

CINTICHEM, INC.

a wholly owned subsidiary of

Medi-Physics, Inc.

P.O. BOX 816, TUXEDO, NEW YORK 10987

(914) 351-2131

March 16, 1989

Mr. Gary Comfort
U. S. Nuclear Regulatory Commission
Division of Fuel Cycle and Material Safety
Washington, DC 20555

Dear Mr. Comfort:

Cintichem, Inc. is planning to install a standard heavy duty washer and dryer unit at our site. At the present time we anticipate the installation of these units in our Reactor Building (Building #1). The water from the washer shall be handled as potentially contaminated water and directed into our normal radioactive water handling system. The dryer shall be vented into our normal air handling system which is filtered and monitored for radioactivity.

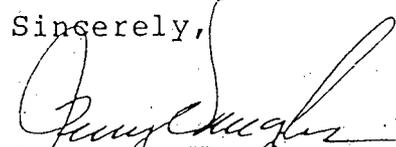
Our site Nuclear Safeguards Committee has recently reviewed this installation with specific regard to its overall safety significance to our site safety programs.

The Commission is being notified of this equipment addition to our SNM-639 licensed program since Cintichem believes that this washer/dryer installation will be a significant improvement in the overall control of the potential releases of radioactivity on clothing from our site.

Only slightly contaminated clothing will be cleaned with these units while normally used protective clothing (such as PC's, lab coats, booties, etc) used for contamination control purposes shall continue to be disposed of after each use.

If any further information regarding this matter is necessary, please don't hesitate to contact me.

Sincerely,


Terry L. Vaughn
Manager, Health, Safety and
Environmental Affairs

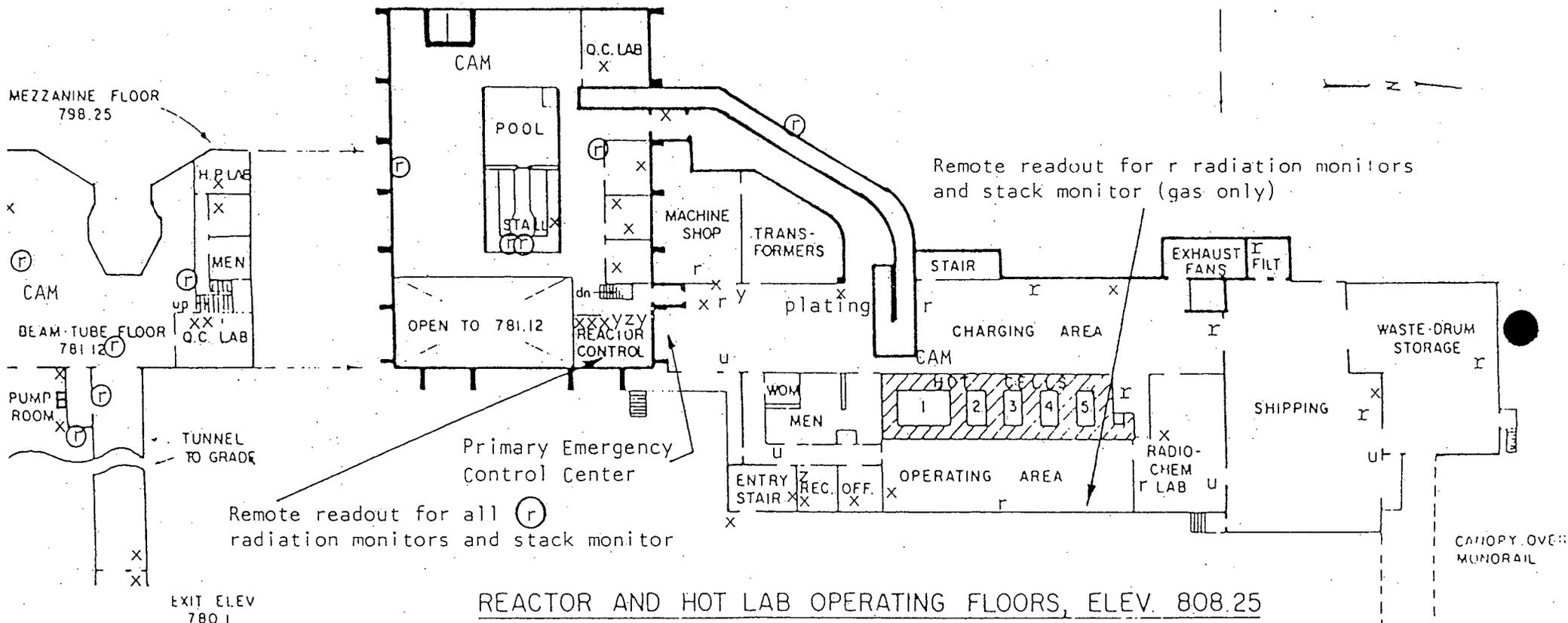
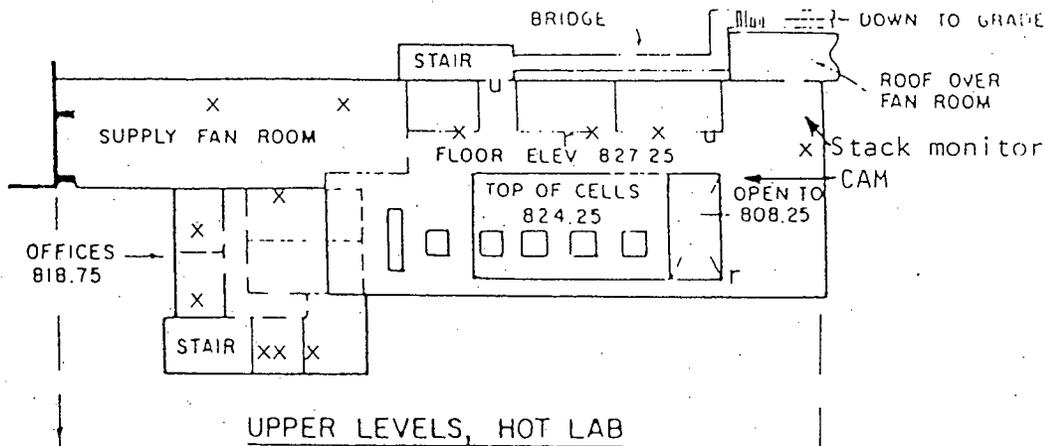
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SITE PLAN - SECTION 11

☐ = WASHER/DRYER UNITS



- r = Reactor & Hot Laboratory Area Radiation Monitors
- x = Telephones
- z = Public Address Microphone
- y = Reactor Bldg Evacuation Button
- u = Hot Laboratory Bldg Evacuation Button

PERSONAL CLOTHING DECONTAMINATION UTILIZING
ON-SITE WASHER/DRYER UNIT

A. PURPOSE

A washer/dryer unit is available to attempt to decontaminate employee, visitor and/or contractor's personal clothing which may have become contaminated above the prescribed release limits. This washer/dryer unit will not be utilized to decontaminate protective clothing specifically used for work in radiation work areas at Cintichem.

B. PROCEDURE

Upon detection of personal clothing requiring decontamination and after utilizing other appropriate decontamination procedures (tape, spot cleaning, storage for decay, etc.):

1. Survey the clothing with a GM frisker unit to determine the highest quantity of radioactivity on the clothing.
2. If the survey indicates radioactivity greater than 2.25 microcuries of beta-gamma activity, decontamination of this clothing by use of the site washer/dryer unit will not be attempted. If all other decontamination attempts fail to reduce the activity on the clothing below the 2.25 microcurie limit, the clothing should be stored for decay or disposed of as radioactive waste. All personnel should be reimbursed for disposed clothing according to current Company guidelines.
3. Clothing with contamination detected below 2.25 microcuries of beta-gamma activity may be decontaminated using the site washer/dryer unit. No clothing with alpha activity shall be allowed to be decontaminated in the site washer/dryer unit and shall be disposed of as per Step 2 above.
4. For approved contaminated clothing:
 - a. place inside washer,
 - b. select "HIGH" water setting (82.1 liters of water),
 - c. use only "non-sudsing" detergent, and
 - d. follow manufacturer's operating instructions for washer.
5. After washing, place clothes into dryer and follow manufacturer's operating instructions for dryer.
6. After clothes are dry, a final survey of the clothing will be performed as per Step 1 above. If contamination still exists, repeat Steps 3 - 6. If repeated washing does not decontaminate the clothing below the prescribed release limits, the clothing should be disposed of as per Step 2 above.

PERSONAL CLOTHING DECONTAMINATION UTILIZING
ON-SITE WASHER/DRYER UNIT

C. CLOTHING ACTIVITY LIMIT JUSTIFICATION

The 2.25 microcurie beta-gamma activity limit for clothing is based upon the following:

DATA:

$$\text{Release MPC}_w = 3 \times 10^{-8} \text{ uCi/ml}$$

"LOW" water setting on washer = 45 liters (4.5×10^4 ml) worst case

$$\text{Site waste water evaporator decontamination factor (D.F.)} = 6 \times 10^{-4}$$

THEREFORE:

$$\text{MPC}_w \times \frac{\text{minimum water volume}}{\text{evaporator decon factor}} = \text{activity limit}$$

$$3 \times 10^{-8} \frac{\text{uCi}}{\text{ml}} \times \frac{4.5 \times 10^4 \text{ ml}}{6 \times 10^{-4}} = 2.25 \text{ uCi}$$

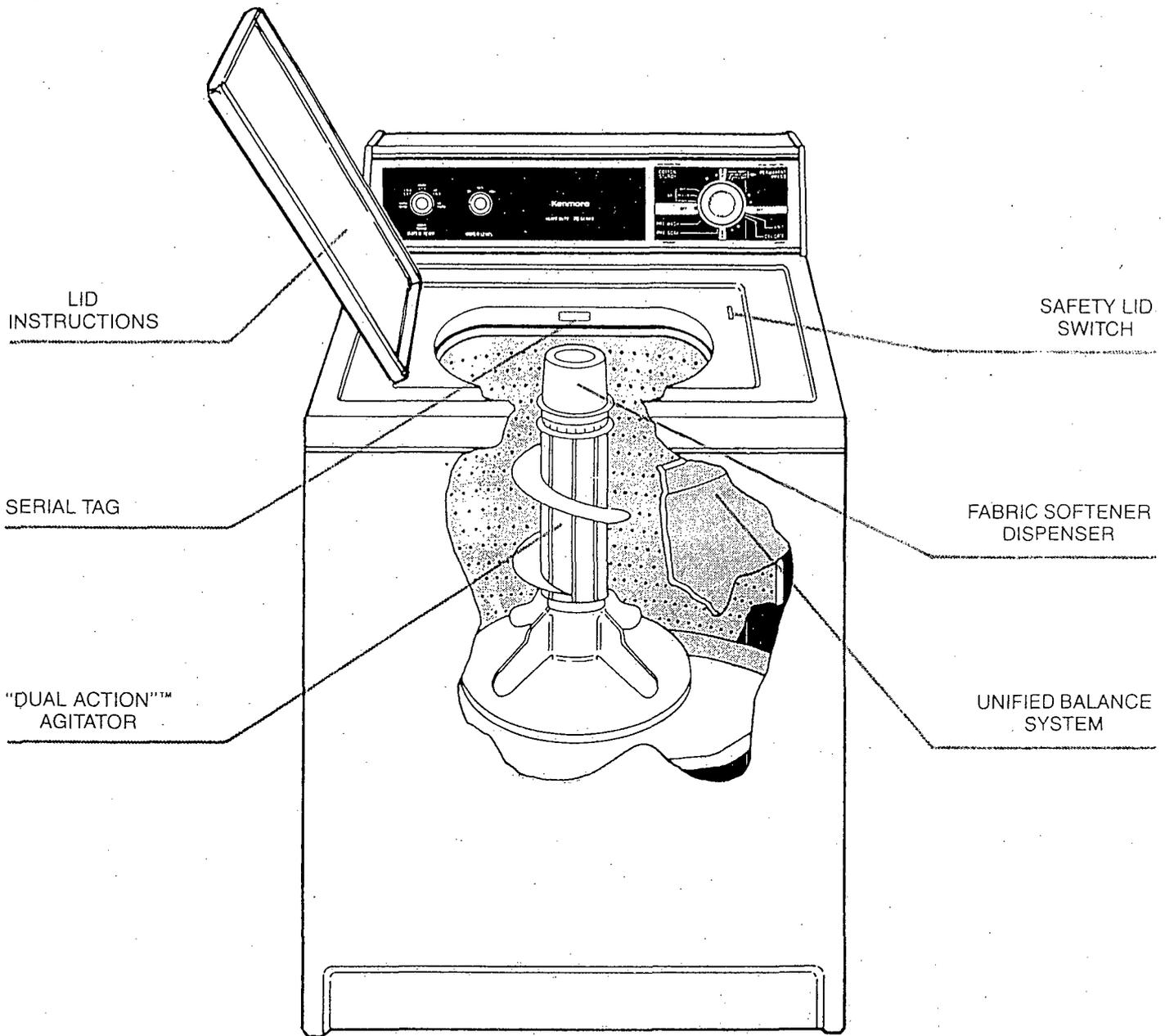
NOTE:

$$\left[2.25 \text{ uCi} \times \frac{2.22 \times 10^6 \text{ dpm}}{\text{uCi}} = 5 \times 10^6 \text{ dpm} \times \frac{0.10 \text{ cpm}}{\text{dpm efficiency}} \text{ (GM frisker)} = 500,000 \text{ cpm} \right]$$

D. SURVEILLANCE

On a quarterly basis a contamination level survey shall be performed inside the washer and dryer units to monitor the presence or potential buildup of radioactivity on the internal surfaces of this equipment. Any detectable activity above the prescribed release limits shall be decontaminated prior to any further use of the washer or dryer units.

SEARS Kenmore Advantage Automatic Washer OPERATING INSTRUCTIONS



Get The Most From Your Kenmore Washer Keep the information on installing and using your washer handy in the Lit Kit. It can help you get years of dependable service and value from your washer.

WARNING

To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS in the Laundry Guide before operating this appliance.

If you need SERVICE or PARTS for your Kenmore washer:

Be ready to give your Sears Service Department the model number, serial number and date of purchase. Write in below. The tag with model and serial numbers is located under the lid.

**STOCK NO.
28731**

110. _____ C _____
MODEL NO. SERIAL NO. DATE OF PURCHASE

Water Temperature Control

This control provides 5 different wash/rinse temperatures.

GENERAL RULES:

COTTON/STURDY — HEAVY, MEDIUM or LIGHT

White Cotton: Hot Wash — Warm or Cold Rinse

Colored Cotton: Warm Wash — Cold Rinse

PERMANENT PRESS — HEAVY, MEDIUM or LIGHT

White Perm. Press: Hot or Warm Wash — Cold Rinse

Colored Perm. Press: Warm Wash — Cold Rinse

KNIT

Washable Woolens: Warm Wash — Cold Rinse

DELICATE

Delicate Fabrics: Warm Wash — Cold Rinse

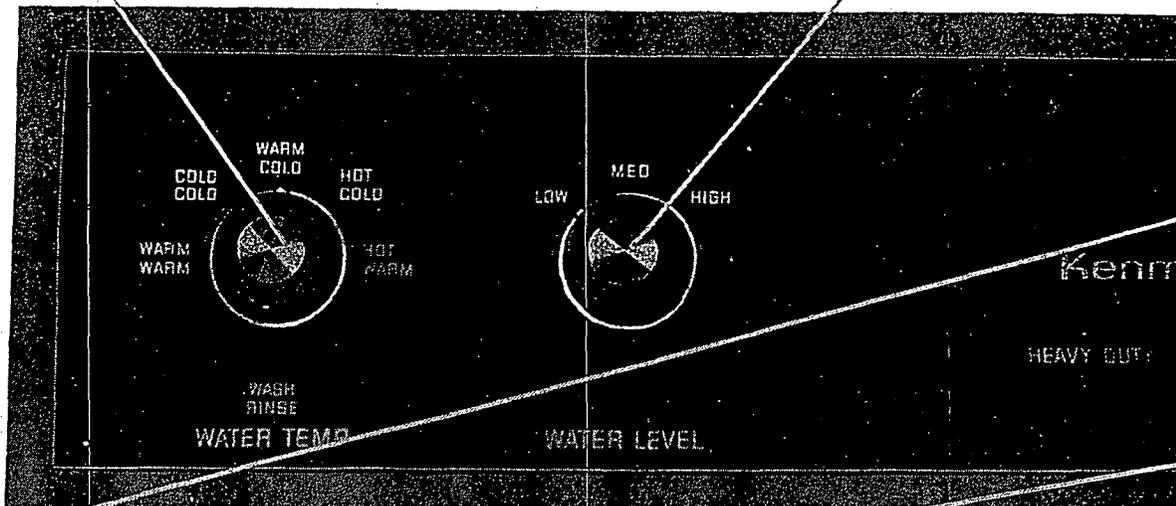
Generally, wash fabrics in the warmest water possible without damaging color or fabric. To save energy, cold rinses should be used. Lab tests show that cold rinses are virtually as effective as expensive warm water rinses.

For most wrinkle-free appearance of permanent press, synthetic or knitted fabrics, always use **COLD RINSES**.

Water Level

This water level control for your particular load size (1, 2, or 3 gallons (45.0 L.) and setting uses approximately 10, 15, or 20 gallons. The med setting, which has been determined for most loads. You may find that fewer permanent press items are washed.

CAUTION: Use low water level for heavy clothes and not for water splashing out.



Cotton/Sturdy

Designed to wash sturdy fabrics such as towels, jeans, diapers, etc. Provides brisk high speed agitation. At the end of the wash portion, laundry is rinsed by the washer refilling and agitating the load.

To remove even more detergent residue, sprays of fresh water are forced through the load by the high speed spinning action. High speed spins are used to overcome the absorbent nature of cotton. The result is a damp dry load.

Three settings are provided in COTTON/STURDY. Heavy Soil has a wash time of 14 minutes. Medium Soil has a wash time of 10 minutes. Light Soil has a wash time of 6 minutes.

In this cycle you may use just rinse and spin if you wish. Push the control in and turn to the right until pointer is set at asterisk. For spin only, set pointer at diamond.

Pre-Wash

This cycle is designed for heavily soiled fabrics that need more than one washing.

It provides up to 4 minutes of agitation to loosen heavy soils. At the end of the cycle, the soiled water is drained; clothes are given a high speed spin. They are then ready to go into the next wash cycle. Select water temperature with **WASH** selection on **WATER TEMP** control.

Pre-Soak

This cycle is designed for heavily soiled or stained fabrics that need more than one washing.

It provides brief periods of high speed agitation for up to 18 minutes. This soaking and agitation action loosens dirt. Enzyme detergent may be necessary for certain types of stains.

From the pre-soak cycle, the washer will automatically go into the pre-wash cycle. Select water temperature with **WASH** selection on **WATER TEMP** control.

Control

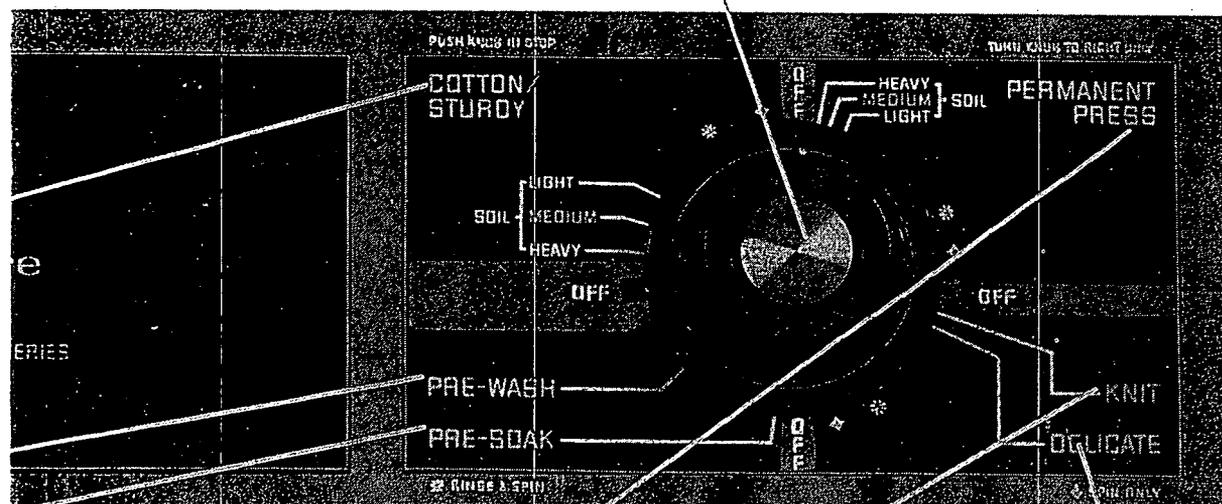
ows you to set the water level best suited
he low setting uses approximately 11.9
nded for very small wash loads. The high
1.7 gallons (82.1 L.) and is for larger loads.
es approximately 16.7 gallons (63.2 L.)
re setting most often used for average size
be your most commonly used setting. For
kles, higher water levels should be used.

only when your wash load is small. Too
h water may result in clothes damage and
washer.

Cycle Selector Control

This control is provided so you can select the desired
cycle and wash time.

Push control knob in and turn to right only. Turning
the knob to the left will unscrew it.



Permanent Press

Designed to deliver permanent press items as clean and free of wrinkles as possible. During cooldown, some wash water is drained and replaced by cold water. In warm water, wrinkles in permanent press fabrics are loosened. In cool water fabrics tend to pick up fewer wrinkles during spin. This is why we recommend a cold rinse.

The spin portions **ARE SLOW SPEED** to minimize spin-created wrinkles.

Three settings are provided in PERMANENT PRESS. Heavy Soil has a wash time of 10 minutes. Medium Soil has a wash time of 8 minutes. Light Soil has a wash time of 6 minutes.

In this cycle you may use just rinse and spin if you wish. Push the control in and turn to the right until pointer is set at asterisk. For spin only, set pointer at diamond.

NOTE: For best results, **WATER LEVEL** should be set to high and a cold rinse should always be used.

Knit

This cycle is designed for washable knits. It provides up to 8 minutes of slow speed agitation. Spin speeds are slow to reduce wrinkles.

In this cycle you may use just rinse and spin if you wish. Push the control in and turn to the right until the pointer is set at asterisk. For spin only, set pointer at diamond.

NOTE: For best results, always use cold rinses to minimize wrinkling.

Delicate

This cycle is designed for washable delicate fabrics.

It provides up to 6 minutes of slow speed agitation. Spin speeds are slow to reduce wrinkles.

In this cycle you may use just rinse and spin if you wish. Push the control in and turn to the right until the pointer is set at asterisk. For spin only, set pointer at diamond.

NOTE: For best results, always use cold rinses to minimize wrinkling.

Safety Lid Switch

This switch is provided for your safety. During the spin portions of any cycle, the action slows to a stop when you raise the lid. **BE SURE ALL ACTION IS STOPPED BEFORE YOU PUT YOUR HANDS IN THE WASHER.**

Always close the lid after loading. If you don't, **THE WASHER WILL NOT SPIN.**

Lid Instructions

Handy information to help you get the most from your Kenmore washer is literally "at your fingertips."

"Dual Action"™ Agitator

YOUR DUAL ACTION AGITATOR IS DIFFERENT FROM ANY OTHER AGITATOR YOU HAVE EVER USED.

The bottom portion of the agitator, where most of the washing action occurs, is like most agitators. The top portion, however, is unique. It is designed to rotate in only one direction to help you wash larger loads. The clockwise rotation of your agitator forces the clothes on top down to the bottom where most of the washing action is. The result is that even large loads are cleaned uniformly.

Self-Cleaning Lint Filter

This lint filter is out of sight but on the job. It traps lint from the water while your washer is washing and deep rinsing your laundry. The trapped lint is then flushed away, down the drain, automatically. You don't have to remember to clean it.

NOTE: If your washer drains into a:

1. **LAUNDRY TUB**, check the drain hole occasionally and remove all collected lint.
2. **STAND PIPE**, you may attach "drain protector," Part No. 367031, with two Part No. 357239 sleeves and two Part No. 65349 clamps, to drain hose to minimize lint build up in the pipe.
3. **SUMP**, the lint may collect on and clog the sump pump. You can minimize this possible problem by adding a "drain protector," Part No. 367031, with two Part No. 357239 sleeves and two Part No. 63549 clamps. They are easy to attach and are available from your Sears service or parts department.

Lit Kit

We suggest you put the literature found in the basket of your new washer into the LIT KIT provided. This handy kit keeps all the information you need for the installation and use of your washer in one convenient place.

Hang the LIT KIT on the red plastic peg you'll find on the back of your washer or keep it handy in a binder or drawer.

Be sure to keep this information for future use.

Unified Balance System

This unique system is part of the washer basket. It maintains an even balance during spin even if the wash load becomes bunched on one side of the basket.

Fabric Softener Dispenser

This dispenser puts the fabric softener into the deep rinse water automatically. Here's how you use it:

1. Read and follow package instructions for the correct amount of fabric softener to use. Pour recommended amount into dispenser before starting cycle.
2. Add warm water to dispenser until it reaches the opening (at the bottom of the funnel shaped portion of the dispenser).

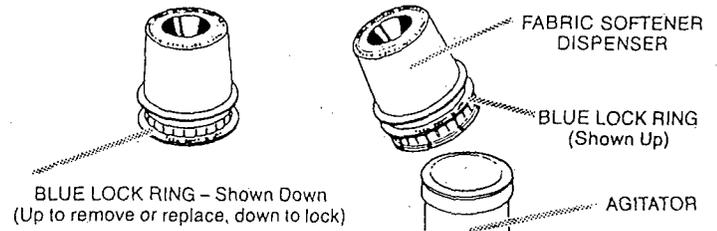
NOTE: Fabric softeners are not compatible with detergents. Therefore, this dispenser should **NEVER** be used in the Pre-Wash cycle since it would dispense fabric softener into a wash load that has not been rinsed. Should you ever use your dispenser this way by mistake, you will notice a deposit on your laundry. Rewash the load with extra detergent to remove this deposit.

To Remove the Fabric Softener Dispenser for Cleaning:

1. Pull the blue lock ring up.
2. Pull the dispenser up off the agitator.

To Replace the Fabric Softener Dispenser:

1. Be sure the blue lock ring is pulled up.
2. Push the bottom of the dispenser down on the agitator top. Note: It is easier if you start at an angle.
3. When the dispenser is seated on the agitator, push the blue lock ring down, until it snaps in place. (It must fit tightly.)



Installation Aids

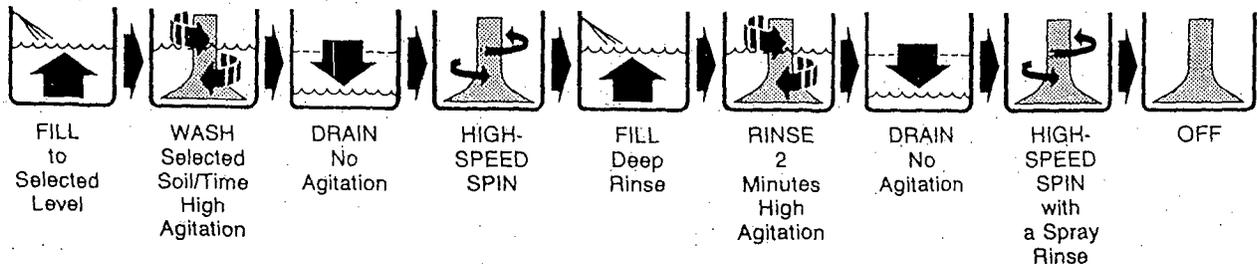
To help make installation of your washer easier, the feet, water inlet hoses and drain hose are installed at the factory.

WARNING

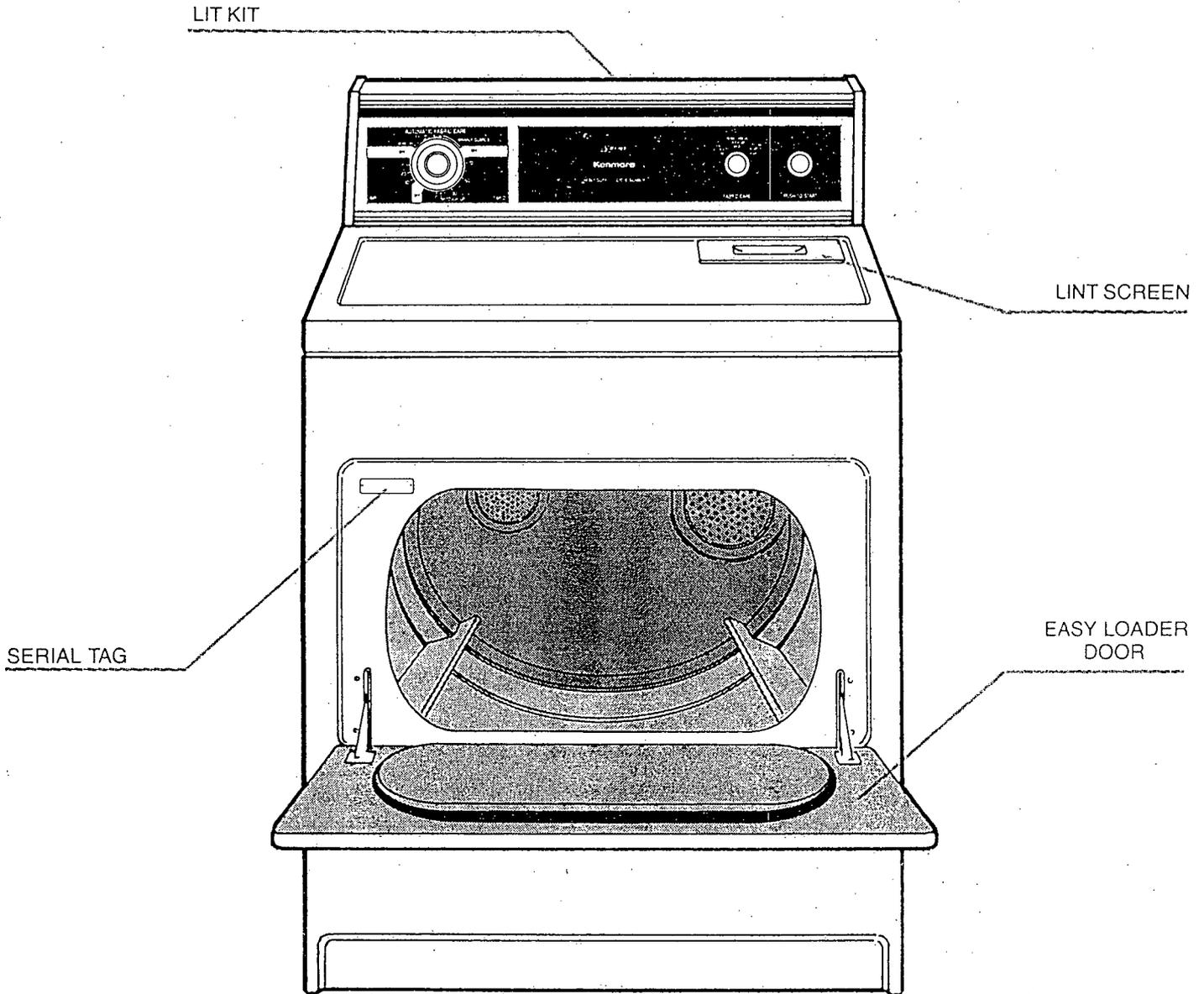
1. Before you attempt to service your automatic washer, always disconnect it from electrical power supply.
2. Never put dry cleaning or other flammable fluids, including items dampened with flammable fluids into your washer.

For more detailed fabric care, service maintenance, and installation information, refer to the LAUNDRY GUIDE and INSTALLATION INSTRUCTIONS you received with your washer.

These are the stages your washer goes through in the **COTTON/STURDY** cycle. **PERMANENT PRESS, KNIT and DELICATE** cycles contain variations of these stages.



SEARS Kenmore Advantage Automatic Dryer OPERATING INSTRUCTIONS



Get The Most From Your Kenmore Dryer Keep the information on installing and using your dryer handy in the Lit Kit. It can help you get years of dependable service and value from your dryer.

WARNING

To reduce the risk of fire, electric shock, or injury to persons, read the IMPORTANT SAFETY INSTRUCTIONS in the Laundry Guide before operating this appliance.

If you need SERVICE or PARTS for your Kenmore dryer:

Be ready to give your Sears Service Department the model number, serial number (located on a tag in the door well behind the door) and date of purchase. Record below.

MODEL NO.

SERIAL NO.

DATE OF PURCHASE

**ELECTRIC
MODEL 68731**

**GAS
MODEL 78731**

How to dry a load of laundry:

1 Put laundry into dryer and shut the door.

2 Set Fabric Care Heat Control.

Fabric Care Dryness Control

1. Turn control, in either direction, to the cycle and setting you want for proper drying of type of fabrics you have in each load.
2. You can turn control to an OFF position to shut off your dryer at any time.
3. You can turn control, at any time, to make drying time longer or shorter.

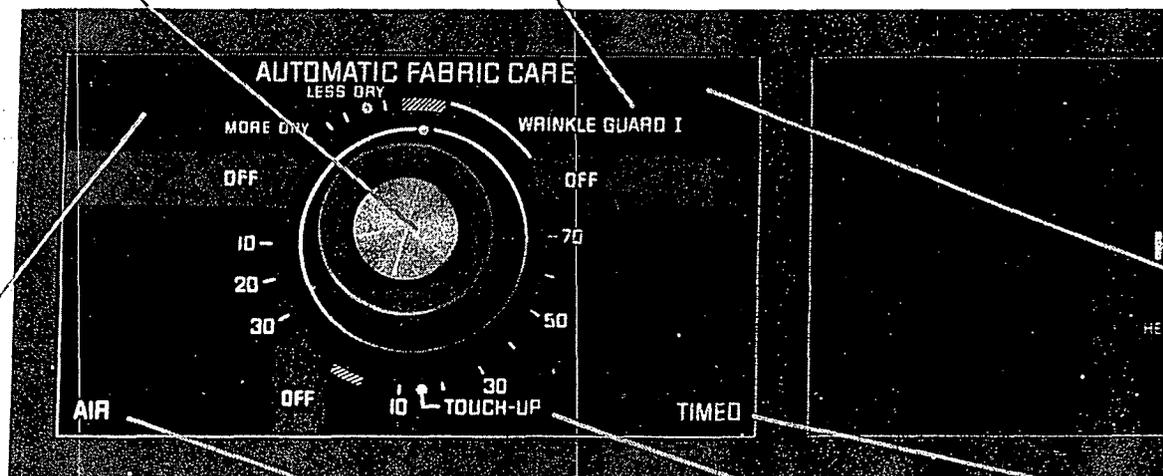
Wrinkle Guard I

This feature operates at the end of the automatic cycle. Its purpose is to keep your fabrics wrinkle-free...when you can't remove them from the dryer promptly at the end of the drying cycle.

Here's what it does. After about 10 minutes of tumbling without heat the buzzer will sound. If you have not opened the dryer door, your clothes are tumbled without heat continuously for 30 minutes unless you open the dryer door sooner. During this 30 minutes the signal will buzz every 5 minutes.

Fabric Care

Set control to match this control the d temperature for ty
It is important to fabric being dried. fabrics.
The Fabric Care c is set in the AIR



Automatic Cycle Knit/Delicate

Clothes are dried at low heat followed by a 10-minute cooldown period when they tumble without heat.

We recommend the AUTOMATIC cycle for most loads because it provides the best drying in the shortest time. Total drying time varies depending on size of load, kind of fabrics, and dryness setting.

Unlike the timed cycle where you select a number of minutes drying time, in the AUTOMATIC cycle you select how dry you want your clothes. The (*) is a good starting point for drying most fabrics. You may turn the control to "more dry" or "less dry" to get the degree of dryness desired. A buzzer will remind you to remove the clothes at the end of the cycle. The dryness control will not start to turn until most of the moisture in the clothes is removed.

If the dryer is located where the air temperature is below 45°F, use the Timed Cycle. The automatic setting may not turn the dryer off.

Air Cycle

Offers up to 30 minutes of drying time in room temperature air. This setting is used for drying items that won't tolerate heat (plastics, foam rubber, etc.) and for airing and fluffing pillows and similar items.

Touch-Up

Designed to "st permanent press but slightly w crowded in a su setting provides heated tumbl 10-minute coold

- a. Put just a few
- b. Set Fabric Ca Touch-Up.
- c. Set Fabric C Touch-Up.
- d. Push the star
- e. Remove cloth tumbling stop

4

Set Fabric Care
Dryness Control.

Push the Start Control
to start your dryer.

Heat Control

Fabric to be dried. By setting
it automatically choose the
fabric selected.

The right setting for type of
setting might damage some

will not work when the dryer

Start Control

After Dryness Control has been set and door is closed, push button to start dryer. Opening the door stops dryer. It will not start again until you close the door AND push this control.

End-of-Cycle Signal

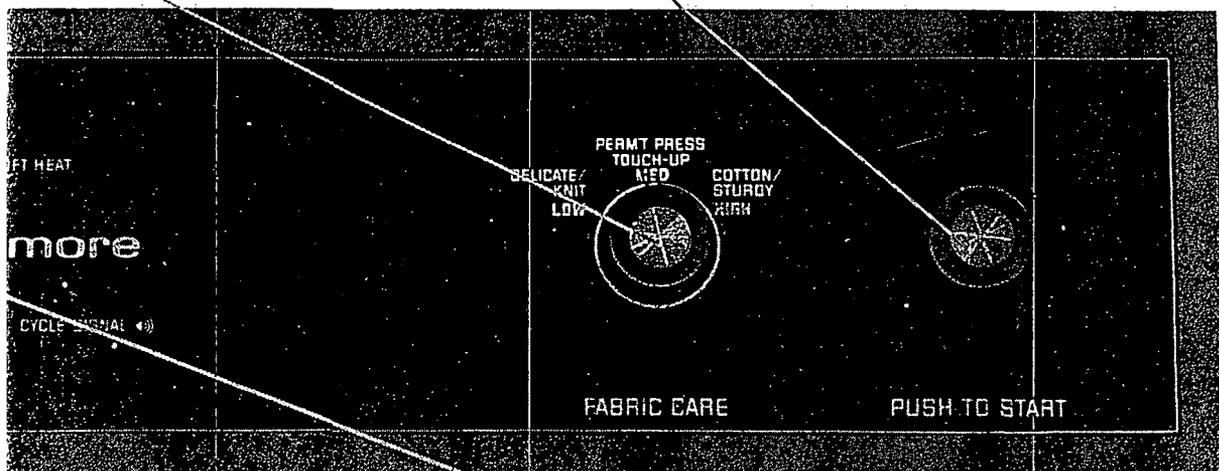
The signal buzzes at the end of drying cycle. This is a reminder to unload the dryer immediately for best wrinkle-free results from fabrics. Also buzzes every five minutes during Wrinkle Guard tumble period.

SOFT-HEAT®

In the Automatic and Timed Cycle, clothes are dried in the selected Fabric Care temperature until the last few minutes of cycle when the dryer switches to low heat.

Cooldown

Clothes are tumbled for a short time without heat at the end of the cycle to help reduce wrinkles and make clothes more comfortable to handle. Refer to description of cycle for details.



Cycle

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l.

mediately when

Timed Cycle

Provides up to 70 minutes of heating time. At the end of the heating cycle, heat shuts off and dryer continues for a 10-minute cooldown period. Use this cycle:

1. To choose amount of time for drying.
2. For damp drying.
3. If you have to dry only one or two small items.
4. When the air temperature around the dryer is below 45°F.

Automatic Cycle

Permanent Press or Cotton/Sturdy

Clothes are dried with SOFT-HEAT® followed by a 10-minute cooldown period when they tumble without heat.

We recommend the AUTOMATIC cycle for most loads because it provides the best drying in the shortest time. Total drying time varies depending on size of load, kind of fabrics, and dryness setting.

Unlike the timed cycle where you select a number of minutes drying time, in the AUTOMATIC cycle you select how dry you want your clothes. The (*) is a good starting point for drying most fabrics. You may turn the control to "more dry" or "less dry" to get the degree of dryness desired. A buzzer will remind you to remove the clothes at the end of the cycle. The dryness control will not start to turn until most of the moisture in the clothes is removed.

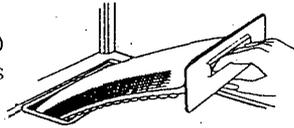
If you do not remove the laundry or turn off the dryer at the end of the automatic cycle, it will automatically go into Wrinkle Guard.

If the dryer is located where the air temperature is below 45°F, use the Timed Cycle. The automatic setting may not turn the dryer off.

Lint Screen

Keep the lint screen clean. A lint-clogged screen will slow down the flow of air. This makes drying time longer and wastes energy. You should clean the lint screen after each load. Here is how to do it:

1. With dryer off, remove the screen as illustrated.
2. Roll the dry lint off the screen. DO NOT wet the screen or lint. Wet lint is hard to remove.
3. Replace the cleaned lint screen.



CAUTION: DO NOT USE YOUR DRYER WHILE THE SCREEN IS REMOVED. IT COULD CAUSE OVERHEATING AND POSSIBLE DAMAGE TO FABRICS AND DRYER PARTS OR CREATE A FIRE HAZARD. LINT SCREEN MUST BE PUSHED FIRMLY INTO PLACE.

Performance Guide Label

Located inside the dryer door. Gives information on what to do if dryer does not perform normally.

Easy Loader Door

Drop down door is located to reduce stooping. It can also serve as a shelf for folding clothes. The large opening makes it easy to load and unload and to see inside dryer. Clothes in dryer are easy to reach.

NOTE: If dryer drum is stained, clean it with a damp cloth and mild detergent.

Lit Kit

This handy kit keeps all the information you need for the installation and use of your dryer in one convenient place.

Hang the LIT KIT on the red plastic peg you'll find on the back of your dryer or keep it handy in a binder or drawer.

Be sure to keep this information for future use.

For more detailed drying times, rules for safe operation, fabric care, maintenance and installation information, refer to the LAUNDRY GUIDE and INSTALLATION INSTRUCTIONS you received with your dryer.