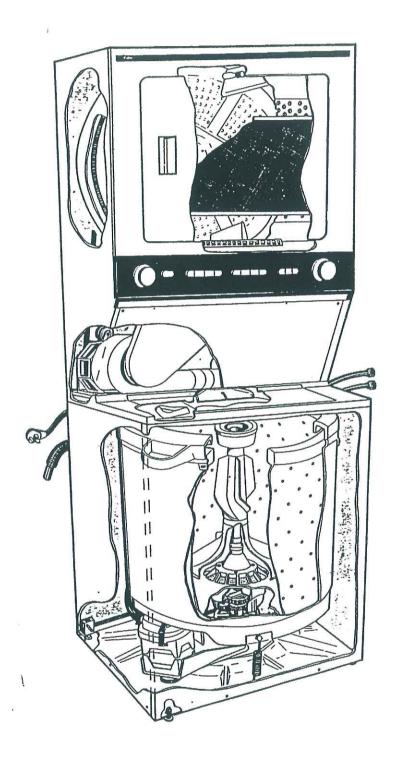
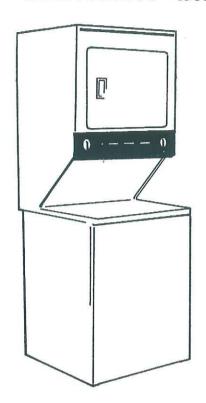
27" LAUNDRY CENTER



IC 11793010

SECTION A - INSTALLATION INSTRUCTIONS



240 Volt Electric Laundry Center Washer / Dryer

BEFORE BEGINNING INSTALLATION, READ THE INSTRUCTIONS CONTAINED IN THIS MANUAL. THIS WILL SIMPLIFY THE INSTALLATION AND ENSURE THE LAUNDRY CENTER IS INSTALLED CORRECTLY AND SAFELY FOR BOTH THE INSTALLER AND USER.

LEAVE THIS MANUAL NEAR THE LAUNDRY CENTER AFTER INSTALLATION FOR FUTURE REFERENCE.

Contents

Subject	Page
Pre-Installation Requirements	A-2
Electrical Requirements	A-2
Water Supply Requirements	A-2
Drain Requirements	A-2
Exhaust System Requirements	A-2
Locating Your Laundry Center	A-3
Unpacking	A-4
Electrical Installation	A-4
Grounding Instructions	A-5
Neutral Terminal Grounding	A-5
Electrical Connections for 4-Wire System	A-5
Installation	A-6
Installing Exhaust	A-6
Exhaust System Installation in Mobile Home	A-7
Installation in Recess or Closet	A-8
Operating Your Laundry Center	A-8

PRE-INSTALLATION REQUIREMENTS

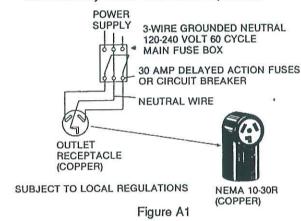
Tools and Materials Required for Installation:

- 1. UL approved ground bonding clamps.
- 2. Phillips head screwdriver.
- 3. Flat or straight blade screwdriver.
- 4. Adjustable pliers.

- 5. Channel-Lock adjustable pliers.
- 6. Duct tape.
- 7. 3/8" socket with ratchet or 3/8" nutdriver.
- 8. Carpenters level.

ELECTRICAL REQUIREMENTS

- POWER SUPPLY 3 wire, 240 volt, single phase, 60 Hertz, Alternating Current.
- CIRCUIT Individual 30 amp branch circuit from main electrical box fused with 30 amp maximum delayed action fuse or circuit breaker (Figure A1).
- 3. POWER SUPPLY CORD KIT The Laundry Center is factory equipped with a 240 volt 3-wire power cord. If being installed in a manufactured (mobile) home, the Laundry Center must employ a 4-conductor power supply cord kit rated 240 volts AC minimum, 30 amp, with 4 open end spade lug connectors with upturned ends or closed loop connectors and marked for use with clothes dryers. See Installation in Mobile Homes on Page A-7 for details.
- OUTLET RECEPTACLE NEMA 10-30R receptacle (Figure A1) to be located so power supply cord is accessible when Laundry Center is in installed position.



WATER SUPPLY REQUIREMENTS

Hot and cold water faucets must be installed within 42 inches of your washer's water inlet. The faucets must be 3/4 inch garden hose type so inlet hoses can be connected. Water pressure must be between 10 and 120 pounds per square inch (maximum unbalanced pressure, hot vs. cold flowing, 10 psi). Your water department can advise you of your water pressure. The hot temperature should be about 140 degrees F.

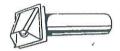
DRAIN REQUIREMENTS

The drain or standpipe must be capable of accepting discharge at a rate of 17 gallons per minute. The drain height must be between 33" minimum and 58" maximum. For a drain facility less than 33" high, a syphon break kit MUST be installed so tub will retain the water.

The standpipe diameter must be 1" minimum. There must be and air gap around the drain hose in the standpipe. A snug fit can cause a syphoning action.

EXHAUST SYSTEM REQUIREMENTS

Use only 4" diameter (minimum) rigid or flexible <u>metal</u> duct and approved vent hood which has a swing-out damper(s) that opens when the dryer is in operation (See Figure A2). When the dryer stops, the dampers automatically close to prevent drafts and the entrance of insects and rodents. To avoid restricting the outlet, maintain a minimum of 12" clearance between the vent hood and the ground or any other obstruction.





SWINGOUT DAMPER OPENING
4" OR GREATER

LOUVERED VENT HOOD

Figure A2

AWARNING The following are specific requirements for proper and safe installation of your Laundry Center. Failure to follow these instructions can create excessive drying times and fire hazards.

Do not use plastic flexible duct to exhaust the dryer. Excessive lint can build up inside the ductwork and create a fire hazard and restrict air flow. Restricted air flow will increase drying times. If your present system is made up of plastic duct, replace it with rigid or flexible metal duct. Ensure the present duct is free of any lint prior to installing Laundry Center dryer duct.

If the dryer is not exhausted outdoors, some fine lint will be expelled into the laundry area. An accumulation of lint in any area of the home can create both a health and fire hazard. The dryer ductwork must be exhausted outside the dwelling.

Do not allow combustible materials (for example: clothing, draperies / curtains, paper) to come in contact with duct work. The dyer must not be exhausted into a chimney, a wall, a ceiling, or any conceiled space of a building which can accumulate lint, resulting in a fire hazard.

Do not store or use gasoline or other flammable vapors and liquids on or in vicinity of this or any other appliance.

Do not exceed the length of duct pipe or number of elbows allowed in Figure A3. Lint can accumulate in the system, plugging ductwork and creating a fire hazard, as well as increasing drying times. Install the exhaust duct and elbows as illustrated in Figures A3, A3A, and A18.

Use extreme care when installing ductwork. There should be no sharp edges that could result in injuries.

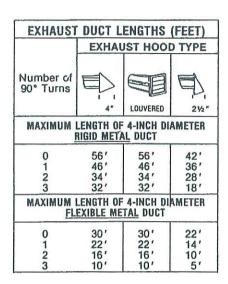


Figure A3

LOCATING YOUR LAUNDRY CENTER

If you locate the Laundry Center in a garage or garage type building, where flamables are kept or stored (including automobiles), be sure the installation conforms to local codes and ordinances for Class 1, Division 2 hazardous locations.

A Laundry Center installed in a closet or recessed area must be exhausted to the outside and have enough air around it to operate properly. See Page A-8.

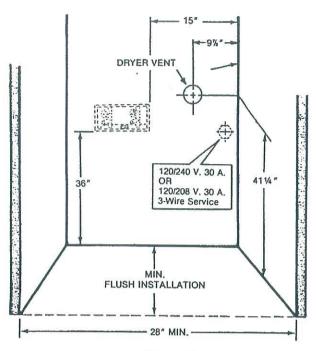


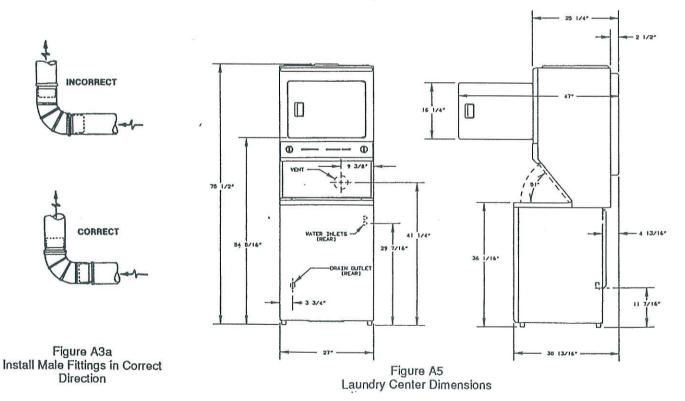
Figure A4

Do not install Laundry Center in an area where the temperatures will fall below freezing. If the Laundry Center is to be stored or transported in freezing temperatures, be sure all water from the fill and drain systems has been drained.

Do not install the Laundry Center up against curtains or draperies.

Do not install Laundry Center on carpet

See Figures A4 and A5 for rough-in dimensions for your Laundry Center.



IC11793010

- 1 Remove:
 - (a) foam tub blocking pad, tape from agitator.
 - (b) foam shipping blocks from rear of unit.
 - (c) tape from dryer door.
 - (d) foam dryer support pads.
- Using the four shipping carton corner posts (two on each side), carefully lay the Laundry Center on its side and remove foam shipping base (Figure A6).
- Using ratchet with 3/8" socket, remove mechanism shipping bolt and plastic spacer block from center of base (Figure A6).

- NOTE: If the Laundry Center is to be transported at a later date, the tub blocking pad, shipping bolt, and plastic spacer block should be retained.
- 4. Return Laundry Center to upright position.
- Remove clips holding inlet hoses, drain hose and power cord to back of unit. NOTE: Review labels that are attached to hoses and power cord at this time to ensure proper installation.
- Form a U shape in the end of drain hose with the hose pointed toward the drain. Assemble the wire retainer on the hose in that position (Figure A7).
- 7. Move Laundry Center to final operating location.

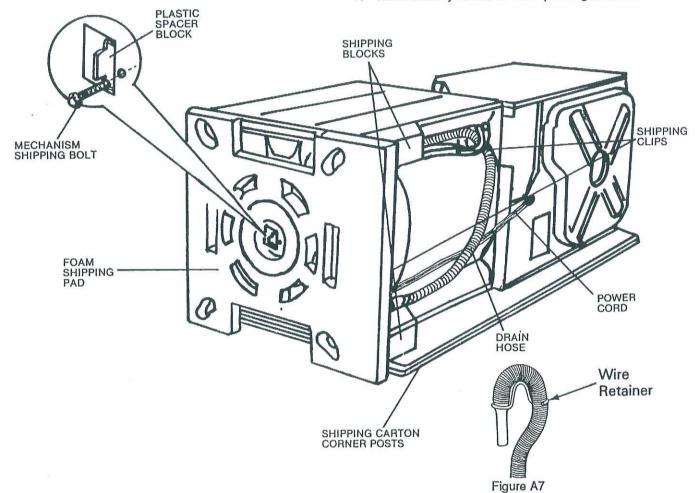


Figure A6

ELECTRICAL INSTALLATION

The Laundry Center is factory equipped with a 240 volt 3-wire power cord.

NOTE: The electrical Installation MUST conform to the local electrical code. When installing this appliance, call a licensed electrican and refer to Figure A1 along with the following information.

AWARNING The following are specific requirements for proper and safe electrical installation of your Laundry Center. Failure to follow these directions can create electrical shock and/or a fire hazard.

This appliance must be properly grounded. Electrical shock can result if the Laundry Center is not properly grounded. Follow the instructions in this manual for proper grounding.

Do not use an extension cord with this Laundry Center. Some extension cords are not designed to withstand the amounts of electrical current this Laundry Center utilizes and can melt, creating electrical shock and/or fire hazard. Locate Laundry Center within reach of the receptacle.

Do not use aluminum wired receptacle with copper wired power cord and plug (or vice versa). A chemical reaction occurs between copper and aluminum and can cause electrical shorts. Your Laundry Center has a copper wired power cord installed; a copper wired receptacle MUST be used in this installation.

NOTE: Dryers operating on 208 volt power supply will have longer drying times than dryers operating on 240 volt power supply.

GROUNDING INSTRUCTIONS (Option 1 or 2)

AWARNING Improper connection of the equipment grounding conductor can result in a risk of electric shock. Check with a licensed electrician if you are in doubt as to whether the appliance is properly grounded.

(Option 1)

For a grounded, cord connected Laundry Center.

The Laundry Center must be grounded. In the event of a malfunction or breakdown, grounding will reduce the risk of electrical shock by providing a path of least resistance for electrical current.

Since your Laundry Center is equipped with a power supply cord having an equipment-grounding conductor and a grounding plug, the plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If in doubt, call a licensed electrician.

(Option 2) For a permanently connected Laundry Center. The Laundry Center must be connected to a grounded metal, permanent wiring system; or an equipment-grounding conductor must be run with the circuit conductors and connected to the equipment-grounding terminal or lead on the appliance.

NEUTRAL TERMINAL GROUNDING

NOTE: Laundry Center is grounded to neutral conductor through a link. If local codes do not permit neutral grounding, follow these steps.

 Remove screw securing terminal block cover to rear panel and remove cover (Figure A8).

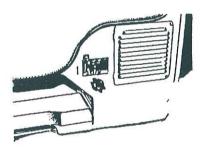


Figure A8

2. Remove the green ground wire from the green ground screw and fasten under the center silver-colored terminal on the terminal block (Figure A9).

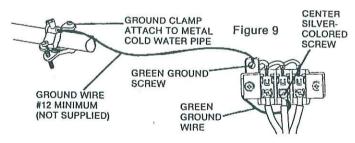


Figure A9

- Connect a separate grounding wire (No. 12 or heavier) between the ground screw and a metal cold water pipe (Figure A9). Do not ground to a gas supply pipe or hot water pipe.
- 4. Grounded cold water pipe must have metal continuity to electrical ground and register no more than 25 ohms resistance. It must not be interrupted by plastic, rubber, or other electrical insulating connectors such as hoses, fittings, washers or gaskets (including water meter or pump). Any electrically insulated connector should be jumped with a length of No. 4 copper wire securely clamped to bare metal at both ends with a U.L. approved ground clamp (Figure A10).

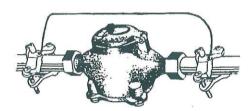


Figure A10

- 5. If a grounded water pipe is not available, a ground rod MUST be used and must register no more than 25 ohms resistance when in the ground. Drive rod into the ground outside the dwelling and connect grounding wire (12 AWG or heavier) between the green grounding screw and the grounding rod. It may take more than one ground rod not to exceed 25 ohms resistance to ground.
- Do not connect power cord to electrical supply until Laundry Center is installed and permanently grounded.
- Reinstall terminal block cover.

ELECTRICAL CONNECTIONS FOR 4-WIRE SYSTEM

- 1. Ensure Laundry Center is not plugged into power outlet.
- 2. Remove screw securing terminal block cover to rear panel and remove cover (Figure A8).
- 3. Disconnect sevice cord from terminal block.
- Using the adjustable pliers, squeeze the strain relief (Figure A11). In the same motion, pull out on the service cord until it is removed from the dryer back panel.



Figure A11

 Install U.L. approved strain relief (3/4" nonmetallic conduit connector is recommended) in entry hole on back panel (Figure A12).

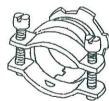
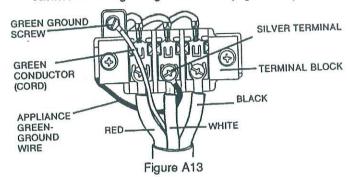


Figure A12

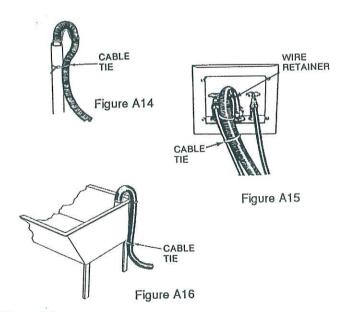
- 6. Remove green ground wire from green ground screw.
- Insert 4-wire conductor NEMA 14-30 type ST or SRDT U.L. approved power cord through strain relief.
- Attach the green ground wire of the power cord to the cabinet with the green ground screw (Figure A13).



- Attach the white (neutral) wire from the power cord and the green ground wire from the appliance harness to the silvercolored center terminal on the terminal block. (Figure A13).
- Attach the red and black wires from the power cord to the outer brass-colored terminals on the terminal block (Figure A13).
- Tighten screws securing cord restraint firmly against the power cord.
- Reinstall terminal block cover onto back of Laundry Center.

INSTALLATION

- Run some water from the hot and cold faucets to flush water lines and remove particles that might clog the washer filter screens.
- Connect inlet hose ends to HOT and COLD water faucets tightly by hand, then tighten another 2/3 turn with pliers.
 Turn water on and check for leaks.
- Place formed end of drain hose in drain pipe and secure with cable tie provided in enclosure package (Figures A14, A15, or A16).

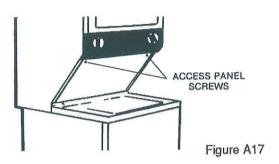


Page A-6

To ensure the Laundry Center is level and on solid on all four legs, tilt the Laundry Center forward so the rear legs are off the ground. Gently set the Laundry Center back down to allow the rear legs to self adjust. Place a level on top of the washer. Check it side to side, then front to back. Screw the leveling legs up or down to ensure the Laundry Center is resting solidly on all four legs (no rocking of the Laundry Center should exist).

NOTE: Keep leg extension at a minimum to prevent vibration.

 Remove the two (2) screws securing front access panel to dryer cabinet, lower panel until bottom tabs can be disengaged from cabinet and remove panel. (Figure A17).



- Connect exhaust duct to outside duct work. Use duct tape to seal all joints.
- 7. Plug power cord into grounded outlet.
- 8. Reinstall access panel.

INSTALLING EXHAUST

for proper and safe installation of your Laundry Center. Failure to follow these instructions can create excessive drying times and fire hazards.

Do not use plastic flexible duct to exhaust the dryer. Excessive lint can build up inside the ductwork and create a fire hazard and restrict air flow. Restricted air flow will increase drying times. If your present system is made up of plastic duct, replace it with a rigid or flexible metal duct. Ensure the present duct is free of any lint prior to installing Laundry Center dryer duct.

If dryer is not exhausted outdoors, some fine lint will be expelled into the laundry area. An accumulation of lint in any area of the home can create both a health and fire hazard. The dryer ductwork must be exhausted outside the dwelling.

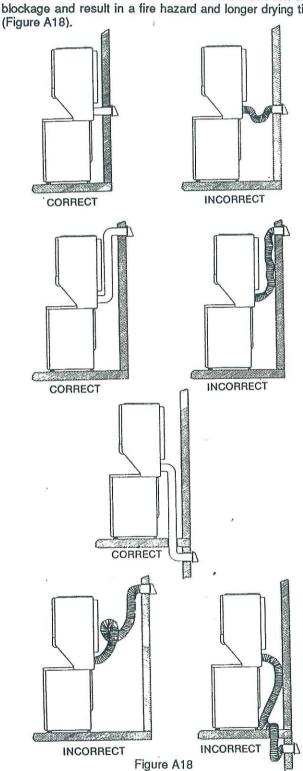
Do not allow combustable materials (for example: clothing, draperies / curtains, paper) to come in contact with ductwork. The dryer must not be exhausted into a chimney, a wall, a ceiling, or any concealed space of a building which can accumulate lint, resulting in a fire hazard.

Do not exceed the length of duct pipe or number of elbows allowed in Figure A3. Lint can accumulate in the system, plugging ductwork and creating a fire hazard, as well as inceasing drying times. Install the exhaust duct and elbows as illustrated in Figures A3, A3a, and A18.

Use extreme care when installing ductwork. There could be sharp edges that could result in injuries.

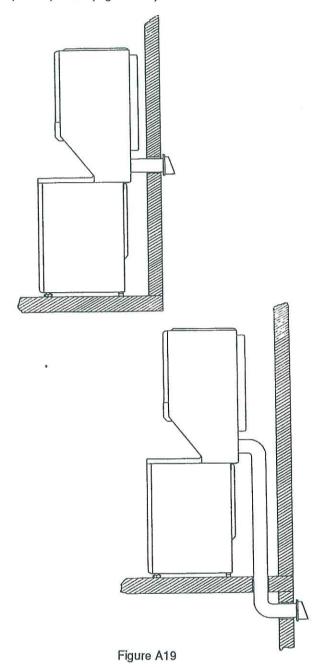
Do not screen the exhaust end of the vent system, or use screws or rivets to assemble the ductwork, Lint can become caught in the screen, on the screws or rivets, clogging the ductwork, creating a fire hazard as well as increasing drying times. Use an approved vent hood (as described in Exhaust System Requirements) to terminate the duct outdoors, and seal joints with duct tape. All male duct pipe fittings must be installed downstream with the flow of air (Figure A3a).

Sags or loops from incorrect installation of ductwork will result in moisture and lint accumulation which can cause blockage and result in a fire hazard and longer drying times (Figure 418)



EXHAUST SYSTEM INSTALLATION IN MANUFACTURED (MOBILE) HOMES

- Dryer MUST be exhausted to the outside (outdoors).
- Exhaust MUST NOT be terminated beneath manufactured (mobile) home (Figure A19).



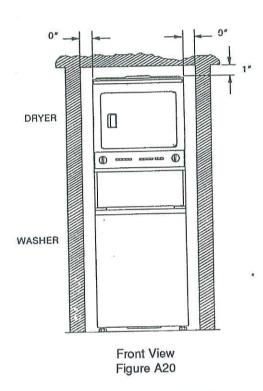
- 3. Exhaust duct MUST NOT support combustion. Use only rigid or flexible metal duct. Do not use plastic duct.
- Exhaust duct must not be connected to any other duct, vent, chimney, or any concealed space of a manufactured (mobile) home.
- Installation MUST conform to current Manufactured Home Construction & Safety Standard (which is a Federal Regulation Title 24 CFR-Part 32-80), or when such standard is not applicable, with American National Standard for Mobile Homes.

Your Laundry Center needs the space around it for proper ventilation.

Figure A20 shows in inches, the minimum clearance dimensions for proper operation of the Laundry Center in a recess or closet installation.

DO NOT INSTALL YOUR LAUNDRY CENTER IN A CLOSET WITH A SOLID DOOR.

A minimum of 120 square inches of opening, equally divided at the top and bottom of door is required. Air openings are required to be unobstructed when a door is installed. A louvered door with equivalent air openings for the full length of door is acceptable (Figure A20).

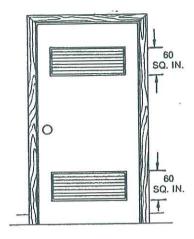


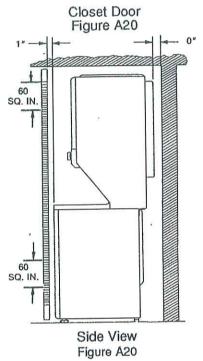
OPERATING YOUR LAUNDRY CENTER

- Read the Operating Instructions and the Laundry Guide provided with the Laundry Center. They contain valuable and helpful information that will save you time and money.
- 2. Check the following:
 - Packing materials, shipping bolt, and shipping block removed.
 - b. Drain hose properly routed and secured with cable tie.
 - c. Fill hoses properly connected (hot hose to hot faucet).
 - Exhaust ductwork does not exceed length of pipe and number of elbows as required.
 - e. Duct joints are secured with duct tape.
 - f. Electrical and ground circuits are properly connected.

NOTE: Check to ensure power is off at circuit breaker before plugging power cord into receptacle outlet.

- 3. Plug power cord into receptacle outlet.
- Turn power on at circuit breaker / fuse box.





- Run washer and dryer through a cycle check for proper operation.
- Place these instructions in a location near the Laundry Center for future reference.

<u>band after the Laundry Center is unpacked.</u> Children might use them for play. Cartons covered with rugs, bedspreads, or plastic sheets can become airtight chambers causing suffocation. Place all materials in a garbage container or make materials inaccessible to children.

ACAUTION The instructions in this manual and all other literature included with this Laundry Center are not meant to cover every possible condition and situation that may occur. Good safe practice and caution must be applied when installing, operating and maintaining any appliance.

Maximum benifits and enjoyment are achieved when all the safety, operating, and Use & Care Instructions are understood and practiced as a routine with your laundry tasks.

SECTION B - CONSTRUCTION AND OPERATION

CONSTRUCTION - UNIT

This complete Laundry Center combines a family size washer and an electric dryer in a single, space-saving, pre-painted steel cabinet unit just 27" wide. The lower half of the cabinet houses the washer while the upper half contains the dryer and the operating controls for both. Electrical power is supplied through a factory installed single power cord.

The design of the Laundry Center allows the technician to gain access to most components by removing the front panels.

CONSTRUCTION - WASHER

The washer consists of a perforated 2.7 cubic foot polypropylene wash basket supported within a water containing polypropylene outer tub by the output shaft of the washer transmission. A center post agitator, driven by the transmission, is located within the wash basket. The transmission is belt driven by a one or two speed. dual shaft, reversible motor (which also directly drives a water pump) which is mounted to the mounting plate of the leg-and-dome assembly. The entire washer assembly is mounted to and supported by the leg-and-dome assembly. The leg-and-dome assembly pivots on a snubber ring which is supported and stabilized by three sets of horizontal and vertical springs. The water pump (a one piece, sealed assembly) is mounted above a water shield on top of the washer drive motor by two spring clips. A water fill control valve, fill hoses and drain hoses complete the operating and structural components of the washer.

A timer, water temperature selector switch, and water level switch control the washer throughout the washing cycle. The lid switch and water inlet valve electrical components are shielded, and all wiring is routed away from sharp edges.

The Laundry Center stands on a heavy gauge steel base assembly with adjustable, polypropylene leveling legs in the front and steel self-leveling legs in the rear.

OPERATION - WASHER

All the washing cycles are controlled by the timer and selector switches. The conditions under which the clothes are washed are controlled by:

Agitate Speed Timer Spin Speed Timer

Water Temperature Selector Switch
Water Quantity Water Level Control

The wash cycle starts with a water fill. The amount of water and the temperature are controlled by the water level control and the selector switch which are set by the user. The agitator oscillates through a 210 degree arc at the selected rate, moving the clothes through the water vertically as well as horizontally. At the same time, the wash basket rotates about 40 degrees with each oscillation of the agitator. During the wash and rinse cycles, water is pumped from the bottom of the outer tub and recirculated back into the wash basket.

Note: At the end of the permanent press wash cycle, cold water is sprayed on the clothes as they begin to spin. This prevents wrinkles from setting in the clothes during spin. This variation to the regular washing cycle is controlled by the timer.

When the wash cycle is completed, wash water is pumped out of the tub, and the wash basket is gradually brought up to its selected spin speed. Most of the free water is extracted from the clothes. A final spin cycle completes the washing cycle. For safety, the washer lid is locked throughout all spin cycles.

Changing from agitate to spin is accomplished by reversing the rotation of the drive motor and the transmission drive pulley. This is controlled by the timer.

The agitator, cap, and self-cleaning lint filter, which is built into the base of the spin basket, and a high-arching subtop, complete the wash basket assembly. (Figure B1)

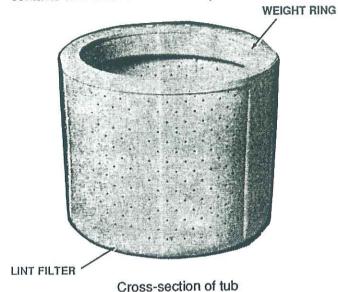
During agitation, the agitator forces the water and lint out of the spin basket in a circular motion (Figure B2). The water then passes through the base of the basket before re-entering the basket, and the lint is trapped on the outside of the lint filter.

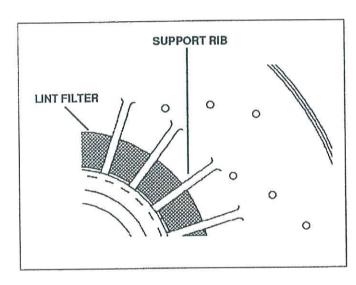
During spin, the water direction is reversed, and the lint is forced off the the lint filter and pumped out the drain hose. The filter does not need to be cleaned (Figure B3).

To operate the washer, choose the control settings according to the type of fabric and the amount of soil in the clothes.

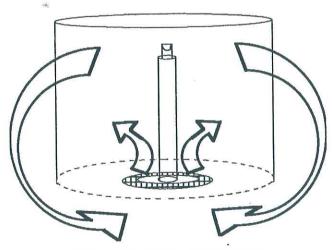
- Turn the water temperature control to the desired wash/rinse temperature selection.
- Set the water level control according to the size of the wash load.
- Load the clothes into the wash basket, measure and add the proper amount of detergent and close the lid.
- To set the timer, push in on the knob and turn clockwise to the desired cycle and wash time.
- 5. Pull timer knob out.

CAUTION: Never turn the timer knob when it is in the out position. To do so would cause damage to the timer contacts and other electrical components.

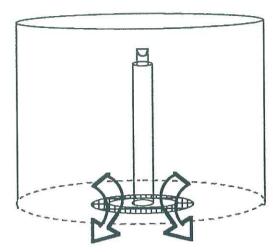




View looking down into tub Figure B1



Water Direction During Agitation Figure B2



Water Direction During Spin Figure B3

CONSTRUCTION - DRYER

The dryer consists of a white powder painted, 5.5 cubic foot, cold rolled large steel, rotating drum, a blower capable of moving a large volume of air, and an electrical heat source. A one speed, dual shaft, 1/4 horsepower motor drives both the blower and the drum.

The drum is a metal cylinder driven by a flat belt which rides on its outer surface. A series of pulleys turn the drum in a counterclockwise direction (point of view: facing the front of the dryer). Three vanes mounted to the drum interior cause the clothes to tumble. The open ends of the cylinder are closed by a perforated rear panel, front panel and door. The drum support system consists of a plastic bearing that snaps into the inside of the front drum flange and rides on a felt seal which is glued to the front panel assembly. The rear of the drum is supported by a ball and socket type bearing that resembles a trailer hitch. A heater element is mounted to the backside of the rear panel. The lint filter screen extends full width inside the dryer door, and an air duct mounted to the rear of the front panel extends down to the blower intake. The blower discharges the moisture laden air to the rear vent duct system.

The dryer is mounted on top of the washer by means of marriage brackets.

OPERATION - DRYER

Air is drawn into the heater housing (by a blower wheel mounted to one end of the dryer drive motor shaft) and across the open coils of the electric heater. It then is drawn through the tumbling clothes, picking up moisture and lint. Lint is filtered out as the air passes from the drum into the blower where it is discharged out the vent. The air temperature is controlled by the biased thermostat according to the setting of the fabric selector switch or timer.

The length of the drying cycle is controlled by the number of minutes selected on the timer, or automatically controlled by the timer, in conjunction with the thermostat.

The clothes drying cycle of operation is controlled by the timer, fabric temperature selector switch, push-to-start switch, and thermostats. There are two thermostats in the dryer. The temperature control thermostat, that is mounted to the lower air duct housing, senses the air temperature during operation. A biasing heater surrounds the thermostat and functions to "fool" the thermostat so that three different levels of heat can be obtained. A safety thermostat is mounted to the heater plenum. Its purpose is to open the circuit to the 4500 watt heating element if excessive temperatures (260° ± 8°F) are reached. A new safety feature has been added to the dryer to prevent "run-away" temperatures (300°F or greater). It is called a thermal limiter. The thermal limiter is a non-resettable device that opens the line voltage circuit to the dryer should temperatures exceed 300°F.

Five safety devices control the dryer under certain conditions.

Door Switch - stops all operation when the door is opened.

- Safety Thermostat opens the heat circuit if drum temperature exceeds a high limit.
- Motor Centrifugal Switch opens the heater circuit when the motor is not up to normal speed.
- Push to Start Switch a switch which must be momentarily closed by the user to start the dryer.
- Thermo Limiter High Temperature Fuse opens the circuit to the dryer motor to prevent operation of the dryer. (Failure of the thermo limiter has the same characteristics as a defective dryer door switch).

To operate the dryer, first check the lint screen and be certain that the screen is completely free of all lint. Place clothes in dryer and close door. (Dryer will not operate unless door is closed.)

- Select the desired drying time, or automatic drying cycle, by turning timer knob to the right.
- Set the fabric selector for the type of fabric to be dryed.
- To start the dryer, push the start button and hold in for 2 seconds.
- 4. At the end of the dry cycle, a signal will sound.