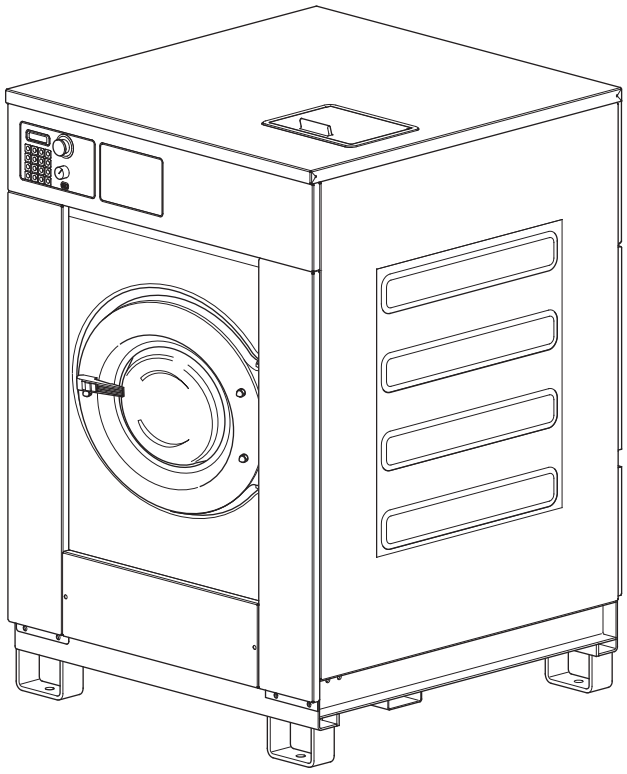
Washer-Extractor

Cabinet Freestanding

HX, NX, SX and UX Models

Refer to Page 8 for Model Numbers

Troubleshooting



CFD8C

Alliance Laundry Systems

www.comlaundry.com

Part No. 9001900R7
August 2011

Table of Contents

Section 1
Safety Information

Throughout this manual and on machine decals, you will find precautionary statements ("CAUTION," "WARNING," and "DANGER") followed by specific instructions. These precautions are intended for the personal safety of the operator, user, servicer and those maintaining the machine.

DANGER

Indicates an imminently hazardous situation that, if not avoided, will cause severe personal injury or death.

WARNING

Indicates a hazardous situation that, if not avoided, could cause severe personal injury or death.

CAUTION

Indicates a hazardous situation that, if not avoided, may cause minor or moderate personal injury or property damage.

IMPORTANT: Additional precautionary statements ("IMPORTANT" and "NOTE") are followed by specific instructions.

NOTE: The word "NOTE" is used to communicate installation, operation, maintenance or servicing information that is important but not hazard related.

General Safety Precautions

In the interest of safety, some general precautions relating to the operation of this machine follow.

WARNING

- **Failure to install, maintain, and/or operate this product according to the manufacturer's instructions may result in conditions which can produce serious injury, death and/or property damage.**
- **Do not repair or replace any part of the product or attempt any servicing unless specifically recommended or published in this Service Manual and that you understand and have the skills to carry out.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the product is properly grounded and to reduce the risk of fire, electric shock, serious injury, or death.**

W006R1

WARNING

To reduce the risk of electric shock, fire, explosion, serious injury or death:
- **Disconnect electric power to the washer-extractor before servicing.**
- **Never start the washer-extractor with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer-extractor is properly grounded.**

W460

WARNING

Repairs that are made to your products by unqualified persons can result in hazards due to improper assembly or adjustments subjecting you, or the inexperienced person making such repairs, to the risk of serious injury, electrical shock, or death.

W007

WARNING

If you or an unqualified person perform service on your product, you must assume the responsibility for any personal injury or property damage which may result. The manufacturer will not be responsible for any injury or property damage arising from improper service and/or service procedures.

W008

Always contact your dealer, distributor, service agent or the manufacturer about any problems or conditions you do not understand.

Important Safety Instructions

WARNING

To reduce the risk of fire, electric shock, serious injury or death to persons when using your washer, follow these basic precautions:

W023

1. Read all instructions before using the washer-extractor.
2. Refer to the GROUNDING INSTRUCTIONS in the INSTALLATION manual (supplied with your washer-extractor) for the proper grounding of the washer-extractor.
3. Do not wash textiles that have been previously cleaned in, washed in, soaked in or spotted with gasoline, dry-cleaning solvents or other flammable or explosive substances. They give off vapors that could ignite or explode.
4. Do not add gasoline, dry-cleaning solvents or other flammable or explosive substances to the wash water. These substances give off vapors that could ignite or explode.
5. Under certain conditions, hydrogen gas may be produced in a hot water system that has not been used for two weeks or more. HYDROGEN GAS IS EXPLOSIVE. If the hot water system has not been used for such a period, before using a washer-extractor, turn on all hot water faucets and let the water flow from each for several minutes. This will release any accumulated hydrogen gas. The gas is flammable. Do not smoke or use an open flame during this time.
6. Do not allow children to play on or in a washer-extractor. Close supervision of children is necessary when the washer-extractor is used near children.
7. Before the washer-extractor is removed from service or discarded, remove the door to the washing compartment.
8. Do not reach into the washer-extractor if the wash basket is moving.
9. Do not install or store the washer-extractor where it will be exposed to water and/or weather.
10. Do not tamper with the washer-extractor's controls.
11. Do not repair or replace any part of the washer-extractor or attempt any servicing unless specifically recommended in the user-maintenance instructions or in published user-repair instructions that the user understands and has the skills to carry out.
12. To reduce the risk of an electrical shock or fire, DO NOT use an extension cord or an adapter to connect the washer-extractor to an electrical power source.
13. Use the washer-extractor only for its intended purpose, washing clothes.
14. ALWAYS disconnect the washer-extractor from its electrical supply before attempting any service.
15. Install the washer-extractor according to the INSTALLATION INSTRUCTIONS. All connections for water, drain, electrical power and grounding must comply with local codes and, when required, be made by licensed personnel.
16. To reduce the risk of fire, textiles which have traces of any flammable substances such as vegetable oil, cooking oil, machine oil, flammable chemicals, thinner, etc. or anything containing wax or chemicals such as in mops or cleaning cloths, must not be put into the washer-extractor. These flammable substances may cause the fabric to ignite.
17. Do not use fabric softeners or products to eliminate static unless recommended by the manufacturer of the fabric softener or product.
18. Keep the washer-extractor in good condition. Bumping or dropping the washer-extractor can damage its safety features. If this occurs, have the washer-extractor checked by a qualified service person.
19. Replace worn power cords and/or loose plugs.
20. Be sure that water connections have a shut-off valve and that fill hose connections are tight. CLOSE the shut-off valves at the end of each wash day.

21. The loading door MUST BE CLOSED any time the washer-extractor is to fill, tumble or spin. DO NOT by-pass the loading door switch and permit the washer-extractor to operate with the loading door open.
22. Always read and follow the manufacturer's instructions on packages of laundry and cleaning aids. Heed all warnings and precautions. To reduce the risk of poisoning or chemical burns, keep them out of the reach of children at all times (preferably in a locked cabinet).
23. Always follow the fabric care instructions supplied by the textile manufacturer.
24. Never operate the washer-extractor with any guards and/or panels removed.
25. DO NOT operate the washer-extractor with missing or broken parts.
26. DO NOT by-pass any safety devices.
27. Failure to install, maintain and/or operate this washer-extractor according to the manufacturer's instructions may result in conditions that can produce bodily injury and/or property damage.

NOTE: The WARNING and IMPORTANT SAFETY INSTRUCTIONS appearing in this manual are not meant to cover all possible conditions and situations that may occur. Common sense, caution and care must be exercised when installing, maintaining and operating the washer-extractor.

Any problems or conditions not understood should be reported to the dealer, distributor, service agent or the manufacturer.

Locating an Authorized Servicer

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

Warranty service must be performed by an authorized technician, using authorized factory parts. If service is required after the warranty expires, Alliance Laundry Systems also recommends contacting an authorized technician and using authorized factory parts.

Section 2
Introduction

Customer Service

Alliance Laundry Systems is not responsible for personal injury or property damage resulting from improper service. Review all service information before beginning repairs.

If literature or replacement parts are required, contact the source from whom the machine was purchased or contact Alliance Laundry Systems at (920) 748-3950 for the name of the nearest authorized parts distributor.

For technical assistance, call (920) 748-3121.

Model Identification

Information in this manual is applicable to these washer-extractor models.

18	HX018PVQM7 HX018PVXM7 HX18PVXM6 HX18PVQM6 HX18PVQM7 HX18PVQU6 HX18PVXM7 HX18PVXU6 NX018BVPA7 NX018BVQA7 NX018BVXA7 NX018BVXM7 NX18BVPA6 NX18BVPA7 NX18BVQA6 NX18BVQA7	NX18BVXA6 NX18BVXA7 NX18BVXM6 NX18BVXM7 SX018BVPA7 SX018BVQA7 SX018BVXA7 SX018BVXM7 SX018PVPA7 SX018PVQM7 SX018PVXM7 SX18BVPA7 SX18BVQA7 SX18BVXA7 SX18BVXM7 SX18PVPA7	SX18PVQM6 SX18PVQM7 SX18PVQU6 SX18PVXM6 SX18PVXM7 SX18PVXU6 UX018PVNA7 UX018PVPA7 UX018PVQA7 UX018PVQM7 UX018PVXA7 UX018PVXM7 UX18PVNA6 UX18PVNA7 UX18PVNU6 UX18PVPA6	UX18PVPA7 UX18PVPU6 UX18PVQA6 UX18PVQA7 UX18PVQM6 UX18PVQM7 UX18PVQU6 UX18PVXA6 UX18PVXA7 UX18PVXM6 UX18PVXM7 UX18PVXU6
25	HX025PVQM7 HX025PVXM7 HX25PVQM6 HX25PVQM7 HX25PVQU6 HX25PVXM6 HX25PVXM7 HX25PVXU6 SX025PVQM7 SX025PVXM7	SX25PVQM6 SX25PVQM7 SX25PVQU6 SX25PVXM6 SX25PVXM7 SX25PVXU6 UX025PVNA7 UX025PVPA7 UX025PVQA7 UX025PVQM7	UX025PVXA7 UX025PVXM7 UX25PVNA6 UX25PVNA7 UX25PVNU6 UX25PVPA6 UX25PVPA7 UX25PVPU6 UX25PVQA6	UX25PVQA7 UX25PVQM6 UX25PVQM7 UX25PVQU6 UX25PVXA6 UX25PVXA7 UX25PVXM6 UX25PVXM7 UX25PVXU6
30	NX030BVPA7 NX030BVQA7 NX030BVXA7 NX030BVXM7 NX30BVPA6	NX30BVPA7 NX30BVQA6 NX30BVQA7 NX30BVXA6 NX30BVXA7	NX30BVXM6 NX30BVXM7 SX030BVPA7 SX030BVQA7 SX030BVXA7	SX030BVXM7 SX30BVPA7 SX30BVQA7 SX30BVXA7 SX30BVXM7
33	SX33BVPA7 SX33BVQA7 SX33BVXA7	SX33BVXM7 UX33PVNA7 UX33PVPA7	UX33PVQA7 UX33PVQM7 UX33PVXA7	UX33PVXM7
35	HX035PVQM7 HX035PVXM7 HX35PVQM6 HX35PVQM7 HX35PVQU6 HX35PVXM6 HX35PVXM7 HX35PVXU6 SX035PVNM7 SX035PVQM7	SX035PVXM7 SX35PVNM7 SX35PVQM6 SX35PVQM7 SX35PVQU6 SX35PVXM6 SX35PVXM7 SX35PVXU6 UX035PVNA7 UX035PVPA7	UX035PVQA7 UX035PVQM7 UX035PVXA7 UX035PVXM7 UX35PVNA6 UX35PVNA7 UX35PVNU6 UX35PVPA6 UX35PVPA7 UX35PVPU6	UX35PVQA6 UX35PVQA7 UX35PVQM6 UX35PVQM7 UX35PVQU6 UX35PVXA6 UX35PVXA7 UX35PVXM6 UX35PVXM7 UX35PVXU6
40	SX40BVPA7 SX40BVQA7 SX40BVXA7	SX40BVXM7 UX40PVNA7 UX40PVPA7	UX40PVQA7 UX40PVQM7 UX40PVXA7	UX40PVXM7

(continued)

(continued)

55	HX055PVNU7 HX055PVQU7 HX055PVXU7 HX55PVNU6 HX55PVNU7 HX55PVQU6 HX55PVQU7 HX55PVXU6 HX55PVXU7	SX055PVNU7 SX055PVPU7 SX055PVQU7 SX055PVXU7 SX55PVNU6 SX55PVNU7 SX55PVPU6 SX55PVPU7 SX55PVQU6	SX55PVQU7 SX55PVXU6 SX55PVXU7 UX055PVNU7 UX055PVPU7 UX055PVQU7 UX055PVXF7 UX055PVXU7 UX55PVNU6	UX55PVNU7 UX55PVPU6 UX55PVPU7 UX55PVQU6 UX55PVQU7 UX55PVXF6 UX55PVXF7 UX55PVXU6 UX55PVXU7
75	HX75PVNU6 HX75PVNU7 HX75PVPU7 HX75PVQU6 HX75PVQU7 HX075PVNU7 HX075PVPU7	HX075PVQU7 SX075PVNU7 SX075PVPU7 SX075PVQU7 SX75PVPU7 SX75PVNU6 SX75PVNU7	SX75PVQU6 SX75PVQU7 UX075PVNU7 UX075PVPU7 UX075PVQU7 UX75PVNU6 UX75PVNU7	UX75PVPU6 UX75PVPU7 UX75PVQU6 UX75PVQU7
100	HX100PVNU6 HX100PVNU7 HX100PVPU7 HX100PVQU6	HX100PVQU7 SX100PVNU6 SX100PVNU7 SX100PVPU7	SX100PVQU6 SX100PVQU7 UX100PVNU6 UX100PVNU7	UX100PVPU6 UX100PVPU7 UX100PVQU6 UX100PVQU7
135	HX135PVNU6 HX135PVNU7 HX135PVQU6 HX135PVQU7	SX135PVNU6 SX135PVNU7 SX135PVQU6 SX135PVQU7	UX135PVNU6 UX135PVNU7 UX135PVPU6	UX135PVPU7 UX135PVQU6 UX135PVQU7
165	HX165PVNU6 HX165PVNU7 HX165PVPU7 HX165PVQU6	HX165PVQU7 SX165PVNU6 SX165PVNU7 SX165PVPU7	SX165PVQU6 SX165PVQU7 UX165PVNU6 UX165PVNU7	UX165PVPU6 UX165PVPU7 UX165PVQU6 UX165PVQU7
200	HX200PVNU7 HX200PVPU7 HX200PVQU7	SX200PVNU7 SX200PVPU7	SX200PVQU7 UX200PVNU7	UX200PVPU7 UX200PVQU7

Section 3
Theory of Operation

Starting the Machine

The door lock will not allow a cycle to be started until the door has been closed.

Fill

The operator selects a cycle and starts the machine. Water enters the machine through water valves that are controlled by the microcomputer. As water fills the basket, a column of air is trapped in a pressure bulb and hose. The air pressure continues to increase as the basket fills with water. When the desired water level is reached, the water level switch triggers the microcomputer and the water valves turn off.

A vacuum breaker installed in the inlet plumbing or a shell overflow and air gap prevents the backflow of water.

Supply

The operator can either connect external liquid supplies to the machine or fill the supply dispenser with liquid or dry supplies. The supply dispenser's nozzles flush the compartments with water at the appropriate times throughout a cycle.

Wash

The basket includes ribs that lift the laundry from the wash water. The laundry then tumbles back into the bath.

A variable-speed motor drives the basket's shaft with a V-belt.

The bearing housing is mounted to the tub support's brackets. The tub support is mounted onto the frame with shock absorbers so it can move independently from the frame.

Drain

Standard models include a normally-open gravity-type drain system. When the drain valve opens, the perforated basket allows water to drain from it. A pump drain is available as an option on the smaller-capacity models.

In the event of a power failure, the drain valve will open automatically and the machine will drain.

Standard models include a single drain valve. On dual drain models, which are available as an option, the two drain valves open and close together.

Extract

A final high-speed extract step removes water from the load, which maximizes drying efficiency.

The door lock system will not allow the door to be opened until the cycle has finished.

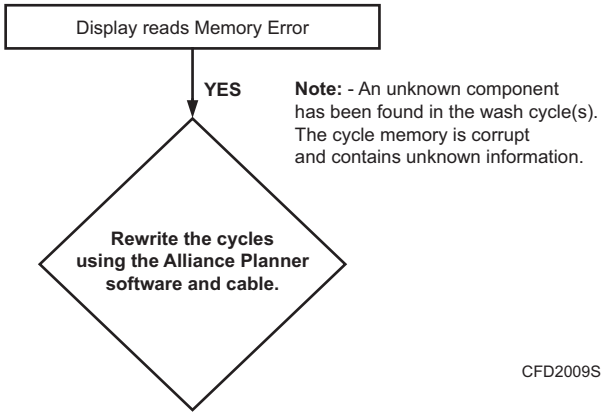
Section 4
Troubleshooting

WARNING

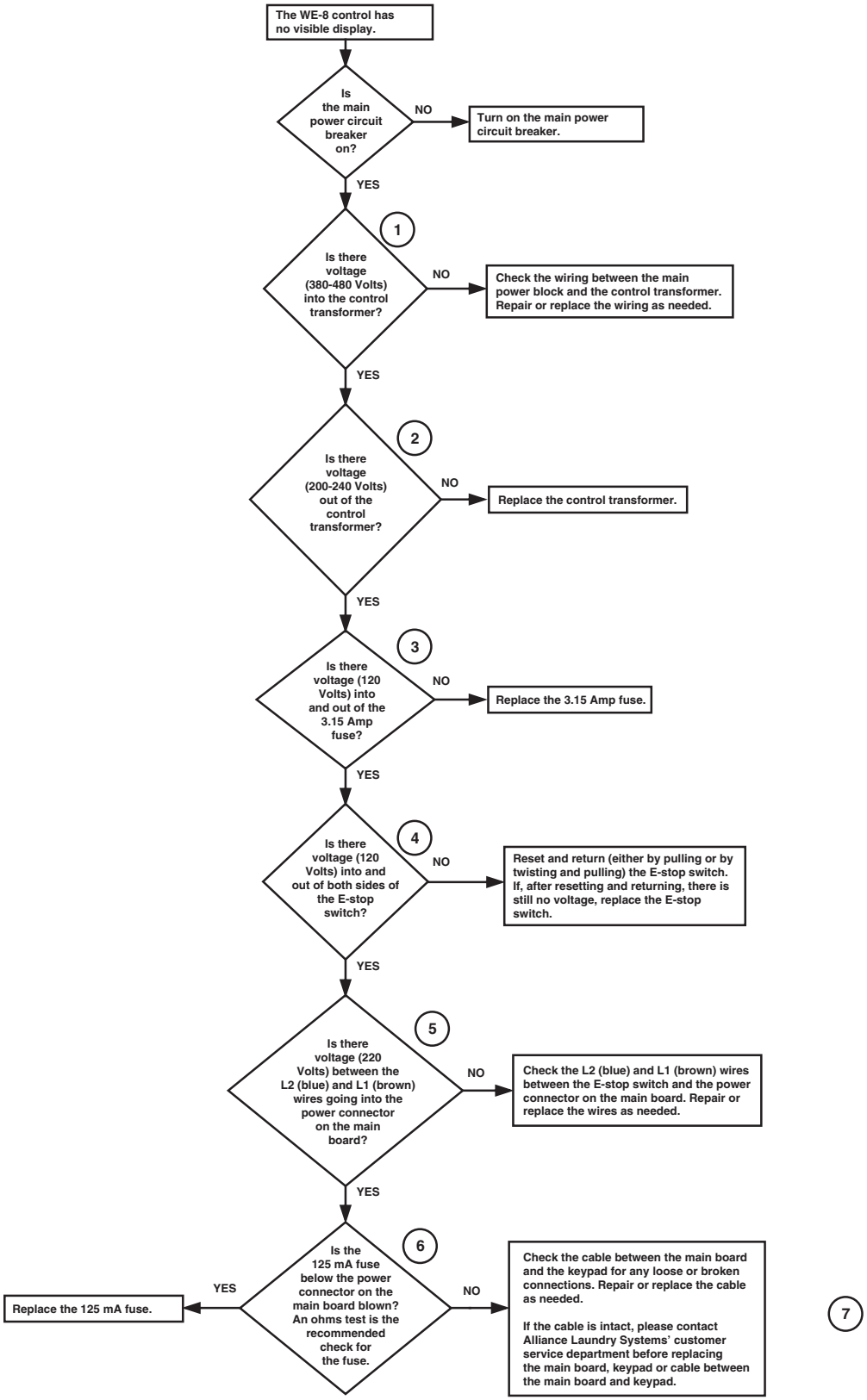
To reduce the risk of electrical shock, fire, explosion, serious injury or death:
- **Disconnect electrical power to the washer-extractor before servicing it.**
- **Close the gas shut-off valve to the washer-extractor (when applicable) before servicing it.**
- **Never start the washer-extractor with any guards/panels removed.**
- **Whenever ground wires are removed during servicing, these ground wires must be reconnected to ensure that the washer-extractor is properly grounded.**

W461R1

1. Display Error: Display reads “Memory Error”



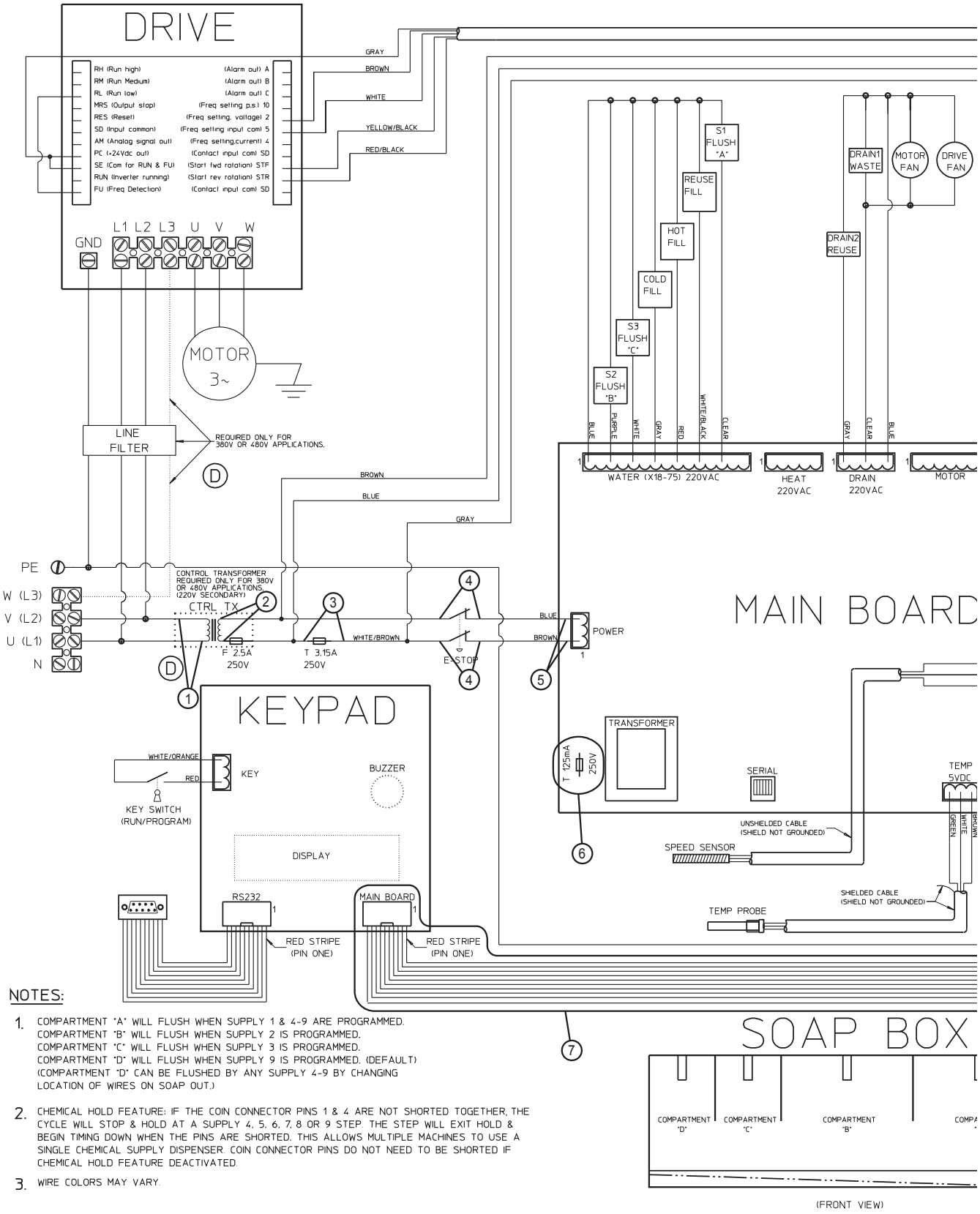
2. WE-8 Control Has No Visible Display (P and N-Voltage Models)



CFD2S

Please refer to the following 2 pages for wiring diagram information.

WE-8 Control Has No Visible Display (P and N-Voltage Models) (Sheet 1 of 2)

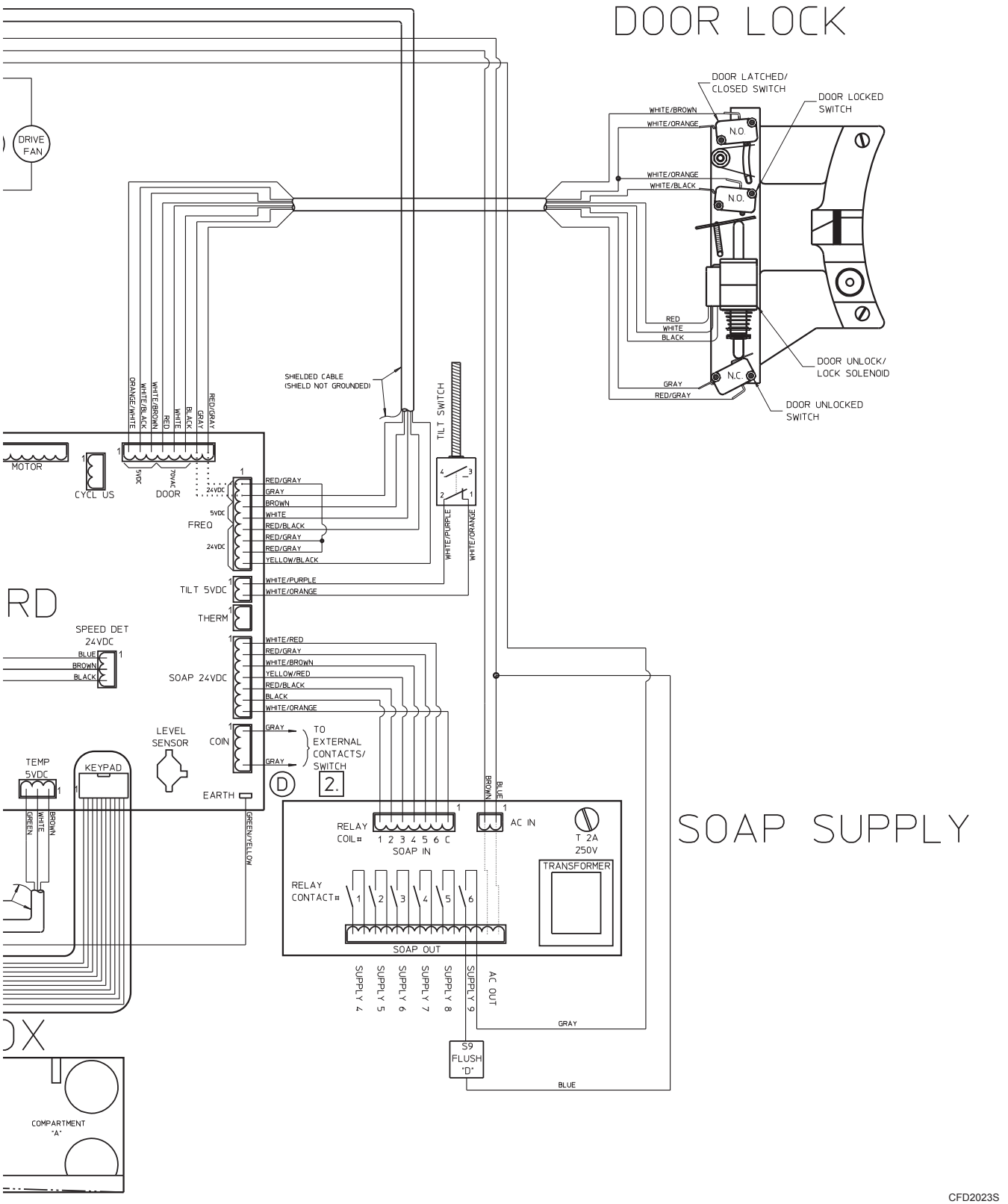


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
   COMPARTMENT "D" WILL FLUSH WHEN SUPPLY 9 IS PROGRAMMED. (DEFAULT)
   (COMPARTMENT "D" CAN BE FLUSHED BY ANY SUPPLY 4-9 BY CHANGING LOCATION OF WIRES ON SOAP OUT.)
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

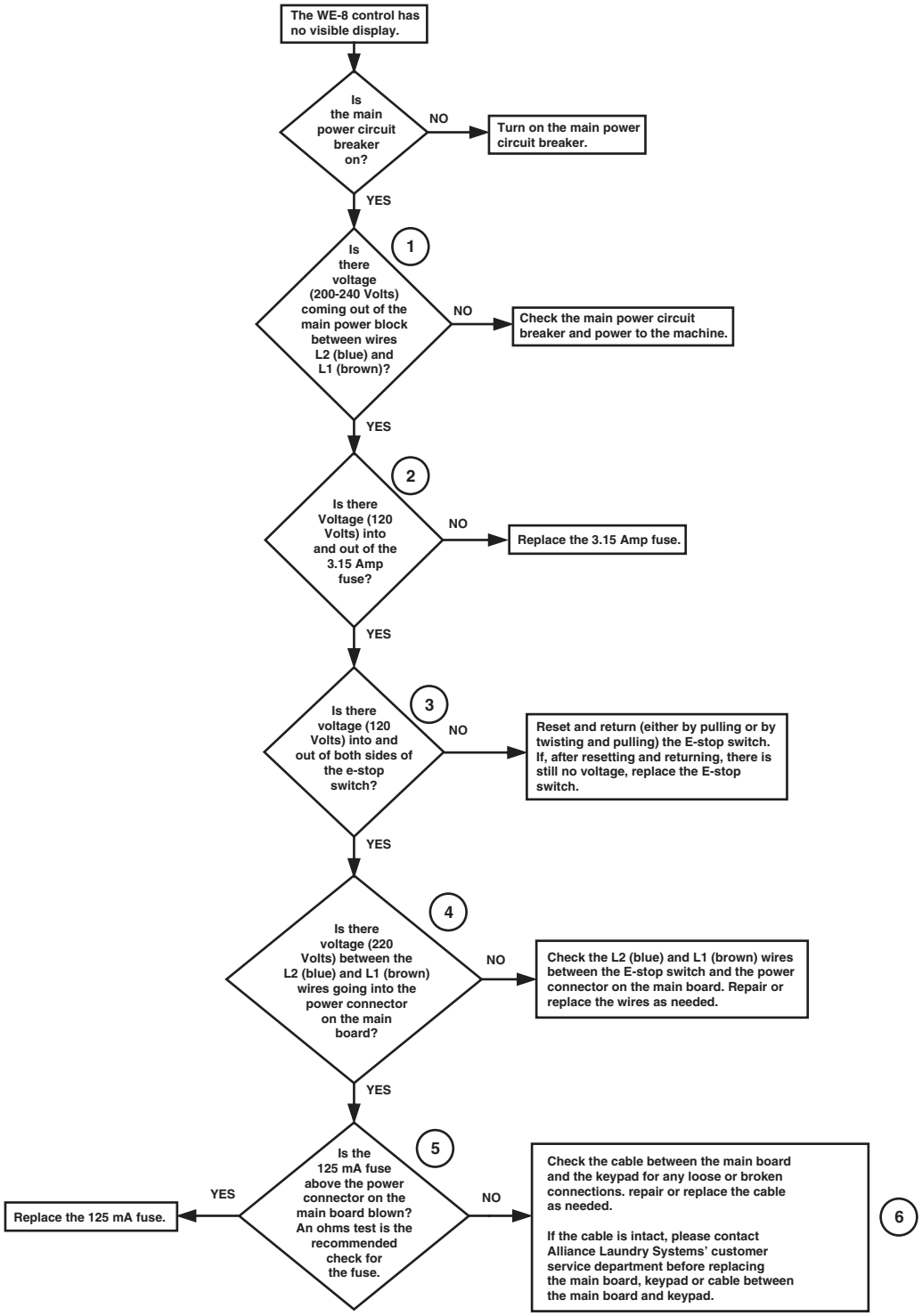
NOTE: Refer to the wiring diagram supplied with your machine.

WE-8 Control Has No Visible Display (P and N-Voltage Models) (Sheet 2 of 2)



CFD2023S

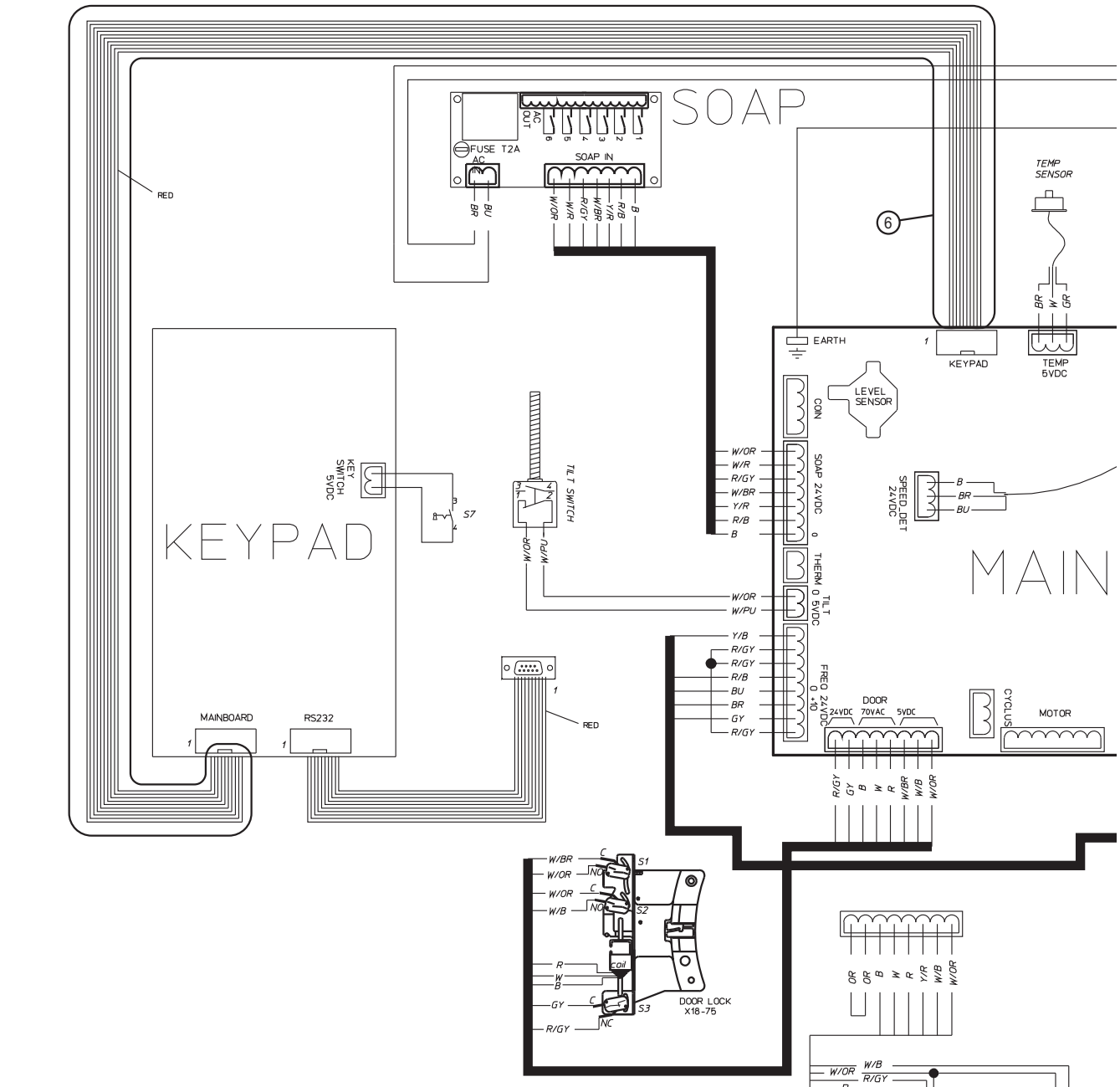
3. WE-8 Control Has No Visible Display (Q and X-Voltage Models)



CFD4S

Please refer to the following 2 pages for wiring diagram information.

WE-8 Control Has No Visible Display (Q and X-Voltage Models) (Sheet 1 of 2)



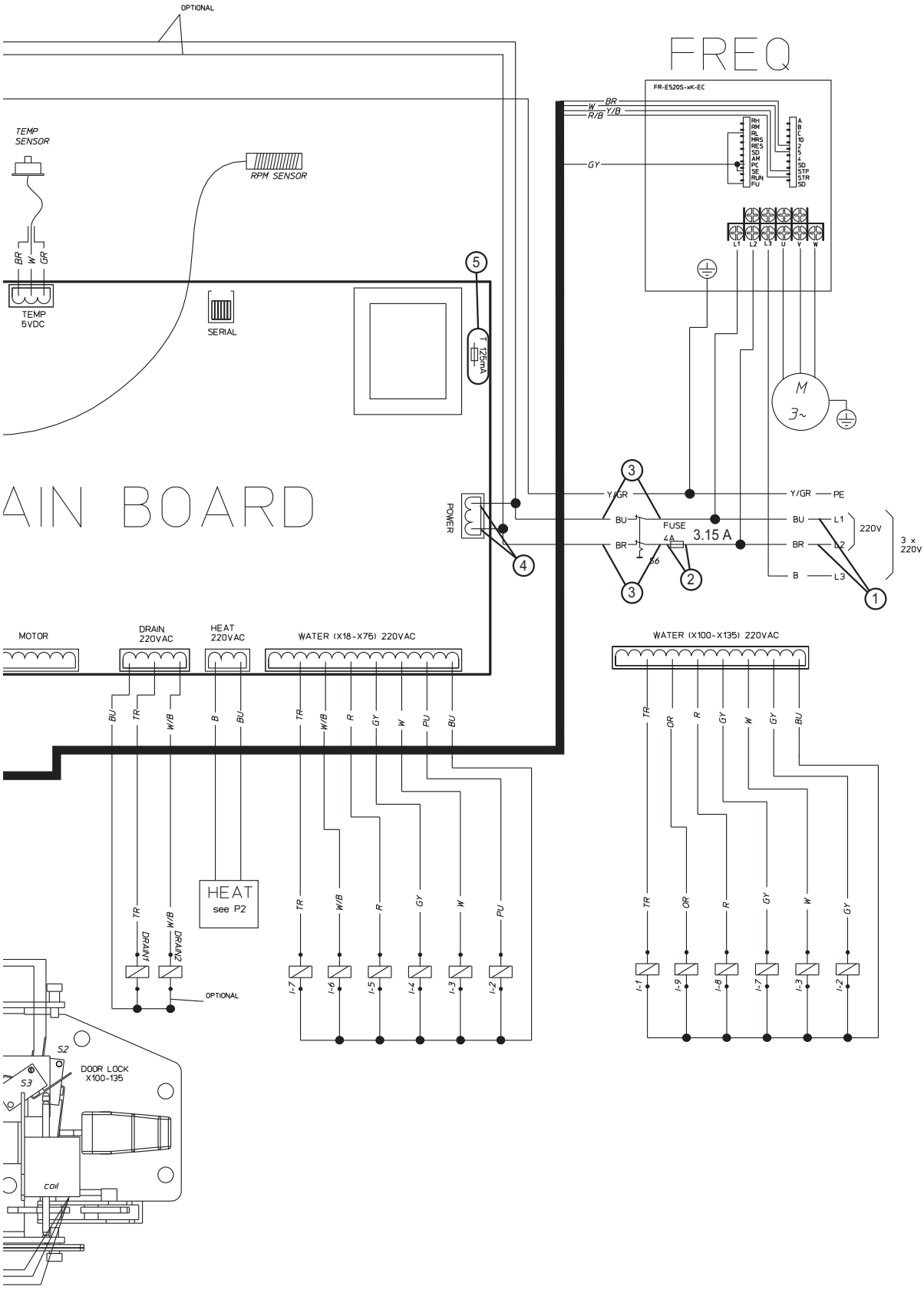
LEGEND

BU	BLUE
W	WHITE
B	BLACK
GY	GREY
BR	BROWN
TR	TRANSPARENT
GR	GREEN
PU	PURPLE
R	RED
OR	ORANGE
P	PINK
W/B	WHITE/BLACK
W/GY	WHITE/GREY
W/P	WHITE/PINK
W/PU	WHITE/PURPLE
W/R	WHITE/RED
Y/B	YELLOW/BLACK
R/B	RED/BLACK
Y/R	YELLOW/RED
R/GY	RED/GREY

I-1	Supply "A" (X100-X135)
I-2	Supply "B"
I-3	Supply "C"
I-4	Cold soft fill (X18-X75)
I-5	Hot fill (X18-X75)
I-6	Cold hard fill (X18-X75)
I-7	Supply "A" (X18-X75) Cold soft fill (X100-X135)
I-8	Hot fill (X100-X135)
I-9	Cold hard fill (X100-X135)
R5	Contactor 1 for electrical heating
R5'	Contactor 2 for electrical heating
R5''	Contactor 3 for electrical heating
RS	Contactor for steam heating
S1	Doorlock switch 1
S2	Doorlock switch 2
S3	Doorlock switch 3
S4	Safety water level switch
S5	Switch steam or electric heating
S6	Emergency switch
S7	Program / run keyswitch

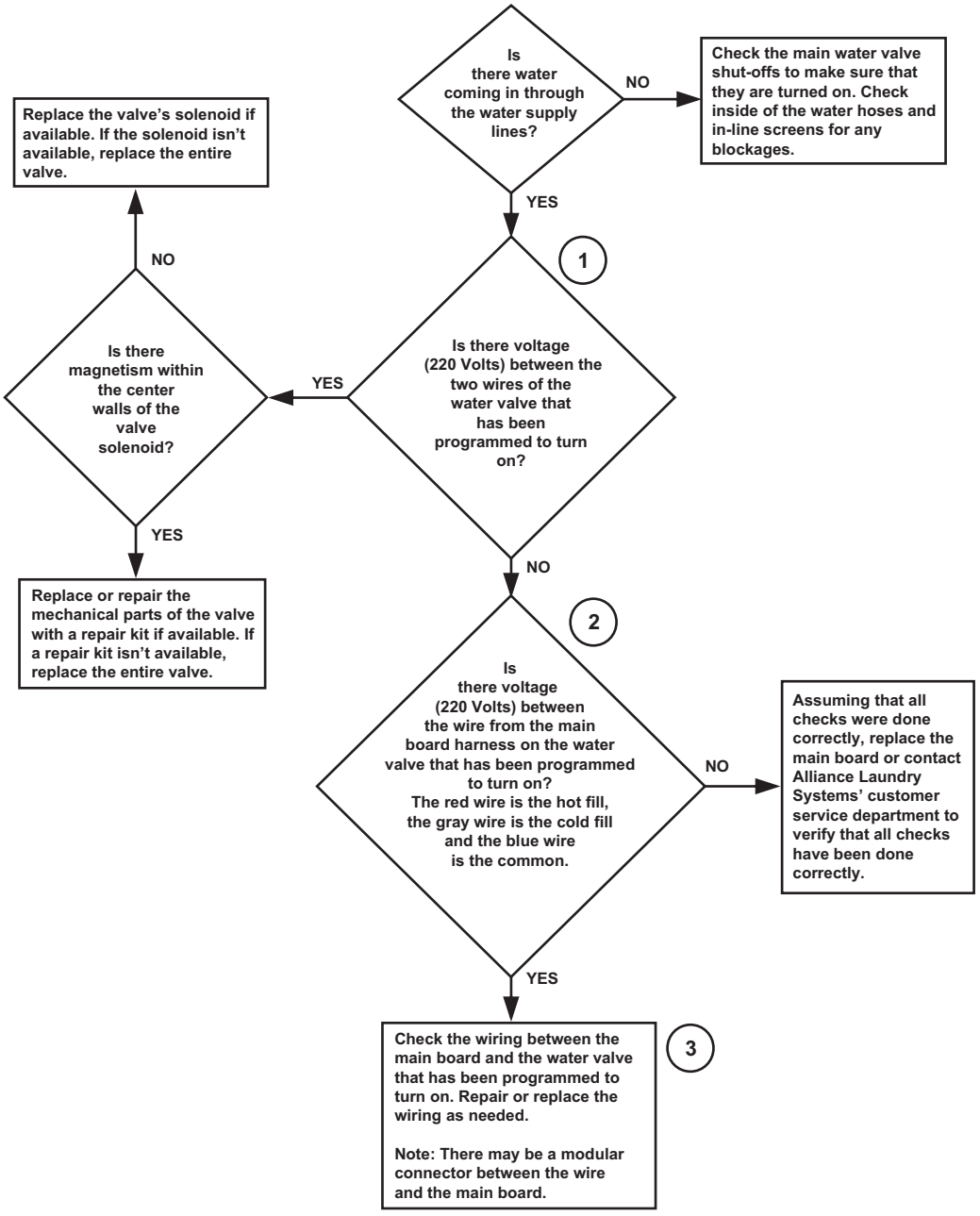
NOTE: Refer to the wiring diagram supplied with your machine.

WE-8 Control Has No Visible Display (Q and X-Voltage Models) (Sheet 2 of 2)



CFD2024S

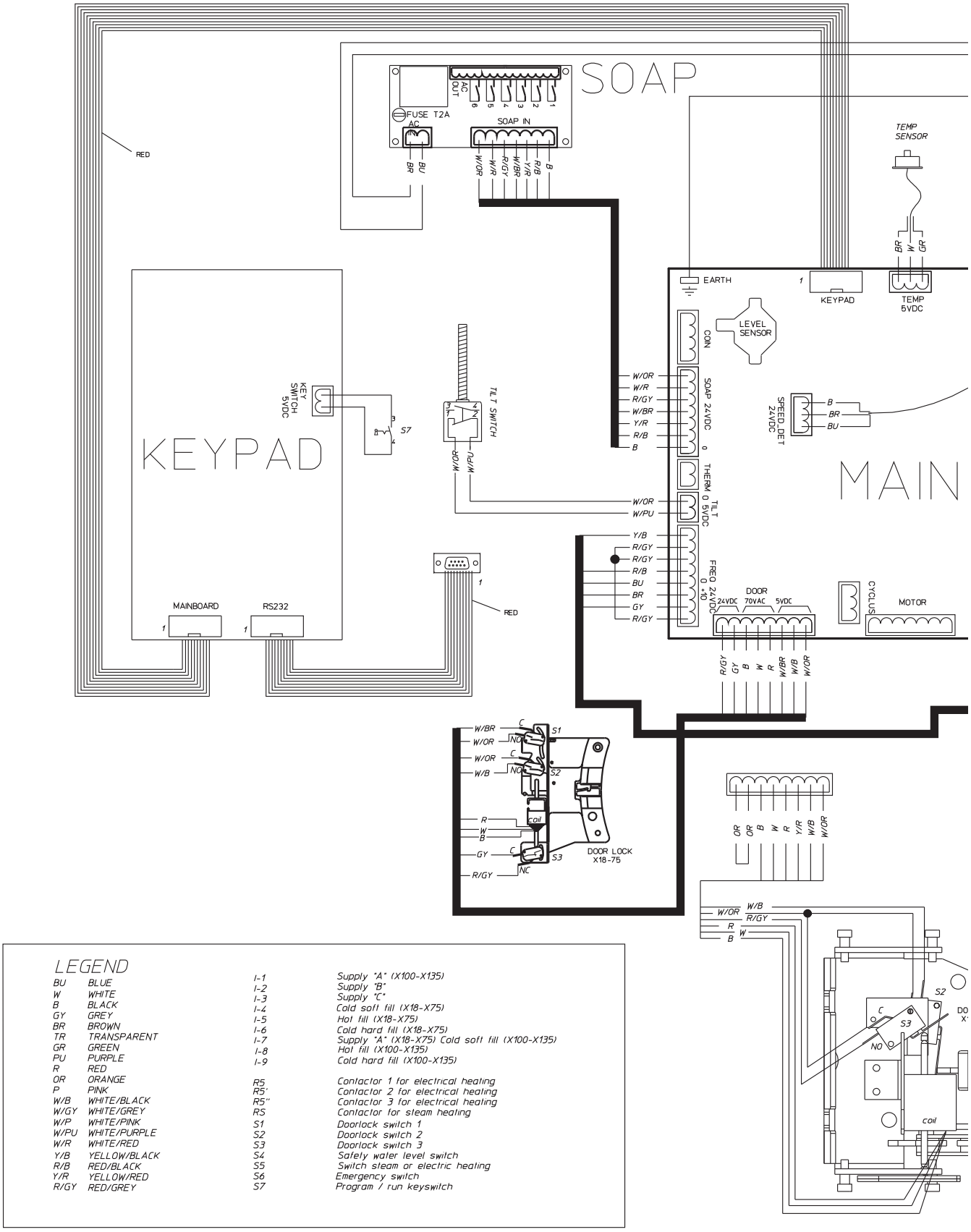
4. No Fill Analysis



CFD2010S

Please refer to the following 2 pages for wiring diagram information.

No Fill Analysis (Sheet 1 of 2)



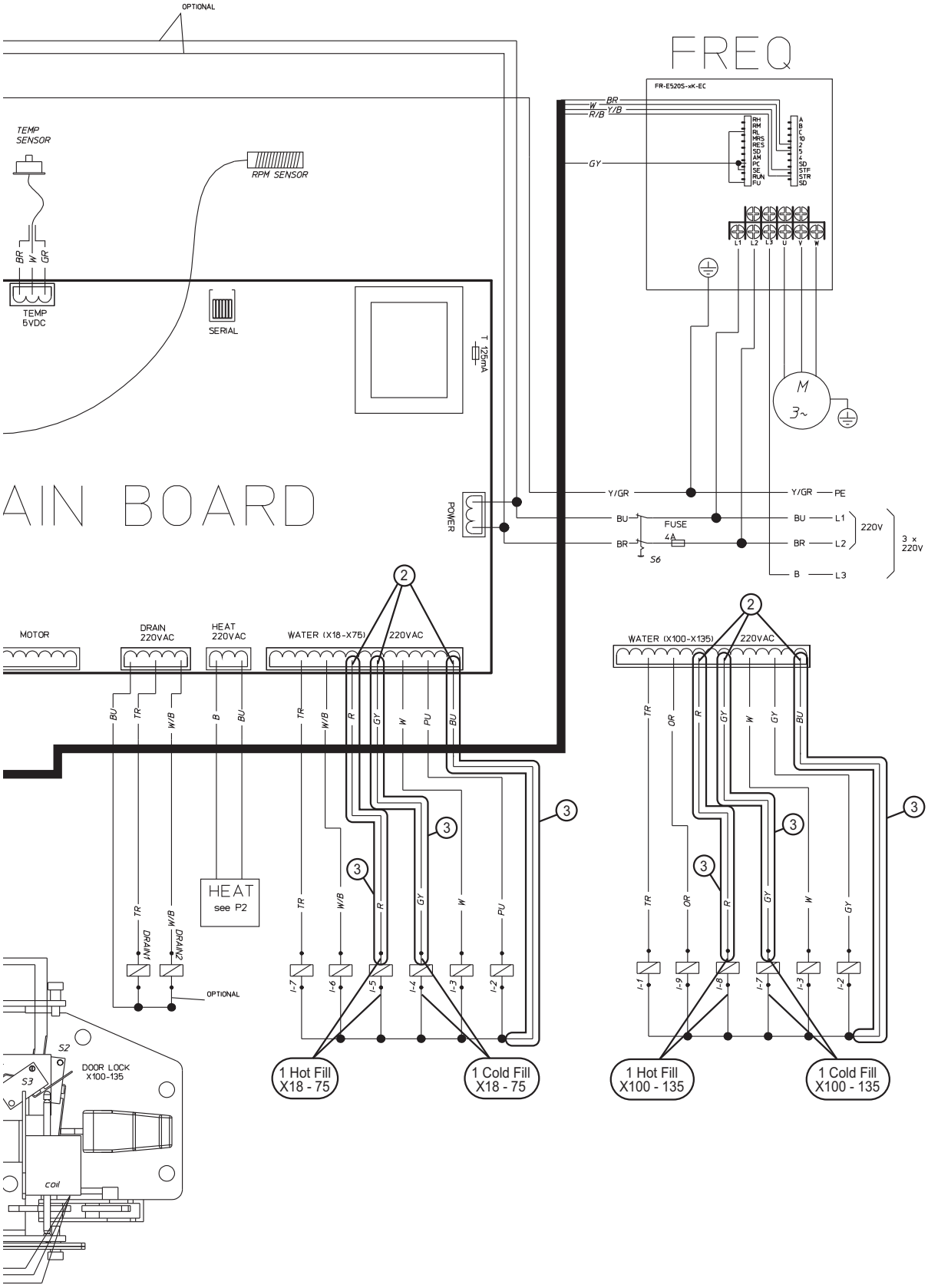
LEGEND

BU	BLUE
W	WHITE
B	BLACK
GY	GREY
BR	BROWN
TR	TRANSPARENT
GR	GREEN
PU	PURPLE
R	RED
OR	ORANGE
P	PINK
W/B	WHITE/BLACK
W/GY	WHITE/GREY
W/P	WHITE/PINK
W/PU	WHITE/PURPLE
W/R	WHITE/RED
Y/B	YELLOW/BLACK
R/B	RED/BLACK
Y/R	YELLOW/RED
R/GY	RED/GREY

I-1	Supply "A" (X100-X135)
I-2	Supply "B"
I-3	Supply "C"
I-4	Cold soft fill (X18-X75)
I-5	Hot fill (X18-X75)
I-6	Cold hard fill (X18-X75)
I-7	Supply "A" (X18-X75) Cold soft fill (X100-X135)
I-8	Hot fill (X100-X135)
I-9	Cold hard fill (X100-X135)
R5	Contactor 1 for electrical heating
R5'	Contactor 2 for electrical heating
R5''	Contactor 3 for electrical heating
R5	Contactor for steam heating
S1	Doorlock switch 1
S2	Doorlock switch 2
S3	Doorlock switch 3
S4	Safety water level switch
S5	Switch steam or electric heating
S6	Emergency switch
S7	Program / run keyswitch

NOTE: Refer to the wiring diagram supplied with your machine.

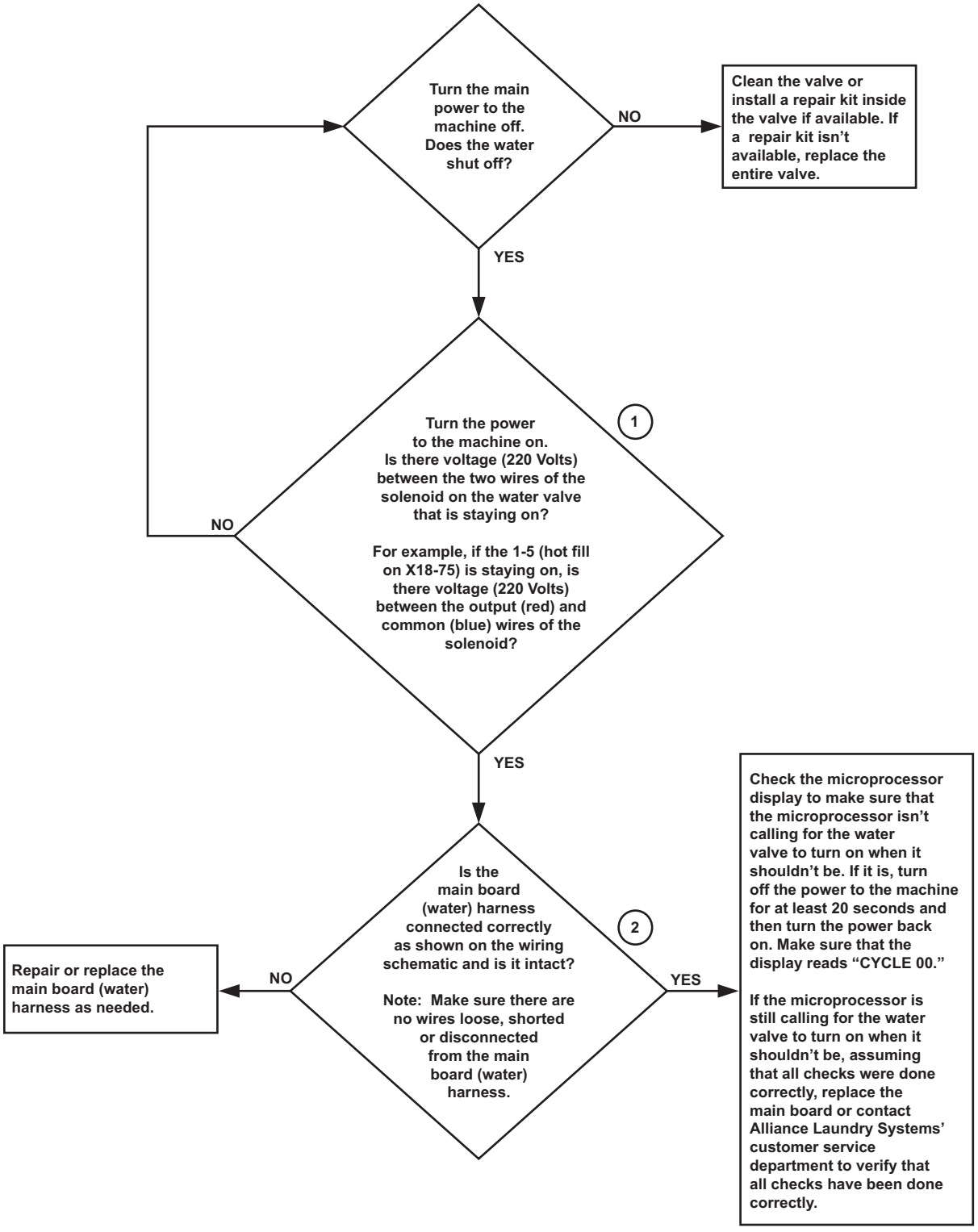
No Fill Analysis (Sheet 2 of 2)



CFD2025S

5. Water Runs Continuously into the Washer-Extractor

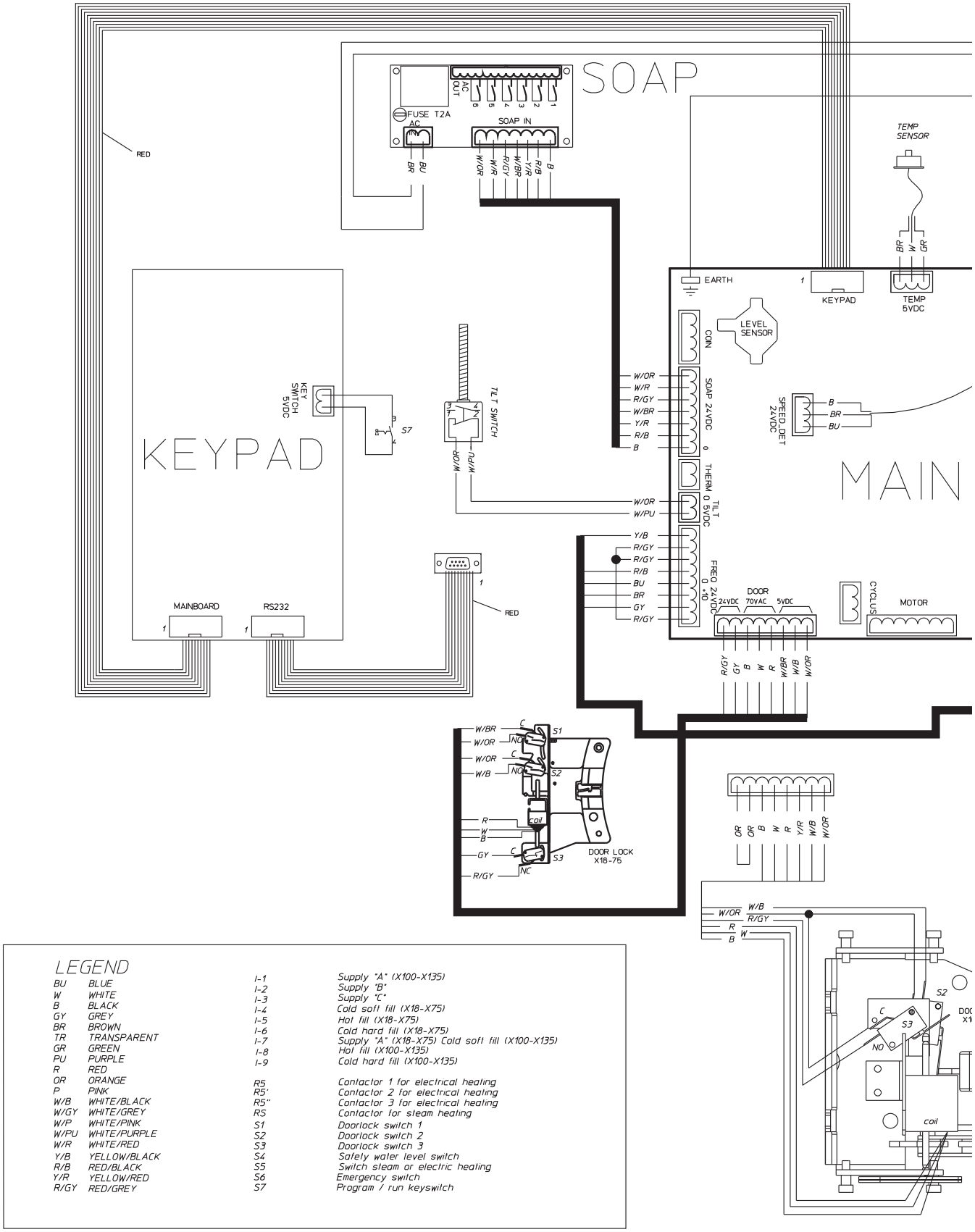
NOTE: This information applies to the three main fill valves as well as the three supply valves. The first task in this process is to determine which valve is staying on. This may be done by individually shutting off the water supply to each valve. Find the location where the water is flushing into the machine and follow the hose back to the solenoid. Once the valve has been identified, proceed as follows:



CFD2029S

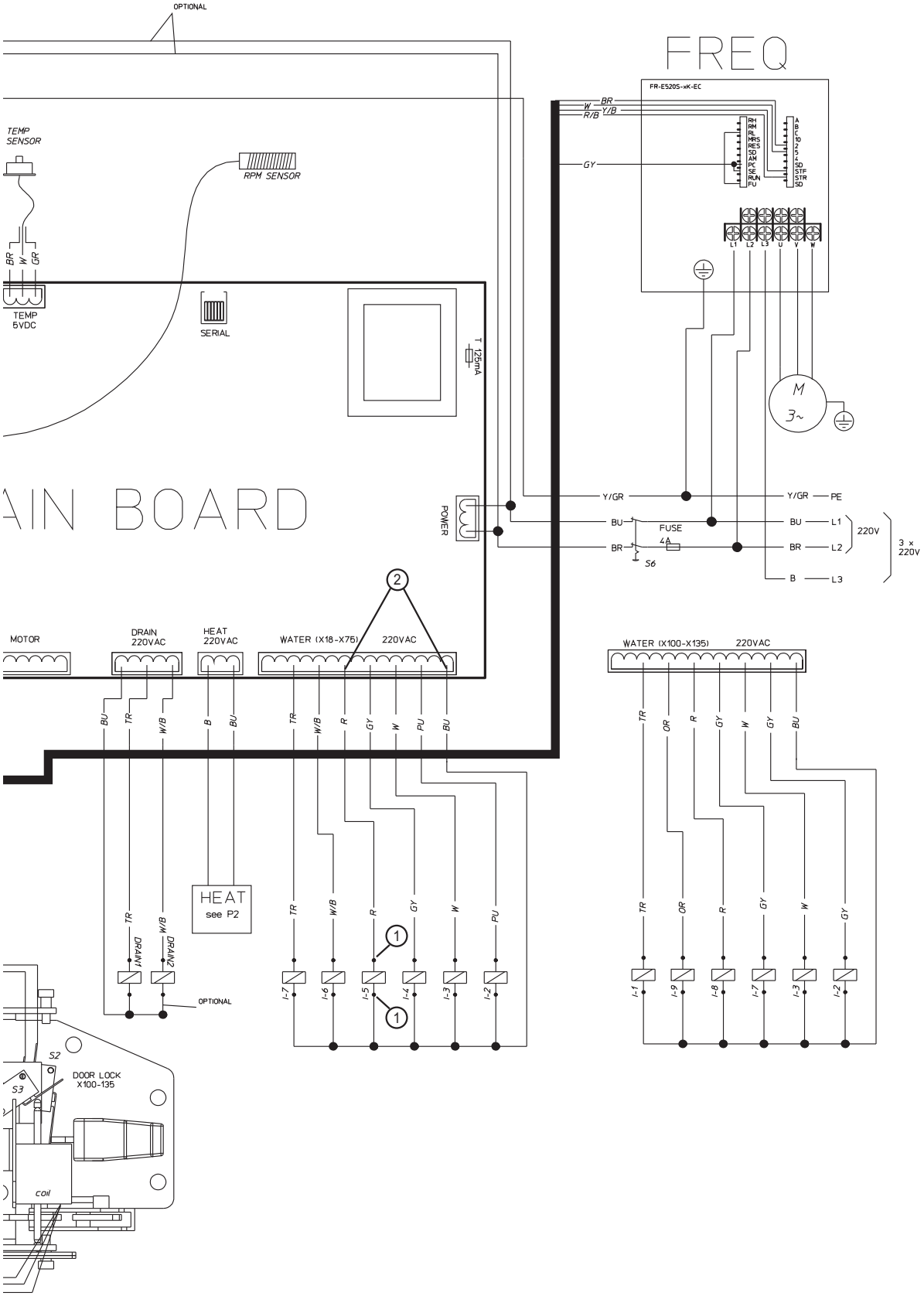
Please refer to the following 2 pages for wiring diagram information.

Water Runs Continuously into the Washer-Extractor (Sheet 1 of 2)



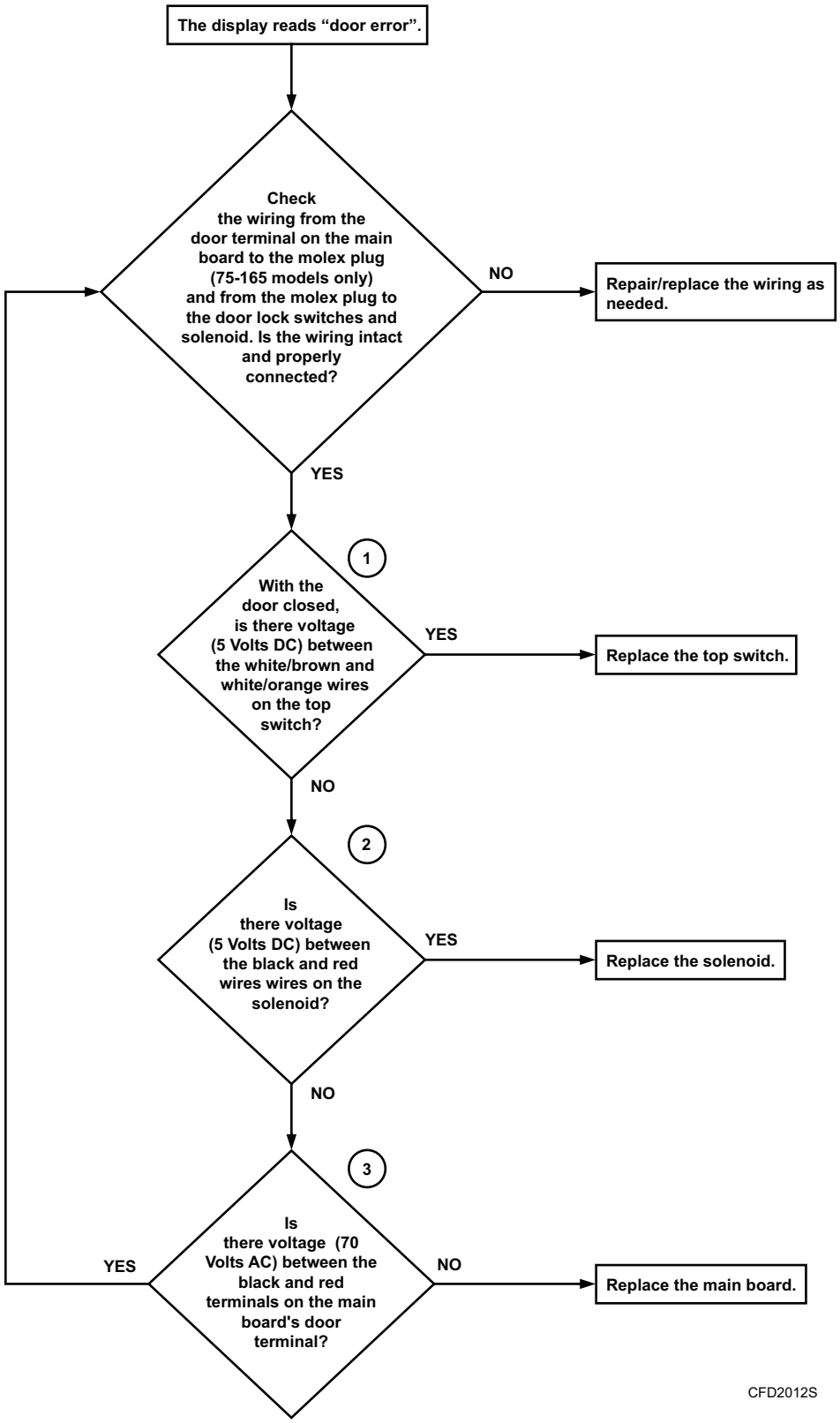
NOTE: Refer to the wiring diagram supplied with your machine.

Water Runs Continuously into the Washer-Extractor (Sheet 2 of 2)



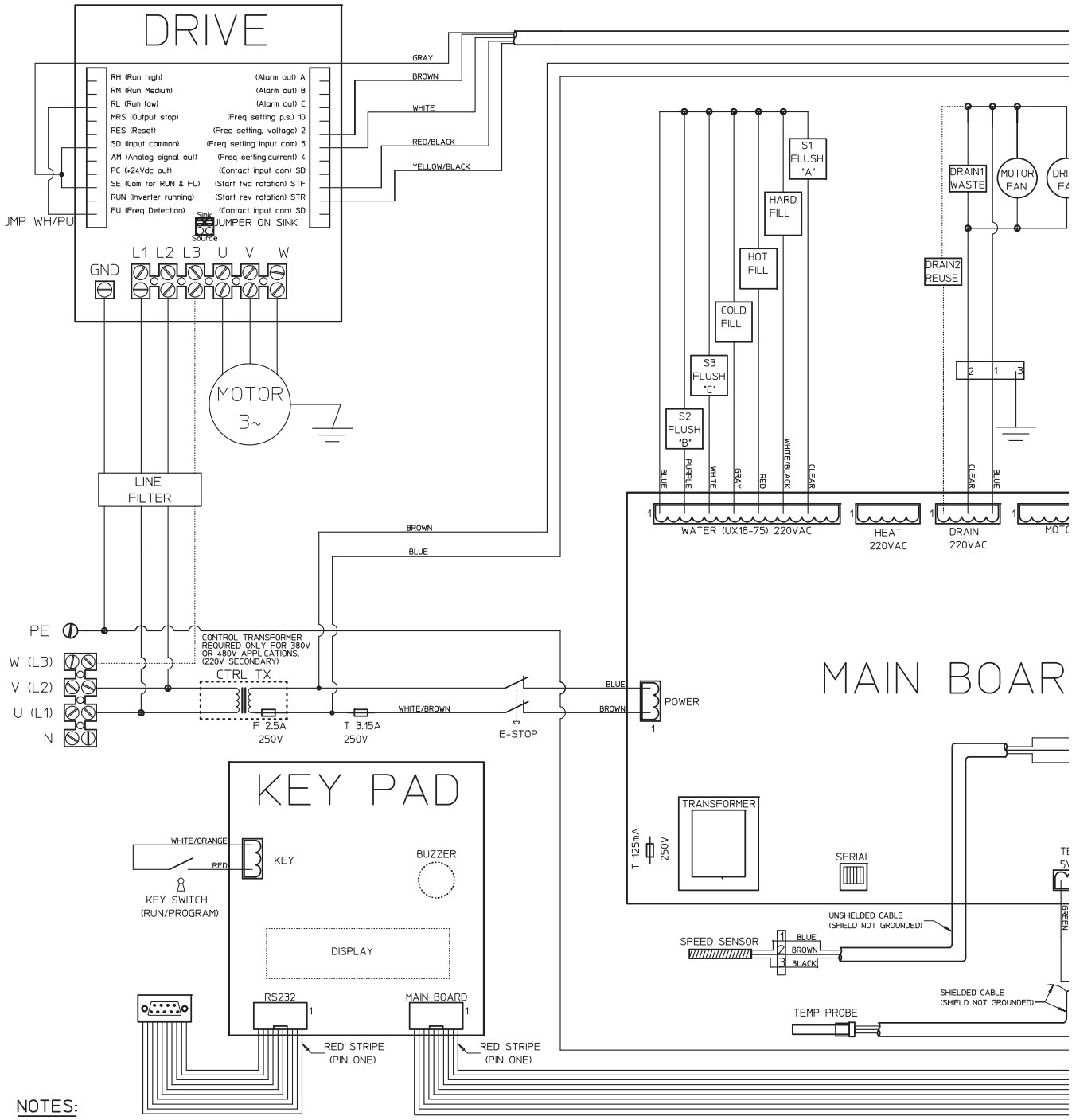
CFD2026S

6. Door Lock Switch Analysis: Display Shows “Door Error”



Please refer to the following 2 pages for wiring diagram information.

Door Lock Switch Analysis: Display Shows “Door Error” (Sheet 1 of 2)

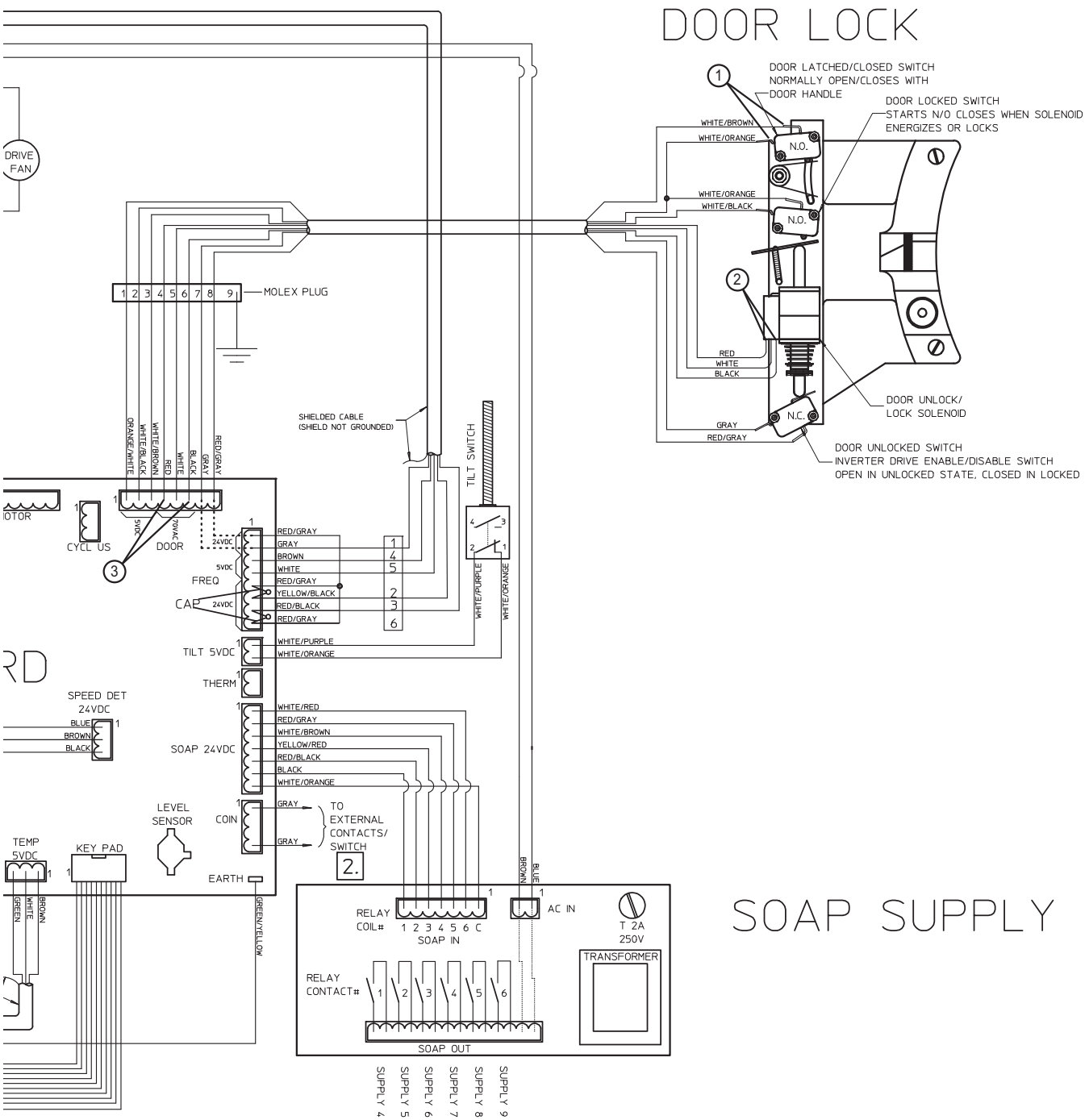


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

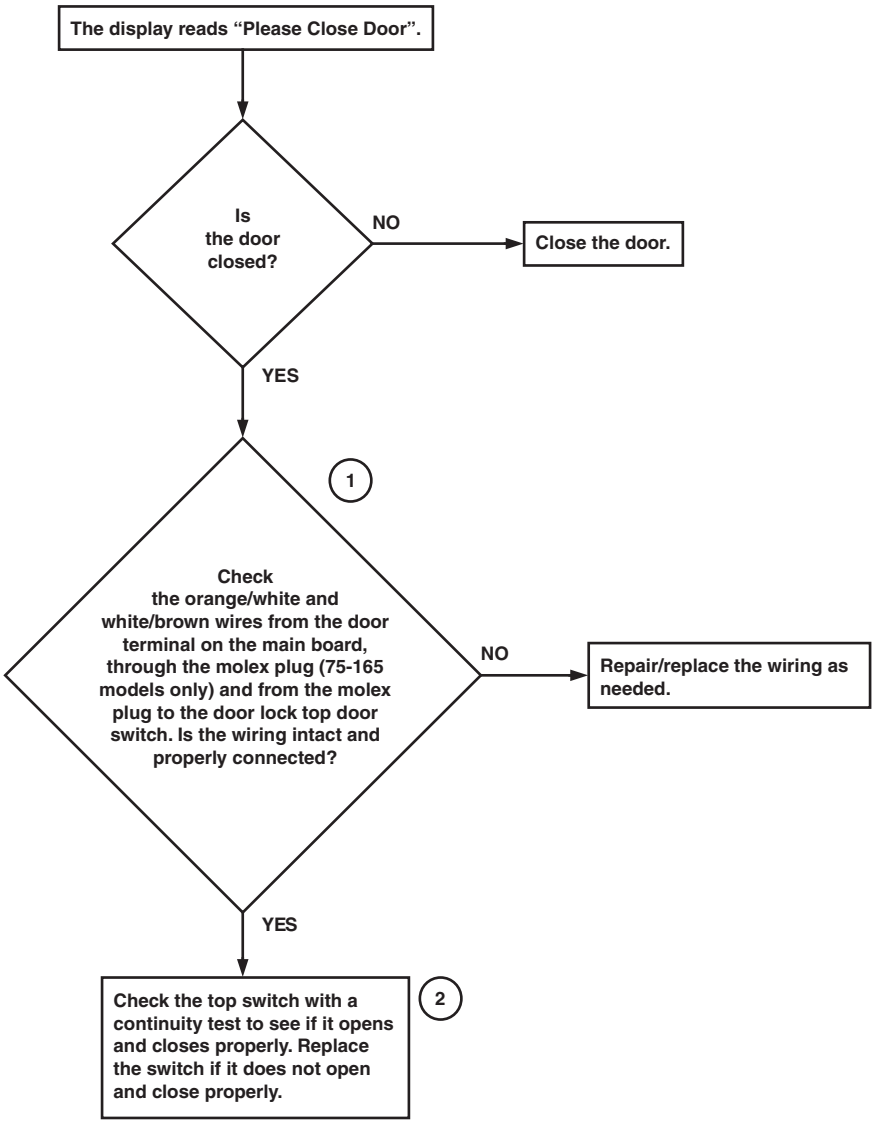
NOTE: Refer to the wiring diagram supplied with your machine.

Door Lock Switch Analysis: Display Shows “Door Error” (Sheet 2 of 2)



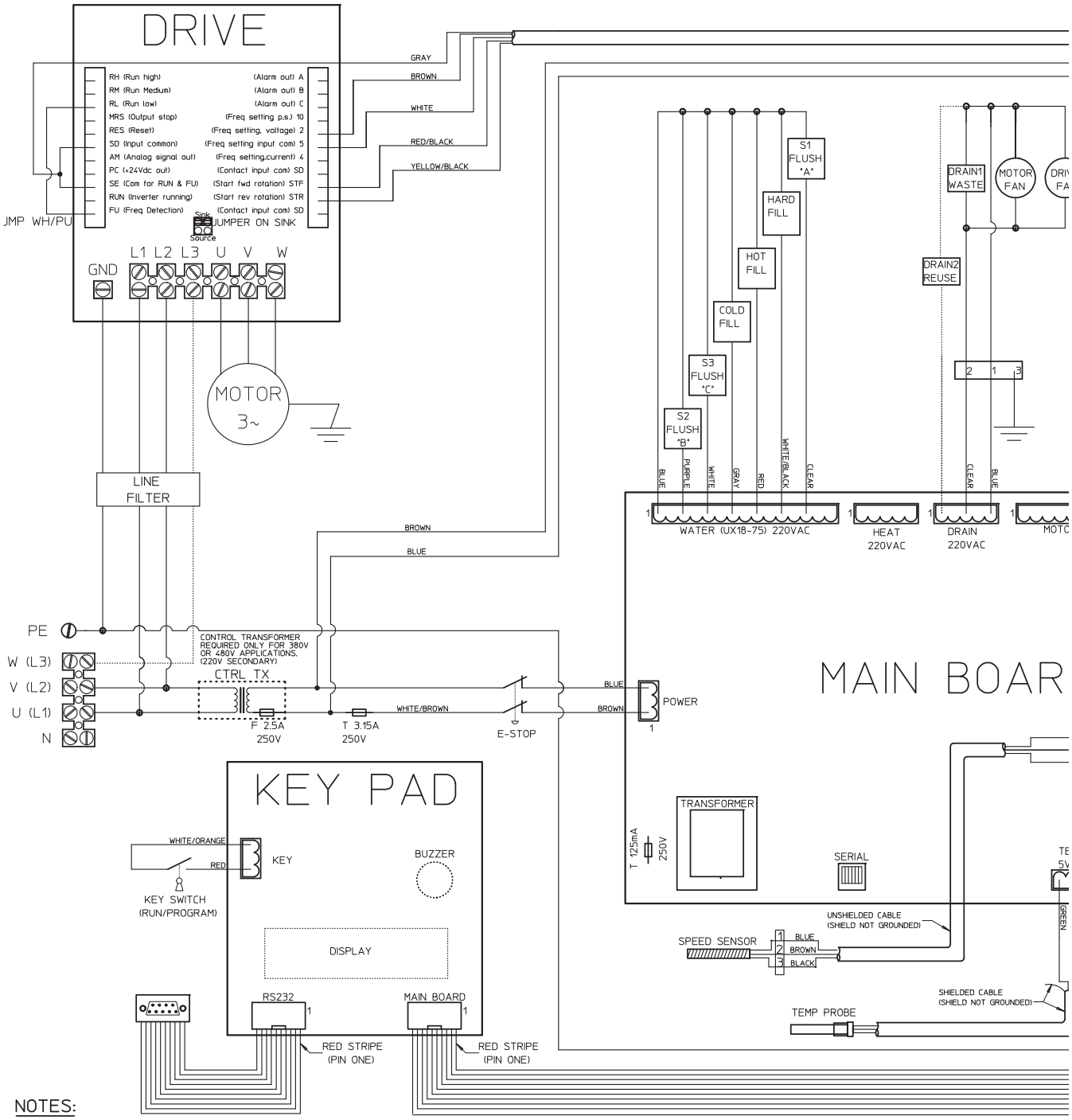
CFD2027S

7. Door Lock Switch Analysis: Display Reads “Please Close Door”



Please refer to the following 2 pages for wiring diagram information.

Door Lock Switch Analysis: Display Reads “Please Close Door” (Sheet 1 of 2)

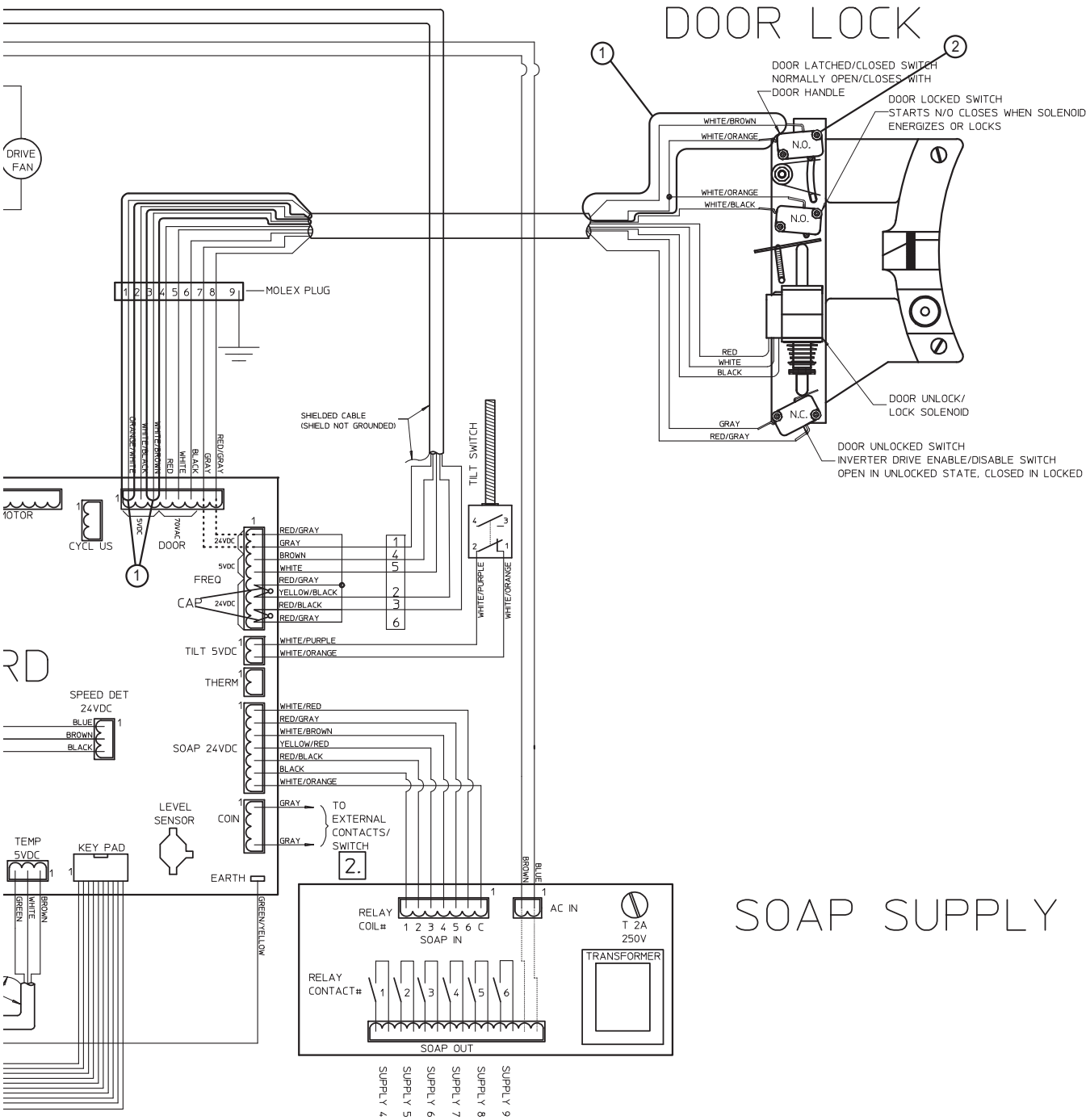


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

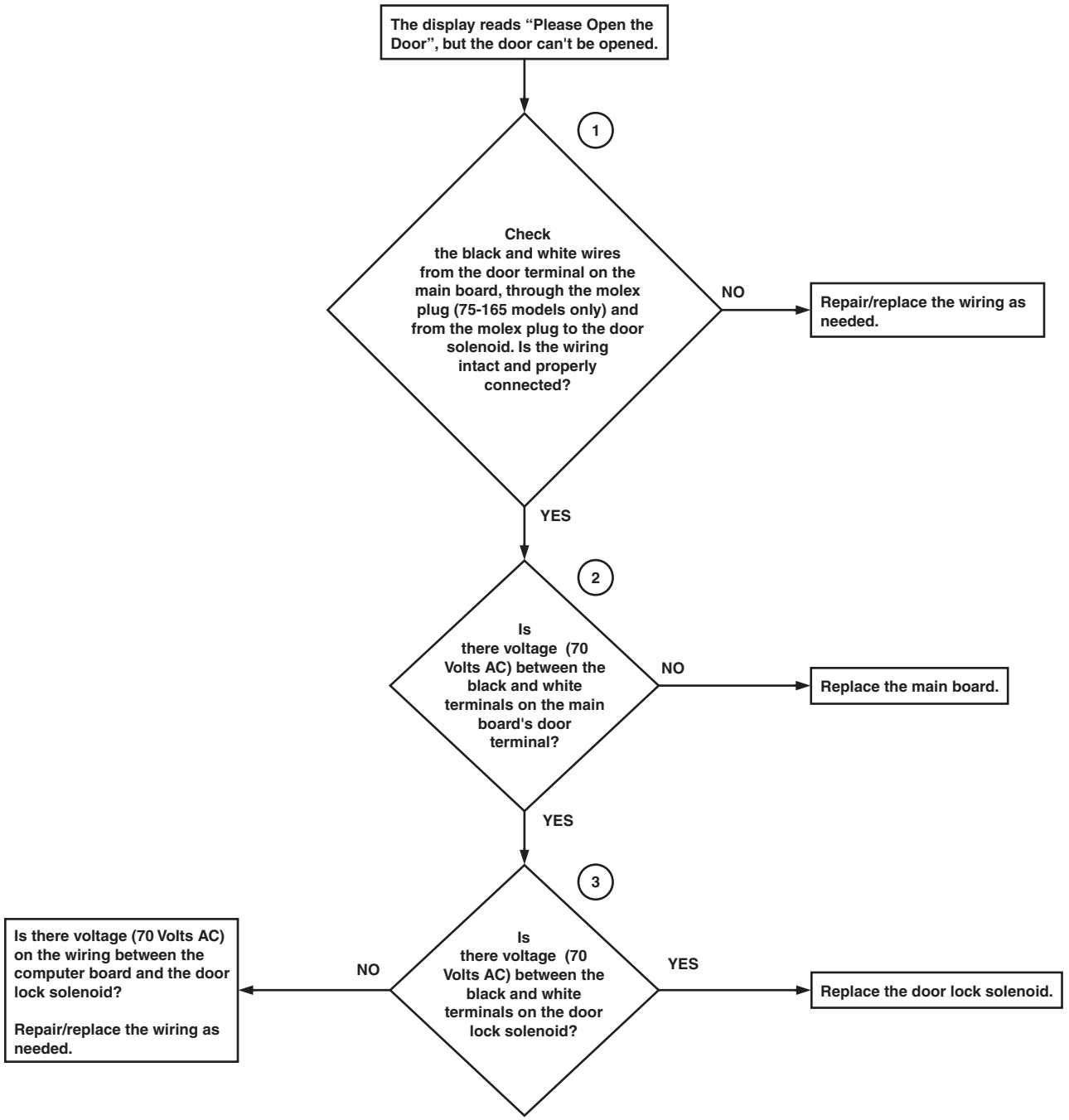
NOTE: Refer to the wiring diagram supplied with your machine.

Door Lock Switch Analysis: Display Reads “Please Close Door” (Sheet 2 of 2)



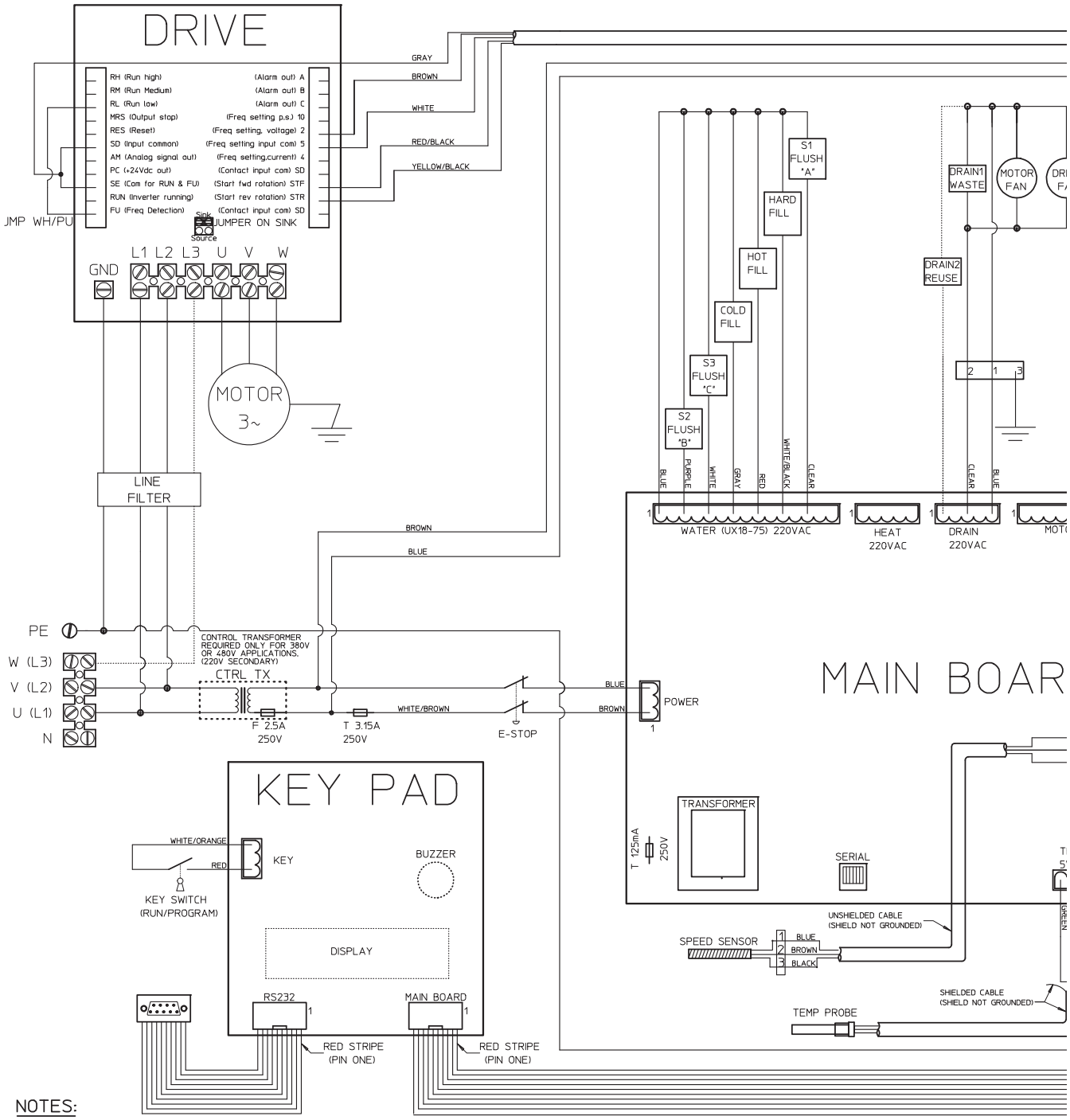
CFD2028S

8. Door Lock Switch Analysis: “Door Won’t Unlock”



Please refer to the following 2 pages for wiring diagram information.

Door Lock Switch Analysis: “Door Won’t Unlock” (Sheet 1 of 2)

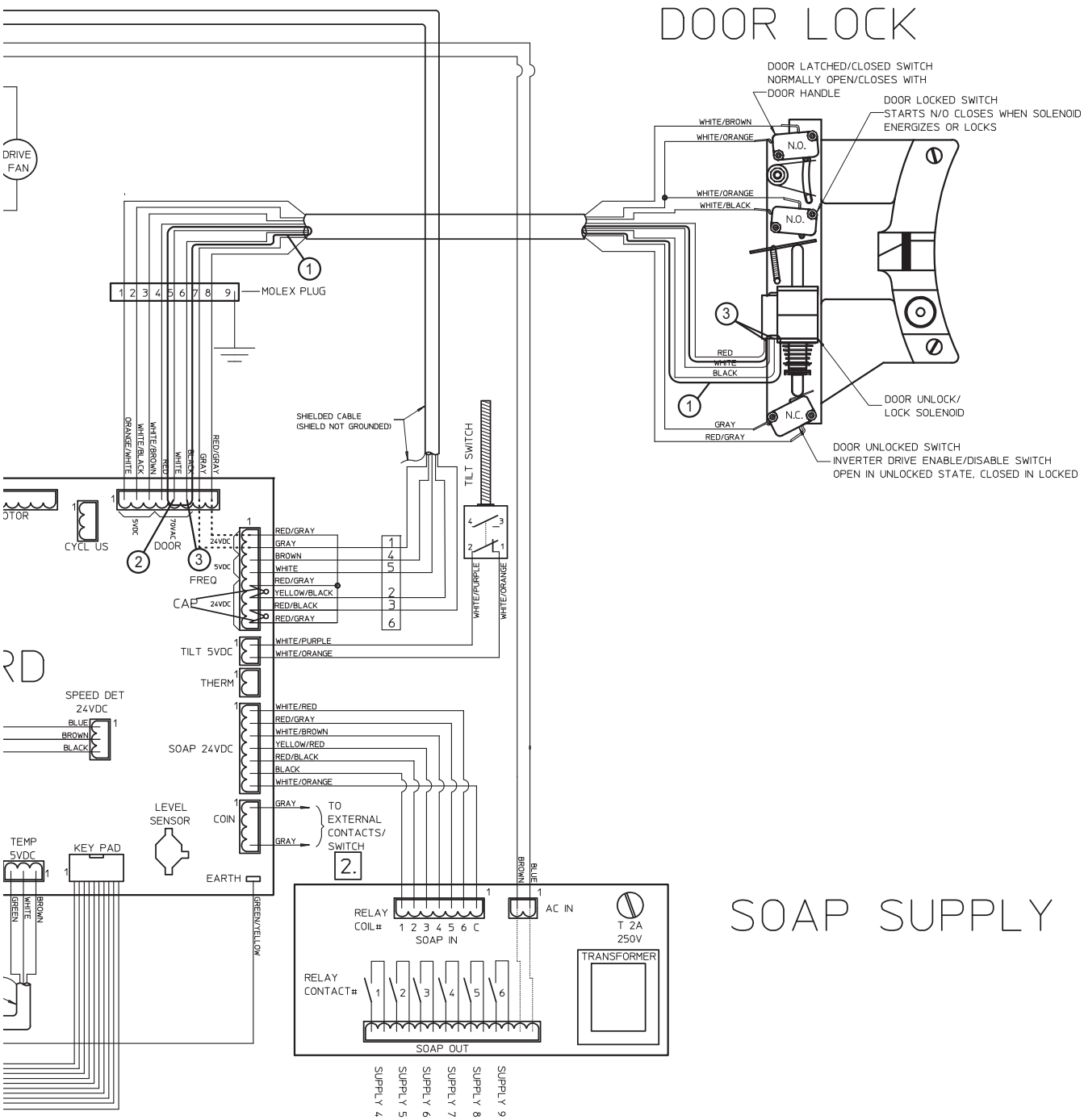


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

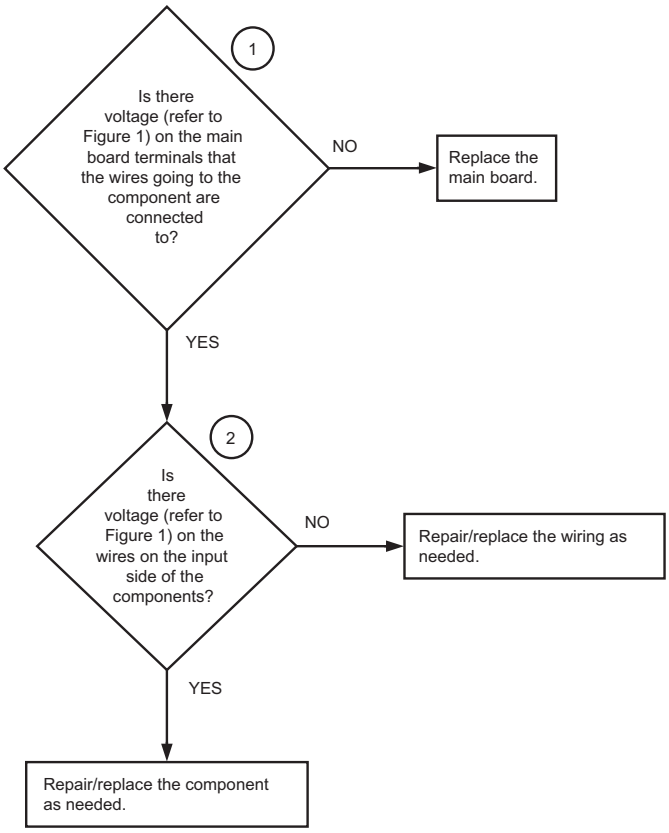
NOTE: Refer to the wiring diagram supplied with your machine.

Door Lock Switch Analysis: “Door Won’t Unlock” (Sheet 2 of 2)



CFD2018S

9. No Output Voltage to Components



Component Voltage/Reading Points Chart

Component	Voltage Reading Points	Voltage Reading
Water		
Flush A	Clear wire to Blue wire	220 Volts AC
Hard Fill	White/Black wire to Blue wire	220 Volts AC
Hot Fill	Red wire to Blue wire	220 Volts AC
Cold Fill	Gray wire to Blue wire	220 Volts AC
Flush C	White wire to Blue wire	220 Volts AC
Flush B	Purple wire to Blue wire	220 Volts AC
Drain		
Drain Motor Fan	Clear wire to Blue wire	220 Volts AC
Drive Fan	Clear wire to Blue wire	220 Volts AC
Door		
Door Latch Switch	Orange/White wire to White/Brown wire	5 Volts DC*
Door Lock Switch	Orange/White wire to White/Black wire	5 Volts DC*
Door Solenoid	Black wire to Red or White wire	70 Volts AC
Tilt		
Tilt	White/Purple wire to White/Orange wire	5 Volts DC**
Soap		
S4	White/Orange wire to Black wire	24 Volts DC
S5	Red/Black wire to Black wire	24 Volts DC
S6	Yellow/Red wire to Black wire	24 Volts DC
S7	White/Brown wire to Black wire	24 Volts DC
S8	Red/Gray wire to Black wire	24 Volts DC
S9	White/Red wire to Black wire	24 Volts DC

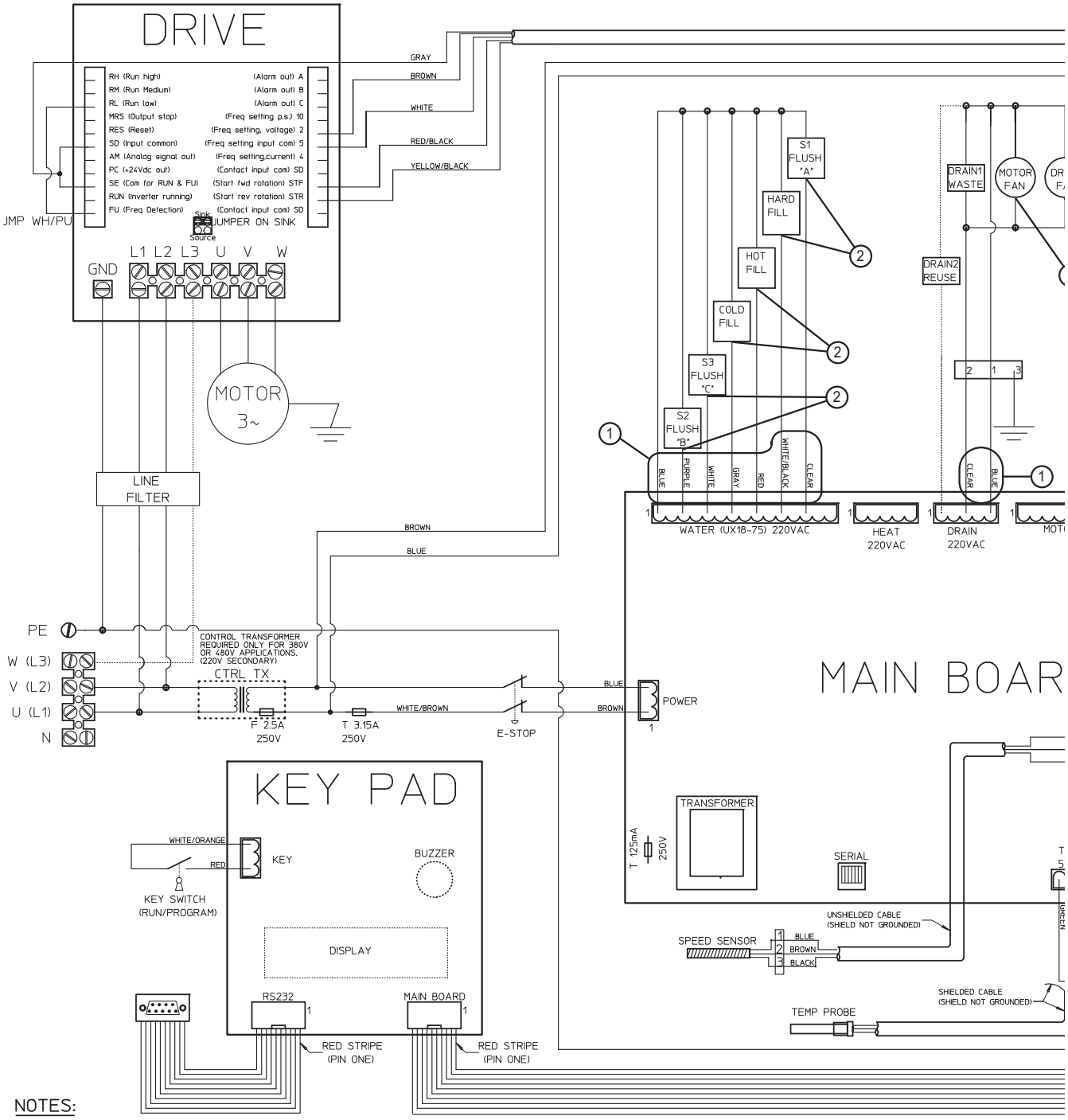
* With the door open
** With the door closed

CFD2017S

Figure 1

Please refer to the following 2 pages for wiring diagram information.

No Output Voltage to Components (Sheet 1 of 2)

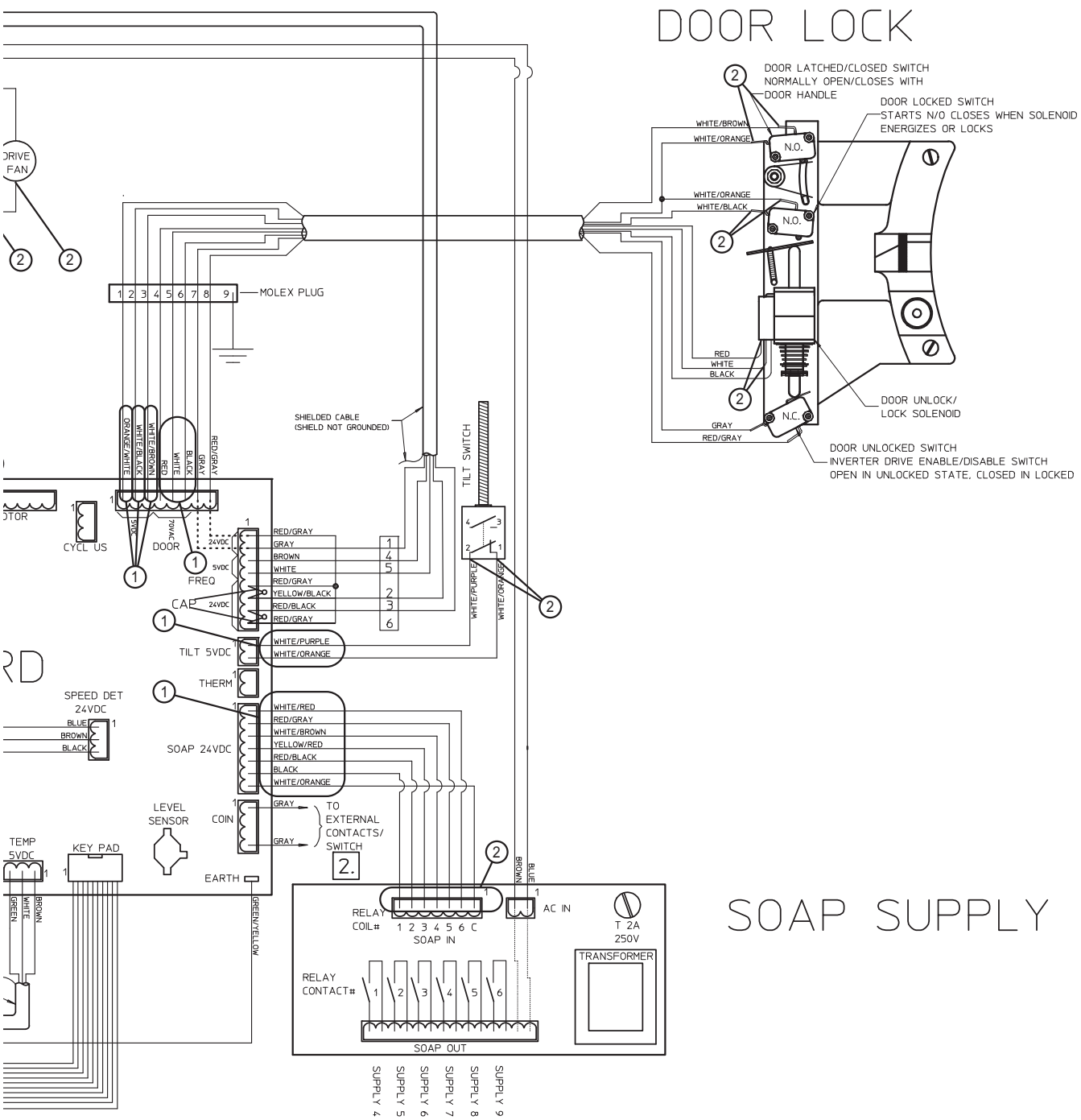


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

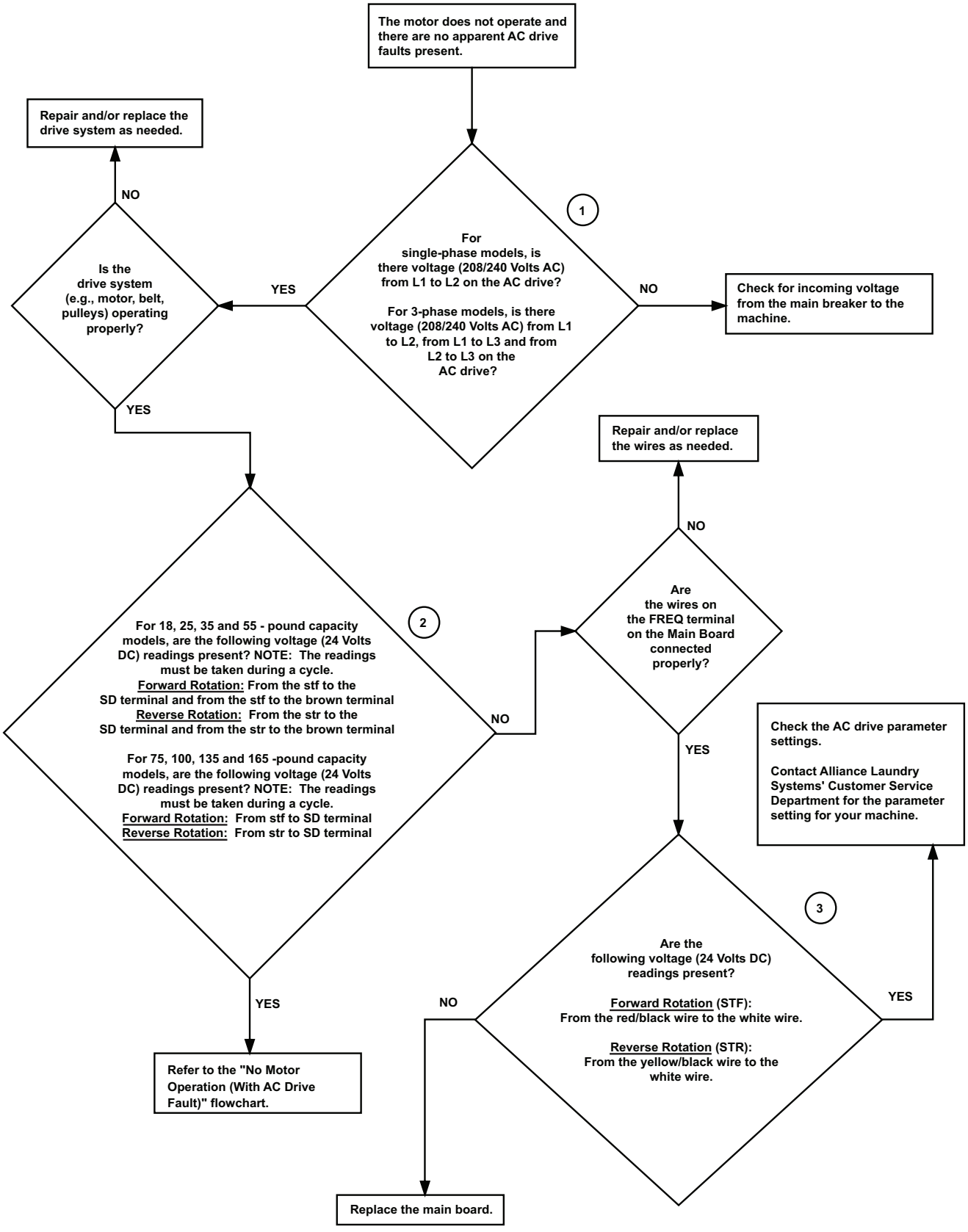
NOTE: Refer to the wiring diagram supplied with your machine.

No Output Voltage to Components (Sheet 2 of 2)



CFD2019S

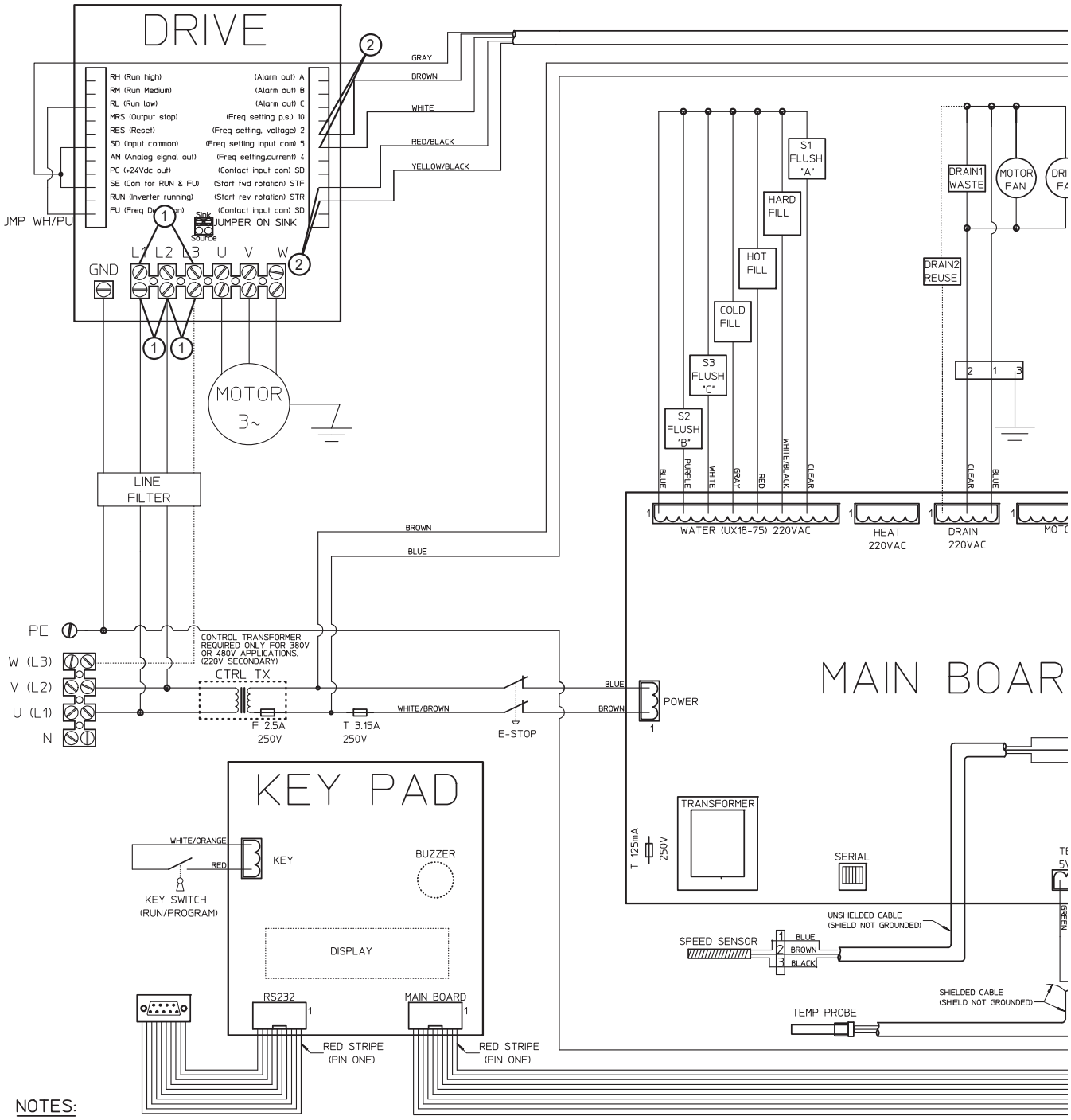
10. No Motor Operation With No AC Drive Fault



CFD2013S

Please refer to the following 2 pages for wiring diagram information.

No Motor Operation With No AC Drive Fault (Sheet 1 of 2)

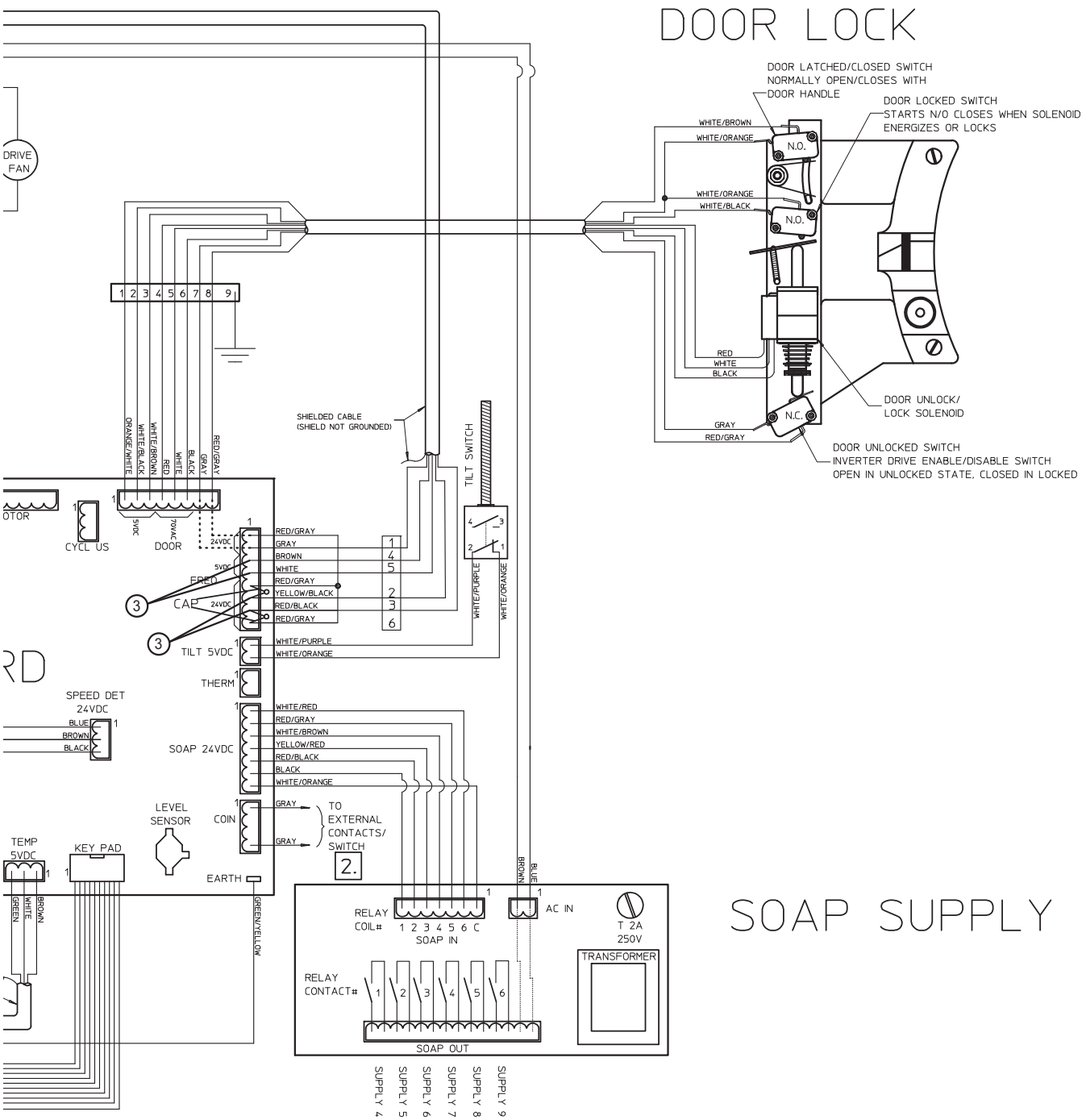


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

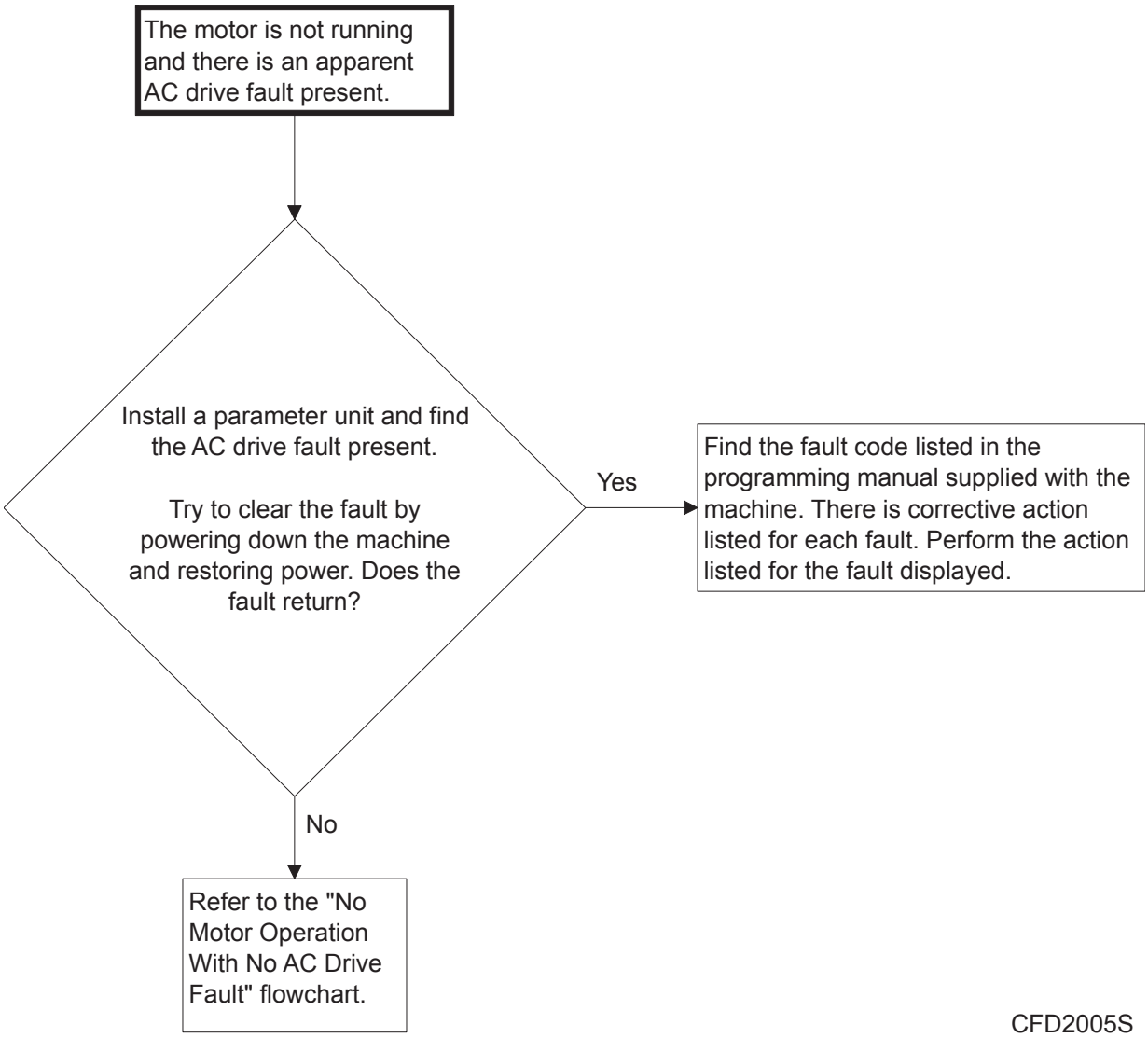
NOTE: Refer to the wiring diagram supplied with your machine.

No Motor Operation With No AC Drive Fault (Sheet 2 of 2)



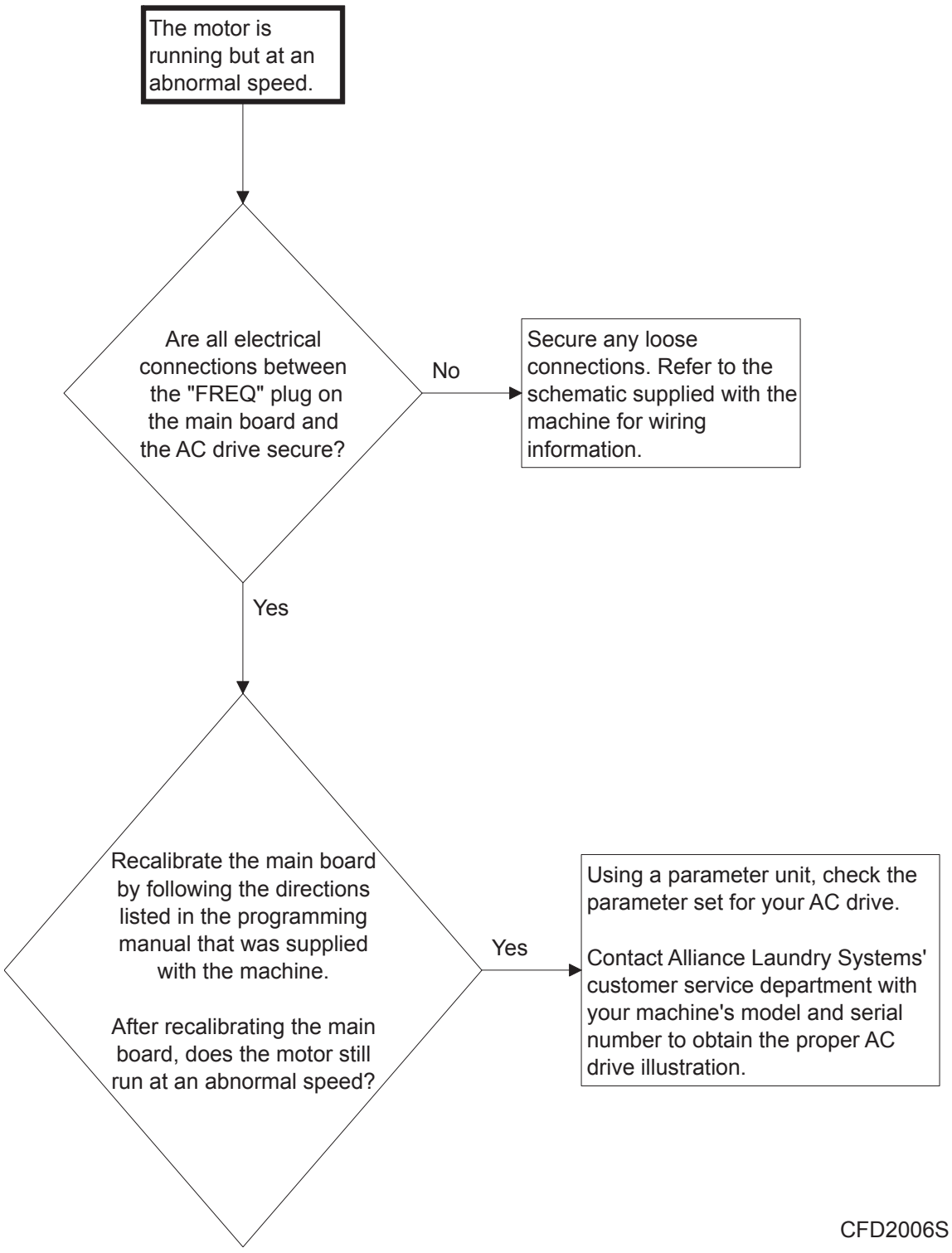
CFD2020S

11. No Motor Operation With AC Drive Fault



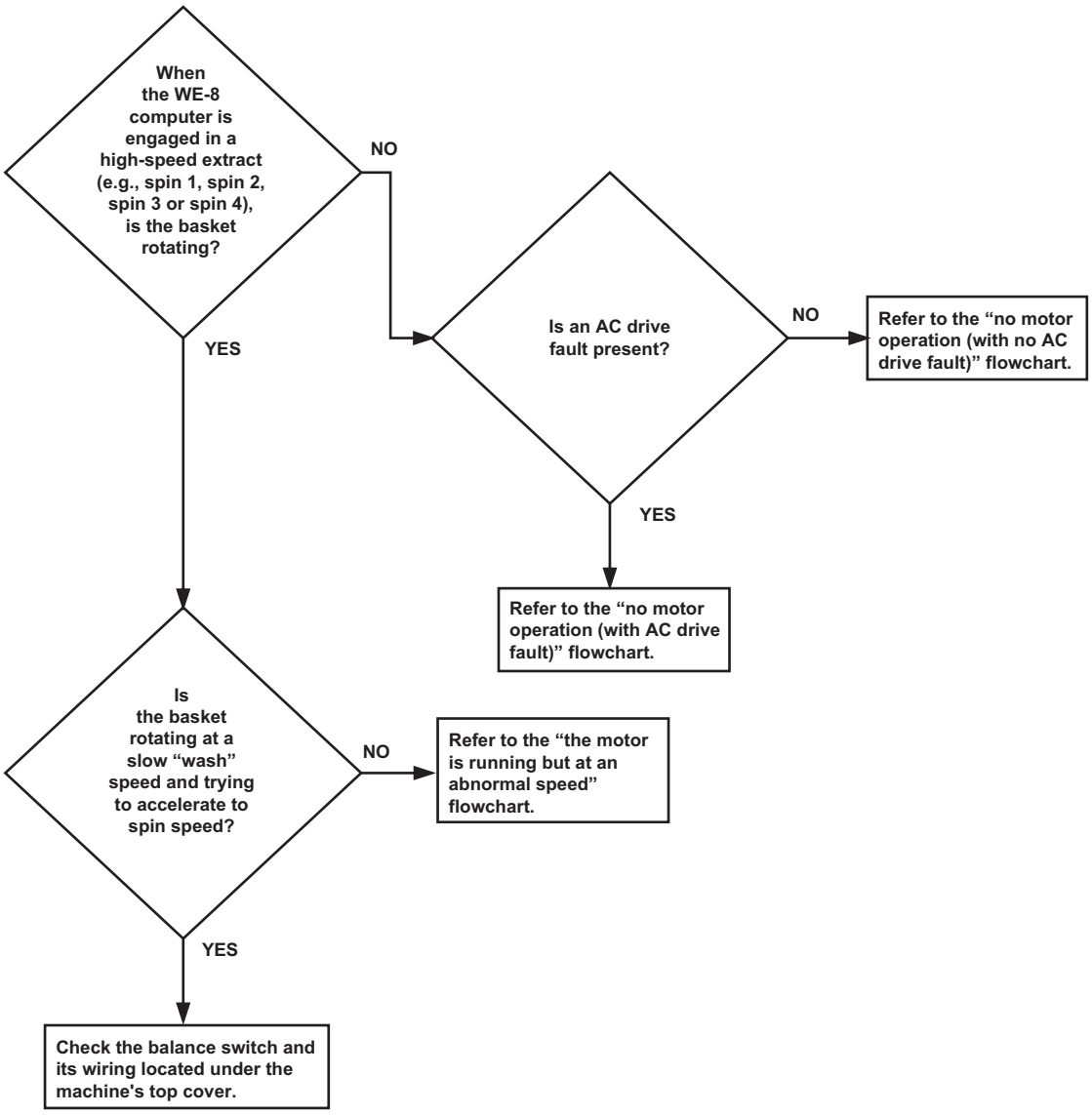
CFD2005S

12. The Motor is Running But at an Abnormal Speed



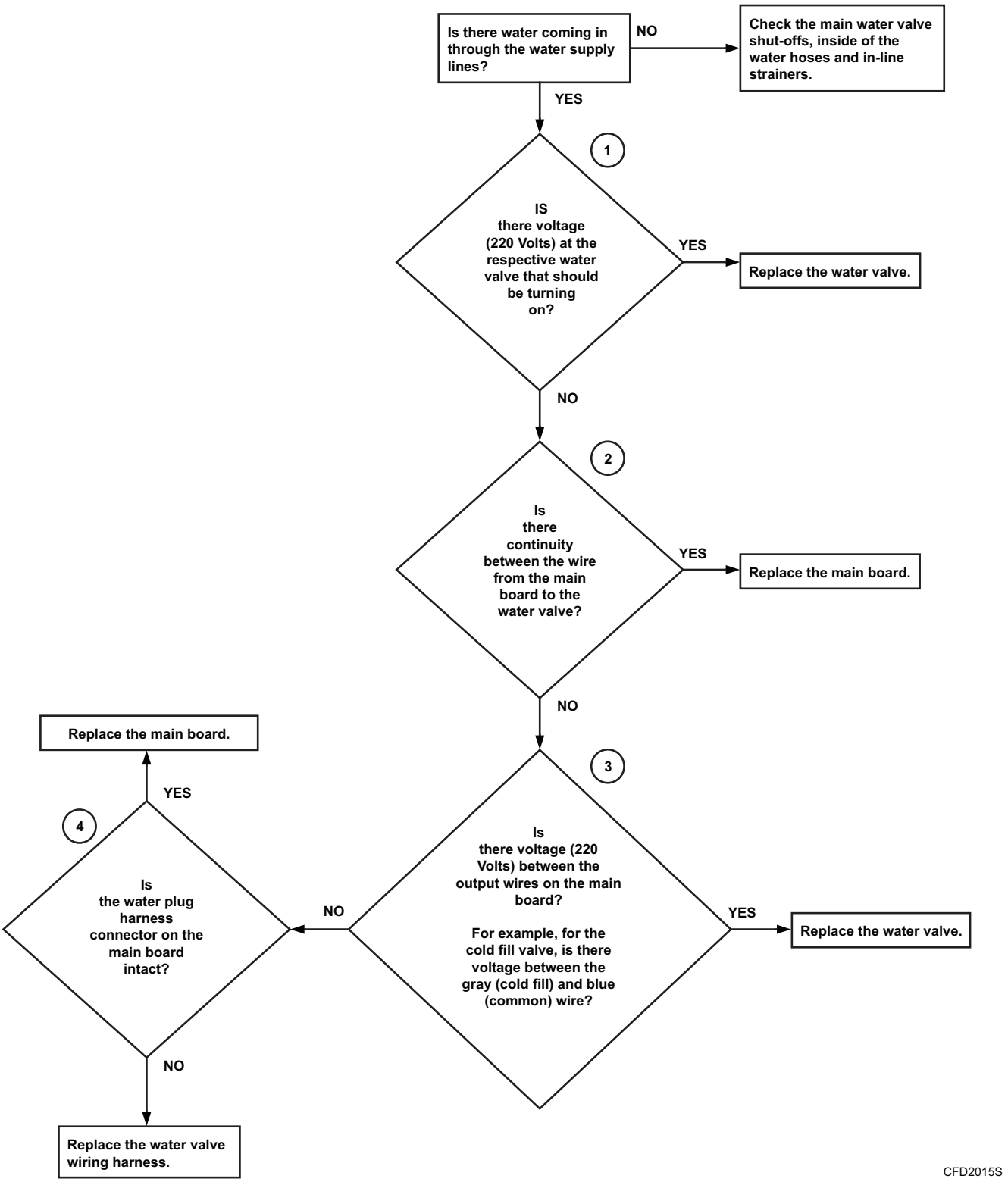
13. No Spin

NOTE: While performing this check, make sure that the washer-extractor is running with a normal-size load.



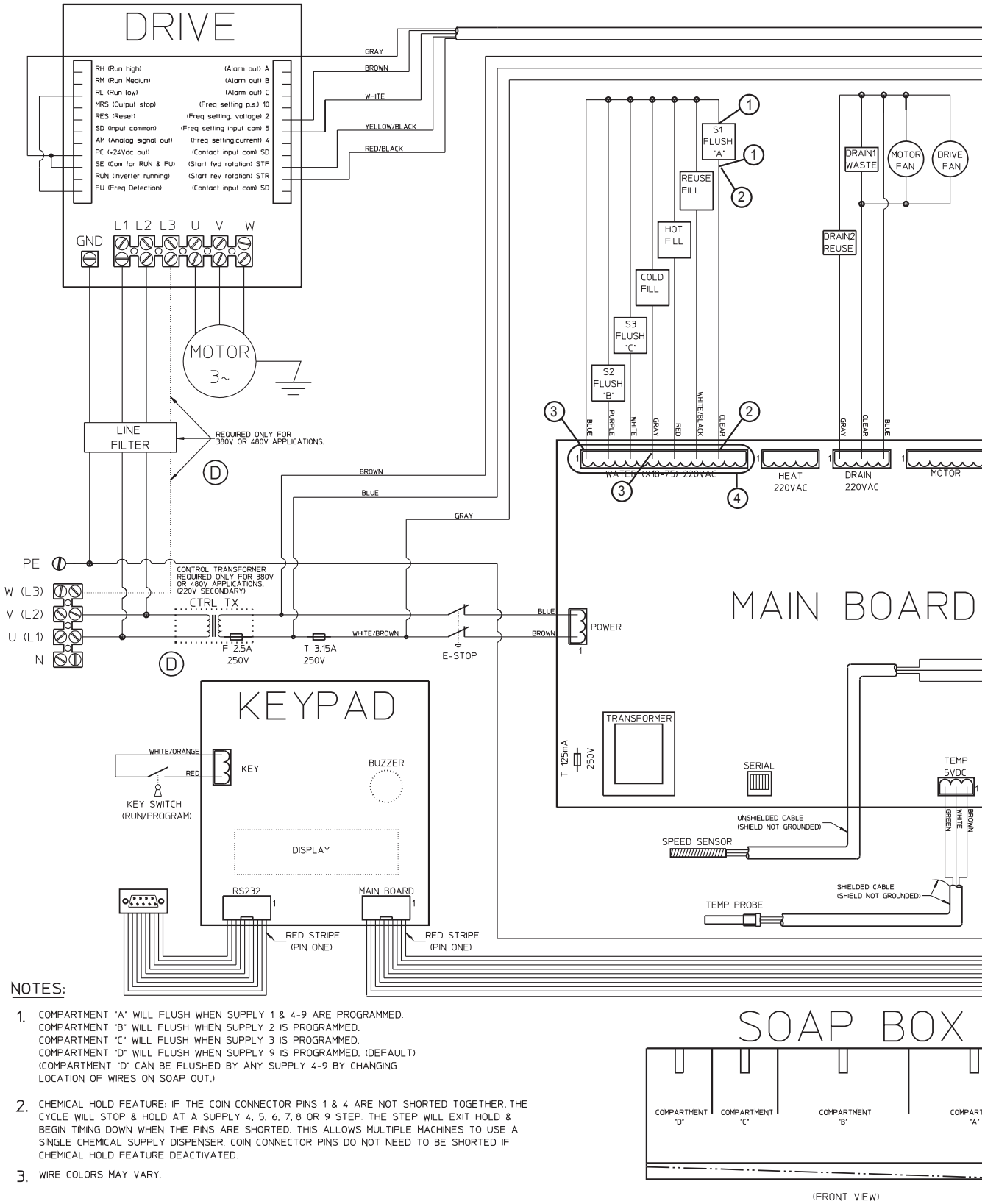
CFD2030S

14. Machine Did Not Fill Alarm Analysis



Please refer to the following 2 pages for wiring diagram information.

Machine Did Not Fill Alarm Analysis (Sheet 1 of 2)

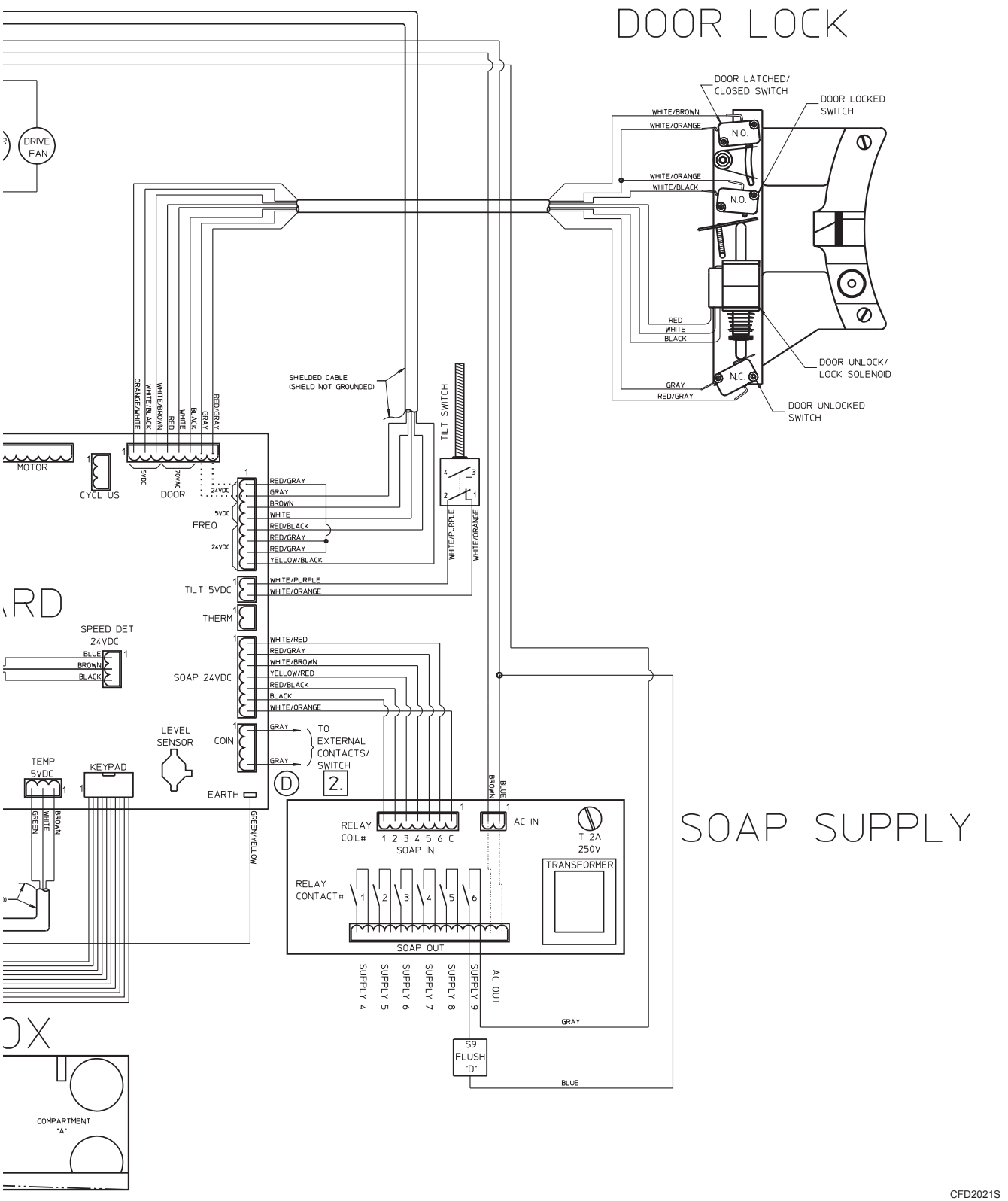


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
   COMPARTMENT "D" WILL FLUSH WHEN SUPPLY 9 IS PROGRAMMED. (DEFAULT)
   (COMPARTMENT "D" CAN BE FLUSHED BY ANY SUPPLY 4-9 BY CHANGING LOCATION OF WIRES ON SOAP OUT.)
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

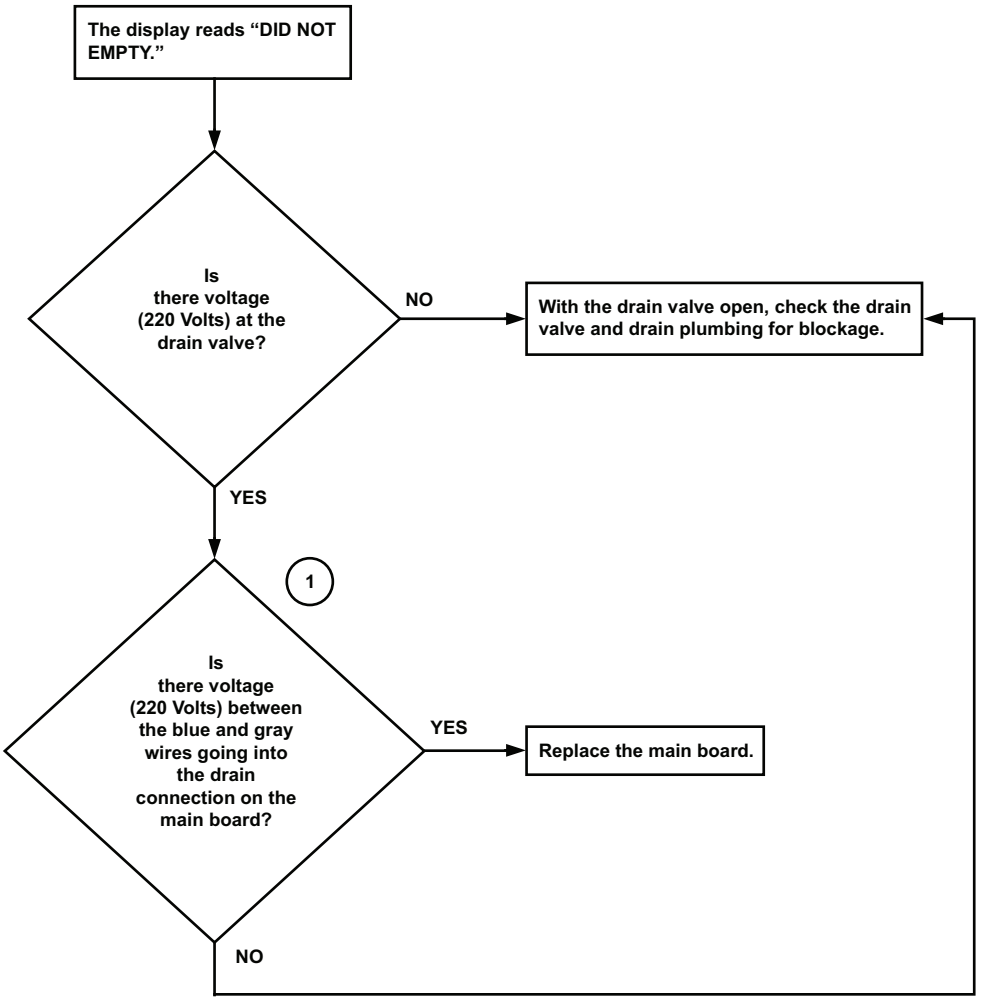
NOTE: Refer to the wiring diagram supplied with your machine.

Machine Did Not Fill Alarm Analysis (Sheet 2 of 2)



CFD2021S

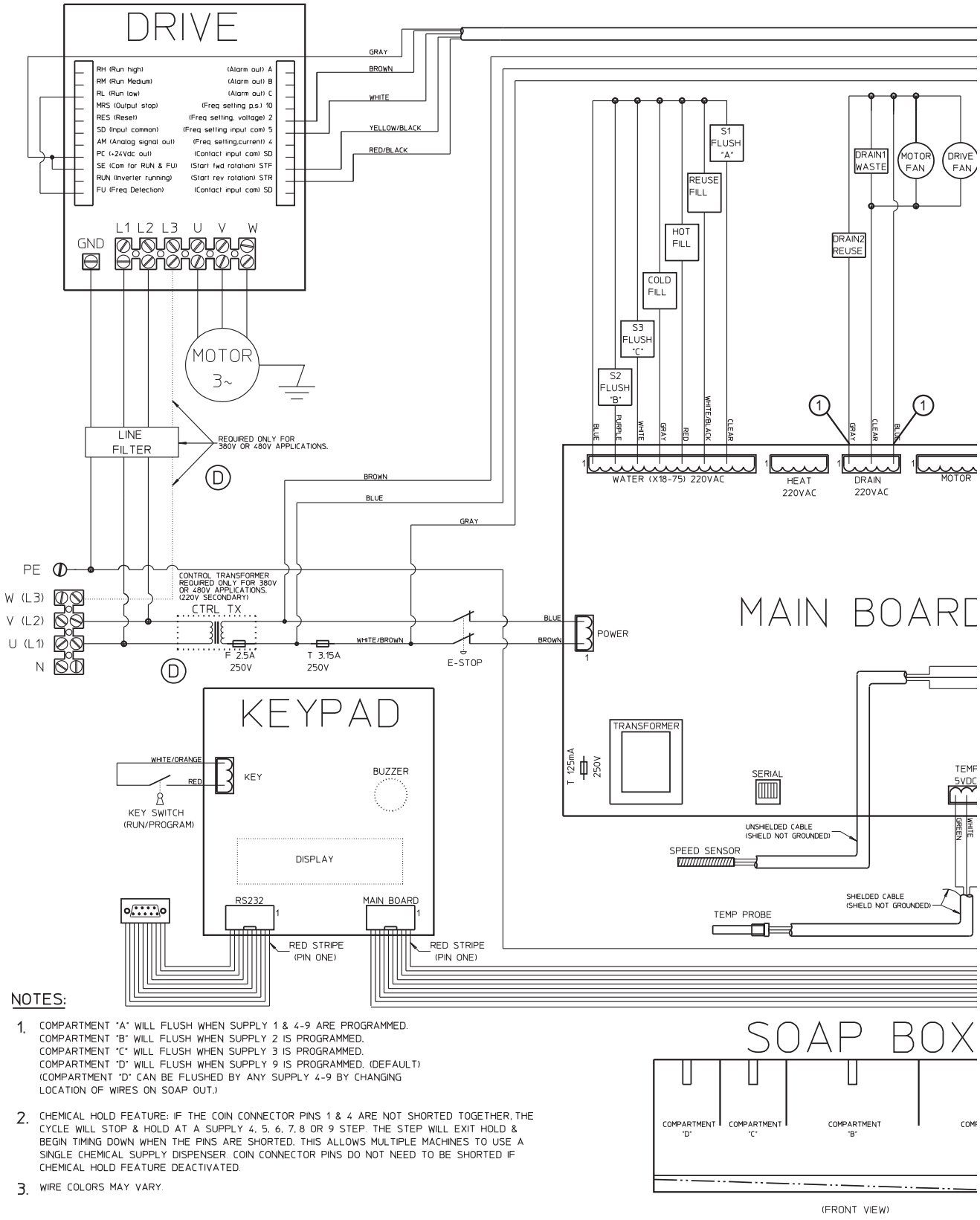
15. Empty Alarm Analysis



CFD2016S

Please refer to the following 2 pages for wiring diagram information.

Empty Alarm Analysis (Sheet 1 of 2)

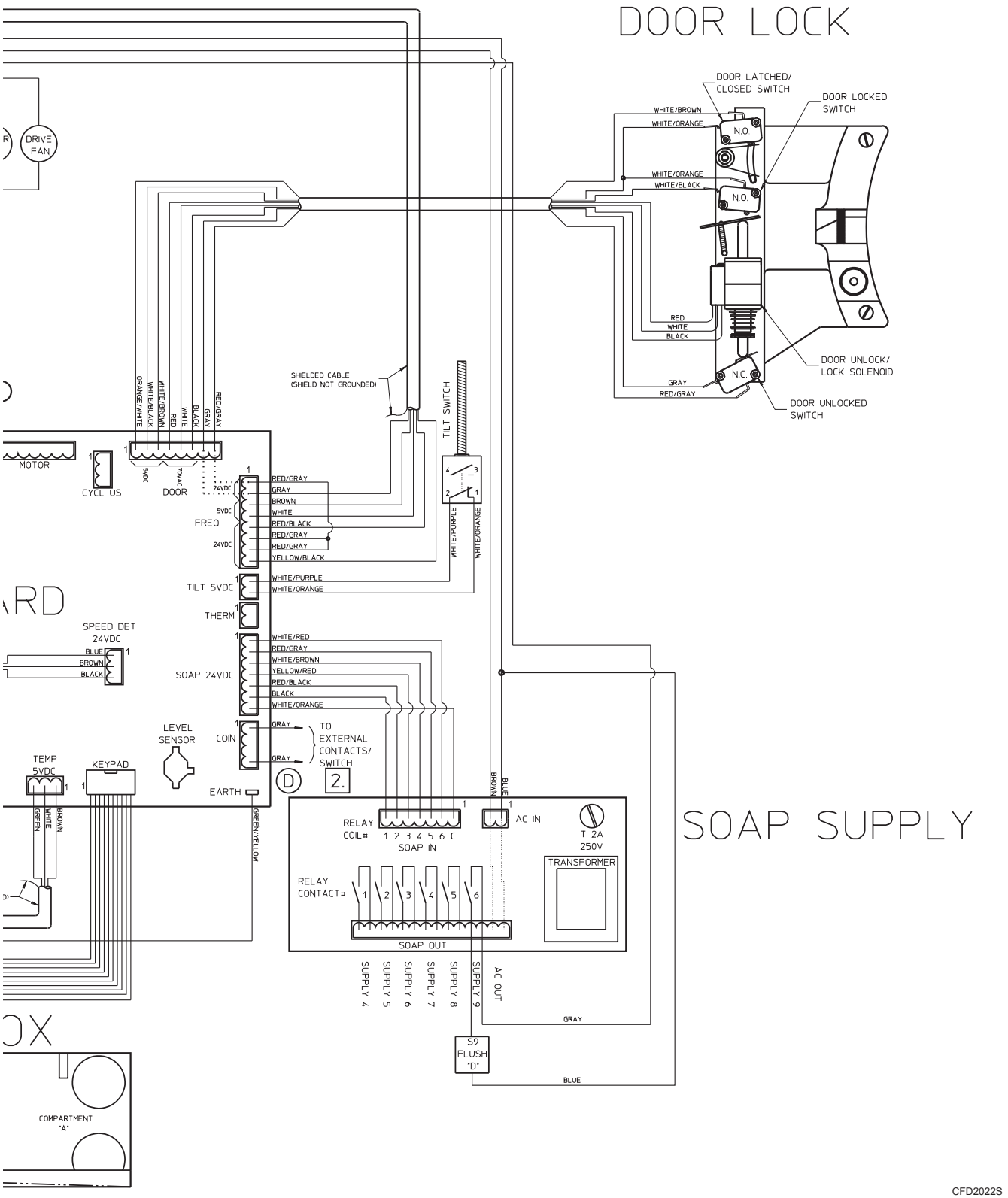


NOTES:

1. COMPARTMENT "A" WILL FLUSH WHEN SUPPLY 1 & 4-9 ARE PROGRAMMED.
   COMPARTMENT "B" WILL FLUSH WHEN SUPPLY 2 IS PROGRAMMED.
   COMPARTMENT "C" WILL FLUSH WHEN SUPPLY 3 IS PROGRAMMED.
   COMPARTMENT "D" WILL FLUSH WHEN SUPPLY 9 IS PROGRAMMED. (DEFAULT)
   (COMPARTMENT "D" CAN BE FLUSHED BY ANY SUPPLY 4-9 BY CHANGING LOCATION OF WIRES ON SOAP OUT.)
2. CHEMICAL HOLD FEATURE: IF THE COIN CONNECTOR PINS 1 & 4 ARE NOT SHORTED TOGETHER, THE CYCLE WILL STOP & HOLD AT A SUPPLY 4, 5, 6, 7, 8 OR 9 STEP. THE STEP WILL EXIT HOLD & BEGIN TIMING DOWN WHEN THE PINS ARE SHORTED. THIS ALLOWS MULTIPLE MACHINES TO USE A SINGLE CHEMICAL SUPPLY DISPENSER. COIN CONNECTOR PINS DO NOT NEED TO BE SHORTED IF CHEMICAL HOLD FEATURE DEACTIVATED.
3. WIRE COLORS MAY VARY.

NOTE: Refer to the wiring diagram supplied with your machine.

Empty Alarm Analysis (Sheet 2 of 2)



16. Automatic Supply Dispenser Analysis

Run Program 38.

Cycle 38 Supply Setup		
Step	**Description**	**Min:sec**
1	Warm Fill to Low Level	5:00
2	Supply 1	2:00
3	Supply 2	2:00
4	Supply 3	2:00
5	Supply 4	2:00
6	Supply 5	2:00
7	Drain 1	1:00

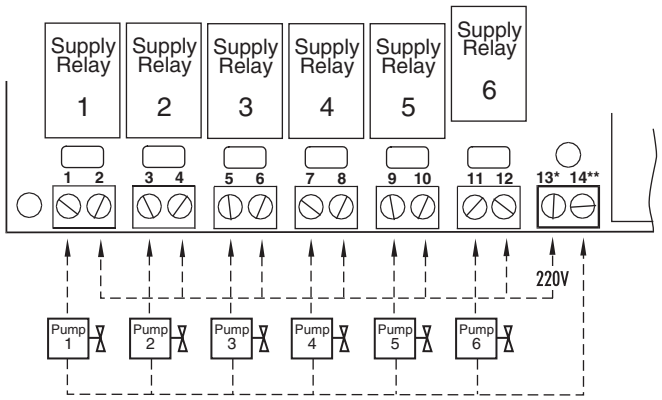
Cycle 38 Supply Setup		
Step	**Description**	**Min:sec**
8	Warm Fill to Low Level	5:00
9	Supply 6	2:00
10	Supply 7	2:00
11	Supply 8	2:00
12	Supply 9	2:00
13	Wash 1 18/3 (80°F)	0:30
14	Drain 1	1:00

Run the cycle and, with the respective supply on the main display, refer to the following chart for the function that should be occurring:

Supply	Function	Voltage
1	Turns on the water valve in compartment A of the supply box.	N/A
2	Turns on the water valve in compartment B of the supply box.	N/A
3	Turns on the water valve in compartment C of the supply box.	N/A
4	Activates supply relay 1. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 1 and14
5	Activates supply relay 2. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 3 and14
6	Activates supply relay 3. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 5 and14
7	Activates supply relay 4. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 7 and14
8	Activates supply relay 5. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 9 and14
9	Activates supply relay 6. Visibly inspect the relay to see if it is closing and check for voltage.	220 Volts between terminals 11 and14

During each step, test for voltage (220 Volts) between each respective supply terminal and the common terminal on the supply terminal board. Terminal 14 is the common terminal for the pumps.

The supply terminal board should be wired as shown in *Figure 2*.



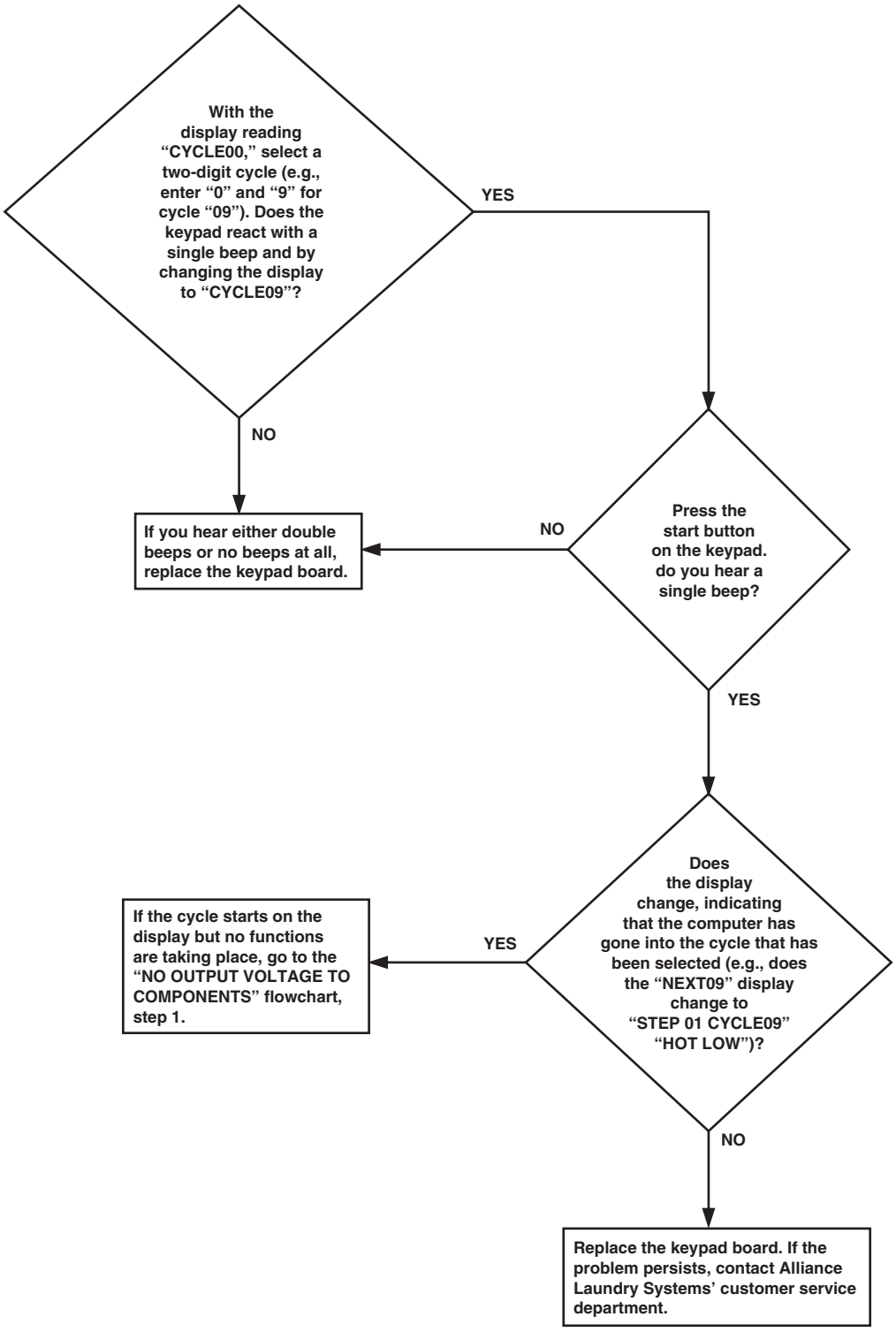
ELECTRICAL CONNECTION OF THE LIQUID SUPPLY PUMPS

* L1 (110 VAC) wire or terminal for remote liquid supply connection.

** L2 common wire (110 VAC) or terminal for remote liquid supply connection.

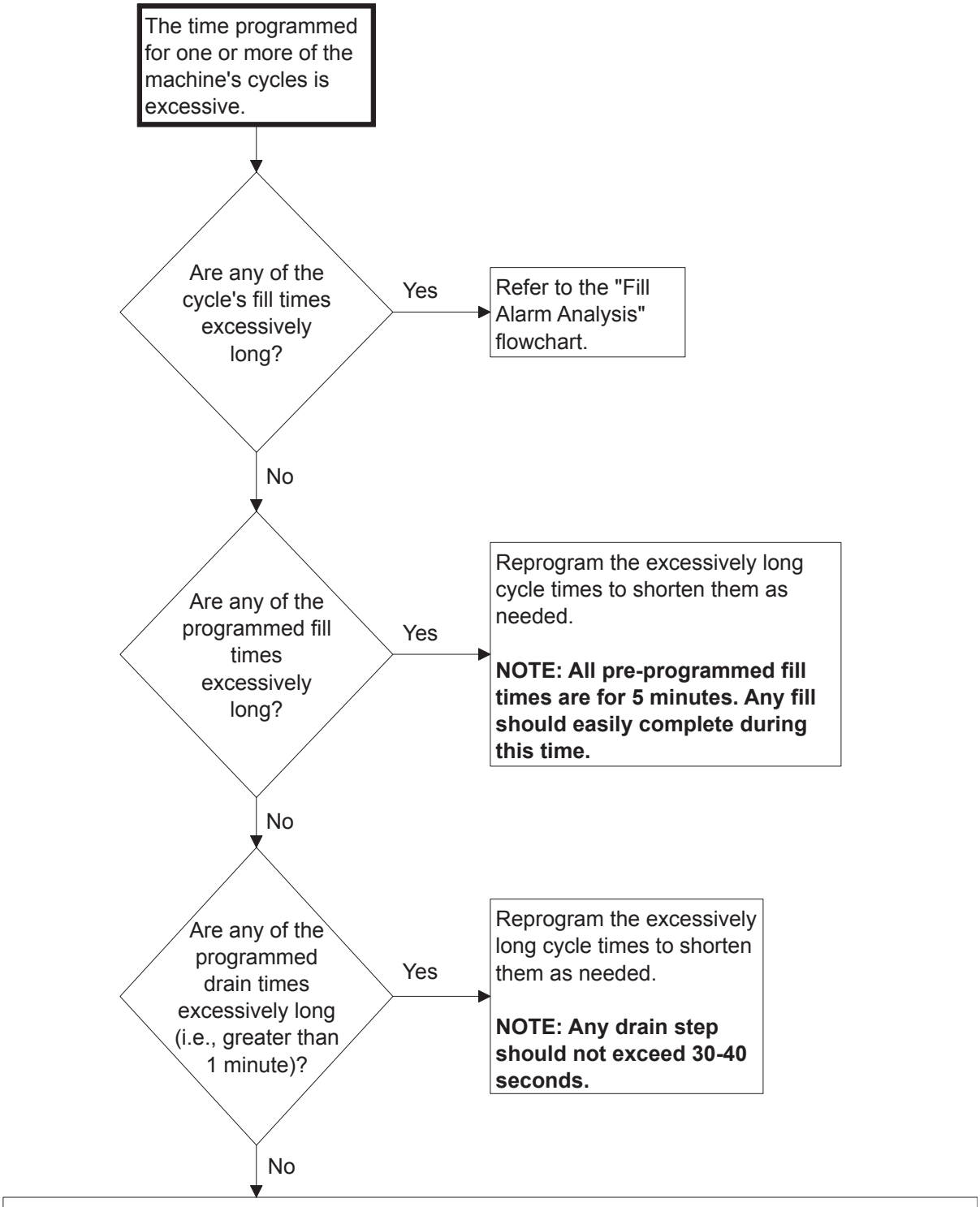
Figure 2

17. No Keypad Board Functions



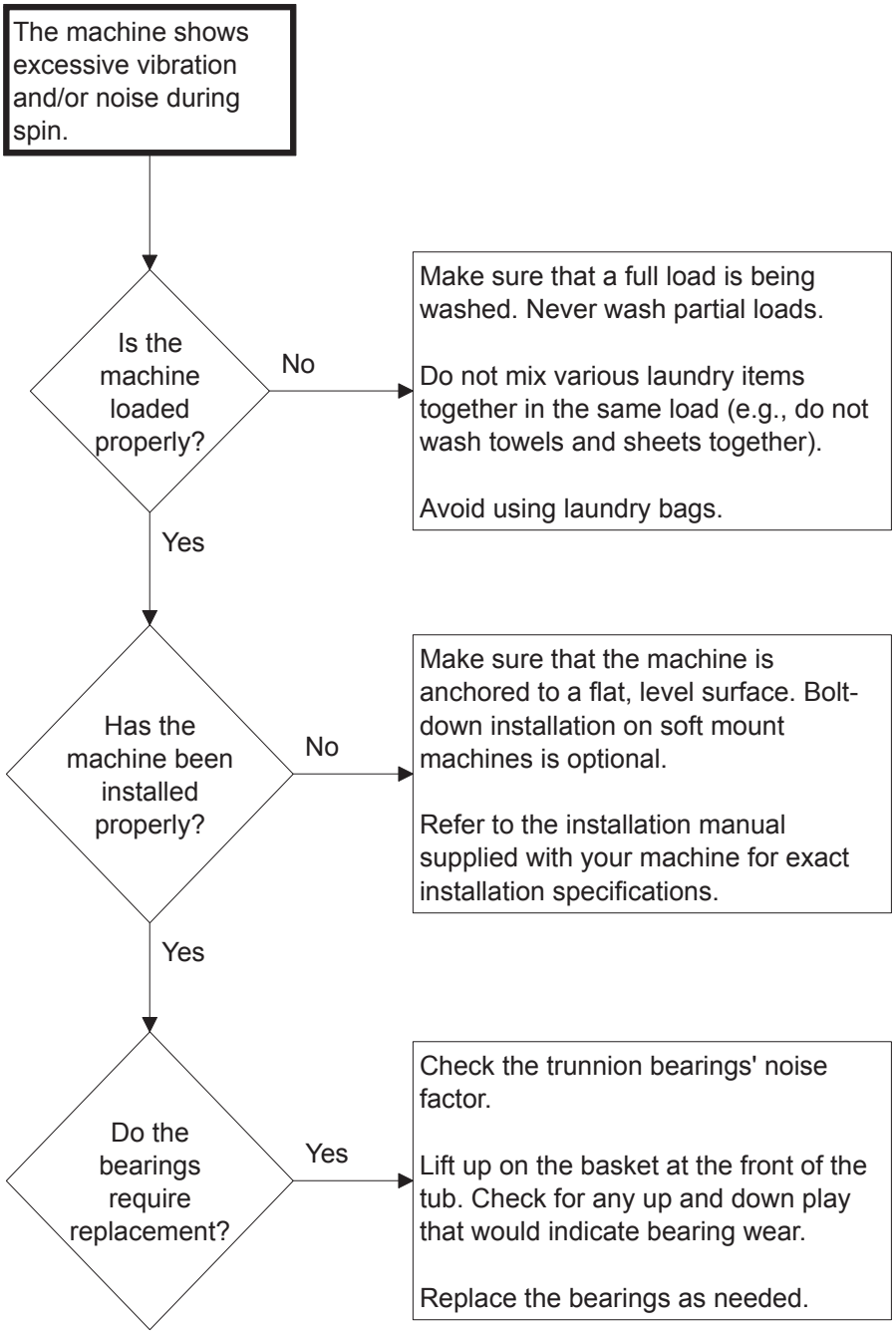
CFD1987S

18. Excessive Cycle Time



CFD2007S

19. Excessive Vibration and/or Noise During Spin



CFD2008S

20. Cycle Memory Error

If an unknown component is found within one or more wash cycles, the cycles are corrupt. Using the Alliance Planner Software, rewrite the cycles to the machine's control.