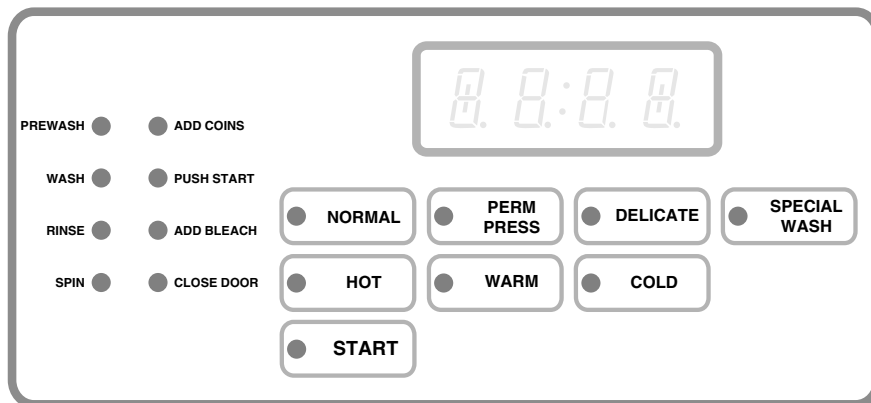


Electronic Control

Washer-Extractor Troubleshooting Guide

SC18EC, SC25EC, SC27EC, SC35EC,
SC50EC, SC80EC, SF18EC, SF25EC



C5121

Keep These Instructions for Future Reference.



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

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



CAUTION

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

NOTE: The **WARNINGS** and **IMPORTANT INSTRUCTIONS** appearing in this manual are not meant to cover all possible conditions and situations that may occur. It must be understood that common sense, caution and carefulness are factors which **CANNOT** be built into these products. These factors **MUST BE** supplied by the person(s) installing, maintaining or operating the product.

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

Recognize Safety Symbols, Words and Labels

▲ DANGER—Immediate hazards which **WILL** result in serious injury or death

▲ WARNING—Hazards or unsafe practices which **COULD** result in serious injury or death.

▲ CAUTION—Hazards or unsafe practices which **COULD** result in minor or moderate injury or product or property damage.

W009

Table of Contents

Section 1	
Electronic Control Error Code Listing	
EDC W-X Control Error Codes.....	3
Section 2	
Troubleshooting	
Coins Ignored When Entered.....	5
EDC Control Has No Visible Display	6
No Fill Analysis.....	10
Over Flow Analysis	14
Door Lock Switch Analysis.....	18
Door Switch Analysis	22
Agitation Analysis (Hard Mount – Cabinet)	26
Spin Analysis (Hard Mount – Cabinet)	30
W-X Will Not Drain	34
W-X Will Not Pump the Water Out of the Wash Tub	38
Optional Heater Will Not Heat	42
Inlet Detergent/Chemical Supply Analysis	46
Contactors Analysis.....	50
VFD Drive Analysis	54

© Copyright 2001, Alliance Laundry Systems LLC

All rights reserved. No part of the contents of this book may be reproduced or transmitted in any form or by any means without the expressed written consent of the publisher.

Section 1

Electronic Control Error Code Listing

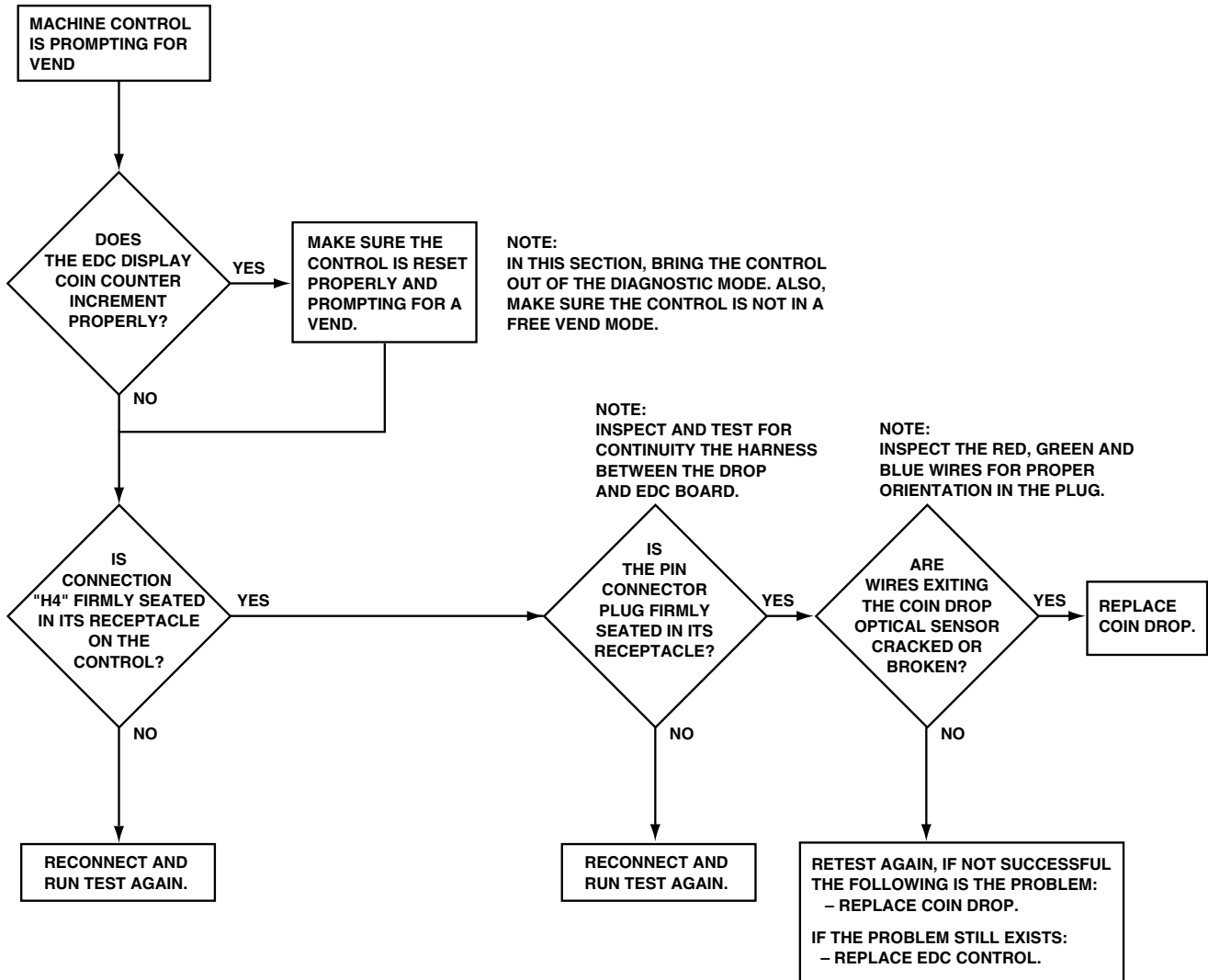
NOTE: Disconnecting power to the unit may clear the error display.

EDC W-X Control Error Codes

“E:FL”	Fill Error	Check fill hoses for improper installation or kinks. Make sure drain valve not open.
“E:dr”	Drain Error	Check drain valve and hoses for proper operation.
“SH”	Shorted Temperature Sensor (If Equipped)	Dead short in the temperature sensor circuit. Change temperature sensor.
“OP”	Open Temperature Sensor (If Equipped)	Physical opening in the temperature sensor circuit. Change temperature sensor.
“E:Ht”	Heater Error (Optional Heater only)	More than 2 hours is needed to heat the water to the programmed temperature. Replace inoperative heater/circuit components.
“E:Pr”	Pressure Switch Sequence Error	Sequence error in either Fill/Tumble or Drain/Tumble. Change pressure switch.
“E:SP”		Communication issues between the control logic board and output board. Check control and output boards.
“E:dL”	Door Lock Error	Occurs when the control is unable to correctly control the door locking mechanism. Open and reclose the door.
“E:dO”	Door Open Error	Occurs when the control senses that the door is open during a cycle. Correct inoperative door locking system.
“E:Ub”	Unbalance Error	Clothes not distributed properly. Redistribute and run cycle.

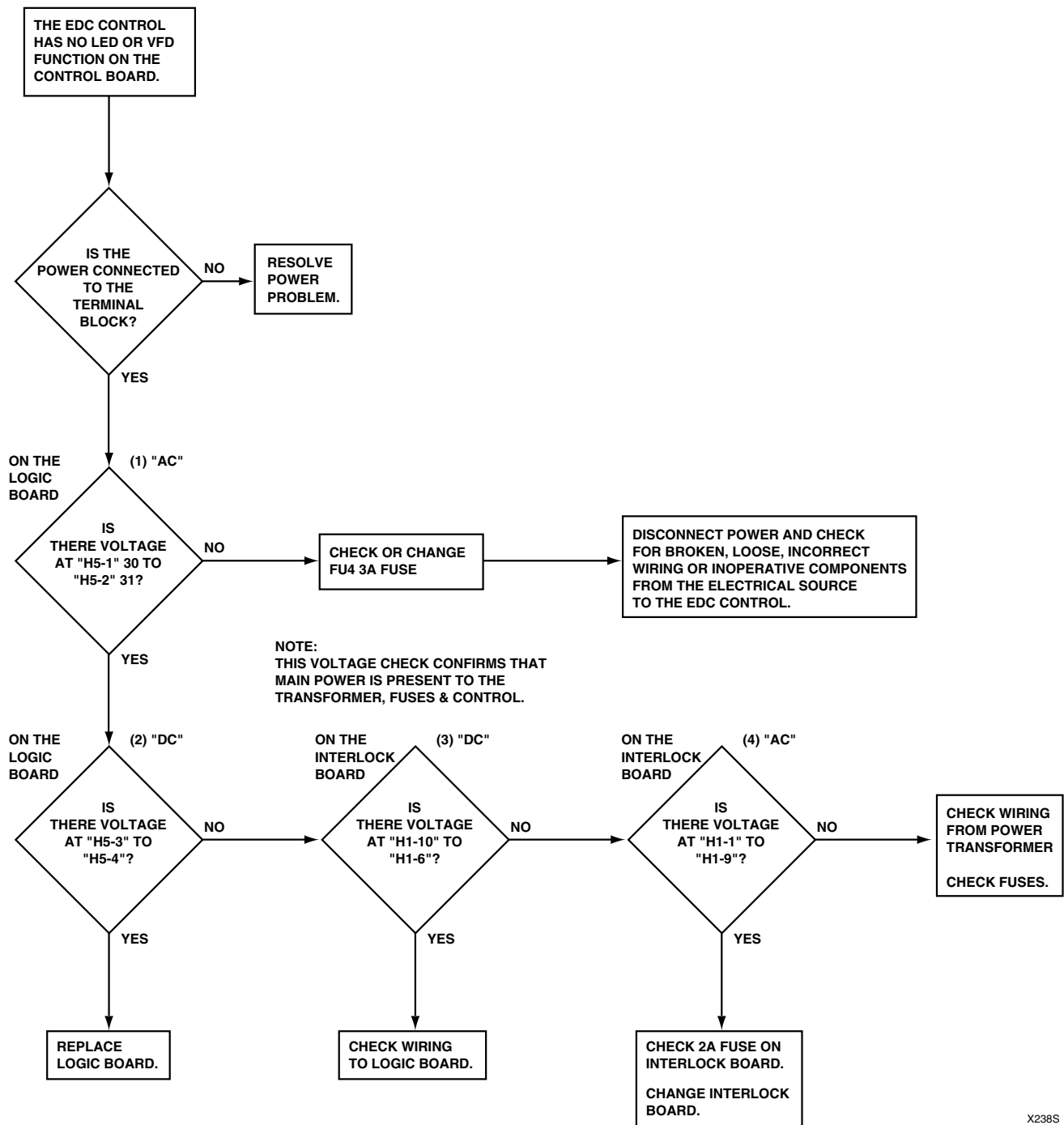
Section 2 Troubleshooting

Coins Ignored When Entered



X237S

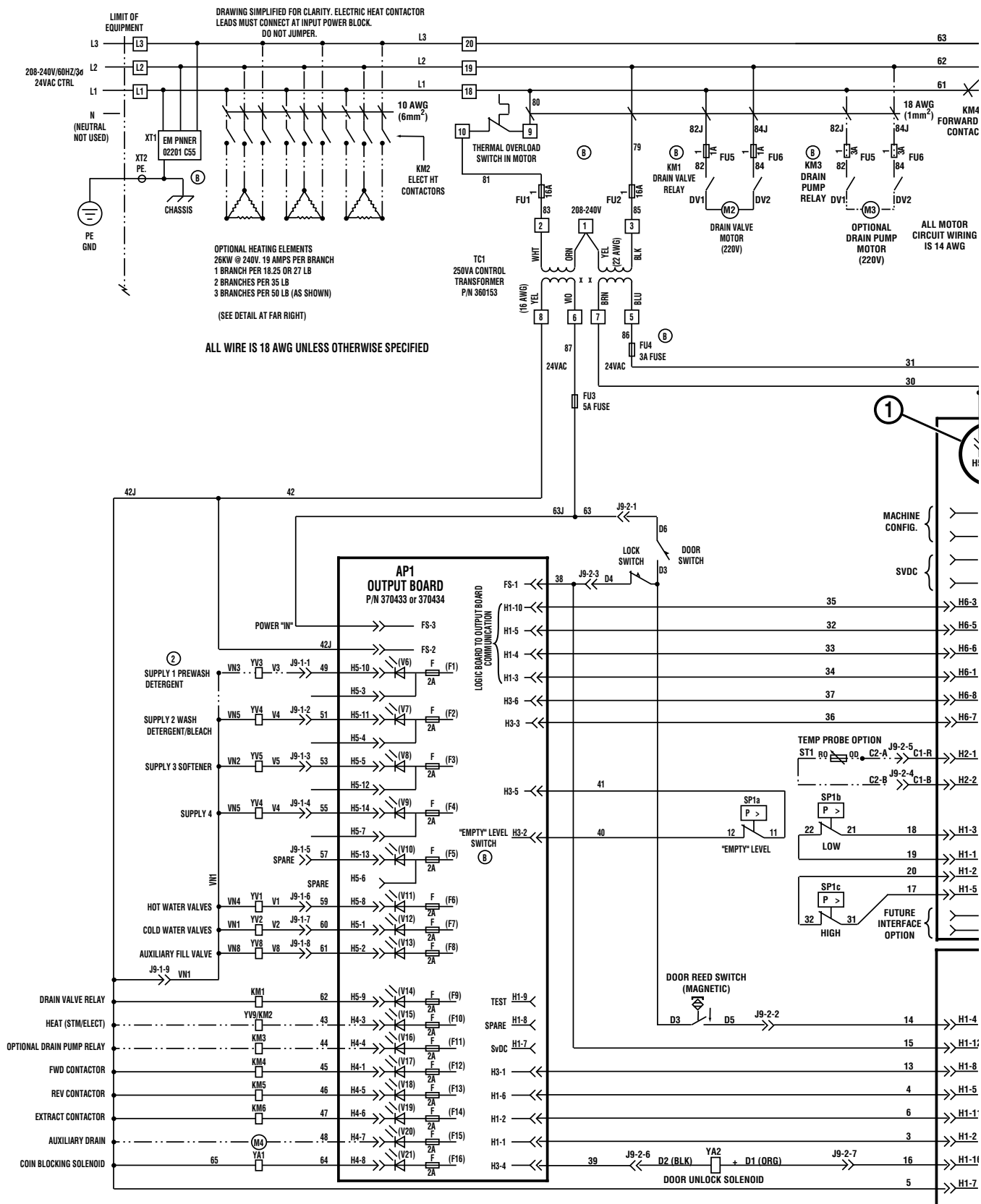
EDC Control Has No Visible Display



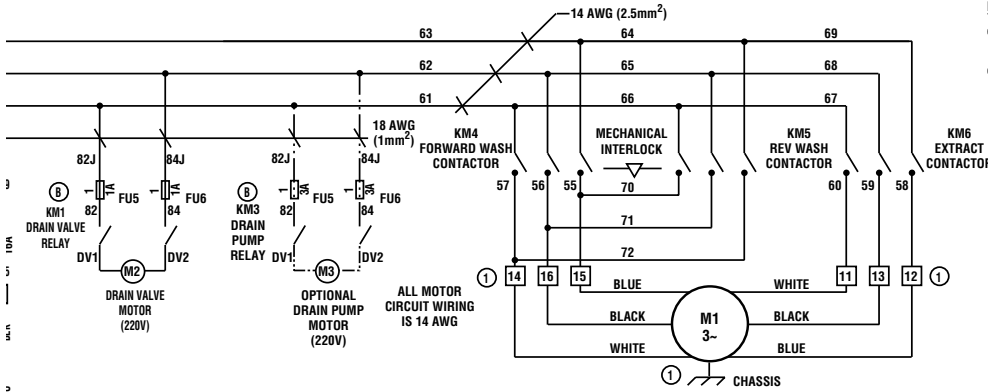
X238S

Please see following 2 pages for wiring diagram information.

EDC Control Has No Visible Display (Sheet 1 of 2)



EDC Control Has No Visible Display (Sheet 2 of 2)



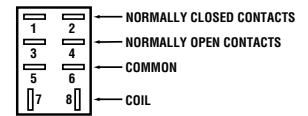
NOTES:

- IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

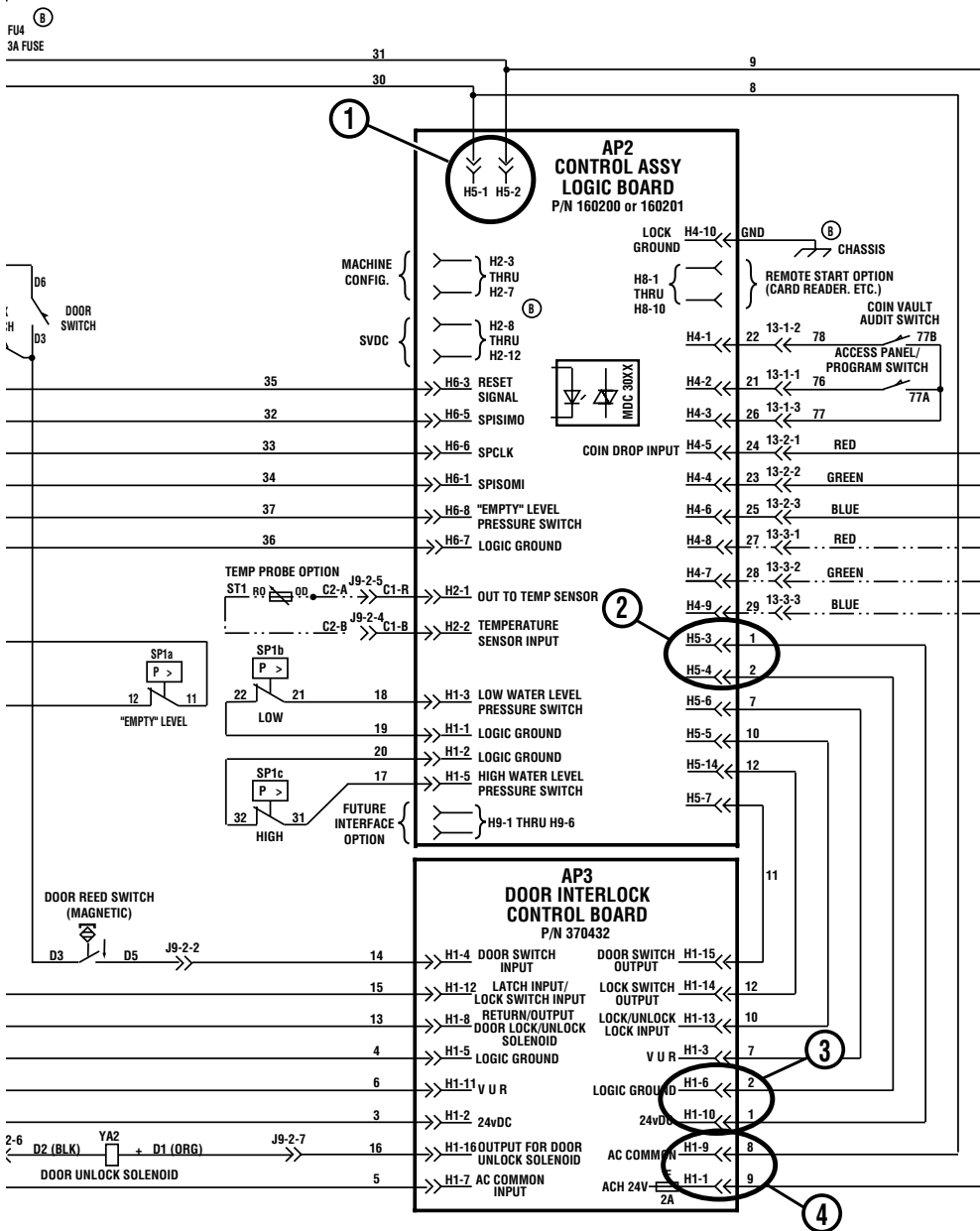
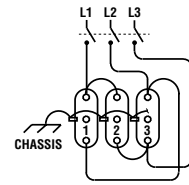
- 8 - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN

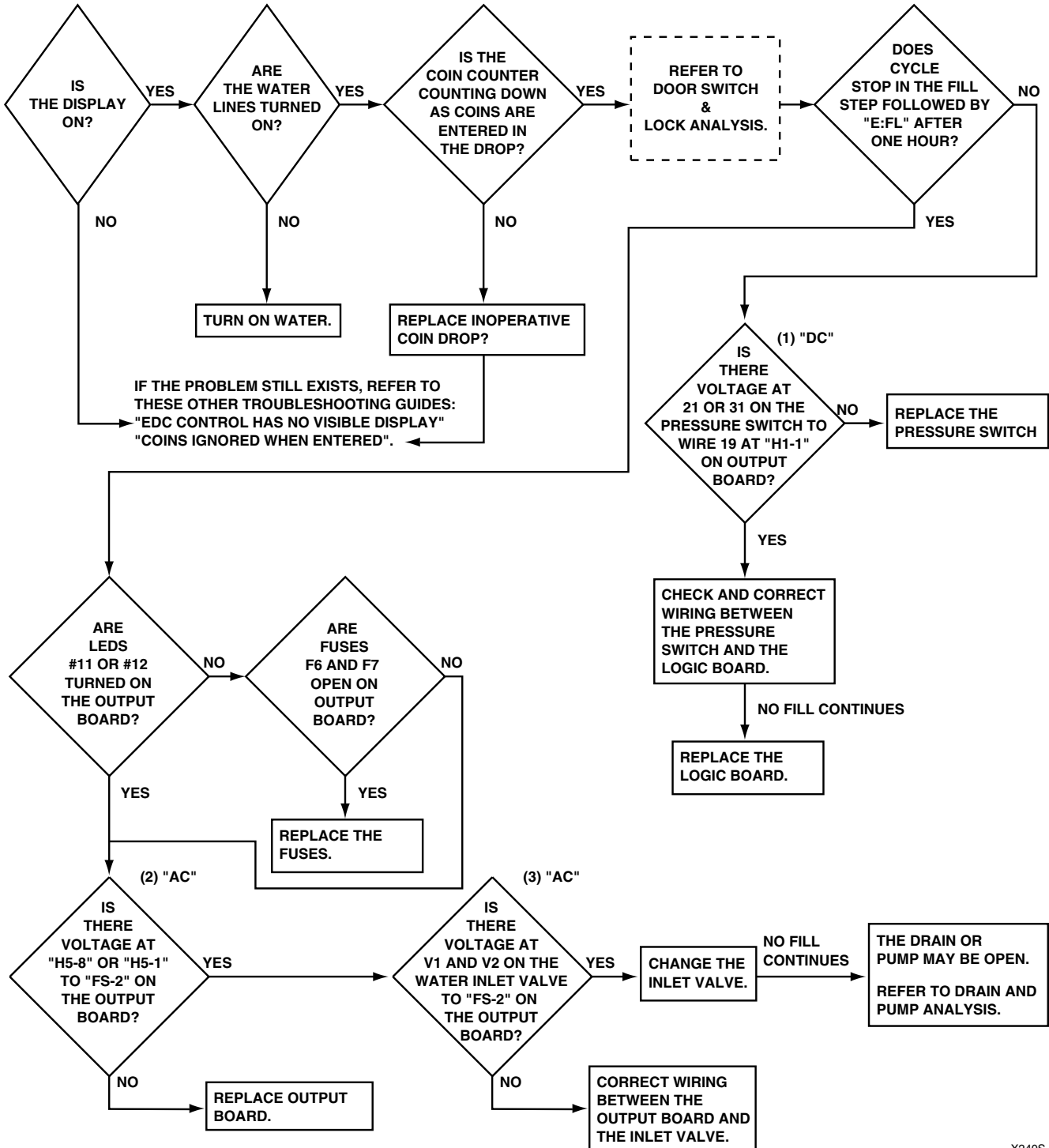


FU4 3A FUSE

X239SE3A

No Fill Analysis

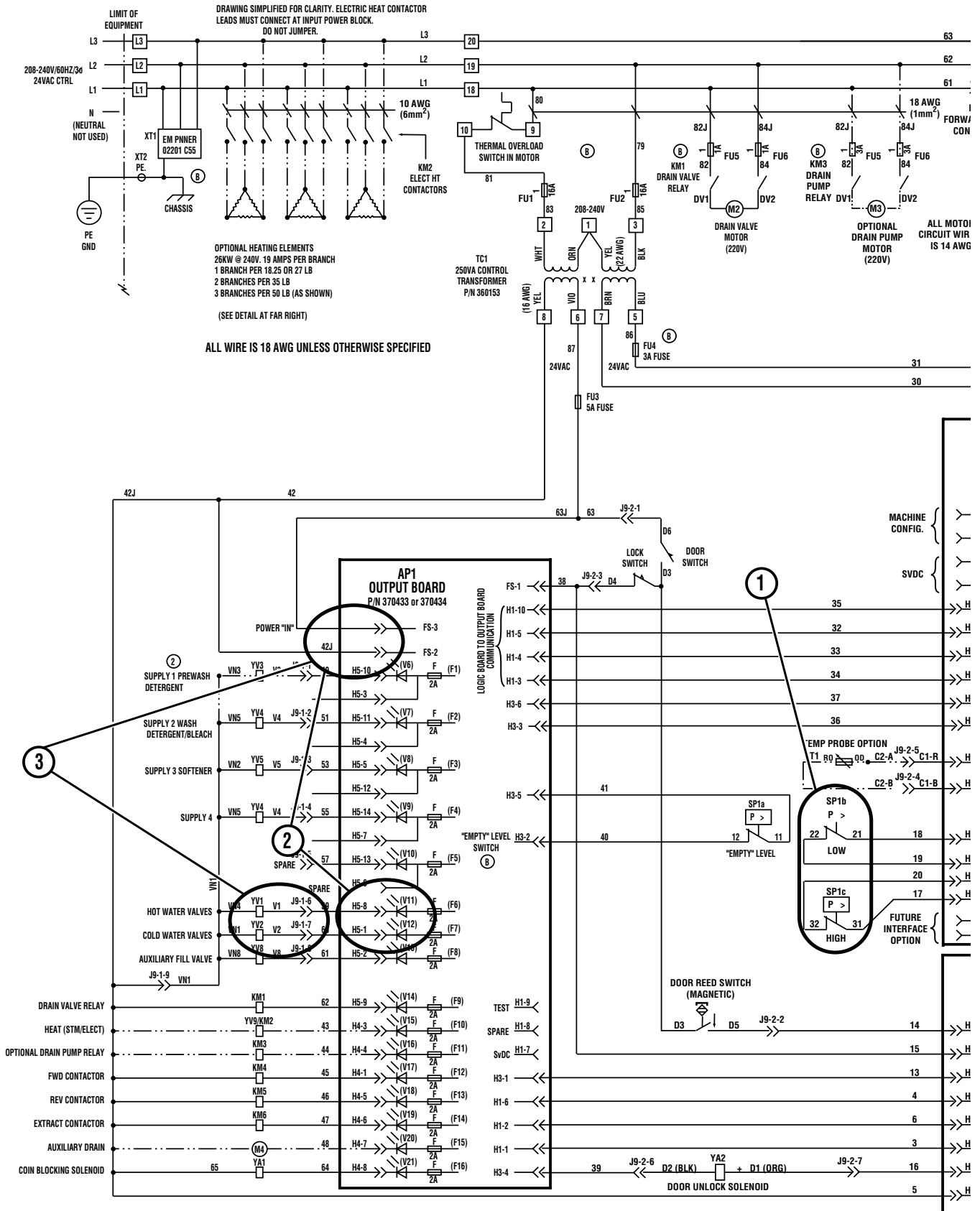
NOTE: THE FLOW CHART WILL FOLLOW AS IF THE DOOR CIRCUIT IS WORKING PROPERLY.



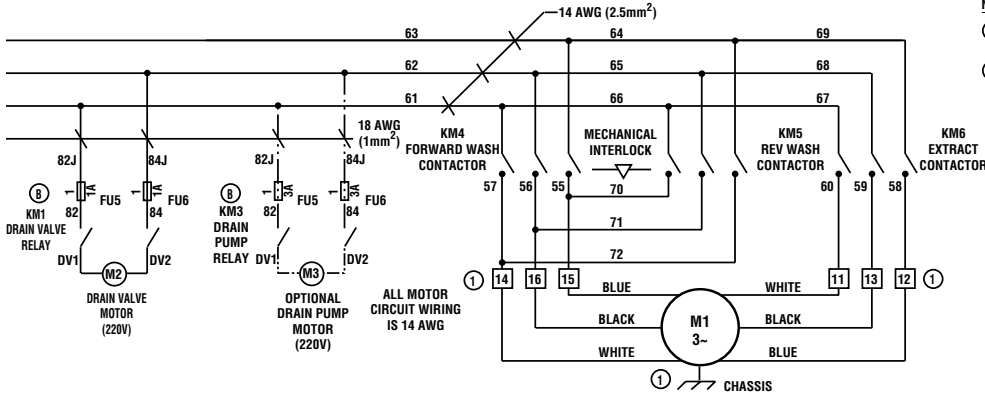
X240S

Please see following 2 pages for wiring diagram information.

No Fill Analysis (Sheet 1 of 2)



No Fill Analysis (Sheet 2 of 2)



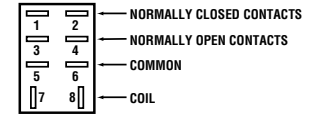
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

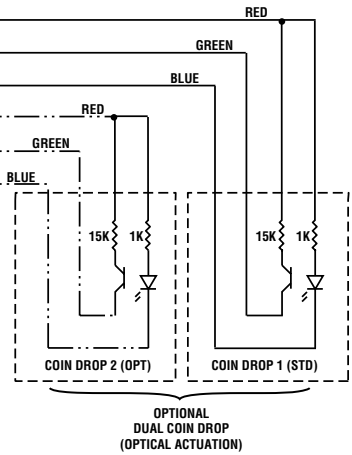
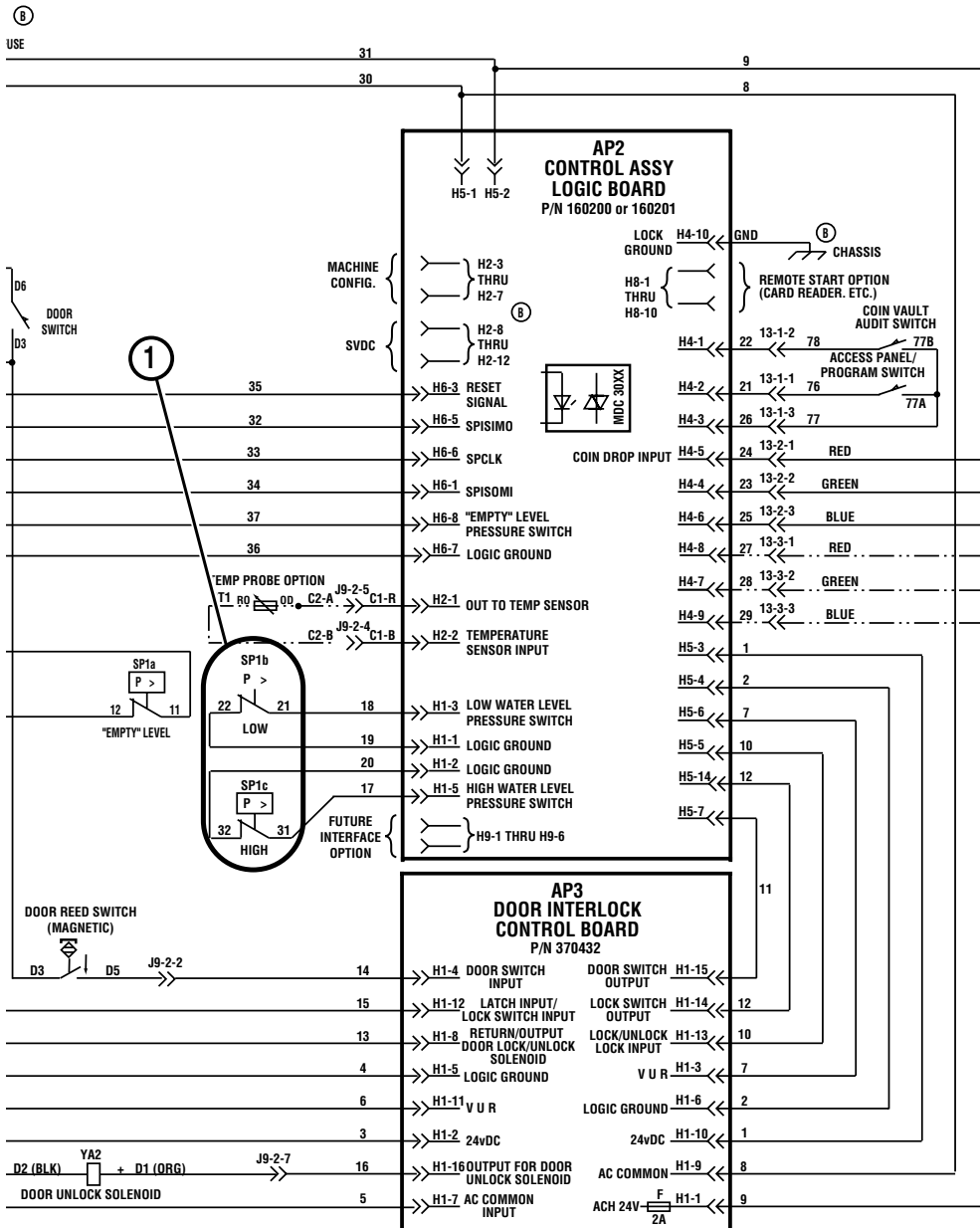
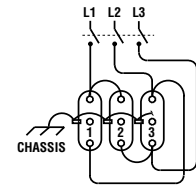
- ⑧ - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



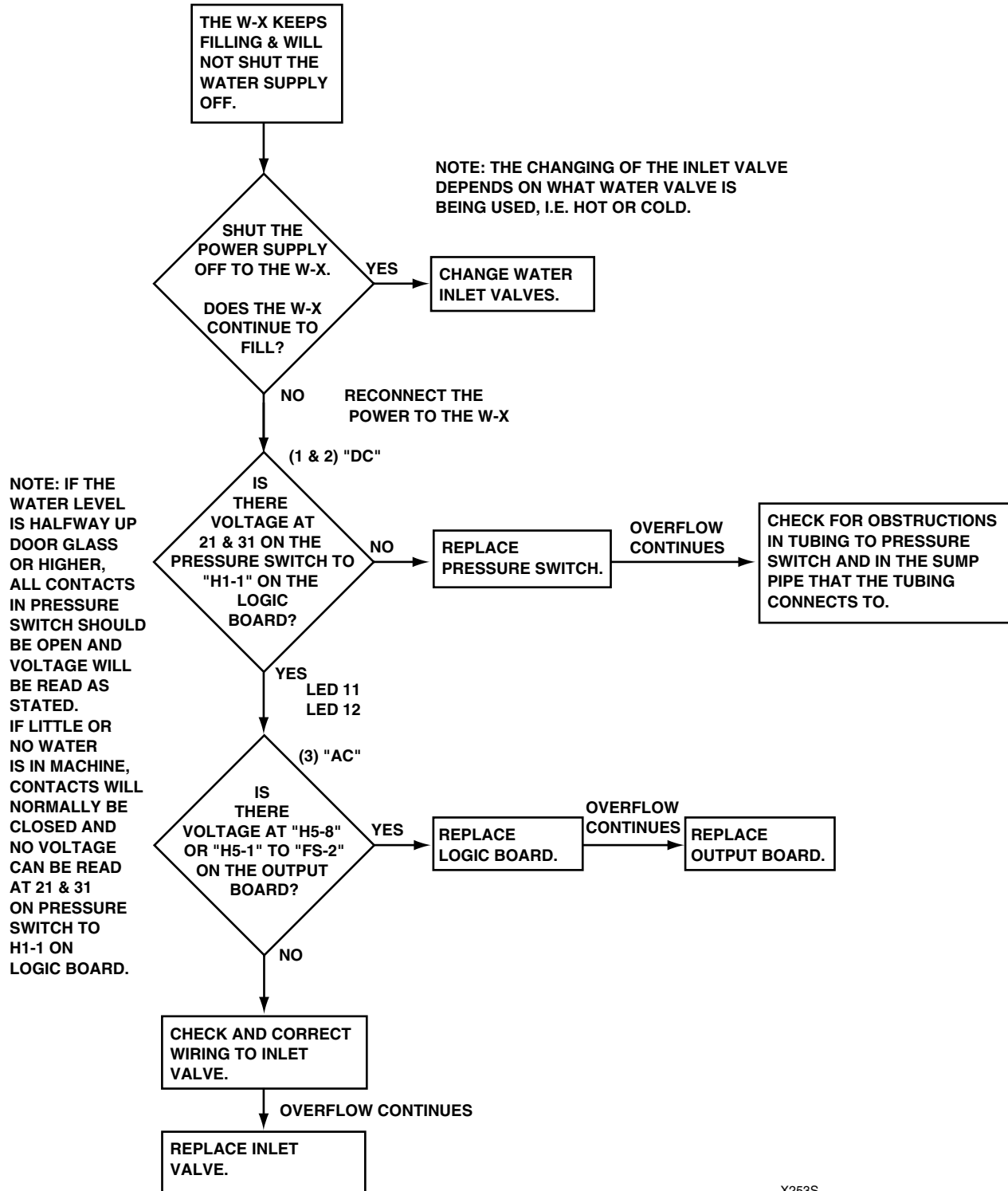
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



X239SE3B

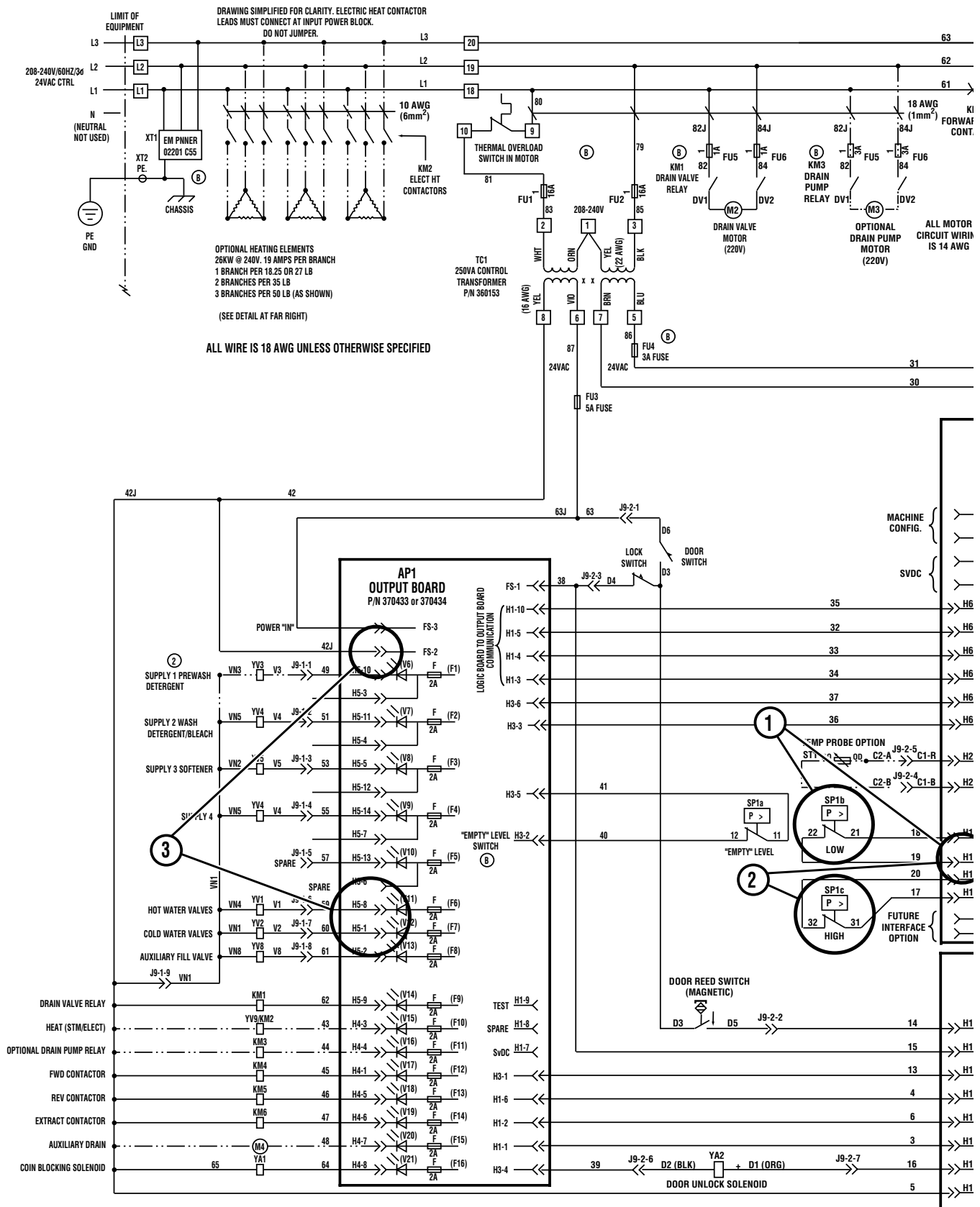
Over Flow Analysis



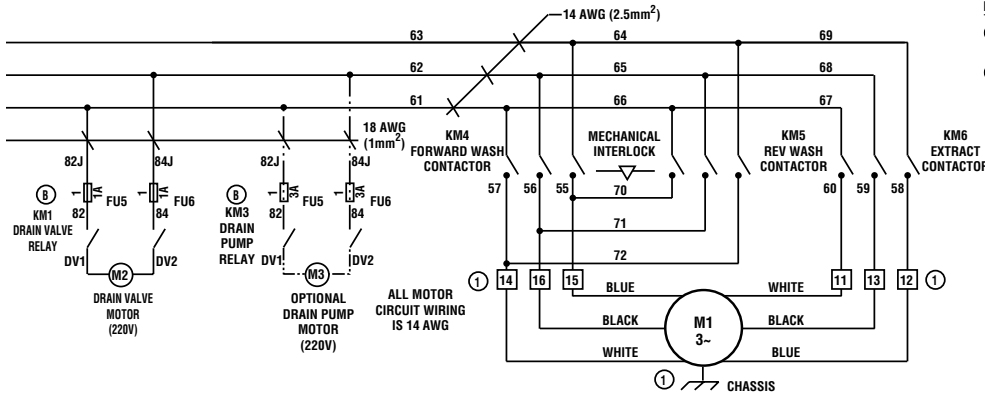
X253S

Please see following 2 pages for wiring diagram information.

Over Flow Analysis (Sheet 1 of 2)



Over Flow Analysis (Sheet 2 of 2)



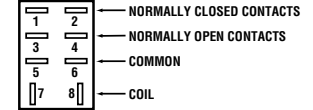
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

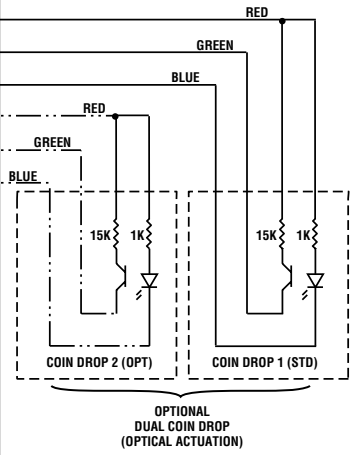
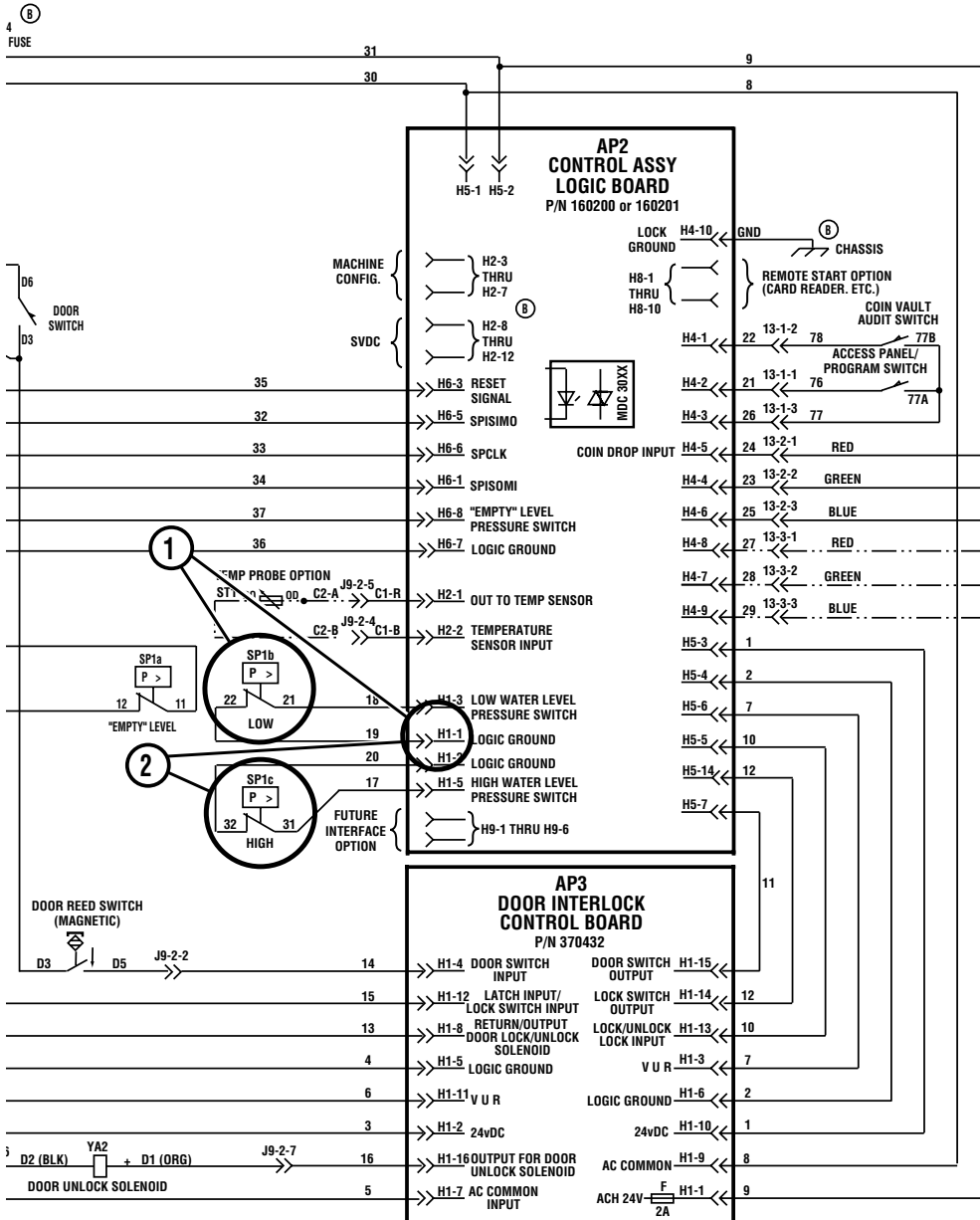
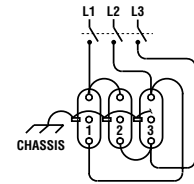
- ⑧ - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

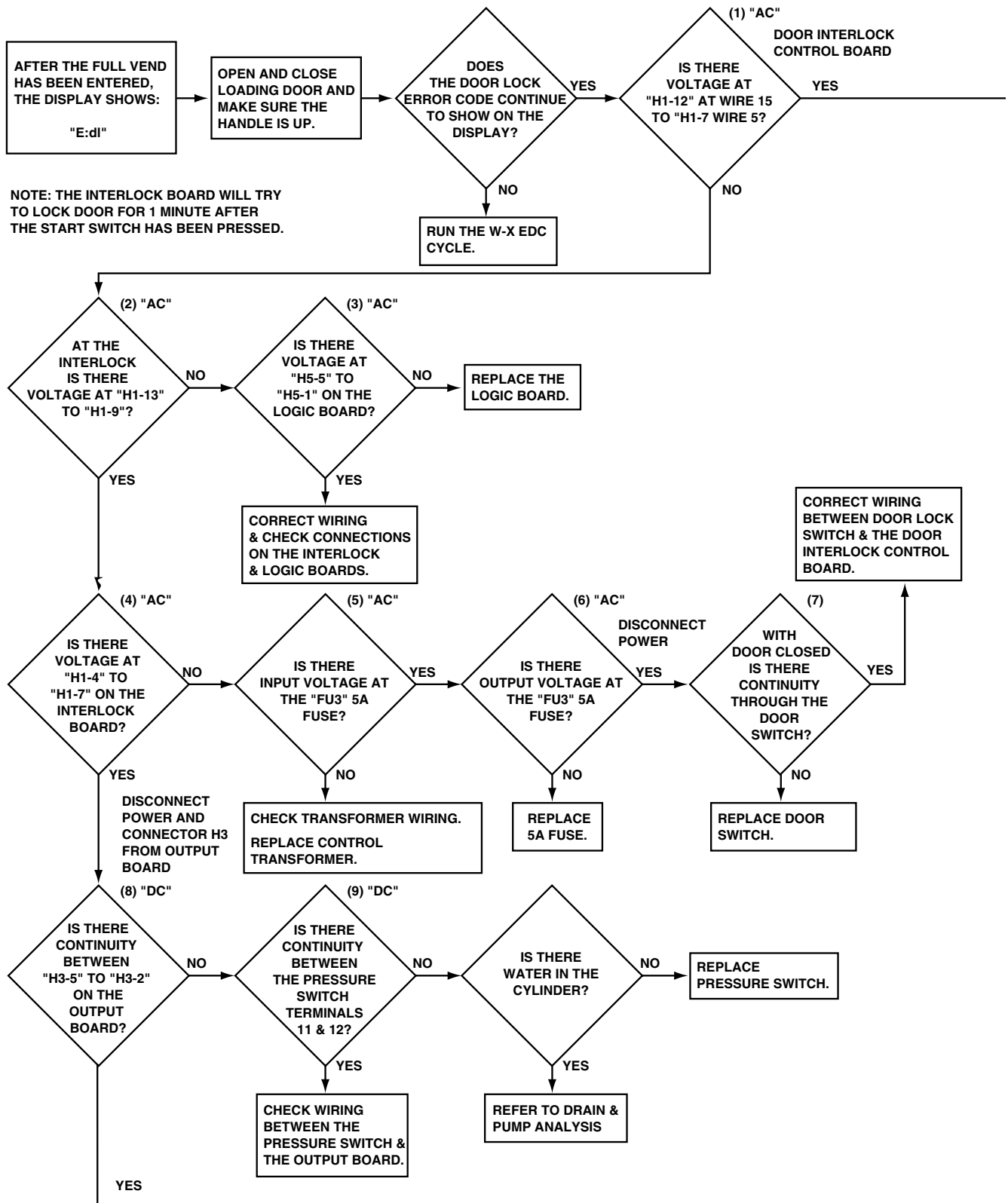
ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



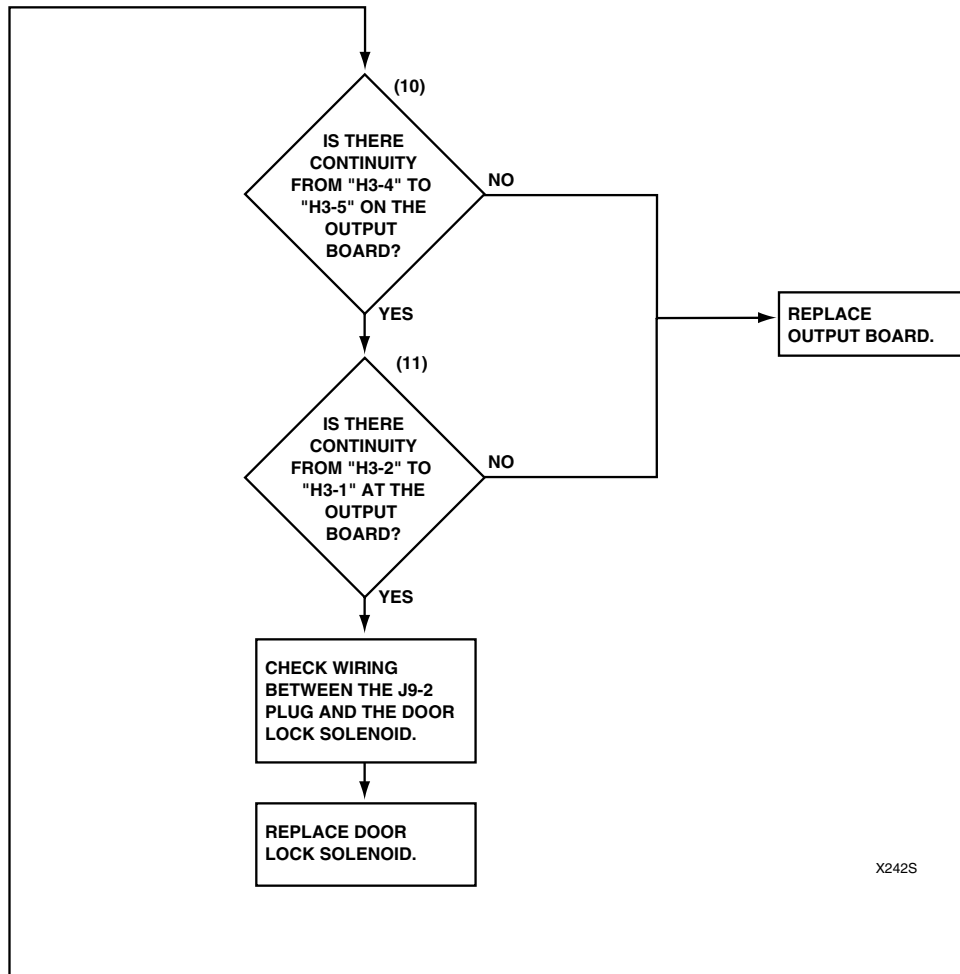
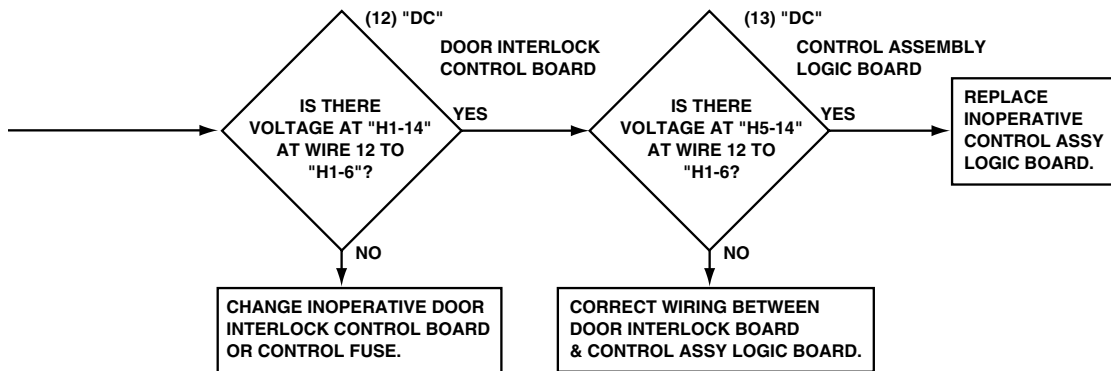
⑧
4 FUSE

Door Lock Switch Analysis (Sheet 1 of 2)

DOOR LOCK SWITCH ANALYSIS

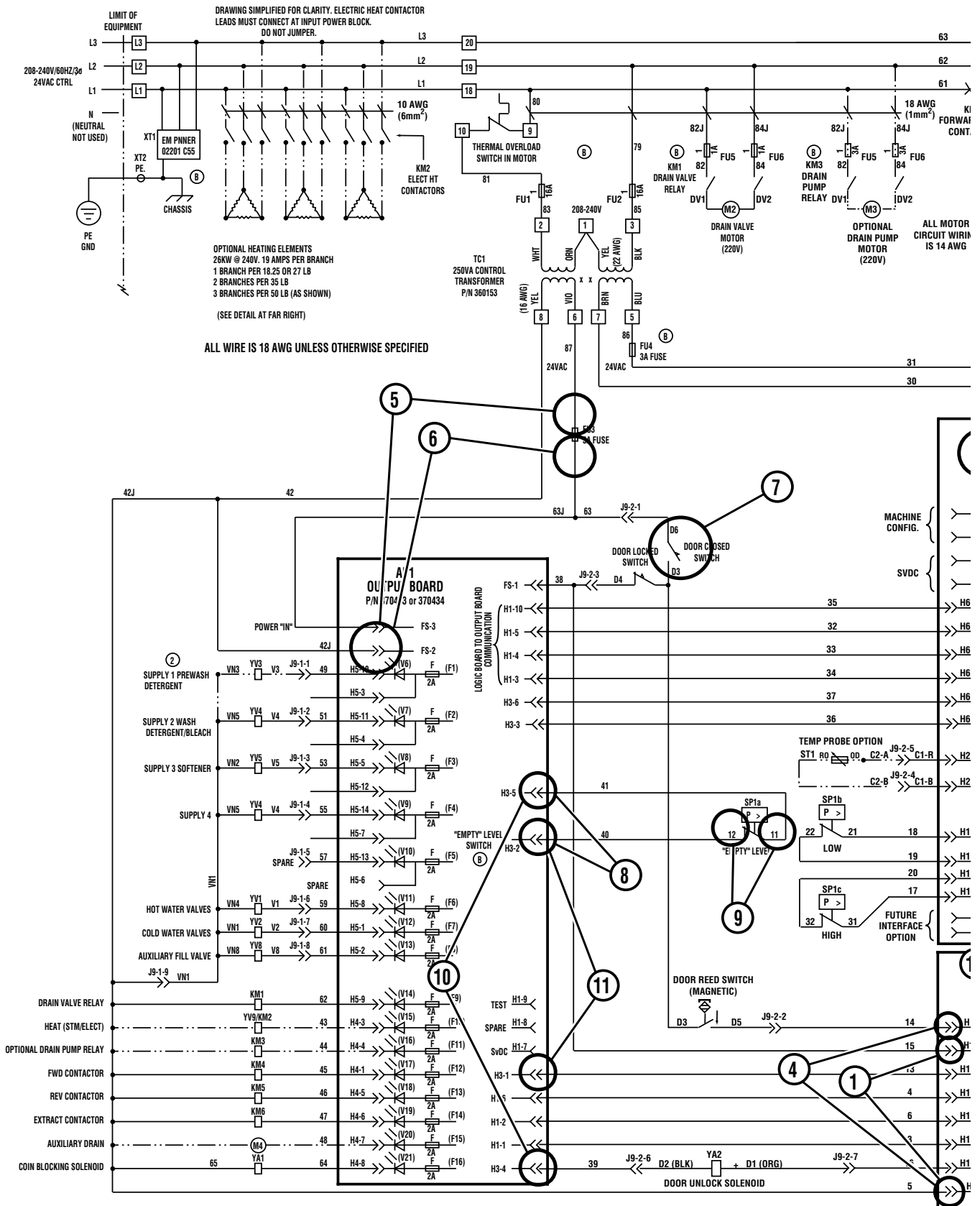


Door Lock Switch Analysis (Sheet 2 of 2)

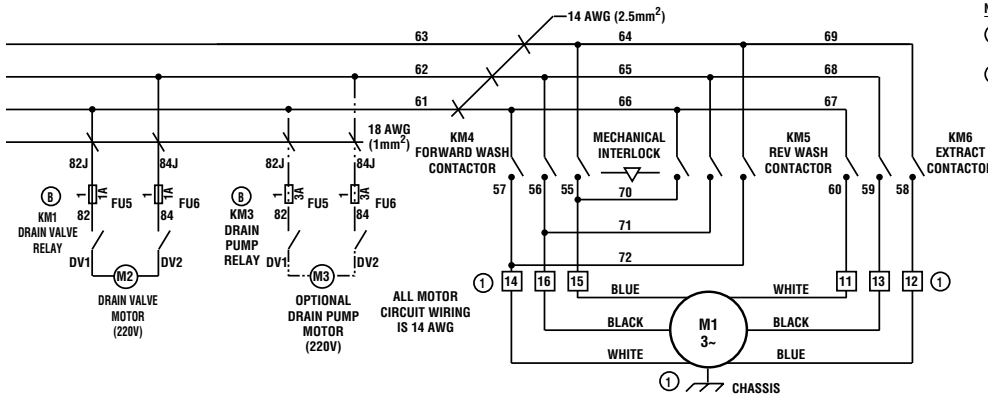


X242S

Door Lock Switch Analysis (Sheet 1 of 2)



Door Lock Switch Analysis (Sheet 2 of 2)

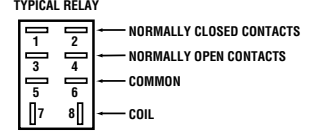


- NOTES:**
- IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
 - SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

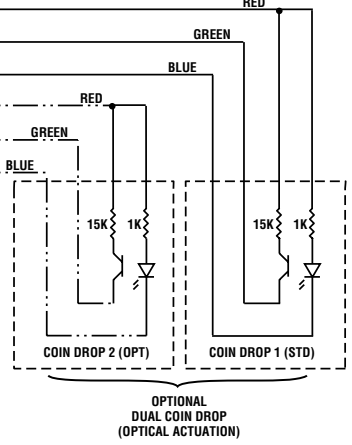
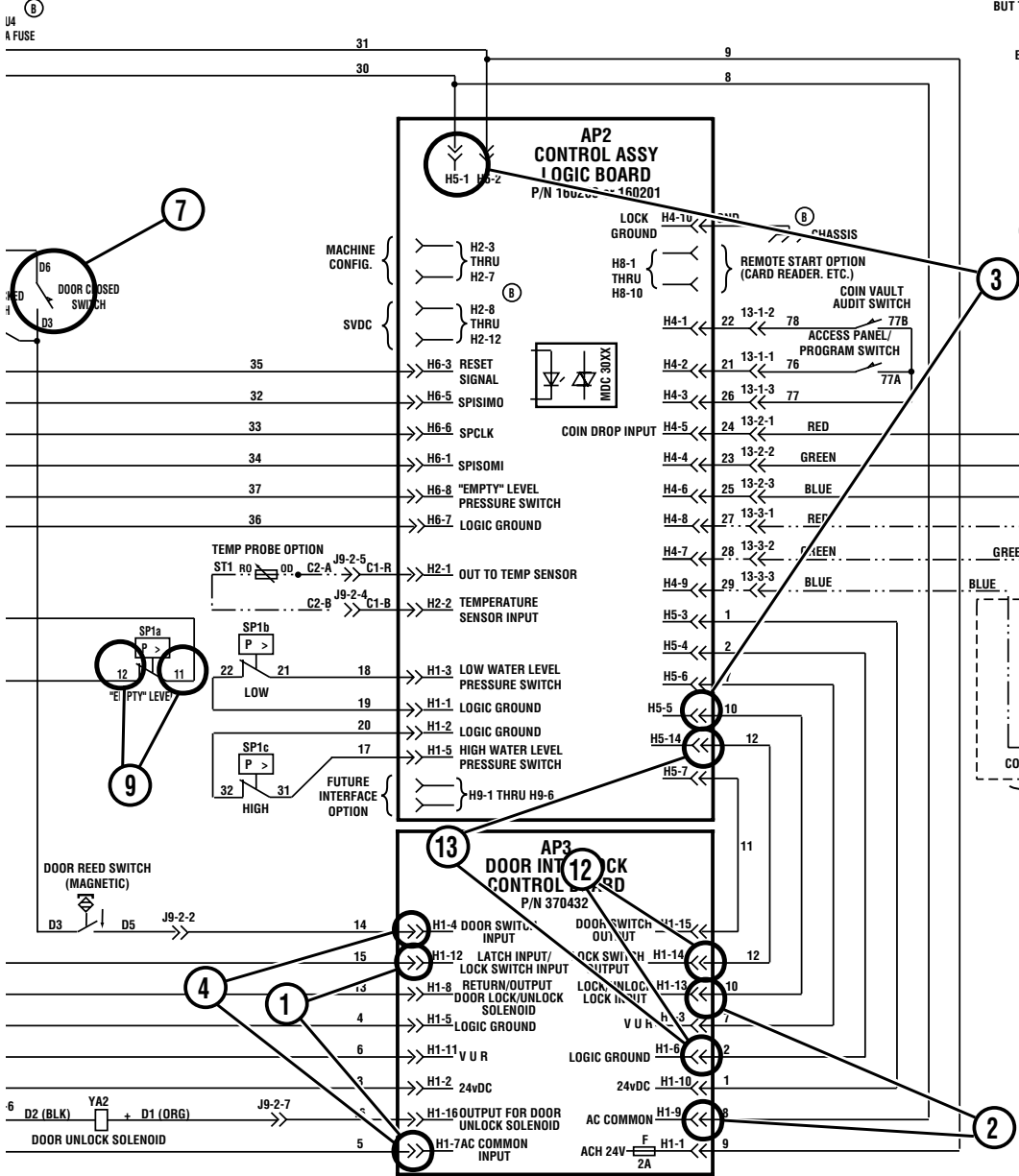
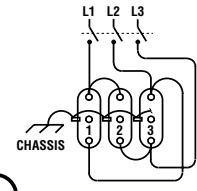
8 - TERMINAL STRIP, TERMINAL = 8

KM2 RATED 35A AC1 (NX147 OR EQUIV)
 KM4 RATED 24A AC3 (NX101 OR EQUIV)
 KM5 RATED 24A AC3 (NX101 OR EQUIV)
 KM6 RATED 24A AC3 (NX101 OR EQUIV)

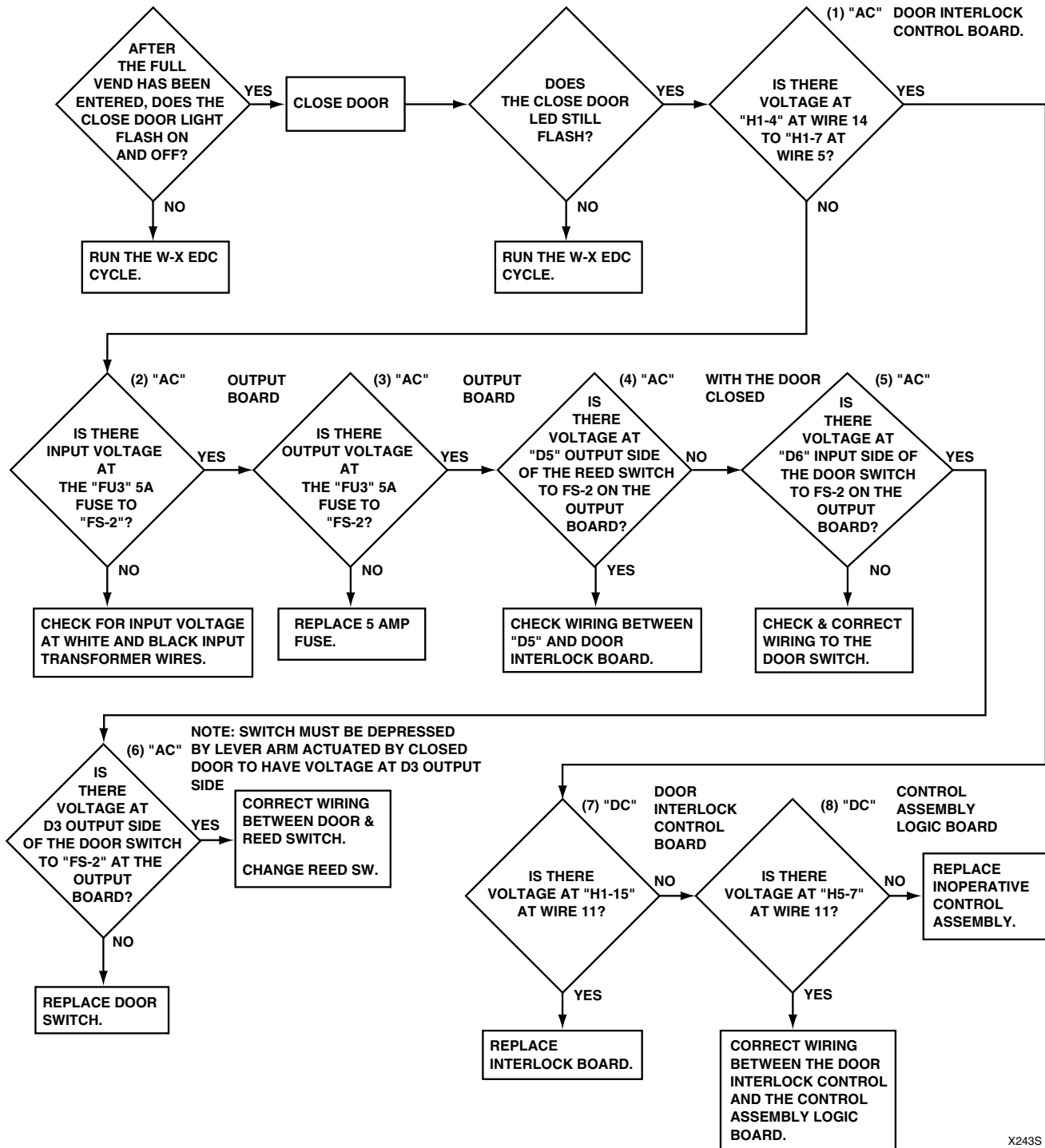


ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS
 EACH BRANCH (SET OF THREE) WIRED AS SHOWN



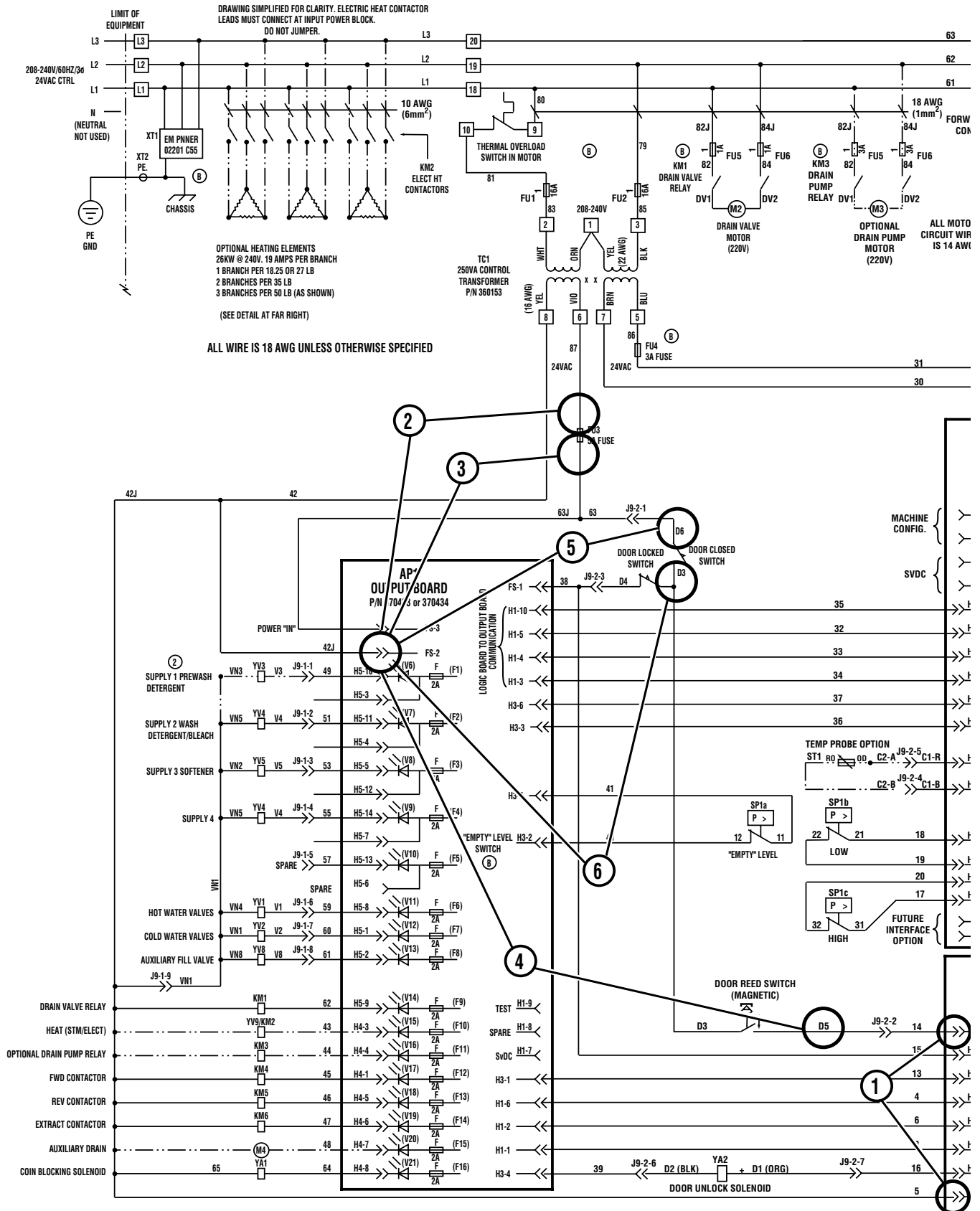
Door Switch Analysis



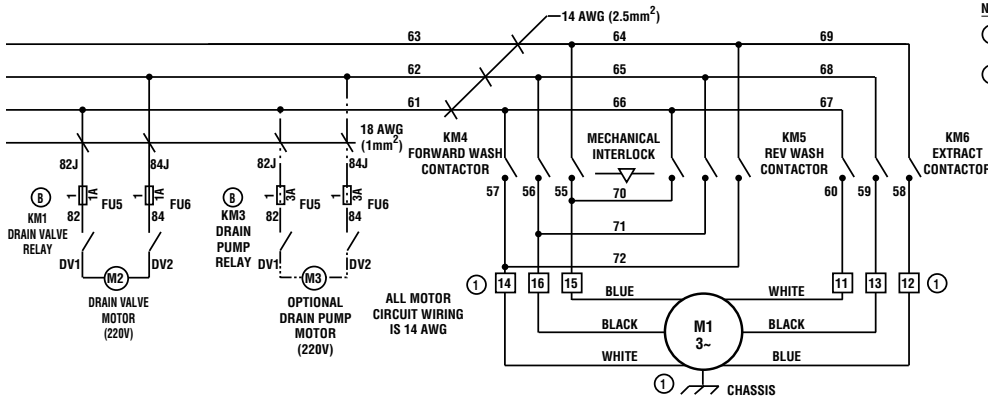
X243S

Please see following 2 pages for wiring diagram information.

Door Switch Analysis (Sheet 1 of 2)



Door Switch Analysis (Sheet 2 of 2)



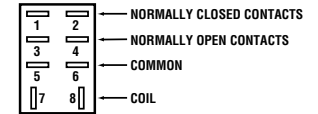
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

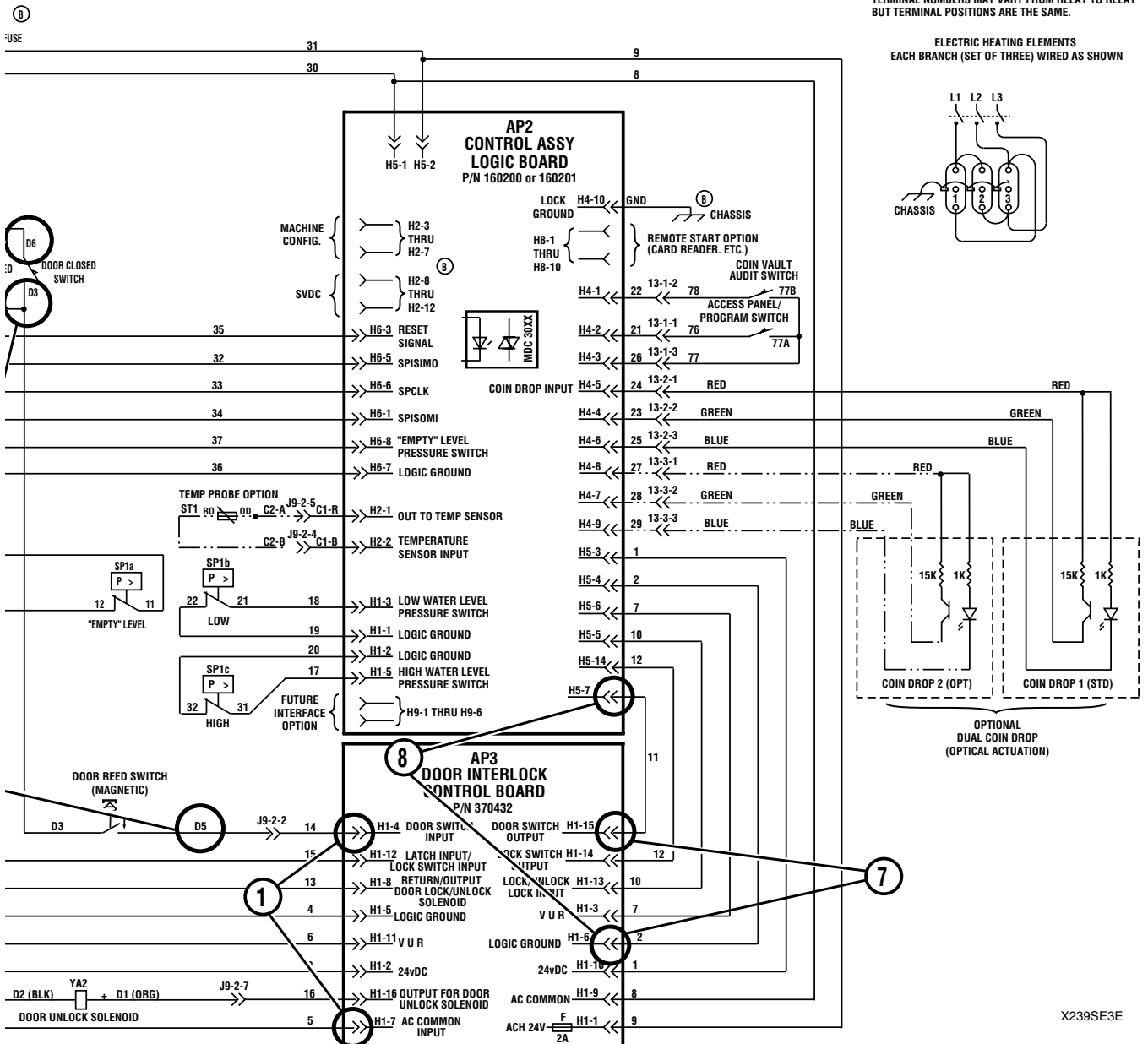
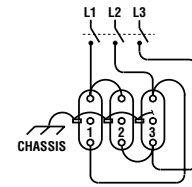
- ⑧ - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS EACH BRANCH (SET OF THREE) WIRED AS SHOWN



⑧

USE

D6

D3

SP1a

SP1b

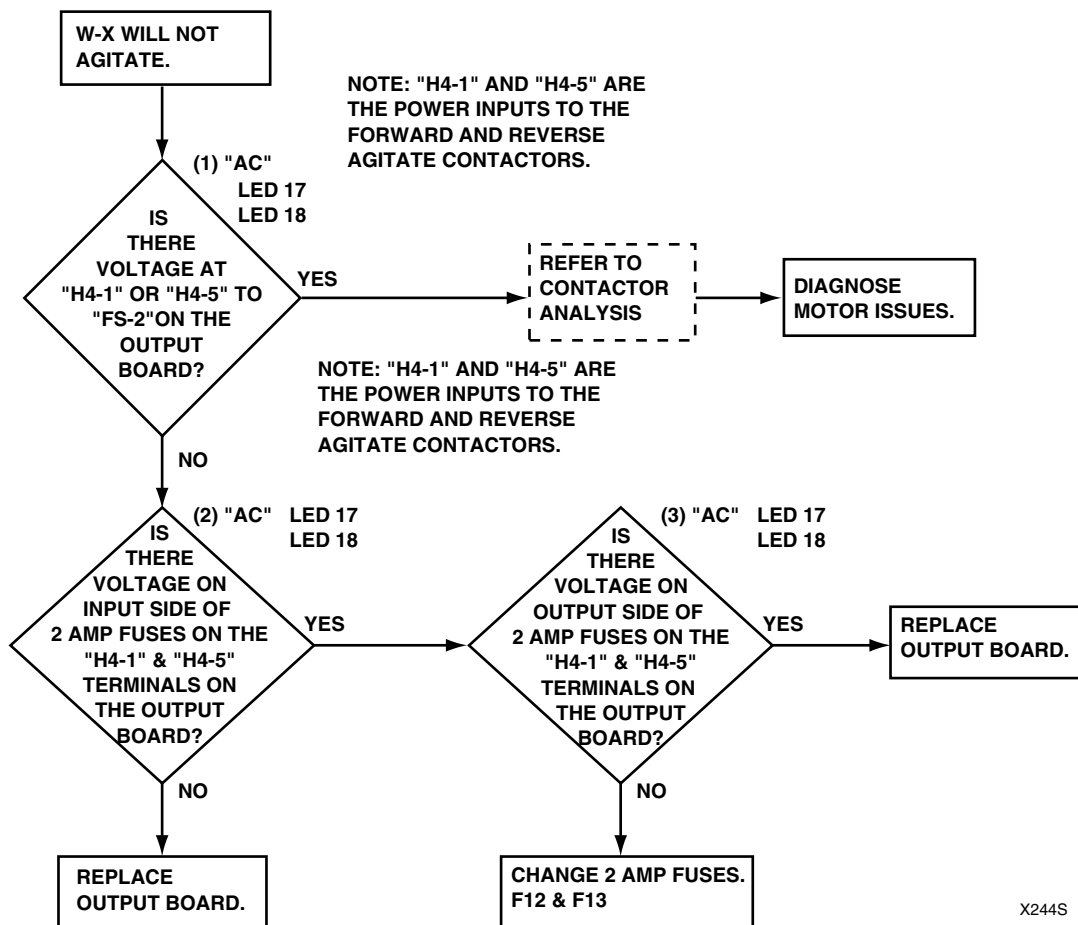
D3

D5

D2 (BLK)

D1 (ORG)

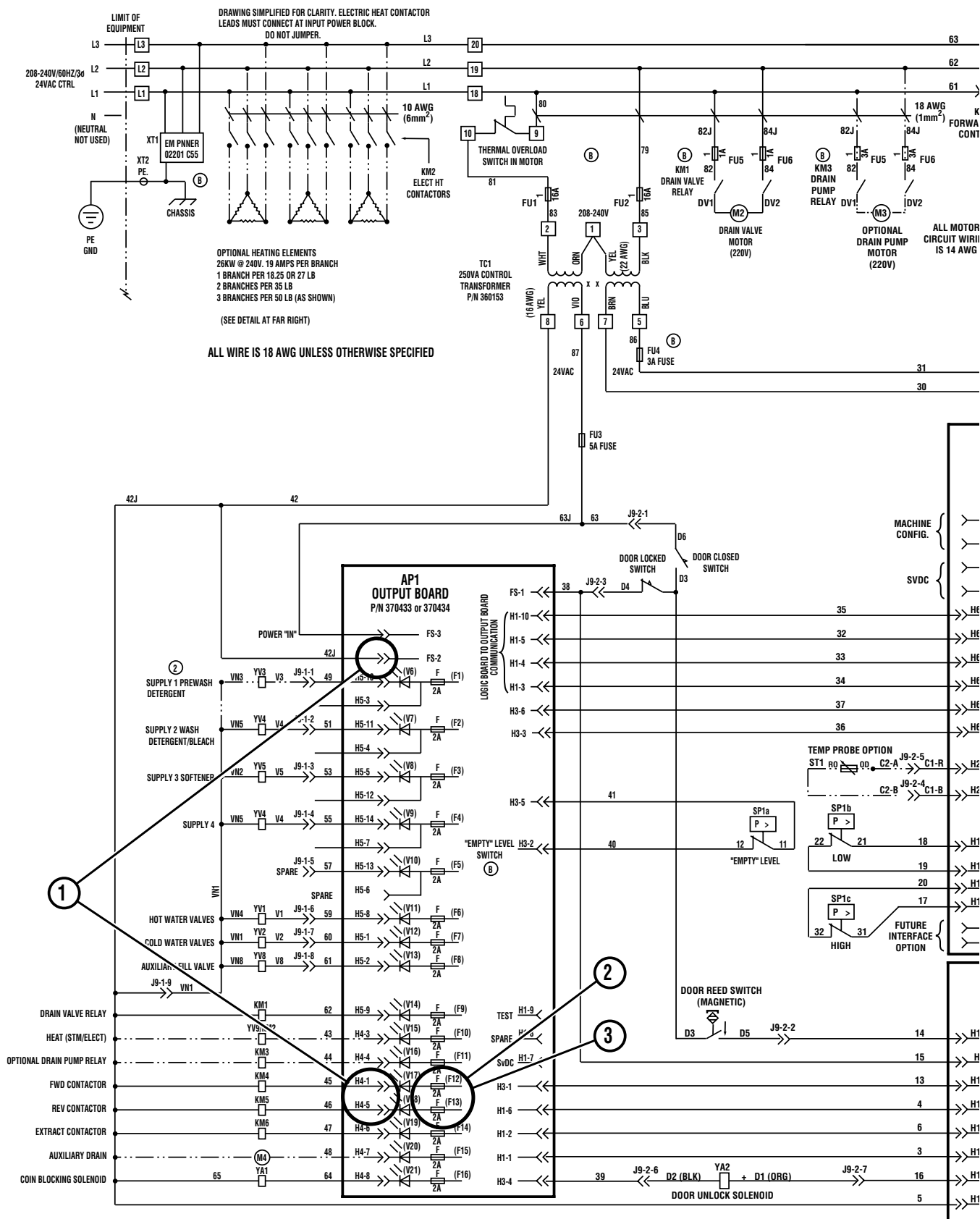
Agitation Analysis (Hard Mount – Cabinet)



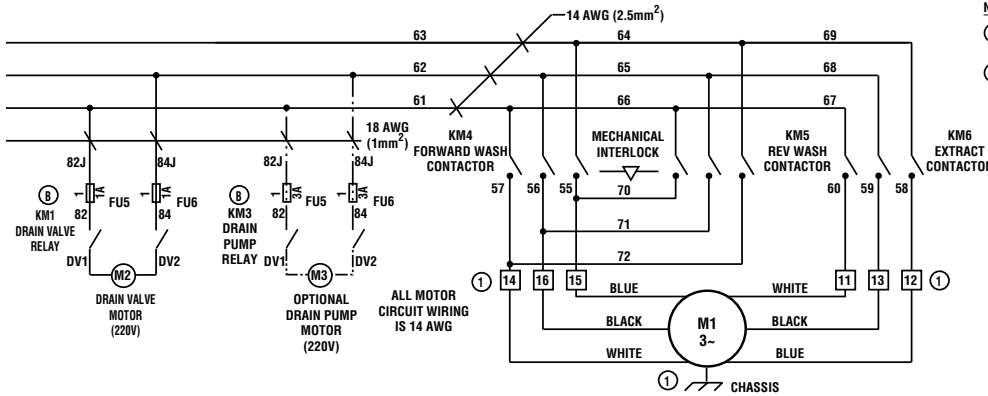
X244S

Please see following 2 pages for wiring diagram information.

Agitation Analysis (Hard Mount – Cabinet) (Sheet 1 of 2)



Agitation Analysis (Hard Mount – Cabinet) (Sheet 2 of 2)



- NOTES:**
- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
 - ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

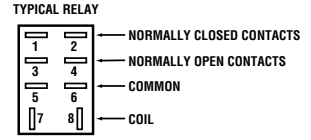
8 - TERMINAL STRIP, TERMINAL = 8

KM2 RATED 35A AC1 (NX147 OR EQUIV)

KM4 RATED 24A AC3 (NX101 OR EQUIV)

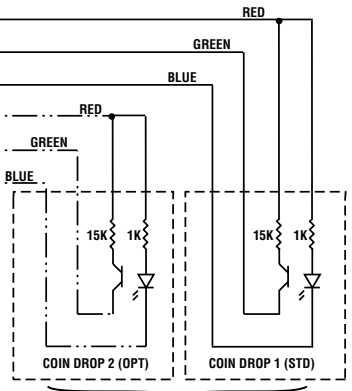
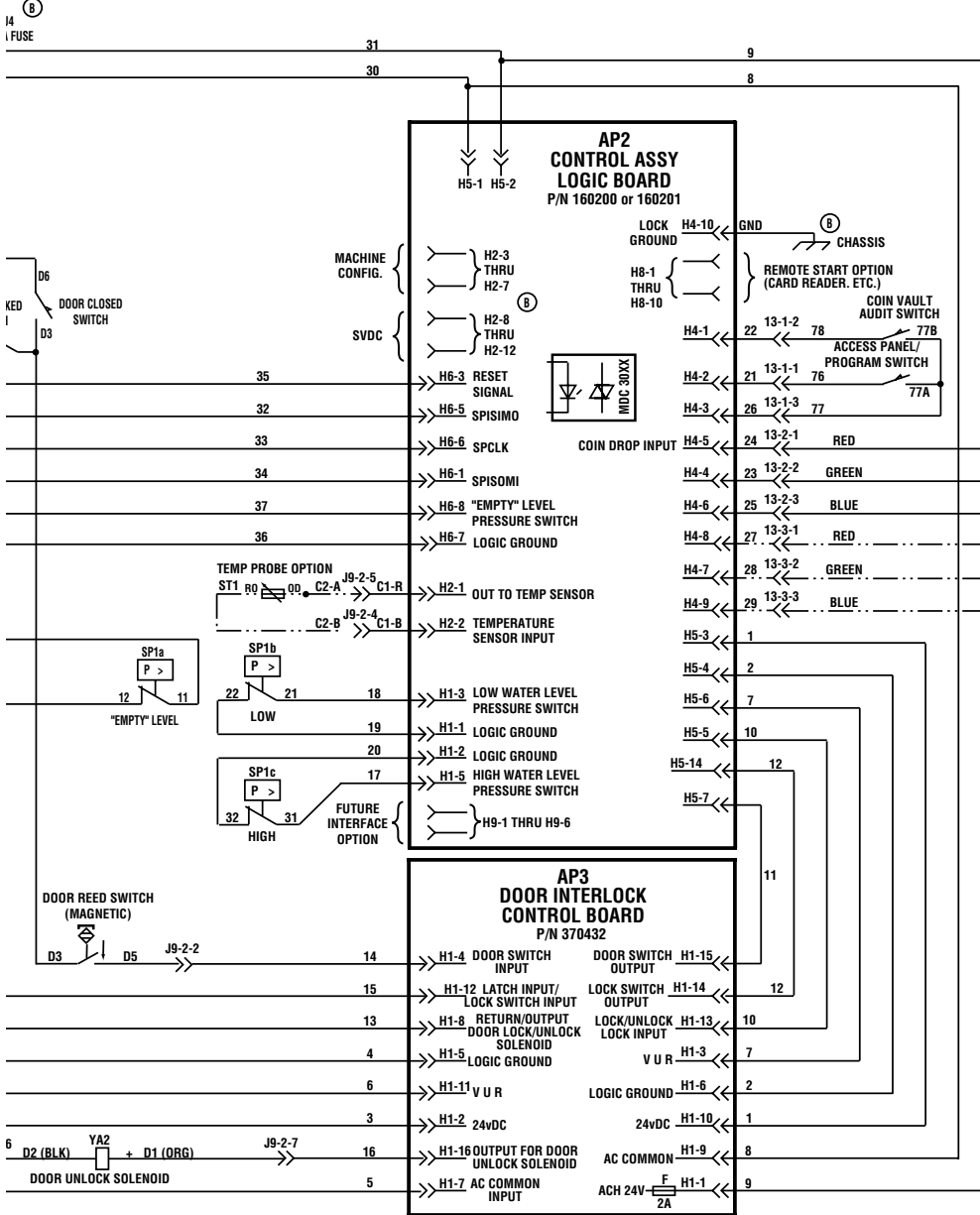
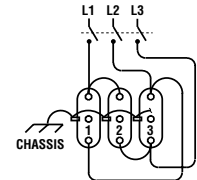
KM5 RATED 24A AC3 (NX101 OR EQUIV)

KM6 RATED 24A AC3 (NX101 OR EQUIV)



ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

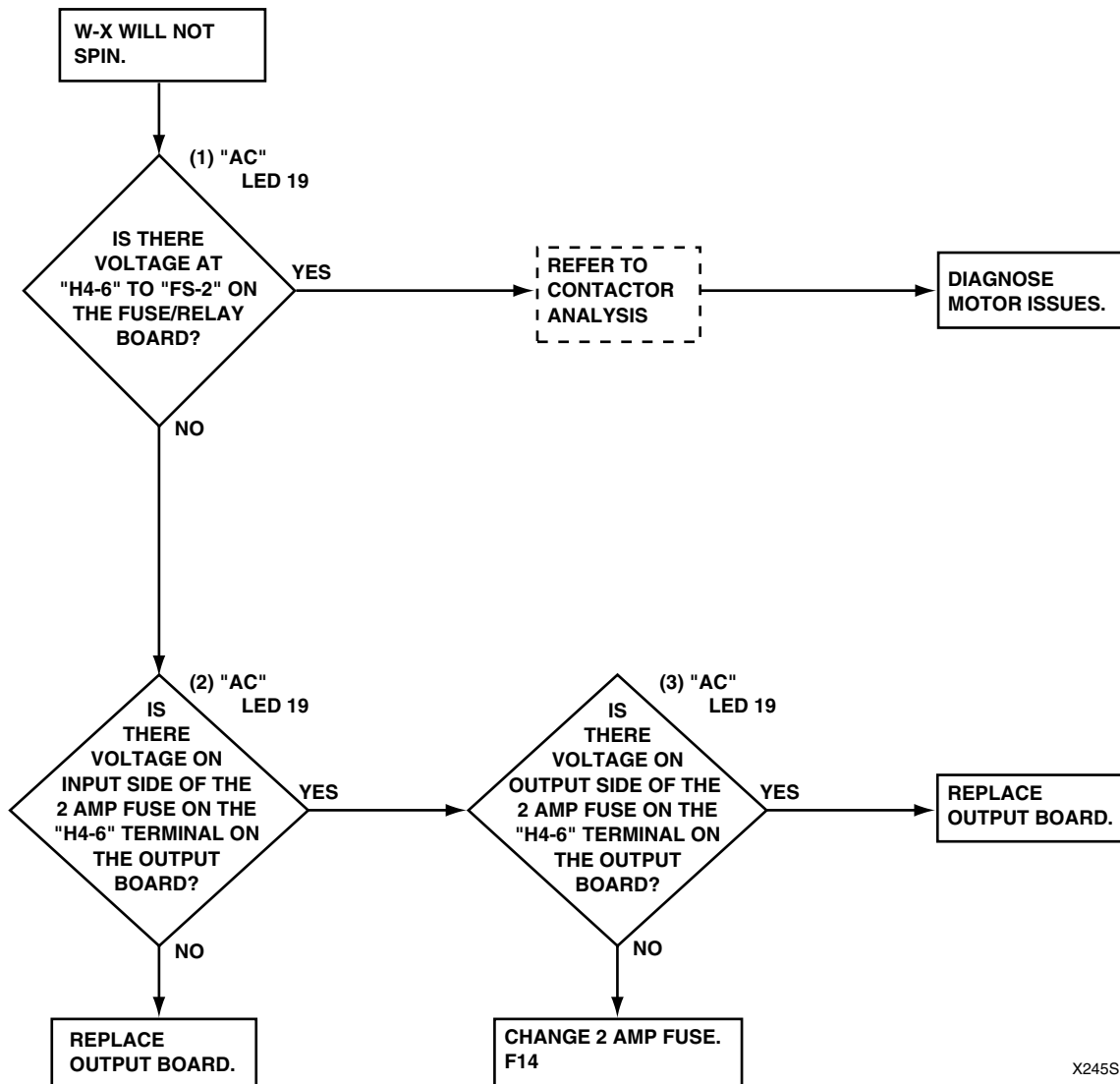
ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



OPTIONAL DUAL COIN DROP (OPTICAL ACTUATION)

X239SE3F

Spin Analysis (Hard Mount – Cabinet)

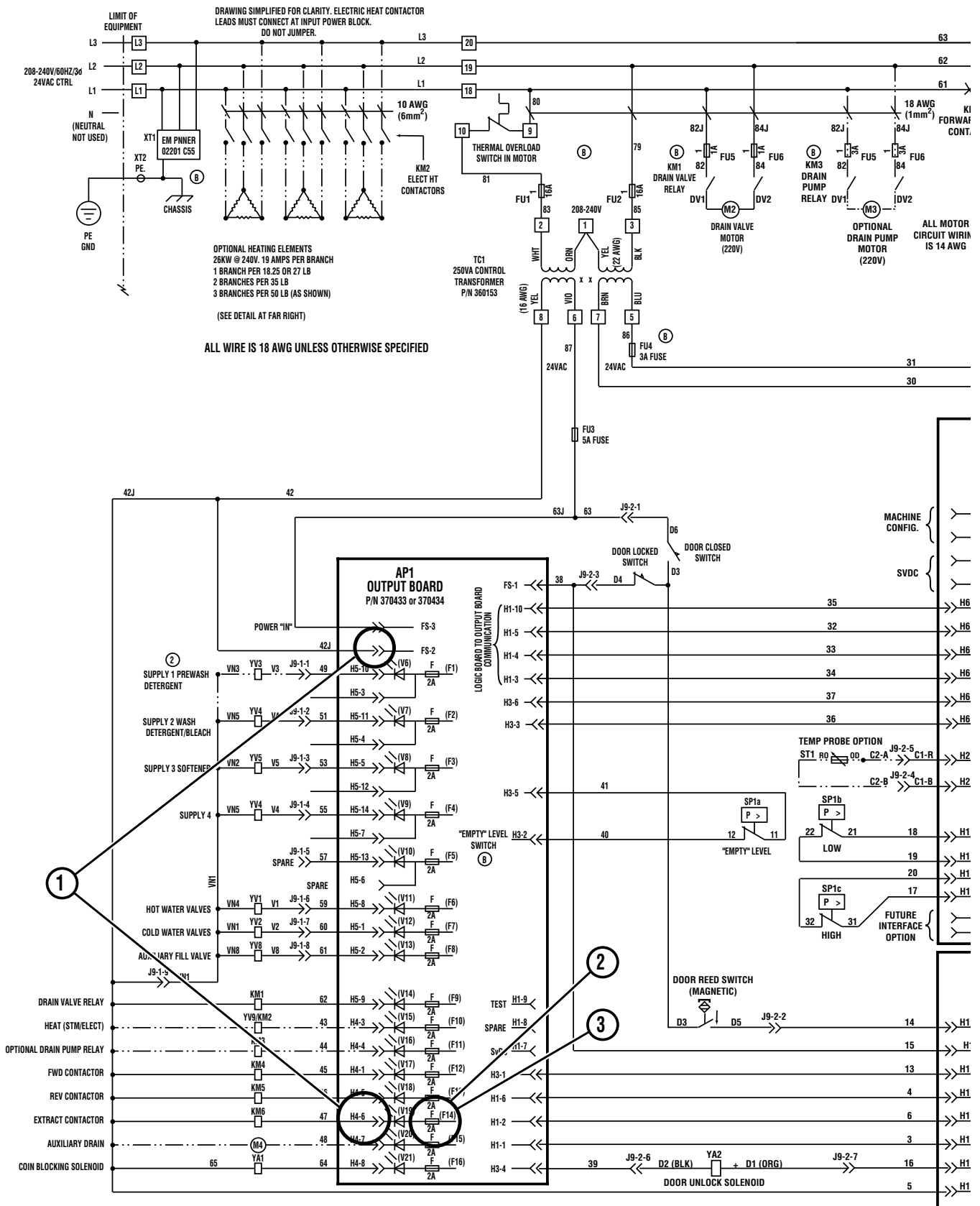


X245S

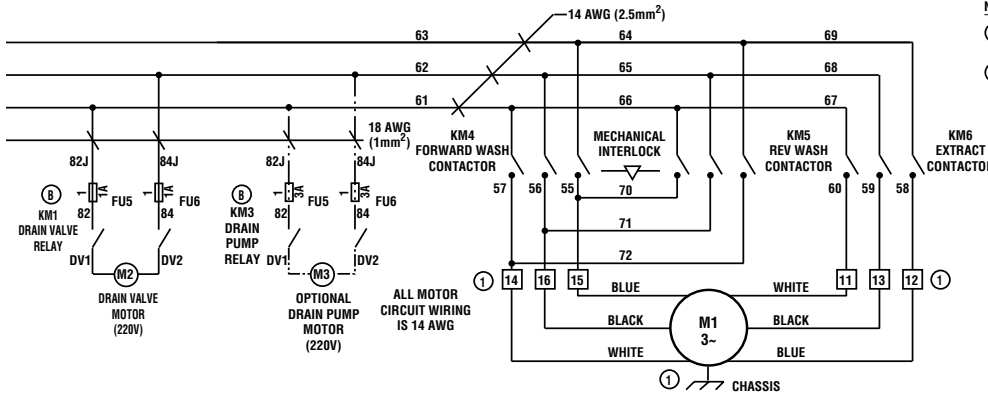
Please see following 2 pages for wiring diagram information.

Section 2 Troubleshooting

Spin Analysis (Hard Mount – Cabinet) (Sheet 1 of 2)



Spin Analysis (Hard Mount – Cabinet) (Sheet 2 of 2)



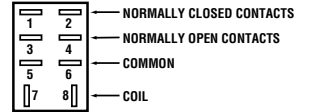
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

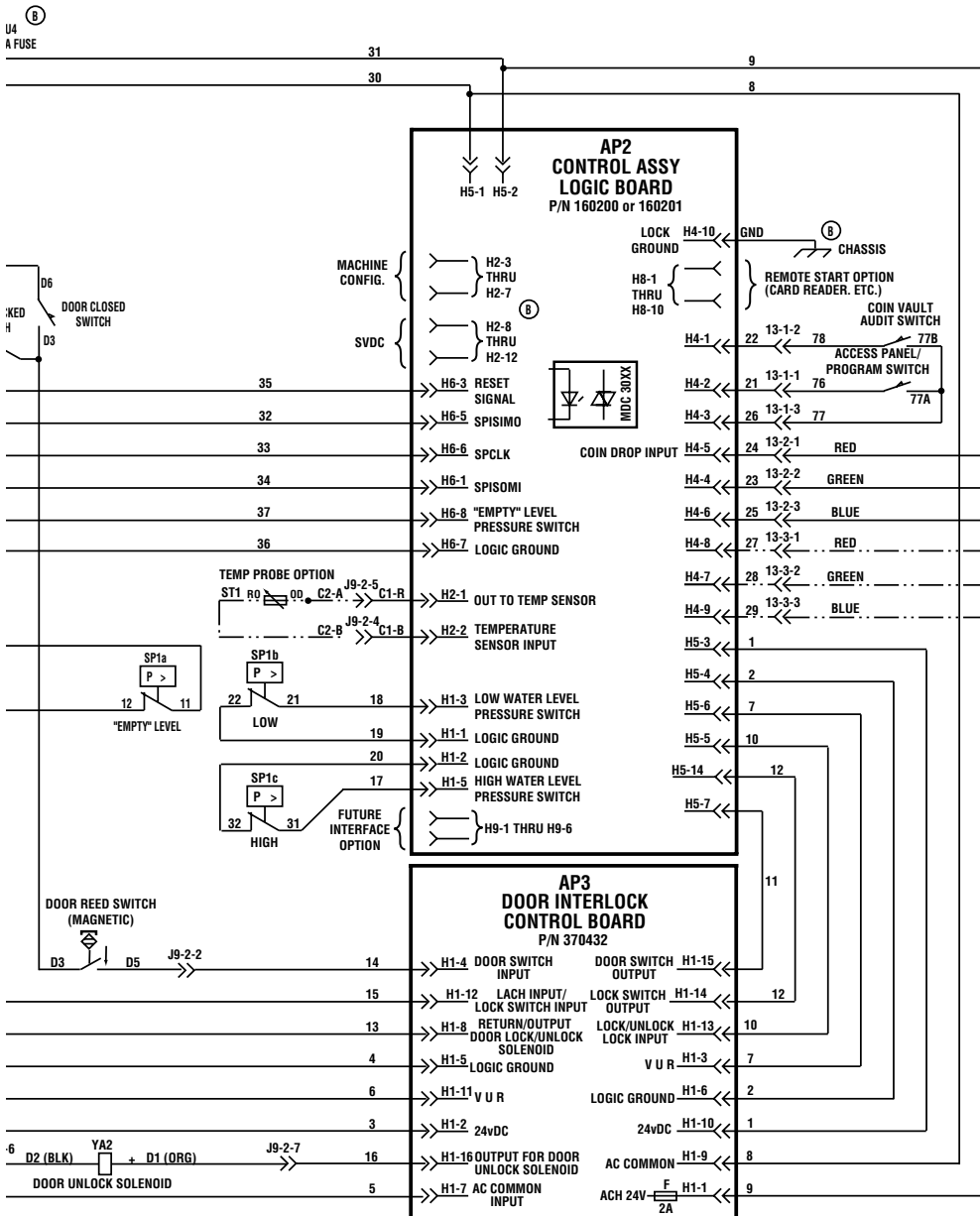
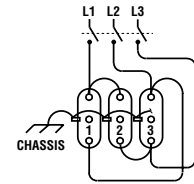
- 8 - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



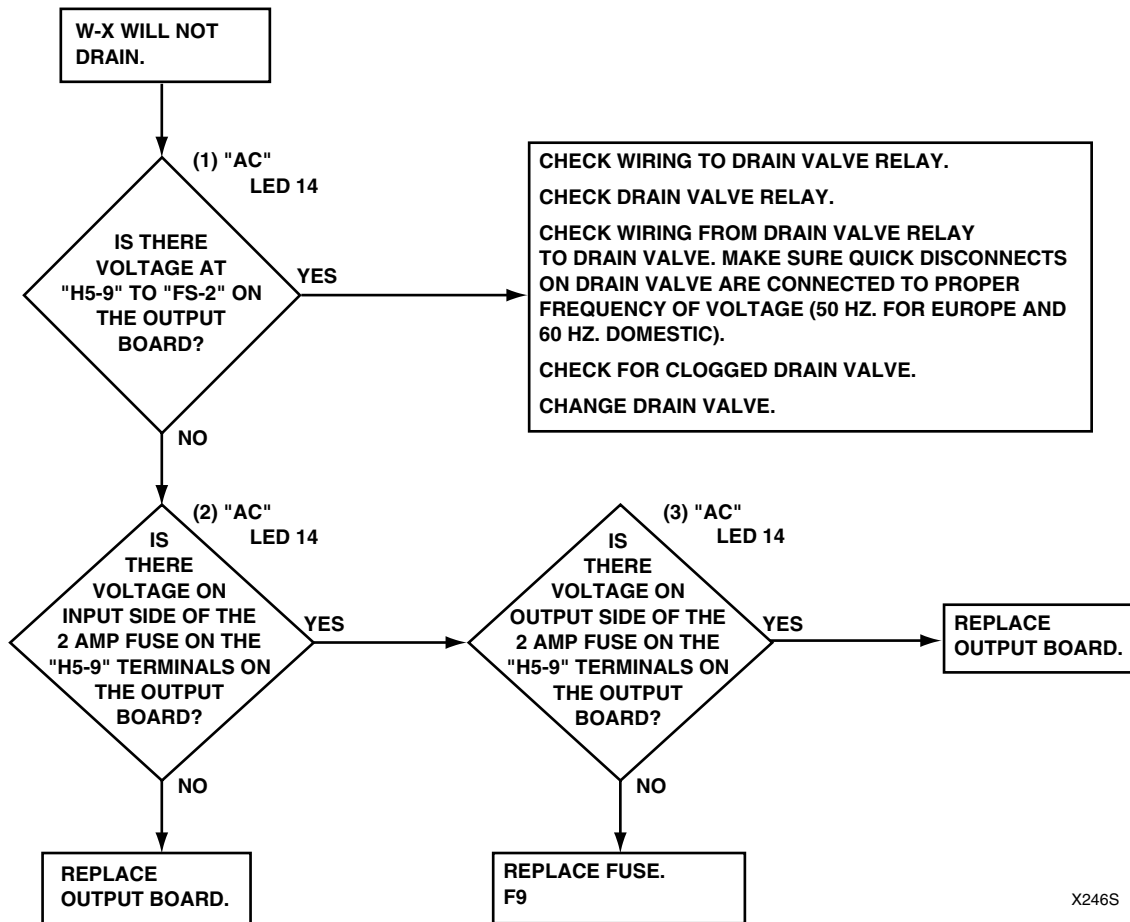
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY (TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.)

ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



X239SE3G

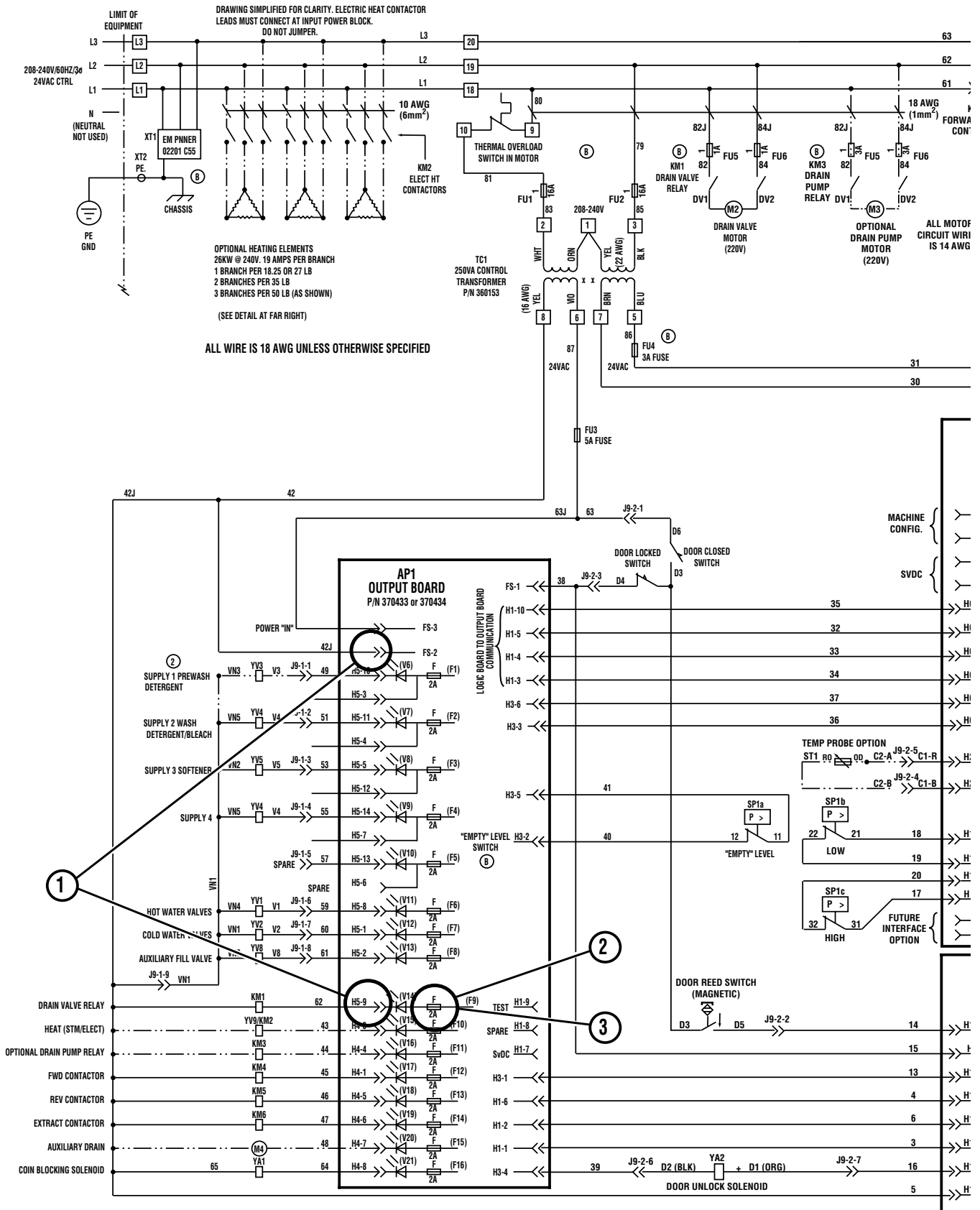
W-X Will Not Drain



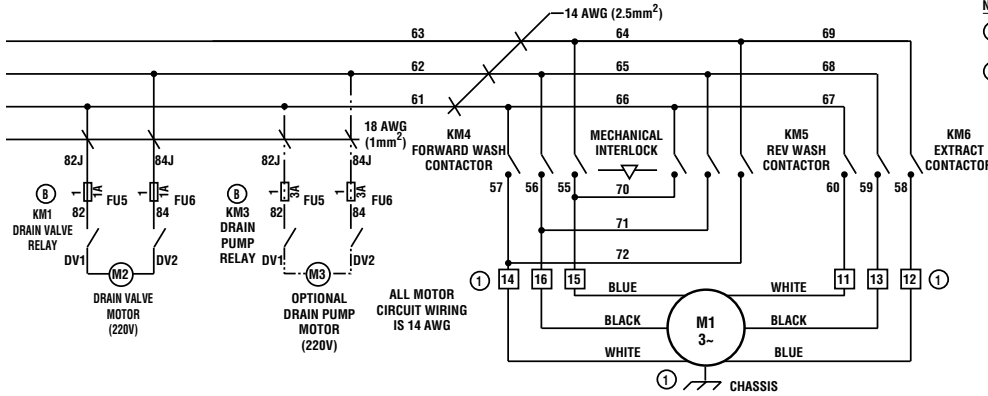
X246S

Please see following 2 pages for wiring diagram information.

W-X Will Not Drain (Sheet 1 of 2)



W-X Will Not Drain (Sheet 2 of 2)



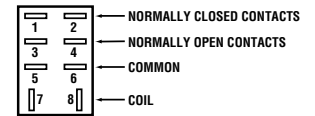
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

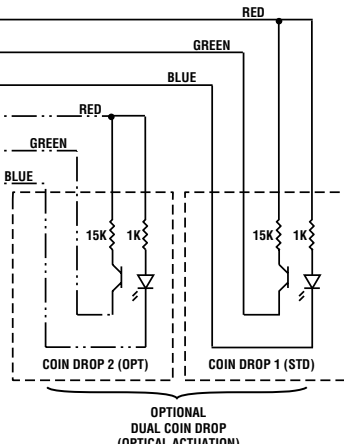
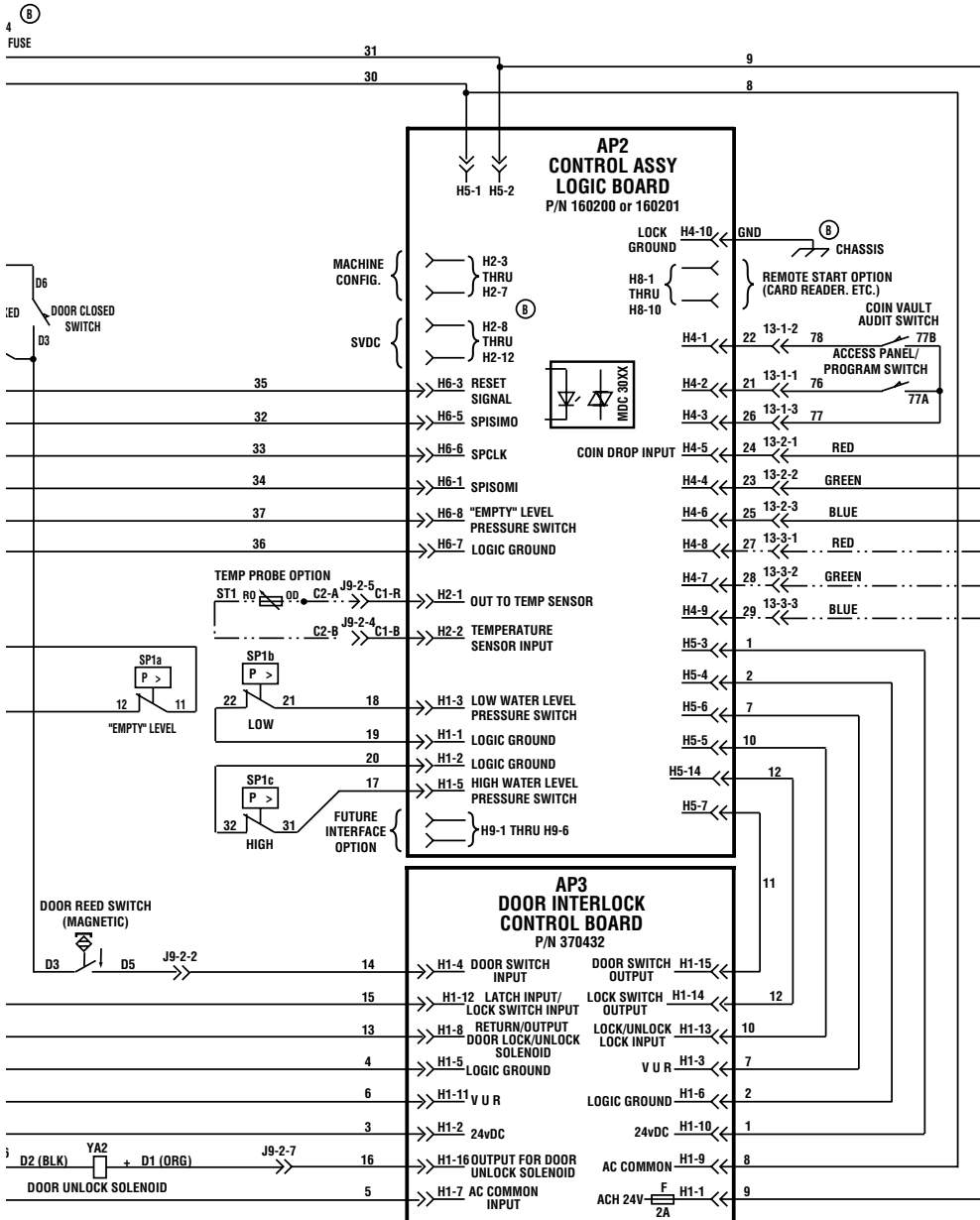
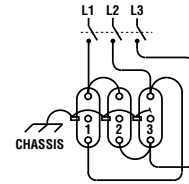
- ⑧ - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



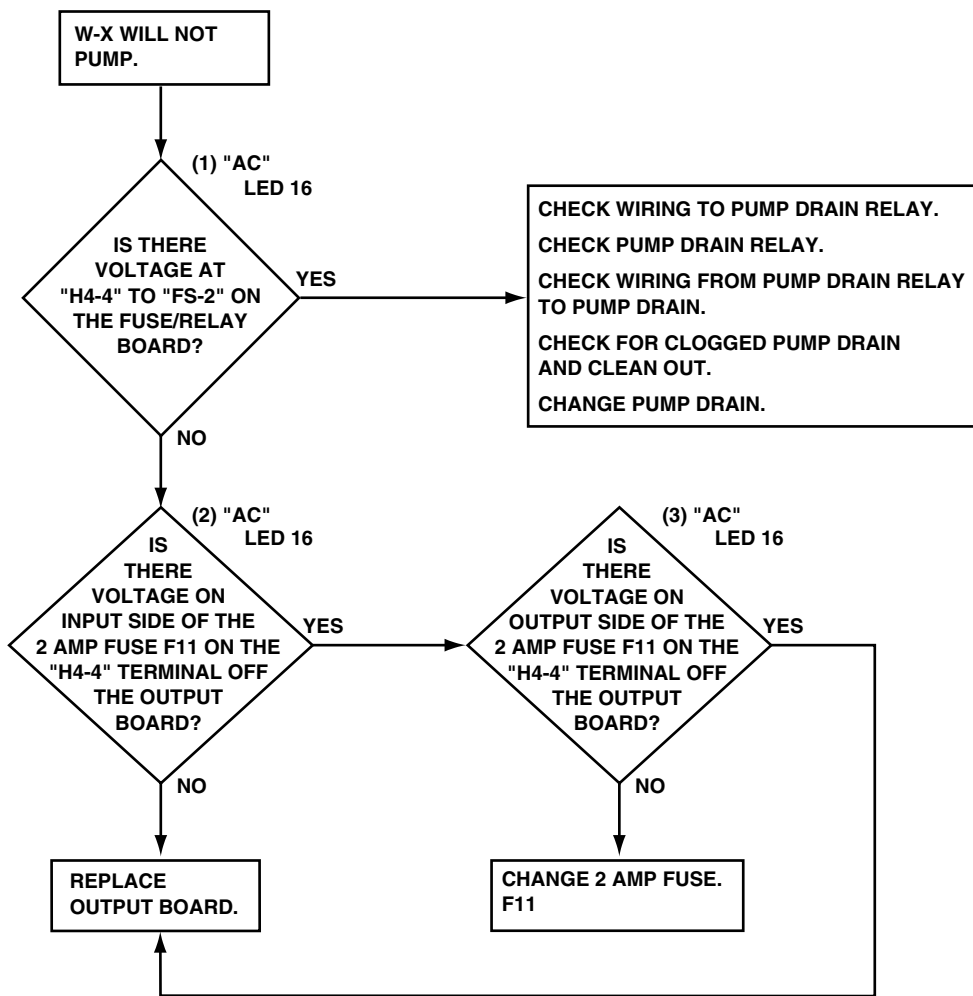
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS EACH BRANCH (SET OF THREE) WIRED AS SHOWN



X239SE3H

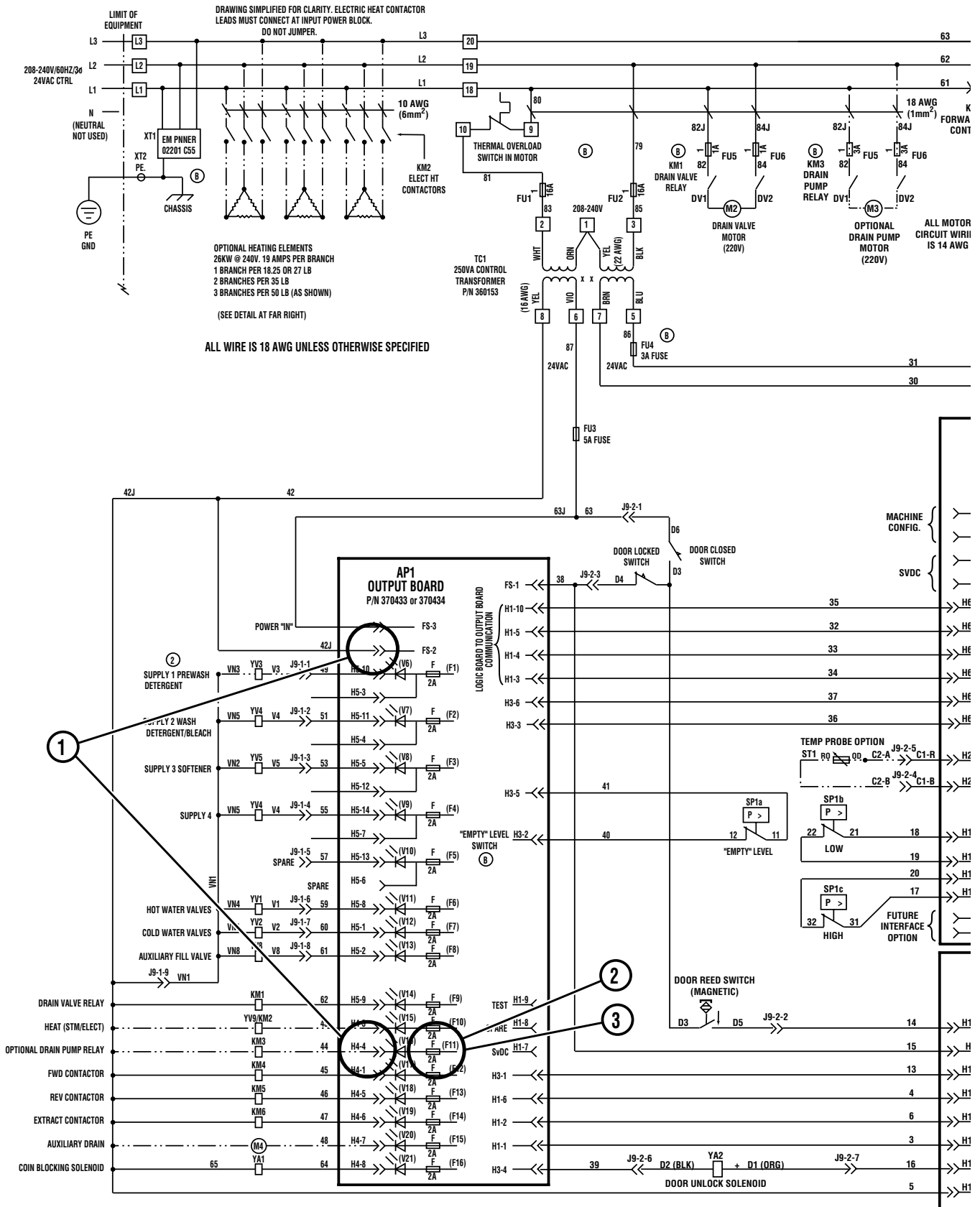
W-X Will Not Pump the Water Out of the Wash Tub



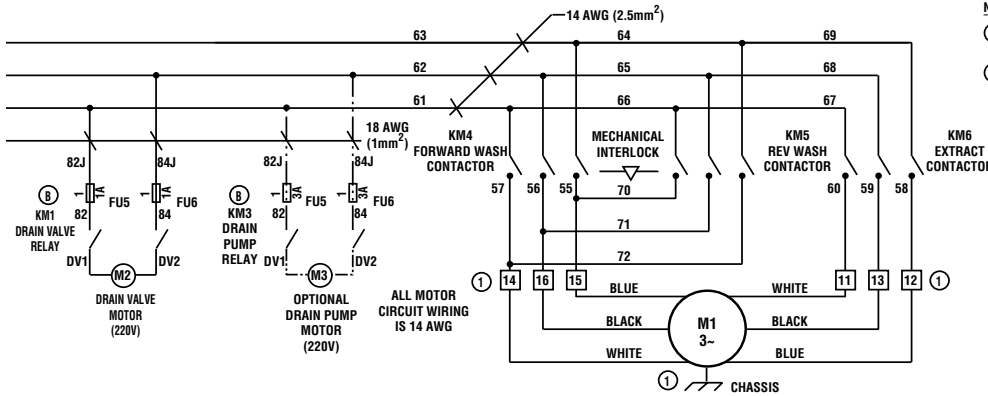
X247S

Please see following 2 pages for wiring diagram information.

W-X Will Not Pump the Water Out of the Wash Tub (Sheet 1 of 2)



W-X Will Not Pump the Water Out of the Wash Tub (Sheet 2 of 2)



- NOTES:**
- IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
 - SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

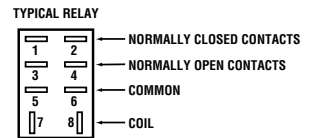
8 - TERMINAL STRIP, TERMINAL = 8

KM2 RATED 35A AC1 (NX147 OR EQUIV)

KM4 RATED 24A AC3 (NX101 OR EQUIV)

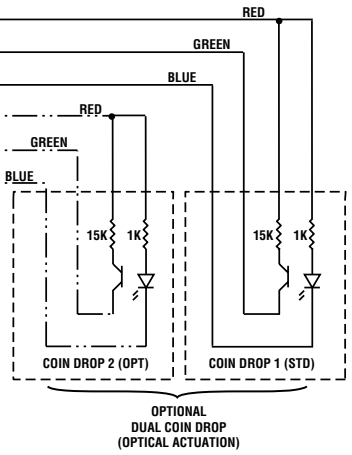
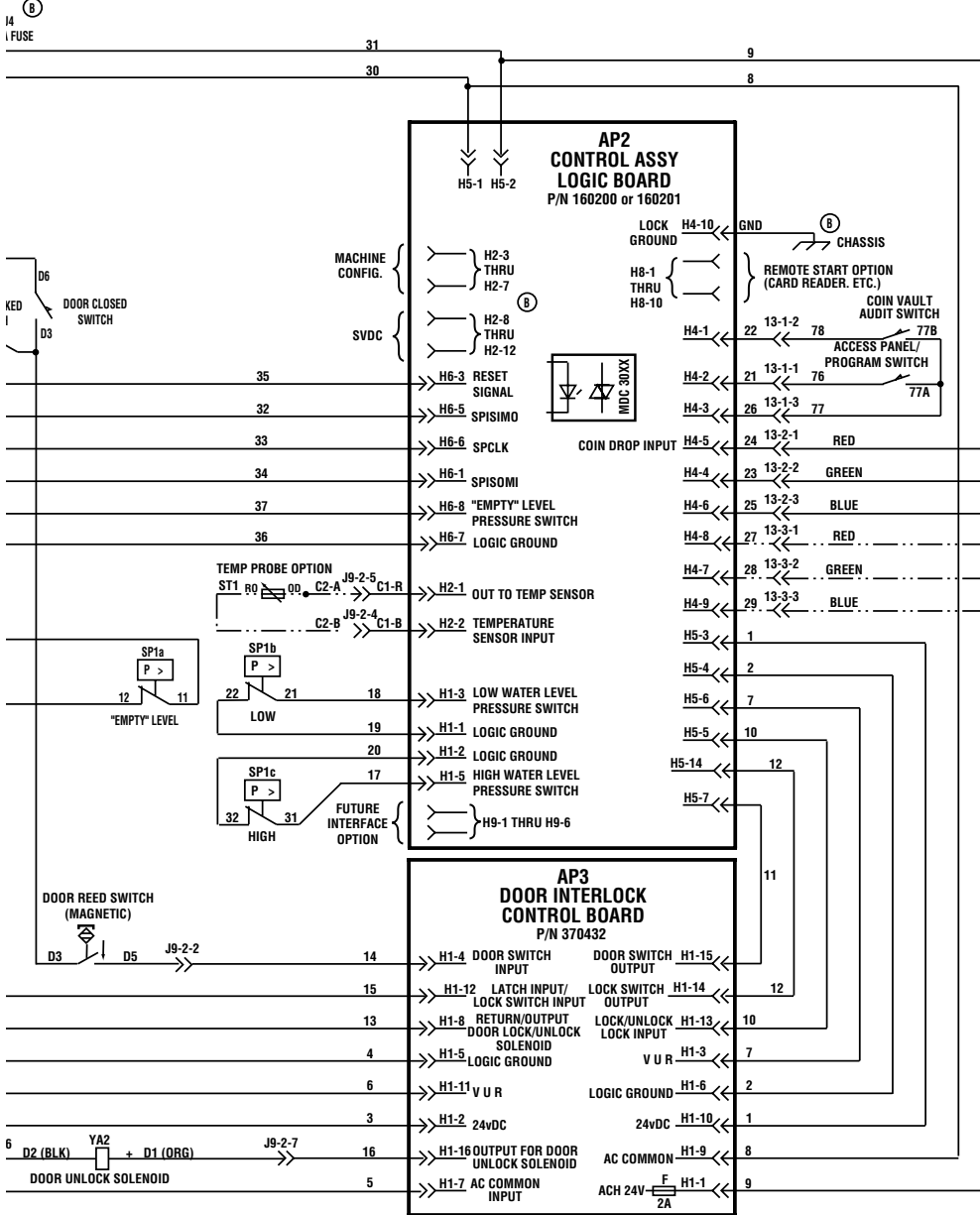
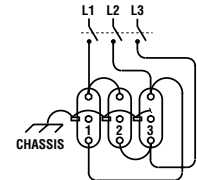
KM5 RATED 24A AC3 (NX101 OR EQUIV)

KM6 RATED 24A AC3 (NX101 OR EQUIV)



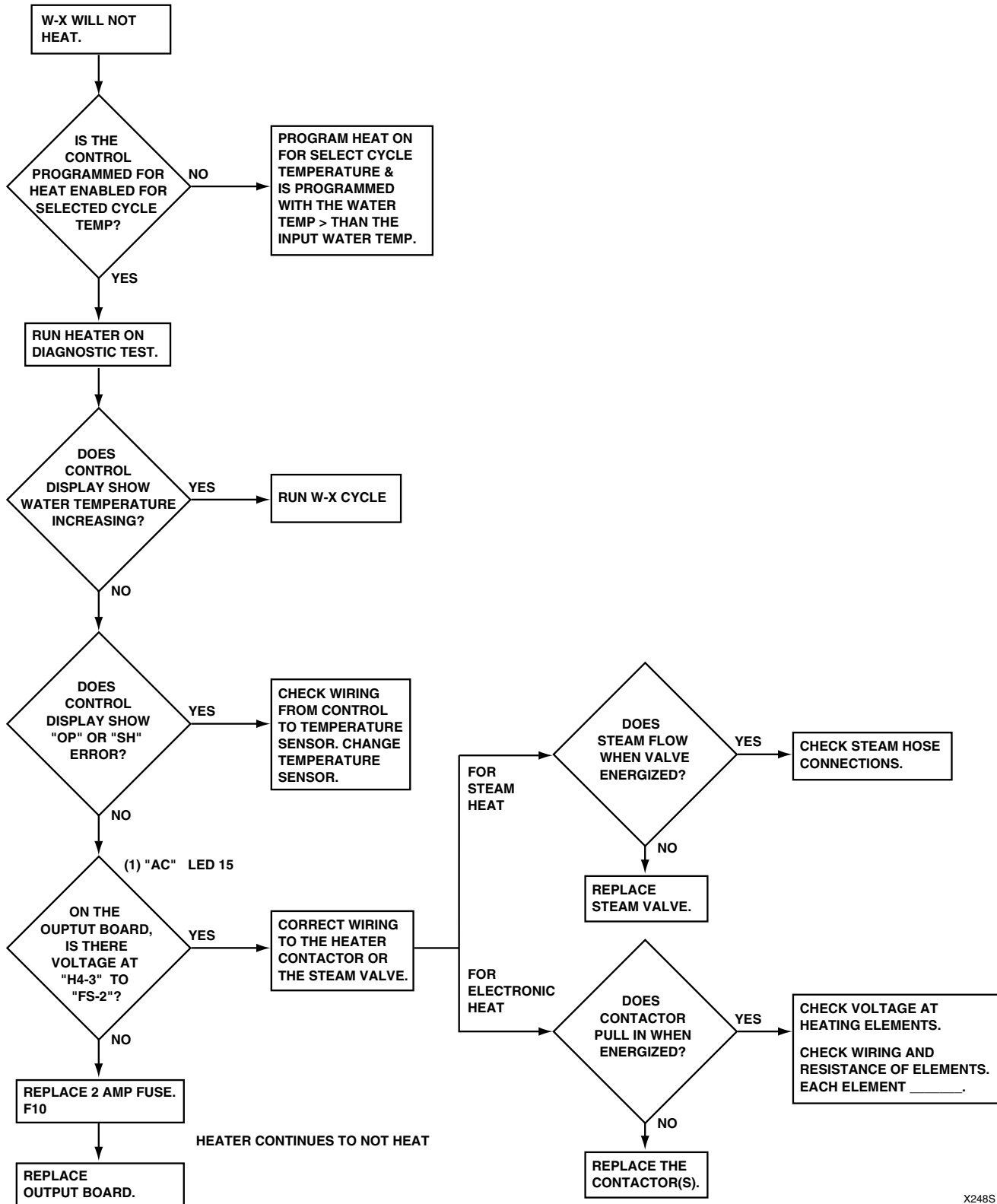
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



X239SE3I

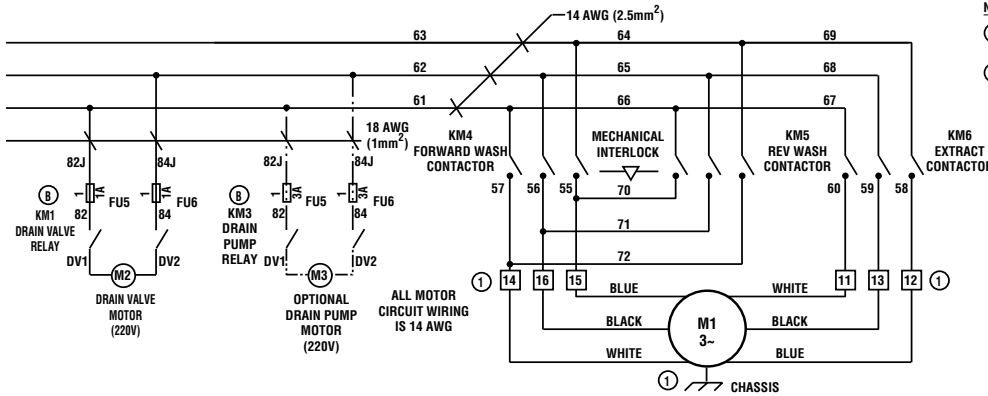
Optional Heater Will Not Heat



X248S

Please see following 2 pages for wiring diagram information.

Optional Heater Will Not Heat (Sheet 2 of 2)



- NOTES:**
- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
 - ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

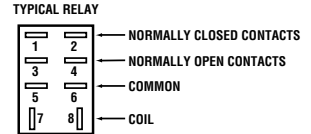
⑧ - TERMINAL STRIP, TERMINAL = 8

KM2 RATED 35A AC1 (NX147 OR EQUIV)

KM4 RATED 24A AC3 (NX101 OR EQUIV)

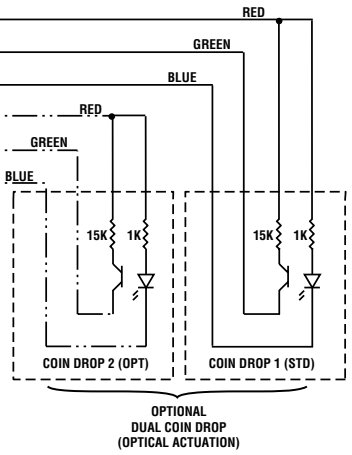
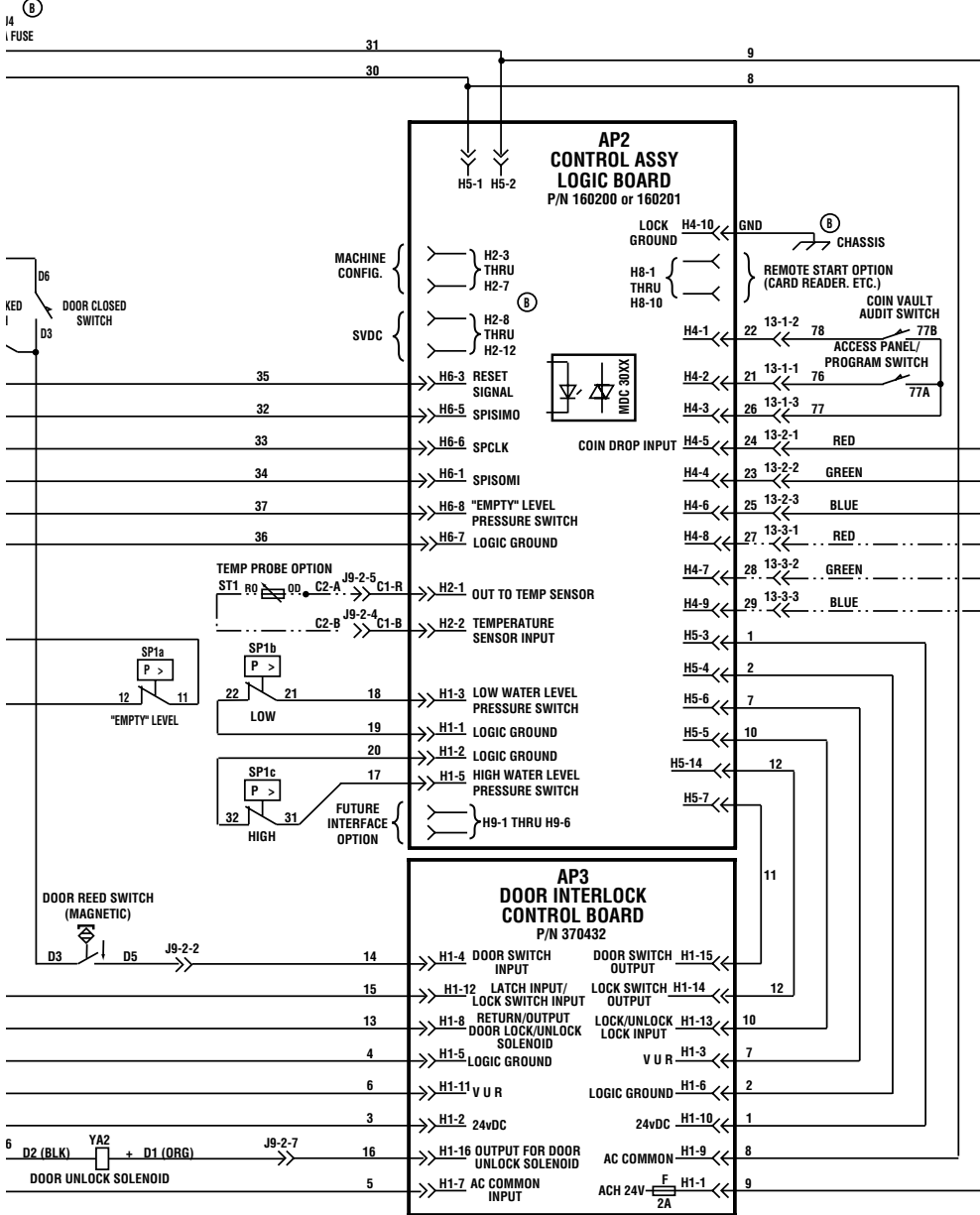
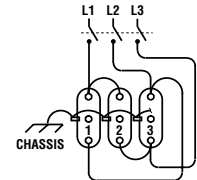
KM5 RATED 24A AC3 (NX101 OR EQUIV)

KM6 RATED 24A AC3 (NX101 OR EQUIV)



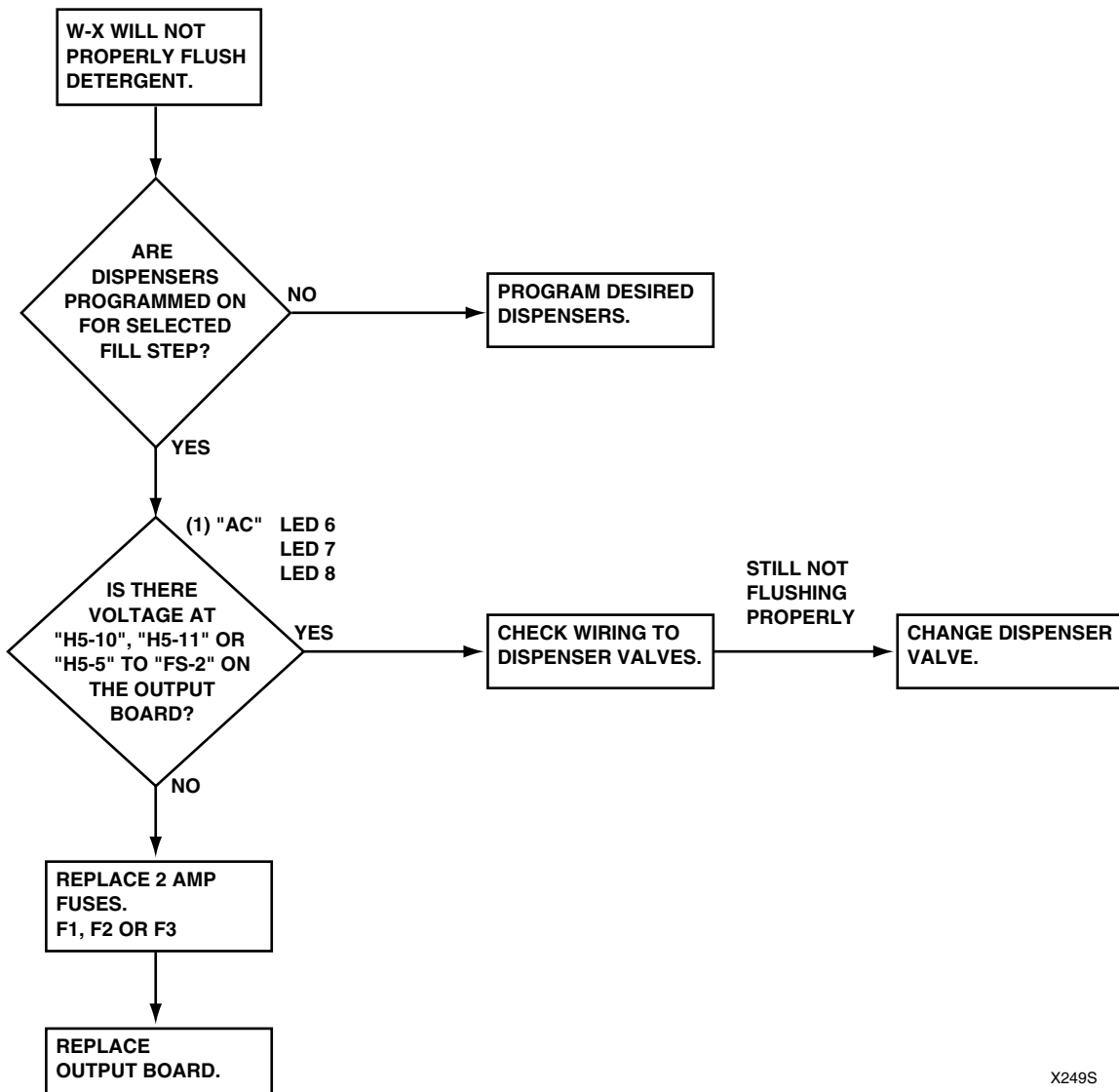
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS
EACH BRANCH (SET OF THREE) WIRED AS SHOWN



X239SE3J

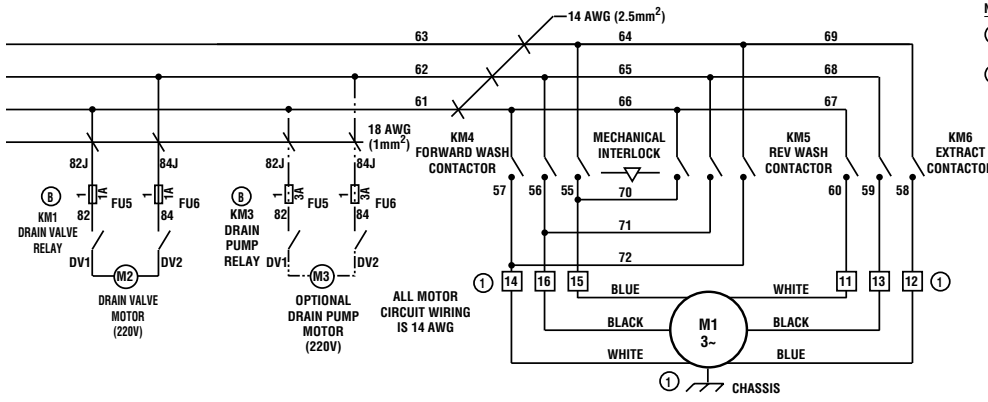
Inlet Detergent/Chemical Supply Analysis



X249S

Please see following 2 pages for wiring diagram information.

Inlet Detergent/Chemical Supply Analysis (Sheet 2 of 2)

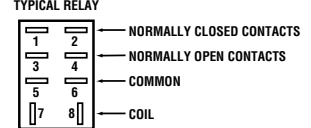


- NOTES:**
- IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
 - SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

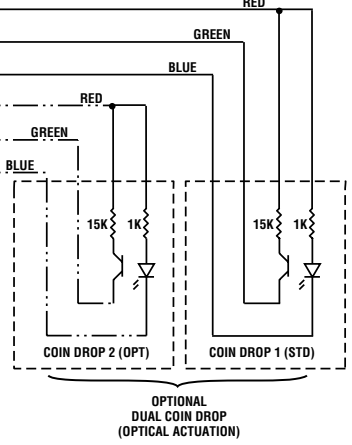
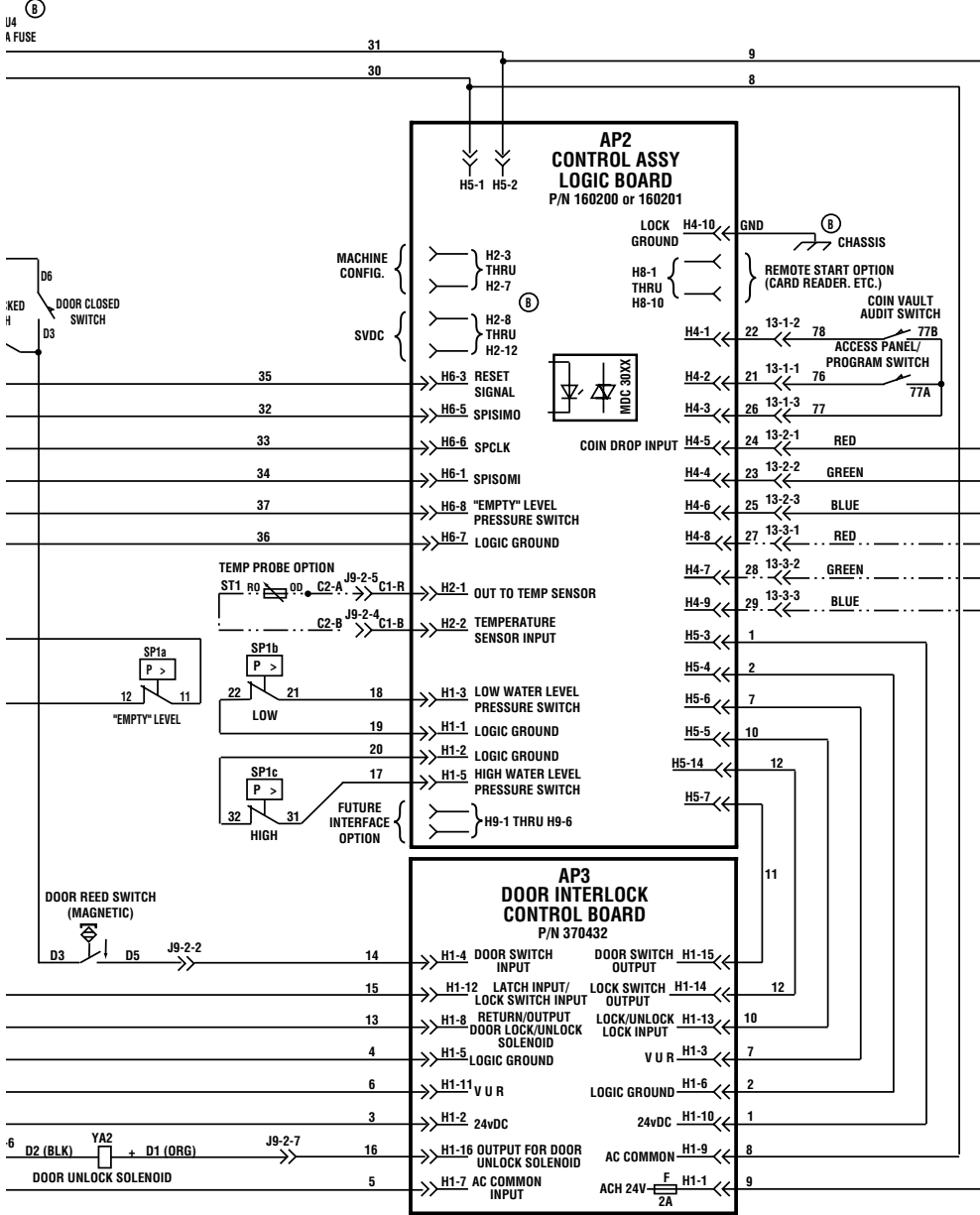
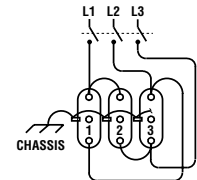
8 - TERMINAL STRIP, TERMINAL = 8

KM2 RATED 35A AC1 (NX147 OR EQUIV)
 KM4 RATED 24A AC3 (NX101 OR EQUIV)
 KM5 RATED 24A AC3 (NX101 OR EQUIV)
 KM6 RATED 24A AC3 (NX101 OR EQUIV)



ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

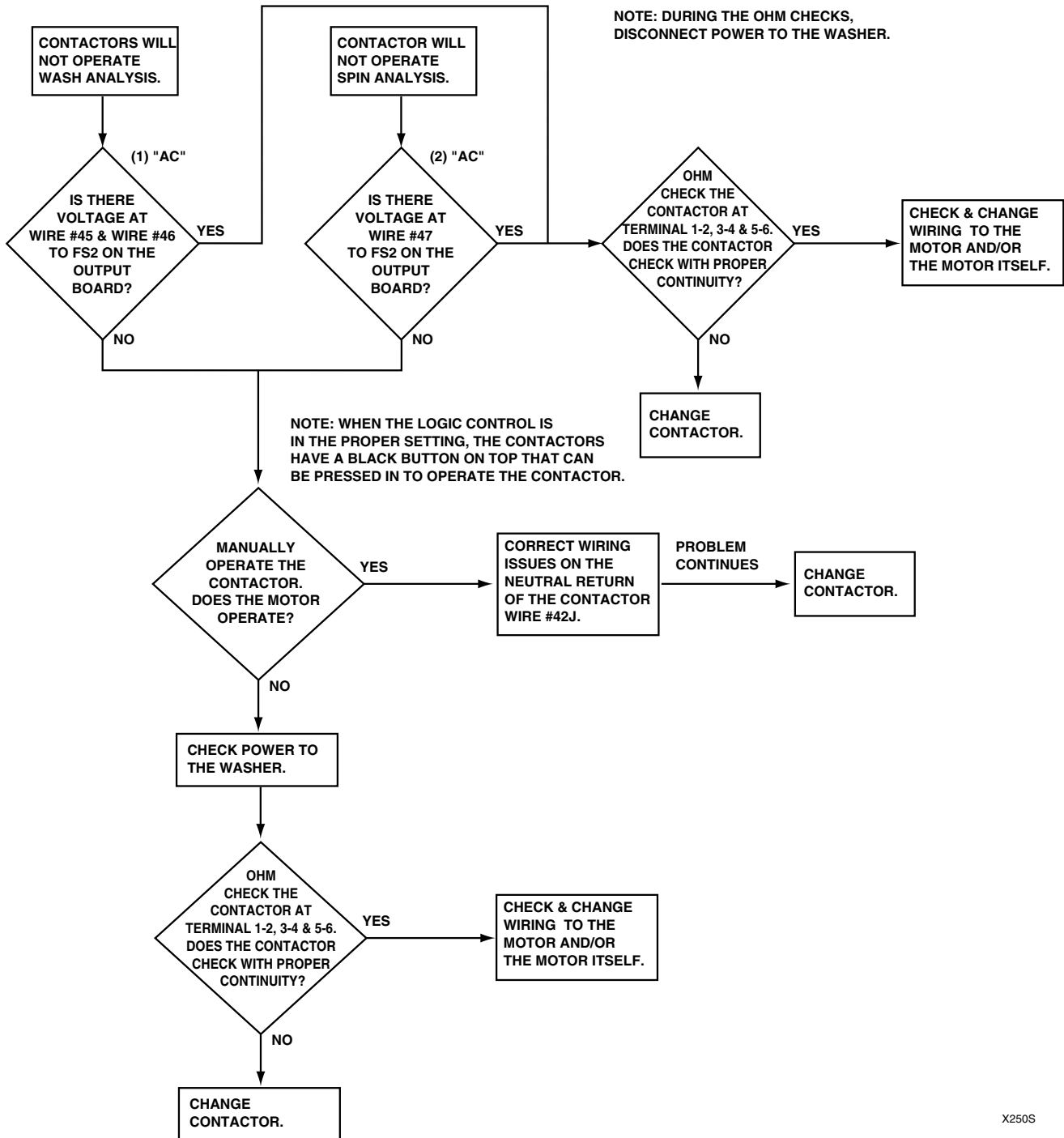
ELECTRIC HEATING ELEMENTS
 EACH BRANCH (SET OF THREE) WIRED AS SHOWN



OPTIONAL DUAL COIN DROP (OPTICAL ACTUATION)

X239SE3K

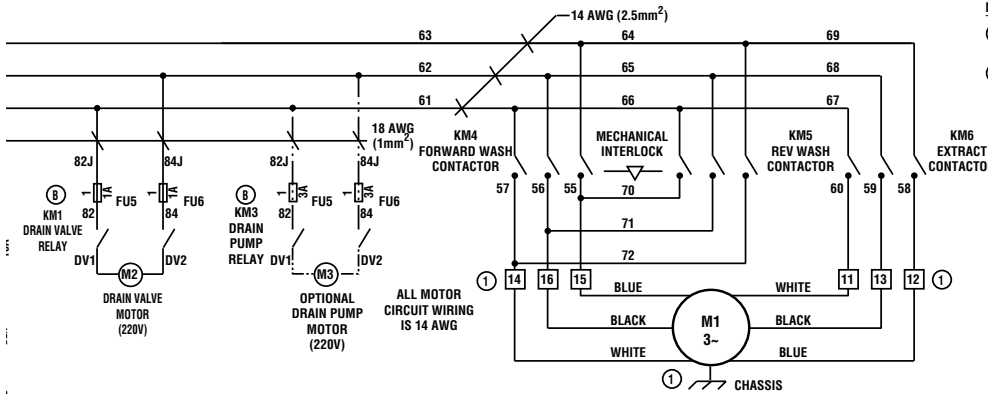
Contactor Analysis



X250S

Please see following 2 pages for wiring diagram information.

Contactor Analysis (Sheet 2 of 2)



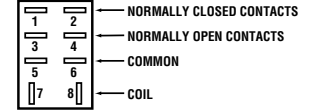
NOTES:

- ① IF MOTOR ROTATION IS INCORRECT IN ANY ONE SPEED, SWAP ANY TWO WIRES FOR THAT SPEED AT THE TERMINAL STRIP.
- ② SUPPLY 1 COMPARTMENT WILL FLUSH WITH EACH FILL WHEN YV3 IS NOT INSTALLED.

LEGEND

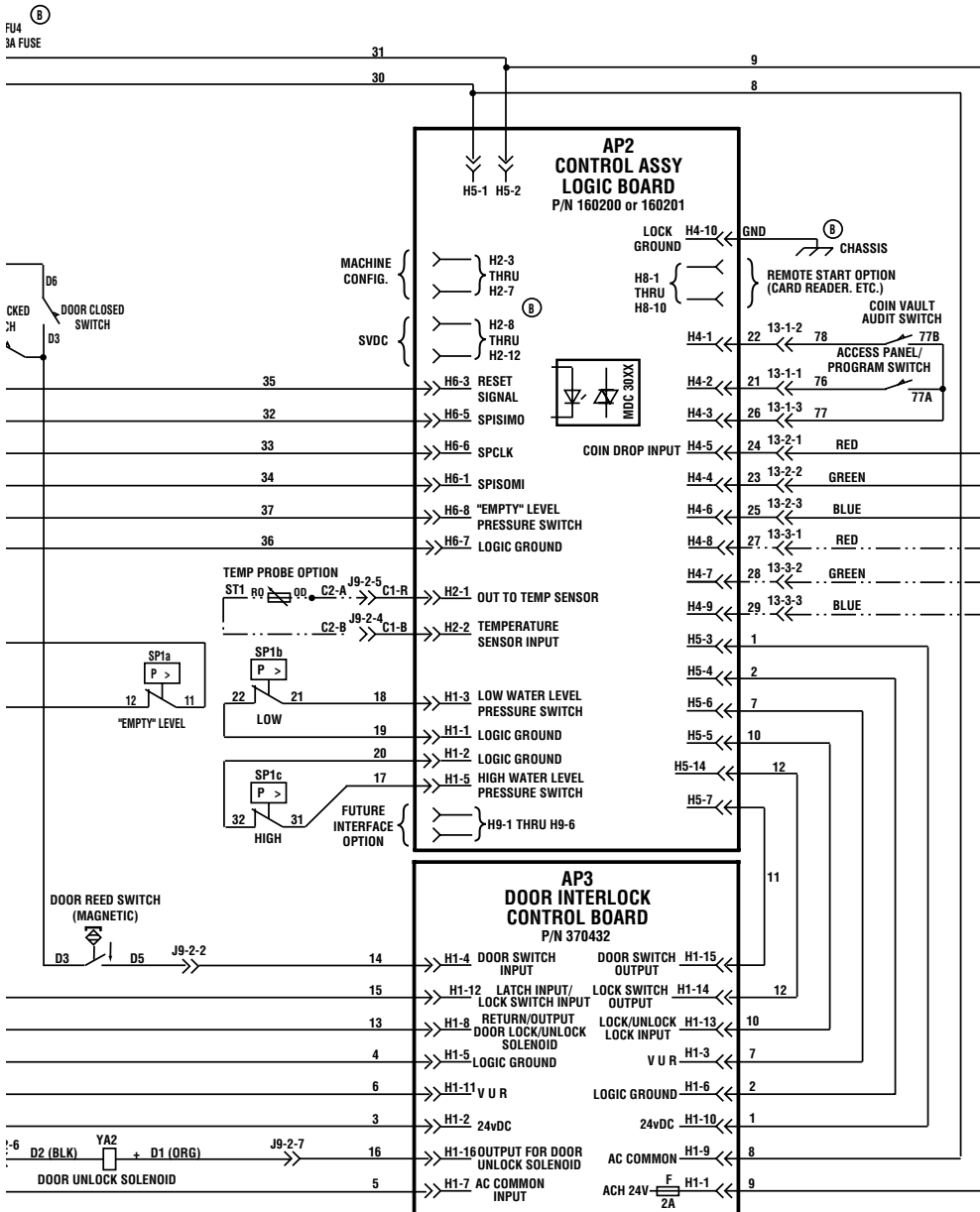
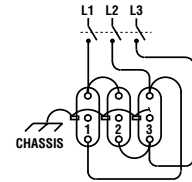
- ⓑ - TERMINAL STRIP, TERMINAL = 8
- KM2 RATED 35A AC1 (NX147 OR EQUIV)
- KM4 RATED 24A AC3 (NX101 OR EQUIV)
- KM5 RATED 24A AC3 (NX101 OR EQUIV)
- KM6 RATED 24A AC3 (NX101 OR EQUIV)

TYPICAL RELAY



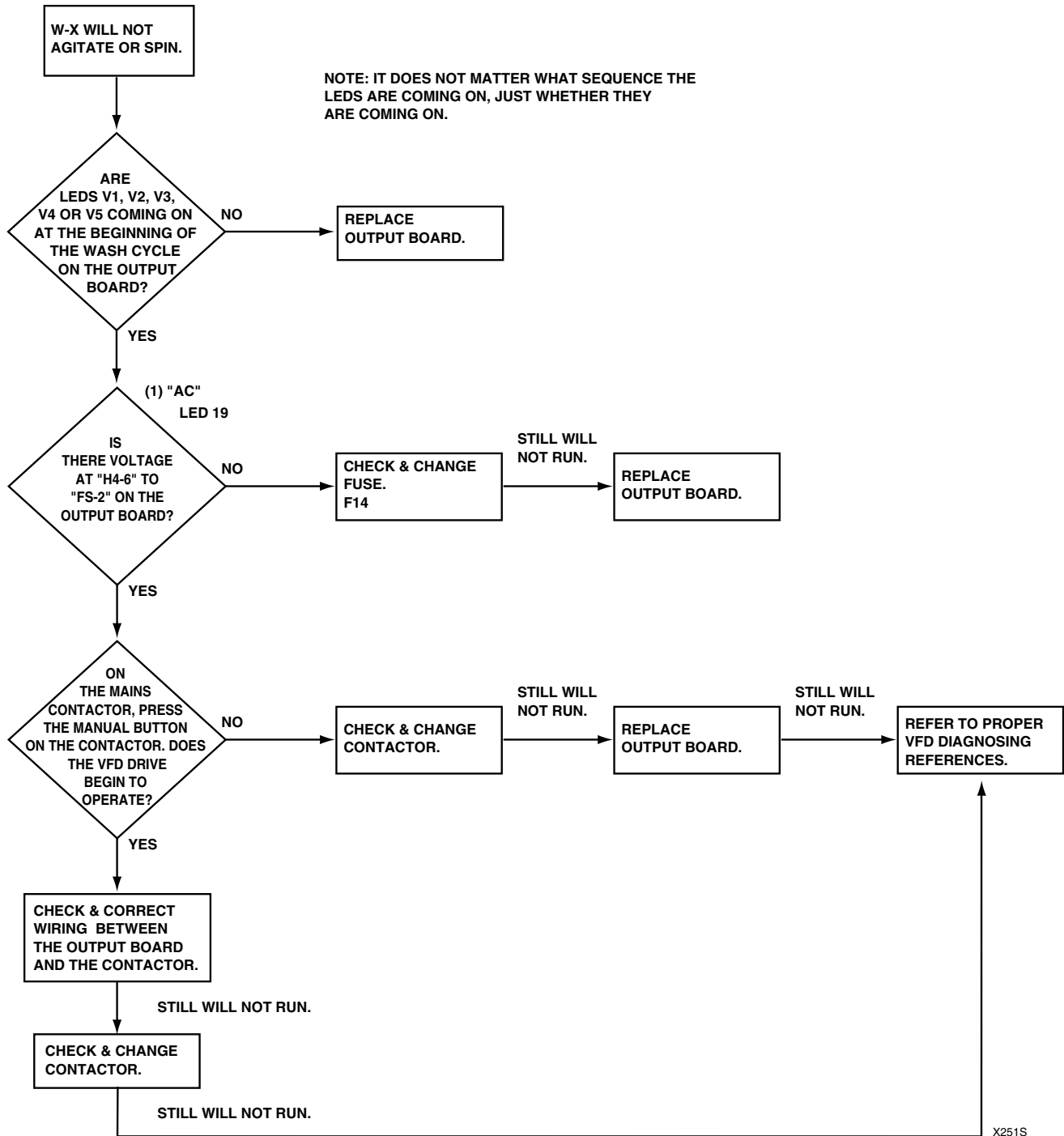
ODD NUMBERED CONTACTS ARE ISOLATED FROM EVEN NUMBERED CONTACTS BUT OPERATE SIMULTANEOUSLY. TERMINAL NUMBERS MAY VARY FROM RELAY TO RELAY BUT TERMINAL POSITIONS ARE THE SAME.

ELECTRIC HEATING ELEMENTS EACH BRANCH (SET OF THREE) WIRED AS SHOWN



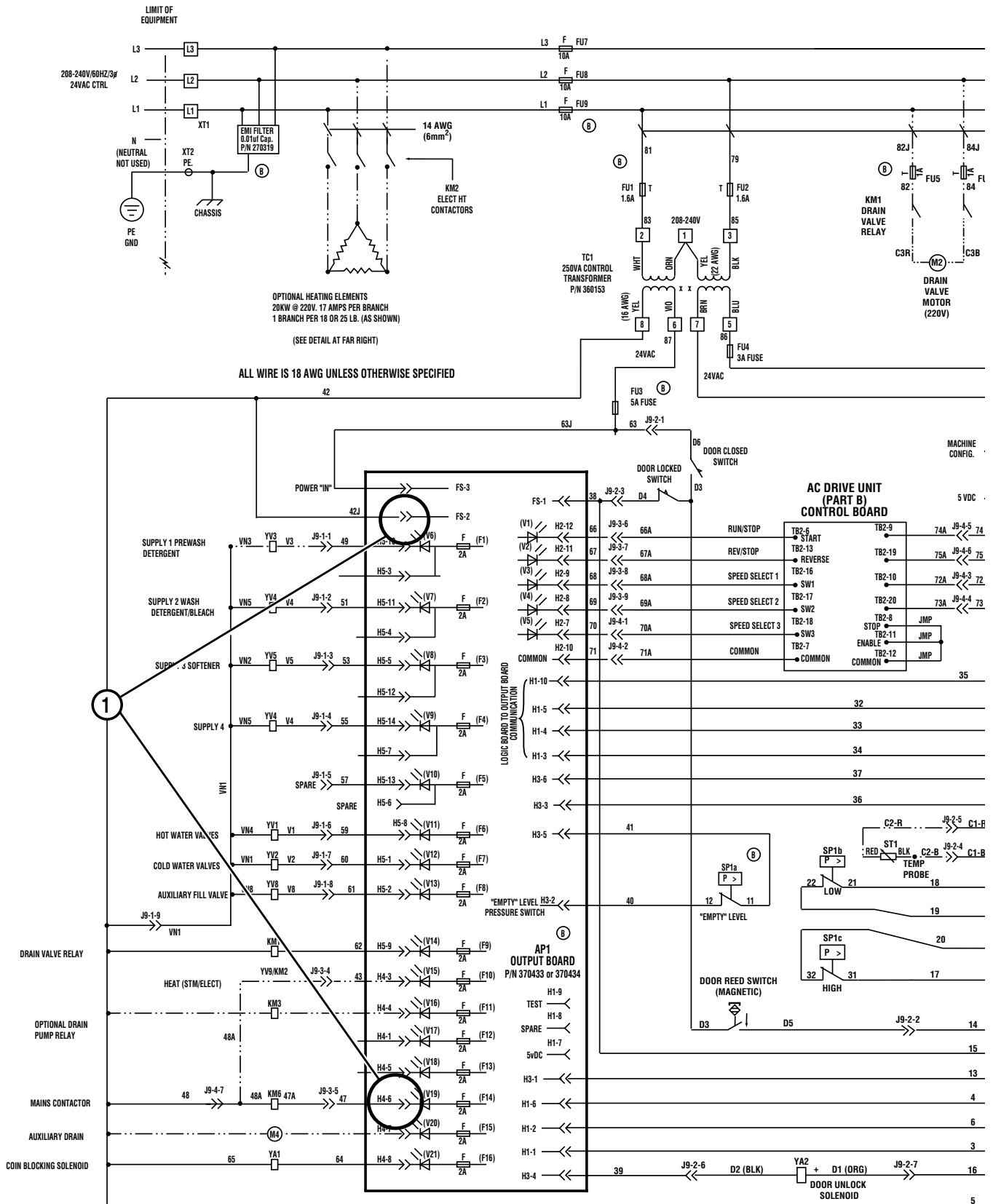
X239SE3L

VFD Drive Analysis



Please see following 2 pages for wiring diagram information.

VFD Drive Analysis (Sheet 1 of 2)



VFD Drive Analysis (Sheet 2 of 2)

