



GE Consumer Service Training

Technician Manual

GE Monogram Dishwashers

ZBD4800X

ZBD4700X

ZBD4600X

DWS95

Pub. No. 31-30202

GENERAL

Three new **Monogram™** dishwasher models are being introduced. They feature European styling, flush installation, quiet rubber-mounted induction motor, tub top pressure regulator/spray nozzle, two direction upper wash arm, lower multi-axis wash arm, noise reducing materials, galvanized steel sides, top and rear panels, stainless steel tub, adjustable rinse aid dispenser, two-position adjustable upper rack, flexible lower tine inserts, dual pump design to eliminate carryover water, uses up to half of the water and energy as compared to most U.S. domestic dishwashers, 1200 watt heating element thermostatically raises water temperature up to 155° (varies by model/cycle), 4 level wash system, stainless steel micro-filter, course filter, and self-cleaning stainless steel filter.

PERFORMANCE

- Four Level Wash System
- Triple Filtration System
- 100% Water Filtration
- Efficient Dual-Pump Design
- 1200 Watt Heating Element
- Sealed Convection Drying System
- Flexible Lower Rack
- Two-Position Upper Rack
- Adjustable Rinse-Aid Dispenser

QUIET

- Triple Insulation
 - Heavy-duty Mastic
 - FELTRO (Sound absorbing material)
 - Fully Enclosed, Wrap Around Exterior Cabinet
- Insulated Door Access Panel
- Rubber-Mounted Induction Motor
- Spray Jet Designed Wash Arm

CYCLE SELECTOR KNOB

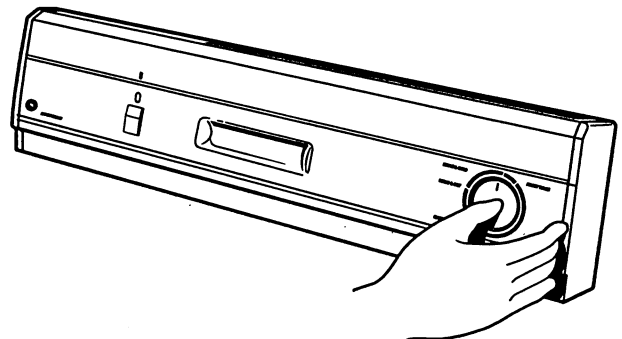
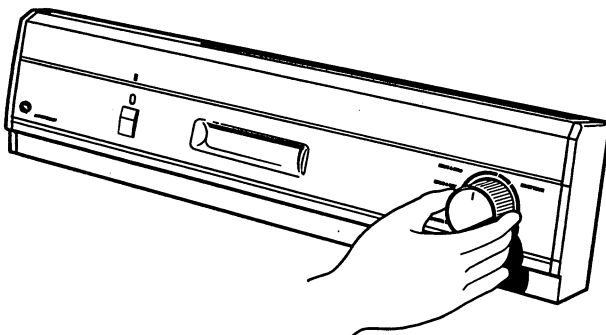
To set Cycle Selector knob push in so that knob will be extended. Turn the dial until the white cycle indicator line aligns with the line on control panel. Push in knob & press "ON/OFF" button. (ZBD4600 shown)

APPEARANCE

- European "Flush" Styling
- Black on black and White on white
- 1/4" and 3/4"* Custom Panel Installation
- Stainless Steel Tub and Door Liner
- *ZBD4800X Series only

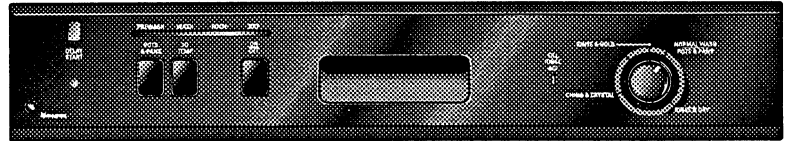
QUALITY

- 18:8 Surgical Stainless Steel
- Welded Tub Seams
- One-Piece Galvanized Steel Base Pan
- White Nylon Coated Upper and Lower Racks

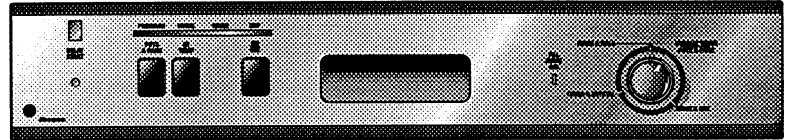


FEATURES

Monogram Dishwashers



ZBD4800XBB



ZBD4700XWW



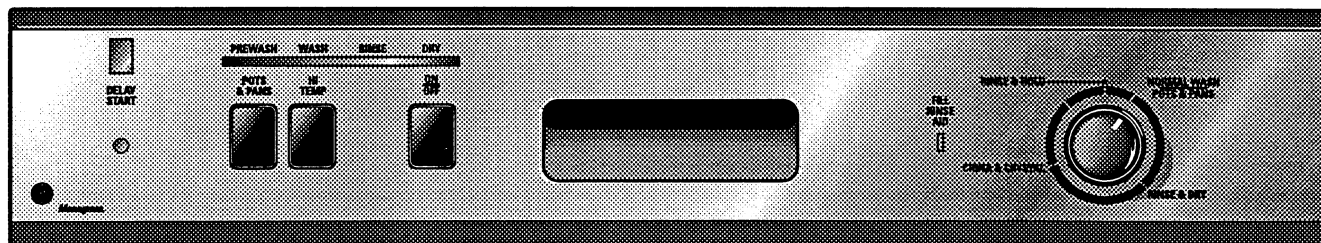
ZBD4600XBB

Brand Model	Monogram ZBD4800X	Monogram ZBD4700X	Monogram ZBD4600X
Appearance Color Options: Control Panel Door/Access Panel Custom Panel Thickness Toe Kick Controls Tub Material	Black or White N/A 3/4" Integrated Electro-Mechanical 18:8 Surgical Stainless Steel	Black or White Black or White w/Color-Matched Trim 1/4" Color-Matched Electro-Mechanical 18:8 Surgical Stainless Steel	Black or White Black or White w/Color-Matched Trim 1/4" Color-Matched Electro-Mechanical 18:8 Surgical Stainless Steel
Performance Cycles Delay Start Drying System Dual Pump System Triple Removable Filter System Detergent Dispenser System Adjustable Flow Rinse Aid Dispenser Wash Levels Spray Arms Multi-Orbit Lower Arm 120° Water Inlet Water Temperature Water Usage - Normal Cycle	7 Yes 9-Hour Sealed Convection Yes Yes Single Detergent Cup Yes 4 2 Yes Yes Up to 155° F 5.8 gal.	7 Yes 9-Hour Sealed Convection Yes Yes Single Detergent Cup Yes 4 2 Yes Yes Up to 155° F 5.8 gal.	5 No Sealed Convection Yes Yes Single Detergent Cup Yes 4 2 Yes Yes Up to 155° F 5.8 gal.
Rack System Racks Cushion Coated Nylon Racks Adjustable Top Racks Cup Shelves Removable Tine Inserts Place Settings	2 White Yes - 2 Position Nylon 2 Yes - 3 Nylon Two US Plate Racks One Deluxe Euro Rack 12	2 White Yes - 2 Position Nylon 2 Yes - 3 Nylon Two US Plate Racks One Deluxe Euro Rack 12	2 White Yes - 2 Position Nylon 0 Yes - 2 Nylon Two US Plate Racks 12
Sound Insulation Triple Insulation Sound Level	Yes 55 dB	Yes 55 dB	Yes 60 dB
Warranty 1 Year 2 Year 5 Year 20 Year	Full Ltd. Parts Racks Tub & Door Liner	Full Ltd. Parts Racks Tub & Door Liner	Full Ltd. Parts Racks Tub & Door Liner

OPERATION AND FEATURES DESCRIPTION

ZBD4800/ZBD4700

Features and appearance may vary slightly.



OPERATION

- Latch the door.
- Push the Cycle Selector dial so that it is extended. Turn the dial to the cycle you desire by lining up the white line on the dial with the Cycle Indicator on the control panel. Press the corresponding Cycle Selector button if needed or if an option is desired.
- **If You Do Not Wish to Use DELAY START**, continue turning the Cycle Selector dial until the green line on the dial lines up with the cycle indicator on the control panel, then press ON/OFF button.
- **If you Wish to Use DELAY START**, you can delay the start of a wash cycle for up to 9 hours. Press the ON/OFF button to light up the Delay Start indicator. Tap the Delay Start pad to choose the amount of hours you want to delay the start of the cycle. Turn the Cycle Selector dial until the green line of the dial lines up with the cycle indicator on the control panel. The machine will start automatically at the correct time. To stop the dishwasher, press the ON/OFF button.
- To **start** the dishwasher, press the ON/OFF button. To **stop** the dishwasher press the ON/OFF button.
- The dishwasher cycle is complete when the DRY light goes out. Clean the filter.

FEATURES

POTS & PANS

For items such as pots, pans and casseroles with dried-on or baked-on soils. Everyday dishes may be included. Burned-on food and food burned black should be presoaked and scoured. The dishwasher cannot remove burned-on food.

Press POTS & PANS button; then select POTS & PANS on Cycle Selector dial; press ON button. You may also select HI TEMP to get extra cleaning in this cycle.

NORMAL WASH

For loads of everyday dishes, glasses and cookware with medium soils. Designed to yield high performance on normal soils. You can also select HI TEMP to get extra cleaning in this cycle.



RINSE & DRY

Rinses and dries dusty dishes that are already washed. *Do not use detergent.*



CHINA & CRYSTAL

For lightly soiled china and crystal.

RINSE & HOLD

For rinsing partial loads which will be washed later. *Do not use detergent.*

CYCLE PHASE LIGHTS

These lights tell you what stage the machine is in.

DRYING

The dishwasher has an energy efficient wash and dry system. The heat energy from the wash cycle is used to dry the dishes. After the wash cycle it will take an additional 45 minutes for a typical load of dishes to dry. Quicker drying can be accomplished by opening the door slightly. The use of a rinse agent is recommended. It will improve drying and lessen water spotting.

TO INTERRUPT A CYCLE

To interrupt a cycle, press the ON/OFF button. If you're interrupting the cycle during a wash or rinse cycle wait until the water noises stop before opening the door. The cycle may be resumed by closing the door and pressing the ON/OFF button again. **As a safety feature the dishwasher will automatically turn itself off whenever the door is opened.** However, if the door is opened quickly while in a wash or rinse cycle some water may splash out of the dishwasher. For this reason it is recommended that the machine always be switched to off before opening the door. **If you have used the ON/OFF button to interrupt the cycle, remember to turn the machine back on by pressing ON/OFF.**



FILL
RINSE
AID



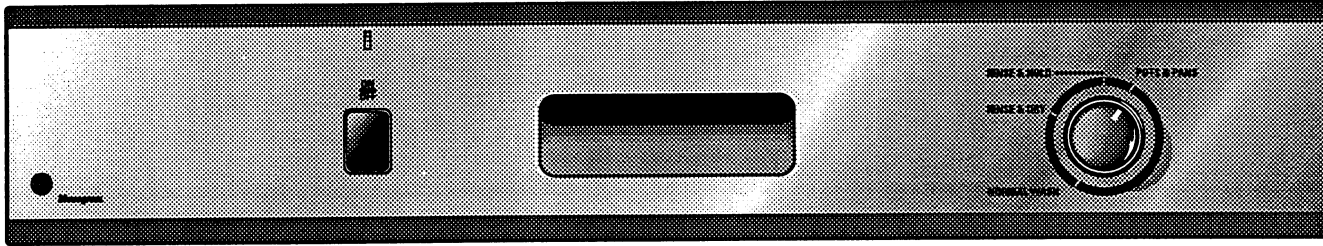
FILL RINSE AID LIGHT

Indicates rinse aid agent needs to be added to the machine.

OPERATION AND FEATURES DESCRIPTION

ZBD4600

Features and appearance may vary slightly.



OPERATION

- Latch the door.
- Push the Cycle Selector dial so that it is extended. Turn the dial to the cycle you desire by lining up the white line on the dial with the Cycle Indicator on the control panel. The dial may be pushed in for flush appearance.
- To **start** the dishwasher, press the ON/OFF button. To **stop** the dishwasher, press the ON/OFF button.
- The dishwasher cycle is complete when the dial stops before the next cycle. Clean the filter.

FEATURES

POTS & PANS

For items such as pots, pans and casseroles with dried-on or baked-on soils. Everyday dishes may be included. Burned-on food and food burned black should be presoaked and scoured. The dishwasher cannot remove burned-on food.

NORMAL WASH

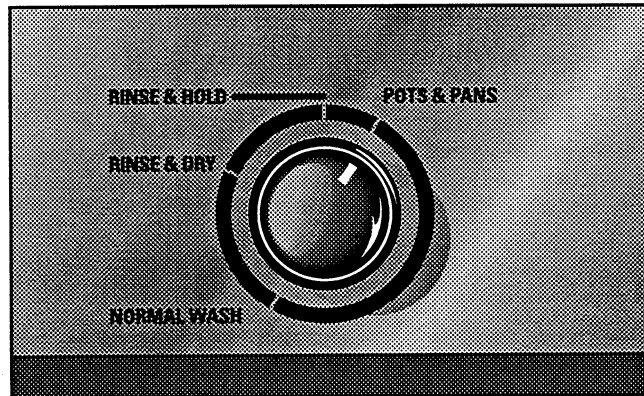
For loads of everyday dishes, glasses and cookware with medium soils. Designed to yield high performance on normal soils.

RINSE & DRY

Rinses and dries dusty dishes that are already washed. *Do not use detergent.*

RINSE & HOLD

For rinsing partial loads which will be washed later. *Do not use detergent.*



DRYING

The dishwasher has an energy efficient wash and dry system. The heat energy from the wash cycle is used to dry the dishes. After the wash cycle it will take an additional 45 minutes for a typical load of dishes to dry. Quicker drying can be accomplished by opening the door slightly. The use of a rinse agent is recommended. It will improve drying and lessen water spotting.

TO INTERRUPT A CYCLE

To interrupt a cycle, press the ON/OFF button to stop the operation. If you're interrupting the cycle during a wash or rinse cycle wait until the water noises stop before opening the door. The cycle may be resumed by closing the door and turning the machine back on. **As a safety feature the dishwasher will automatically turn itself off whenever the door is opened.** However, if the door is opened quickly while in a wash or rinse cycle some water may splash out of the dishwasher. For this reason it is recommended that the machine always be switched to off before opening the door. **If you have used the ON/OFF button to interrupt the cycle, remember to turn the machine back on by pressing ON/OFF.**



CYCLE SELECTIONS

ZBD4800/ZBD4700

Cycles	Water Use Gallons (approx.)	Water Cycle Time Minutes (approx.)	Cycle Sequence					
POTS & PANS	7.3	90-95	Pre Wash	Wash	Rinse	Rinse	Rinse	Dry
NORMAL WASH	5.7	80-87	Pre Wash	Wash	Rinse	Rinse		Dry
RINSE & DRY	4	50			Rinse	Rinse		Dry
CHINA & CRYSTAL	4.4	53		Wash	Rinse	Rinse		Dry
RINSE & HOLD	1.8	8			Rinse			

ZBD4600

Cycles	Water Use Gallons (approx.)	Water Cycle Time Minutes (approx.)	Cycle Sequence					
POTS & PANS	7.3	95	Pre Wash	Wash	Rinse	Rinse	Rinse	Dry
NORMAL WASH	5.7	87	Pre Wash	Wash	Rinse	Rinse		Dry
RINSE & DRY	4.4	40			Rinse	Rinse		Dry
RINSE & HOLD	1.8	8			Rinse			

BEST RESULTS - HELPFUL HINTS

HOT WATER

The dishwasher needs hot water for best results. Water entering the dishwasher should be at least 120°F. but the dishwasher performs better with higher water temperatures not to exceed 150°F.



WATER HARDNESS

The hardness of the water plays an important part in how well the dishwasher cleans. In areas where water is very hard (12 grains or more), it may be necessary to install a water softener. If you do not know the hardness of the water supply, contact the local water department.



DETERGENTS

Only use detergents labeled for use in automatic dishwashers. ⚠ Never use laundry detergents or liquid soaps... that will cause oversudsing and leaks. The amount of detergent used depends on the water hardness and the amount of soil on the dishes. In most cases, detergent amounts should be increased for hard water and heavy soil.

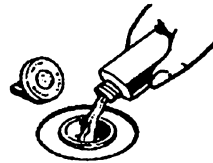


RINSE AGENT

A rinse agent should always be used:

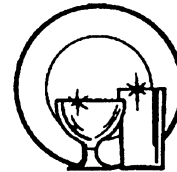
- to reduce water spotting
- to improve drying

Always check and refill the rinse agent when necessary.



FOR BEST RESULTS

The cycles and the options chosen will have an effect on the results. The following are examples. (Please see the Operating Instructions, Tips for more information.)



WASH TEMP BOOST OPTION

- use with heavily soiled loads
- extends cycle to heat water for best washing and drying



POTS/PANS CYCLE

- use with dried or baked-on heavily soiled loads

INSTALLATION INSTRUCTIONS

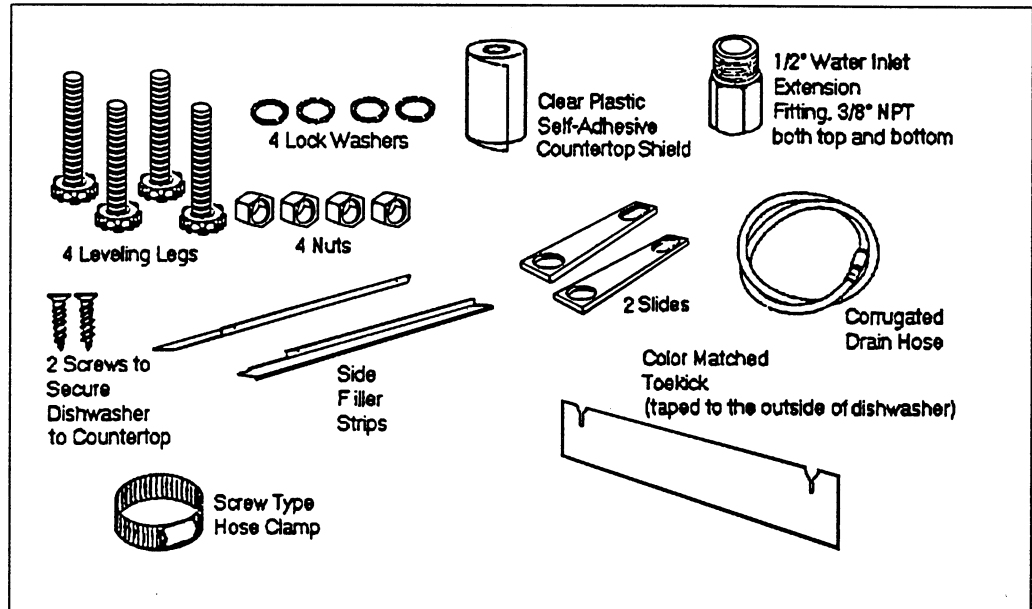
Installation for this product is very different than previous models. It is suggested that you look over the installation instructions to help you remove and reinstall the machine. It may also assist you in diagnosing machines that are not properly installed. They require high drain loop with waste tee or disposer of 18" at drain to 32" fastened to underside of countertop. Air gap should also be 32" from floor.

NOTE: Models ZBD4600X and ZBD4700X have a finished front door and access panel. 1/4" thick custom panels may be installed onto these models.

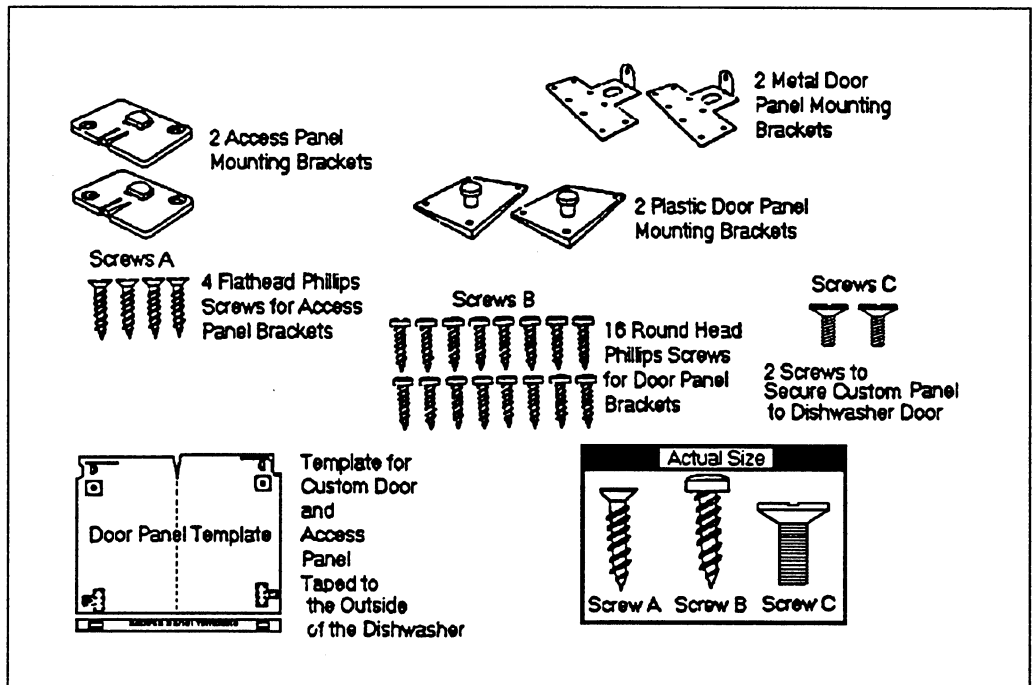
Model ZBD4800X does not have a finished door or access panel. A custom 3/4" thick door and access panel must be supplied by customer.

Remove the hardware accessory bag and other parts from inside or taped to the outside of the dishwasher. Check contents against drawings to assure that all parts are present.

ALL MODELS Installation Hardware



MODEL ZBD4800X ONLY



INSTALLATION INSTRUCTIONS

TOOLS/MATERIALS REQUIRED

TOOLS (Not Supplied)

- Tape measure
- Spirit level
- Flat blade screwdriver
- Phillips screwdriver
- Awl
- Carpenters square
- Wire cutter
- Adjustable wrench
- Wire stripper
- Electric drill
- 1-1/2" drill bit or hole saw
- Pliers

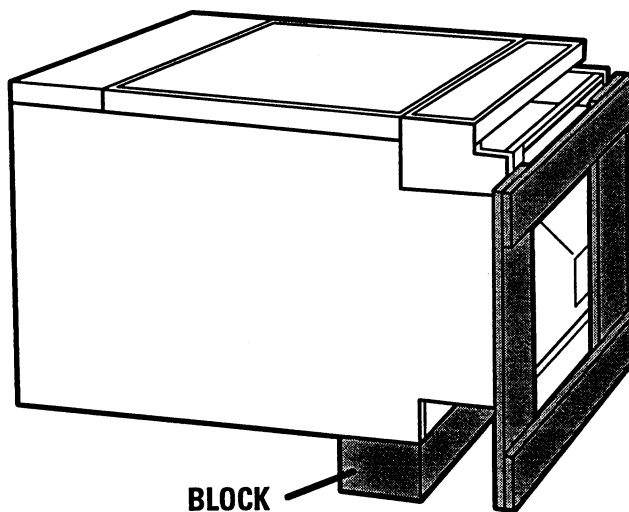
MATERIALS (Not Supplied)

- Minimum 3/8" OD copper tubing of sufficient length for your installation
- Shut-off valve
- Compression nut
- Compression sleeve
- 90° compression elbow (3/8" NPT one end)
- Two 1-1/4" adjustable hose clamps (to accommodate drain line)
- 120 Volt 60 Hz. 15 Amp or 20 Amp, 2 wire with ground Properly grounded branch circuit
- 1/2" strain relief bushing for electrical supply cable.
- 3 wire nuts

REMOVE PACKAGING

Cut the shipping carton and use it as a pad under the dishwasher. This will protect the finished flooring of the room.

- Remove the toekick taped to the top of the dishwasher.
- Remove the template taped to the side (on Model ZBD4800X only).
- Lay the dishwasher on its back close to the opening.
- Place a 2x4 block or two corner posts from packaging beneath the dishwasher. This will prevent the dishwasher from falling when the shipping bolts are removed.
- Remove four shipping bolts with an adjustable wrench and discard.



INSTALLATION INSTRUCTIONS

1/4" CUSTOM PANELS

Skip this step if you are not using custom panels.

FOR MODELS ZBD4600X/ZBD4700X ONLY

PREPARE 1/4" CUSTOM PANELS

Models ZBD4600X and ZBD4700X will accept 1/4" thick custom door and access panels.

- Cut 1/4" thick door panel: 23-1/4" wide, 22-11/16" high.
- Cut 1/4" thick access panel: 23-1/4" wide, 1-1/2" high.

Cut edges of the panels will be concealed by the trim.

Cut a notch in the top corners of the door panel. 1/8" wide and 3/16" deep. This will allow the panel to slide under the escutcheon. The bottom corners of the door panel trim and all four corners of the access panel trim are rounded. Therefore, for a good fit, a 5/16" radius cut is required.

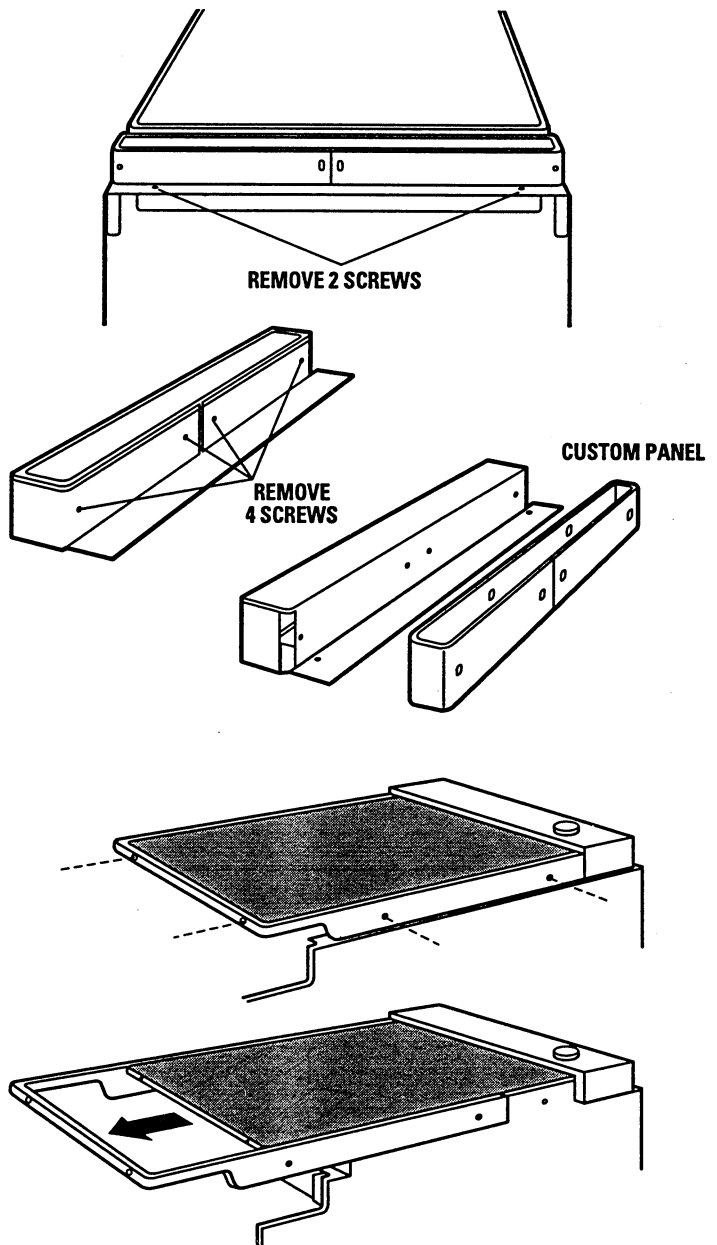
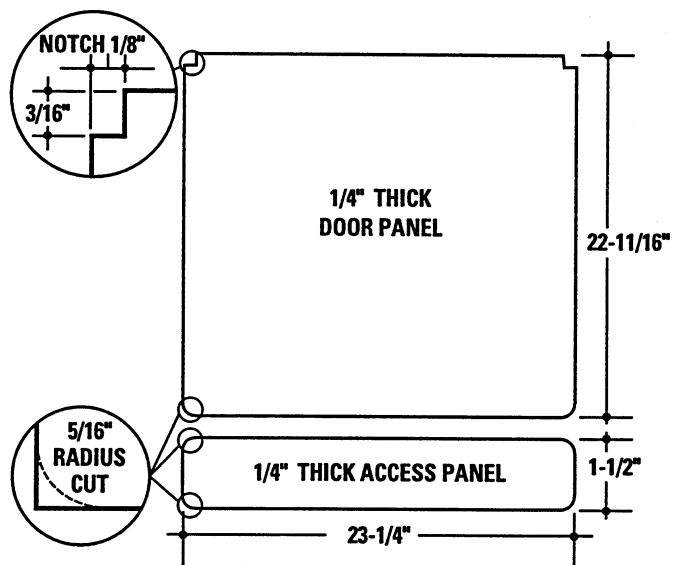
INSTALL CUSTOM ACCESS PANEL

- Remove the two screws below the access panel assembly and lift off.
- Remove the four Phillips head color-matched screws on the bottom side of the assembly and two screws on the top.
- Lift off the trim piece.
- Place the custom panel on top of the assembly and reinstall the trim with the same color-matched screws.
- Set the assembled access panel aside. Do not reinstall this piece until final installation is complete.

INSERT CUSTOM DOOR PANEL

- Remove two Phillips head color-matched screws on each side of the door trim.
- Remove two screws on the bottom of the door trim.
- Slide the door trim down and remove.
- Slide the 1/4" thick custom panel under the escutcheon lip. Making sure the panel is centered left to right.
- Re-install the door trim using the screws previously removed.

Important: Do not overtighten screws. Hand-tighten with a Phillips head screwdriver.



INSTALLATION INSTRUCTIONS

3/4" CUSTOM PANELS

FOR MODEL ZBD4800X ONLY

Door and access panels should be constructed in the same manner as surrounding cabinetry. Cut edges will show and must be finished for optimum appearance. Provide these dimensions to the cabinet manufacturer to ensure that the panels are constructed accurately.

This dishwasher has an adjustable spacer bar below the control panel. The spacer bar allows you to match the height of adjacent drawers. When adjacent drawers are shorter height than the control panel, align the bottom of the control panel by pushing the spacer bar upwards and tightening two screws. Maximum spacer bar adjustment is 3/4".

Any adjustment to the spacer bar will affect the height of the custom panel.

EXAMPLE: Minimum panel height is 22-1/2"
Add adjusted dimension 1/4"
TOTAL PANEL HEIGHT 22-3/4"

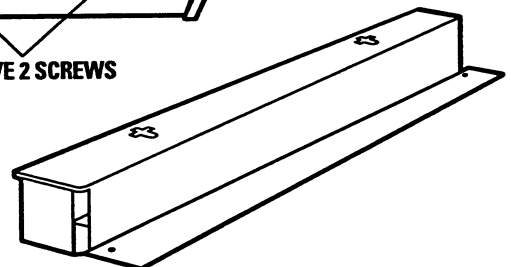
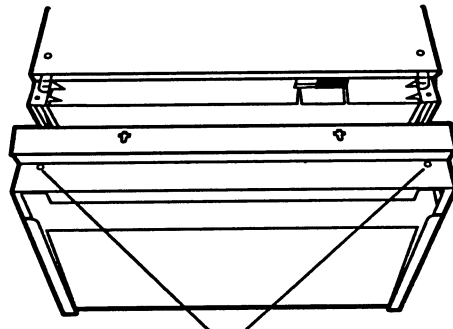
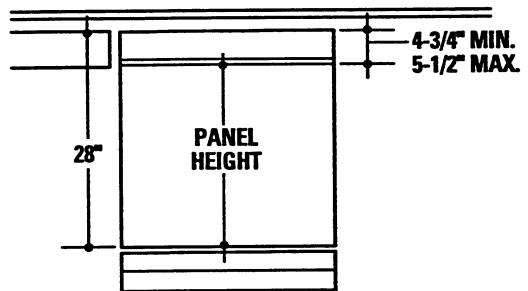
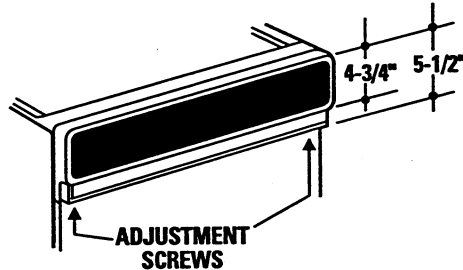
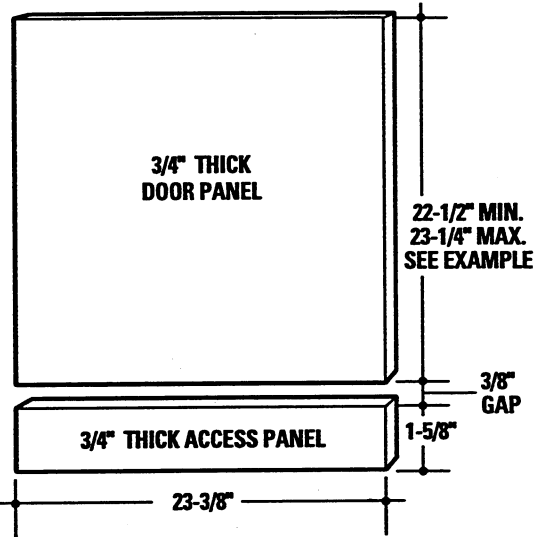
OR

Measure the adjusted height of the control panel.
Subtract that dimension from 28". The panel height will be 22-1/2" Min. to 23-1/4" Max.

REMOVE ACCESS PANEL ASSEMBLY

- Remove the two screws below the access panel assembly.
- Lift the assembly off and set aside.

Model ZBD4800X does not have a finished door or access panel. 3/4" thick custom panels are required.



INSTALLATION INSTRUCTIONS

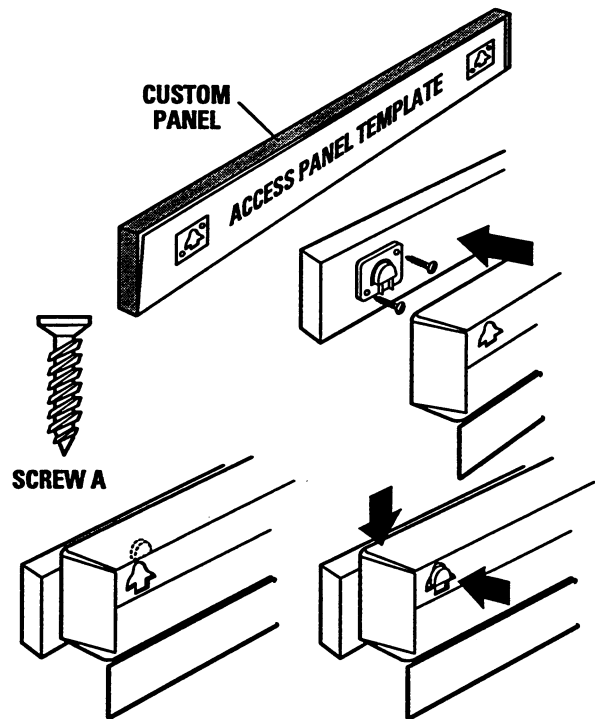
3/4" CUSTOM PANELS, Cont'd.

FOR MODEL ZBD4800X ONLY

INSTALL CUSTOM ACCESS PANEL TO ASSEMBLY

Locate the access panel template provided.

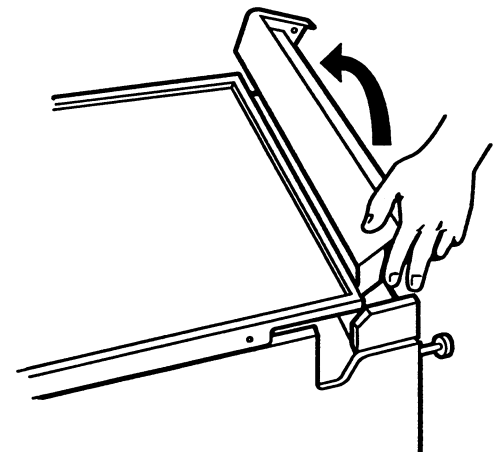
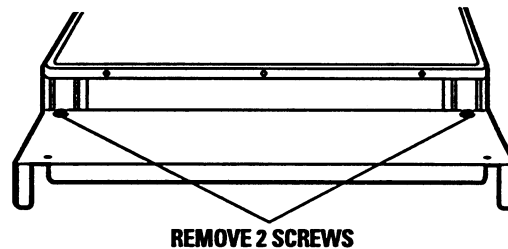
- Place the template on the back side of custom access panel with top edges and sides aligned.
- Use an awl or punch to mark four screw hole locations.
- Remove the template and drill four 3/32" pilot holes 3/8" deep in the marked locations.
- Place the mounting brackets on the access panel, aligning screw holes. Note, the rounded slot on the bracket should face the top, the double notch should face the bottom of the panel.
- Secure the brackets to the panel with four screws (A) provided.
- Drop the access panel with mounting brackets into the slots on the assembly and push down.
- Set the access panel assembly and custom panel aside. Do not reinstall until final installation is completed.



REMOVE PLASTIC CHASSIS COVER

Remove the two screws with spacers on each side of the plastic chassis cover.

- Lift and rotate upwards until the chassis cover snaps out of position. Remove and set aside. Do not re-install until final installation is completed.



INSTALLATION INSTRUCTIONS

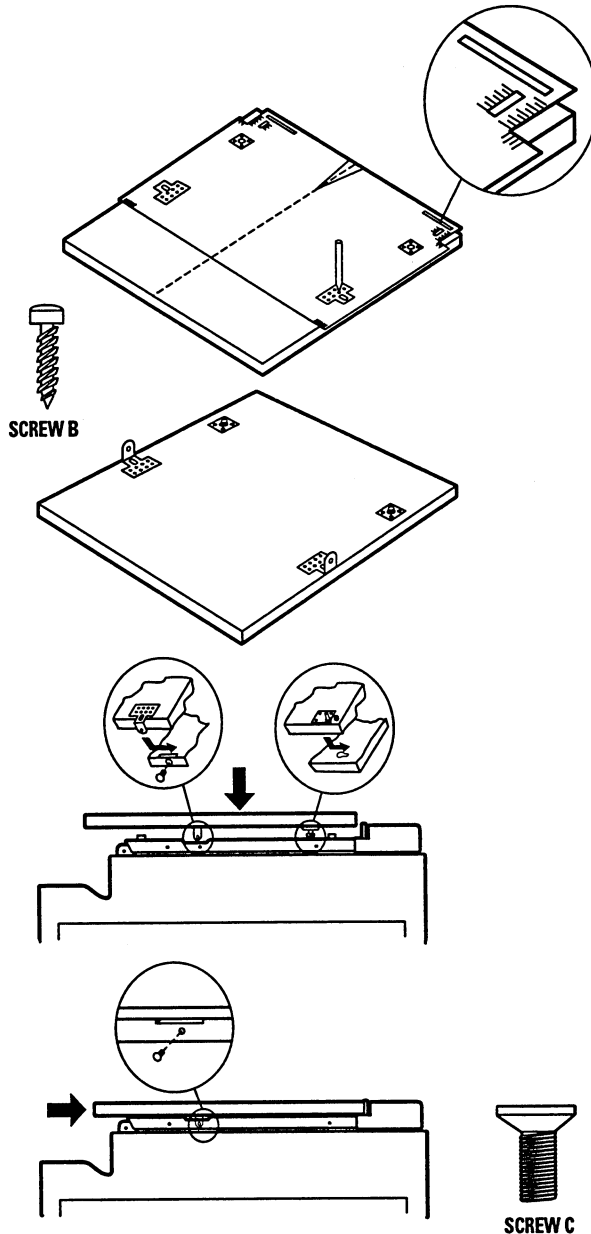
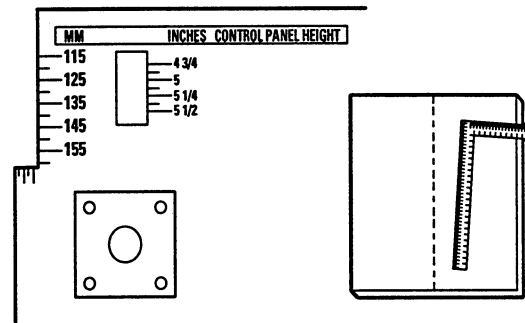
3/4" CUSTOM PANELS, Cont'd.

FOR MODEL ZBD4800X ONLY

SECURE CUSTOM PANEL TO DISHWASHER

Use the template supplied to find the location of the support brackets which hold the custom panel to the front of the dishwasher door.

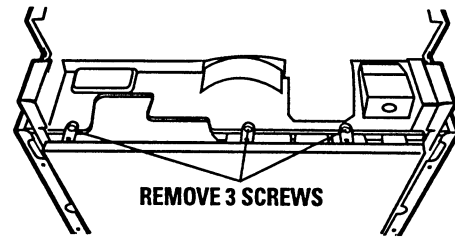
- Check to be sure the spacer bar below the control panel is set to the desired location.
- Measure the total height of the control panel. See illustration on page 12.
- Find and mark that location on the graded rule on both top corners of the template.
- Lay the custom panel on a flat surface with the appearance side down. Locate the vertical center of the panel at the top. Use a carpenter's square to draw a center line from top to bottom on the panel.
- Place the template on the panel with the large "V" notch at the top and small "V" notch at bottom. Align the top of the template with dimensions previously marked on the graded rules. The windows on both sides of the template will help you align the template to the panel accurately.
- Tape the template in place and use an awl to mark screw hole locations indicated.
- Remove the template and drill pilot holes $3/32$ " deep in the marked locations.
- Secure all brackets to the custom panel using Screws (B) provided.
- Fit the panel to the door by inserting the top and bottom mounting brackets into the matching slots.
- The top plastic brackets will fit into keyhole slots and the bottom metal brackets will fit into the side slots.
- Press the panel against the door and push upwards until the side bracket screw hole aligns with the inner door screw hole on both sides.
- Install one screw (C) on both sides to secure the panel to the door.



INSTALLATION INSTRUCTIONS

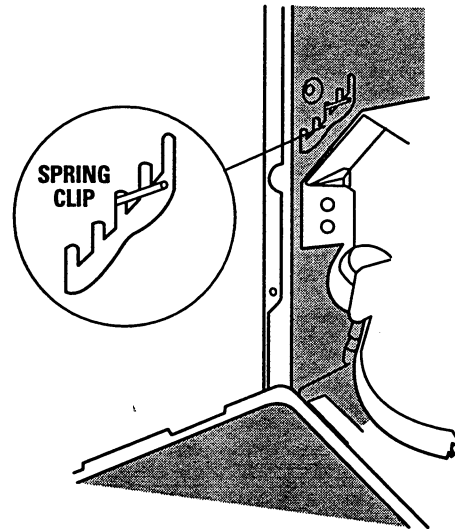
ADJUST THE DOOR BALANCE

- Carefully upright the dishwasher.
- **Important:** The weight of the door panel may cause the door to fall heavily. The correct spring tension will prevent the door from falling too heavily or raising by itself from a fully open position.
- Hold the door and open fully. If the door falls too heavily, or if the door starts to close by itself, the spring tension will need to be adjusted.



IF ADJUSTMENT IS REQUIRED

- To locate the spring adjustment slots, carefully lay the dishwasher on its back.
- Remove the three screws holding the base plate to the bottom of the dishwasher.
- Locate the spring tension slots on the sides.
- With a pair of pliers, pull the spring clip out and down to the next slot for more tension, or up to the next slot for less tension.
- Upright the dishwasher and test door balance. Continue this procedure until the door is balanced.
- Reinstall the base plate with screws.

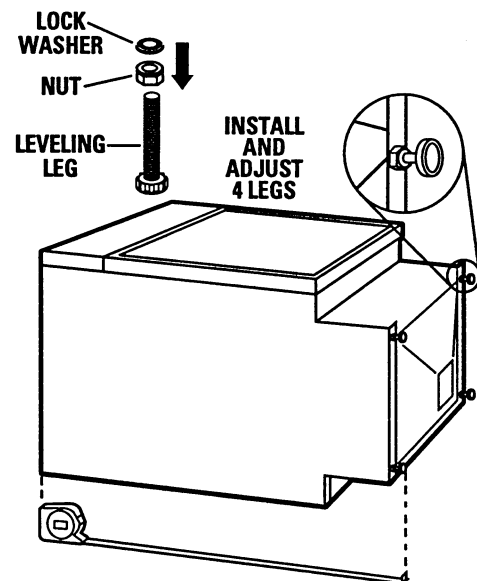


INSTALL LEVELING LEGS

Locate the four leveling legs, four nuts and four locking washers.

- Install a nut followed by a lock washer onto each leveling leg.
- Insert the leveling leg into the bottom of the dishwasher. Screw the leg in until the total dishwasher height nearly matches cutout height.
- Screw the nut up against the bottom of the dishwasher, do not tighten until final installation is completed.

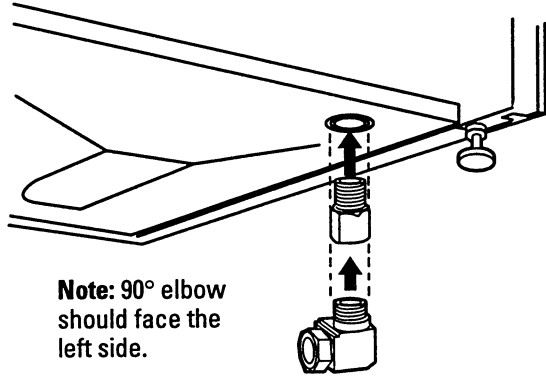
If the plastic chassis cover has not been removed, do so at this time. See page 13, "Remove Plastic Chassis Cover."



INSTALLATION INSTRUCTIONS

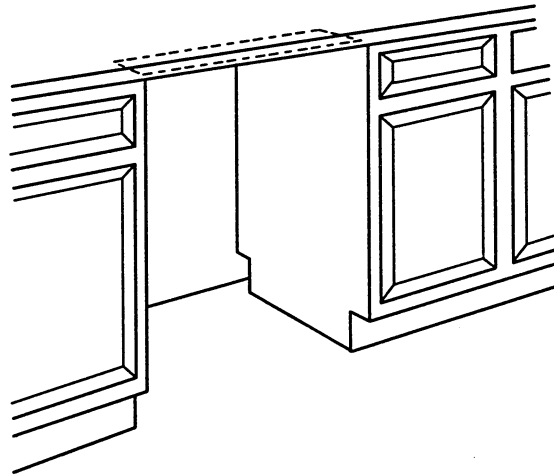
INSTALL WATER INLET FITTINGS

- Install the water inlet extension fitting and 90° elbow (not supplied) onto the dishwasher. Use thread sealing tape or pipe thread compound.
- The 90° elbow should face the left side of the dishwasher.



PROTECT THE COUNTERTOP

- To protect the countertop from moisture, apply the self-adhesive plastic strip provided to the underside of the countertop.

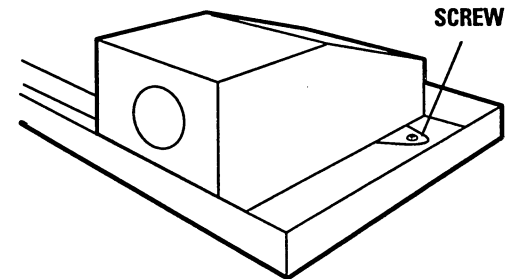


CONNECT ELECTRICAL

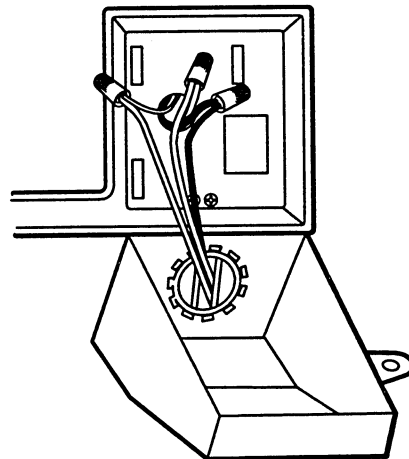
(For power cord installation only)

- Remove the screw holding the junction box to the dishwasher frame. Remove the junction box.
- Install a strain relief onto the junction box.
- Tighten the strain relief against the incoming wires.
- Strip 1/2" insulation from end of wires.
- Connect incoming wires to dishwasher wires using wire nuts of appropriate size. Connect white to white, black to black and incoming ground to green wire.
- Push all wires into the junction box and place on dishwasher frame. Secure with screw.

Note: The power cord and connection must comply with the National Electrical Code, Section 422, and/or local codes and ordinances.



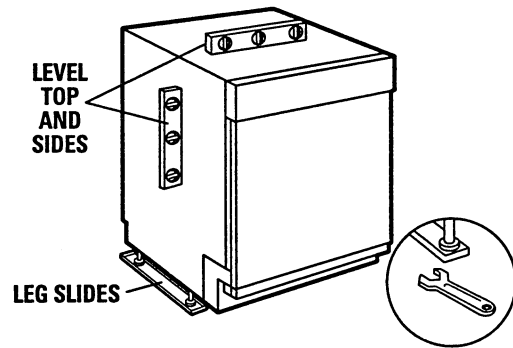
IMPORTANT: Power cord must be no longer than 6 feet from the junction box to the plug. Do not plug in power cord at this time.



INSTALLATION INSTRUCTIONS

LEVEL THE DISHWASHER

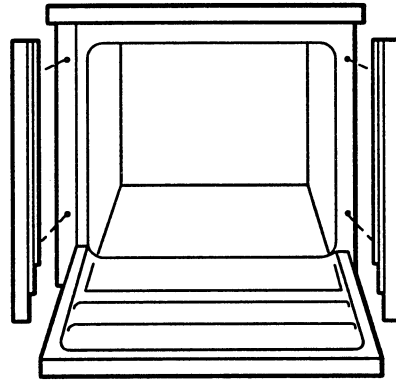
- Carefully upright the dishwasher, so as not to bend the leveling legs.
- Tilt the dishwasher slightly and slip leg slides under the leveling legs.
- Check to be sure the dishwasher is level and at the proper cutout height.
- Tighten the bolts on each leveling leg against the bottom of the dishwasher.



INSTALL SIDE FILLER STRIPS

Side filler strips are packed with the product. If the cabinet cutout is wider than the dishwasher, install the filler strips on both sides of the dishwasher to cover gaps.

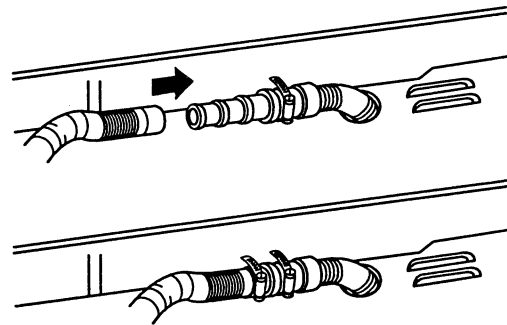
- Open the door fully.
- Remove the two screws on the inside front frame of the dishwasher.
- Remove the plastic covering the adhesive strip on the back side of the filler strip.
- Carefully, align the screw holes on the filler strip with screw holes on the dishwasher. Press firmly into place.
- Secure filler strips with original screws.



CONNECT DRAIN HOSE

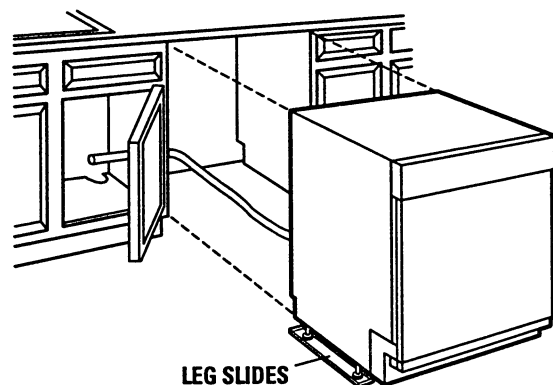
Locate the drain hose packed with the dishwasher.

- Fit the drain hose onto the drain hose adapter on the back of the dishwasher.
- Press together firmly and secure with a screw type clamp supplied.



SLIDE DISHWASHER INTO OPENING

- Insert the drain hose into the cabinet wall.
- Slide the dishwasher into the opening a few inches at a time.
- As you proceed, pull the drain hose through the cabinet wall under the sink.
- If a power cord has been installed, insert the cord through a separate hole in the cabinet wall and pull along with drain hose.
- Check to be sure there is no interference with waterline or house wiring.

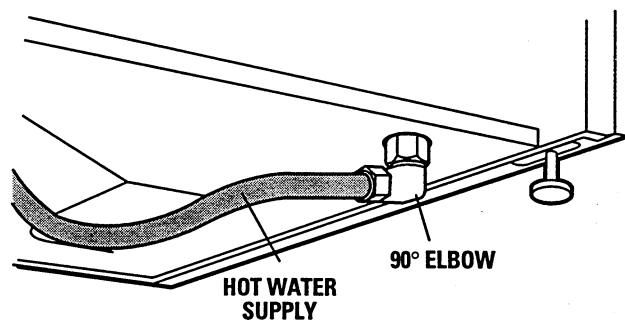


INSTALLATION INSTRUCTIONS

CONNECT WATER LINE

The water supply line should be flushed to clear any foreign material before connecting to the dishwasher.

- Make sure there are no sharp bends or kinks which could restrict the water flow.
- Connect the water supply line to the 90° elbow.
- Turn on the water supply and check for leaks.



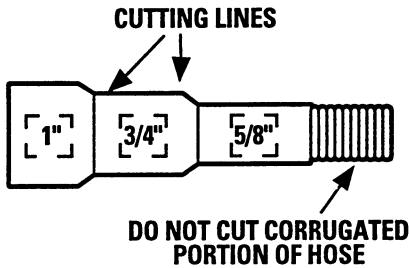
INSTALL DRAIN LINE

Follow all local codes and ordinances.

DRAIN LINE PREPARATION

- The dishwasher is supplied with a 78" long corrugated drain hose. The molded end is designed to fit 5/8", 3/4" or 1" diameter connections to the air gap, waste tee or disposer. Cut on premarked line as required for your installation.

Note: Do not cut corrugated portion of hose.



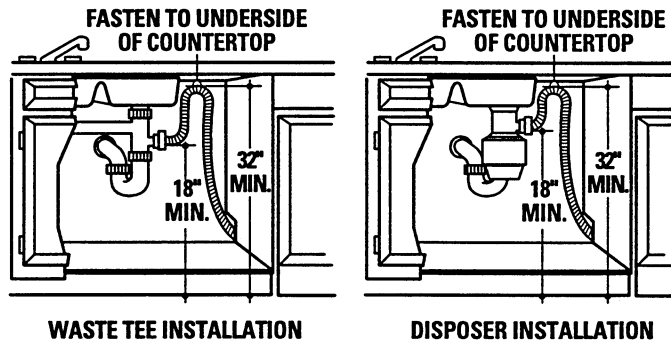
- If the location requires a longer drain hose, add up to 42" length to the supplied hose. Use 5/8" inside diameter hose and thin wall copper coupler to join the hose ends.

Note: Total drain hose length must not exceed 10 feet for proper drain operation.

DRAIN LINE INSTALLATION

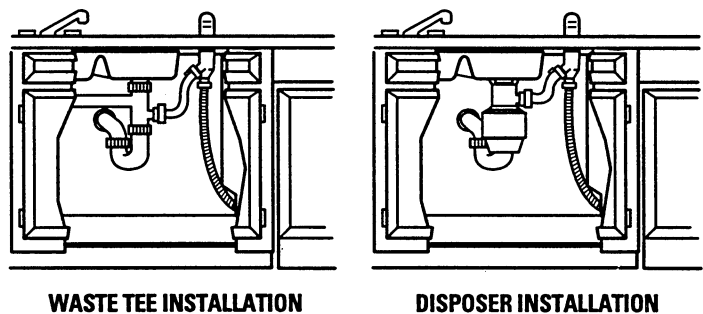
- Connect drain line to air gap, waste tee or disposer using either Method 1 or Method 2 as previously determined.
- Secure connection using appropriate clamps (not supplied).
- Make sure drain hose is not kinked.

METHOD 1 - HIGH DRAIN LOOP WITH WASTE TEE OR DISPOSER



Note: Be sure to remove drain plug from disposer before attaching drain line. Dishwasher will not drain if plug is left in place.

METHOD 2 - AIR GAP WITH WASTE TEE OR DISPOSER



INSTALLATION INSTRUCTIONS

CONNECT ELECTRICAL

(For direct connection to house wiring)

Verify that power is turned off at source.

WARNING



If house wiring is not 2-wire with a ground wire, a ground must be provided by the installer. When house wiring is aluminum, be sure to use U.L. approved anti-oxidant compound and aluminum-to-copper connectors.

- Remove the screw holding the junction box to the dishwasher frame. Remove the junction box.
- Install a strain relief onto the junction box.
- Tighten the strain relief against the incoming wires.
- Strip 1/2" insulation from end of wires.
- Connect incoming wires to dishwasher wires using wire nuts of appropriate size. Connect white to white, black to black and incoming ground to green wire.
- Push all wires into the junction box and place on dishwasher frame. Secure with screw.

SECURE DISHWASHER TO COUNTERTOP

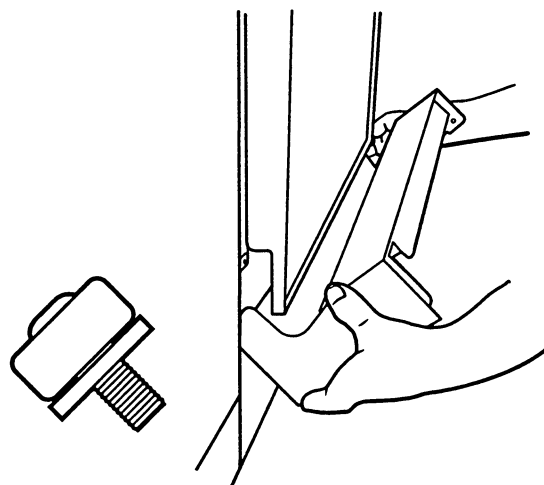
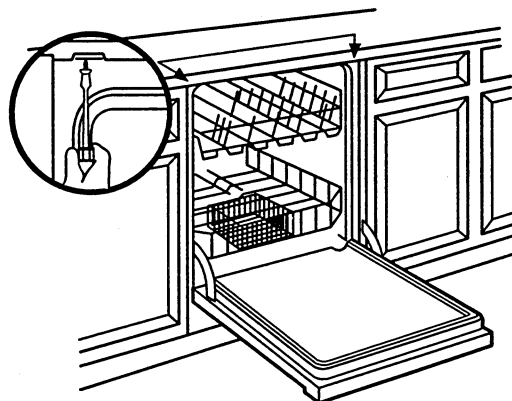
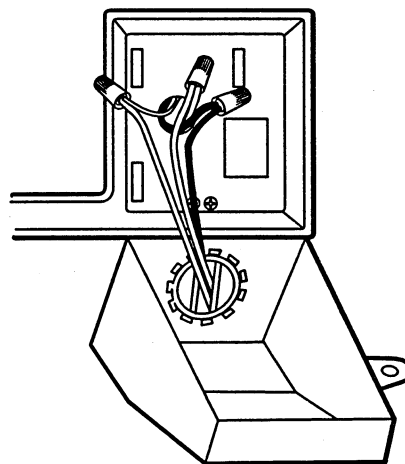
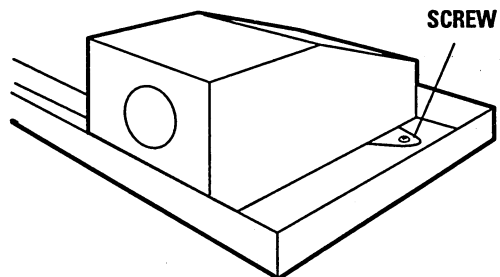
To maintain dishwasher position and alignment, drill pilot holes through the mounting flange and into the underside of the countertop. Install two screws provided.

Note: Open and close dishwasher door to insure proper clearance between tub and door. If there is any binding or rubbing, readjust leveling legs.

REINSTALL CHASSIS COVER

- To reinstall the plastic chassis cover, tilt and rotate the cover under the door. Press the bottom of the cover against the metal frame of the dishwasher until it fits into position.
- Secure the cover to the dishwasher using the two screws with attached spacers.

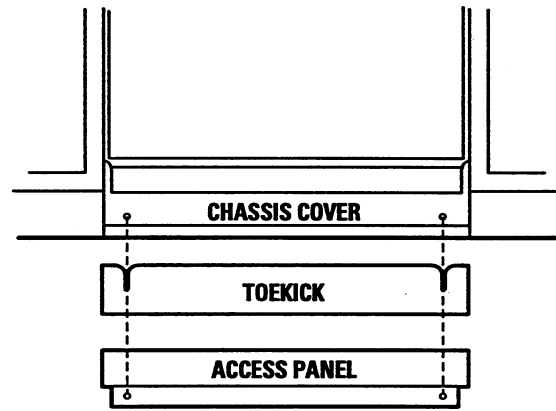
Note: The small ring of the spacer goes against the chassis cover.



INSTALLATION INSTRUCTIONS

INSTALL TOEKICK AND ACCESS PANEL

- Place the toekick against the chassis cover, aligning screw holes.
- Hang the access panel assembly on the screw with the spacer ring. The lip of the assembly will slip into the notch on the ring.
- Secure the assembly with the original Phillips head color-matched screws.

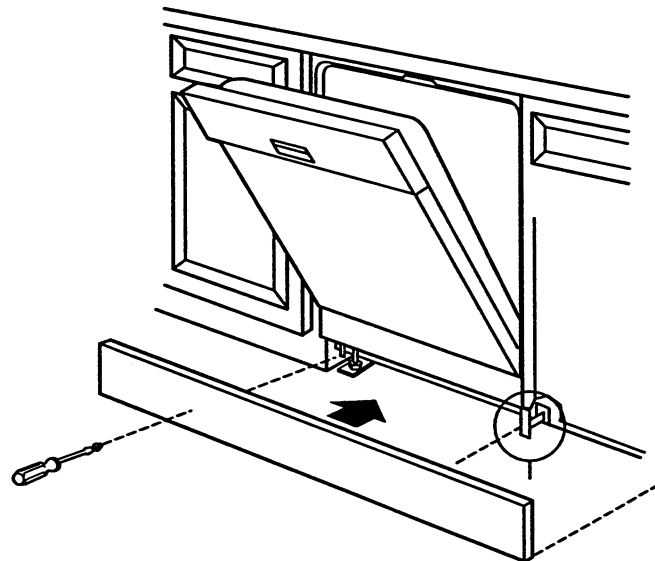
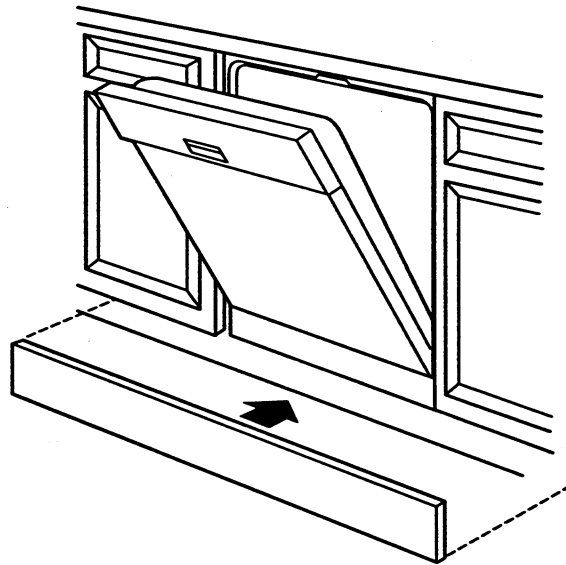


INSTALL OPTIONAL CUSTOM TOEKICK

- A 1/4" to 3/4" thick custom toekick can be used. Cut the toekick 23-5/8" to 24" long.
- If a continuous toekick is to be used, secure the toekick in such a manner that it could be removed if service is required.

FINALIZE INSTALLATION

- Turn on the hot water shut-off valve and electrical supply.
- Operate dishwasher through one cycle and check for plumbing leaks.
- Leave Installation Instructions and Use & Care literature with the owner.
- Discard any unused parts.



PRE-SERVICE INSTRUCTIONS/ MINI MANUAL LOCATION

IMPORTANT SAFETY NOTICE

This information is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

- **DISCONNECT POWER BEFORE SERVICING.**
- **RECONNECT ALL GROUNDING DEVICES.**

If grounding wires, screws, straps, clips, nuts or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

DANGER - SERVICE PERSONNEL

Danger! Drain pump and capacitor are intentionally not grounded and may present a risk of electrical shock only during servicing. Do not contact while appliance is energized.

FOR ACCESS TO COMPONENTS LOCATED UNDERNEATH THE DISHWASHER

Turn off water and electricity to dishwasher.

- Remove toekick (two screws) and plastic chassis cover assembly (two screws).
- Now you will be able to access and service the water valve and the operating pressure level switch.
- All other components will have to be accessed after unit is removed from installation.

REMOVAL FROM INSTALLATION

For replacement of the circulation pump and motor, run capacitor, drain pump and motor, sump, safety pressure switch, heating element, the double thermostat (142° & 185° - safety) and door spring adjustment, the unit must be removed.

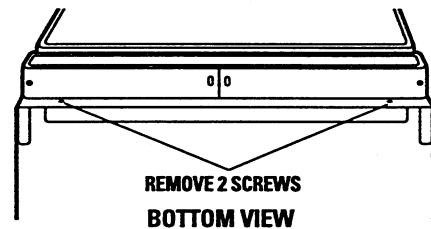
Follow above steps then:

- Disconnect the water supply line.
- Disconnect the electrical supply at the junction box.
- Open dishwasher door and remove the two screws securing the dishwasher to the countertop.
- Disconnect drain hose and feed hose through cabinet and behind dishwasher.
- Raise leveling legs, if necessary, so as not to interfere with differences of floor height.
- Carefully, without harming floor covering, slide dishwasher out of installation.
- Put dishwasher on its back while protecting floor.
- Remove bottom access panel, three screws in front and hinged at rear.

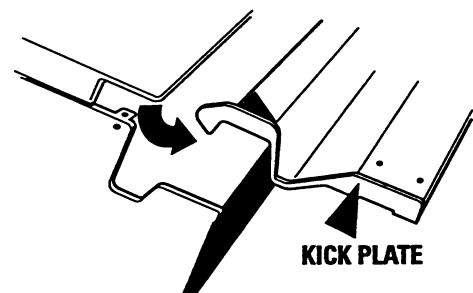
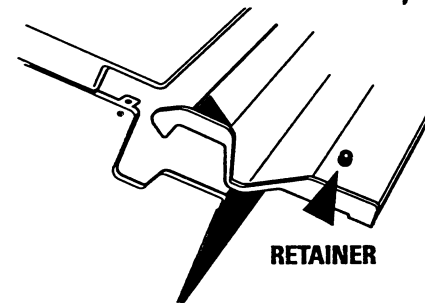
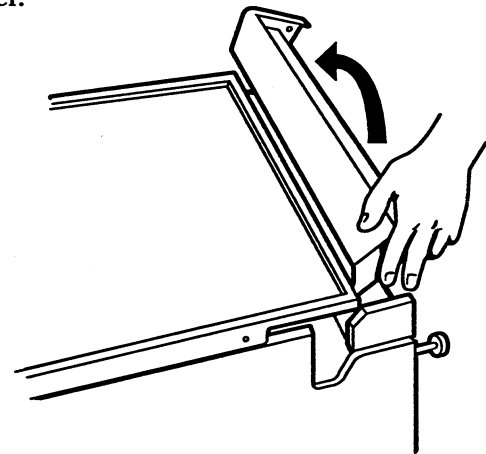
(NOTE: Ordinary handtools are adequate to service this dishwasher. Screws are straight and Phillips and hose connections are wire clamp type.)

MINI MANUAL LOCATION

The mini manual on the product can be accessed by removing two screws on the toe kick, and two screws on the plastic chassis cover asm. The mini manual is located in the boxed-in portion of the chassis cover assembly. Any other service on internal components will require removing the dishwasher from its installation.



Remove two screws with spacers on each side of the plastic chassis cover. Lift and rotate upwards until the chassis cover snaps out of position. Mini manual is in chassis cover.



HEATING SYSTEM

HEATING ELEMENT

A 1200 watt heating element raises the water temperature up to 155°. (varies with model/cycle). The heater element has the capability of raising the temperature of the water 1.5° per minute with a load. Temperature is thermostatically controlled.

TO REMOVE HEATER

1. Remove thermostat assembly.
2. Remove wiring and black heating element insulator.
3. Unscrew nut from the middle of heater and remove grounding plate/connector. Lift heater to remove.

TUB BOTTOM THERMOSTATS

ZBD4600X

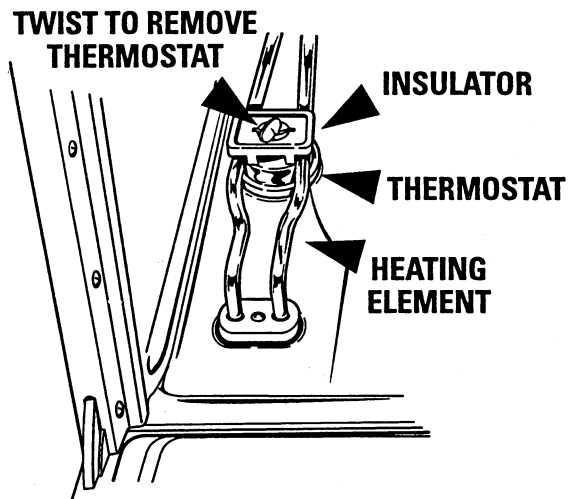
To remove operating thermostat (142°), and safety thermostat (185°), remove wiring to them and mark where wires connect (colored dots on thermostat).

Inside the dishwasher on the left hand side is a cover with a twist tab holding it in place. Straighten the twist tab and pull the cover off. Pull the thermostat assembly down to remove and retain the rubber gasket for sealing against leaks

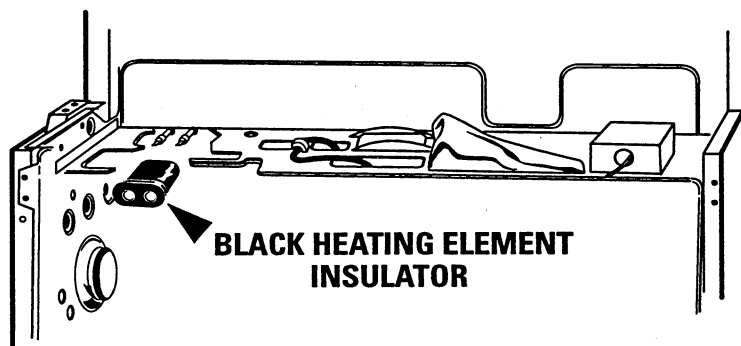
ZBD4800X/4700X

Operating thermostat 149 F. and safety 185 F.

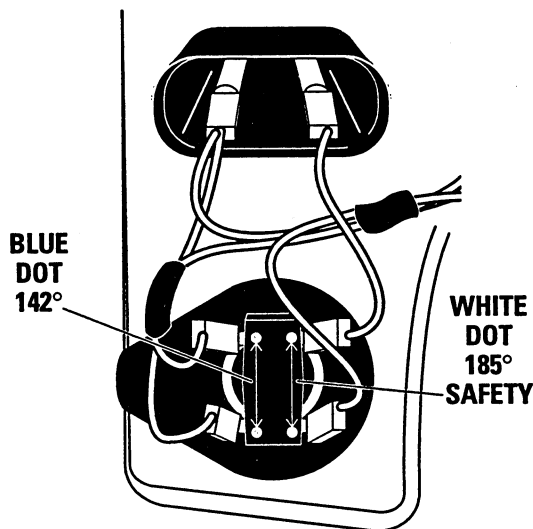
Illustration shows thermostat for ZBD4600X. ZBD4800X & ZBD4700X are same type with operating thermostat at 149 degrees F.



HEATING ELEMENT/THERMOSTAT COVER AND TWIST



BOTTOM VIEW



THERMOSTAT WIRING

THE SAFETY THERMOSTAT IS WIRED IN SERIES WITH THE HEATING ELEMENT.

WASH SYSTEM

WASH SYSTEM

The Monogram™ dishwashers have a four level wash system. A tub top pressure regulator/spray nozzle combination comes down through the top of the tub. A tube runs from the primary circulation pump to the upper spray arm nozzle. It's a Venturi System and the upper spray arm nozzle directs high pressure spray into the Venturi on the full size upper wash arm, which sprays both up and down. The lower multi-axis wash arm is removable for consumer cleaning, and provides a full size lower wash arm.

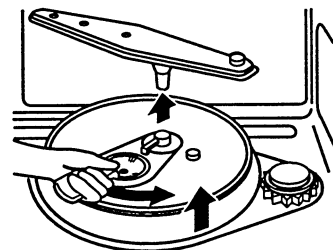
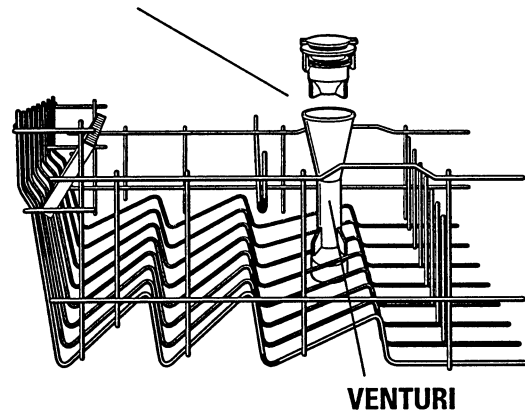
Washer features a dual pump design which eliminates soil and carryover water from the sump area. Primary circulation pump is mounted directly on top of induction motor. The primary pump take-off is from the drain well, which has triple filtered water to remove soil. Three filters: (1) stainless steel micro filter, (2) coarse filter, (3) stainless steel self cleaning filter.

NOTE: High heat of final rinse provides convection drying. There is no heated dry.

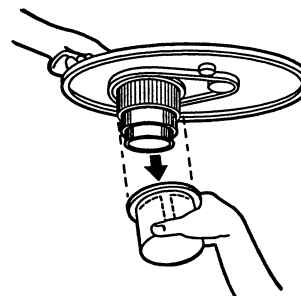
TO CLEAN FILTERS

1. Check and see if filter is dirty or clogged by removing the lower wash arm—lifting it up and off (A). Turn the center filter assembly handle counterclockwise and pull out.
2. Remove the microfilter by pulling it down away from the center filter assembly (B). Then press the tabs on the inner filter and remove it also (C). Clean all filter parts with water and a stiff bristled brush.
3. To replace, line up the dome on the tube, press down and lock into place by turning clockwise (D).
4. Replace the wash arm.

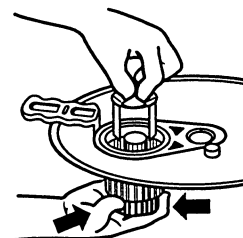
TUB TOP PRESSURE REGULATOR/SPRAY NOZZLE



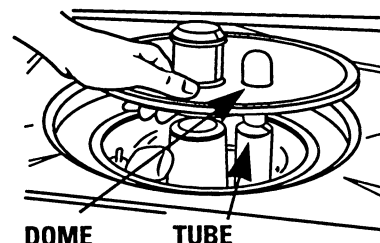
(A) REMOVE LOWER WASH ARM



(B) REMOVE MICROFILTER



(C) REMOVE INNER FILTER



(D) REPLACE FILTERS

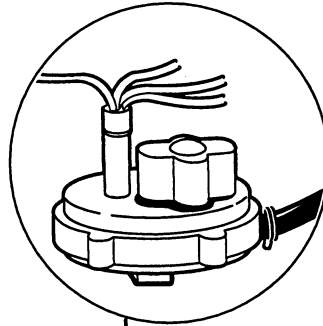
PRESSURE LEVEL SWITCHES

There are two pressure level switches, a large switch on the right (operating), and a smaller one on the left (safety). Both of the pressure level switches are connected to the drain sump area. Both are mounted on a slide-in bracket without screws. The smaller switch is the safety or overflow, and takes the place of the typical overflow switch found in most dishwashers

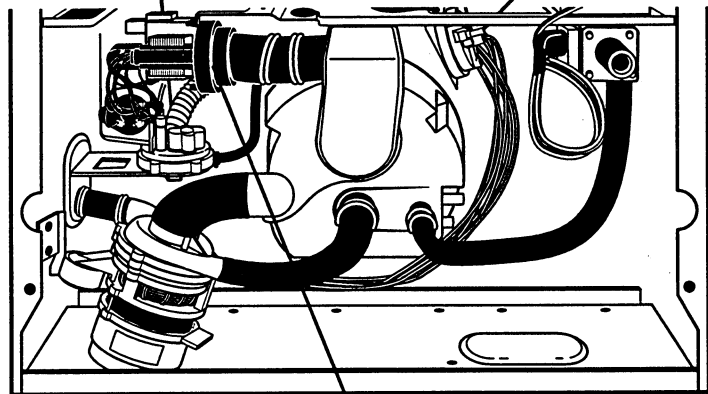
TO REMOVE PRESSURE SWITCHES

1. Disconnect wiring and hose
2. Slide operating pressure level switch forward to remove.
3. Slide safety pressure level switch to the left to remove.

SAFETY (OVERFLOW)



OPERATING

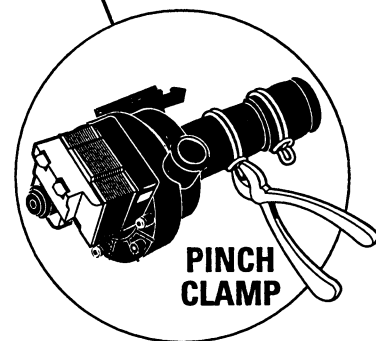


SECONDARY DISCHARGE PUMP/MOTOR

Drain is accomplished by means of drain pump mounted to sump. The connection at the sump has a check valve mounted into the drain sump area.

TO REMOVE SECONDARY DRAIN PUMP/MOTOR

1. Remove dishwasher and lay it on the back.
2. Remove wiring and two screws to motor and slide assembly to the left of mounting bracket.



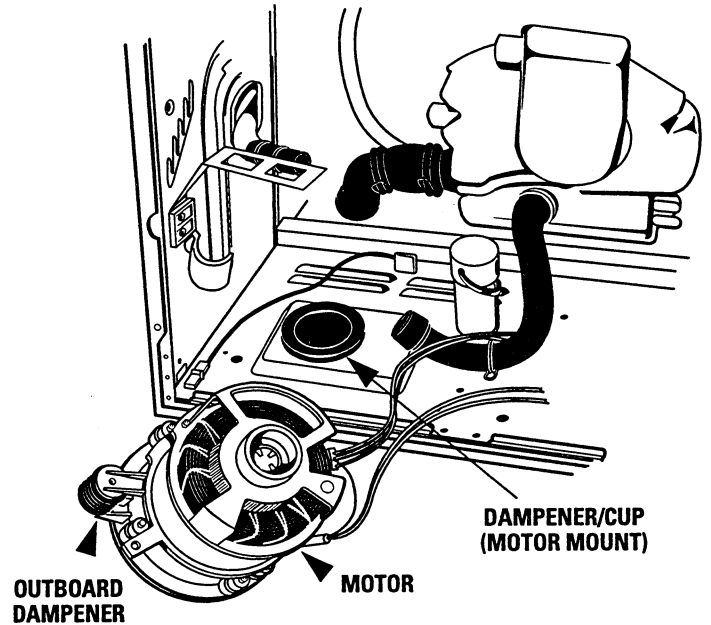
PRIMARY CIRCULATION PUMP/MOTOR

The dual pump design with primary and secondary pump eliminates carry over water from sump area. The unique two point suspension and mounting makes this induction motor extremely quiet.

TO REMOVE PRIMARY CIRCULATION PUMP

1. Remove pump and lay dishwasher on its back.
2. Remove hose and clamps from inlet/outlet and sump.
3. Remove all wiring connectors and carefully lift motor out. Note position of outboard shock dampener, and the rubber mount on bottom of water pan. The rubber mount is the location of the bottom end of the motor and the outboard dampener fits into a corresponding bracket on the side of the washer. These two devices provide shock dampening, motor location, and hold the motor in place along with the hoses and clamps.

NOTE: Pump and motor are one assembly, in the illustration to the right, pump was removed from top of motor for clarity.

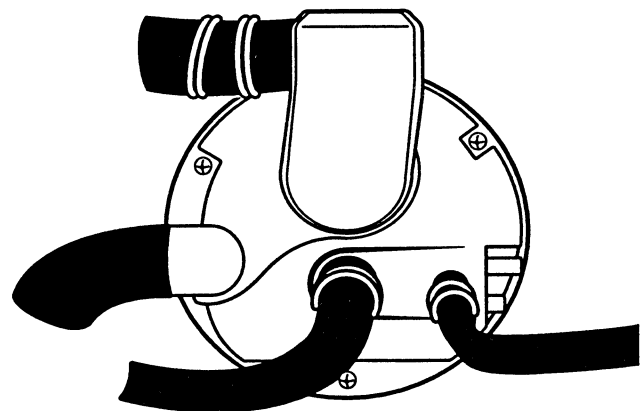
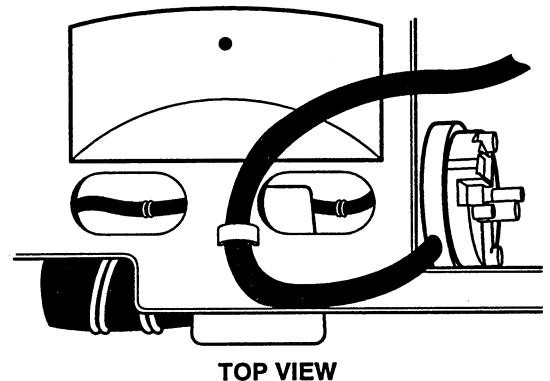


SUMP

Sump is located in the bottom of the dishwasher tub. It provides the base for the three filters, and redirects water flow through appropriate hoses. The sump is held in place with three screws with keepers. The larger keeper is connected near the drain hose to keep it from twisting and collapsing.

TO REMOVE THE SUMP

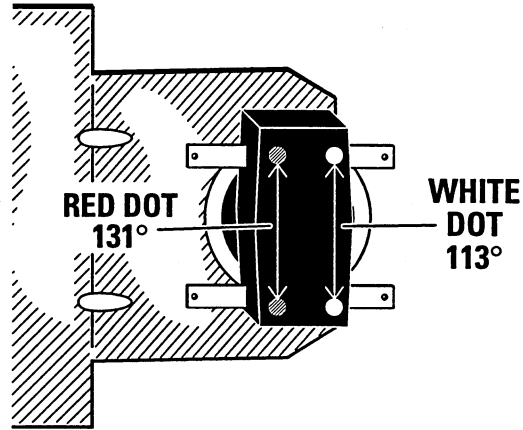
1. Remove wash arm and filters from inside tub.
2. Remove dishwasher from the installation.
3. Place dishwasher on its back.
4. Remove the three screws from keepers.
5. Push up into tub to remove.



SUMP HOSES AND SCREWS

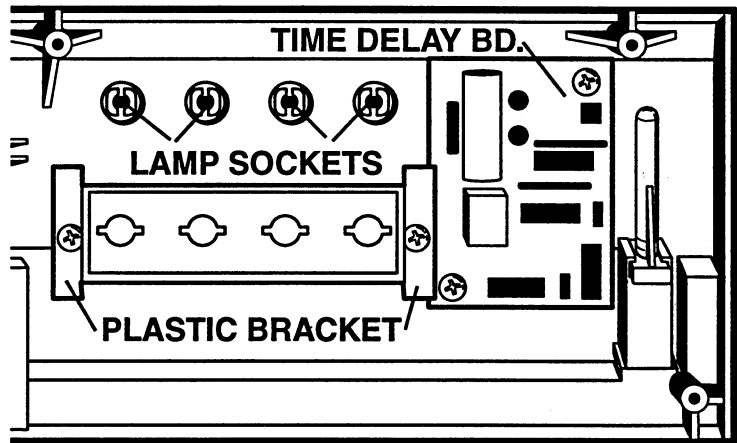
ZBD4700X & ZBD4800X DOOR THERMOSTATS

The door operating thermostats (113° & 131°F) are held in place, next to the Det. Cup by a metal catch. Lift up on the metal catch and slide thermostat asm away from Det. Cup to remove. Common colored dots (red & white) and wire color identify the different thermostats.



TIME DELAY BOARD

PC board with a 4 pin connector held in place by 2 screws going through board into escutcheon.



PUSH BUTTON SWITCH

The push-button switches are mounted to a plastic bracket which is screwed to the escutcheon. The individual switches are not available, the complete switch bank must be replaced if it fails.

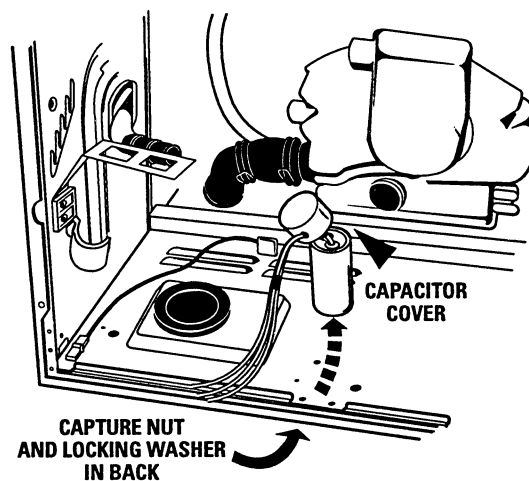
CAPACITOR

The primary circulation motor has a capacitor held in place by a nut and a locking washer to the backplate.

TO SERVICE CAPACITOR

1. From tub bottom remove wires and unscrew capacitor.
2. From the back capture the nut and locking washer for reattachment.

NOTE: DANGER-Capacitor is intentionally not grounded and may present a risk of electrical shock only during servicing. DO NOT contact while appliance is energized.

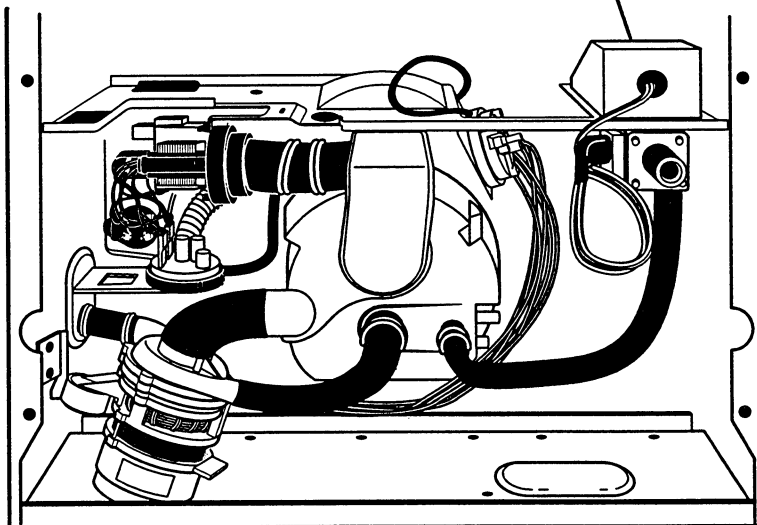
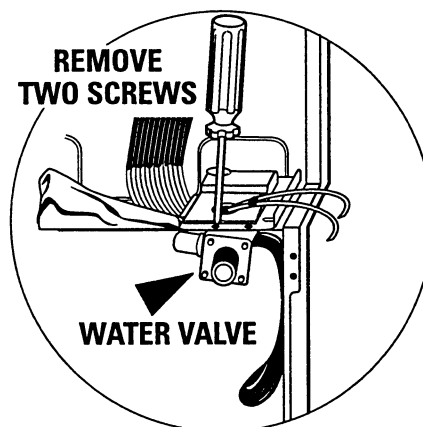


WATER VALVE

Water valve is located on the right hand side of dishwasher. (The inlet 90° elbow should be facing the left side when installed). 3/8" npt threaded inlet on valve and is typical solenoid inlet valve.

TO SERVICE VALVE

1. Remove from installation (Note: In some installations you may be able to remove toekick and access panel, and service valve from front).
2. Lay dishwasher on its back
3. Remove two lower panel screws, remove kickplate and slide it upwards.
4. Remove clamps and hoses.
5. Remove two screws from bracket on cross bar and replace.



TIMER - ZBD4600X

The timer is held in place by three screws going through a mounting bracket and the escutcheon. The mounting bracket is attached to the front of the timer with two screws. Timer knob is flush when pressed in and extends to set cycles. Knob can be moved by turning to align with line on control panel.

Timer operates like a typical dishwasher timer with a double switchbank, contacts, and turn motor. The cam rotates like a clock with 60 timer-6° steps or increments from start to stop. The cam has "5" "tracks" that "make" the various contacts to provide the steps in the wash cycle. A 12" discharge hose from sump to operating pressure switch must be filled before first washing. The 12" discharge is allowed one minute to fill, however this dishwasher requires **Time** or **Pressure** to satisfy or make certain operation switches. The unit will sit until the 12" discharge hose is filled to satisfy operating pressure switch requirement. When the pressure switch is satisfied fill continues.

The harness, since it is a double switch bank, can be identified by the lettering on the timer – either (A) or (B). (A) is white, (B) is black. The squeeze connectors are also color coded and matching corresponding dots on the timer.

NOTE: Disconnect power supply at power panel.

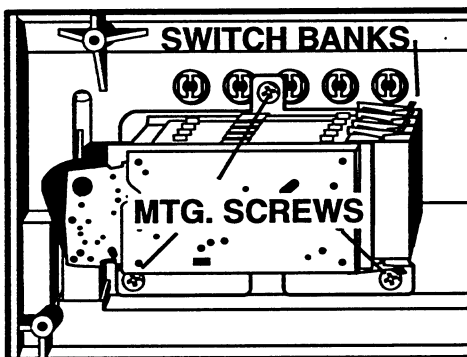
TIMER - ZBD4700X/ZBD4800X

The timer is held in place by 3 screws going through a mounting bracket and the escutcheon. The mounting bracket is attached to the front of the timer with 2 screws.

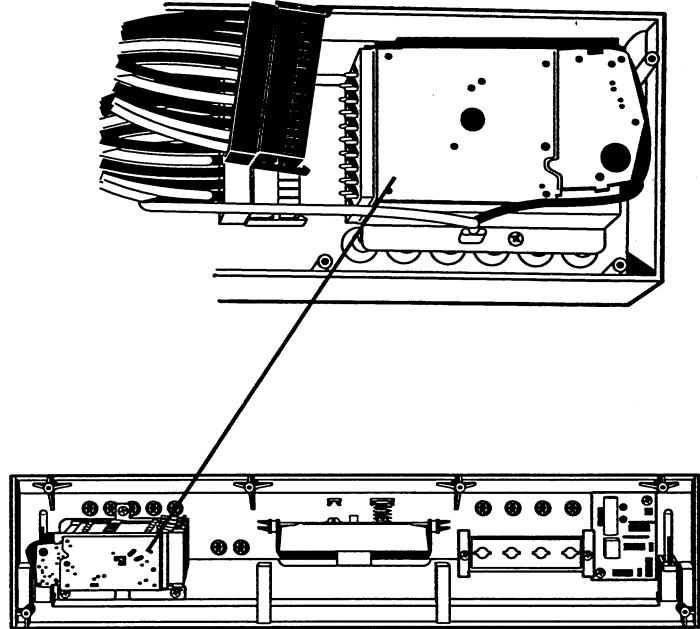
The knob of the timer when pressed in is flush with the escutcheon for a smooth appearance. Pull the knob away from the machine to remove.

The timer has 5 banks of switches. The squeeze connectors that attach to the timer are color coded. The timer has corresponding color dots on it to match the color of the connector.

Another check is the lettering on the timer, A-E; A=White B=Black C=Red D=Green E=Yellow



HARNESS TERMINALS DISCONNECTED



INSIDE OF CONTROL PANEL

TO SERVICE TIMER

1. Remove six screws attaching control panel to door.
2. Remove harness squeeze connectors noting positions.
3. Remove two screws mounting timer to bracket.
4. Replace timer. Make sure all wires are positioned correctly in replacement harness. Each wire at connector has the same number corresponding to number on timer connection.

TO TEST TIMER

Refer to circuit diagram to determine which contacts should be closed to activate various components. Check strip circuit to identify wiring color to component to be checked, with Ohmmeter @ Rxl. Place test probe on timer terminal and rotate timer dial slowly through a full cycle. As dial is turned, Ohmmeter needle should sweep upscale whenever timer contacts should be closed. Repeat test if necessary. If test shows failure, replace timer.

INNER DOOR

TO REMOVE INNER DOOR

To service inner door components a separate trim piece with six screws (two on each side, two at bottom) must be removed. The screws on either side of door, under trim are removed and inner door can be separated.

DOOR LATCH SWITCH

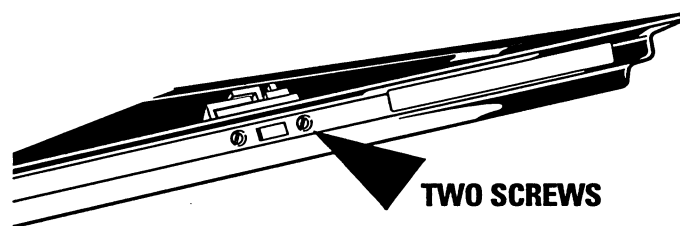
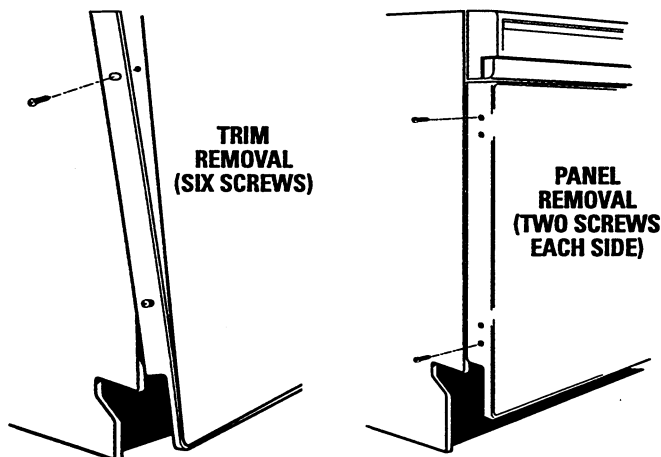
A normally open switch controls L-1, it's a microswitch held in place by tabs and a screw in the door latch assembly.

DOOR LATCH ASSEMBLY

Spring loaded assembly, catches tub/door latch. Two screws from the top of inner door hold it in place.

DOOR LATCH

Adjustable latch (one screw) that moves back and forth on a slide for door tightness adjustment.



CYCLE INDICATOR

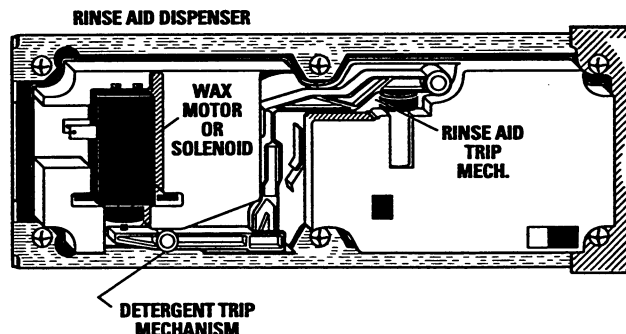
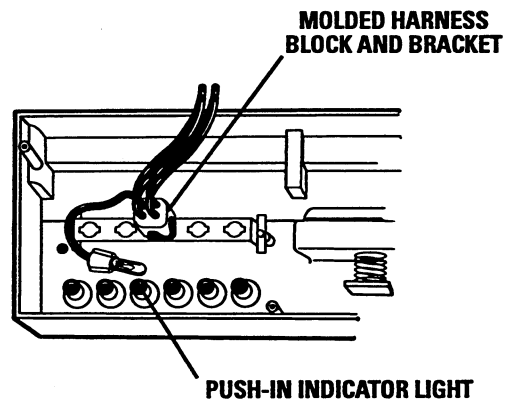
TO REMOVE CYCLE INDICATOR LIGHTS

Cycle indicator lights are push-in connector type and can be pulled out to replace. Harness block and bracket are molded in place and cannot be removed.

DETERGENT CUP & RINSE AID DISPENSER

There are two possible types of detergent cup/rinse aid assemblies that can be used. One is operated by a "wax" motor. When energized the "wax" expands and trips the linkage the first time to dispense the rinse aid. The second version uses a solenoid and operates in the same manner. They are interchangeable and are mounted to inner door panel by six screws.

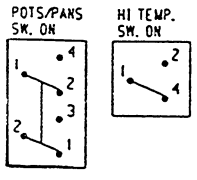
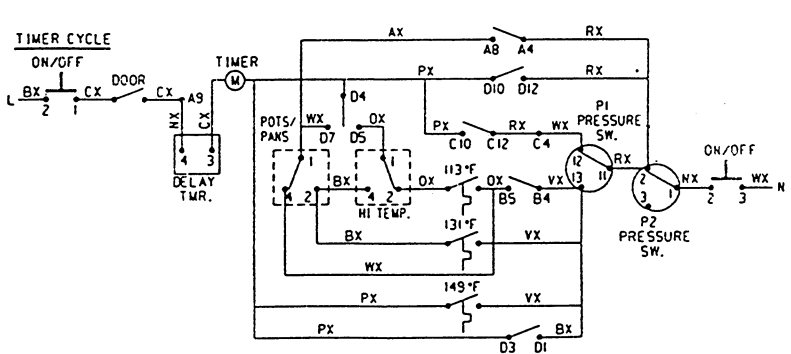
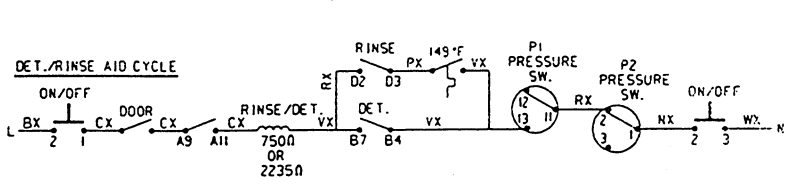
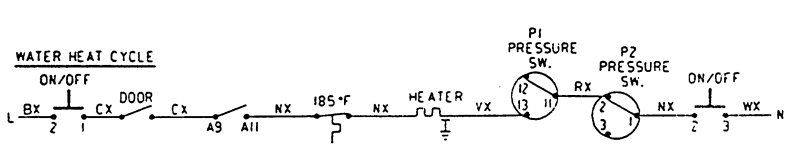
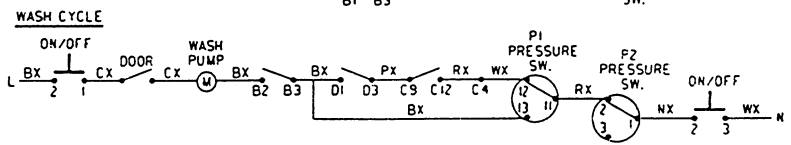
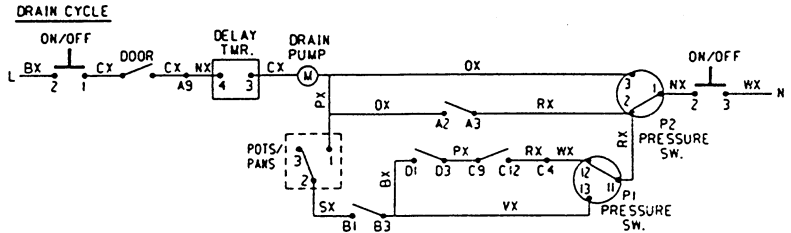
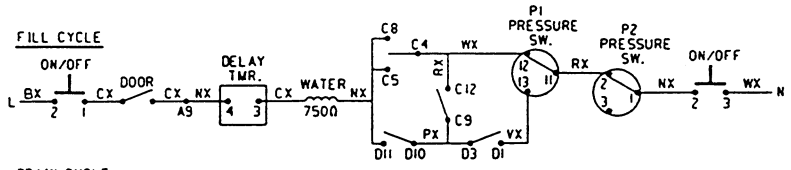
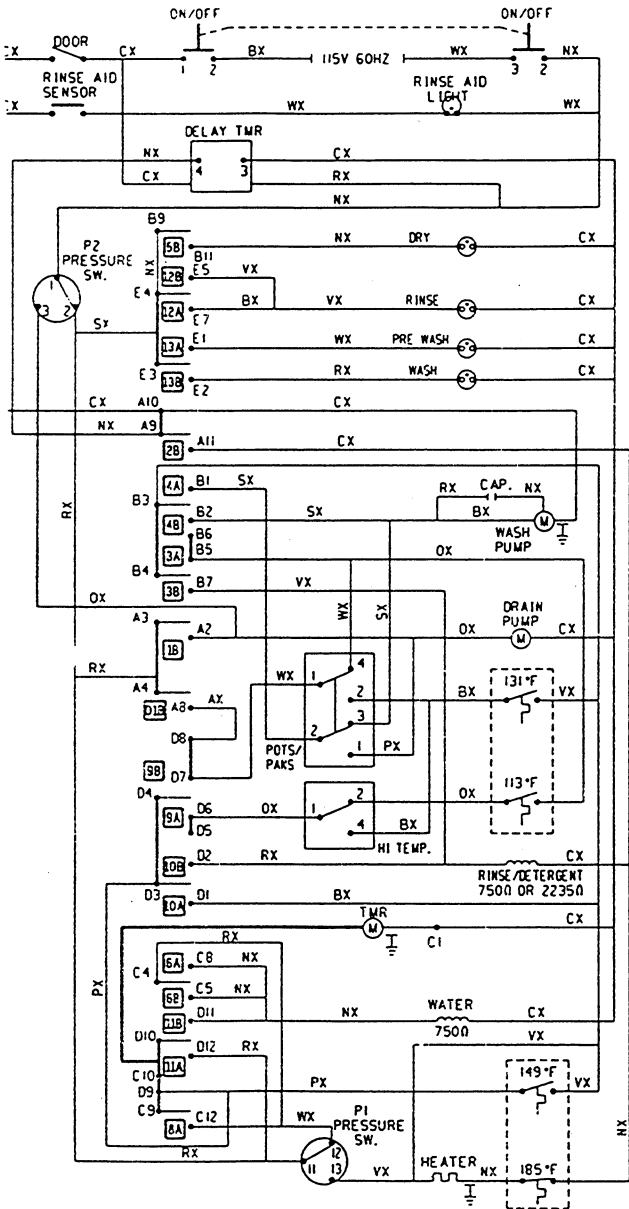
Push button switch is mounted to a plastic bracket which is screwed to the escutcheon. The individual switch is not available, the complete switch assembly must be replaced if it fails.



SCHEMATIC/CAM CHART (ZBD4700X/ZBD4800X)

STRIP CIRCUITS

CIRCUIT DIAGRAM MODE IS SHOWN IN NORMAL WASH POSITION & NO OPTIONS SELECTED



MAX. CURRENT LEAKAGE
0.75 MA
MAX. GROUND PATH
RESISTANCE 0.1 OHM

WIRING DIAGRAM
SYMBOLS
INTERNAL CONNECTION
1 2 NUMBERS ONLY
INDICATE PUSHBUTTON
SWITCH
E3 E4 NUMBERS AND
LETTERS INDICATE
TMR. BLOCK TERMINALS

NUMBERS IN BOX []
INDICATE TIMER TRACKS
ON TIMER DIAGRAM

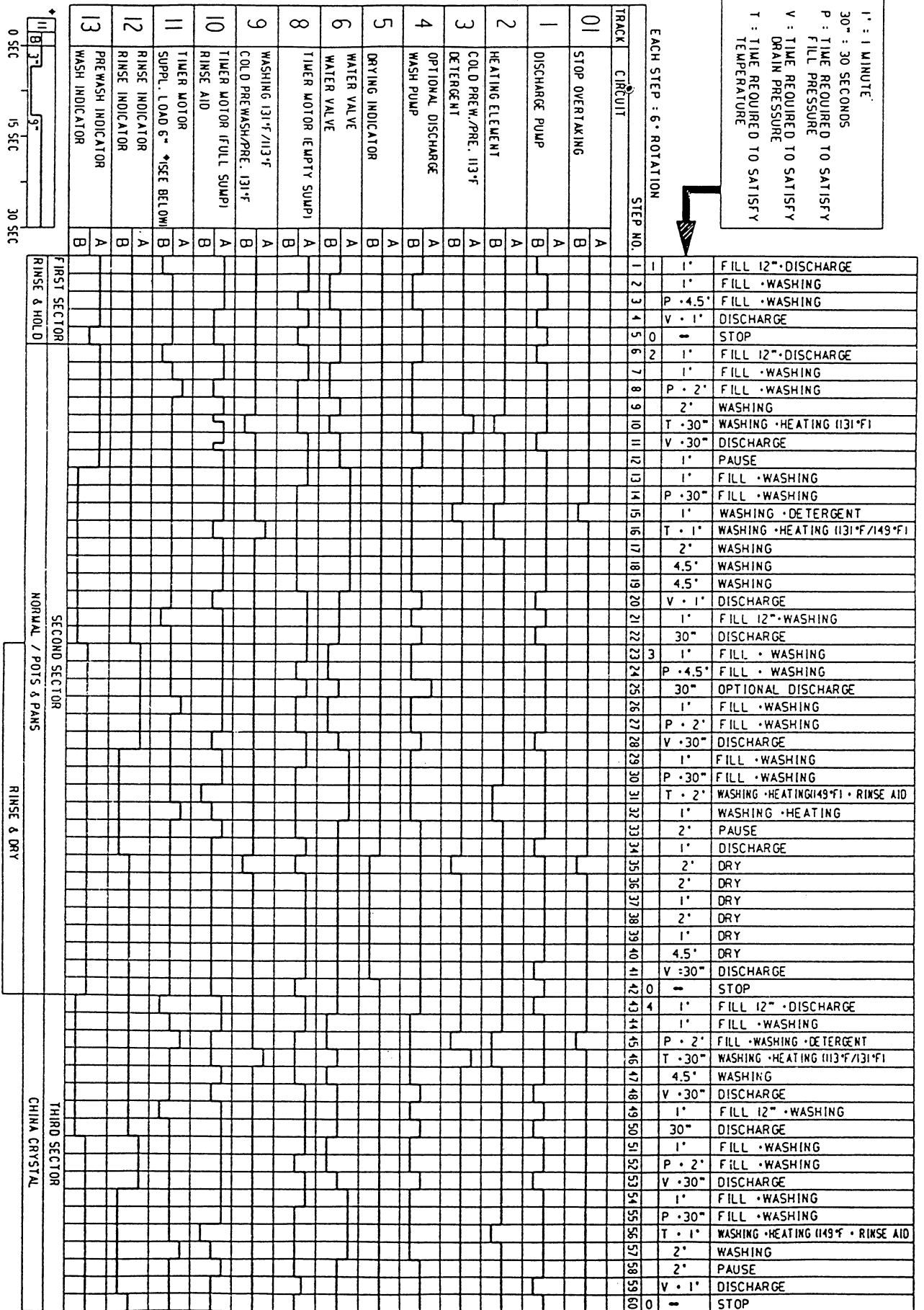
PRESSURE SWITCHES	
P1:	FILL SWITCH (LARGE)
P2:	FLOOD SAFETY SWITCH (SMALL)

THERMOSTATS		
°C	°F	DOT COLOR LOCATION
45°C	113°F	WHITE DOOR
55°C	131°F	RED DOOR
65°C	149°F	RED TUB BOTTOM
85°C	185°F	WHITE TUB BOTTOM

COLOR CODE			
LETTERS	COLOR	LETTERS	COLOR
BX	BLACK	RX	RED
CX	BROWN	SX	GRAY
NX	DK. BLUE	VX	PURPLE
OX	ORANGE	WX	WHITE
PX	PINK		

THE "X" INDICATES ONE SOLID COLOR-NO TRACER. WIRES WITH TRACER SHOW BOTH COLORS. EXAMPLE-WR IS WHITE WITH RED TRACER.

SCHEMATIC/CAM CHART (ZBD4700X/ZBD4800X)

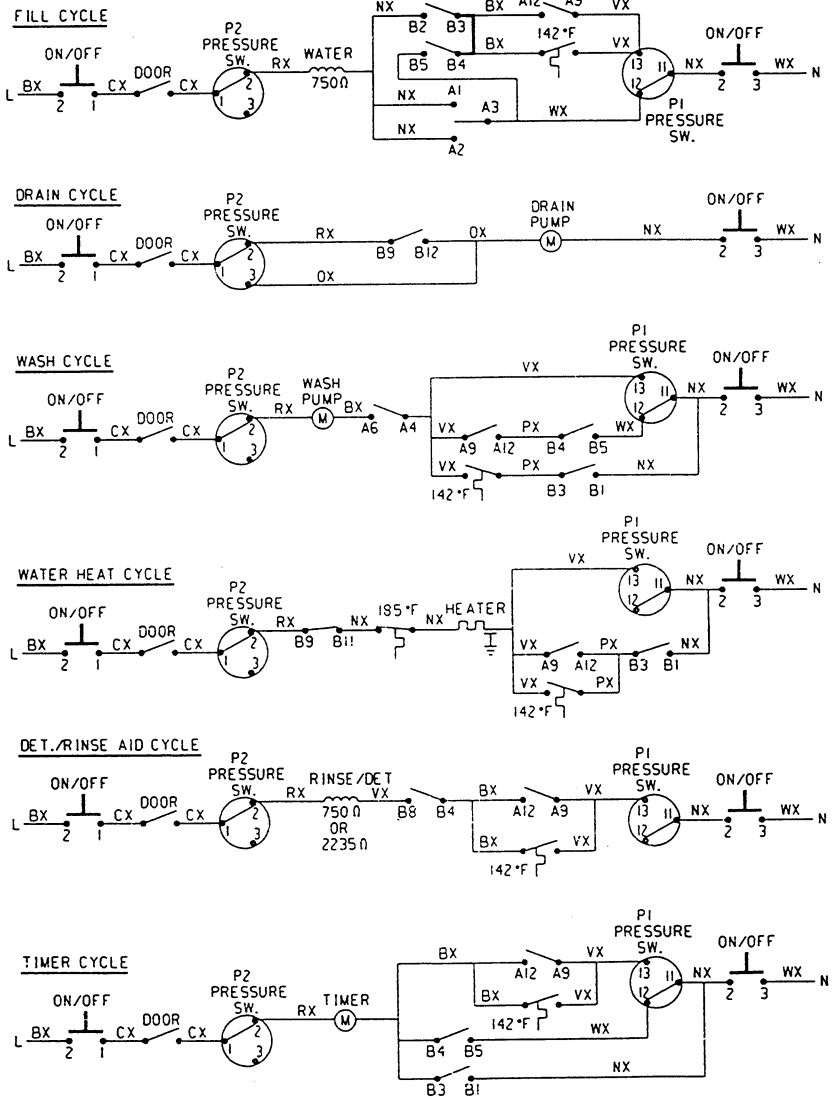
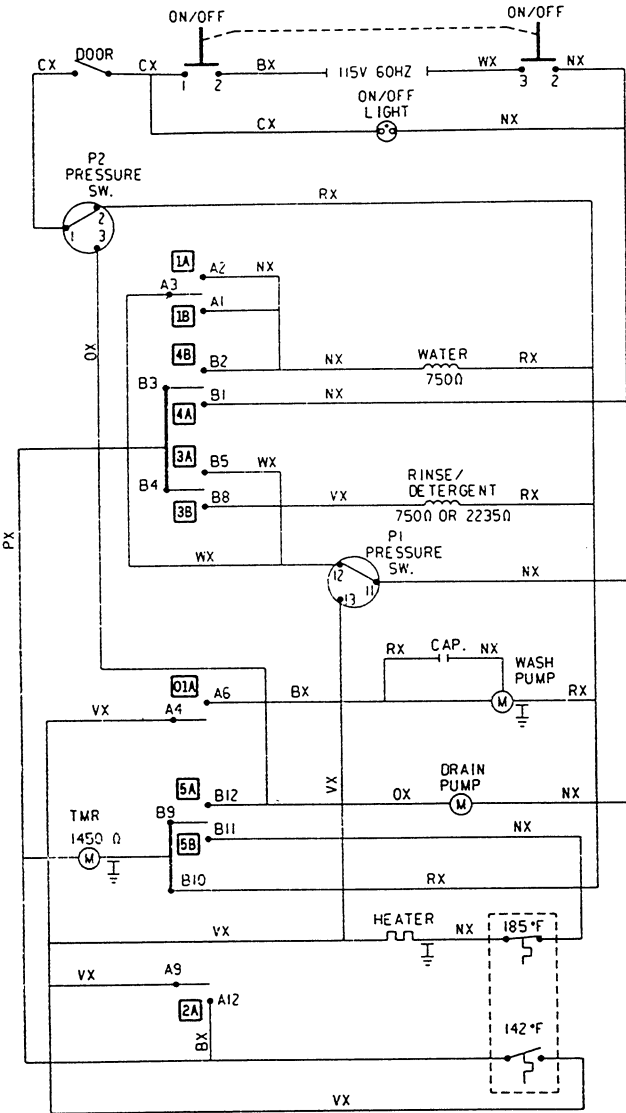


SCHEMATIC/CAM CHART (ZBD4600X)

165D4756G095(1)

165D3312P001 REV. 1

STRIP CIRCUITS



NUMBERS IN BOX () INDICATE TIMER TRACKS ON TIMER DIAGRAM

MAX. CURRENT LEAKAGE 0.75 MA.
MAX. GROUND PATH RESISTANCE 0.1 OHM

WIRING DIAGRAM SYMBOLS
 —●— INTERNAL CONNECTION
 1 2 NUMBERS ONLY INDICATE PUSHBUTTON SWITCH
 E3 E4 NUMBERS AND LETTERS INDICATE TMR. BLOCK TERMINALS

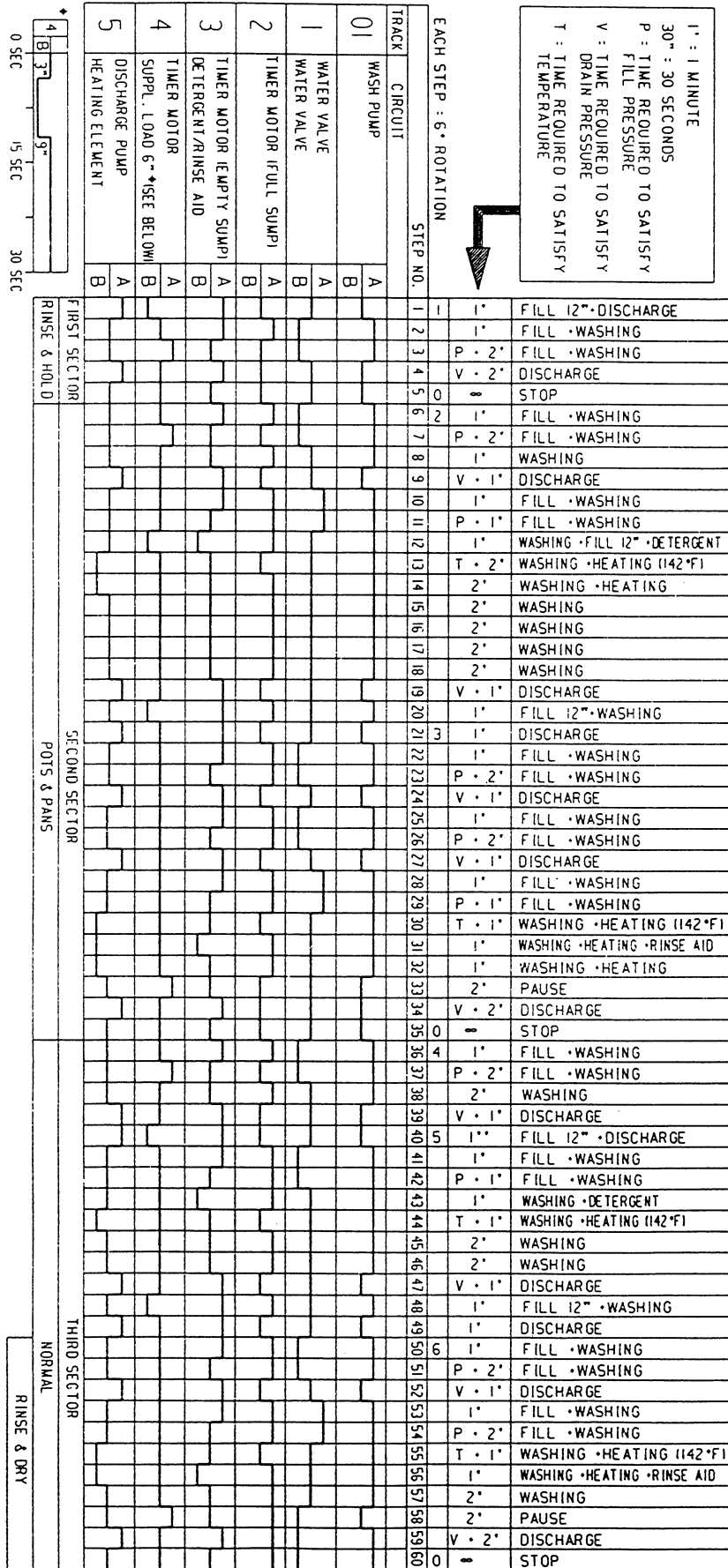
PRESSURE SWITCHES
 P1-FILL SWITCH (LARGE)
 P2-FLOOD SAFETY SWITCH (SMALL)

THERMOSTATS		
°C	°F	DOT COLOR
61°C	142°F	BLUE
85°C	185°F	WHITE

COLOR CODE			
LETTERS	COLOR	LETTERS	COLOR
BX	BLACK	RX	RED
CX	BROWN	SX	GRAY
NX	DK. BLUE	VX	PURPLE
OX	ORANGE	WX	WHITE
PX	PINK		

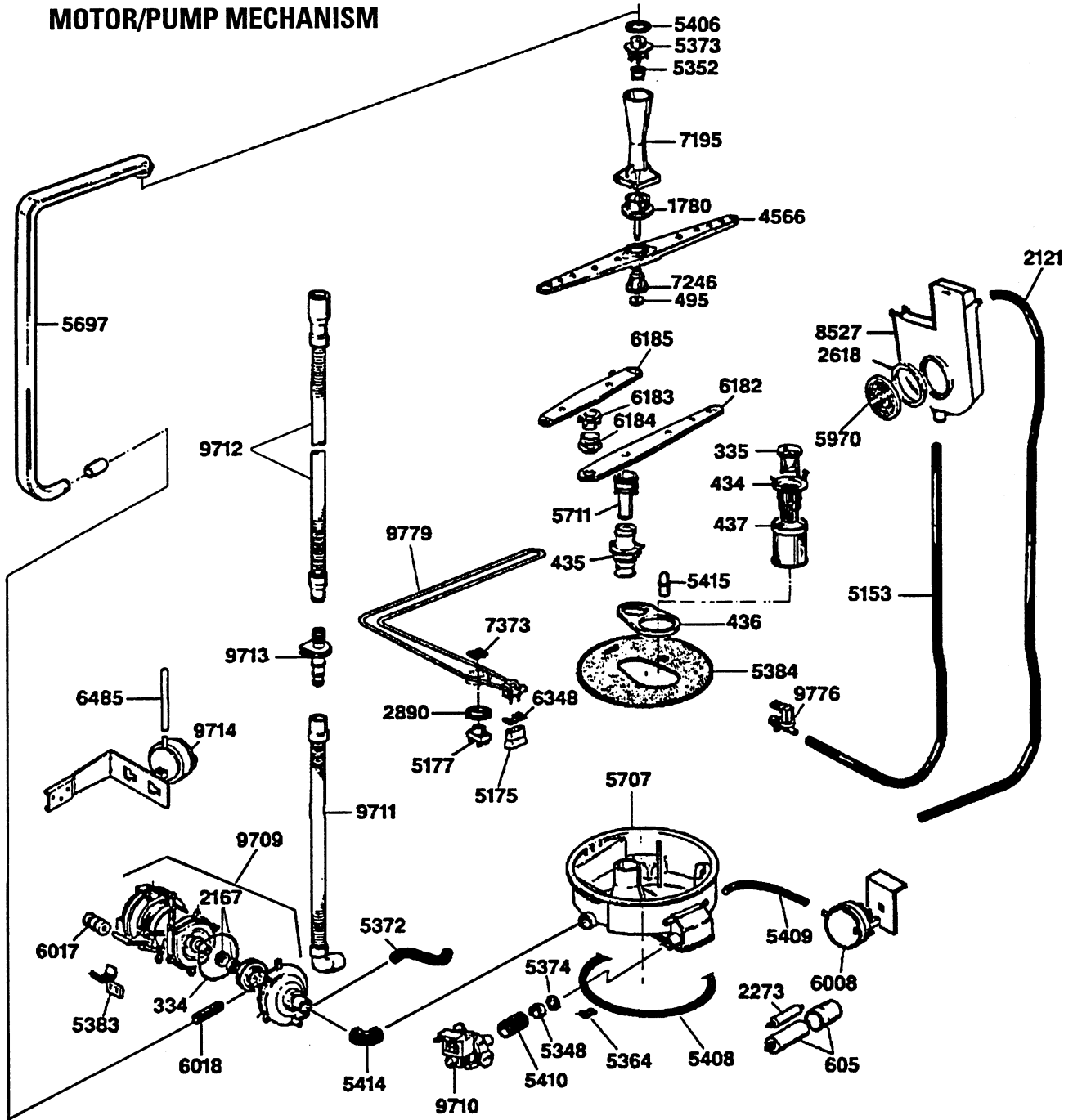
THE "X" INDICATES ONE SOLID COLOR-NO TRACER. WIRES WITH TRACER SHOW BOTH COLORS. EXAMPLE-WR IS WHITE WITH RED TRACER.

SCHEMATIC/CAM CHART (ZBD4600X)



MOTOR/PUMP EXPLODED VIEW ZBD4600X/ZBD4700X/ZBD4800X

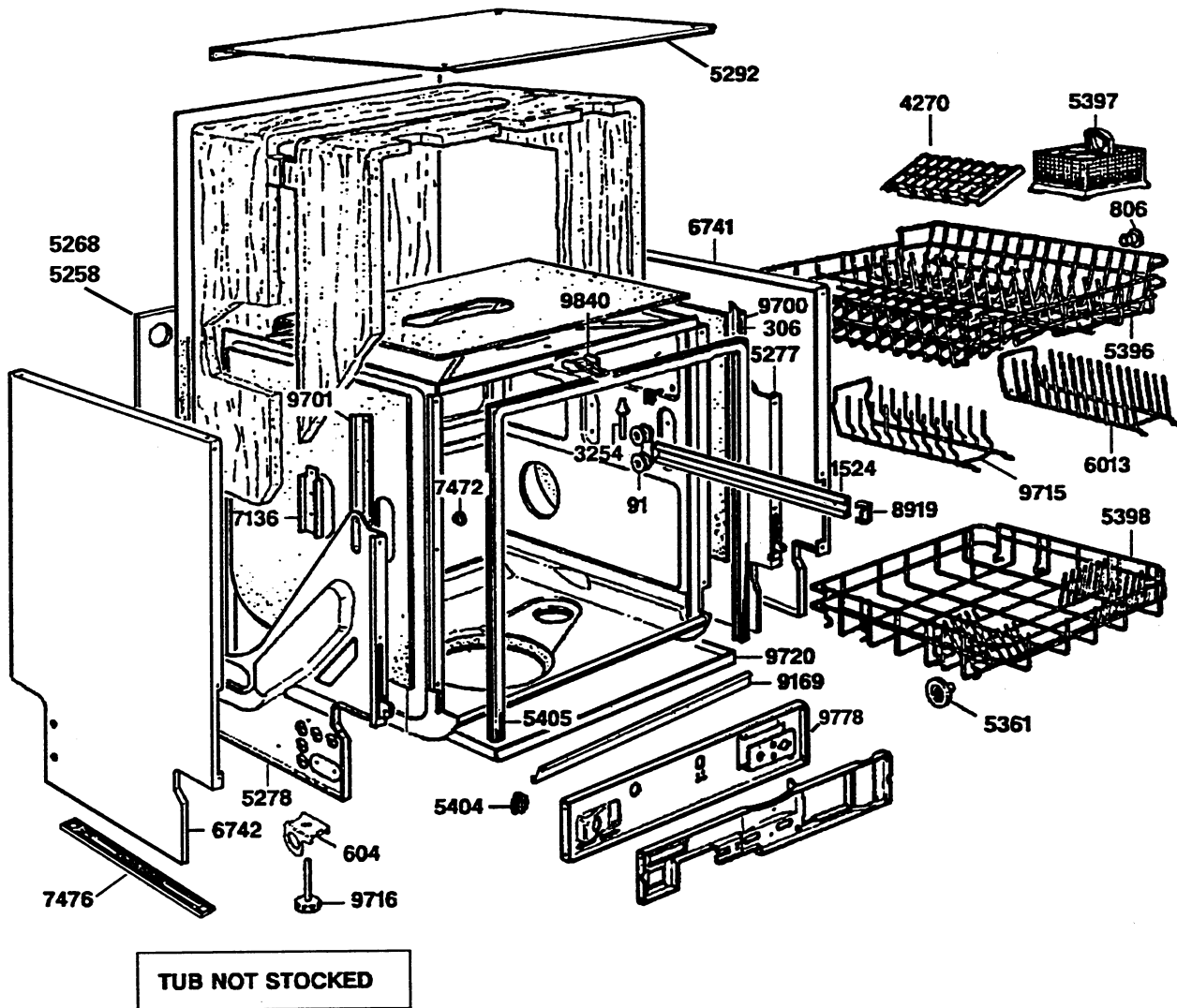
MOTOR/PUMP MECHANISM



MOTOR/PUMP PARTS LISTING

REF. NO.	PART NO.	PART DESCRIPTION	MODELS		
			ZBD4600X	ZBD4700X	ZBD4800X
0334	WD38X0036	SEAL PUMP	1	1	1
0335	WD38X0037	SPRAYER MAIN	1	1	1
0434	WD38X0128	FILTER	1	1	1
0435	WD38X0129	SUPPORT, LOWER SPRAY ARM	1	1	1
0436	WD38X0130	FILTER, INNER S/S	1	1	1
0437	WD38X0131	MICROFILTER	1	1	1
0495	WD38X0013	NUT	1	1	1
0605	WD38X0001	CAPACITOR	1	1	1
	WD38X0133	TOEKICK WH	1	1	1
	WD38X0134	TOEKICK BK	1	1	1
1780	WD38X0016	SUPPORT, UPPER SPRAY ARM	1	1	1
2121	WD38X0017	HOSE	1	1	1
2167	WD38X0002	GASKET, PUMP	1	1	1
2273	WD38X0018	SUPPRESSOR	1	1	1
2618	WD38X0019	GASKET, AIR-BREAK	1	1	1
2890	WD38X0020	GASKET, THERMOSTAT	1	1	1
4566	WD38X0042	SPRAY ARM, UPPER	1	1	1
5153	WD38X0004	HOSE	1	1	1
5175	WD38X0023	PROTECTOR, HEATER	1	1	1
5177	WD38X0024	THERMOSTAT DOUBLE	1	1	1
5348	WD38X0047	RETAINER	1	1	1
5352	WD38X0048	NUT, VENTURI RING	1	1	1
5364	WD38X0050	BRACKET	3	3	3
5372	WD38X0051	HOSE	1	1	1
5373	WD38X0052	NOZZLE, UPPER SPRAY ARM	1	1	1
5374	WD38X0053	VALVE, DRAIN PUMP	1	1	1
5383	WD38X0054	RETAINER, MOTOR	1	1	1
5384	WD38X0055	FILTER, SPRAY SYSTEM	1	1	1
5406	WD38X0061	GASKET, UPPER NOZZLE	1	1	1
5408	WD38X0063	GASKET, DRAIN WELL	1	1	1
5409	WD38X0064	HOSE, PRESSURE SWITCH	1	1	1
5410	WD38X0065	HOSE, DRAIN PUMP	1	1	1
5414	WD38X0066	HOSE, PUMP-WELL	1	1	1
5415	WD38X0067	COVER	1	1	1
5697	WD38X0068	PIPE, SPRAY SYSTEM	1	1	1
5707	WD38X0069	WELL DRAIN	1	1	1
5711	WD38X0070	SUPPORT, LOWER SPRAY ARM	1	1	1
5970	WD38X0027	NUT RING	1	1	1
6008	WD38X0071	CALIBRATOR, PRESSURE LVL	1	1	1
6017	WD38X0073	GASKET, MOTOR	1	1	1
6018	WD38X0074	HOSE, UPPER SPRAY INLET	1	1	1
6182	WD38X0079	SPRAY ARM, LOWER	1	1	1
6183	WD38X0080	BUSHING, SPRAY ORBIT	1	1	1
6184	WD38X0081	SUPPORT, SPRAY ORBIT	1	1	1
6185	WD38X0082	SPRAY ARM, ORBIT	1	1	1
6348	WD38X0028	BRACKET	1	1	1
6485	WD38X0087	TUBE, PRESSURE SWITCH	1	1	1
7195	WD38X0007	VENTURI	1	1	1
7246	WD38X0008	BUSHING, UPPER SPRAY	1	1	1
7373	WD38X0029	PLATE	1	1	1
8527	WD38X0033	CONTAINER, INLET	1	1	1
9709	WD38X0103	MOTOR & PUMP ASSY	1	1	1
9710	WD38X0104	PUMP DRAIN	1	1	1
9711	WD38X0105	HOSE, DRAIN	1	1	1
9712	WD38X0106	HOSE, OUTER DRAIN	1	1	1
9713	WD38X0107	CONNECTOR, DRAIN HOSE	1	1	1
9714	WD38X0108	SWITCH PRESSURE	1	1	1
9776	WD38X0138	ELECTROVALVE	1	1	1
9779	WD39X0112	ELEMENT, HEATING	1	1	1

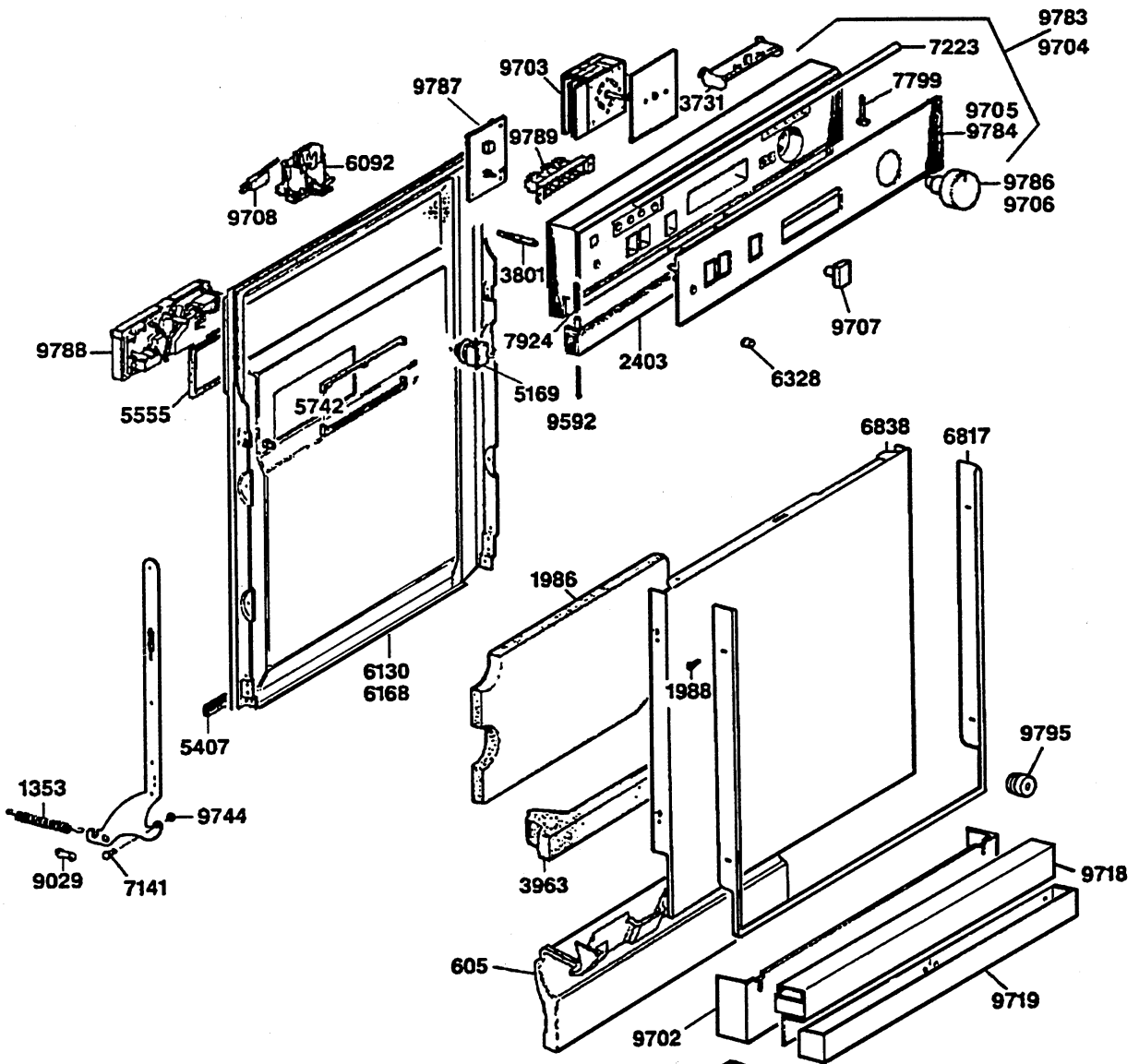
CABINET EXPLODED VIEW ZBD4600X/ZBD4700X/ZBD4800X



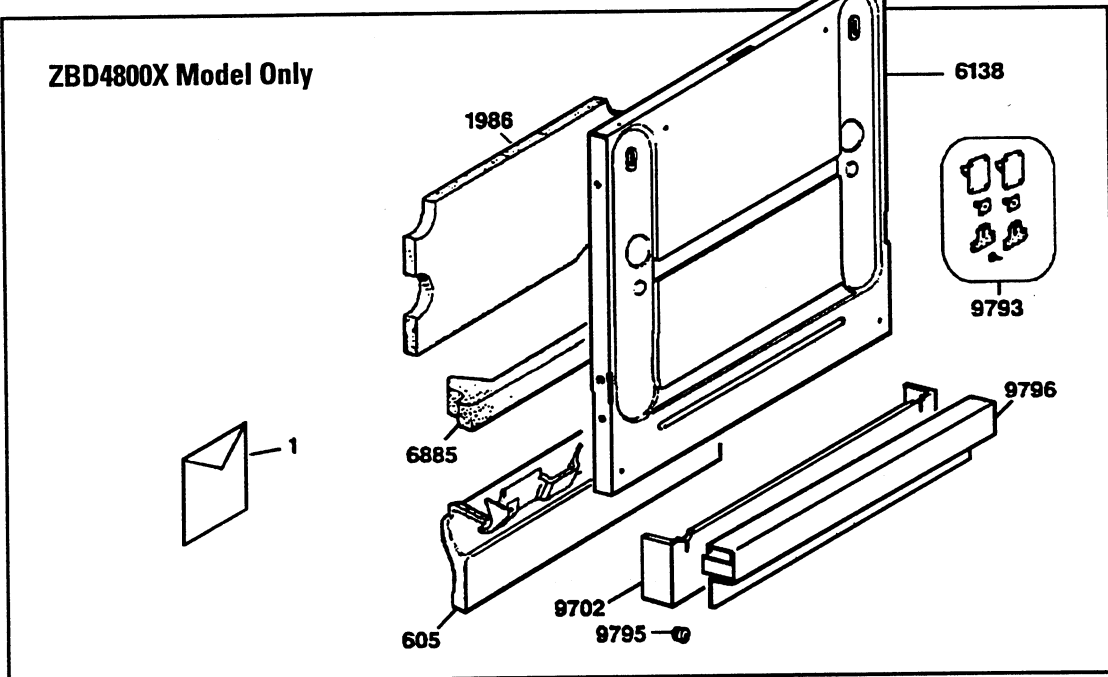
CABINET PARTS LISTING

REF. NO.	PART NO.	PART DESCRIPTION	MODELS		
			ZBD4600X	ZBD4700X	ZBD4800X
0091	WD38X0035	SUPPORT/ROLLER, UPPER	4	4	4
0306		NLA			
0604	WD38X0132	BRACKET	4	4	4
0806	WD38X0014	WHEEL, UPPER RACK	6	6	6
1524	WD38X0015	SLIDE, UPPER RACK	2	2	2
3254	WD38X0003	PIN, UPPER RACK	2	2	2
4270	WD38X0041	BASKET, UPPER DISH	2	2	2
5258	WD38X0043	PANEL, BACK		1	1
5268		NLA			
5277	WD38X0044	RETAINER, RIGHT TUB	1	1	1
5278	WD38X0045	RETAINER, LEFT TUB	1	1	1
5292	WD38X0046	COVER, UPPER	1	1	1
5361	WD38X0049	WHEEL, LOWER RACK	8	8	8
5396	WD38X0056	RACK, UPPER	1	1	1
5397	WD38X0057	BASKET, SILVERWARE	1	1	1
5398	WD38X0058	RACK, LOWER	1	1	1
5404	WD38X0059	GASKET, RUBBER	1	1	1
5405	WD38X0060	GASKET, RUBBER	1	1	1
6013	WD38X0072	RACK, LOWER FILE		1	1
6741	WD38X0088	PANEL, RH SIDE	1	1	1
6742	WD38X0089	PANEL, LH SIDE	1	1	1
7136	WD38X0005	SUPPORT, ROLLER	2	2	2
7472	WD38X0030	CAP	2	2	2
7476	WD38X0031	KICKPLATE SIDE	2	2	2
8919	WD38X0010	ENDCAP, RACK SLIDE	2	2	2
9169	WD38X0093	PROTECTOR, FRONT	1	1	1
9700	WD38X0095	FRAME, RH SIDE BK	1	1	1
	WD38X0094	FRAME, RH SIDE WH	1	1	1
9701	WD38X0096	FRAME, LH SIDE WH	1	1	1
	WD38X0097	FRAME, LH SIDE BK	1	1	1
9715	WD38X0109	RACK, PLATE	2	2	2
9716	WD38X0110	FOOT, LEVELING	4	4	4
9720	WD38X0111	PAN, WATER	1	1	1
9778		NLA			
9840	WD38X0127	HOOK, SPRAY SYSTEM	1	1	1

DOOR EXPLODED VIEW ZBD4600X/ZBD4700X/ZBD4800X



ZBD4800X Model Only



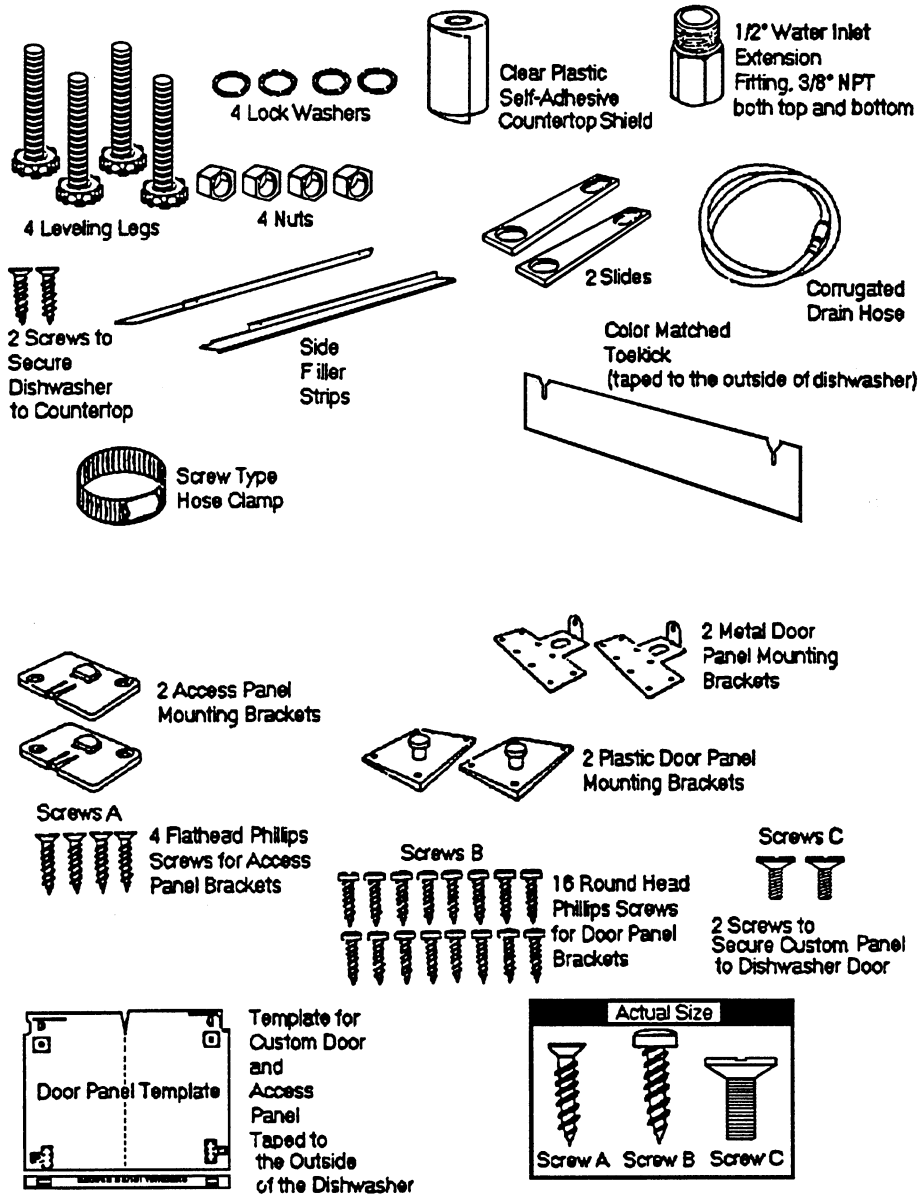
DOOR PARTS LISTING

REF. NO.	PART NO.	PART DESCRIPTION	MODELS		
			ZBD4600X	ZBD4700X	ZBD4800X
0001	31-30100	INSTALLATION INSTRUCTION			1
	31-4196	MINI MANUAL			1
	49-5714	USE & CARE GUIDE			1
0605	WD38X0001	CAPACITOR	1	1	1
	WD38X0133	TOEKICK WH	1	1	1
	WD38X0134	TOEKICK BK	1	1	1
1353	WD38X0142	SPRING, HINGE	2	2	
1986	WD38X0038	PANEL, DOOR	1	1	1
1988	WD38X0144	SCREW, FRAME BK	12	12	
	WD38X0143	SCREW, FRAME WH	12	12	
2403	WD38X0145	TRIM, LOWER ESC BK	1	1	
	WD38X0146	TRIM, LOWER ESC WH	1	1	
3731	WD38X0039	LEVER, CONTROL BK	1	1	1
	WD38X0040	LEVER, CONTROL WH	1	1	1
3801	WD38X0021	LAMP 120V WARNING	1	1	1
3963	WD38X0141	PROTECTOR, STEAM	1	1	
5169	WD38X0022	THERMOSTAT, DOUBLE L312		1	1
5407	WD38X0062	GASKET, INNER DOOR	1	1	1
5555	WD38X0025	GASKET	1	1	1
5742	WD38X0026	BRACKET	1	1	1
6092	WD38X0075	LOCK ASSY	1	1	1
6130	WD38X0076	DOOR, INNER		1	1
6138	WD38X0077	DOOR, OUTER			1
6139	WD38X0078	SPRING, HINGE			2
6168	WD38X0154	DOOR, INNER	1		
6190	WD38X0084	TRIM, LOWER ESC WH			1
	WD38X0083	TRIM, LOWER ESC BK			1
6328	WD38X0085	COVER, PB BK		1	1
	WD38X0086	COVER, PB WH		1	1
6817	WD38X0148	FRAME BK	1	1	
	WD38X0147	FRAME WH	1	1	
6838	WD38X0149	DOOR OUTER	1	1	
6885	WD38X0090	PROTECTOR, STEAM			1
7141	WD38X0006	PIN, HINGE	2	1	2
7223	WD38X0091	TRIM, UPPER ESC WH	1	1	1
	WD38X0092	TRIM, UPPER ESC BK	1	1	1
7799	WD38X0032	PROTECTOR	2	2	2
7924	WD38X0009	SPRING	2	2	2
9029	WD38X0034	BUSHING, HINGE SPRING	2	2	2
9592	WD38X0011	SCREW ESCUTCHEON	2	2	2
9702	WD38X0098	PANEL, ACCESS WH	1	1	1
	WD38X0099	PANEL, ACCESS BK	1	1	1
9703	WD38X0155	TIMER	1		
9704	WD38X0164	ESCUTCHEON/INSERT BK	1		
	WD38X0163	ESCUTCHEON/INSERT WH	1		
9705	WD38X0159	INSERT, ESCUTCHEON WH	1		
	WD38X0160	INSERT, ESCUTCHEON BK	1		
9706	WD38X0157	KNOB, TIMER WH	1		
	WD38X0158	KNOB, TIMER BK	1		
9707	WD38X0100	PUSH BUTTON, WH	3	3	3
	WD38X0101	PUSH BUTTON, BK	3	3	3
9708	WD38X0102	MICROSWITCH	1	1	1
9718		DOOR KICK	1	1	
9719	WD38X0152	FRAME, ACCESS DOOR	1	1	
	WD38X0153	FRAME, ACCESS DOOR	1	1	

DOOR PARTS LISTING, CONTINUED

REF. NO.	PART NO.	PART DESCRIPTION	MODELS		
			ZBD4600X	ZBD4700X	ZBD4800X
9744	WD38X0012	RING, HINGE PIN	2	2	2
9782	WD38X0013	TIMER			1
9783	WD38X0139	ESCUTCHEON/INSERT WH		1	1
	WD38X0140	ESCUTCHEON/INSERT BK		1	1
9784	WD38X0116	INSERT, ESCUTCHEON WH		1	1
	WD38X0117	INSERT, ESCUTCHEON BK		1	1
9786	WD38X0119	KNOB, TIMER BK		1	
9787	WD38X0120	CARD, TIMER DELAY		1	1
9788	WD38X0137	DISPENSER, DETERGENT	1	1	1
9789	WD38X0121	SWITCH, PUSH BUTTON		1	1
9793	WD38X0122	KIT, DOOR HOOK			1
9795	WD38X0124	SUPPORT, ACCESS DOOR		2	2
9796	WD38X0125	DOOR ACCESS WH			1
	WD38X0126	DOOR ACCESS BK			1

ACCESSORIES KITS ZBD4600X/ZBD4700X/ZBD4800X



ACCESSORIES KITS PARTS LISTING

REF. NO.	PART NO.	PART DESCRIPTION	MODELS		
			ZBD4600X	ZBD4700X	ZBD4800X
0607	WD38X0136	KIT, ACCESSORIES BK	1	1	1
	WD38X0135	KIT, ACCESSORIES WH	1	1	1

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSE																																								
TROUBLESHOOTING	Water Inlet	Main Voltage	Push Button Switch	Dishes Misplaced	Pressure Switch	Timer Motor	Timer Advancement	Drying Heater	Heating	Water Valve	Thermostat	Thermostat	Detergent Distributor	Not Enough Detergent	Hard Water	Pump Motor	Connection Pump	Timer Main Contacts	Wiring Harness	Wash Motor	Start Capacitor	Overload Protector	Motor Connection	Pressure Switch Hose	Motor Current	Rinsing Agent Dispenser	Tub	Filter	Door	Short Circuit	Ground	Bad Installation	Low Current	Hose Outlet Bent	Suction Hose	Safety Thermostat	Burnt Lamp				
	NO WATER	X	X	X		X					X								X	X				X					X												
WATER KEEPS FLOWING ALL TIME	X		X	X						X								X	X				X								X	X	X								
LOSS OF WATER	X			X						X						X							X		X	X		X									X				
WATER DOES NOT REACH RIGHT LEVEL	X			X														X					X																		
MOTOR INOPERATIVE		X	X	X														X	X	X	X	X		X						X	X	X	X								
MOTOR STARTS AND STOPS		X																		X	X	X		X																	
NOT WASHING			X			X												X	X	X	X	X		X						X	X				X						
NOT WASHING CHINA			X															X	X	X	X	X		X						X						X					
NOT DRYING							X				X						X	X	X											X	X					X	X				
PROGRAM SEQUENCE INDICATOR LIGHTS							X											X	X											X										X	
NOT RINSING	X	X				X	X			X									X	X	X	X	X	X						X	X					X	X				
DOES NOT HEAT		X	X	X		X		X		X	X							X	X				X								X	X									
DOES NOT REACH TEMPERATURE		X				X		X		X	X								X																			X			
DOES NOT EMPTY		X				X											X	X	X									X								X	X			X	
EMPTIES ALL THE TIME				X													X	X	X												X	X									
MAKES ABNORMAL NOISE				X													X			X																					
DOES NOT WASH WELL	X	X	X			X		X		X	X	X	X	X															X									X			X
STAINS ON DISHES									X					X	X									X	X			X										X			
FUSES BURN			X					X									X		X												X	X									
HEATING RESISTORS ALWAYS ON						X	X											X	X											X	X										
TIMER, NO ADVANCE	X	X				X	X				X	X							X					X																	
TIMER CONTINUES TO CYCLE			X			X	X				X	X							X	X																					

