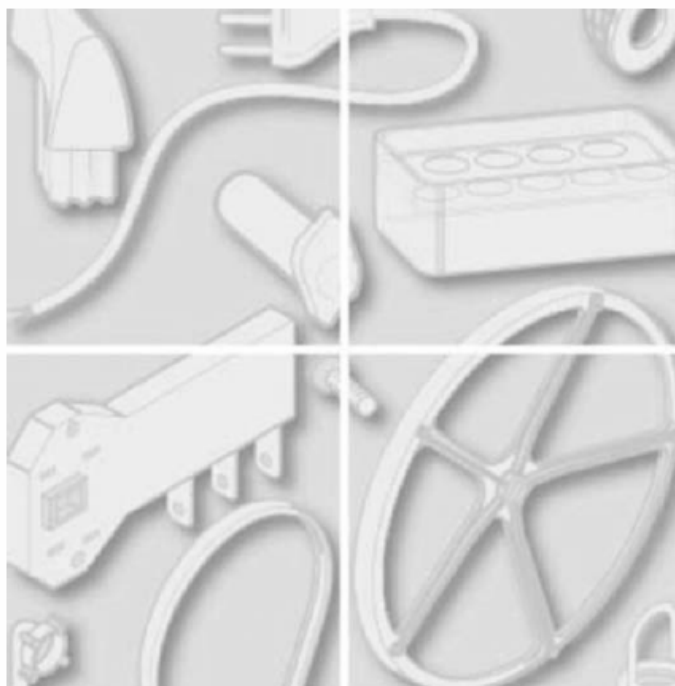


## REPAIR MANUAL

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**PRODUCT:** DISHWASHER  
**MODEL:** L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

---

# REPAIR MANUAL

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## SAFE SERVICE PRACTICES

This Repair Manual is intended for persons having electrical and mechanical training and a level of knowledge of these subjects generally considered acceptable in the Appliance Service Industry. Ariston cannot be responsible, nor assumes any liability for injury or damages of any kind arising from the use or misuse of the information contained in this Repair Manual.

If you have any questions regarding the proper diagnosis, repair or operation of any Ariston Appliance, please contact the Ariston Customer Care Center or your Service Representative.

### SERVICING SAFEGAURDS:

To avoid personal injury and/or property damage, it is important that safe servicing practices be observed at all times. Examples of safe service practices are listed below but are not limited to the following:

- 1) Never attempt a product repair if you have any doubts as to your ability to complete the repair in a safe and satisfactory manner.
- 2) Before servicing or removing an appliance:
  - Disconnect power to the appliance.
  - Turn off the gas / LP supply.
  - Turn off the water supply.
- 3) Never interfere with the proper operation of any safety device.
- 4) Use only genuine factory replacement parts as substitutions may interfere with compliances to home safety codes or standards.
- 5) It is extremely important that all safety ground connections be reestablished prior to the completion of the service call. Failure to do so will result in a hazardous condition being created.
- 6) Prior to returning the appliance back into active service, ensure the following:
  - All electrical connections are correct and secure.
  - Electrical leads are properly dressed and secured away from sharp edges, high temperature components and moving parts.
  - All non-insulated electrical terminals, connectors, heaters, etc. are adequately spaced away from metal parts or panels.
  - All safety grounds (both internal and external) are correctly and securely connected.
  - All access panels are properly and securely reassembled.

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# REPAIR MANUAL

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L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700



**LI 700 S**



**LL 64 S**

This Dishwasher Repair Manual uses the LI 700 S model for all repair instructions and demonstrations. The technical similarities between the LI 700 S and the other LI , L and LL models will allow the repair techniques described and demonstrated to be applied without difficulty to the other models not shown.

## 1. MODEL and SERIAL NUMBER LOCATION



Fig. 1-1

- The Model and Serial Number Tag is located on the right side of the Inner Door Panel (Fig. 1-1). The Model shown is a LI 700 S with a Serial Number of 407292454 (Fig. 1-2).

**Note:** Numbers located to the left of the nine (9) digit Serial Number are not required on the Warranty Claim Form.

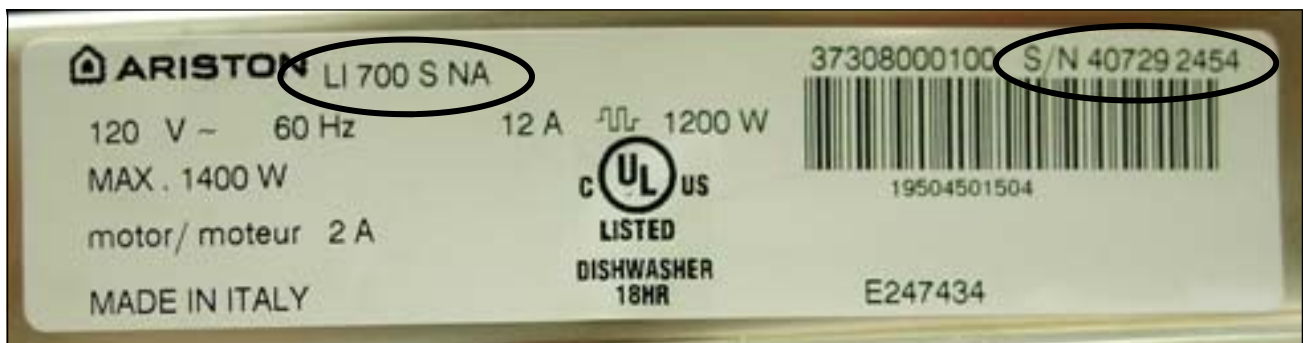


Fig. 1-2

## 2. RACK ROLLERS - Upper & Lower

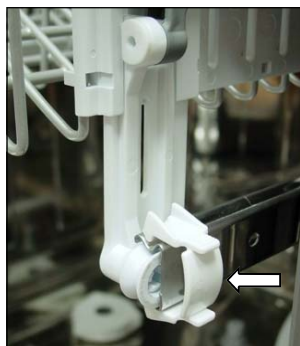


Fig. 2-1

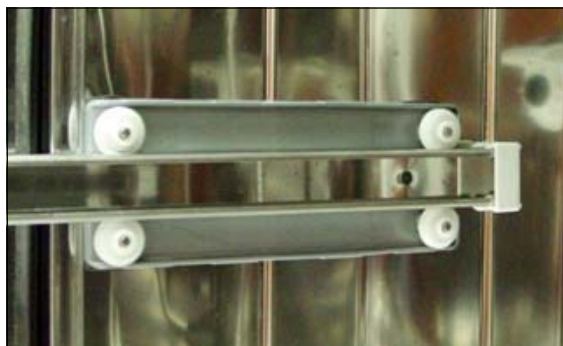


Fig. 2-2



Fig. 2-3

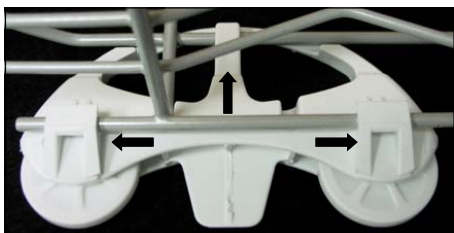


Fig. 4-4

- The Upper Rack can be removed by releasing the Rail Clip and sliding the Rack out from the Rail (Fig. 2-1). If the Upper Rack Roller Assembly must be replaced (Fig 4-2) first remove the Side Panel (see Section 22) and then remove the four (4) 8mm bolts that mount the Roller Assembly to the Tank.
- Once the Upper Rack has been removed, the Rack Roller Wheels can be replaced by gently prying the Hub Clips inward with a small screwdriver and then moving the Roller Wheel out and off the Hub (Fig. 2-3).

- The Lower Rack Roller Assemblies are held in place using three (3) tension clips (Fig 2-4). Grasping the Roller Assembly and applying downward force will disengage the Roller Assembly from the Rack.

## 3. UPPER SPRAY ARM



Fig. 3-1



Fig. 3-2

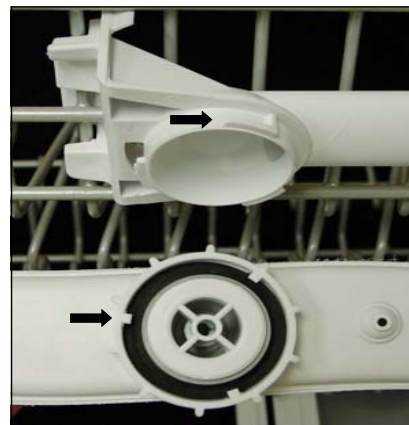


Fig. 3-3

- To remove the Upper Spray Arm (Fig. 3-1) gently grasp the Locking Ring with a Channel Locks and turn Counter-Clockwise (Fig. 3-2); note the Tab and Slot locking configuration (Fig. 3-3).

**TECH NOTE:** When Replacing the Spray Arm make sure that it is tightened completely onto the Locking Ring.

## 4. LOWER SPRAY ARM



Fig. 4-1



Fig. 4-2



Fig. 4-3

- To remove the Lower Spray Arm (Fig. 4-1) hold the Spray Arm Locking Ring with a Channel Locks and then turn the Spray Arm Clockwise (Fig. 4-2). The Locking Ring Assembly can also be removed by rotating it Counter-Clockwise; note the Tab and Slot locking configuration (Fig. 4-3).

**TECH NOTE:** When Replacing the Spray Arm make sure that it is tightened completely onto the Locking Ring.



## 5. OUTER DOOR PANEL

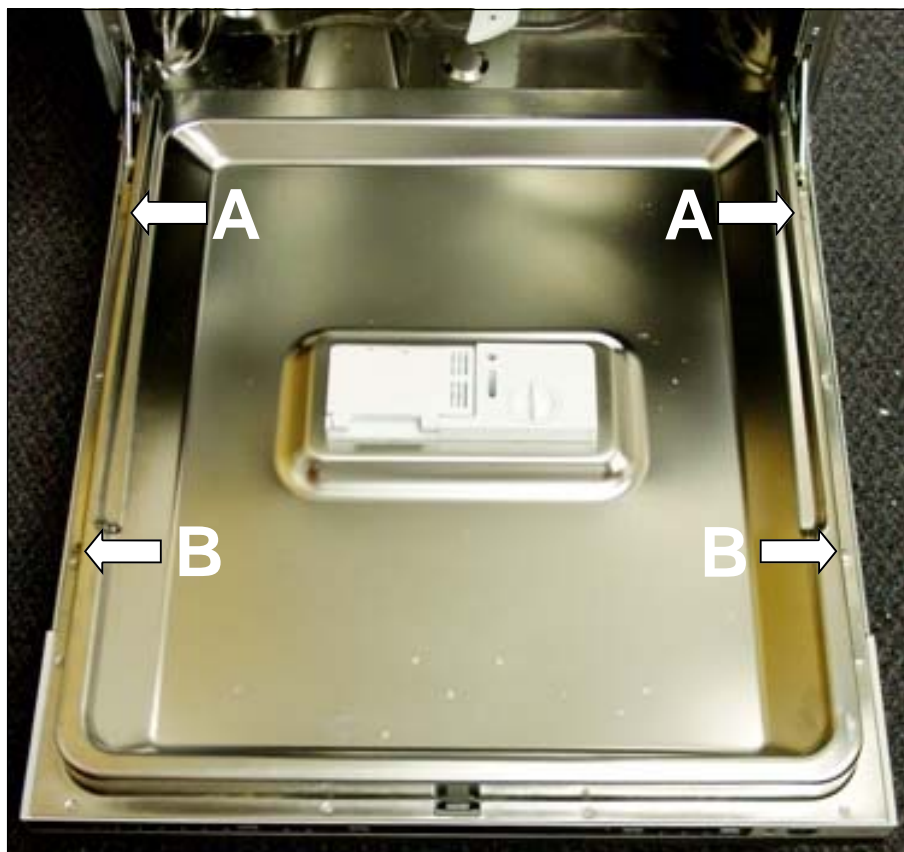


Fig. 5-1

- The Outer Door is held in place using four (4) Phillips screws (Fig. 5-1). Screw "A" is a single screw located on the bottom left and right corners of the Inner Door Panel. Screw "B" is just below the Phillips screw that holds the Outer Door Skin (Fig. 5-2).
- With the four (4) screws removed raise the Door to an upright position and then slide the Outer Door Panel down and out from the Alignment Channel (Fig. 5-3).
- When replacing the Outer Door insert the Alignment Pin into the Channel and then raise the Door Panel up until it is even with the top of the Control Panel (Fig. 5-4).

**TECH NOTE:** To prevent damage to the Outer Door, Alignment Pins, or Channel, make sure to support the weight of the Door as you remove or replace it.

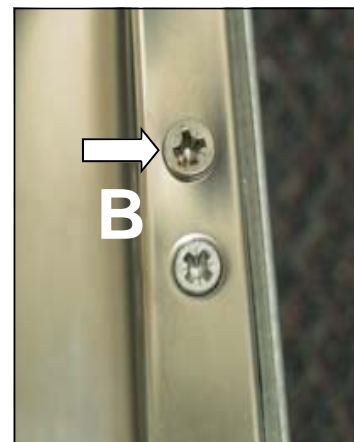


Fig. 5-2

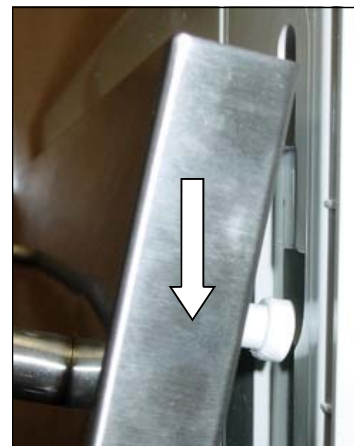


Fig. 5-3

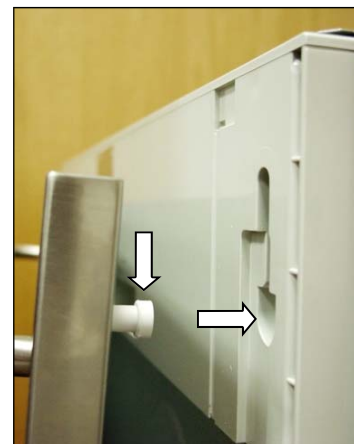


Fig. 5-4

## 6. CONTROL PANEL



Fig. 6-1

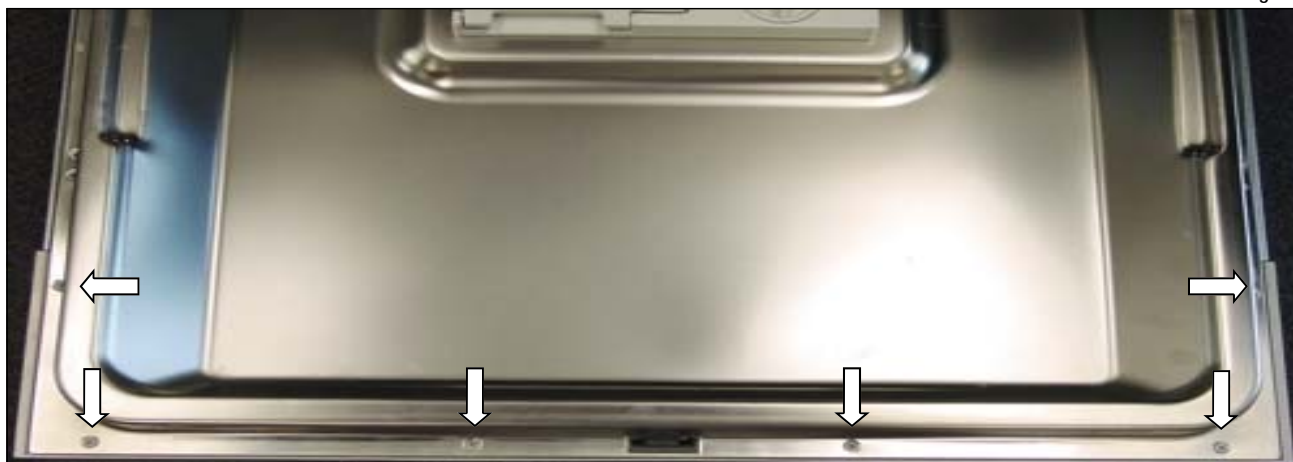


Fig. 6-2



Fig. 6-3

- To remove the Control Panel (Fig. 6-1), remove the six (6) Phillips Control Panel screws from the Inner Door Panel (Fig 6-2). With the screws removed the Control Panel will lay forward and is now accessible for repair (Fig. 6-3).

**TECH NOTE:** The Outer Door must be removed first (see Section 5) before removing the Control Panel Screws.

## 7. OUTER DOOR SKIN

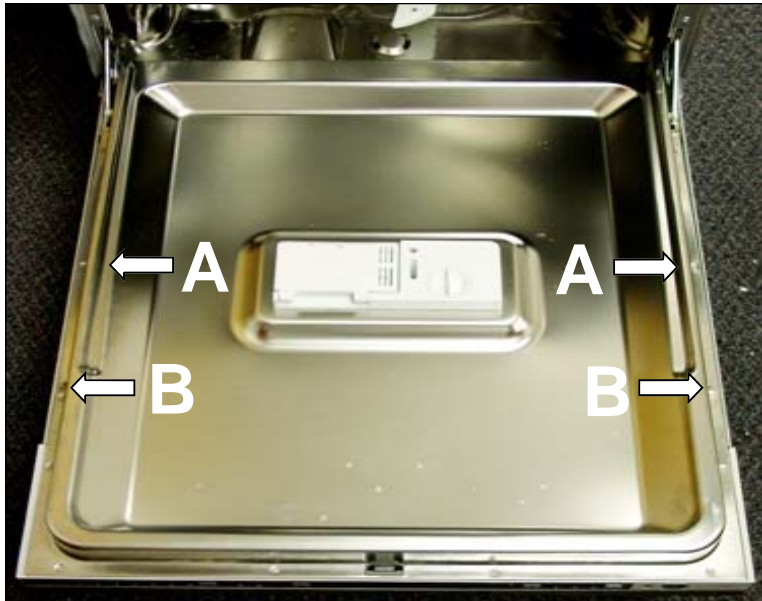


Fig. 7-1

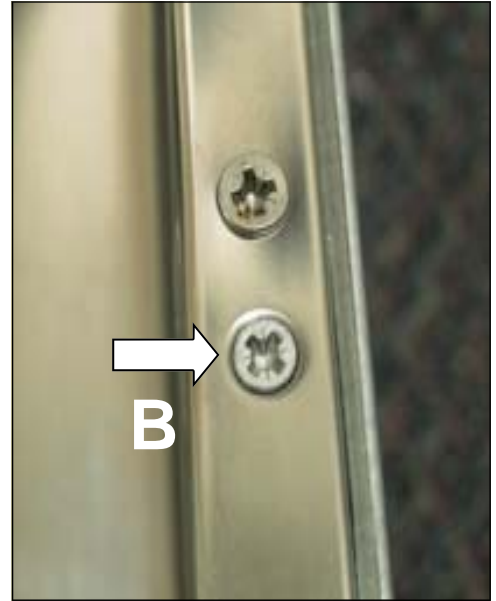


Fig. 7-2

- To remove the Outer Door Skin, first remove the Outer Door Panel ( see Section 5). Now remove the four (4) remaining Phillips screws. Two (2) screws "A" are located half way up the Inner Door Panel and screws "B" are located above the Outer Door Panel screws (Fig. 7-1 & 7-2). With the Outer Door Skin removed you have access to the Soap Dispenser (Fig. 7-3) and Door Hinges.

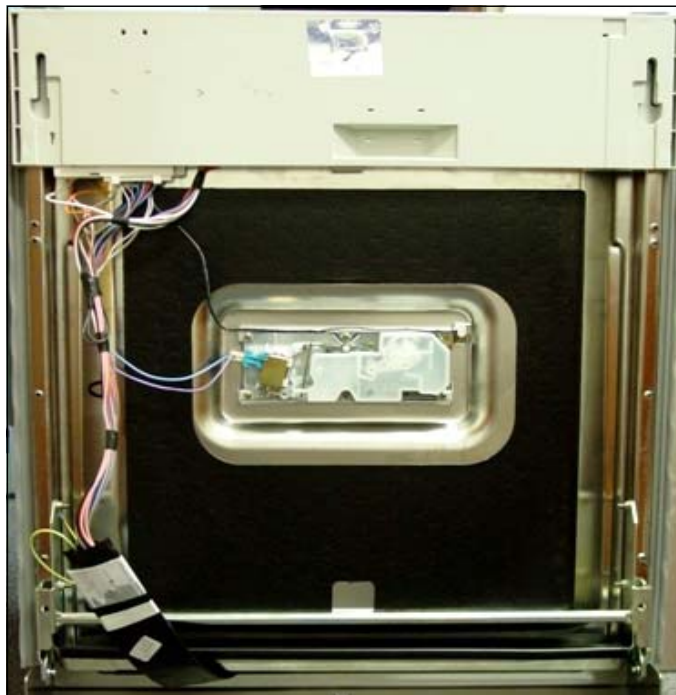


Fig. 7-3

**TECH NOTE:** The Control Panel does not have to be removed to remove the Outer Door Skin.



## 8. SOAP DISPENSER and WATER TEMPERATURE NTC

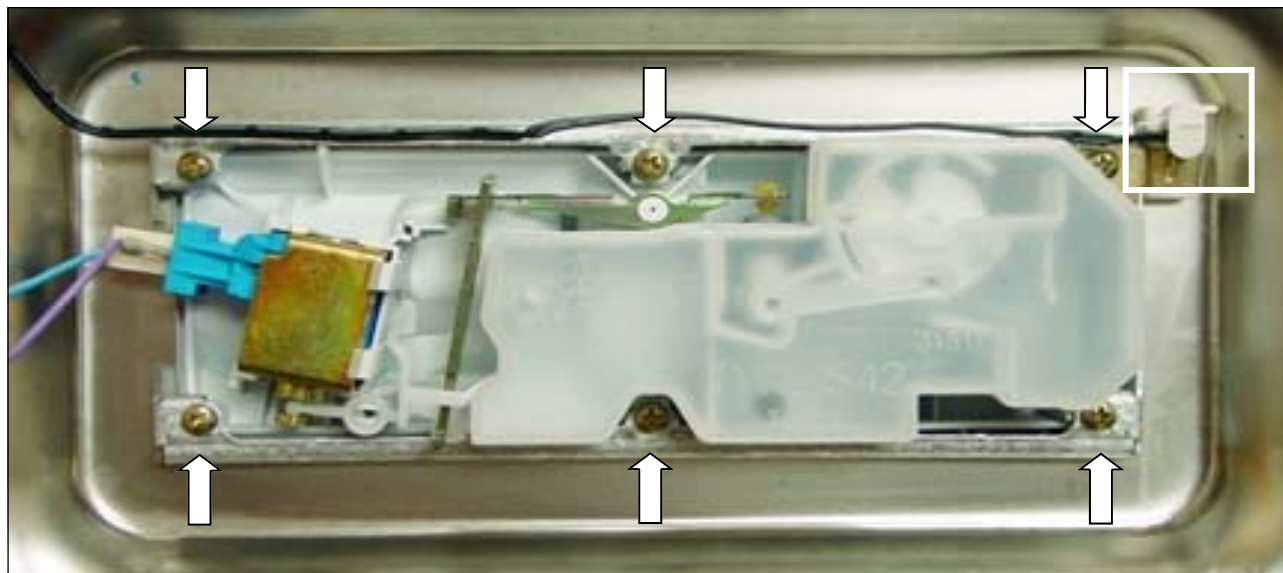


Fig. 8-1

- To remove the Soap Dispenser (Fig. 8-1), first remove the Actuator Solenoid wiring and then the six (6) Phillips screws that mount the Dispenser to the Inner Door. The Dispenser can then be removed and replaced as a complete assembly.

**OPERATION:** The Actuator Solenoid is energized twice during a complete cycle. The first actuation releases the Detergent and also aligns the Dispenser Linkage for the second actuation which releases the Rinse Agent.

**TECH NOTE:** Located on the upper right corner of the Dispenser is the Water Temperature NTC. The NTC is hard wired to the Main Control Board. If the NTC proves faulty the Main Control Board must be replaced. Also, Dishwasher Models L63 / LL64 / LI 640 / LI 670 incorporate a Magnetic Reed Switch to activate the Rinse Aid LED. Models LL 65 & LI 700 use a Turbidity Sensor, see Section 19 for details.

## 9. DOOR SPRING ADJUSTMENT and DOOR LATCH



Fig. 9-1

- To adjust the tension on the Outer Door turn the two (2) 5mm Allen Screws Clockwise for more spring tension and Counter Clockwise for less spring tension (Fig. 9-1).
- The Door Latch can be adjusted using a 7mm Nut Driver (Fig. 9-2)



Fig. 9-2

## 10. TOE KICK



Fig. 10-1

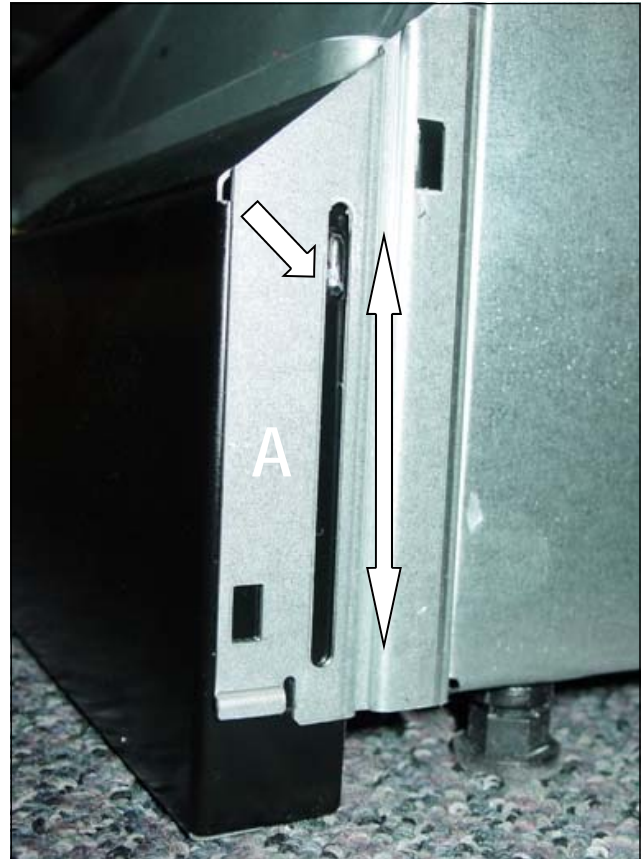


Fig. 10-2

- The Toe Kick is a tension fit and mounts into the Side Support Plates "A" located on the left and right lower corners of the Dishwasher. The Toe Kick is held in place and adjusted using a dimple stamped into the Toe Kick (Fig. 10-1). Once the Toe Kick is inserted into the Support Plate you can adjust the Toe Kick to the required height by simply sliding it up or down (Fig. 10-2). To remove the Toe Kick firmly pull it toward you.

**TECH NOTE:** When installing the Toe Kick remember that it fits inside the left and right Side Support Plates (Fig. 10-2).

## 11. DOOR EXTENSION



Fig. 11-1

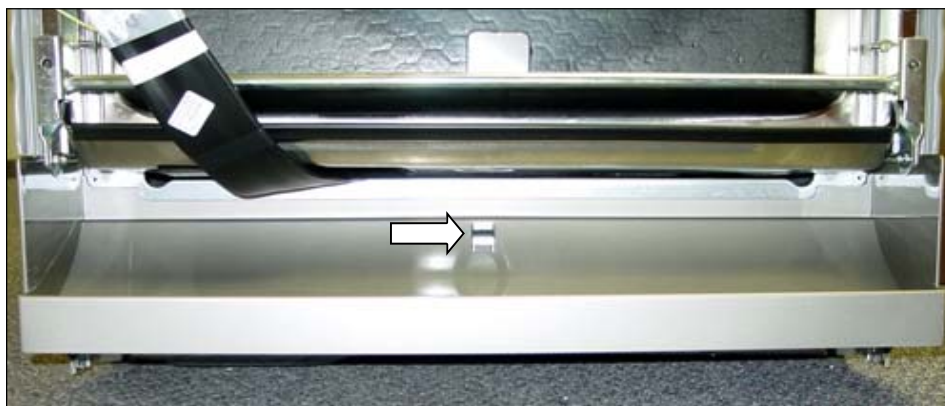


Fig. 11-2

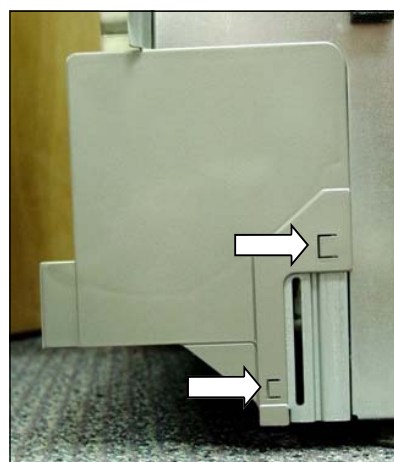


Fig. 11-3

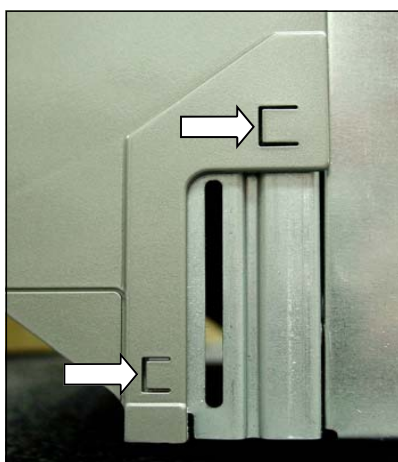


Fig. 11-4

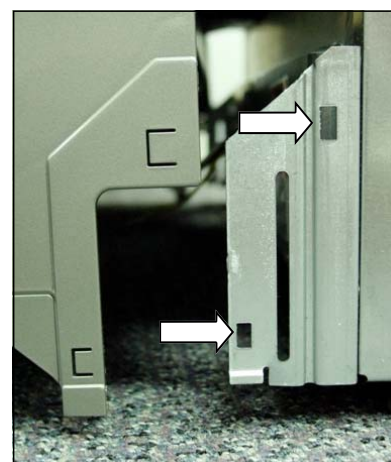


Fig. 11-5

- The Door Extension (Fig. 11-1 & 11-2) is secured to the Dishwasher using two (2) tension clips (Fig. 11-3 & 11-4) on both the left and right sides. The tension clips insert into cut-outs on the left and right Side Support Plates (Fig. 11-5).

- To remove the Door Extension, first release the center clip (Fig. 11-2). Then push out on the right side, this will disengage the locking clips.

**TECH NOTE:** Access to the Door Extension can be made easier if the Dishwasher Door is opened slightly. Do not attempt to pull the Door Extension forward to remove, this may damage the locking clips.

- When re-installing the Door Extension make sure to align the lower corners onto the small rail that is located on the bottom of the Side Support Plate (Fig. 11-6). Once in position on the rail, the Door Extension can be pivoted into place and the tension clips locked into position.



Fig. 11-6



## 12. WATER VALVE



Fig. 12-1

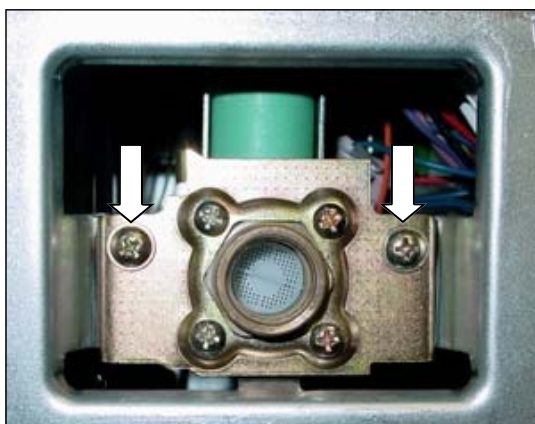


Fig. 12-2

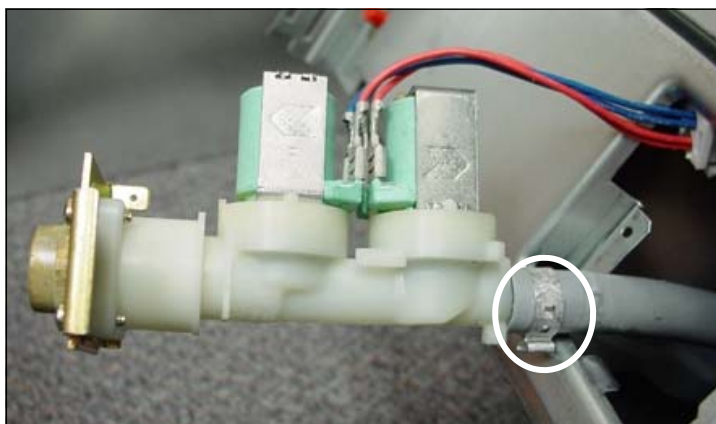


Fig. 12-3

- To access the Water Valve, first remove the Toe Kick (see Section 10) and the Door Extension (see Section 11) (Fig. 12-1). The Water Valve is held in place with two (2) Phillips screws (Fig. 12-2), remove the two screws and the Valve can be easily accessed.

**TECH NOTE:** A new Valve Hose Clamp (Fig. 12-3) is included with the replacement Water Valve, but the old Clamp can be reused if carefully removed.

## 13. FLOAT SWITCH and PRESSURE SWITCH



Fig. 13-1



Fig. 13-2

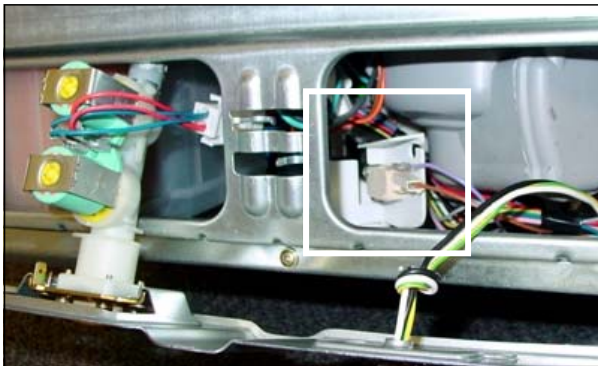


Fig. 13-3



Fig. 13-4

- To access the Float Switch or Pressure Switch, first remove the Toe Kick (see Section 10) and the Door Extension (see Section 11) then remove the four (4) Phillips screws that hold the Lower Access Panel to the Dishwasher (Fig. 13-1). With the screws removed the Lower Access Panel can be moved down and out allowing access to the two components (Fig. 13-2).

**Float Switch:** (Fig. 13-3) Can be checked for continuity or for water in the Base Pan.

**Pressure Switch:** (Fig.13-4) Can be checked for continuity.



## 14. LOWER COMPONENT ACCESS - BASE PAN REMOVAL

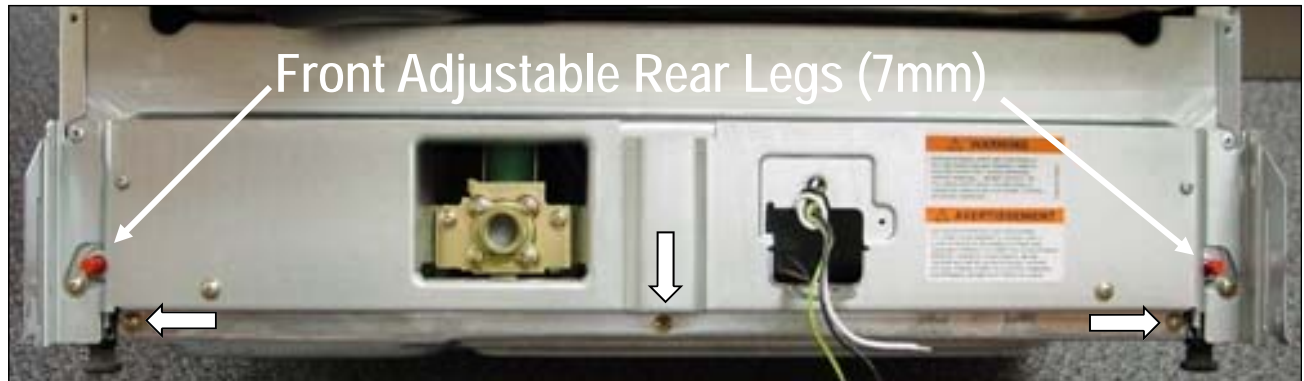


Fig. 14-1



Fig. 14-2



Fig. 14-3

- TO ACCESS THE LOWER COMPONENTS THE DISHWASHER MUST BE REMOVED FROM THE CABINET.
- With the Dishwasher removed from the cabinet, remove the Base Pan Screws, there are three (3) Phillips screws on the lower front of the unit (Fig. 14-1) and three (3) Phillips screws on the rear (Fig. 14-2).
- Carefully place the Dishwasher on its back and remove the Base Pan (Fig. 14-3). The Lower Components are now accessible.

## 15. LOWER COMPONENTS

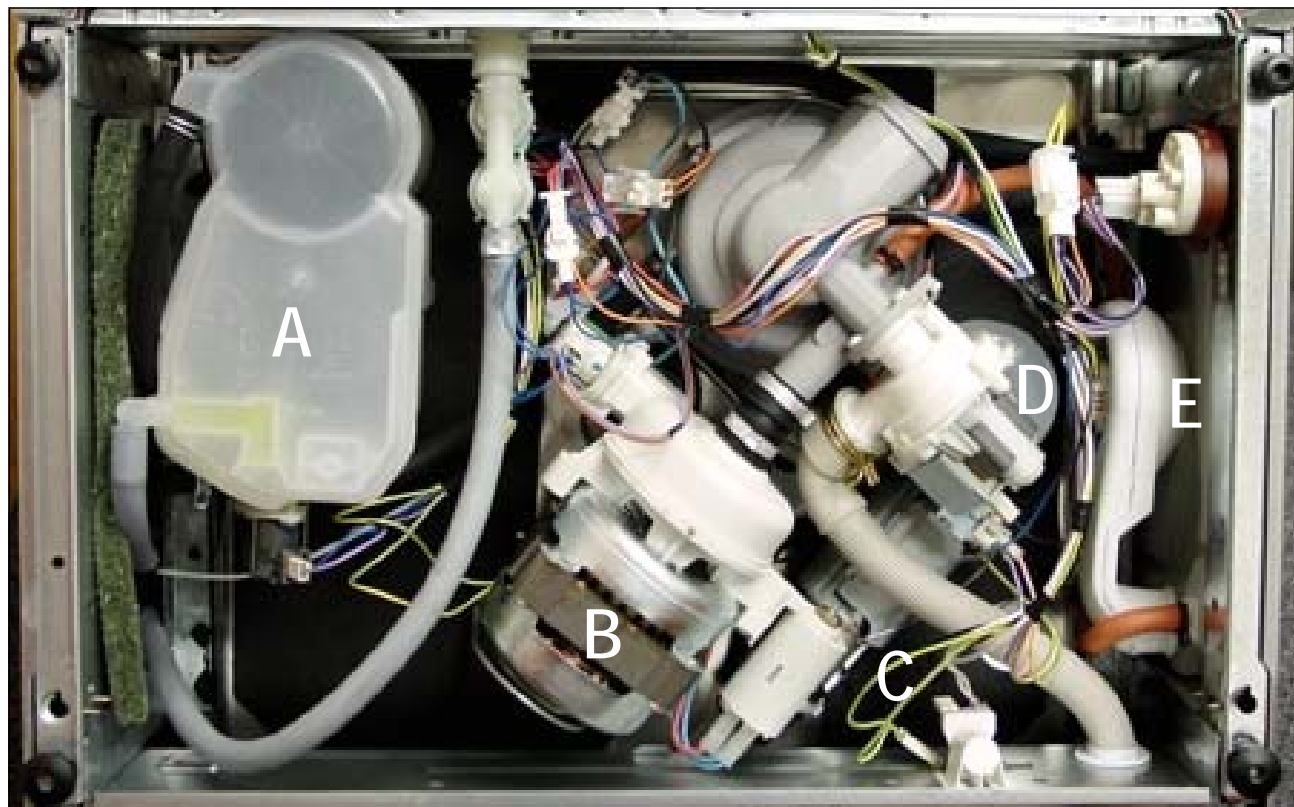


Fig. 15-1

- With the Bottom Pan removed you have access to the following components:

A: Water Softener.  
B: Main Motor and Pump.  
C: Heater.  
D: Drain Motor.  
E: Turbo Dry Fan Motor (only on the LL 65 / LI 700 Models).

## 16. DRAIN MOTOR



Fig. 16-1

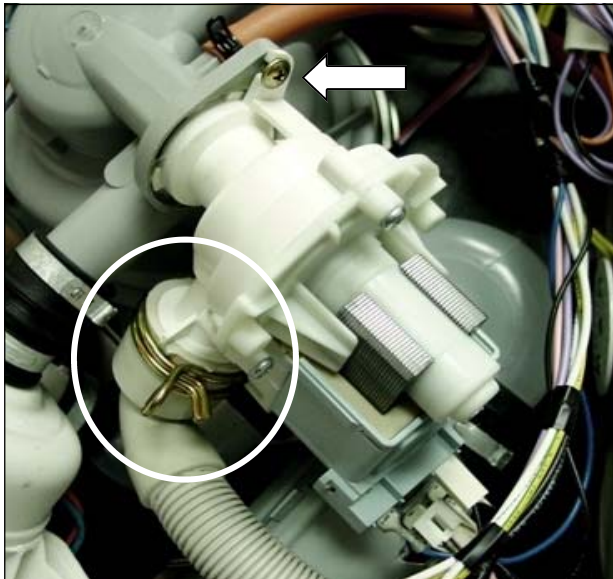


Fig. 16-2

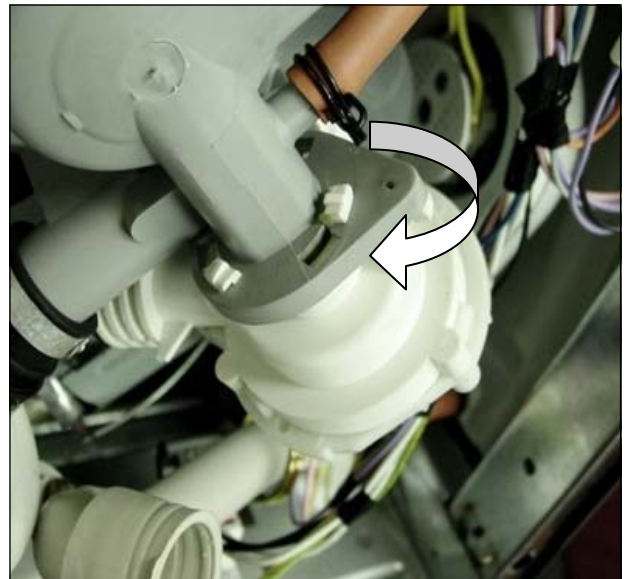


Fig. 16-3

- To remove the Drain Motor (Fig. 16-1), first loosen the Drain Hose Clamp and Drain Hose, then remove the single Phillips mounting screw. (Fig. 16-2). The Drain Motor is secured to the Sump using a tab and slot twist lock mount. With the Drain Hose and mounting screw removed twist the Drain Motor Clockwise to remove (Fig.16-3).

**TECH NOTE:** For a better seal lubricate the new Drain Motor Gasket before installing, and make sure all three (3) Tabs are secured into the corresponding slots, then twist the motor into position.



## 17. MAIN MOTOR and PUMP

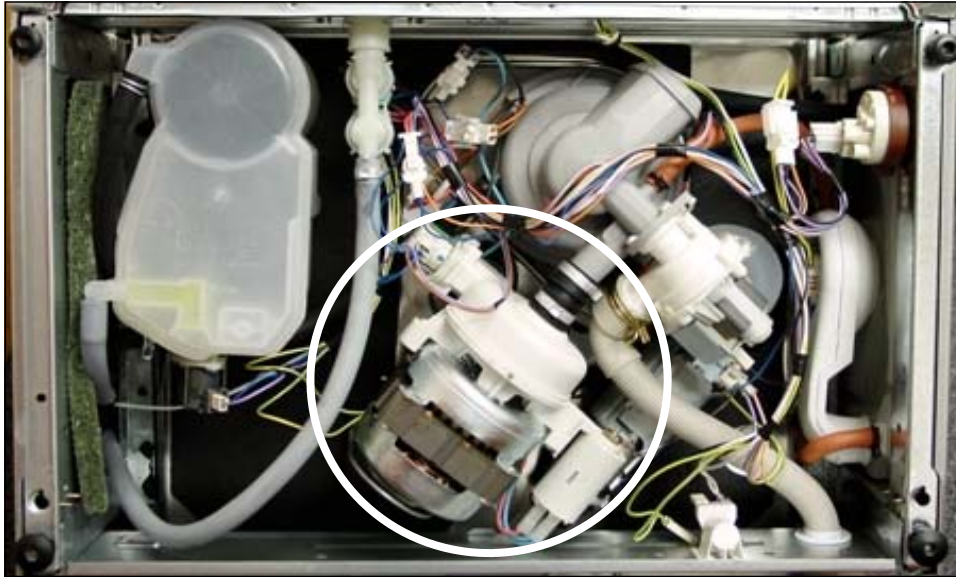


Fig. 17-1



Fig. 17-2



Fig. 17-3

- To remove the Main Motor and Pump Assembly (Fig. 17-1), first remove the Vibration Damper from the rear of the Motor by prying it away from the Motor with a screwdriver (Fig. 17-2). Next remove the Motor and Pump Assembly from the three (3) hose connections (Fig. 17-3) See TECH NOTE below.

**TECH NOTE:** The Motor Assembly can be removed from the three (3) hoses without undoing the Hose Clamps. Easily work the Pump out and off the Hoses, the Clamps can now be reused if necessary.

## 17. MAIN MOTOR and PUMP Cont.

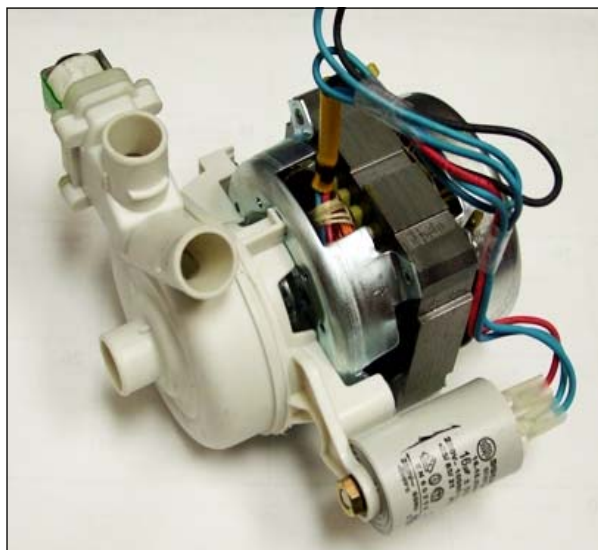


Fig. 17-4

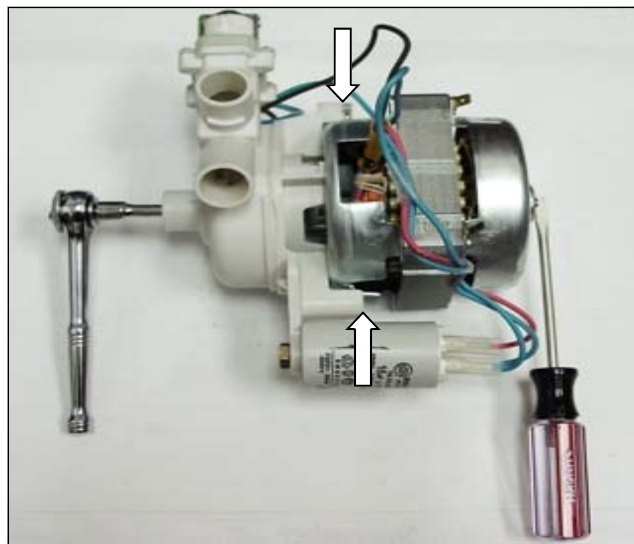


Fig. 17-5



Fig. 17-6



Fig. 17-7

- Once the Main Motor and Pump has been removed from the Dishwasher (Fig. 17-4) it can be separated and the Motor or Pump replaced. To separate the Motor from the Pump, first remove the two (2) Phillips screws located on the left and right sides of the pump (Fig. 17-5). Next, using a 13mm socket and regular screwdriver loosen the Pump Impeller from the Motor Shaft By turning it clockwise (Fig. 17-5). The Motor or Pump can now be replaced (Fig. 17-6)
- The LL 65 and the LI 700 Models have a Top Rack Wash feature. The Top Rack Wash is controlled by a Solenoid Valve on the pump that when energized blocks the flow of water to the Lower Wash Arm. If required the Solenoid can be replaced by removing the four (4) Phillips screws that mount it to the Pump (Fig. 17-7). The complete Pump Assembly does not have to be replaced.



## 18. HEATER ASSEMBLY



Fig. 18-1

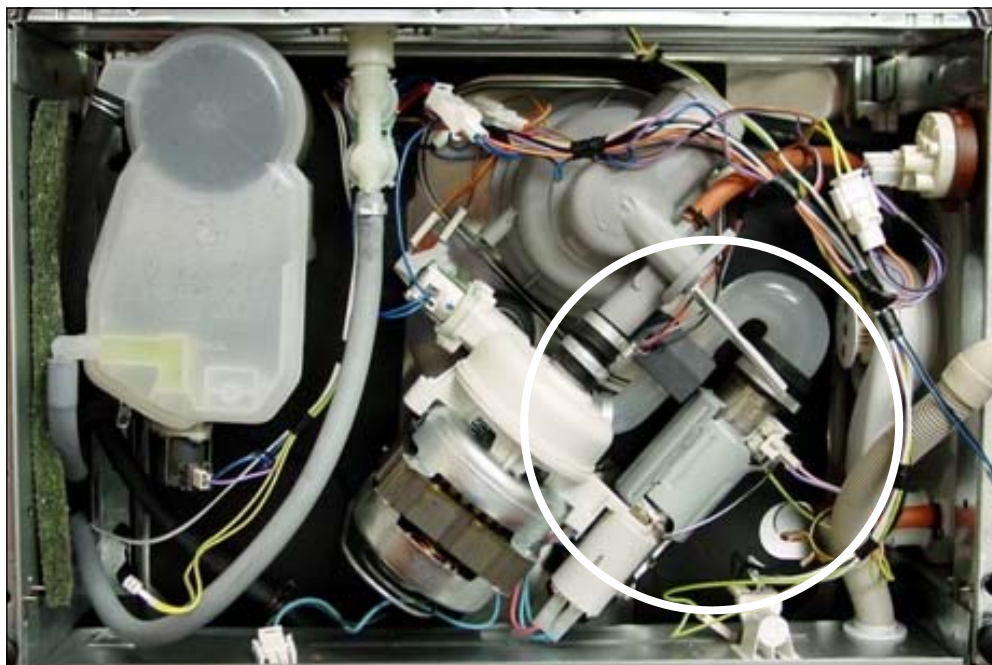


Fig. 18-2

- To remove the Heater Assembly, first remove the Drain Motor as described in Section 16 (Fig. 18-1). With the Drain Motor removed you have full access to the Heater Assembly (Fig. 18-2).

## 18. HEATER ASSEMBLY Cont.

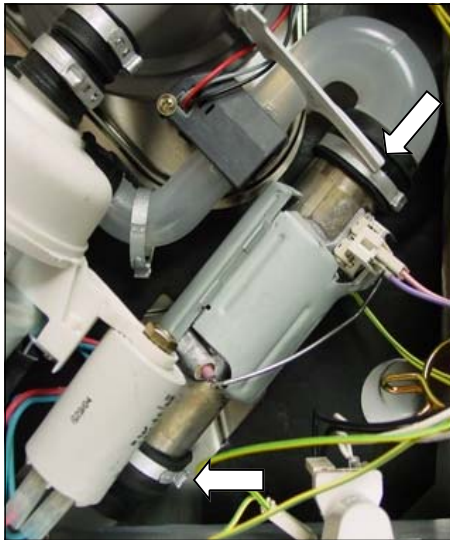


Fig. 18-3

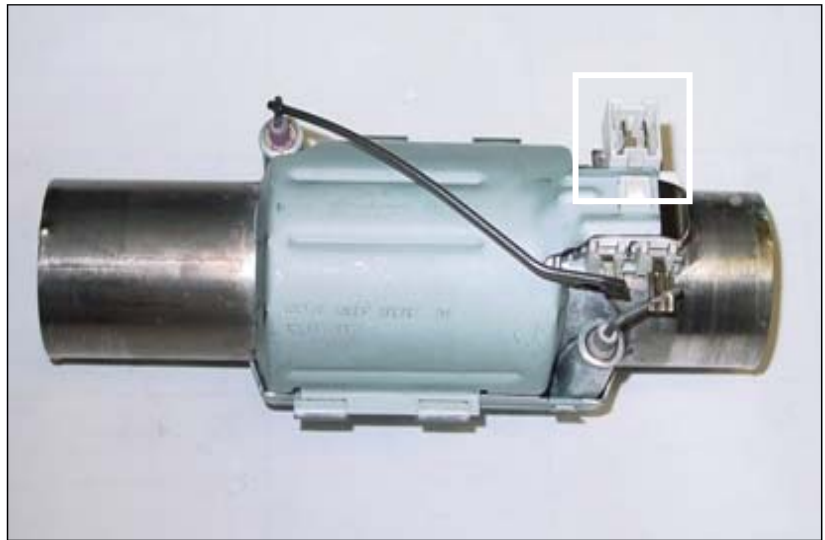


Fig. 18-4

- With the Drain Motor removed, remove the two Heater Assembly Clamps (Fig. 18-3) and then gently separate the Heater Assembly from the two (2) Hoses.

**OPERATION:** The Heater is a Flow-Through design that also incorporates an internal High Limit (Fig. 18-4). Both the Heating Element and the High Limit can be checked for continuity, but the Heater is replaced as a complete assembly.

## 19. TURBIDITY SENSOR (LI 670 / LI 700 Models Only)

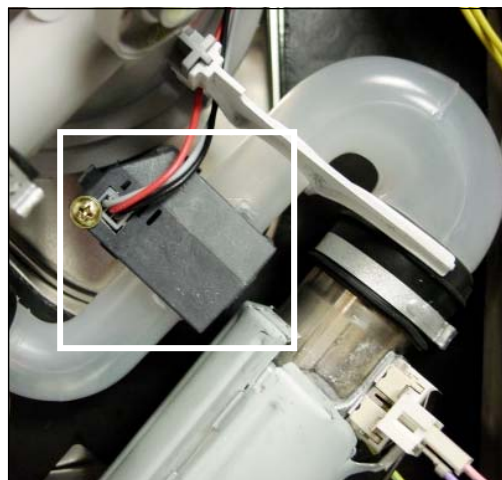


Fig. 19-1



Fig. 19-2

- The LI 670 and LI 700 Dishwasher models incorporate a Turbidity Sensor that measures water clarity and may adjust cycle times if required. The Turbidity Sensor is a small PC Board mounted inside a black housing attached to the input of the Heater Assembly Hose. To replace, simply open the housing and remove the PC Board.

## 20. WATER SOFTENER

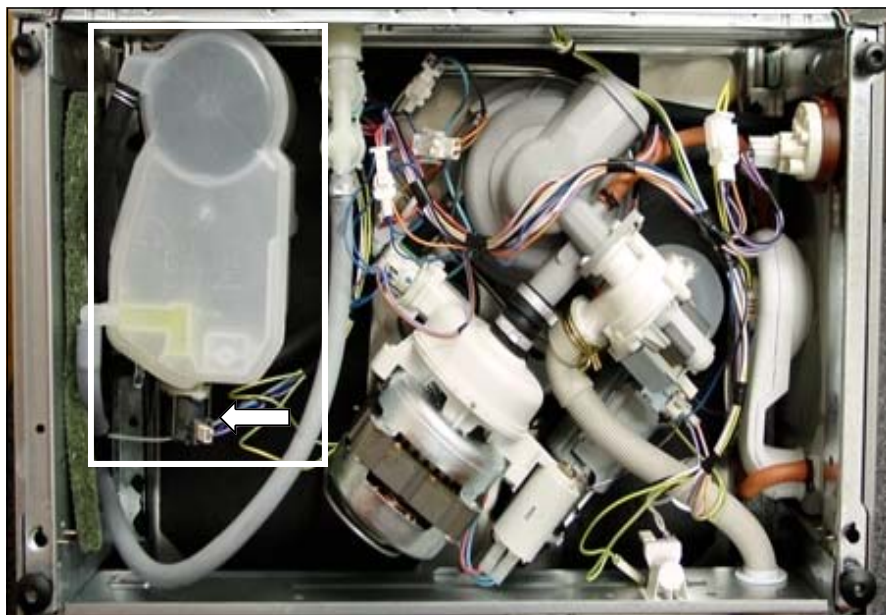


Fig. 20-1



Fig. 21-2



Fig. 20-3

- All Dishwasher models are equipped with a built in Water Softener. The Water Softener Assembly is a self contained unit and should rarely require servicing (Fig. 20-4). However, a Solenoid Valve located on the Water Softener Assembly (Fig. 20-1) may require replacing. The Water Softener and Solenoid Valve is replaced as a complete assembly.
- To replace the Assembly, remove the Water Softener Cap from inside the Dishwasher (Fig. 20-2), then remove the retaining nut (Fig. 20-3). Next, uninstall the Dishwasher and remove the Base Pan as explained in Section 12. Remove the Softener Hoses and replace the Water Softener as a complete assembly (Fig. 20-4).



Fig. 20-4

**OPERATION:** The Softener Indicator LED will light every thirty (30) wash cycles indicating that the salt in the Softener needs to be refilled.

**TECH NOTE:** After the Softener has been filled with salt, the LED will remain on for five (5) cycles even if the Softener is full.

It is possible to reset the LED by pouring a cup of water into the sump before the beginning of a new cycle.



## 21. HIGH PRESSURE SWITCH



Fig. 21-1

- The High Pressure Switch (Fig. 21-1) is located on the output hose of the Pump that supplies the Lower Wash Arm. The High Pressure Switch is Normally Closed (NC) during Dishwasher operation.

**OPERATION:** When the Dishwasher Filters become completely clogged water flow through the Pump is reduced and the High Pressure Switch contacts open. The open contacts indicate to the Control Board that a Filter Fault exists and the Control Board will alternately drain and fill the Dishwasher until the Filters are clear (Filter Cleaning Cycle).

**TECH NOTE:** In Fig. 21-1 The Main Motor and Pump have been removed to allow a better view of the Switch. The High Pressure Switch can be removed and replaced without removing the Main Motor or Pump Assembly.

## 22. FAN MOTOR (LI 670 / LI 700 Models Only)



Fig. 22-1



Fig. 22-2



Fig. 22-3

- The Fan Motor Assembly can be accessed by removing the eight (8) Phillips screws that attach the Right Side Panel to the Dishwasher (Fig. 22-1). The Fan Motor Assembly consists of a large plastic Condensation Chamber and Motor (Fig. 22-2).
- To replace the Fan Motor, unscrew the Upper Vent Cover from inside the Dishwasher (arrow on Fig. 22-3) and slide the Condensation Chamber out from the side of the Dishwasher. The Fan Motor Assembly and Condensation Chamber is replaced as a complete assembly.

## 23. WATER INLET and TURBINE



Fig. 23-1



Fig. 23-2



Fig. 23-3

- Located on the Left Side of the Dishwasher is the Water Inlet and Turbine. The Water Inlet allows incoming water from the Water Solenoid to flow into the Dishwasher as well as provide water to regenerate the Resins in the Water Softener Tank. To access the Water Inlet remove the eight (8) Phillips screws that attach the Left Side Panel (Fig. 23-1). With the Panel removed you have access to the Water Inlet (Fig. 23-2).



Fig. 23-4

- The Turbine (Fig. 23-3 & 23-4) measures the incoming water flow via a Magnetic Reed Switch.

**OPERATION:** The Main Control Board monitors the pulses coming from the Reed Switch and calculates if too little or too much water is entering the Dishwasher. The Turbine works in conjunction with the Pressure Switch to ensure the correct amount of water enters the Dishwasher. The Turbine is also a safety over flow device to protect against overfilling.

# REPAIR MANUAL

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

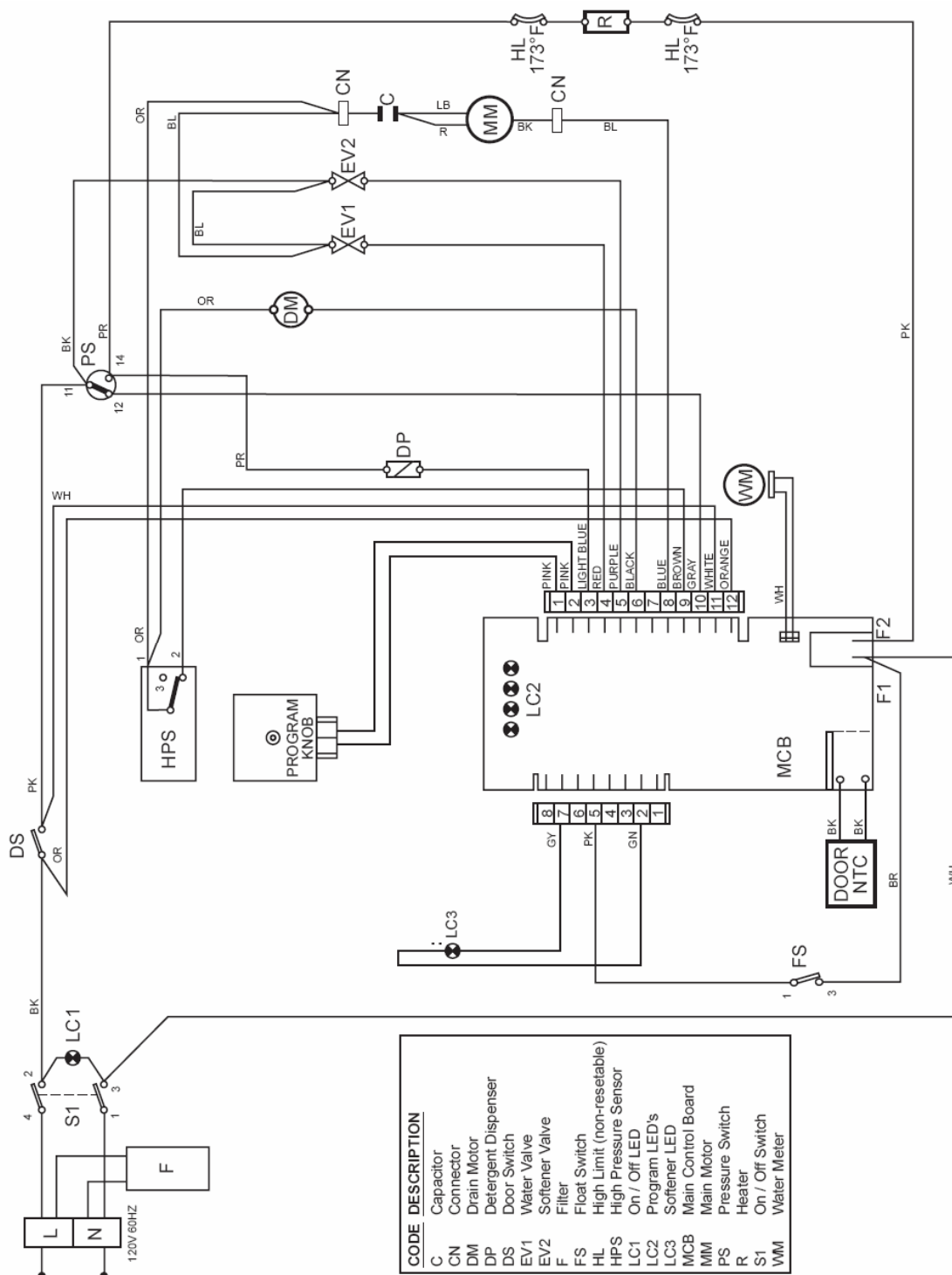
## 24. FAULT CODES

DISHWASHER MODEL					
L 63 LI 640	N/A	LL 64 LL 65	LI 670 LI 700		
NUMBER OF LED's					
4	5	6	7		
FLASHING LED FAULT CODE				FAULT	TROUBLESHOOTING
1 ■ □ □ □	2 □ ■ □ □ □	3 □ □ ■ □ □ □	4 □ □ □ ■ □ □ □	Float Switch	Water in Base Pan
1 – 2 ■ ■ □ □	2 – 3 □ ■ ■ □ □	3 – 4 □ □ ■ ■ □ □	4 – 5 □ □ □ ■ ■ □ □	No Drain	Drain Motor Disabled Filters Clogged Drain Hose Blocked
1 – 3 ■ □ □ □	2 – 4 □ ■ □ □ □	3 – 5 □ □ ■ □ □ □	4 – 6 □ □ □ ■ □ □ □	Main Motor Pressure Switch Blocked Filter	Main Motor Disabled Faulty Pressure Switch Filters Blocked
1 – 4 ■ □ □ ■	1 – 4 ■ □ □ □ □	1 – 4 ■ □ □ □ □ □	1 – 4 ■ □ □ ■ □ □ □	Control Board	Software of Control Board not Recognized. Run Test Program.
2 □ ■ □ □	3 □ □ ■ □ □	4 □ □ □ ■ □ □	5 □ □ □ □ ■ □ □	Water Valve	Water Valve Disabled
2 – 3 □ ■ ■ □	3 – 4 □ □ ■ ■ □	4 – 5 □ □ □ ■ ■ □	5 – 6 □ □ □ □ ■ ■ □	Fill Fault	Water Valve Disabled Turbine Disabled Control Board Faulty
2 – 4 □ ■ □ ■	3 – 5 □ □ ■ □ ■	4 – 6 □ □ □ ■ □ ■	5 – 7 □ □ □ □ ■ □ ■	Heating Element	Heating Element Disabled High Limit Open Control Board Faulty
3 □ □ ■ □	4 □ □ □ ■ □	5 □ □ □ □ ■ □	6 □ □ □ □ □ ■ □	NTC	NTC Defective or Not Positioned. Control Board Faulty.
4 □ □ □ ■	5 □ □ □ □ ■	6 □ □ □ □ □ ■	7 □ □ □ □ □ □ ■	NTC	NTC Defective or Not Positioned. Control Board Faulty.

# REPAIR MANUAL

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

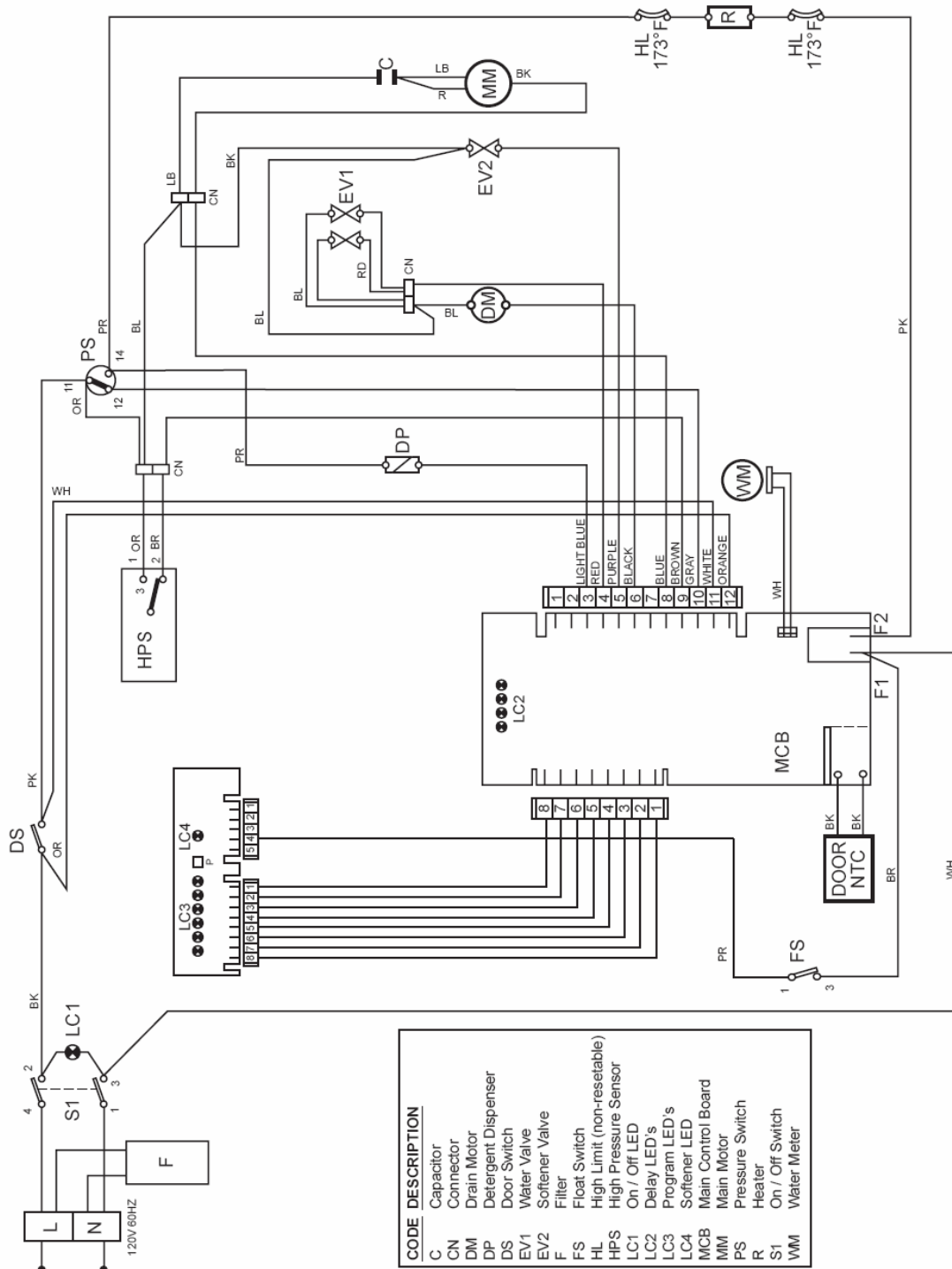
## 25. SCHEMATIC L63



# REPAIR MANUAL

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

## 25. SCHEMATIC L64



L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

[illegible]

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

The diagram illustrates the electrical control circuit for a washing machine. Key components include:

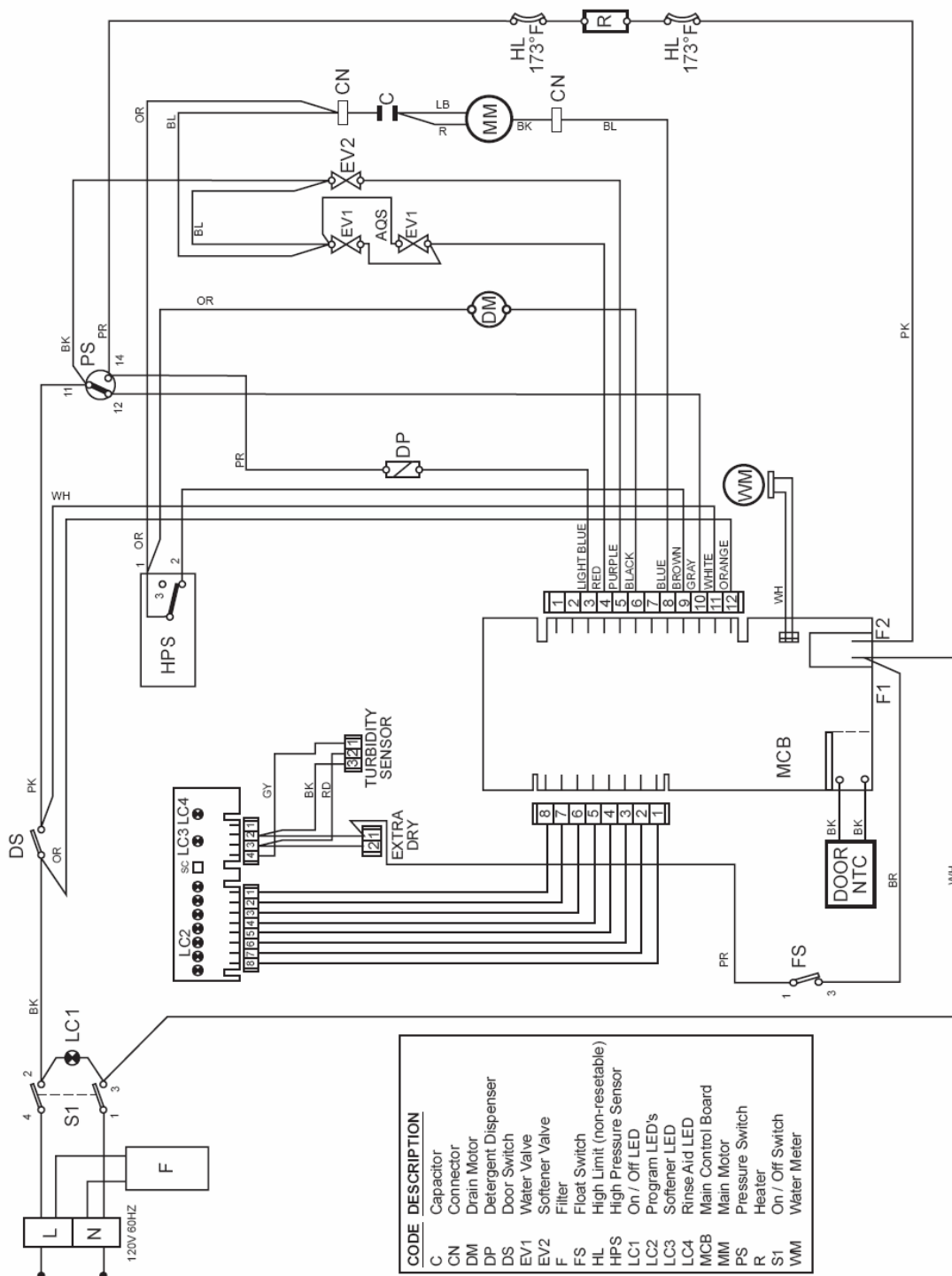
- Power Input:** L, N, PE terminals at the bottom left.
- Control Switches:** DS (Door Switch), S1 (On/Off Switch).
- Relays and Sensors:** LC1 (Door Limit Switch), LC2 (Program LED's), HPS (High Pressure Sensor), DP (Detergent Dispenser), EV1 (Water Valve), EV2 (Softener Valve).
- Motors:** MM (Main Motor), DM (Drain Motor), WM (Water Meter).
- Valves and Actuators:** CN (Connector), C (Capacitor).
- Terminal Block:** A central block with 12 pins labeled PINK, RED, PURPLE, BLACK, BLUE, BROWN, GRAY, WHITE, ORANGE, and others.
- Wiring Details:** Various colored wires (BL, BK, PR, WH, LB) connect the components to the terminal block and each other.

CODE	DESCRIPTION
C	Capacitor
CN	Connector
DM	Drain Motor
DP	Detergent Dispenser
DS	Door Switch
EV1	Water Valve
EV2	Softener Valve
F	Filter
FS	Float Switch
HL	High Limit (non-resettable)
HPS	High Pressure Sensor
LC1	On / Off LED
LC2	Program LED's
MCB	Main Control Board
MM	Main Motor
PS	Pressure Switch
R	Heater
S1	On / Off Switch
WM	Water Meter

# REPAIR MANUAL

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

## 25. SCHEMATIC LI670





# REPAIR MANUAL

L 63 / LL 64 / LL 65  
LI 640 / LI 670 / LI 700

## 25. SCHEMATIC LI700

