Yellow) (2")                                                          |
|         | 300-4111-02 | 1        | Without Form C Relays                                                           | 6       | 338-2875    | 1        | Harness, Wiring (Includes Parts Marked*) (A11-TB1 and TB2 to Alarm Relay Board) |
|         | 300-4111-04 | 1        | With Form C Relays                                                              | 7       | 323-1291    | 2        | *Plug - 9 Place (P1,P2)                                                         |
| 2       | 307-1056    | 1        | Relay (Quantity Used as Required) (K1,K2,K3)                                    | 8       | 323-1199    | 9        | *Pin, Contact                                                                   |
| 3       | 815-0544    | 6        | Screw, Machine - Round Head - Cross Recessed With Internal Tooth (#6-32 x 1/2") | 9       | 323-1200    | 8        | *Socket, Contact                                                                |
| 4       | 870-0517-01 | 4        | Standoff (Clear) (1-7/8")                                                       |         |             |          | * - Parts Included in 338-2875 Wiring Harness                                   |

# Engine Wiring Harness



338-2947

| REF NO. | PART NO. | QTY USED | PART DESCRIPTION                                              | REF NO. | PART NO.    | QTY USED | PART DESCRIPTION                                                                           |
|---------|----------|----------|---------------------------------------------------------------|---------|-------------|----------|--------------------------------------------------------------------------------------------|
| 1       |          |          | Harness, Wiring - Engine to Control (Includes Parts Marked *) | 4       | 323-1306    | 1        | *Housing, Connector - 8 Place (J1)                                                         |
|         | 338-2947 | 1        | DFAA, DFAB, DFAC                                              | 5       | 353-0094-01 | 1        | *Resistor (50 Ohm) (R1)                                                                    |
|         | 338-2948 | 1        | DFBF, DFCB, DFCC                                              | 6       | 357-0030    | 1        | *Rectifier (400 V) (CR1)                                                                   |
|         | 338-2984 | 1        | DFEB, DFEC, DFFB                                              | 7       | 359-0051    | 1        | *Diode (50 Watt)                                                                           |
|         | 338-2994 | 1        | DFGA, DFGB, DFGC                                              | 8       | 338-1765-04 | 1        | *Cable, Magnetic Pickup (Part not included with harnesses 338-2994, 338-2996 and 338-2995) |
|         | 338-2996 | 1        | DFJA, DFJB, DFJC, DFJD                                        |         |             |          |                                                                                            |
|         | 338-2995 | 1        | DFLB, DFLC, DFLD, DFMB                                        |         |             |          |                                                                                            |
| 2       | 323-1200 | 11       | *Socket, Contact                                              |         |             |          |                                                                                            |
| 3       | 323-1304 | 1        | *Housing, Connector - 6 Place (J2)                            |         |             |          |                                                                                            |