

# D40 Troubleshooting



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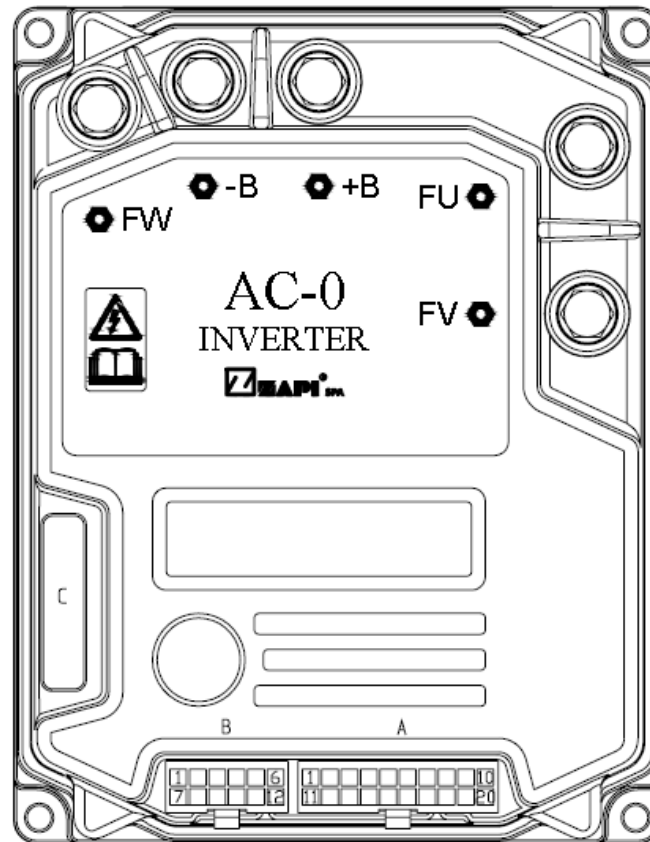
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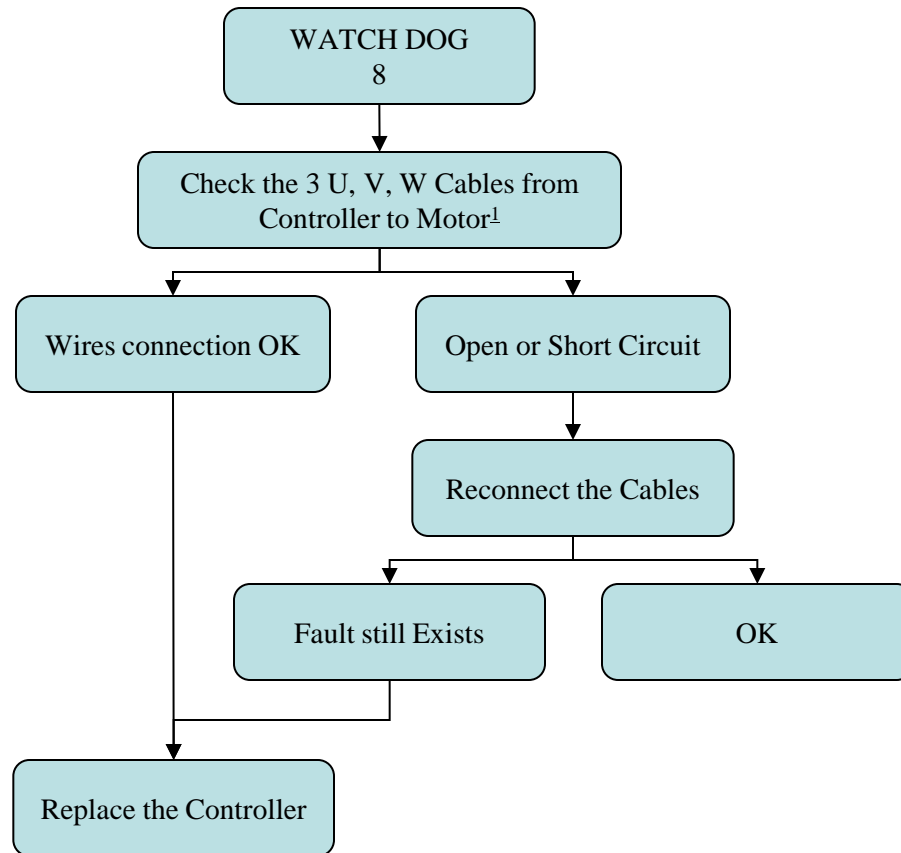
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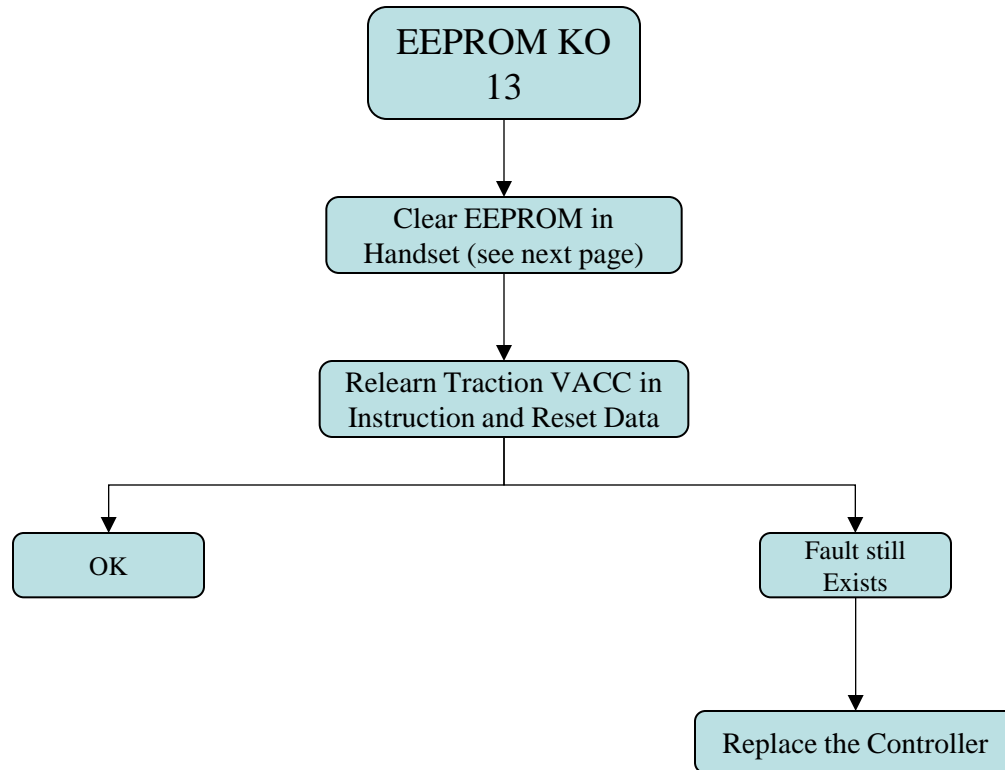
# Main Controller



# ALARM #8 on NODE #2 WATCH DOG



# ALARM #13 on NODE #2 EEPROM KO





# Clear EEPROM in Handset

Key on the truck, connect the flash connecting line. The Display will show:

Press  or  button until RS232 CONSOLE shows on the display

The Display will show :

Press OK to go into the Traction controller

The Display will show:

Cons AFG ZP021\*





Cons AFG ZP021\*  
RS232 CONSOLE



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Press OK to go into the Main Menu

The Display will show:

Press  or  button until CLEAR EEPROM on the display

The Display will show:

Press OK to go into the CLEAR EEPROM function

The Display will ask:  
ARE YOU SURE?

Press OK to CLEAR EEPROM



Main Menu



MAIN MENU  
CLEAR EEPROM



ARE YOU SURE?  
YES= OK      NO=ESC



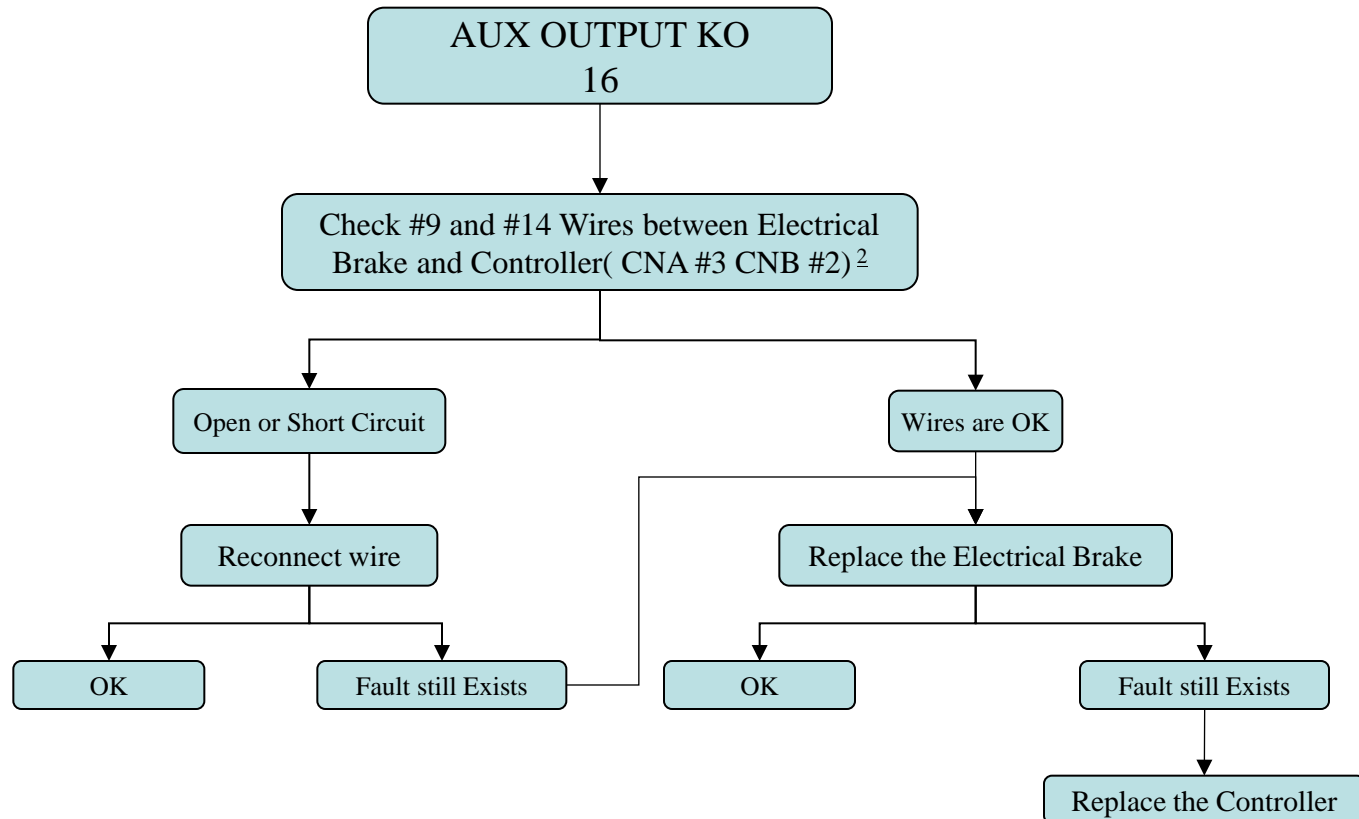
The display will show:

EEPROM CLEARED!  
KEY OFF, PLEASE

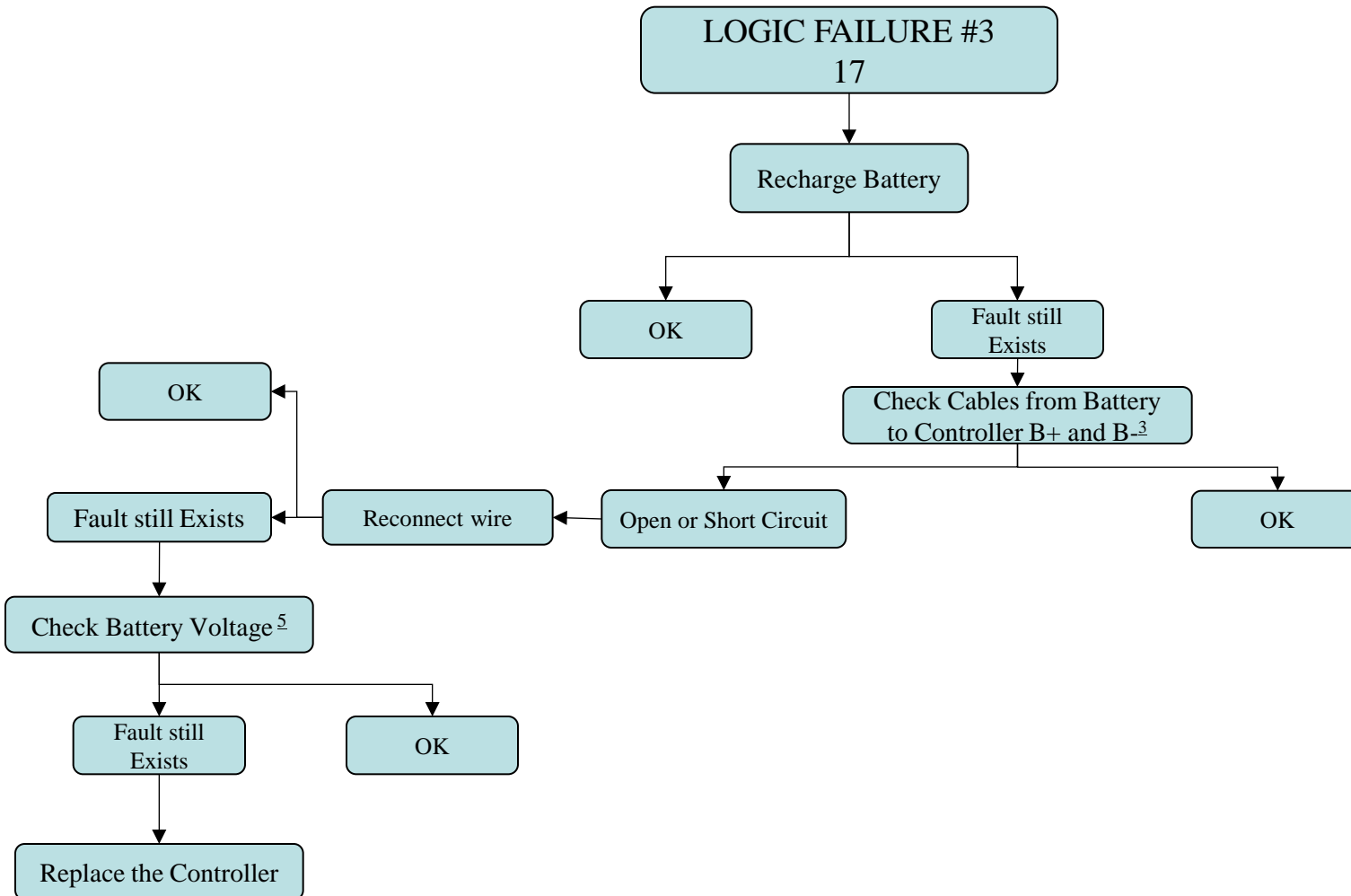
Rekey truck, and restart handset



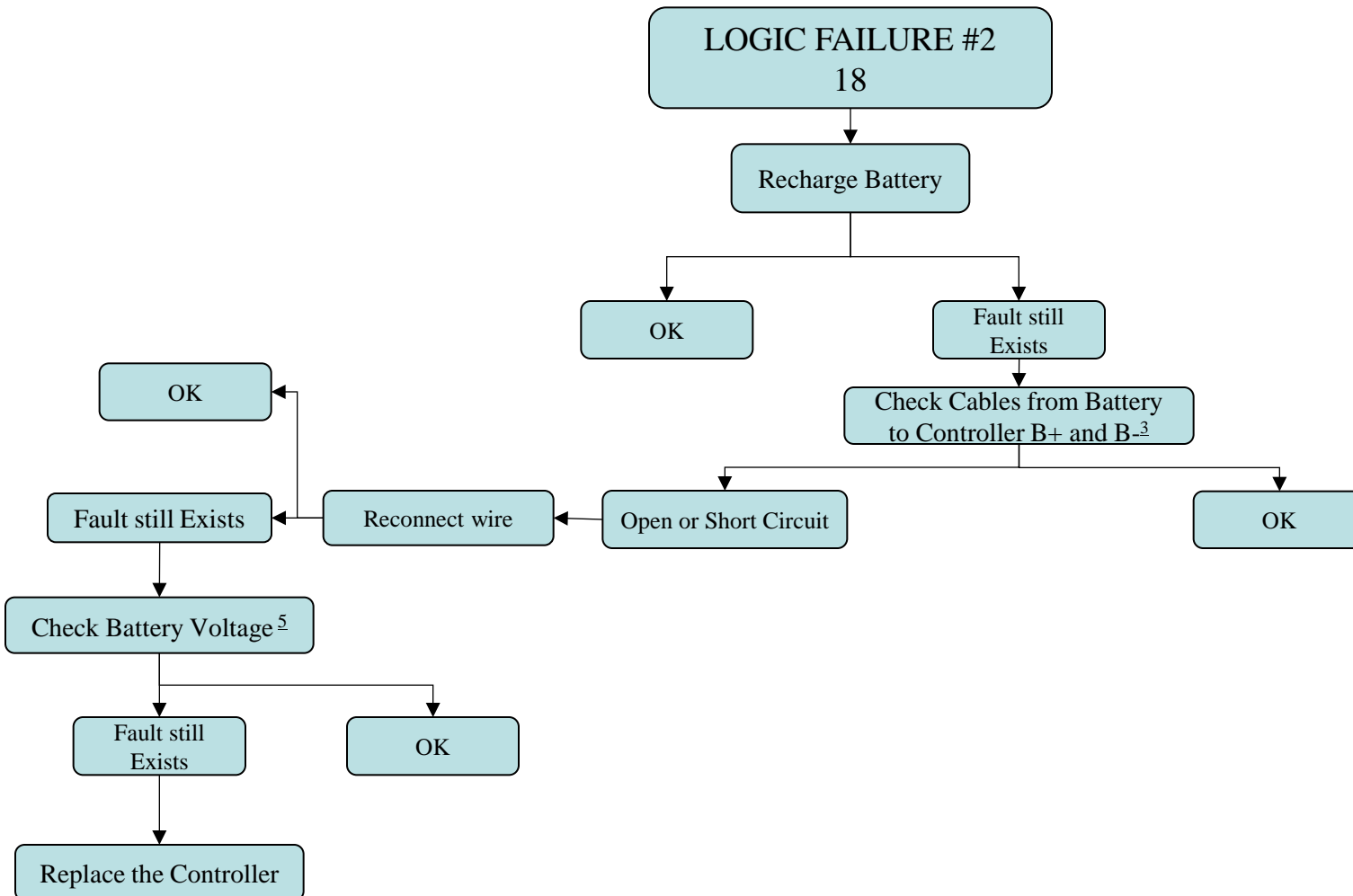
# ALARM #16 on NODE #2 AUX OUTPUT KO



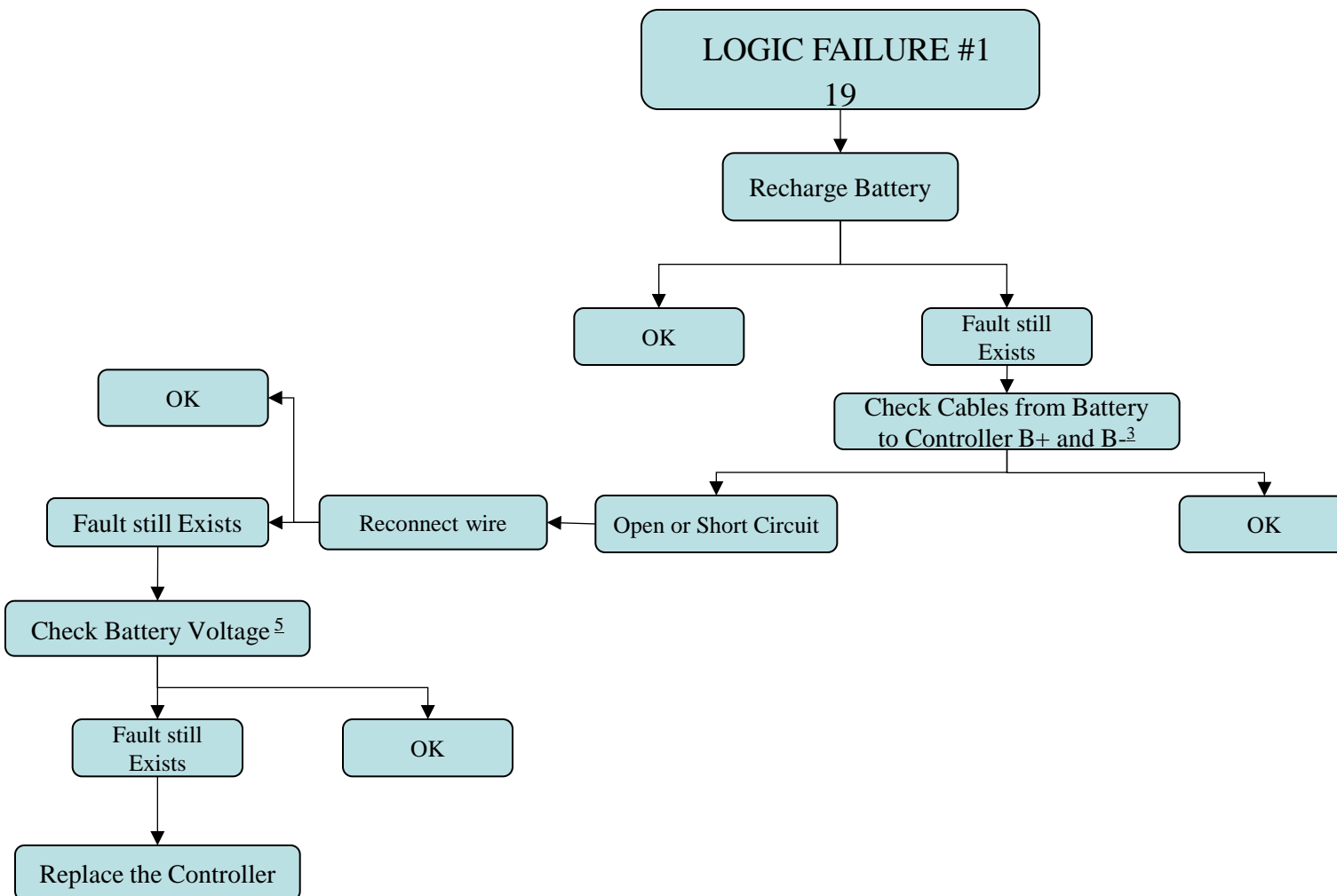
# ALARM #17 on NODE #2 LOGIC FAILURE #3



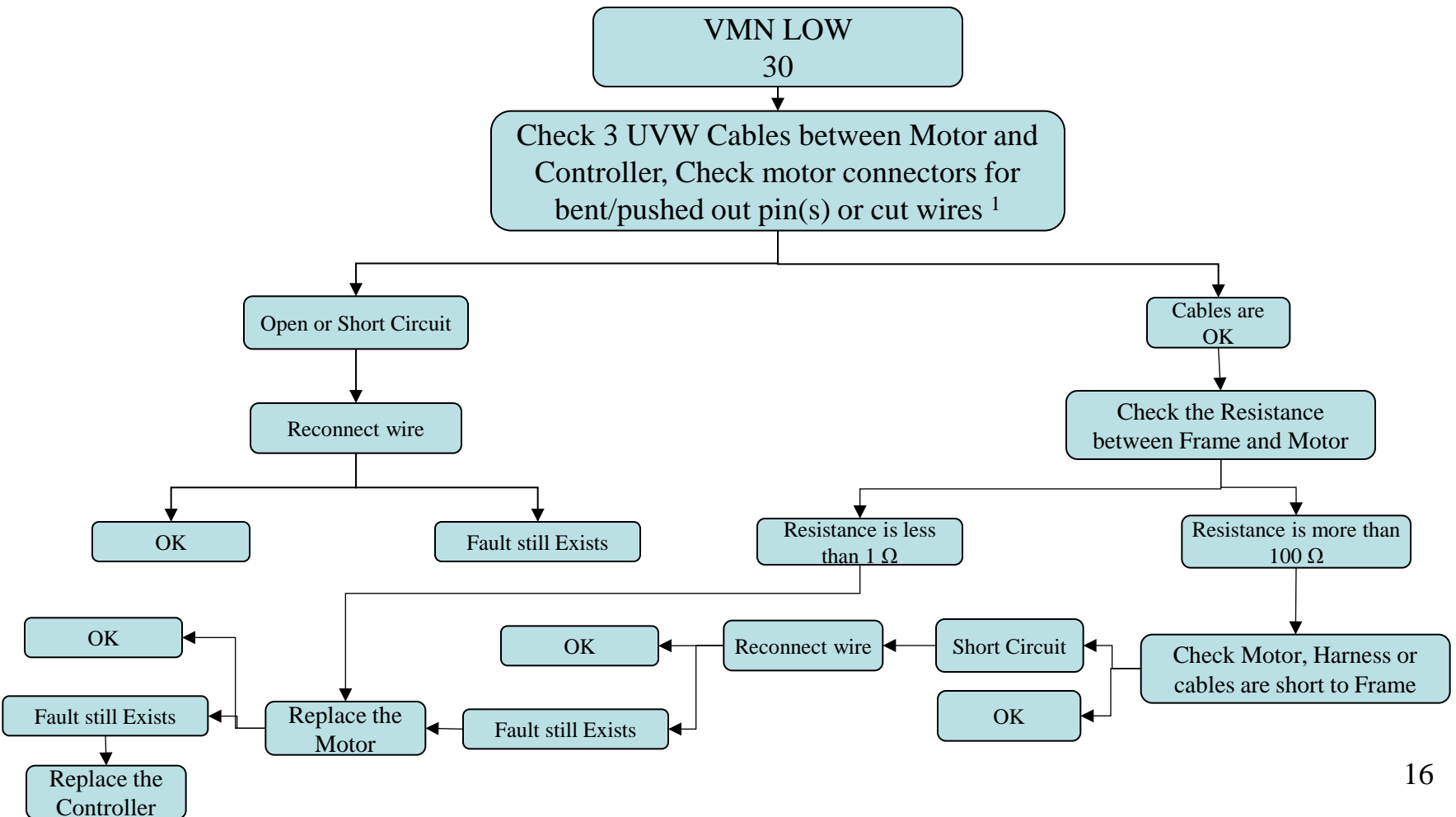
# ALARM #18 on NODE #2 LOGIC FAILURE #2



# ALARM #19 on NODE #2 LOGIC FAILURE #1

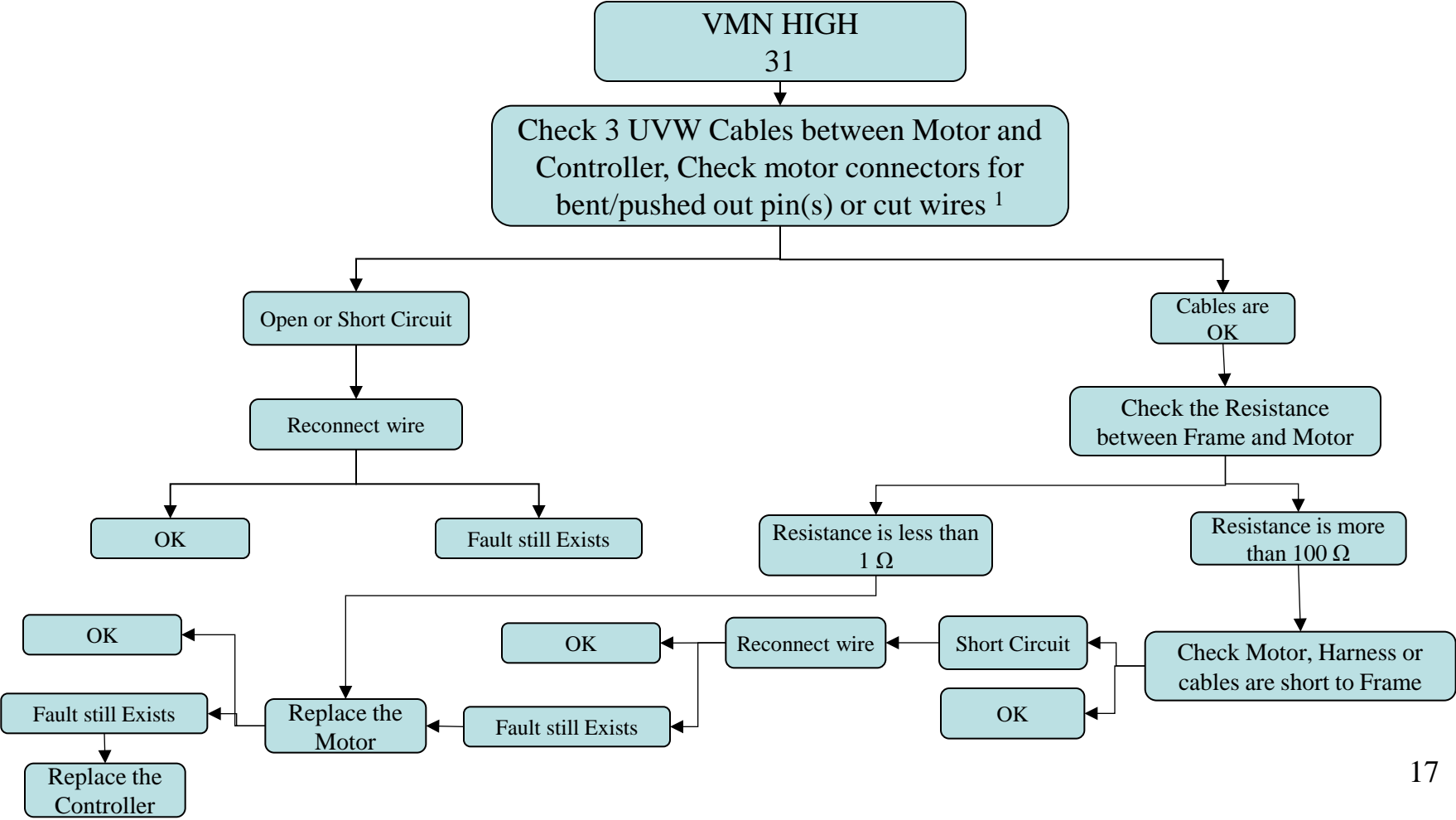


# ALARM #30 on NODE #2 VMN LOW

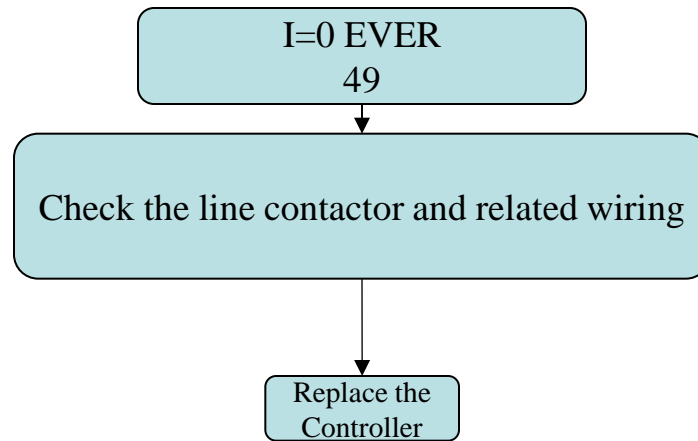




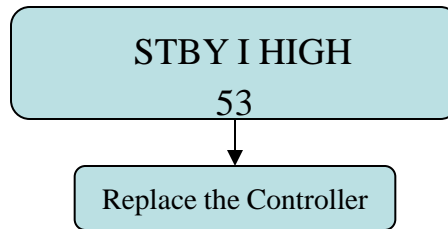
# ALARM #31 on NODE #2 VMN HIGH



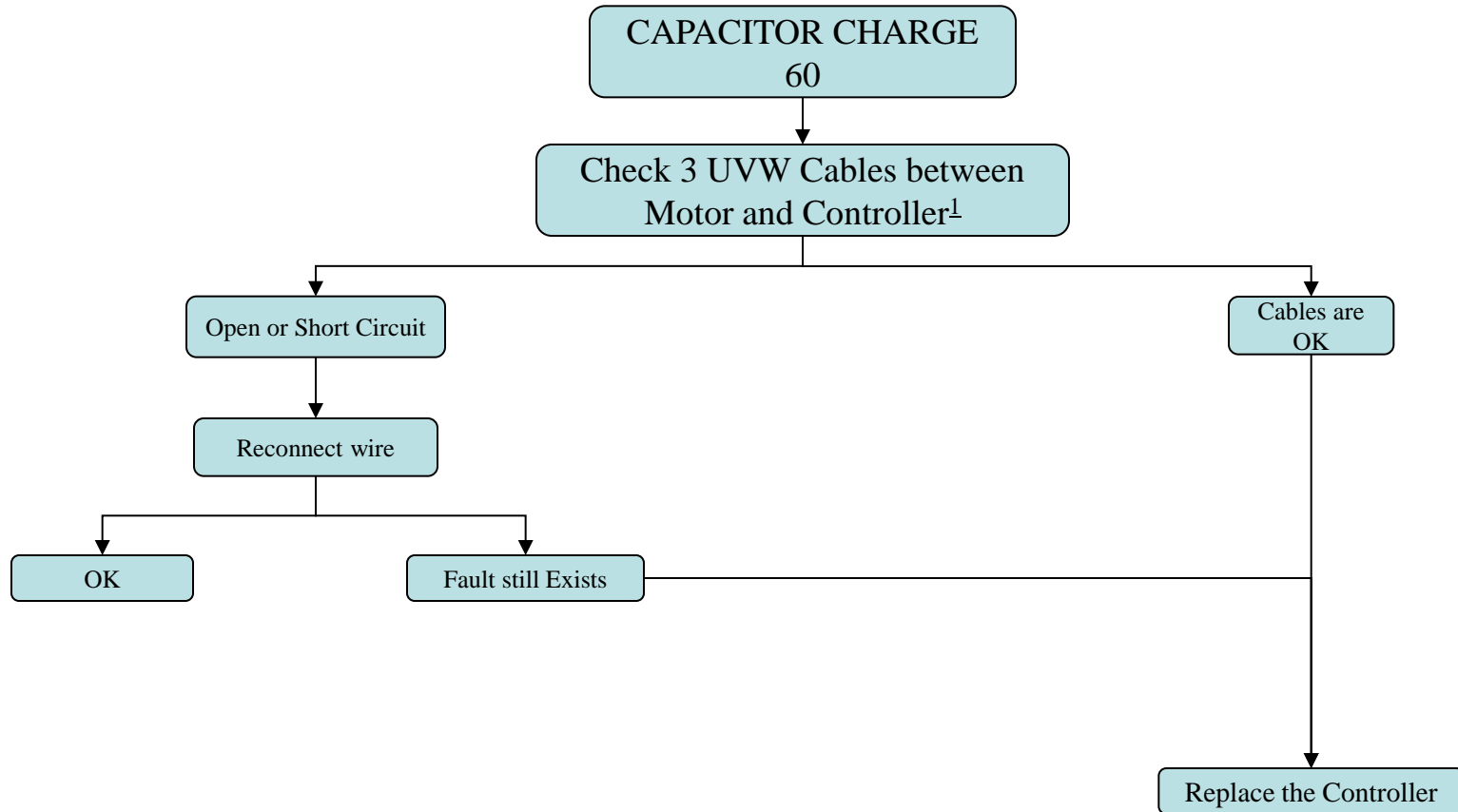
# ALARM #49 on NODE #2, I=0 EVER



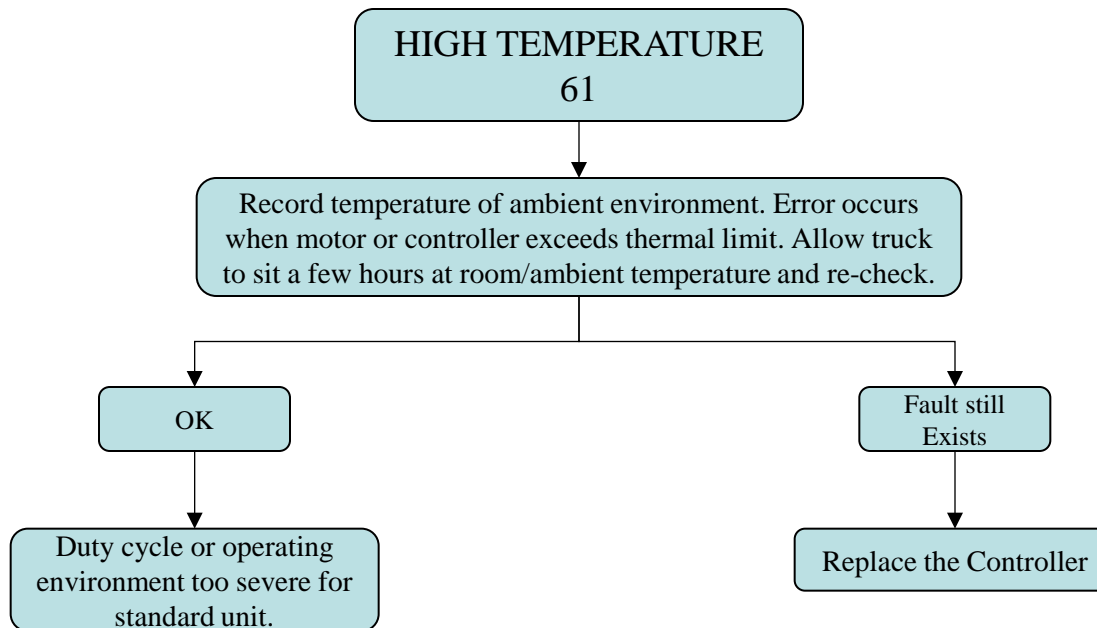
# ALARM #53 on NODE #2 STBY I HIGH



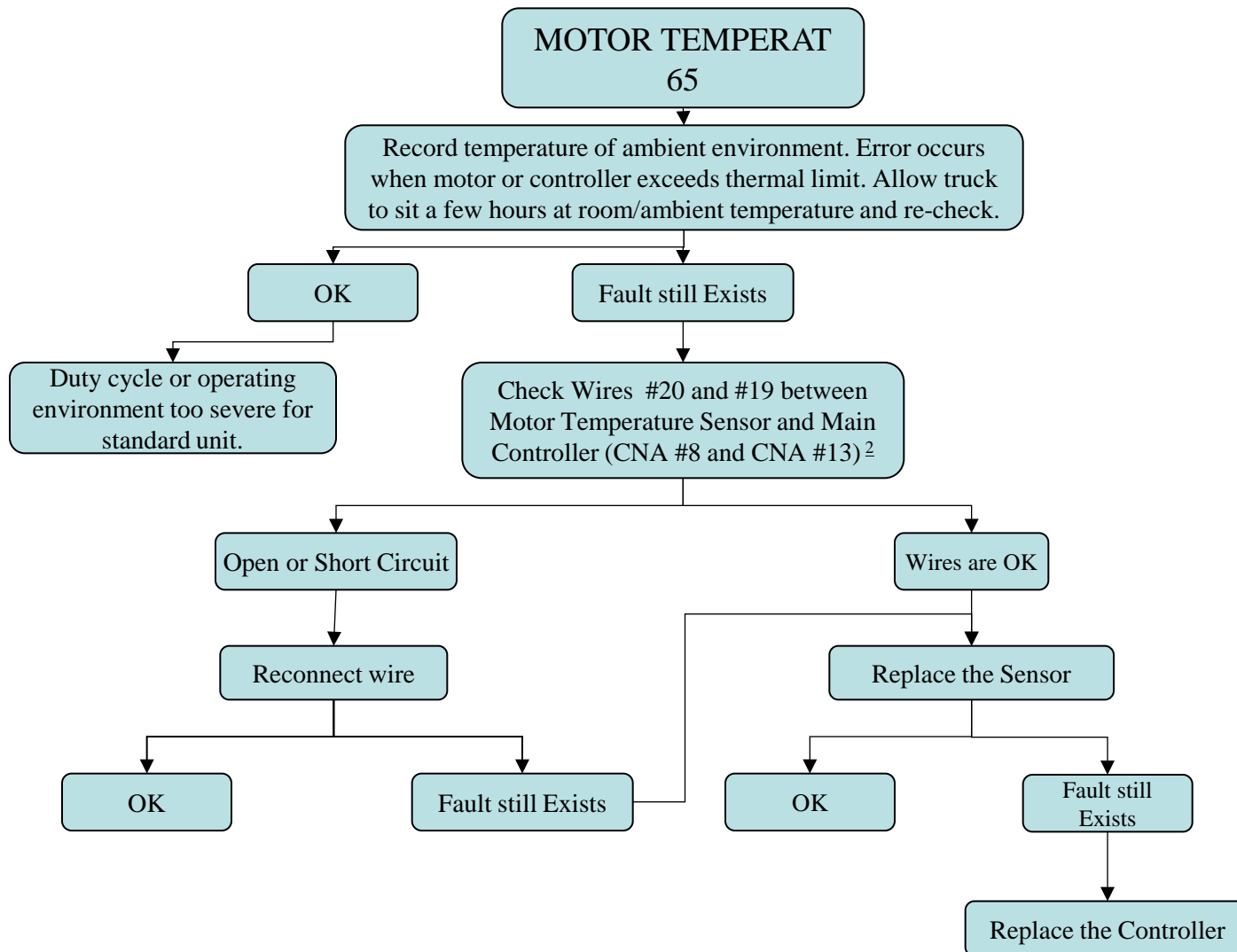
# ALARM #60 on NODE #2 CAPACITOR CHARGE



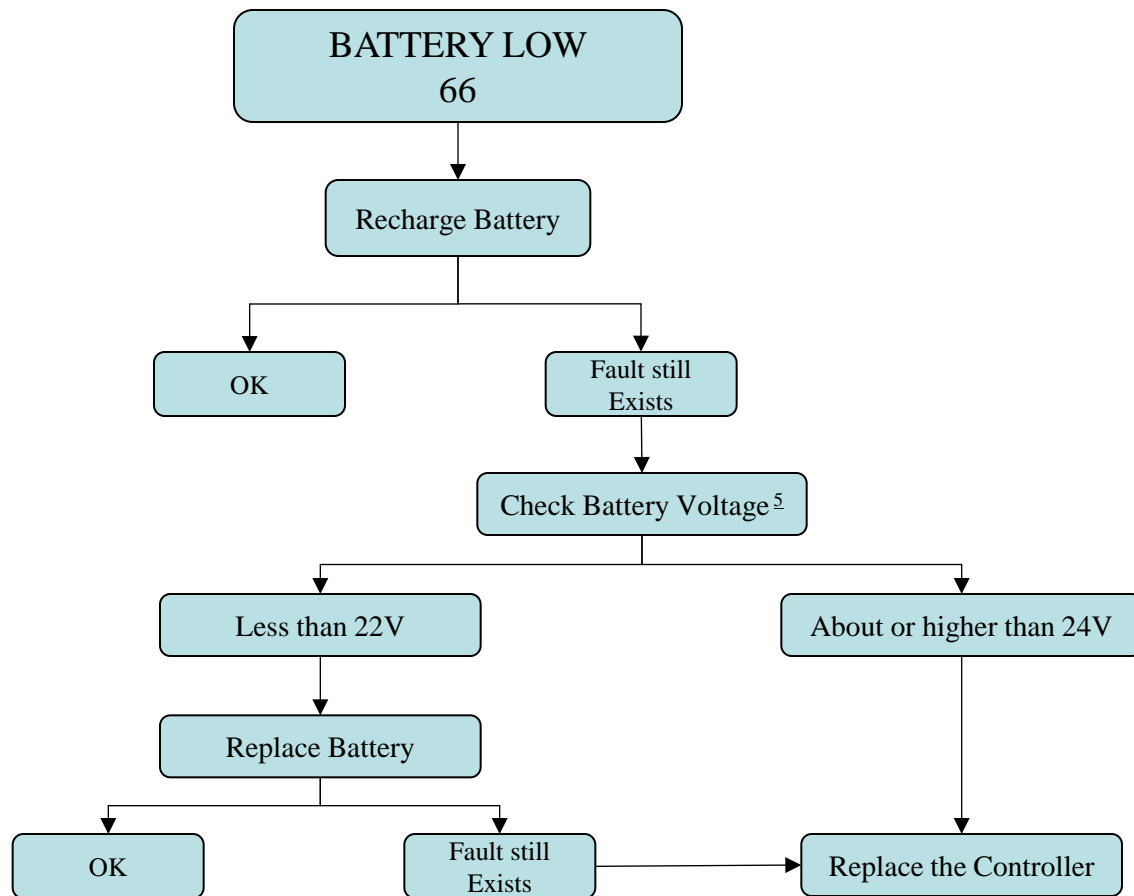
# ALARM #61 on NODE #2 HIGH TEMPERATURE



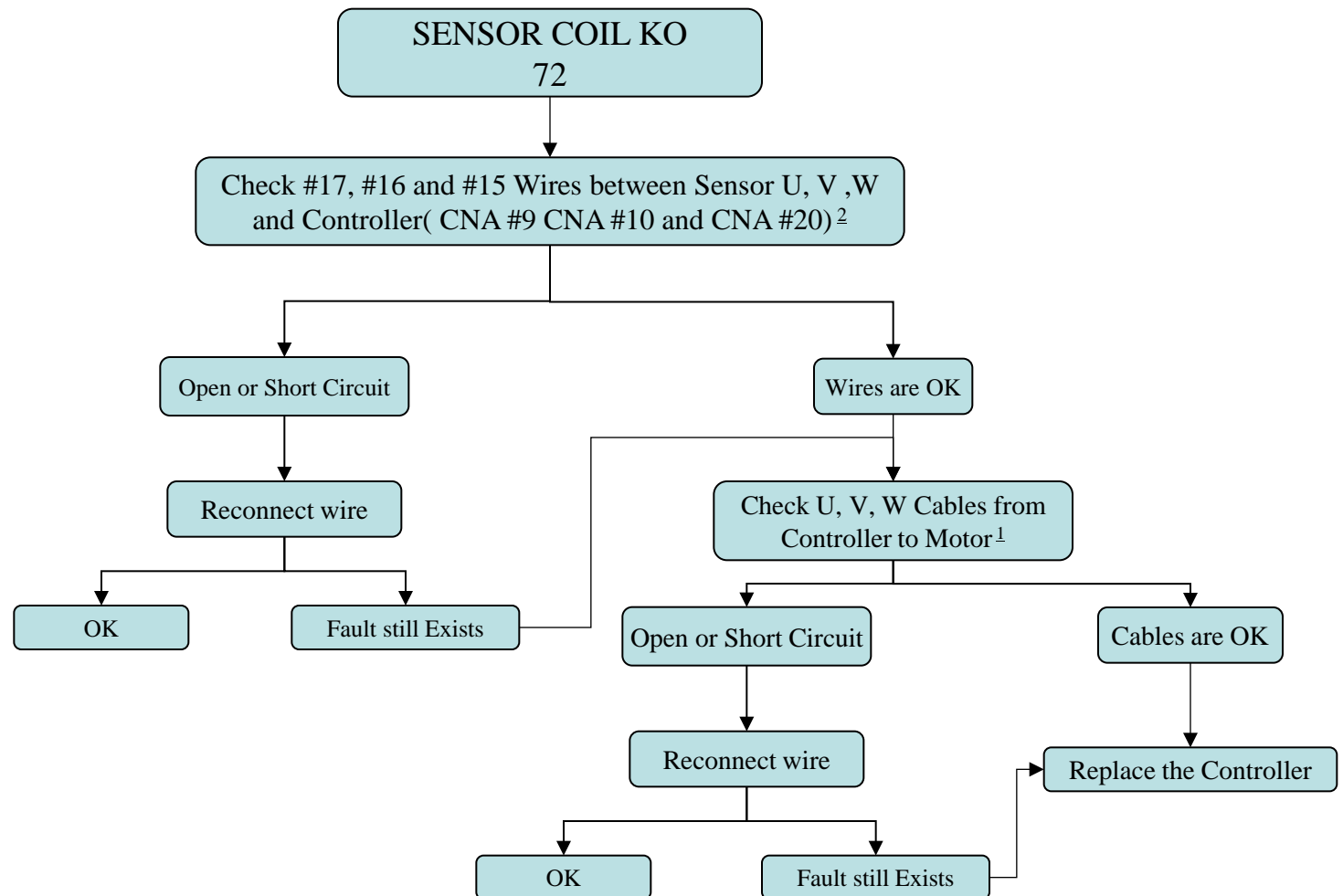
# ALARM #65 on NODE #2 MOTOR TEMPERAT



# ALARM #66 on NODE #2 BATTERY LOW

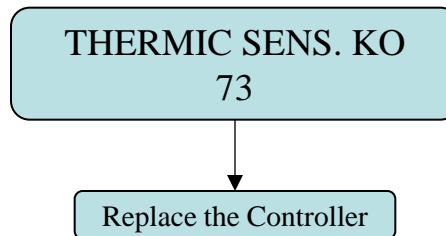


# ALARM #72 on NODE #2 SENSOR COIL KO

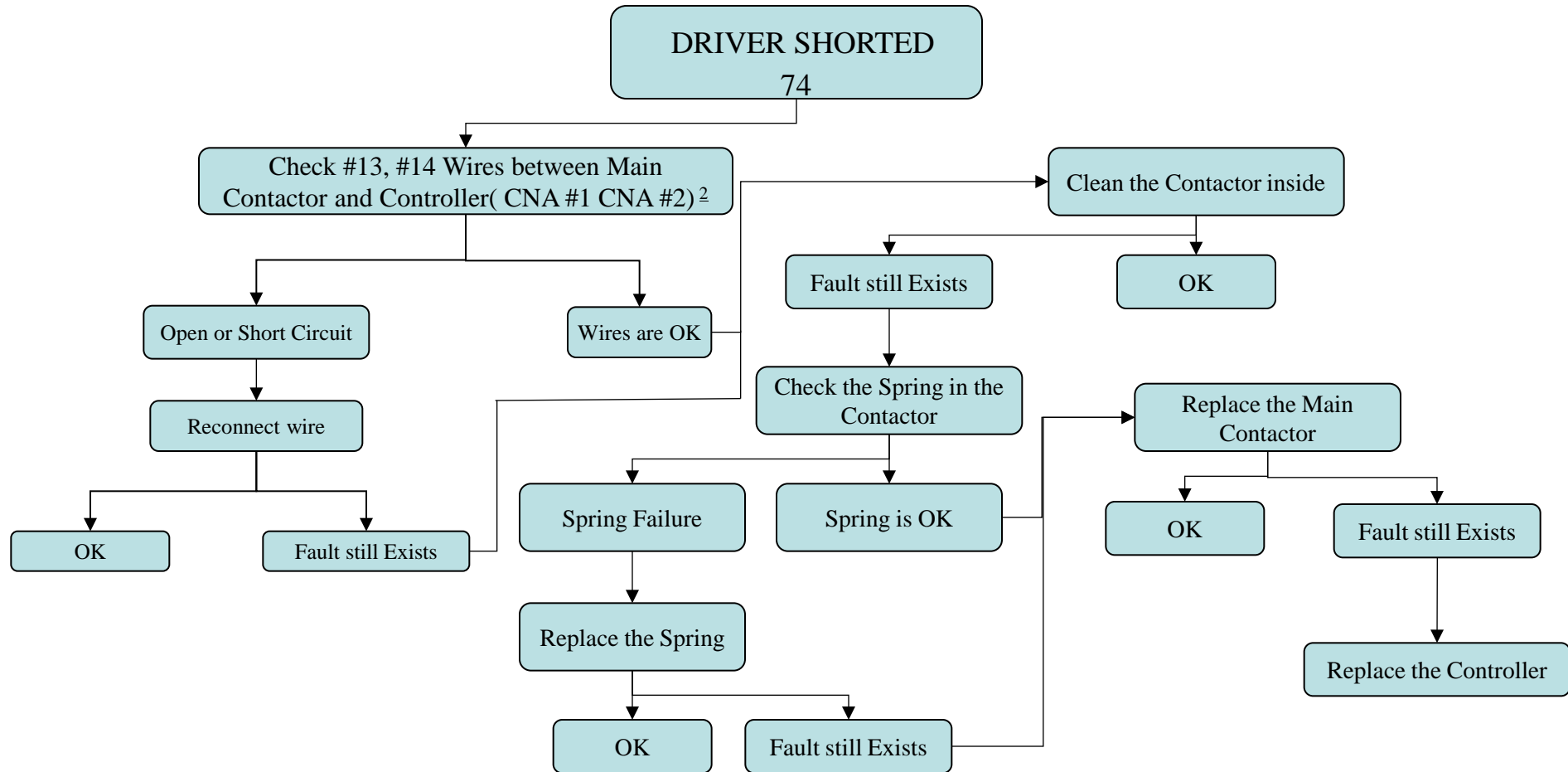




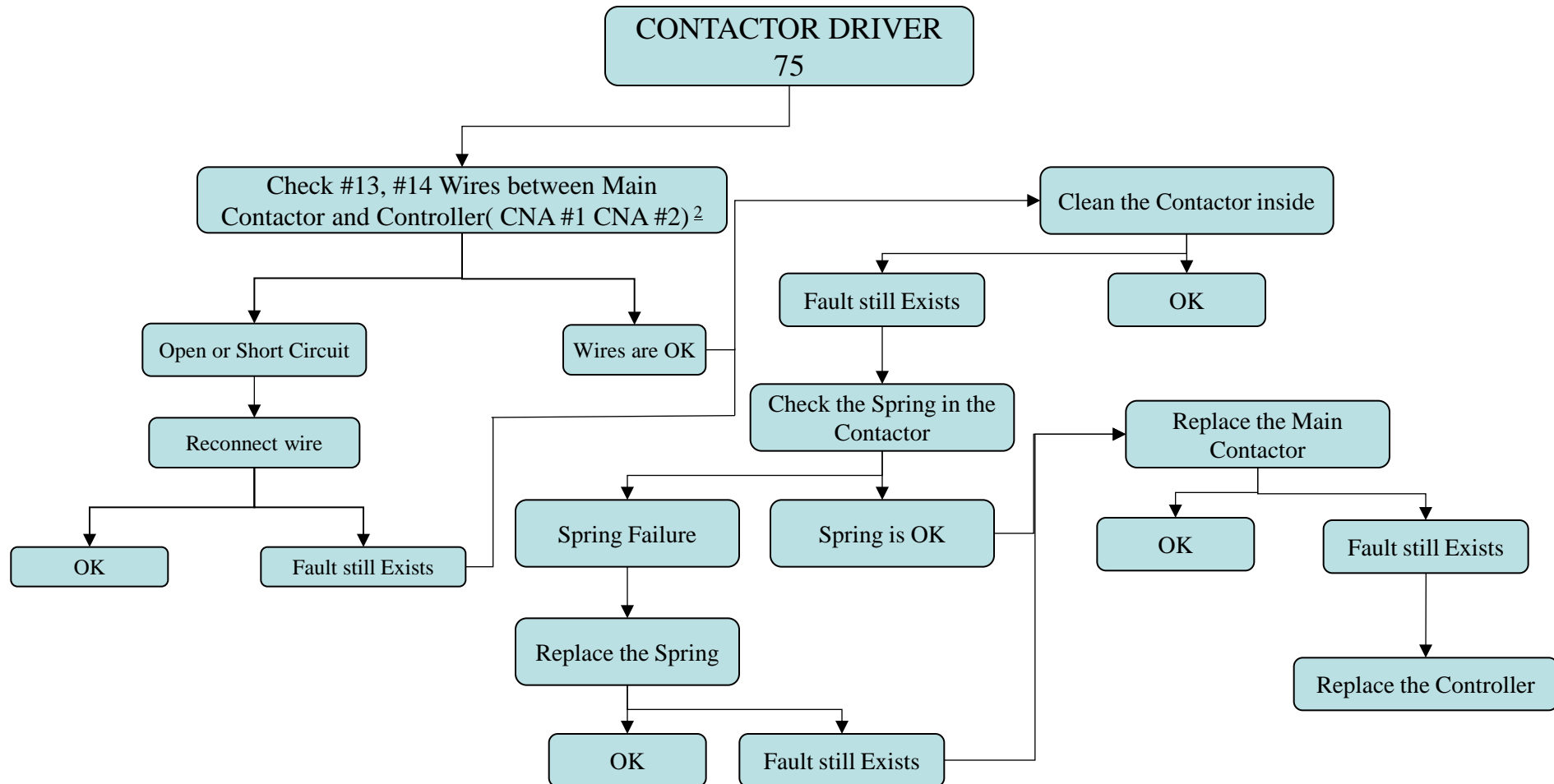
# ALARM #73 on NODE #2 THERMIC SENS. KO



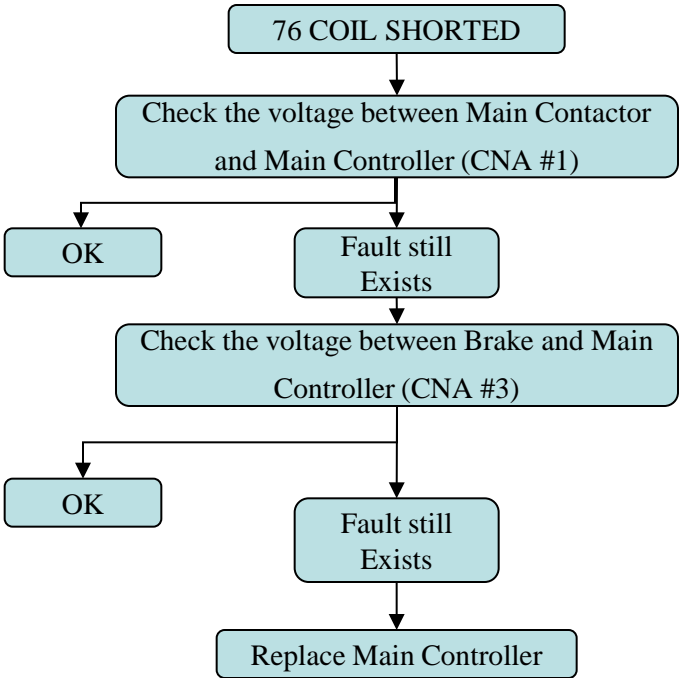
# ALARM #74 on NODE #2 DRIVER SHORTED

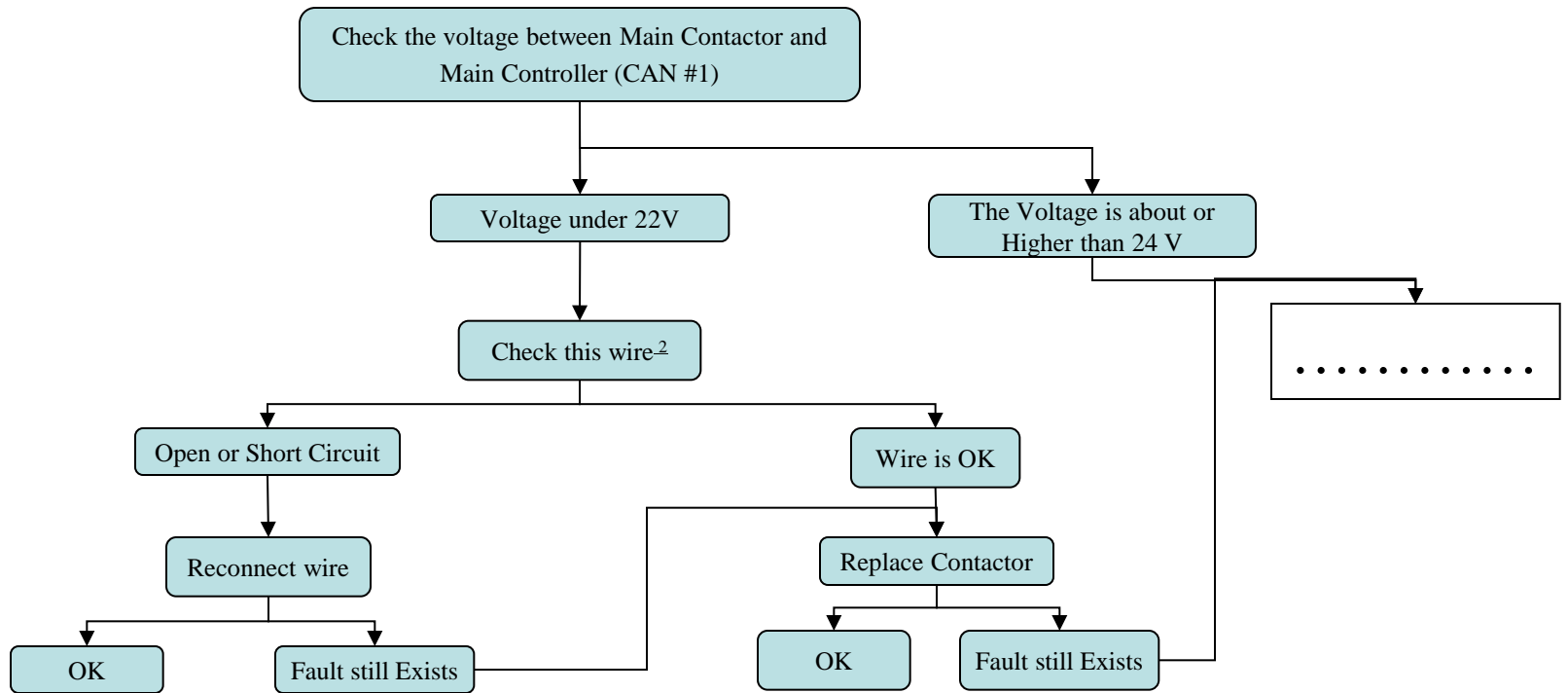


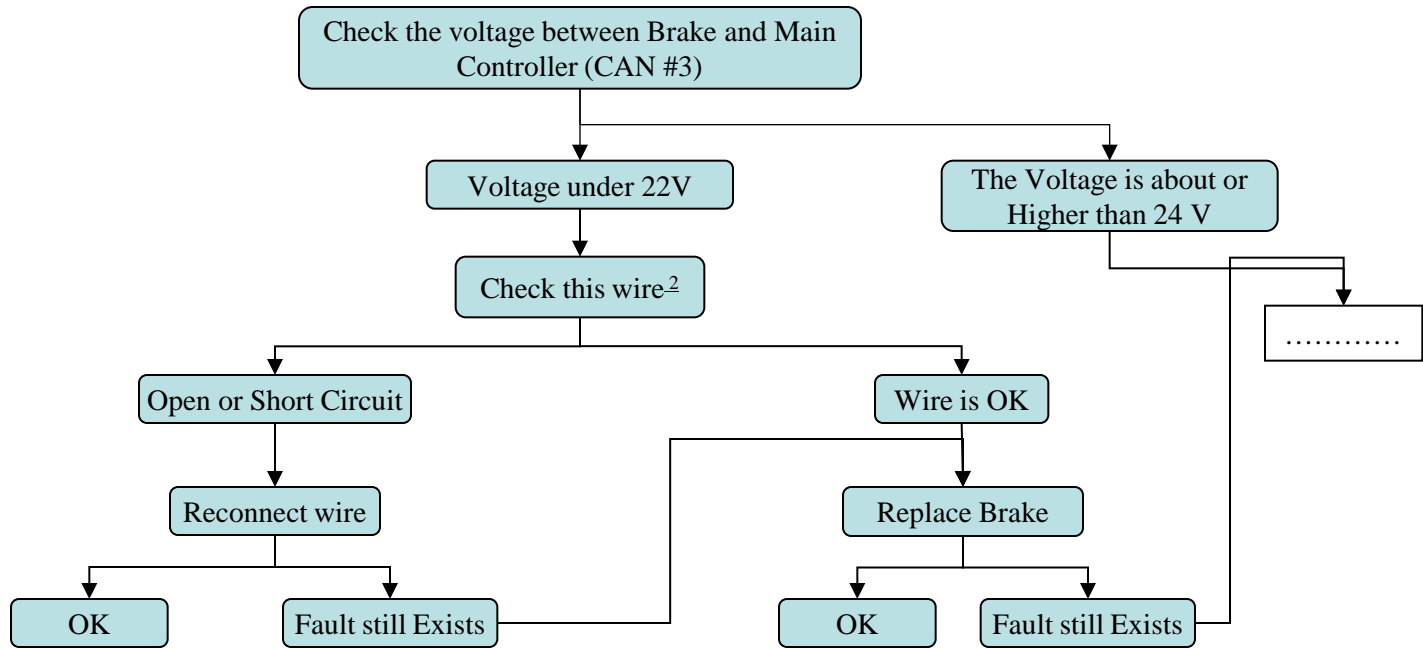
# ALARM #75 on NODE #2 CONTACTOR DRIVER



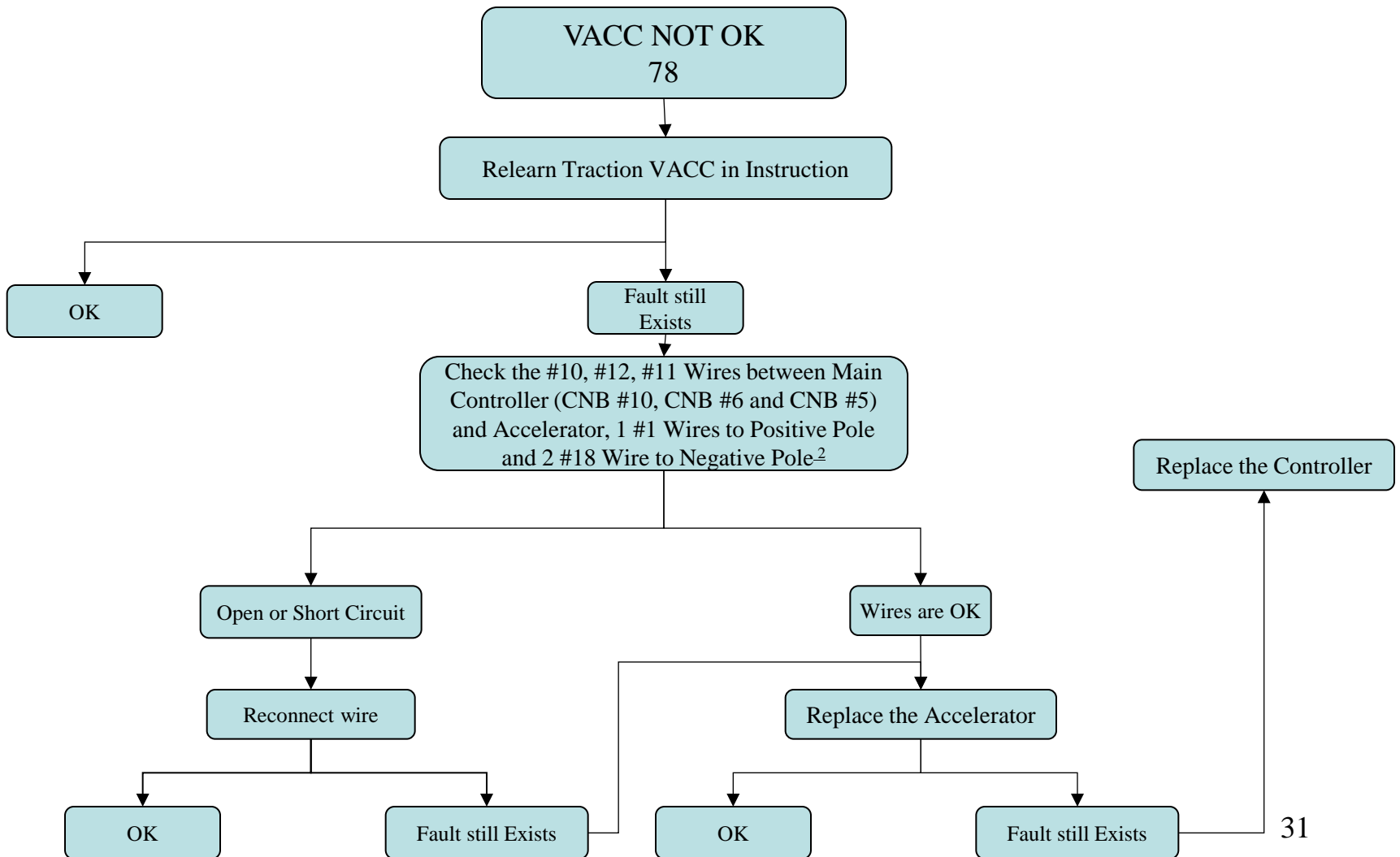
# ALARM #76 on NODE #2 COIL SHORTED



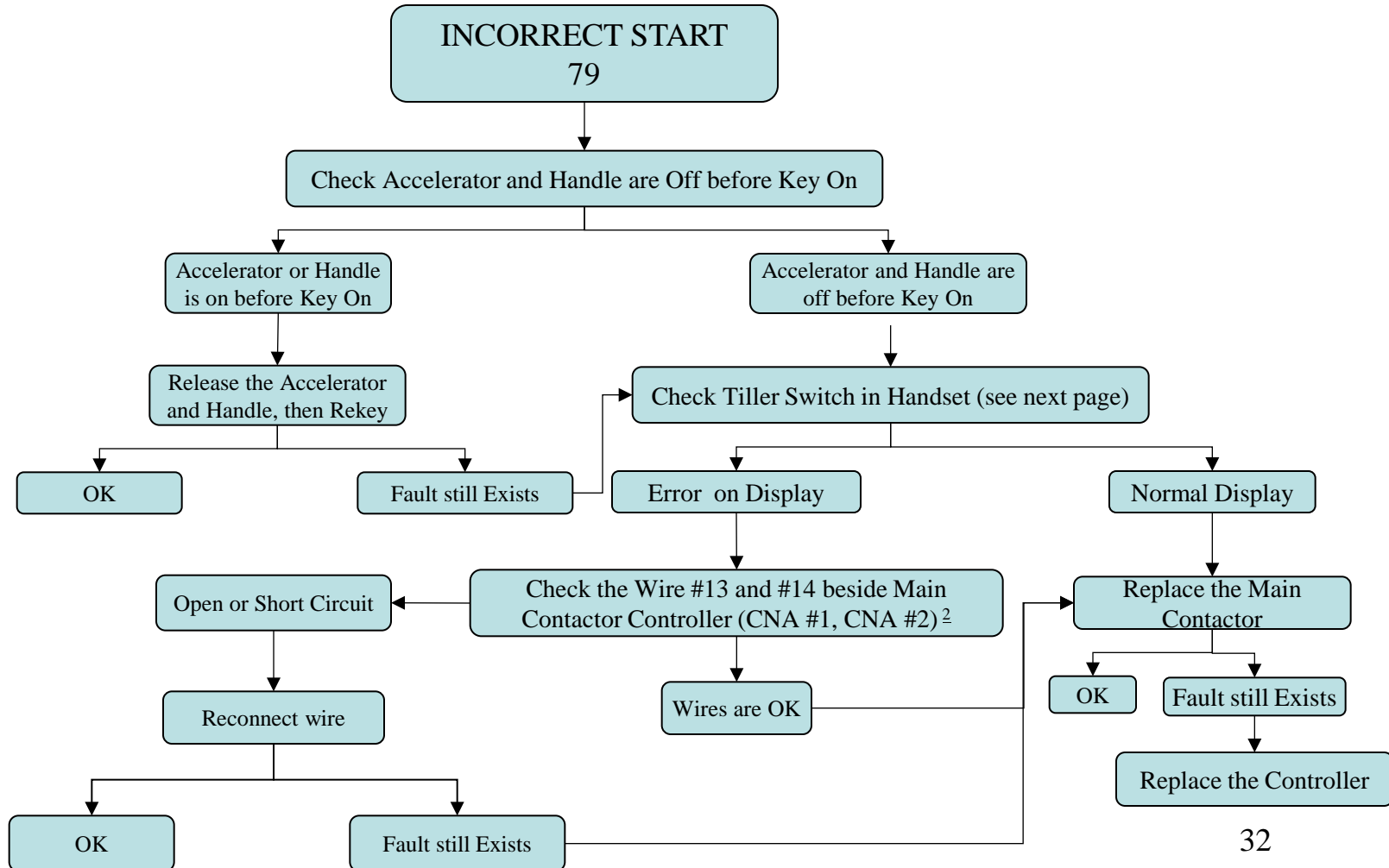




# ALARM #78 on NODE #2 VACC NOT OK



# ALARM #79 on NODE #2 INCORRECT START





# Check Tiller Switch in Handset

Key on the truck, connect the flash connecting line. The Display will show:

Press  or  button until RS232 CONSOLE shows on the display

The Display will show :

Press OK to go into the Traction controller

The Display will show:

Cons AFG ZP021\*



Cons AFG ZP021\*  
RS232 CONSOLE



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Press OK to go into the Main Menu



The Display will show:

Press  or  button until TEST shows on the display

The Display will show:

Press OK to go into the TEST function

The Display will show:

Press  or  button until HANDLE/ SEAT SW shows on the display



Main Menu



MAIN MENU  
TEST



TEST



The display will show:

Pull Handle and Push the accelerator and hold on

The display will show:

When finished , press and hold power button for 3s to turn off the Console

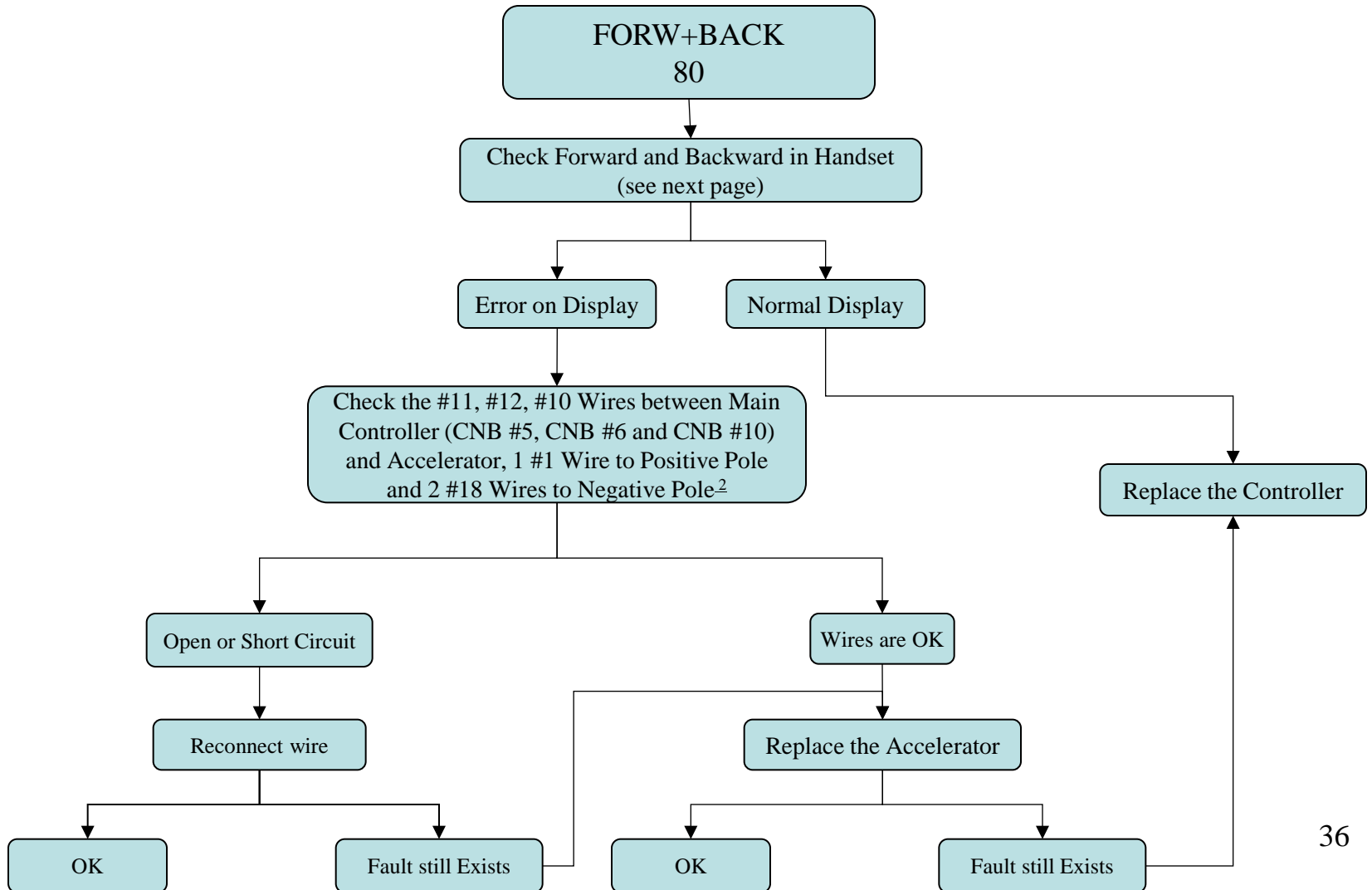
HANDLE/ SEAT SW OFF



HANDLE/ SEAT SW ON




# ALARM #80 on NODE #2 FORW+BACK



# Check Forward and Backward in Handset

Key on the truck, connect the flash connecting line. The Display will show:

Press  or  button until RS232 CONSOLE shows on the display

The Display will show :

Press OK to go into the Traction controller

The Display will show:

Cons AFG ZP021\*



Cons AFG ZP021\*  
RS232 CONSOLE



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24V 150A 0H

Press OK to go into the Main Menu



The Display will show:

Press  or  button until TEST shows on the display

The Display will show:

Press OK to go into the TEST function

The Display will show:

Press  or  button until FORWARD shows on the display



Main Menu



MAIN MENU  
TEST



TEST



The display will show:

Push the accelerator forward and hold on

The display will show:

Repeat step for reverse direction

When finished , press and hold power button for 3s to turn off the Console

FORWARD OFF

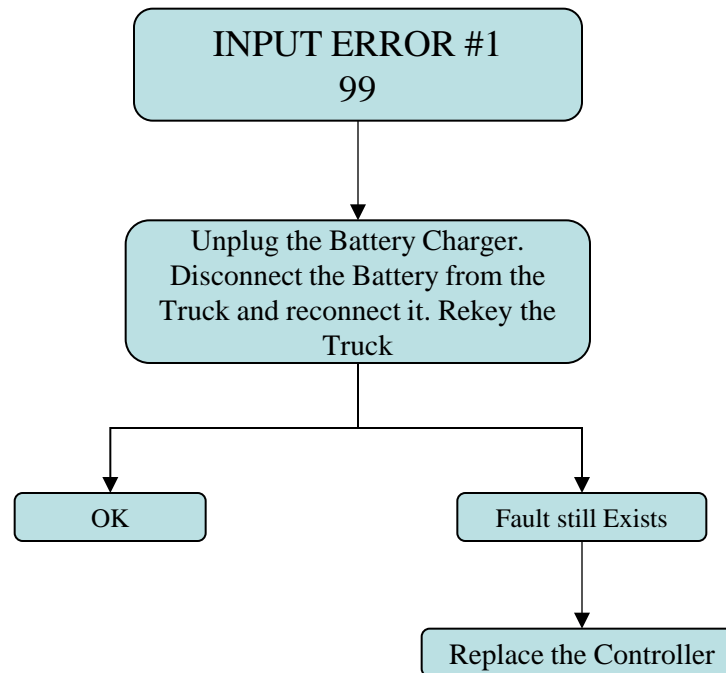


FORWARD ON

BACKWARD OFF  
BACKWARD ON

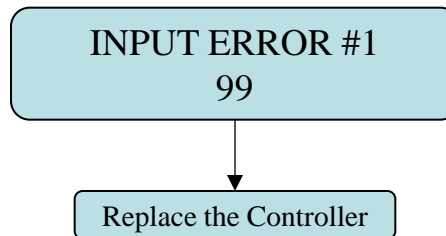


# ALARM #91 on NODE #2 INPUT ERROR #2

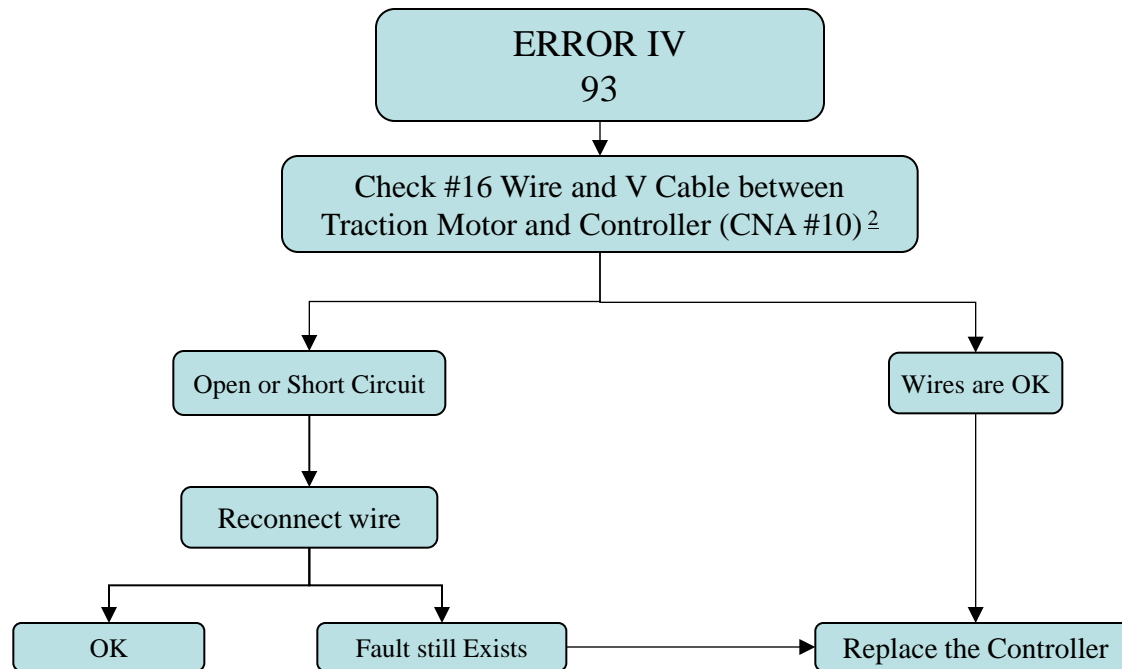




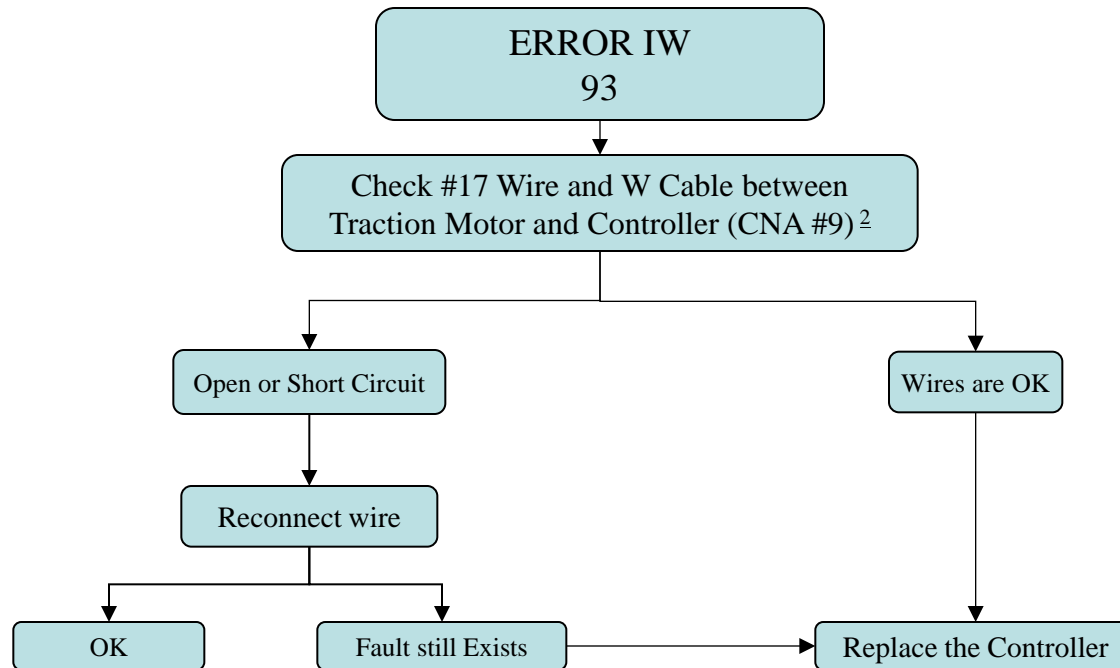
# ALARM #92 on NODE #2 INPUT ERROR #1



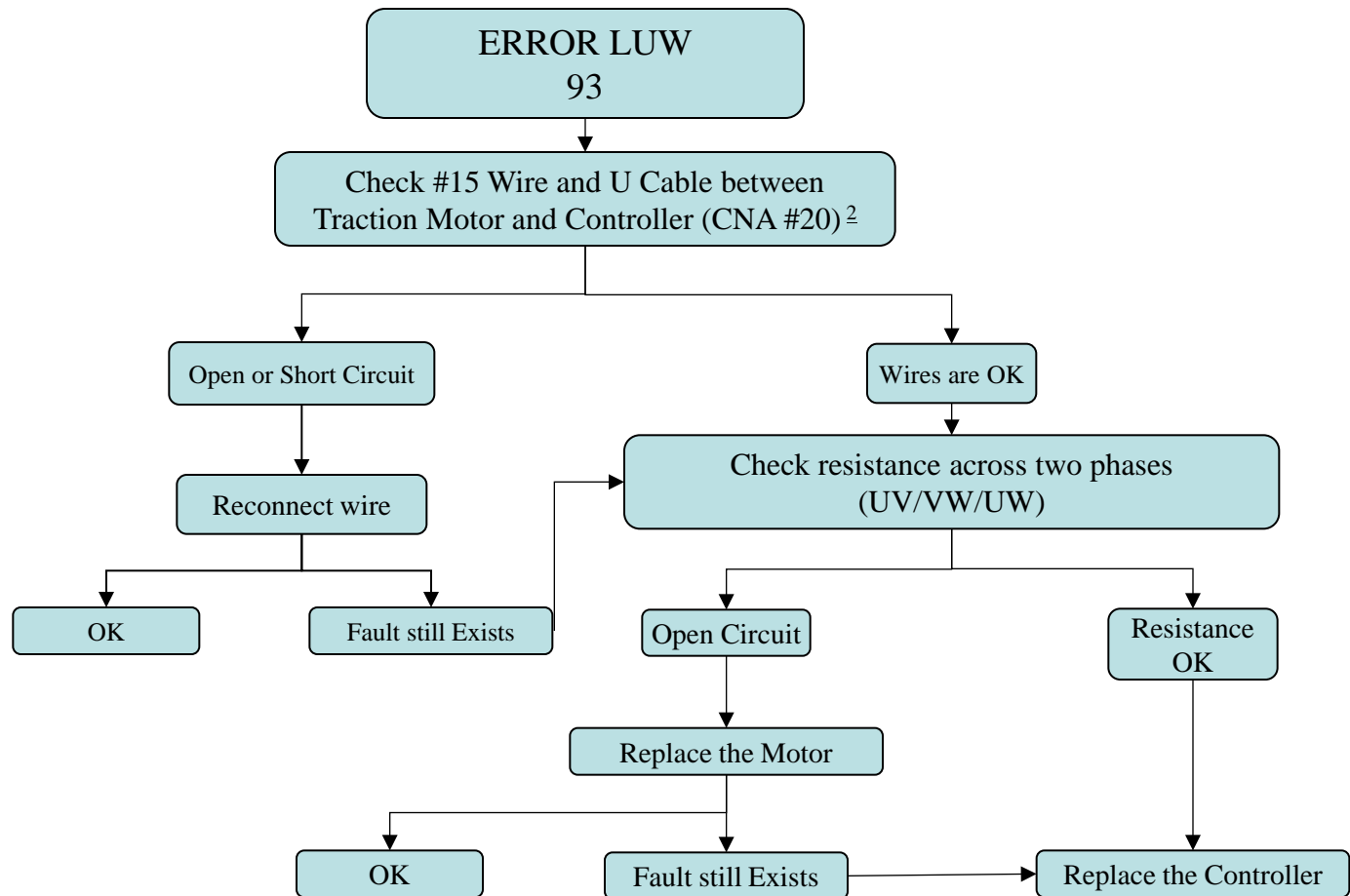
# ALARM #93 on NODE #2 ERROR IV



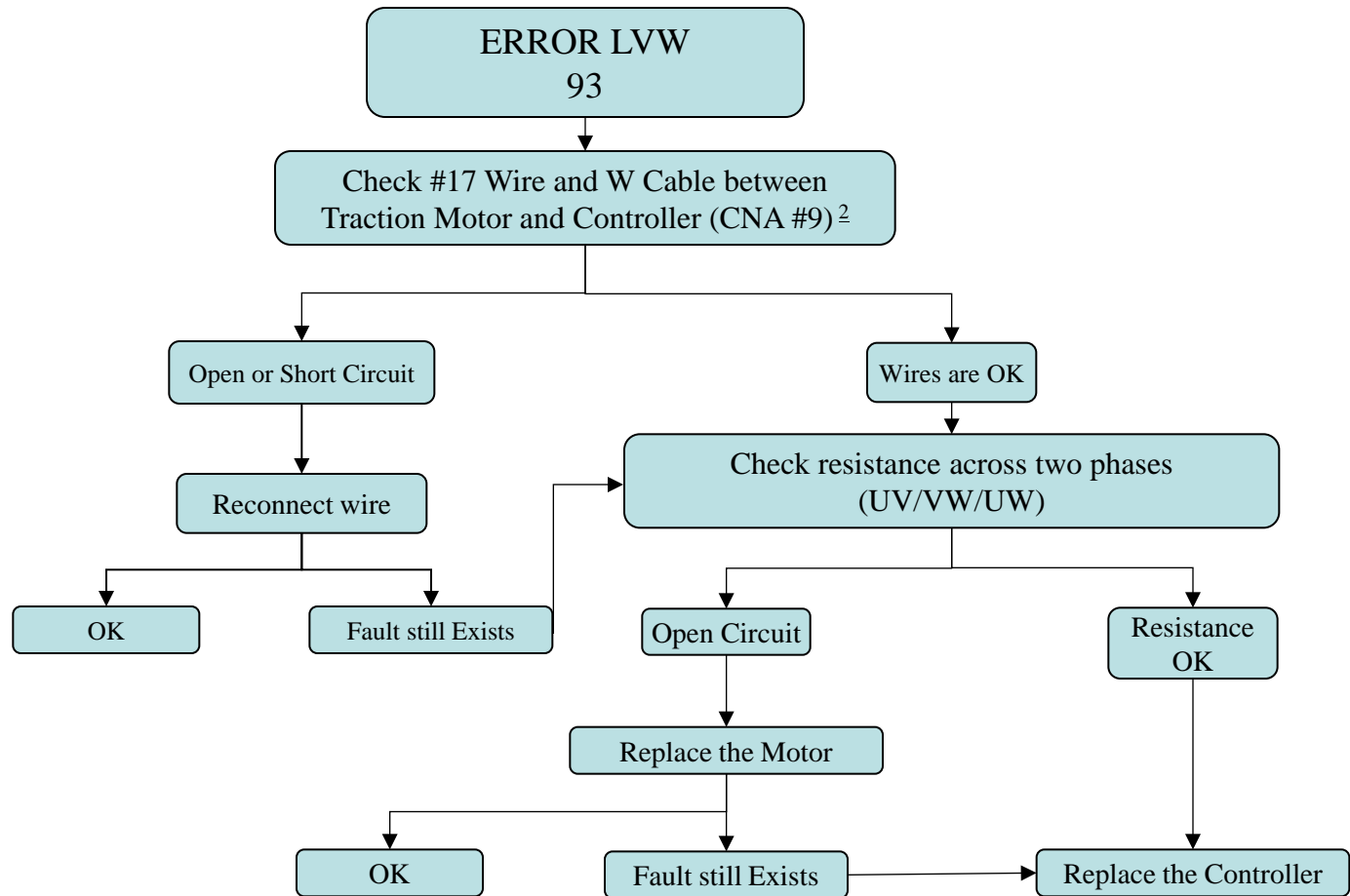
# ALARM #93 on NODE #2 ERROR IW



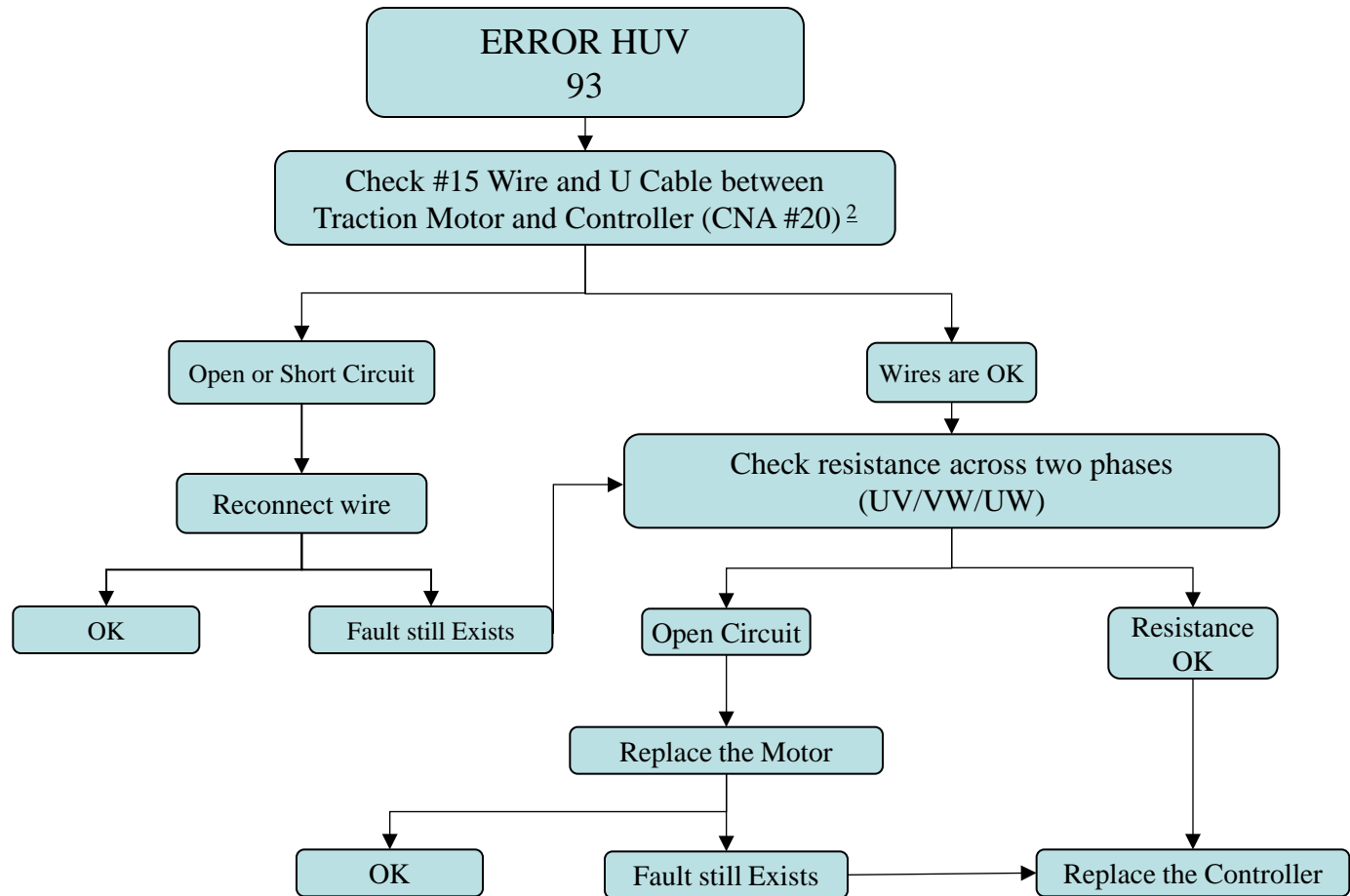
# ALARM #93 on NODE #2 ERROR LUW



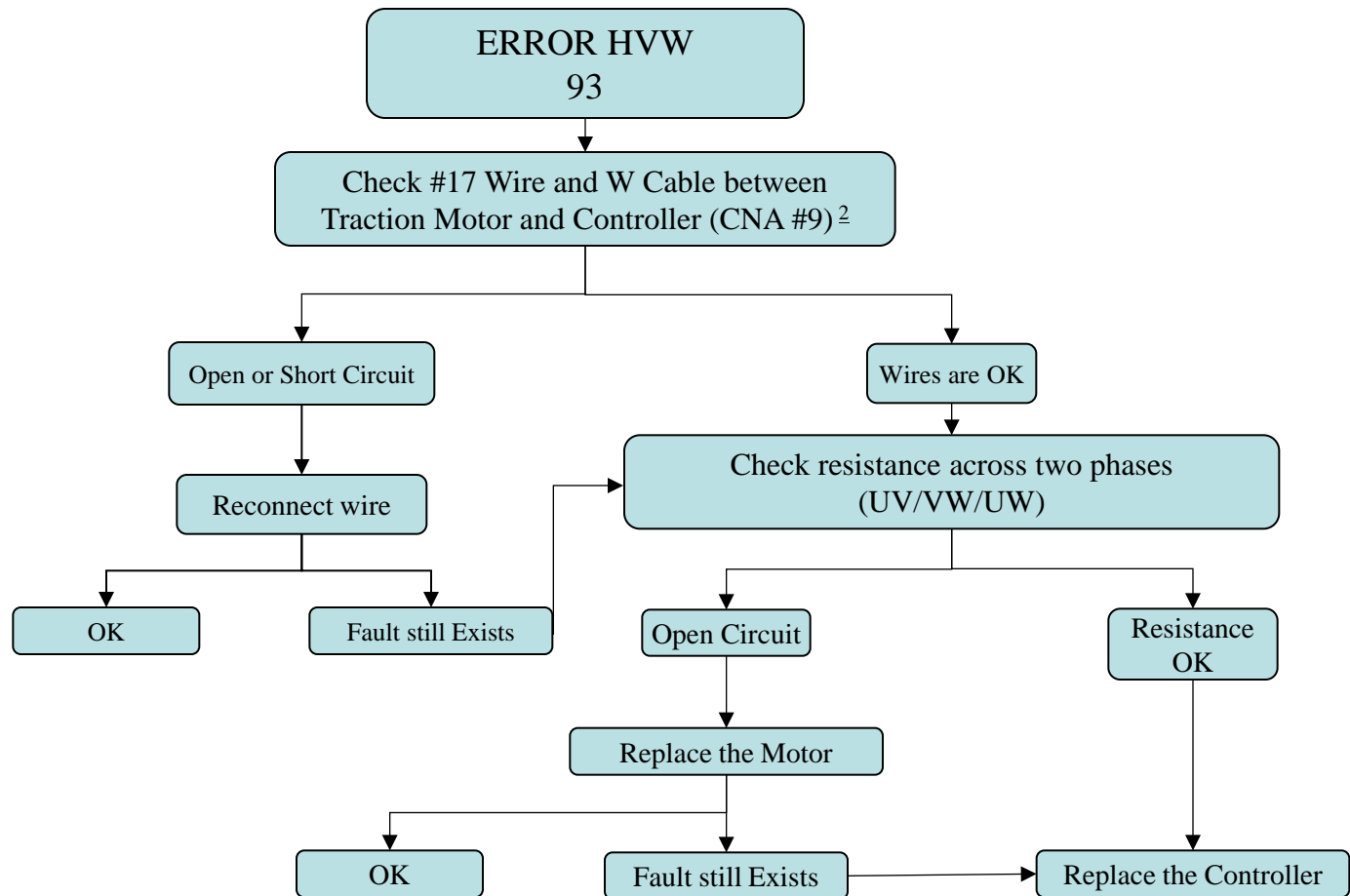
# ALARM #93 on NODE #2 ERROR LVW



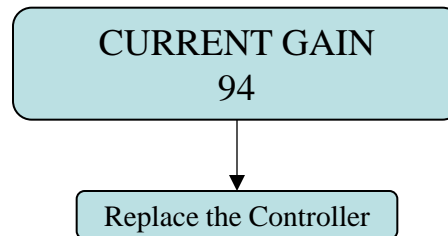
# ALARM #93 on NODE #2 ERROR HUV



# ALARM #93 on NODE #2 ERROR HVW

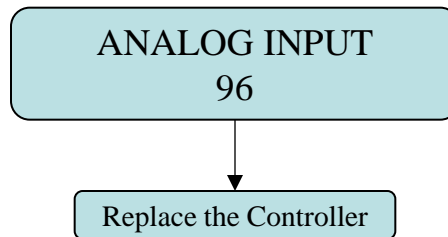


# ALARM #94 on NODE #2 CURRENT GAIN

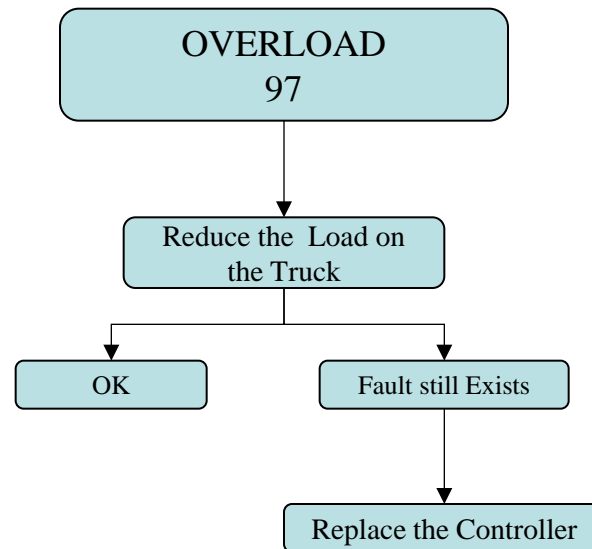




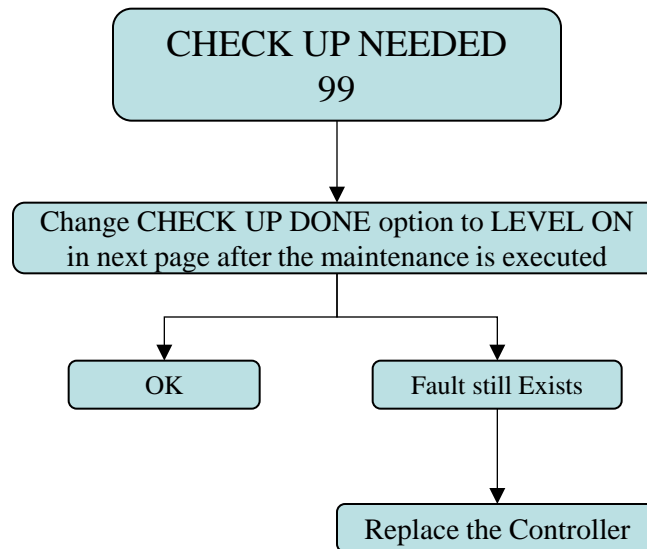
# ALARM #96 on NODE #2 ANALOG INPUT



# ALARM #97 on NODE #2 OVERLOAD



# ALARM #99 on NODE #2 CHECK UP NEEDED



# Check UP in Handset

Key on the truck, connect the flash connecting line. The Display will show:

Press  or  button until RS232 CONSOLE shows on the display

The Display will show :

Press OK to go into the Traction controller

The Display will show:

Cons AFG ZP021\*




Cons AFG ZP021\*  
RS232 CONSOLE



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Press OK to go into the Main Menu



The Display will show:

Press  or  button until ADJUSTMENT shows on the display

The Display will show:

Press OK to go into the ADJUSTMENT function

The Display will show:

Press  or  button until CHECK UP DONE shows on the display



Main Menu



MAIN MENU  
ADJUSTMENT



ADJUSTMENT



The display will show:

Push  $\gg$ , or  $\ll$  To select ON

The display will show:

When finished , press and hold power button for 3s to turn off the Console, and rekey the truck

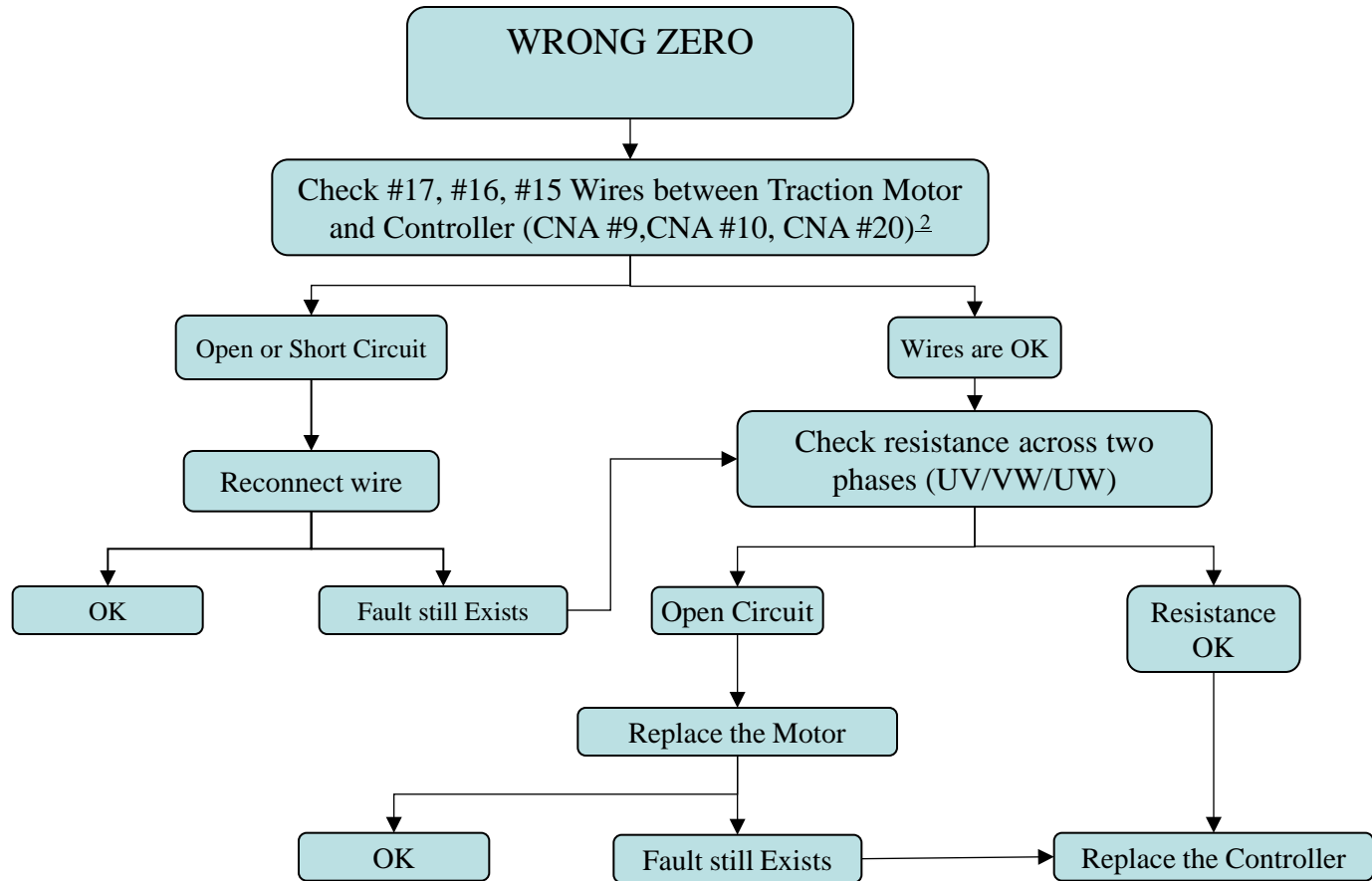
CHECK UP DONE OFF



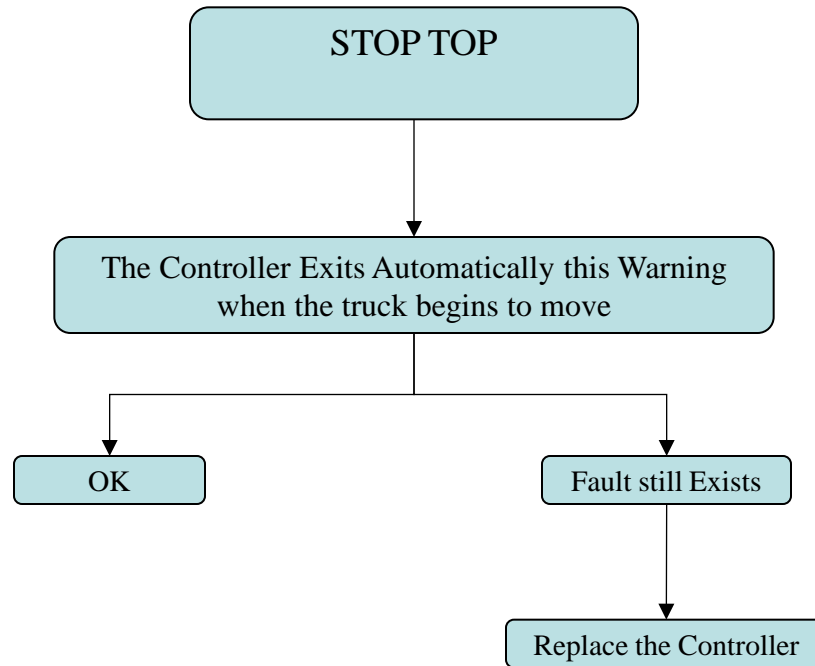
CHECK UP DONE ON



# ALARM on NODE #2 WRONG ZERO

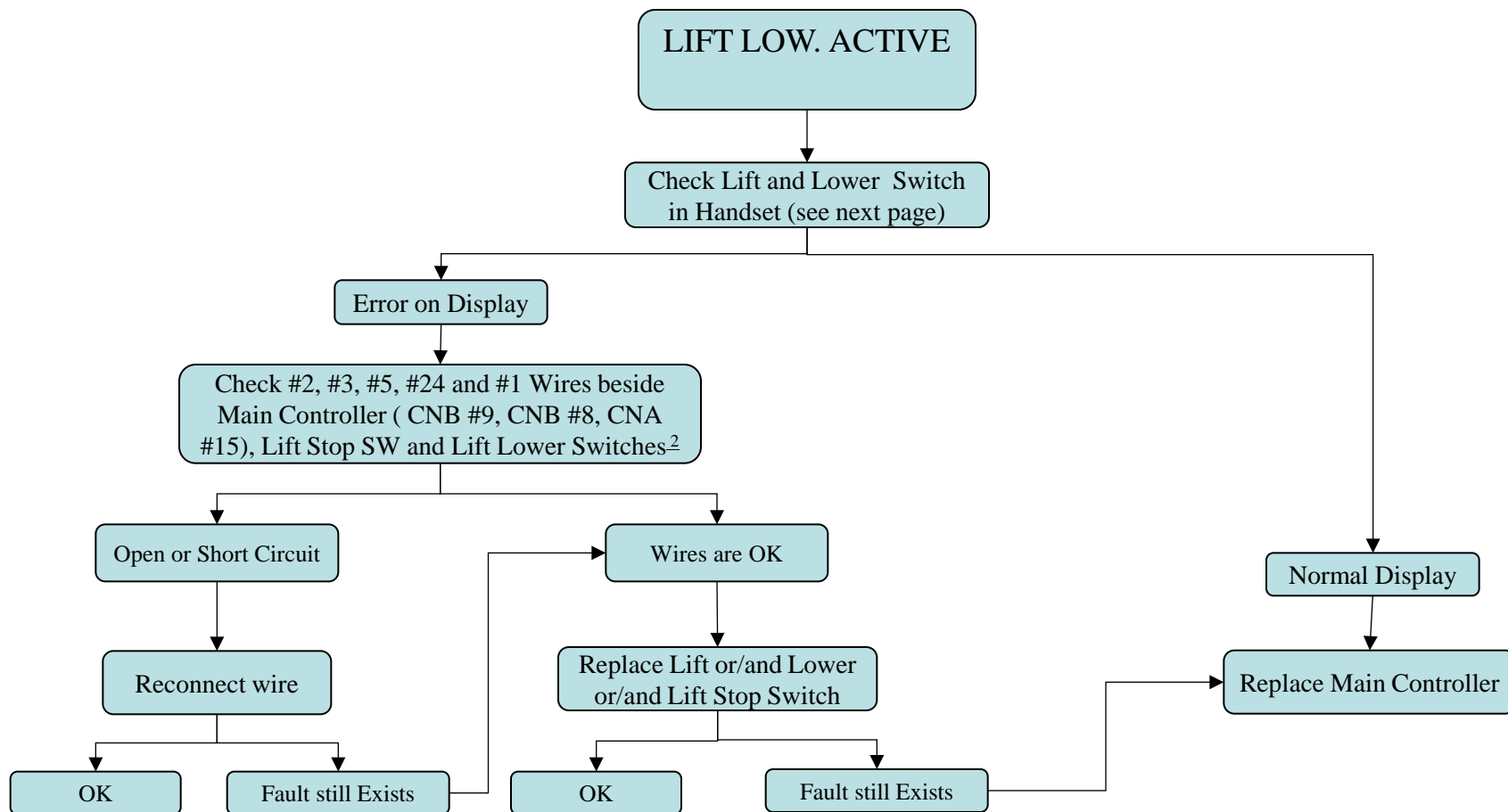


# ALARM on NODE #2 STOP TOP





# ALARM on NODE #2 LIFT LOW. ACTIVE



# Check Lift and Lower Switch in Handset

Key on the truck, connect the flash connecting line. The Display will show:

Press  or  button until RS232 CONSOLE shows on the display

The Display will show :

Press OK to go into the Traction controller

The Display will show:

Cons AFG ZP021\*



Cons AFG ZP021\*  
RS232 CONSOLE



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24V 150A 0H

Press OK to go into the Main Menu



The Display will show:

Press  or  button until TEST shows on the display

The Display will show:

Press OK to go into the TEST function

The Display will show:

Press  or  button until LIFT SW shows on the display



Main Menu



MAIN MENU  
TEST



TEST



The display will show:

Pull Handle and Press the Lift Switch and hold on

The display will show:

Repeat Step for Lower Switch:

When finished , press and hold power button for 3s to turn off the Console

LIFT SW OFF

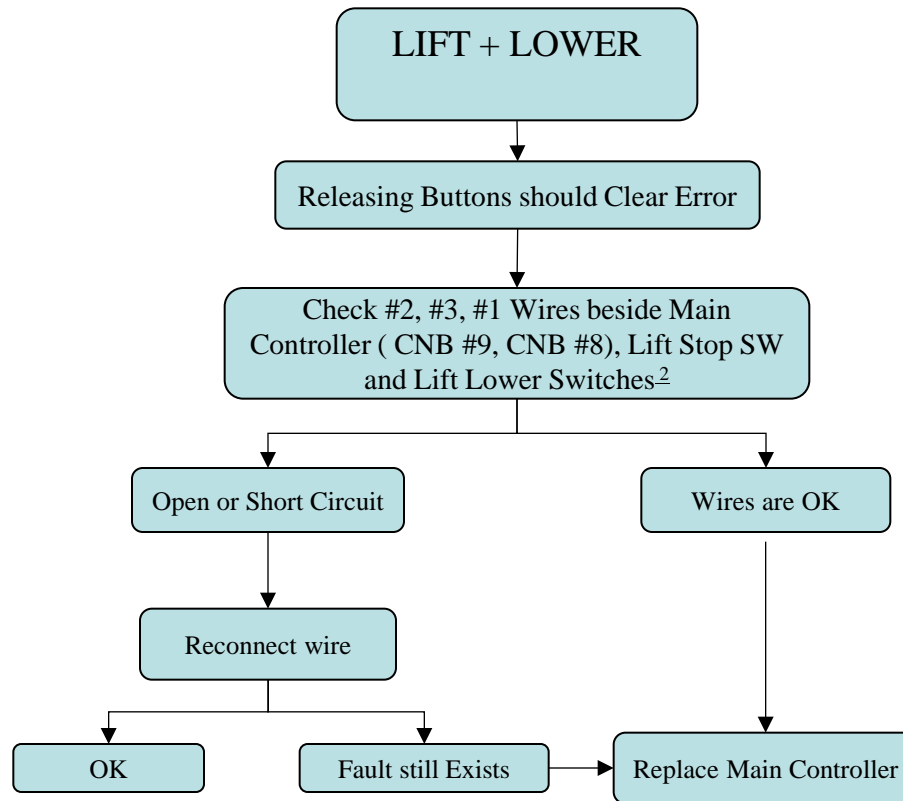
LIFT SW ON

LOWER SW OFF

LOWER SW ON

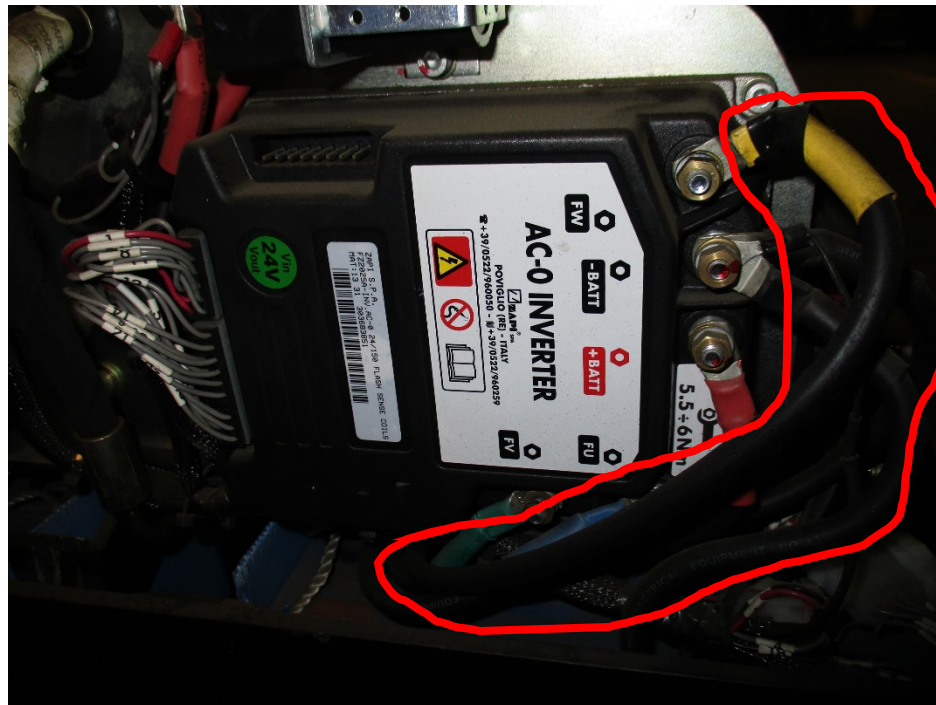


# ALARM on NODE #2 LIFT + LOWER

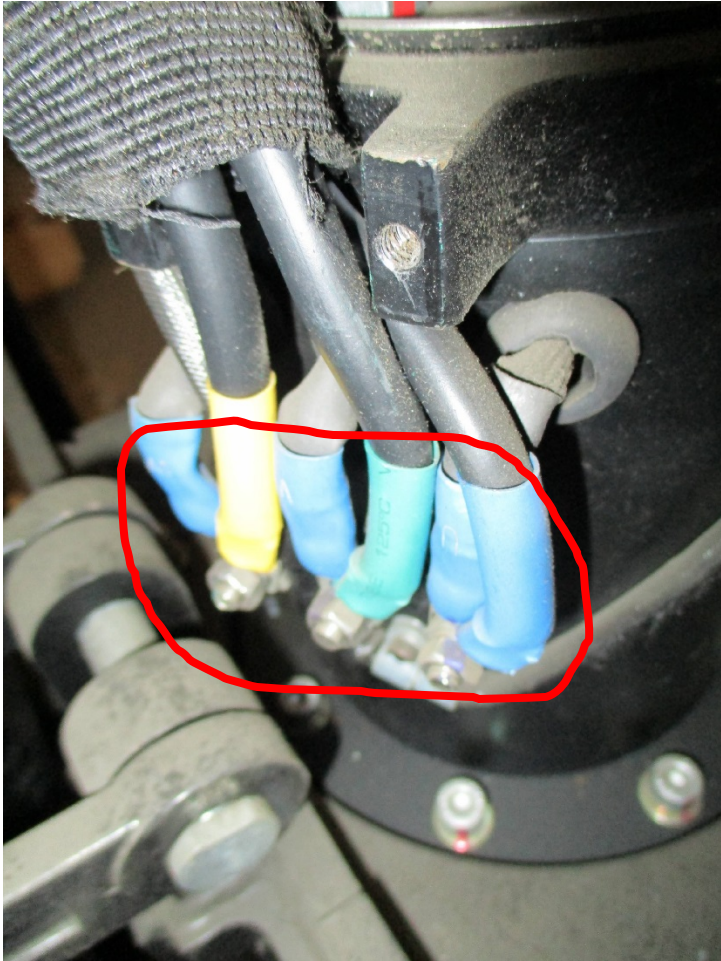
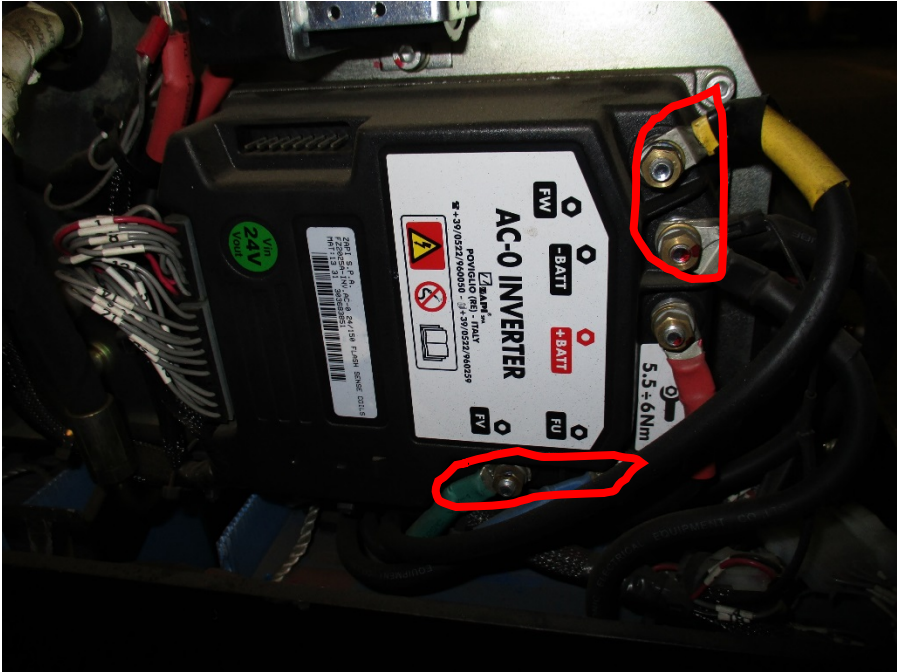


# Appendix A

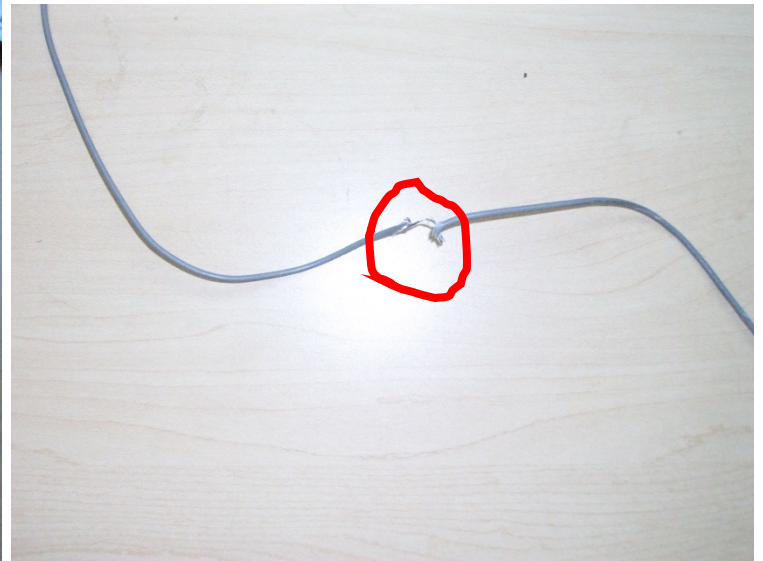
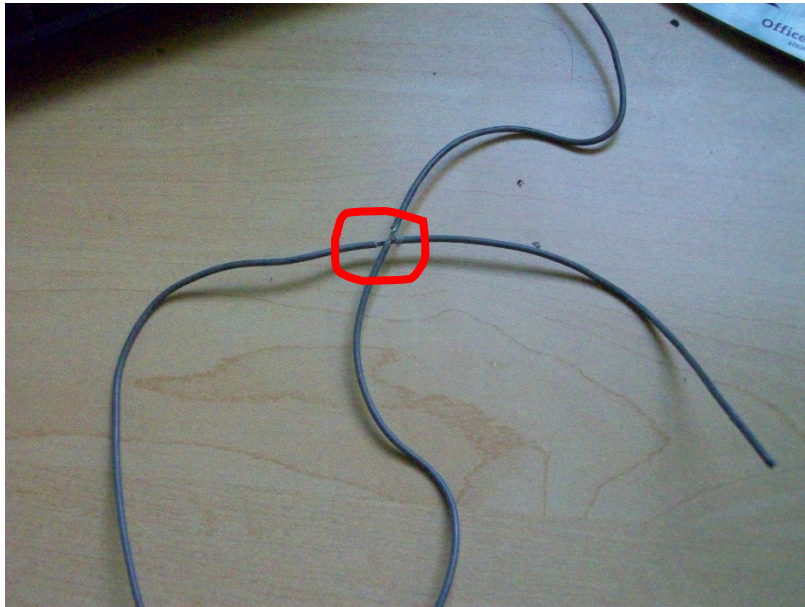
1. Check if cables are opened or shorted. A shorted cable means the cable jacketing is damaged and it is shorting to another cable or it is in contact with a metal object like the frame. An open cable means one of the inside metal wires are cut/damaged. If you are not sure, please measure the resistance of the individual wire or cable. If the resistance is more than 1 ohm, it is open.



Check the connection points of the motor cables, and controller cables. Check the cable terminals for burn marks. Check if hardware is loose or burned. Ensure connections are tightened properly.

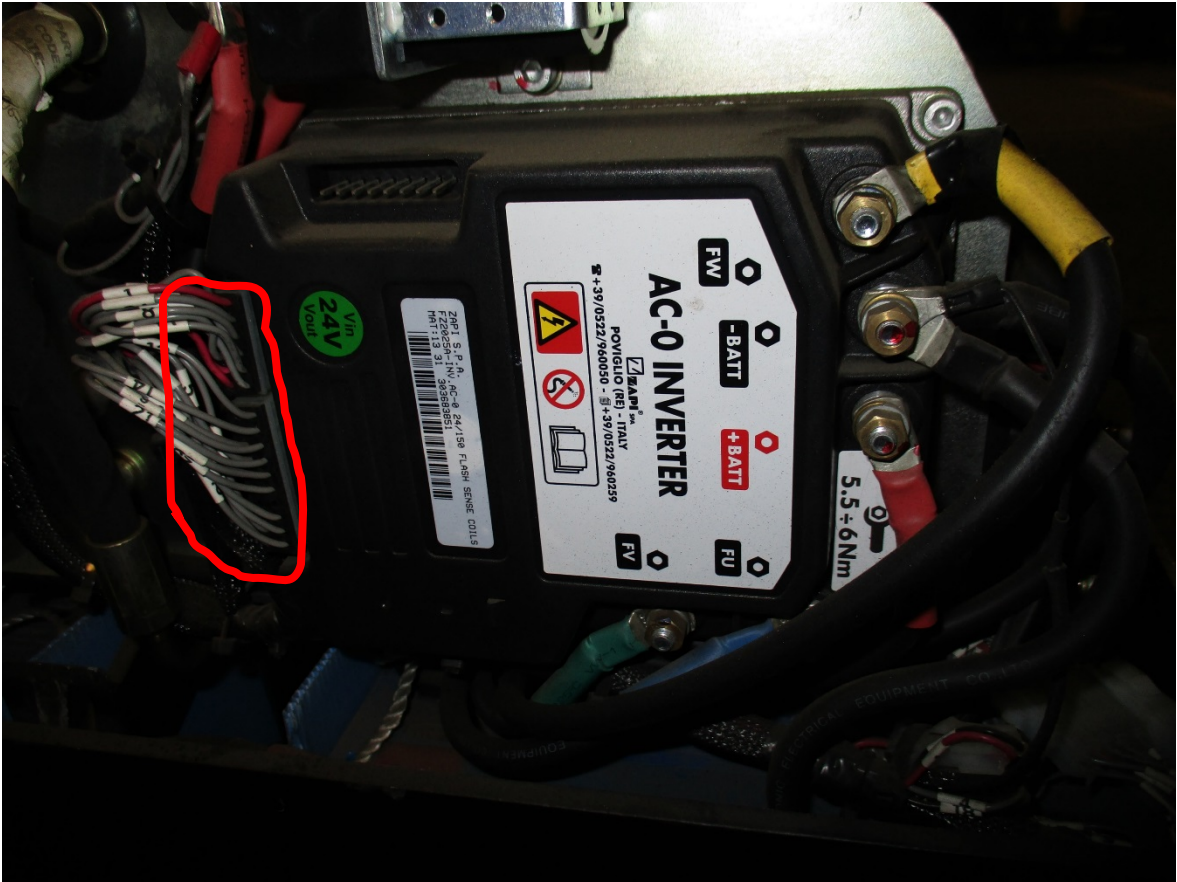


2. Check if cables are opened or shorted. A shorted cable means the cable jacketing is damaged and it is shorting to another cable or it is in contact with a metal object like the frame. An open cable means one of the inside metal wires are cut/damaged. If you are not sure, please measure the resistance of the individual wire or cable. If the resistance is more than 1 ohm, it is open.

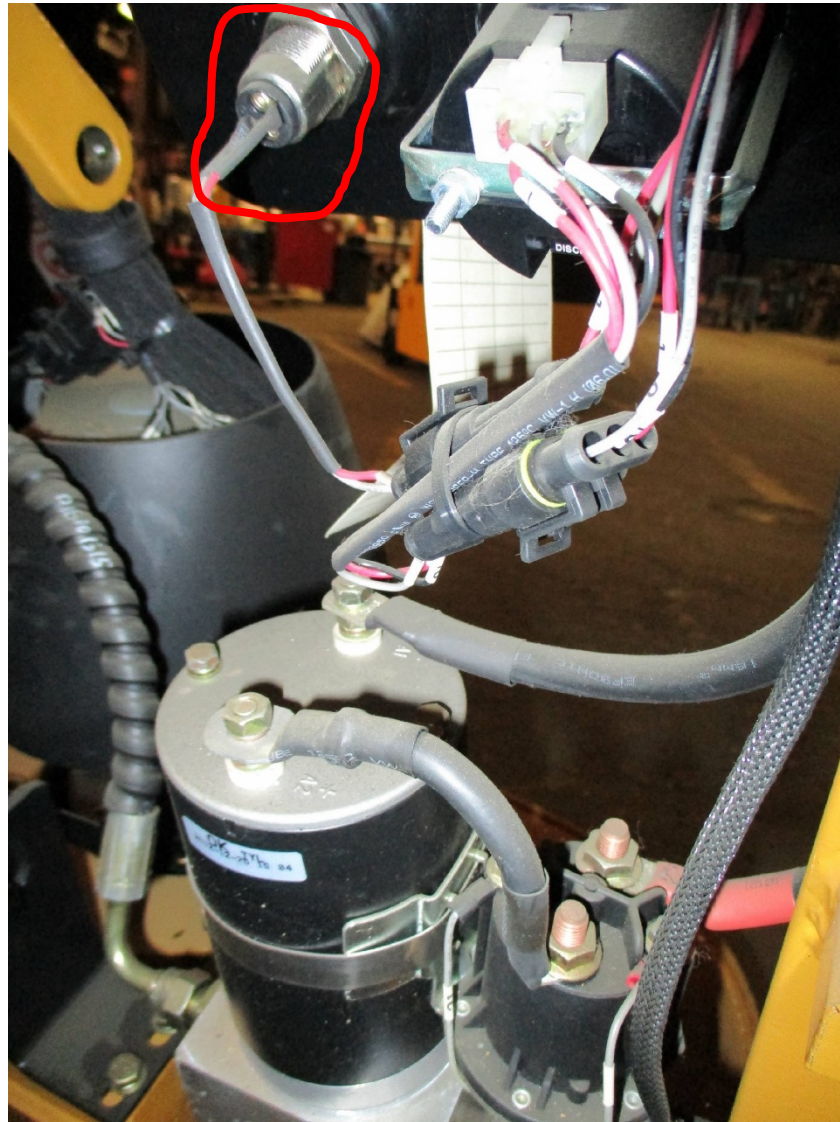




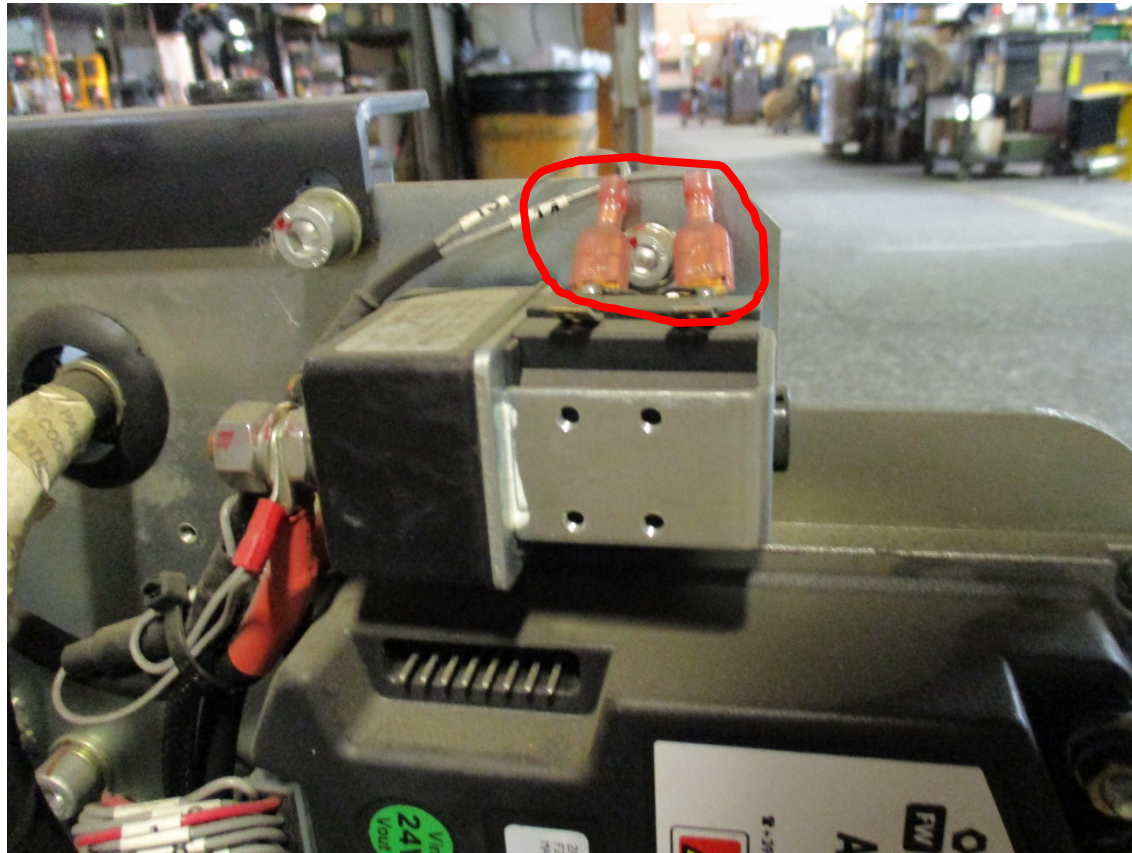
Check the connectors and pins on the Controller. Ensure connector locks are not damaged and no pins are broken or pushed out of the connector. Ensure no wires at pin terminations are cut/damaged



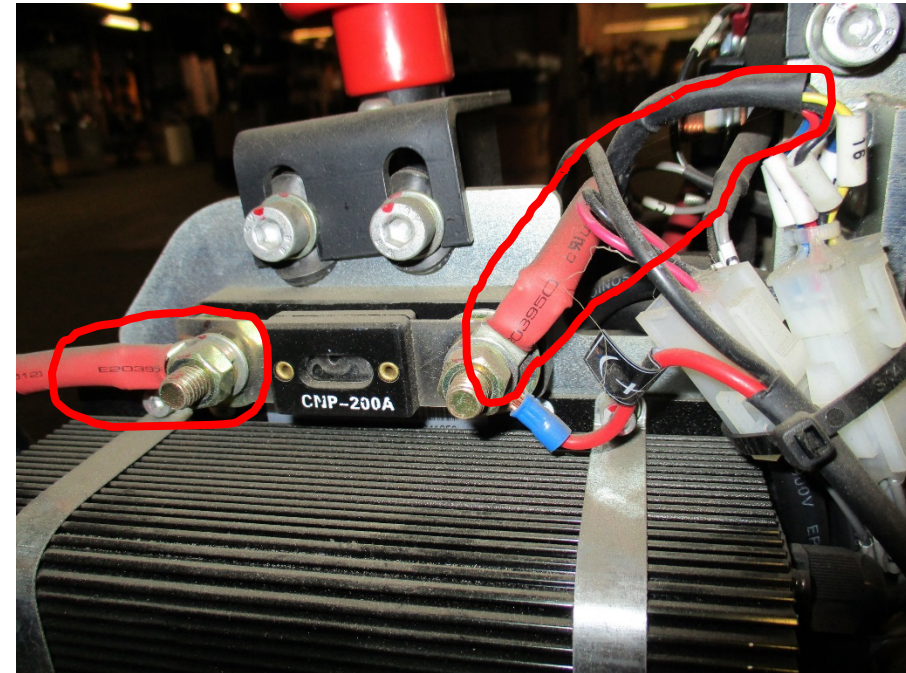
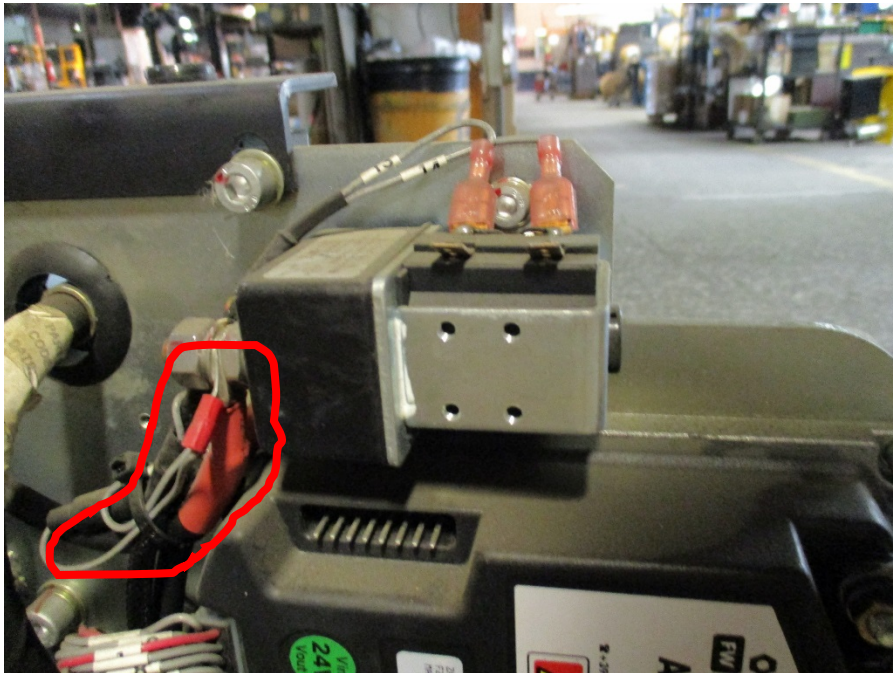
Check the connections between Controller wires and switches/sensors. Ensure wires are not cut or damaged.



Check if connectors are loose or burned (such as the 2 pin connectors on the Main Contact). Ensure the parts are properly tightened.



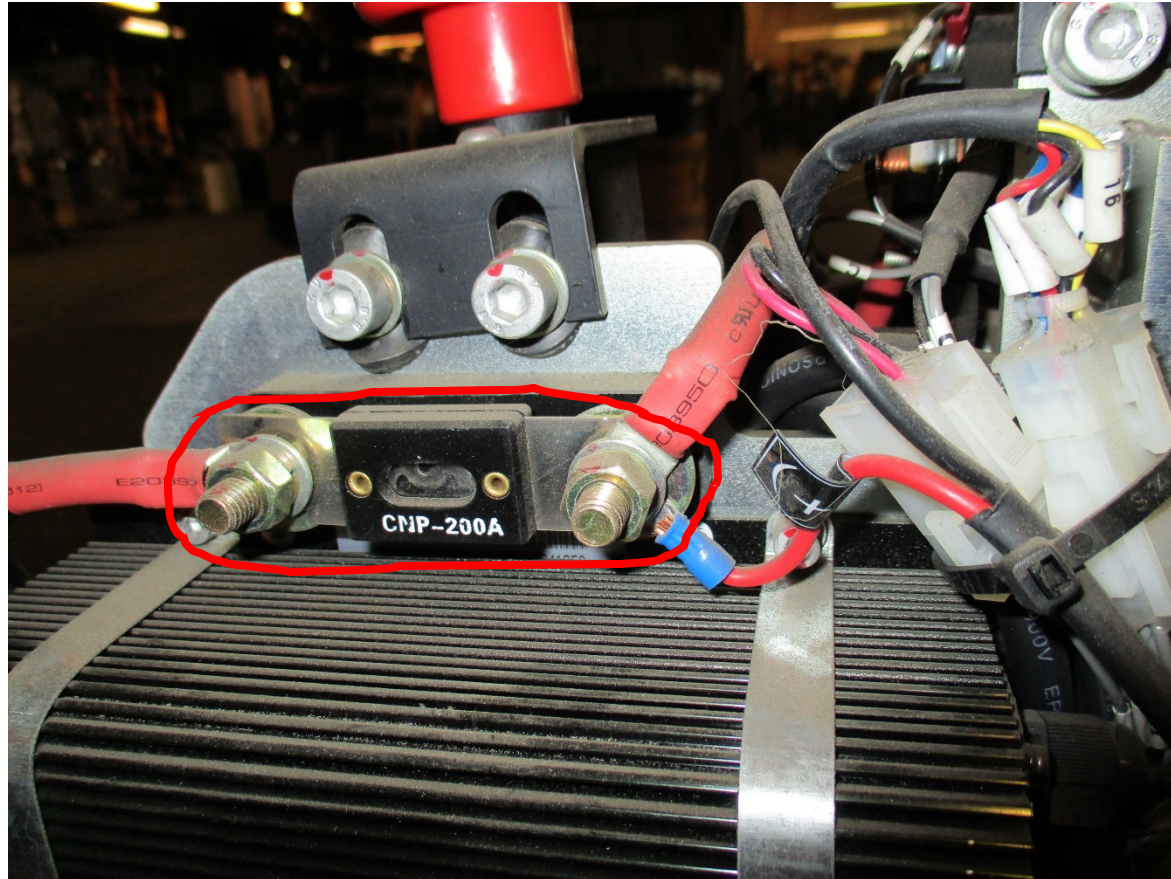
3. Check if cables are opened or shorted. A shorted cable means the cable jacketing is damaged and it is shorting to another cable or it is in contact with a metal object like the frame. An open cable means one of the inside metal wires are cut/damaged. If you are not sure, please measure the resistance of the individual wire or cable. If the resistance is more than 1 ohm, it is open



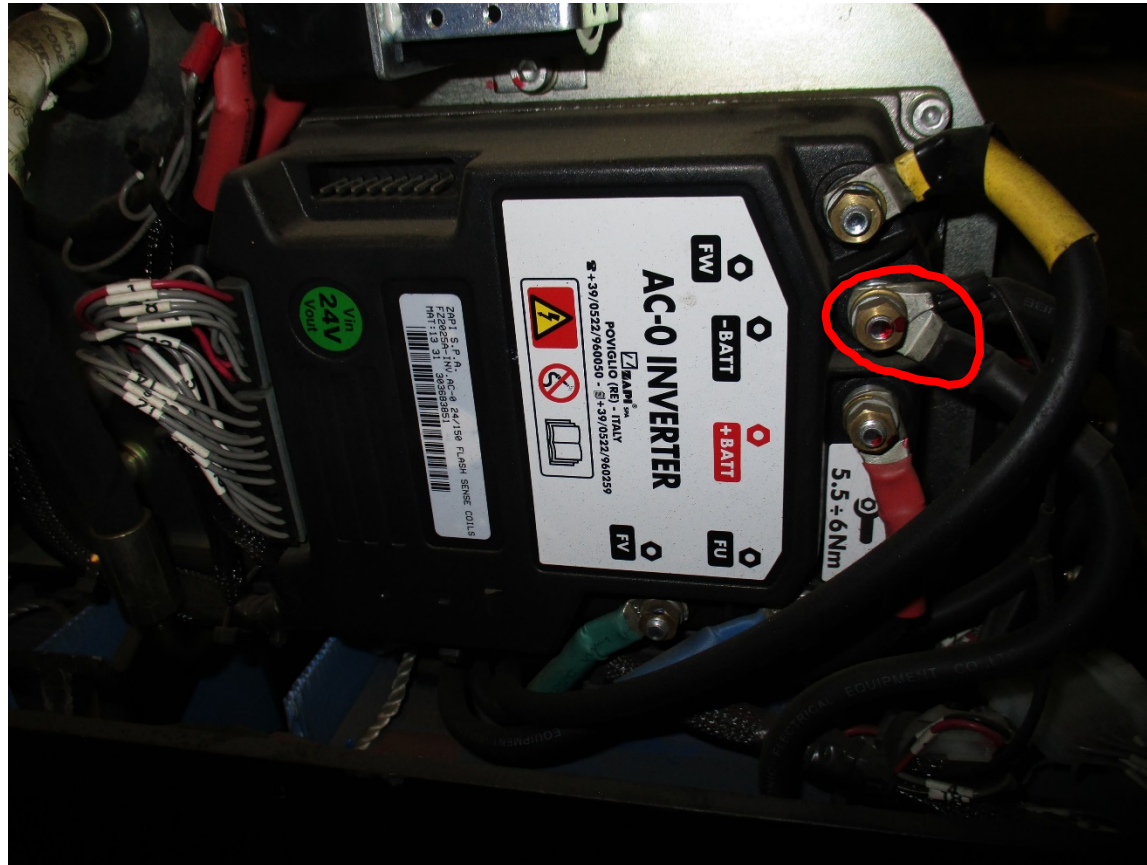
Check the Connectors between Battery and truck to see if they fit loose or are burned (Concentrate on the inside of the connector). If they do not fit correctly, replace cable lugs and/or connector housing to correct the issue.



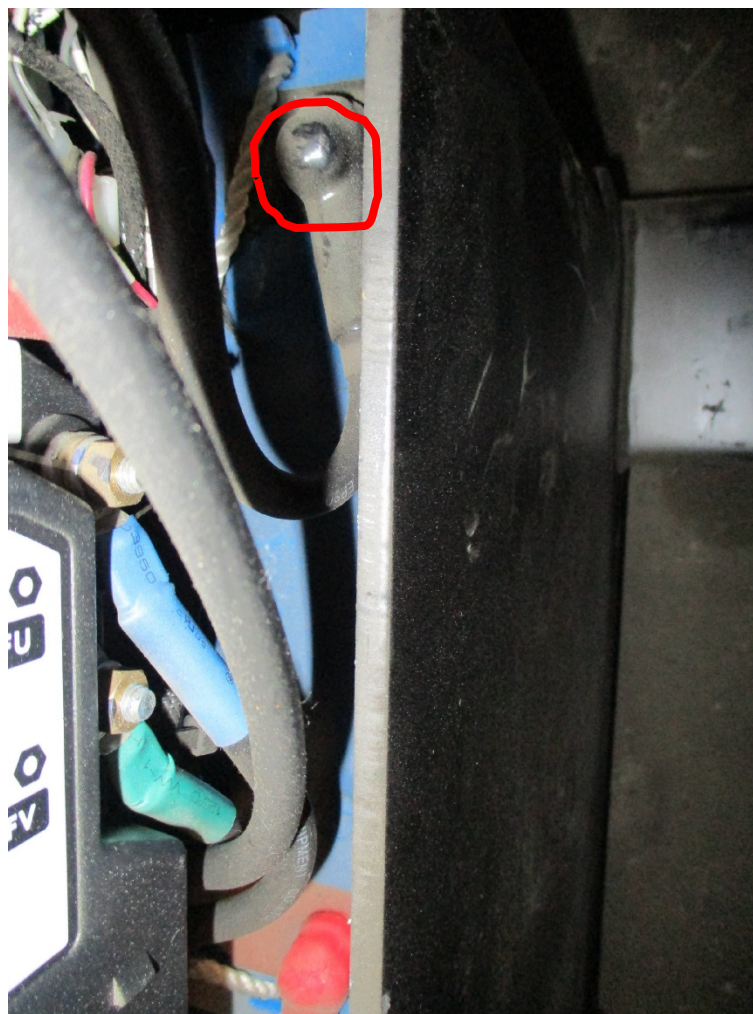
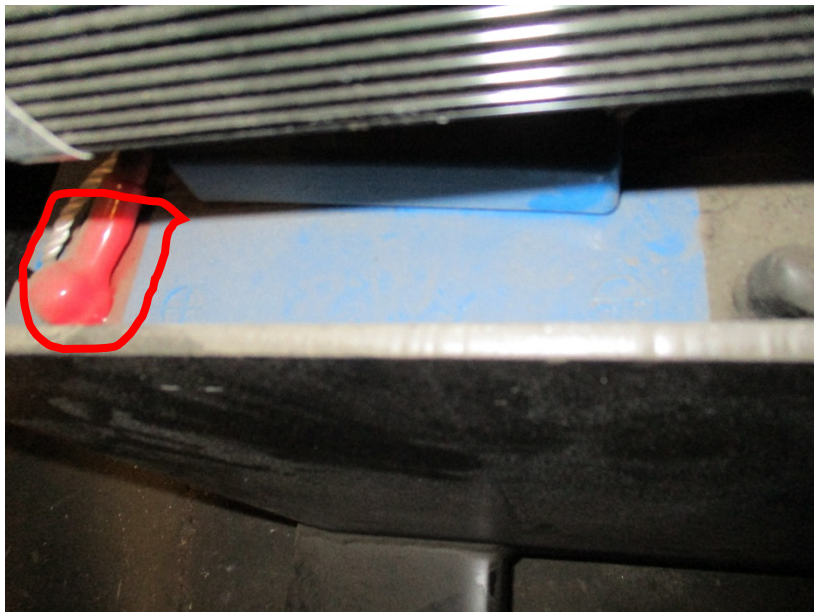
Check if the fuses are blown out or not.



4. Check the voltage from the wire you want to check to the Controller negative (red circled).



5. Open the battery case.





Check the no load battery voltage for every battery.

Check the load voltage when the truck is lifting empty.

Then check the load voltage when the truck is lifting with a load (red circled load, load should be no more than 2000 pound). If the voltage difference between the empty lifting and loaded lifting is more than 5V. Please replace battery.