

The logo features the word "Simpsons" in a small, sans-serif font above the word "Sears" in a larger, serif font. Both words are enclosed within a rectangular border.

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TECHNICAL FLASH

Department 731A Toronto

T.F. 26-23
April 7, 1983

SERVICE INFORMATION

COMPACT PORTABLE DRYER

C260 - 62100

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SERVICE INSTRUCTIONS
COMPACT PORTABLE DRYER

I. GENERAL

This is a portable electric dryer designed to operate efficiently on 120 volts, 60 hertz.

It is equipped with a three-wire cord for use in a grounded receptacle. THE UNIT MUST BE GROUNDED!

Although not necessary for operation, it would be advantageous, as with any dryer, to vent this unit to the outside whenever and wherever possible for maximum efficiency. (See specification section).

The reset button must be pushed to re-start the dryer each time the door is opened and closed.

The rear panel must be removed for most servicing except to re-position a displaced drive belt, or idler pulley and spring.

The timer controls drying time. The brown area of the dial is heat, except the last 7 minutes of the cycle, which is a cool-down period. The orange area of the dial is air (no heat) only.

The unit will not run with the door open. When the door is closed, it pushes in the switch shaft (Fig. 1), however, the door switch is not yet activated.

When the reset button is depressed, it turns the switch shaft to activate the door switch.

Drying time depends on size and type of load, sufficient voltage, and an adequate air supply, both intake and exhaust.

For efficient operation, the dryer should be operated on a circuit of its own, and extension cords or other similar devices should not be used.

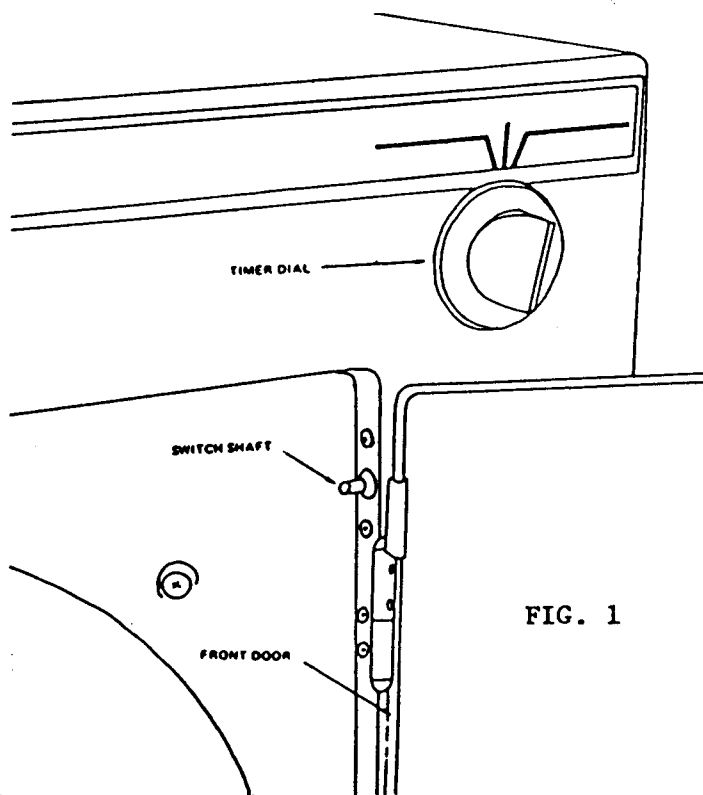


FIG. 1

II. SPECIFICATIONS

Size	31" high, 16" deep, 24" wide
Weight	84 lbs.
Drum Diameter	21-1/2"
Drum Depth	12-3/8"
Drum Speed	56-58 R.P.M.
Element	1200 Watt (17 Gauge Nichrome Wire)
Motor Rating	4 Amps
Horsepower	1/6
Hi-Limit Thermostat	200°
Cycling Thermostat	125°
External Venting (If Used)	3" pipe, 12' maximum length: 2-90° elbows maximum
Lint Filter Location	Inside drum--rear centre
Drum Drive	Poly-vee belt off of motor
Blower Drive	Direct off of motor

III. BASIC OPERATION

**CUT-A-WAY VIEW OF HOOVER
DRYER**

SIX BASIC ELEMENTS

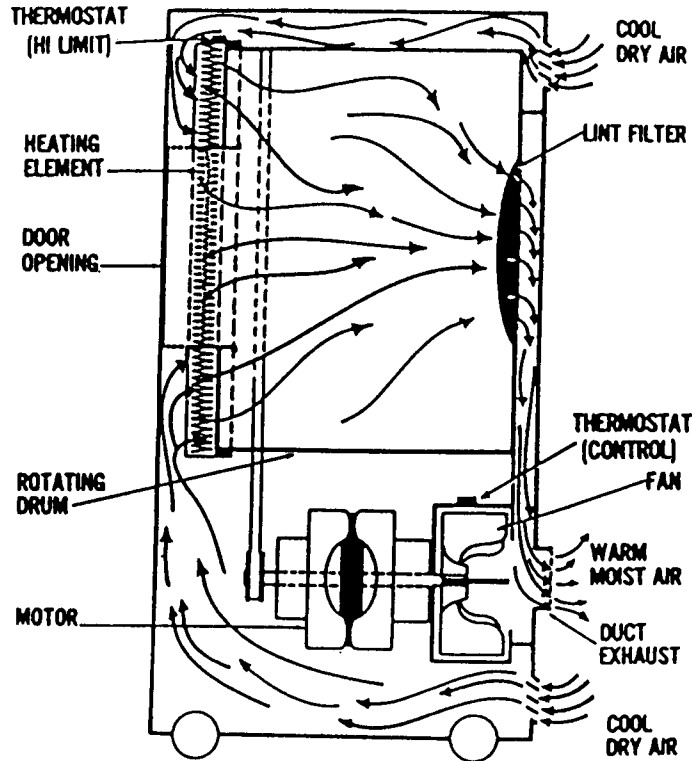


FIG. 2

When the motor is energized, the drum rotates and the blower starts. Air is drawn in through the rear panel louvers, top and bottom, across the heating element and into the drum. All air must then pass through the lint filter, down and out the exhaust duct.

NOTE: A clogged lint filter or exhaust system will decrease air flow and increase drying time. The filter should be cleaned after each load is dried.

IV. DISASSEMBLY

BE SURE THE UNIT IS UNPLUGGED

A. Rear Panel Assembly

The rear panel assembly includes fan housing, cycling thermostat, rear drum bearings, felt seal, hole plugs, ground strap, attachment cord and exhaust deflector.

The rear panel secures the drum in position, therefore, when the panel is removed, the drum is loose.

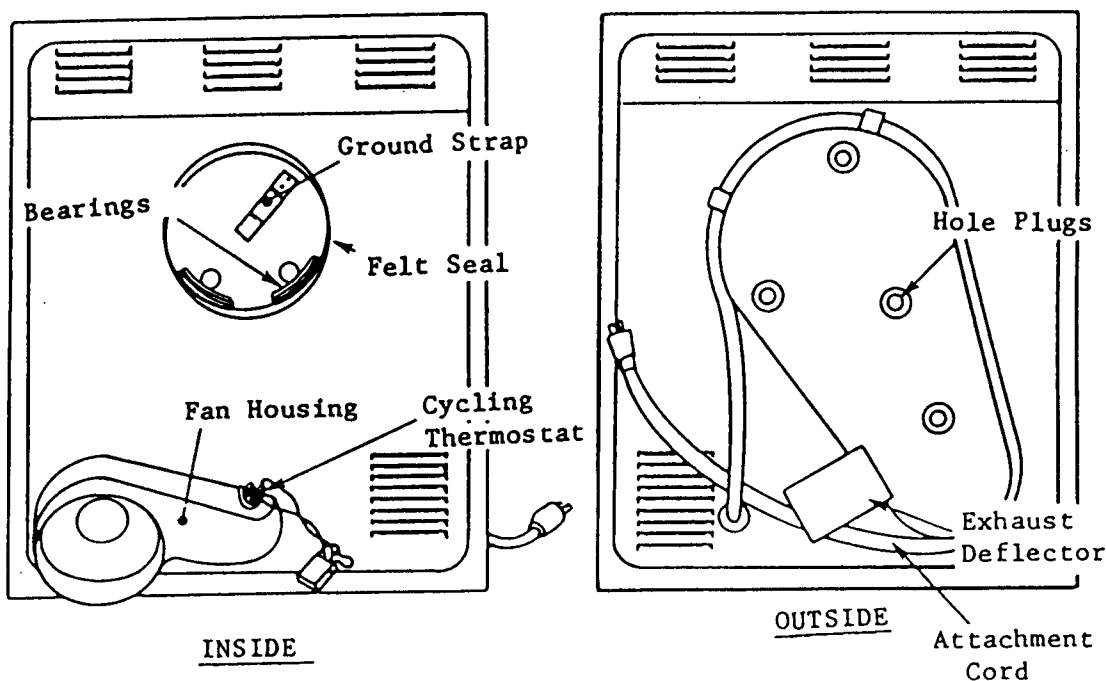


FIG. 3

To Remove

Lay the dryer on its front. Be sure to block the top edge with a block of wood or box to prevent damage to the timer knob.

Remove the fourteen (14) 1/4" hex head screws which secure the panel to the shell. NOTE: A grounding washer is under one screw. Be sure this washer is replaced and under the same screw. This washer insures continuity between the shell and grounded rear panel.

Lift the rear panel up only clear of the drum and fan (Fig. 4).

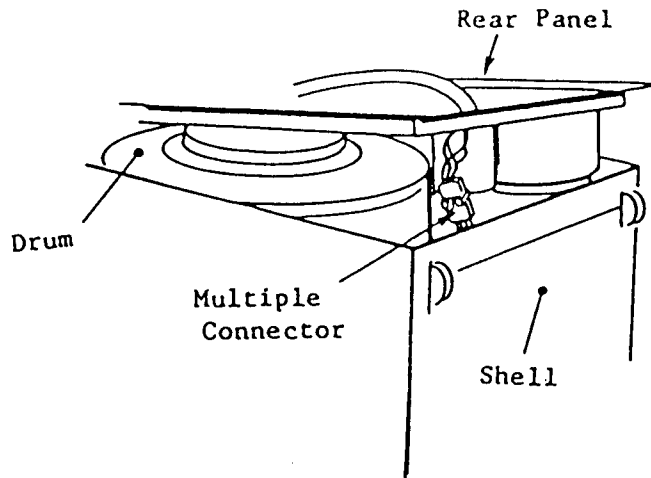
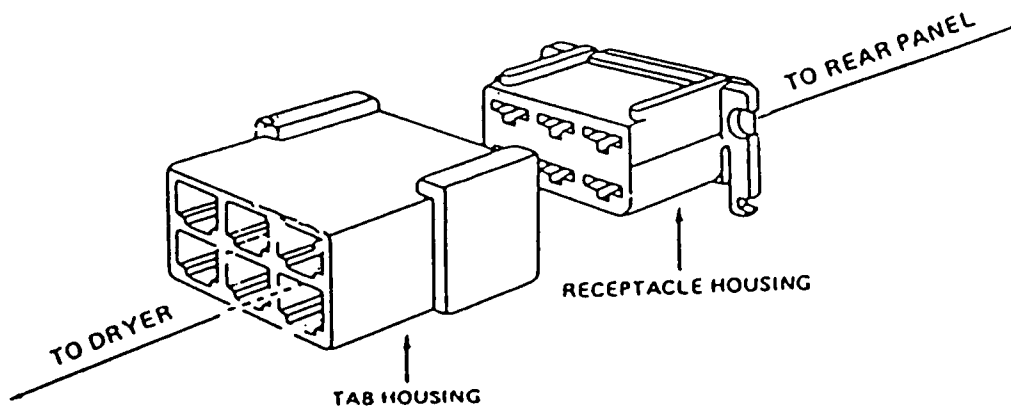


FIG. 4

Reach in and separate the wiring harness at the multiple connector.
The rear panel can now be removed.



MULTIPLE
CONNECTOR

FIG. 5

1. Ground Strap

The Ground Strap is located in the rear duct. It bleeds off any static charge in the drum. If the spring tension is gone or the blade is worn, replace the ground strap using blind rivets. Lubricate the strap with a light coat of specified silicone grease prior to re-assembly.

2. Attachment Cord

If the cord must be replaced, the multiple connector will have to be removed and the ground wire disconnected from inside of the rear panel.

The cord wires lock into the multiple connector and if forced out, destroy the lock, creating an electrical hazard.

Therefore, when replacing wires in the multiple connector, cut the connector at every wire to free the terminals. Use a new connector. Use a good crimp on any terminal replaced. Push the terminal into the connector and it will lock into position.

3. Felt Heat Seal

Grasp at any point and work seal off. The seal is held by an adhesive around the entire mounting surface. When replacing seal, clean off all old adhesive and then attach new seal with 3M-1300.

4. Thermostat

This section covers both the control thermostat located in the fan housing and hi-limit thermostat located on top of the heat shroud.

The hi-limit thermostat is rated at 200°. The cycling thermostat is rated at 125°. The rating is stamped on the thermostat for identification.

The hi-limit thermostat will open with the failure of the cycling thermostat or any interruption of air flow such as a lint clog, broken fan or worn felt seals. The cycling thermostat controls the drying temperature in the drum.

Testing

The thermostats cannot be electrically tested with the unit running. If the heat cycle will not operate, a test can be taken with an ohm meter across the terminals. A complete

circuit tends to indicate a good thermostat electrically. However, after attaching ohm meter leads to the thermostat terminals, the terminals should be moved to check for intermittent contact. If the condition of the thermostat is questionable, after testing, it should be replaced.

In addition to a continuity test, the operating temperature may have to be checked.

A temperature test can be made with a stem thermometer in the lower plug hole or an oven thermometer in the rear exhaust duct. The temperature will vary from 150° to 110° on cycles. This would verify the cycling thermostat.

After the cycling thermostat is verified, the hi-limit thermostat can be checked in the same method by jumping the cycling thermostat.

Another test of the hi-limit thermostat is to run the unit with the door open and the door switch depressed. If the hi-limit thermostat cuts out the heat circuit, it is serving its purpose.

Thermostats are subject to temperature variance, therefore, a temperature test may be required to verify normal operation.

5. Molded Fan Housing

Secured by eight 5/16" hex head screws located on the outside of the rear panel. NOTE: One hole plug will have to be removed from the rear duct to make one screw accessible.

6. Drum Bearings

This section covers replacement of both front and rear drum bearings located in the heat shroud and rear duct, respectively.

NOTE: Lubrication for drum bearings is applied to the drum flanges before re-installing it into the unit.

1. Clean all existing grease from the front and rear drum flanges.
2. Clean flanges with fine grade (250-400) emery cloth or sandpaper to insure they are free of foreign matter, then wipe clean.
3. Be sure inside of drum is clean.
4. Apply a thin coat of Silicone Grease (GE G-341-M) to each drum flange.

To replace bearings:

1. Remove the bearing(s) to be replaced from the flange.
2. Remove all old adhesive and felt from the flange with a non-flammable solvent. Be sure the flange surface is clean and dry.
3. Use 3M #847 Adhesive to attach new bearing blocks to the flanges.
4. Apply a thin coat of adhesive to the entire felt surface of the bearing where it contacts the flange.

Rear: Install blocks on flange of the rear panel, flush with the inside edge. A 4" wide putty knife or metal plate can be used as a guide to assure that the bearing blocks are mounted flush.

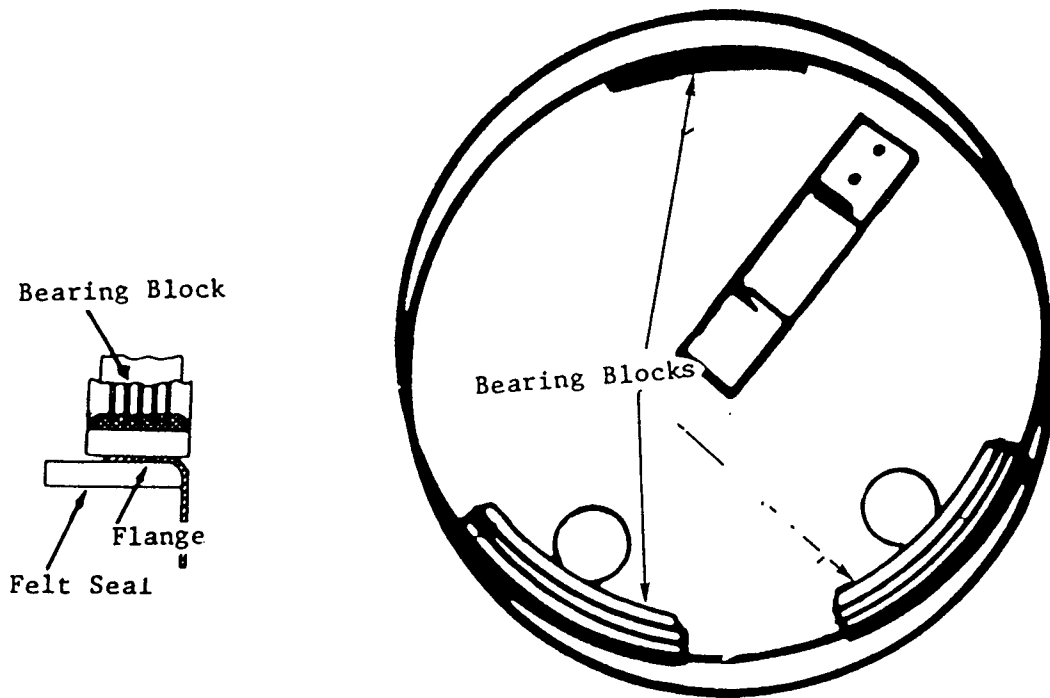


FIG. 6

Position one block in upper centre of rear duct, and two (2) blocks in lower half on centre, 45° off of bottom centre. To determine this, place one block (no adhesive) on bottom centre, then mark the flange approximately 1/4" from each end of this block. These marks are the position of the bottom edges of the two (2) lower blocks when installed.

Install the new bearing and clamp* securely in the centre.
Allow a minimum of 30 minutes to dry before carefully
installing the drum. Do not start dryer for at least
eight (8) hours.

NOTE: IDL BINDER CLIP* P3-20-20 is one suggested clamp.
Available at office equipment stores.

Front: Refer to preceding steps 1-4, then: Install bearing
blocks to the flange of the heat shroud with edge against the
front panel. Refer to Fig. 15.

Position one (1) block in upper centre of heat shroud and
three blocks; one in lower half; one centred over each shroud
bolt; and one on bottom centre. (Adhesive setting time: see
above).

B. Belt

1. If off of the idler pulley, it can be re-positioned by
removing the access panel located on the bottom of the
unit. Viewing the dryer from the front, lay it on its
left side. Remove the bottom panel and work through the
opening. (Fig. 7 shows belt position after installation).
2. If broken, the rear panel will have to be removed. See
Section IV, A, for panel removal. Be sure idler spring is
hooked into the shell near the access panel.

To install:

- a. Place belt over drum with
ribbed portion of belt
next to drum, and hold
belt taut.
- b. Place belt over motor
pulley while still holding
taut to keep it on the
drum.
- c. Lift the idler roller up
past the belt, putting
tension on the spring,
and place the belt over
the roller and release
the roller slowly so
that tension will be
maintained on the belt.
(See Fig. 7). This is
the position of the belt
and idler after assembly.

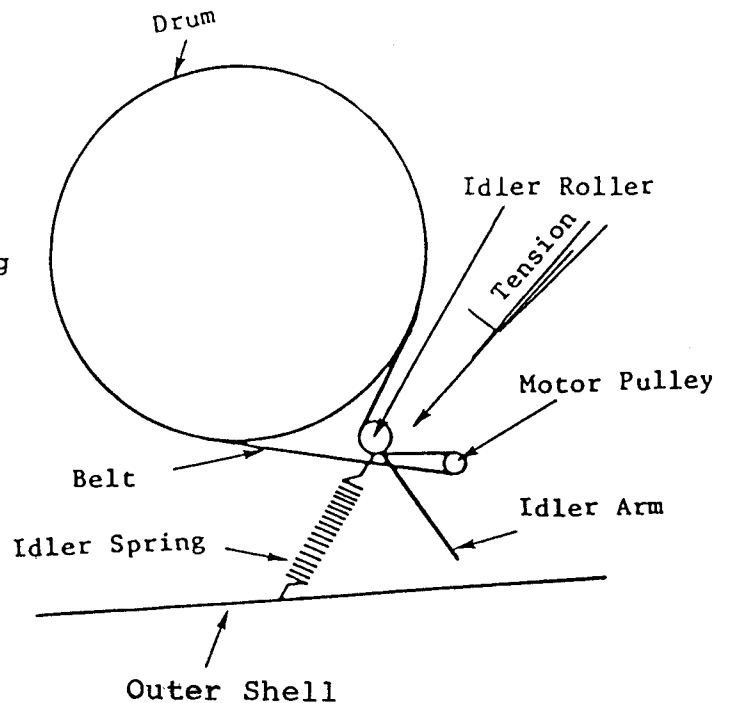


FIG. 7

C. Drum

Remove the rear panel and drive belt, then lift the drum straight out from the shell.

1. Filter Guard Assembly

The filter guard, inside the drum, rear centre, is removed by grasping in the finger holes provided and pulling straight out. NOTE: A bead around that portion of the filter guard which fits into the drum and four (4) dimples in the rear portion of the drum keep the guard from falling out. When installing, the guard should snap into place with a positive click.

2. Lint Filter

The filter itself is inside the filter guard. With the filter guard in one hand, screen mesh portion facing you, notice a "handle" on the filter itself. Grasp handle and rotate filter so that it is adjacent to any one of four (4) securing tabs of the filter guard. Pull the "handle" away from the tab and straight out. To replace, place filter in guard and push into place around the entire 360° circumference or until the filter "clicks" past all four tabs.

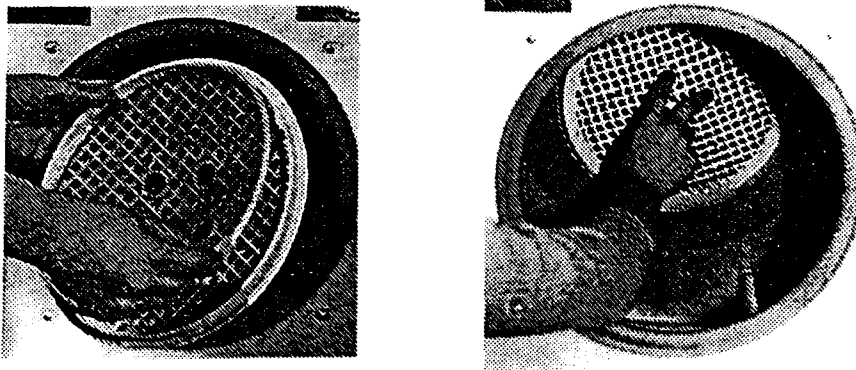


FIG. 8

D. Outer Shell Assembly

The shell assembly includes:

- (1) Motor Assembly, (2) Idler Assembly, (3) Bottom Access Panel,
- (4) Clips which secure wiring, and (5) wheels.

The rear panel must be removed to service all but the wheels and the bottom access panel.

1. Motor Assembly

General: It is not necessary to remove the motor assembly to change, tighten, or re-position blower fan or drive pulley.

The motor is equipped with a thermal-overload protector that will shut off the motor if it gets too hot. The overload will reset when the motor cools sufficiently. Therefore, before replacing a motor, check to see if it is not blocked by lint, reducing air flow, thus causing overheating.

NOTE: The motor should be vacuumed free of all lint any time the rear panel is removed, for whatever reason.

The heating circuit is inoperative unless the motor is running. This is controlled by the external switch mounted on the motor. The switch has a back contact operated by motor current and acts as a safety device.

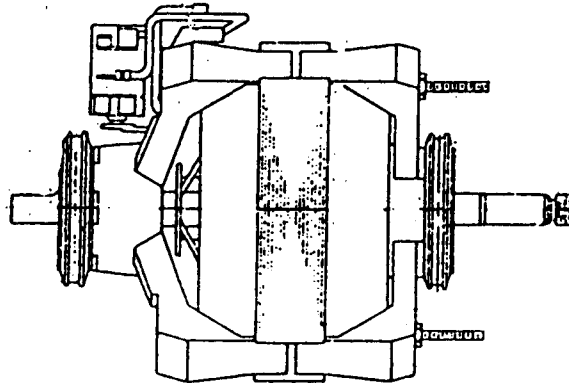


FIG. 9

Replacement - Assembly complete

Disconnect the wiring harness from the switch.

Remove the 3/8" bolt securing the mounting bracket to the shell. Slide motor assembly forward and out as it is held in the shell by a tab on the opposite end of the mounting bracket.

NOTE: The pad under the mounting bracket is to dampen motor to shell vibration and should be in place when replacing motor.

- a. Blower Fan - Remove fan by attaching a pair of vice grips to the pulley end of the motor shaft and turn the fan counter-clockwise. The fan housing has a right-hand thread.
- b. Drive Pulley - Remove 1/8" set screw, which is secured by Loctite. If difficult to remove, heat applied to the area of the set screw helps to loosen the Loctite. Loctite should be added if new pulley or set screw is used.
- c. Fan Housing Sealing Plate - Secured by four 3/8" nuts.
- d. Motor Mounting Clamps - With a large straight blade screw driver, apply pressure down and pry out to free the clamp from the mounting bracket.
- e. Motor Switch - External - Available from service stores.

Testing

- a. The motor can be tested in the shell with harness wiring removed.
- b. Connect a test jumper cord to terminals 4 and 5 of the motor switch (Fig. 11).
- c. A wattage reading should be 140 watts at 120 volts - no load. (200 watts with empty drum load).
- d. With motor running, test for voltage between 1 and 5 or between 1 and 4. This will test the back contact switch. If this contact does not close with motor running, the heat circuit will not operate.
- e. To bypass switch, connect one leg or test cord to orange motor lead wire and other leg of test cord to blue and black motor leads.

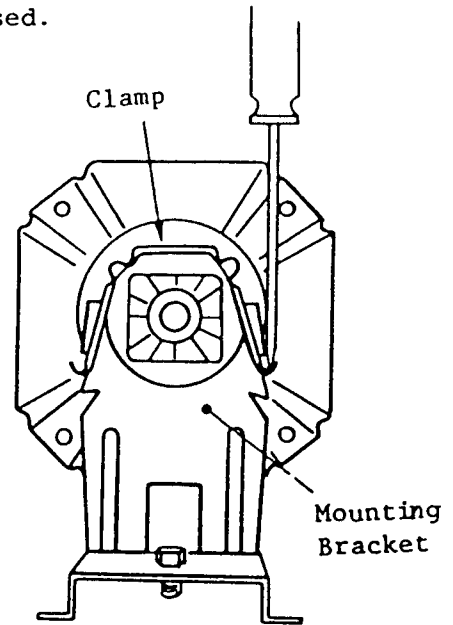


FIG. 10

MOTOR SWITCH

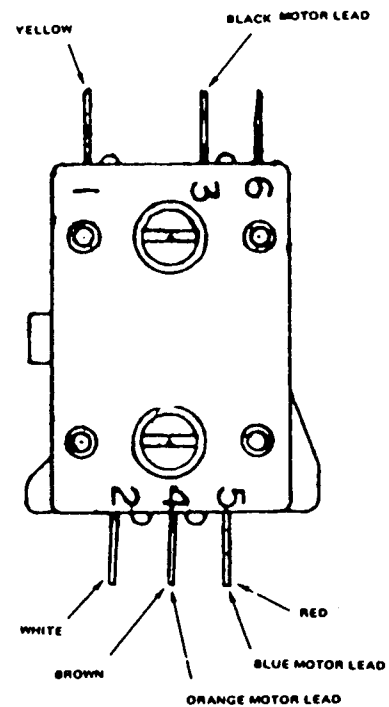


FIG. 11

2. Idler Assembly - (Refer to Fig. 7)

Release the split ring which holds the idler arm to the bottom of the shell. This is a friction fit and the arm has no groove. Ring can be released with special "tru-arm" pliers or the arm can simply be pushed, from its slot, towards the front panel.

Release the idler spring from its groove in the bottom of the shell.

- a. Roller - Remove split ring and washer, then slip roller off of idler arm.
- b. Spring - Remove roller and additional split ring behind roller.

E. Front Panel Assembly

Components of the front panel including door, door switch, timer, heat shroud and door latch can be changed without removing entire front panel. The main purpose for removing the front panel would be for damage to the panel itself or the shell to which it is attached.

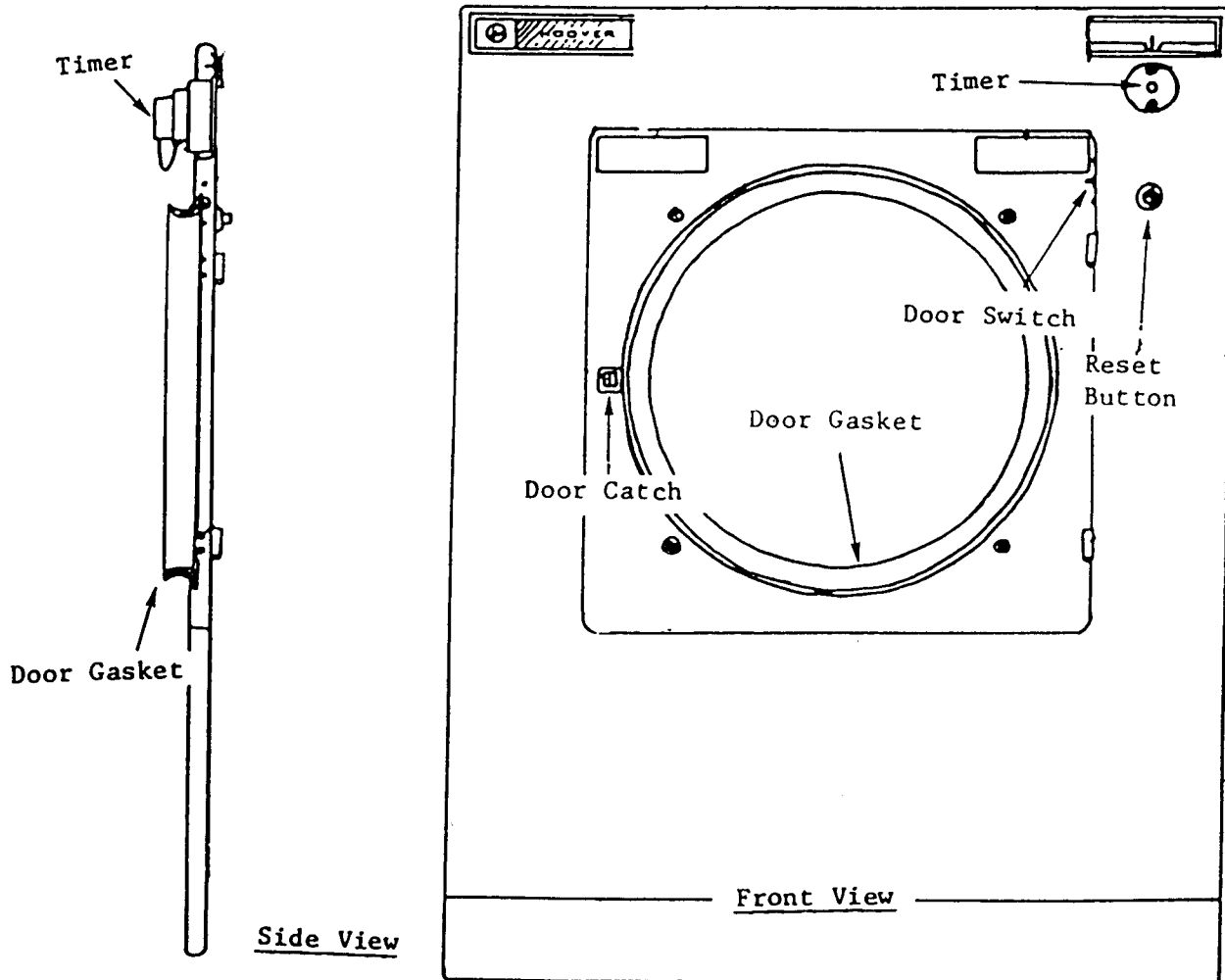


FIG. 12

1. Door Assembly - Open the door slightly past half-way, then lift up and straight off of its hinges.
2. Door Gasket - Held with return tabs. Lift tab and remove door gasket.
3. Timer

a. General

The timer controls the drying time. The brown area of the dial is heat, except for the last 7 minutes of the cycle. The orange area of the dial is air only.

b. Testing

- (1) The timer can be tested in the unit.
- (2) Disconnect harness wiring to the timer.
- (3) Turn timer dial past 60 minutes. Circuit should be complete between OR - BK - BU.
- (4) Turn timer dial back to cool-down period (last 7 minutes). A click in the timer is audible. Circuit should be complete between OR - BK and open between OR - BU.
- (5) Turn timer dial into orange area. Circuit should be complete between OR - BK, and open between OR - BU.

c. Replacement

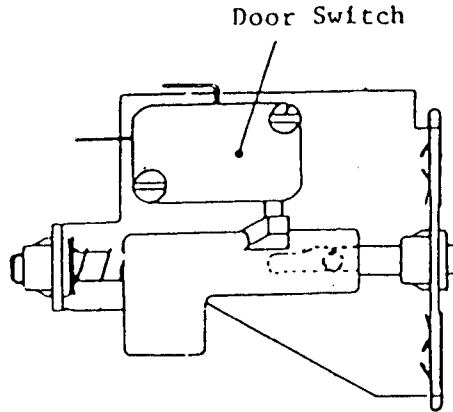
- (1) Pull timer knob off.
- (2) Remove two screws securing timer to front panel.
- (3) Turn new timer so that the cam is located in the shortest arc between two audible clicks.
- (4) Install timer with flat of shaft in the three o'clock position.

4. Door Switch Assembly

Remove the wires from the switch itself, then remove the mounting screws from the front, inside the door opening.

The switch itself can be removed from the bracket by removing its two mounting screws.

The switch can be tested in the unit with a VOM.

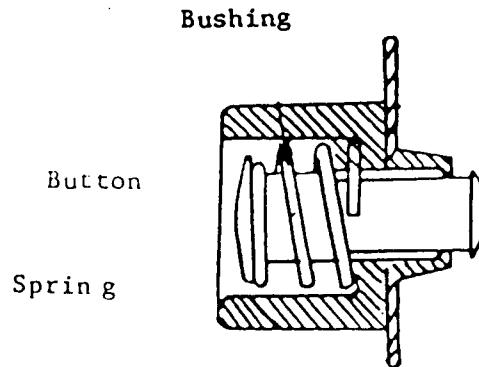


DOOR SWITCH ASSEMBLY

FIG. 13

5. Reset Bushing-Button-Spring

If the bushing is or has to be removed, it should be replaced with a new one. Install by pushing in the opening in the front panel.



RESET BUTTON-BUSHING-SPRING

FIG. 14

To replace button or spring only, push old buttons and spring out from inside the shell, then insert new components in the bushing from the front.

6. Heat Shroud Assembly

Remove the blue wire from the safety thermostat and the orange wire from its attachment at the heating element.

Remove the four mounting bolts and nuts. Bolts are located on front panel around the outer edge of the drum opening; nuts are inside heat shroud.

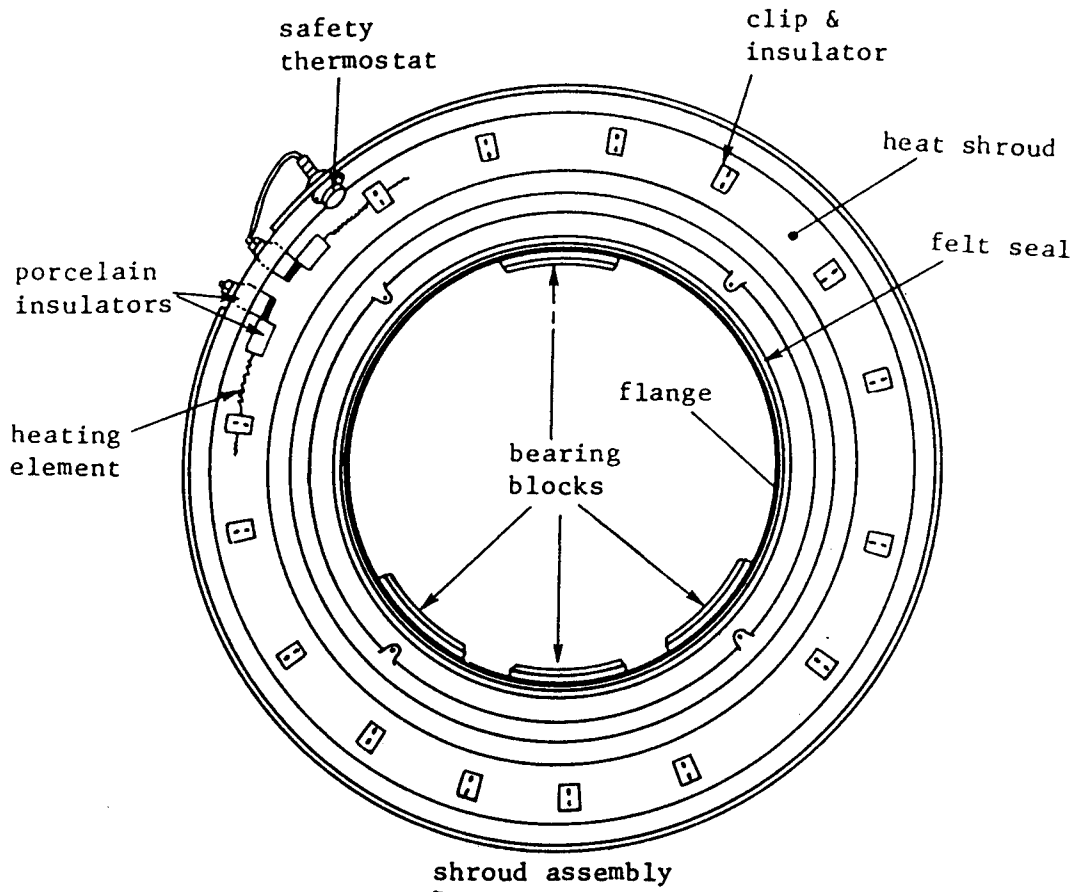


FIG. 15

a. Safety Thermostat

Remove wires and two (2) mounting screws. Ref. A, #4 for testing procedure.

b. Felt Heat Seal

Ref. A, #13.

c. Heating Element

The element can be replaced by disconnecting the old element from the terminals and sliding out through the insulators (Fig. 15).

The new element is not stretched to length and must be evenly stretched taut around the shroud. After the old element is removed, stretch the new element to the same length by pulling on both ends.

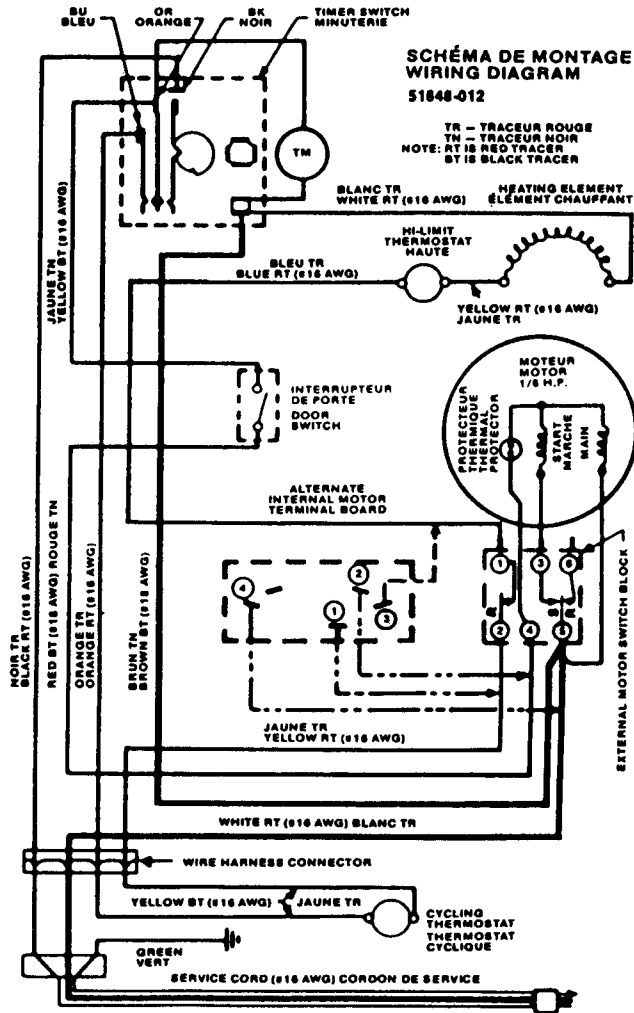
Slide the new element in through the insulators.

If the insulators are broken, the heat shroud must be removed. The insulator retainers are then snapped out of the shroud and a new insulator used.

The male element terminal insulator is located on the element side of the heat shroud. The element must not touch any metal parts or have any space which could cause a short due to vibration.

7. Door Catch

Remove heat shroud, depress molded ears and push out through the opening in the front panel. Install new catch by pushing into the opening until it "clicks" into place.



ELECTRIC WIRING

FIG. 16

V. TROUBLE SHOOTING

This section is a guide outlining possible failures and their causes.

GENERAL

The following procedure is suggested as a good service practice and prevention maintenance IF THE DRYER IS DISASSEMBLED FOR ANY REASON:

1. Unplug the unit.
2. Remove the rear panel, drive belt and drum.
3. Clean all existing grease from block drum bearings unless they are to be replaced.
4. Clean the lubricant from the ground strap.
5. Replace the felt heat seals, front and rear.
6. Clean all lubricant from the drum flanges, front and rear.
7. Clean drum flanges lightly with fine grade (250-400) sand-paper or emery cloth and wipe clean.
8. Be sure the inside of the drum is clean.
9. Apply a thin coat of silicone grease to the drum flanges, front and rear, and the ground strap.
10. Vacuum the inside of the unit, including motor, before re-assembling.
11. With clean hands, re-assemble the unit.
12. Run the unit to be sure the customer is satisfied (when-
ever possible) before leaving.

A. Motor Does Not Run

- | | |
|-------------------------------|--|
| 1. No power applied. | Be sure the unit was plugged in. |
| ----- | |
| 2. Blown Fuse/Tripped Breaker | Short in Dryer. Circuit over-loaded. The dryer <u>should be on a 15 amp rated circuit by itself!</u> No other appliance or lighting should be operated off of the dryer circuit. Correct cause before replacing fuse.
<u>ALWAYS REPLACE FUSE WITH ONE OF PROPER RATING.</u> |
| ----- | |

- 5. Bad Motor or Motor Switch Ref. Section IV, D, #1

- 6. Bad Door Switch Ref. Section IV, D, #1

- 7. Lint In Motor This could cause the thermo
overload protector, located
inside the motor, to cut out,
making the motor inoperative.

B. No Heat

NOTE: Verify this complaint before changing any components. The real complaint may be "too long of drying time". Run unit at mid-point in brown portion of Timer Dial for approximately two minutes, then feel the air coming out of the exhaust duct. If the unit is heating, refer to C, this section. If the unit is not heating, check the following:

- 1. Bad Timer Ref. Section IV, E, #4

- 2. Open or Intermittent Ref. Section IV, A, #4
 Thermostat(s)

- 3. Open in Heating Element

- 4. Open in Wiring

- 5. Bad Motor Switch Motor and Switch replaced as an
assembly.

C. Too Long to Dry Clothes

- 1. Clogged Lint Filter Filter must be kept clean
maximum drying efficiency.
Clean after each load is
dried.

- 2. Poor Air Supply Unit should be kept at a
minimum of 8" from a wall and
out of closets and other small
area when running. Operating
close to walls or in small
areas allows the dryer to cycle
its own moisture-laden,
exhausted air stream.

- | | |
|-------------------|---|
| 4. Load Too Large | This unit is not designed to handle a large load such as washed in a full-sized automatic washer. |
|-------------------|---|
- | | |
|--|---|
| 5. Too Much Water Retained in Spun/Wrung load to be dried. | Compact Dryer is an excellent companion to Hoover Twin-Tub Washer or similar type. Other types may leave 50% to 60% more water in the clothes than these, making drying time considerably longer. |
|--|---|
- | | |
|-------------------------|--|
| 6. Customer Orientation | Customer may be expecting entirely too much from a 110-volt compact, especially if results of a 220-volt full-sized dryer such as at laundromats has been experienced. |
|-------------------------|--|
- | | |
|--------------------------|---|
| 7. Low Operating Voltage | The wattage output of the heating element is closely related to the supplied voltage. |
|--------------------------|---|
- | | |
|---------------------------|--|
| 8. Intermittent Operation | Check motor to be sure it is completely free of lint. Vacuum if necessary. |
|---------------------------|--|
- | | |
|--|--|
| 9. Clogged or Obstructed Blower or Vent Pipe | |
|--|--|
- | | |
|----------------------|--|
| 10. Loose Blower Fan | Re-position flush with the end of the motor shaft, add Loctite and re-tighten. |
| | NOTE: If this condition does not exist, the complaint will probably be, "Noisy". |
- | | |
|-------------------------|-------------------------------------|
| 11. Erratic Thermostats | Ref. Section IV, A, #4 for testing. |
|-------------------------|-------------------------------------|

D. Drum Does Not Rotate

- | | |
|-----------------------------|--------------------|
| 1. Broken or Displaced Belt | Ref. Section IV, B |
|-----------------------------|--------------------|
- | | |
|-----------------------------|-----------------------------|
| 2. Loose Motor Drive Pulley | Add Loctite and re-tighten. |
|-----------------------------|-----------------------------|

3. Frozen Idler Roller

- 4. Drum Binding Check Drum Bearings for both wear and adequate lubrication. Replace and lubricate worn bearings. Ref. Section IV, A, #6.
-

E. Noisy Dryer

- 1. Worn Drum Bearings Ref. Section IV, A, #6 for replacement.

 - 2. Bearings Dry Clean, then re-lube with GE G-341-M Silicone Grease only.

 - 3. Loose Blower Fan Re-position flush with end of the motor shaft, add Loctite, and re-tighten.

 - 4. Binding or Dry Idler Roller

 - 5. Flat on Drum Flange This usually produces a regular thumping sound.

 - 6. Distorted Front or Rear Panel (See Note*).

 - 7. Loose or Worn Ground Strap Replace.

 - 8. Skewed Drum (See Note*).

 - 9. Door Gasket If bearings show considerable wear, the drum may drop enough to rub the gasket, sometimes displacing it. A squeaking sound is usually produced when this condition first develops.

 - 10. No Damper Pad Under Motor Mount This will sometimes result in motor to shell vibration.
-

NOTE* A skewed (distorted) drum or distorted front or rear panel can usually be recognized by vibration and pulsating of the shell and/or panels. Once during each revolution, the panel would be pushed outward.