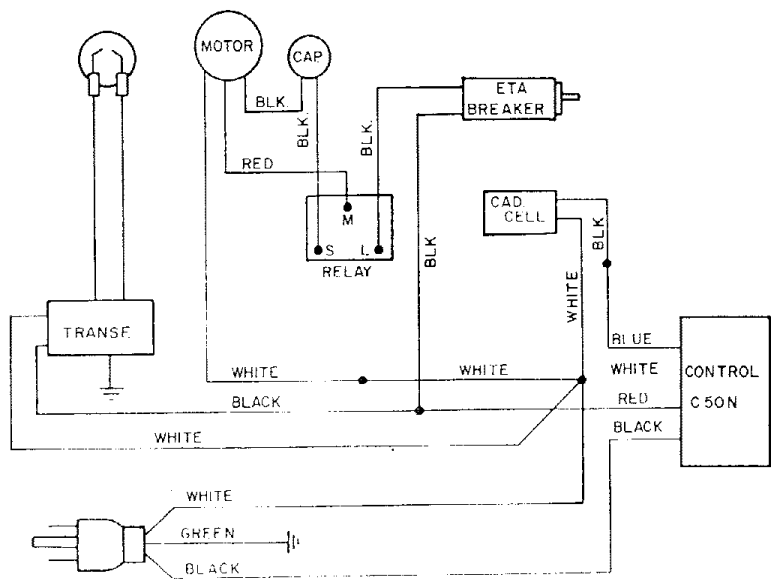


Figure 4. Portable Heater  
 Exploded View, General  
 Assembly

Figure 3. Wiring Diagram



MODEL DB-99C PORTABLE HEATER, GENERAL ASSEMBLY

| Index No. | Part Number | Part Name  | Quan. | Index No.          | Part Number     | Part Name                                     | Quan. |
|-----------|-------------|--|-------|--------------------|-----------------|---|-------|
| 1         | M13134-2B   | Shell, Upper   | 1     | 30                 | M16646          | Bracket, Motor Support                        | 1     |
| -         | M11084-27   | Screw  | 6     | -                  | M11084-27       | Screw   | 6     |
| -         | M11271-6    | Nut, Tinnerman   | 6     | 31                 | M12330A         | Bracket, Shell Support                        | 1     |
| 2         | M11920G2    | Combustion Chamber Assy  | 1     | -                  | M11084-27       | Screw   | 4     |
| -         | M11084-27   | Screw (Combustion chamber attaching, front)                    | 2     | 32                 | M8704-2         | Plug, Button                                  | 1     |
| -         | M11084-29   | Screw (Combustion chamber and support bracket attaching, rear) | 4     | 33                 | M9900-86        | Wire Assy, ETA to Relay                       | 1     |
| 3         | M13961A     | Bracket, Photo Cell Mounting                                   | 1     | 34                 | M9232           | Circuit Breaker (Control, ETA)                | 1     |
| -         | M10908-1    | Screw (Photo Cell mounting bracket to combustion chamber)      | 2     | 35                 | M9230B          | Guard, Reset Button                           | 1     |
| 4         | M9211-3     | Photo Cell   | 1     | 36                 | M12016B         | Bracket, Circuit breaker mounting             | 1     |
| 5         | M13962A     | Tubing, Photocell  | 1     | -                  | M12461-13       | Screw (Bracket mounting)                      | 1     |
| 6         | M13963      | Clamp, Photocell   | 1     | -                  | NTC-2C          | Nut, Hex, No. 8, Torque lock                  | 1     |
| -         | NTC-1C      | Nut, Torque Lock, No. 6-32                                     | 2     | 37                 | M12609B         | Shell, Lower                                  | 1     |
| -         | M12461-2    | Screw  | 2     | 38                 | M13170          | *Transformer                                  | 1     |
| 7         | Ref.        | Burner Assembly (See Figure 5)                                 | 1     | -                  | WLM-4           | Lockwasher, 1/4 in.                           | 2     |
| 8         | M13846G1    | Fuel Filter Assembly   | 1     | 39                 | M13135-1        | Sealer, Plastic                               | 1     |
| 9         | M11943      | *Air Line  | 1     | 40                 | M10816G34       | Electrode Lead Assy                           | 2     |
| 10        | M9726       | *Fan   | 1     | 41                 | M12332-1A       | Transformer Mounting Bracket Assy             | 1     |
| -         | SF4-2-1/2K  | Setscrew, Soc. hd., knurled cup pt., 1/4-28                    | 2     | -                  | M11084-27       | Screw (Transformer bracket attaching)         | 2     |
| 11        | M12331      | Fan Housing  | 1     | -                  | M11084-29       | Screw (Transformer bracket attaching)         | 2     |
| -         | M11084-27   | Screw  | 4     | 42                 | M13042          | Spacer  | 2     |
| 12        | Ref.        | Motor Package Assy (See Fig. 6)                                | 1     | 43                 | M10990-3        | Bushing                                       | 1     |
| 13        | HC4-10C     | Screw  | 2     | 44                 | M12321-4B       | Fuel Tank Assy                                | 1     |
| 14        | M16661      | Clamp, Motor   | 4     | 45                 | M18051          | Cap, Fuel Filler                              | 1     |
| 15        | WLM-4       | Lockwasher, 1/4 in.  | 2     | 46                 | M18053          | Screen, Filter                                | 1     |
| 16        | NPC-4C      | Nut, Hex   | 2     | 47                 | M13990          | Plug, Pipe, 1/4 in., Sq. hd (Fuel tank drain) | 1     |
| 17        | M13954-2    | Penn Control   | 1     | OPTIONAL EQUIPMENT |                 |   |       |
| -         | M12461-13   | Screw, (Penn Control to mounting bracket)                      | 2     | M16141             | Kit, Thermostat |   |       |
| 18        | M12608B     | Bracket, Mounting  | 1     | STANDARD SCREWS    |                 |   |       |
| -         | M3011       | Box, Junction  | 1     |                    |                 |   |       |
| -         | M15140      | Connector  | 4     |                    |                 |   |       |
| -         | M12461-51   | Screw (Mounting Bracket to Lower Shell)                        | 2     |                    |                 |   |       |
| -         | M12461-27   | Screw (Junction Box Mtg.)                                      | 2     |                    |                 |   |       |
| -         | NEF-3C      | Nut, Hex 10-24   | 2     |                    |                 |   |       |
| 19        | M5845-29    | Cable Assy   | 1     |                    |                 |   |       |
| 20        | M3530       | Grommet  | 1     |                    |                 |   |       |
| 21        | M10813G41   | Extension Cord Assy  | 1     |                    |                 |   |       |
| 22        | M11954      | Bushing, Strain relief   | 1     |                    |                 |   |       |
| 23        | M15714-1    | Connector, Set screw type                                      | 1     |                    |                 |   |       |
| -         | M18598G2    | Relay and Bracket Assy   | 1     |                    |                 |   |       |
| 24        | M11271-6    | Nut, Tinnerman   | 1     |                    |                 |   |       |
| -         | M11084-27   | Screw  | 1     |                    |                 |   |       |
| 25        | M11952      | Bracket, Relay mounting  | 1     |                    |                 |   |       |
| 26        | M12462-5    | Relay, Motor starting  | 1     |                    |                 |   |       |
| -         | RC2-3C      | Screw, Rd. hd., (Relay to Bracket)                             | 2     |                    |                 |   |       |
| -         | WLI-2       | Washer, Lock, Internal tooth, No. 2                            | 2     |                    |                 |   |       |
| 27        | M9900-85    | Wire Assy, Capacitor to Relay                                  | 1     |                    |                 |   |       |
| 28        | M12650-2    | Capacitor  | 1     |                    |                 |   |       |
| 29        | M12651-1    | Clamp, Capacitor (Tinnerman)                                   | 1     |                    |                 |   |       |
| -         | NEF-3C      | Nut, No. 10-32 (ESNA)  | 1     |                    |                 |   |       |
| -         | M12461-27   | Screw  | 1     |                    |                 |   |       |

| Part Number | Part Name or Description                                   |
|-------------|--|
| PHPF3-4C    | Screw, Fillister hd, No. 10-32 x 1/2 in.                   |
| HC4-10C     | Screw, Hex hd. machine, 1/4-20 x 1-1/4 in.                 |
| HF3-3C      | Screw, Hex hd, No. 10-32 x 3/8 in.                         |
| RC2-3C      | Screw, Rd hd., No. 8-32 x 3/8 in.                          |
| M10908-1    | Screw, Self-tapping, hex hd, No. 6-32 x 1/4 in., Type "S"  |
| M11084-27   | Screw, Self-tapping, hex hd, No. 10-12 x 1/3 in., Type "A" |
| M11084-29   | Screw, Self-tapping, hex hd, No. 10-12 x 3/4 in., Type "A" |
| M12345-34   | Screw, Oval hd machine, No. 10-24 x 2 in.                  |
| M12461-2    | Screw, Hex hd, No. 6-32 x 3/8 in.                          |
| M12461-13   | Screw, Hex hd, No. 8-32 x 1/4 in.                          |
| M12461-27   | Screw, Hex hd, No. 10-32 x 1/2 in.                         |
| M12461-31   | Screw, Hex hd, No. 10-32 x 1 in.                           |
| M12461-32   | Screw, Hex hd, No. 10-32 x 1-1/8 in.                       |
| M12461-51   | Screw, Hex hd, No. 10-24 x 1/2 in.                         |

\* Only these parts are recommended for replacement by the owner or user of the heater.

Figure 6. Motor Package Assembly

| Index No. | Part Number | Part Name                          | Code | Quan. |
|-----------|-------------|------------------------------------|------|-------|
| -         | M18146G5    | Motor Package Assembly             |      | 1     |
| 1         | M16545      | End Cover                          |      | 1     |
| 2         | M12461-31   | Screw                              |      | 4     |
| 3         | WLI-3       | Lockwasher, Internal tooth, No. 10 |      | 4     |
| 4         | M12179      | Filter, Intake                     | *    | 1     |
| 5         | M12244G1    | Filter Assy                        | *    | 1     |
| 6         | M11637      | Filter, Lint                       | *    | 1     |
| 7         | M12233      | End Cover, Pump                    |      | 1     |
| 8         | M12461-32   | Screw                              |      | 6     |
| 9         | WLI-3       | Lockwasher, Internal tooth, No. 10 |      | 4     |
| 10        | M8643       | Blade                              |      | 4     |
| 11        | M22456      | Rotor                              |      | 1     |
| 12        | M22009      | Insert                             |      | 1     |
| 13        | M8645       | Body, Pump                         |      | 1     |
| 14        | FHPF3-4C    | Screw                              |      | 2     |
| 15        | 69248       | Elbow, Compression                 |      | 1     |
| 16        | M22997      | Pipe Plug                          |      | 1     |
| 17        | M23105      | Screw, Pressure adjusting          |      | 1     |
| 18        | M10993-1    | Spring, Pressure relief            |      | 1     |
| 19        | M8940       | Ball, 1/4 in. Dia.                 |      | 1     |
| 20        | M17941-3    | Motor                              |      | 1     |
| -         | M19579      | Kit, Motor and Relay Replacement   |      |       |

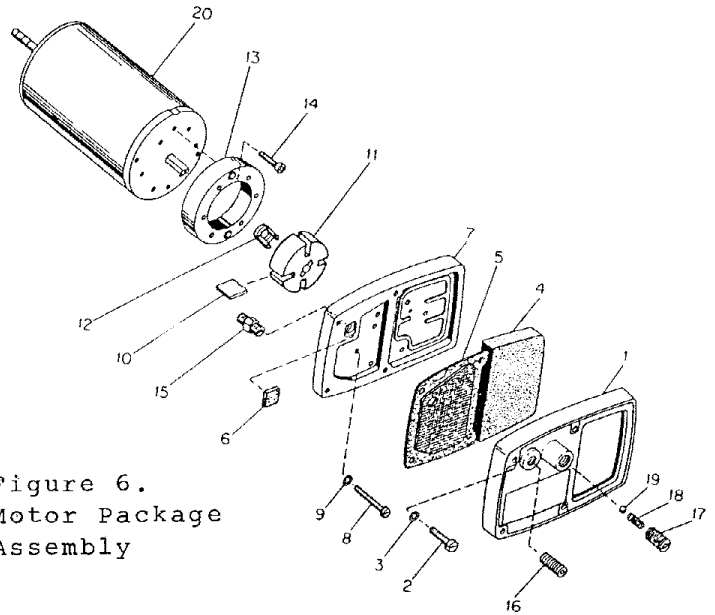


Figure 6. Motor Package Assembly

BURNER ASSEMBLY

| Index No. | Part Number | Part Name  | Code | Quan. |
|-----------|-------------|--|------|-------|
| -         | M11929-1    | Burner Assembly  | *    | 1     |
| 1         | M8667       | Nozzle, Siphon   |      | 1     |
| 2         | M10659-1    | Washer, Nozzle seal  |      | 2     |
| 3         | M10809-1    | Spring, Nozzle seal  |      | 1     |
| 4         | M8882       | Sleeve   |      | 1     |
| 5         | M8989       | Electrode, L. H.   | *    | 1     |
| 6         | M8990       | Electrode, R. H.   | *    | 1     |
| 7         | M8716G2     | Burner Head Assembly (Includes roll pins, bushings, and burner head casting) |      | 1     |
| 8         | M16712      | Bushing, Electrode   |      | 1     |
| 9         | HF3-3C      | Screw, Hex hd.   |      | 3     |
| 10        | WP-3C       | Washer, Flat   |      | 1     |
| 11        | M5976       | Connector, Male  |      | 1     |
| 12        | M11931      | Elbow, Male, 45°   |      | 1     |

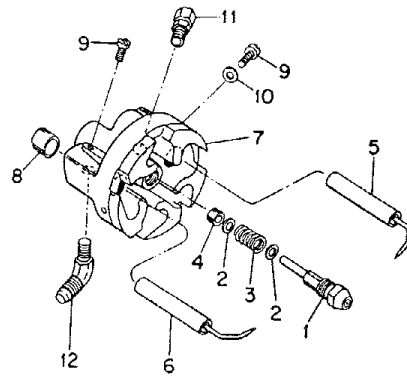


Figure 5. Burner Head Assembly

WHEELS AND HANDLES

| Index No. | Part Number | Part Name            | Quan. |
|-----------|-------------|----------------------|-------|
| 1         | M17306B     | Guard, Nose cone     | 1     |
| 2         | M12345-34   | Screw                | 12    |
| 3         | NFC-3C      | Nut, No. 10-24       | 12    |
| 4         | M17305B     | Handle, Front        | 1     |
| 5         | M13830B     | Handle, Rear         | 1     |
| 6         | M12342B     | Frame, Wheel Support | 1     |
| 7         | M16801      | Axle                 | 1     |
| 8         | M19294      | Wheel                | 2     |
| 9         | WP-8C       | Washer               | 2     |
| 10        | C4-7        | Cotter Pin           | 2     |
| 11        | M16802      | Hub Cap              | 2     |
| -         | M16741-15   | Ring, Retaining      | 2     |

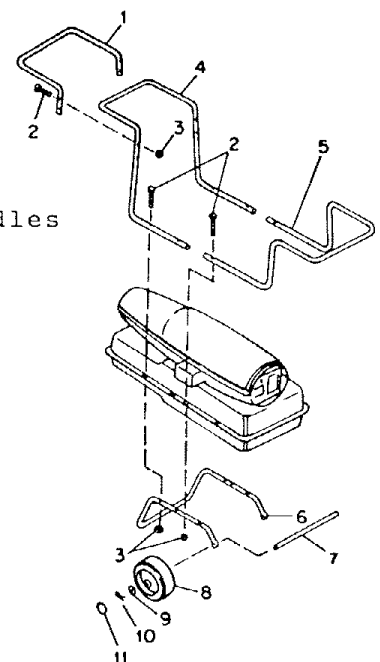


Figure 7. Wheels and Handles