

The DSP did not boot properly. Look for connections to the control terminal block that create noise in the terminal block or grounding of the common to the chassis ground. Check coils for snubbers. Can be caused by brown out conditions.

CURRENT
SENSE
FAULT

INTERNALLY TO THE DRIVE
ENSURE THAT THE AC
CURRENT SENSOR IS
CONNECTED & FIRMLY SEATED

A phase current sensor (NANA) is defective or an open wire exists between the control board and the sensor. Will fault if greater than +/- 200 mV from sensor.

STILL
FAULTS?

NO

YES

ON THE CONTROL
WIRING ENSURE THERE
ARE NO SHORTS OR
FAULTY WIRING

STILL
FAULTS?

NO

YES

REPLACE AC
CURRENT SENSORS

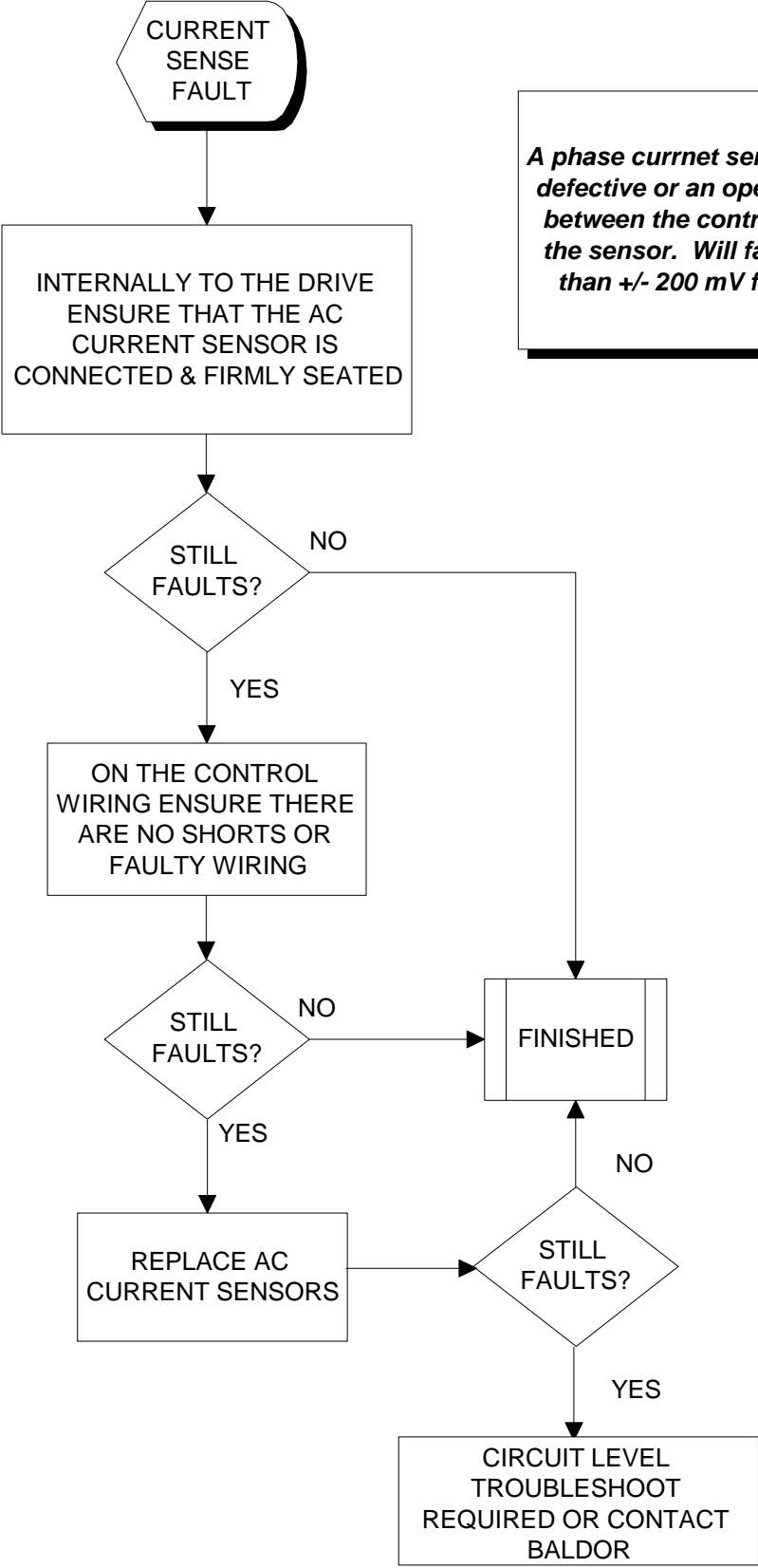
FINISHED

NO

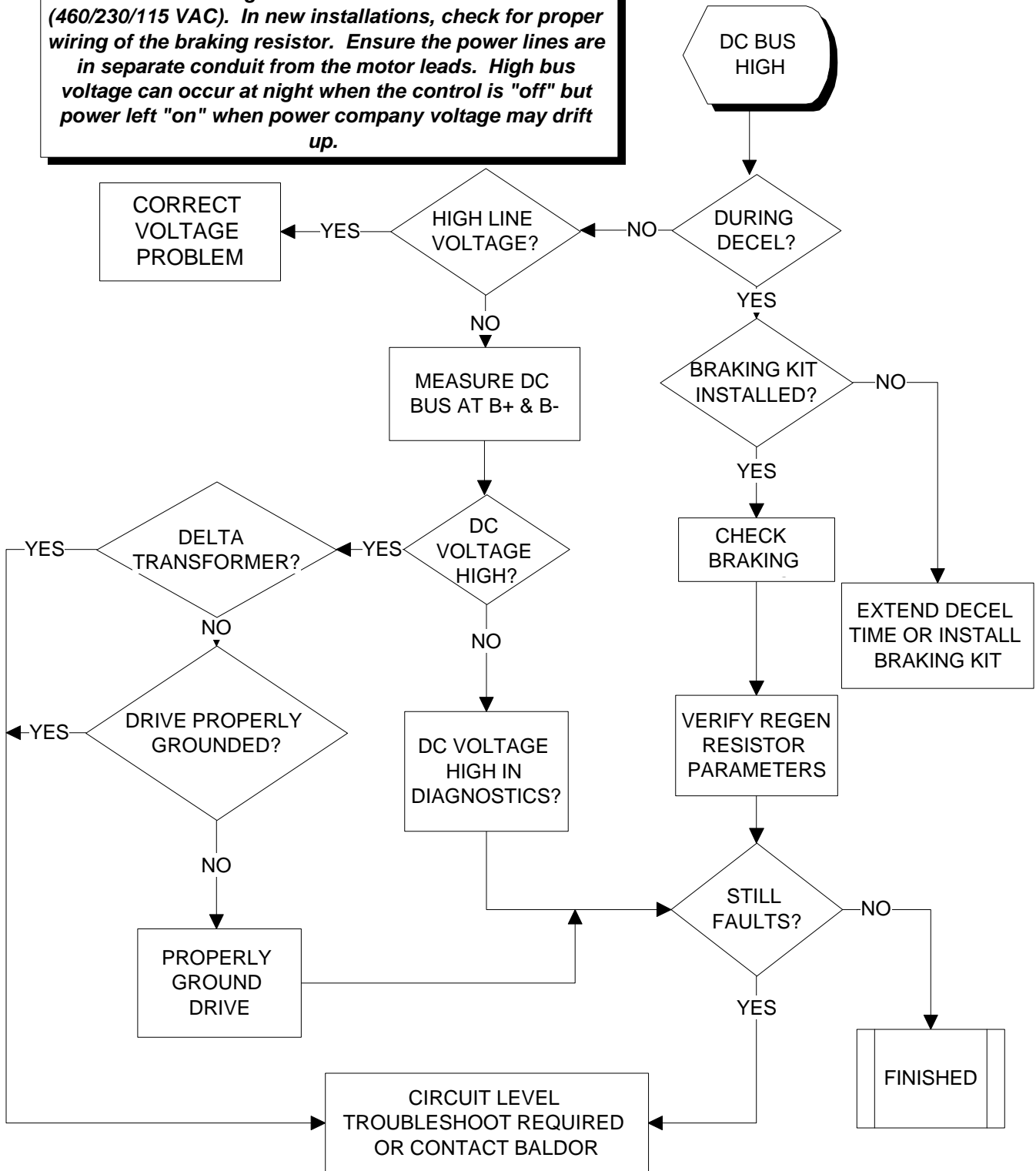
STILL
FAULTS?

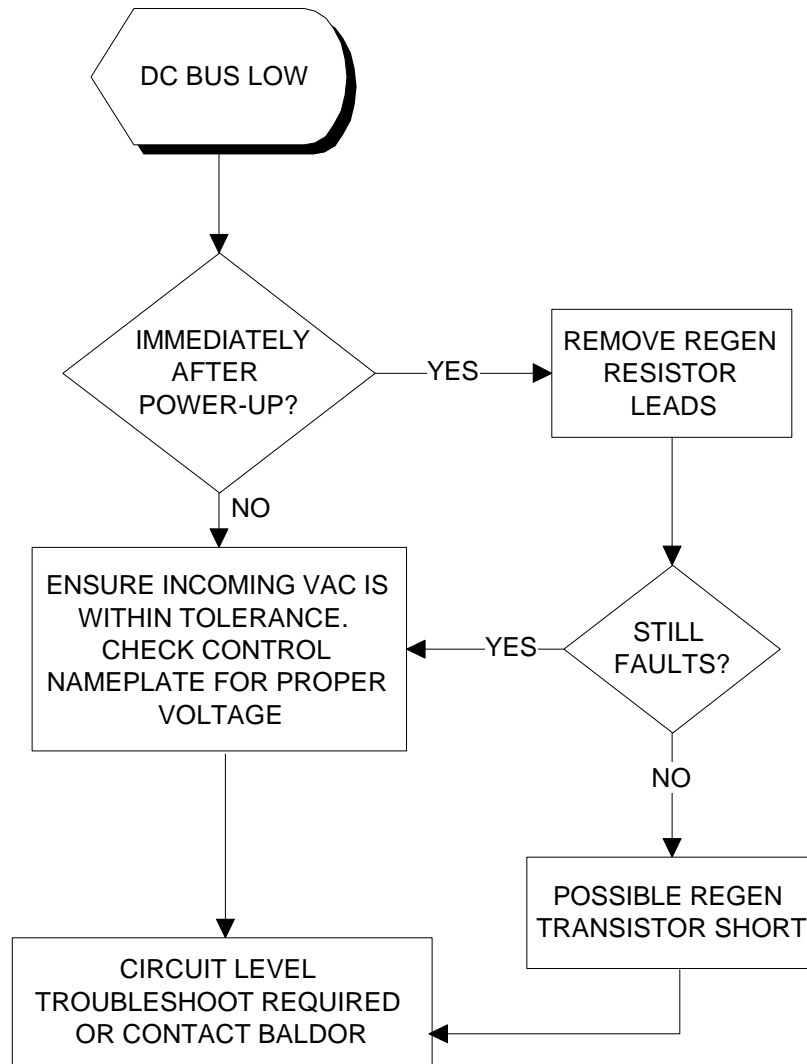
YES

CIRCUIT LEVEL
TROUBLESHOOT
REQUIRED OR CONTACT
BALDOR

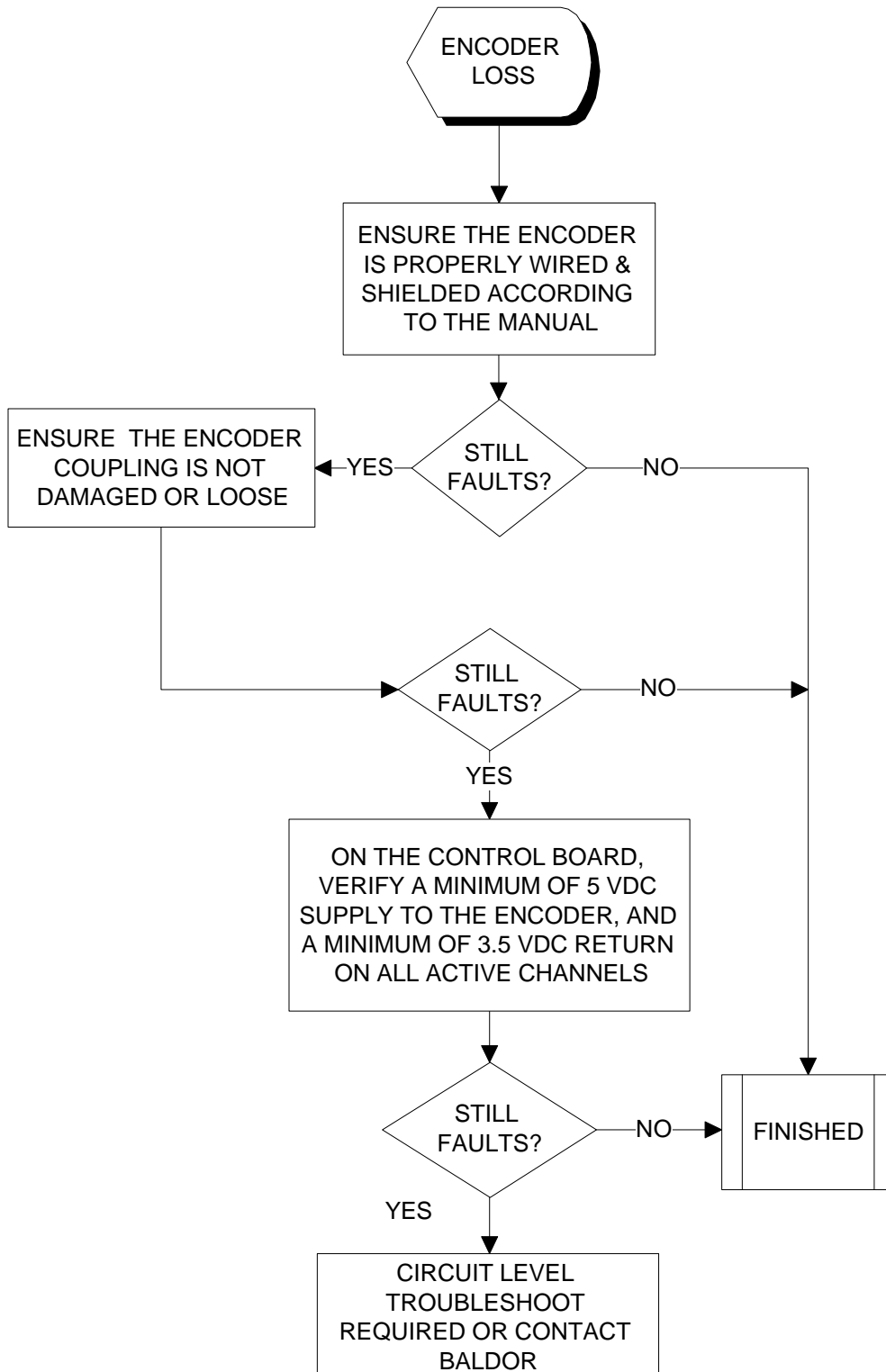


The DC Bus voltage has exceeded 840/420/210 VDC (460/230/115 VAC). In new installations, check for proper wiring of the braking resistor. Ensure the power lines are in separate conduit from the motor leads. High bus voltage can occur at night when the control is "off" but power left "on" when power company voltage may drift up.

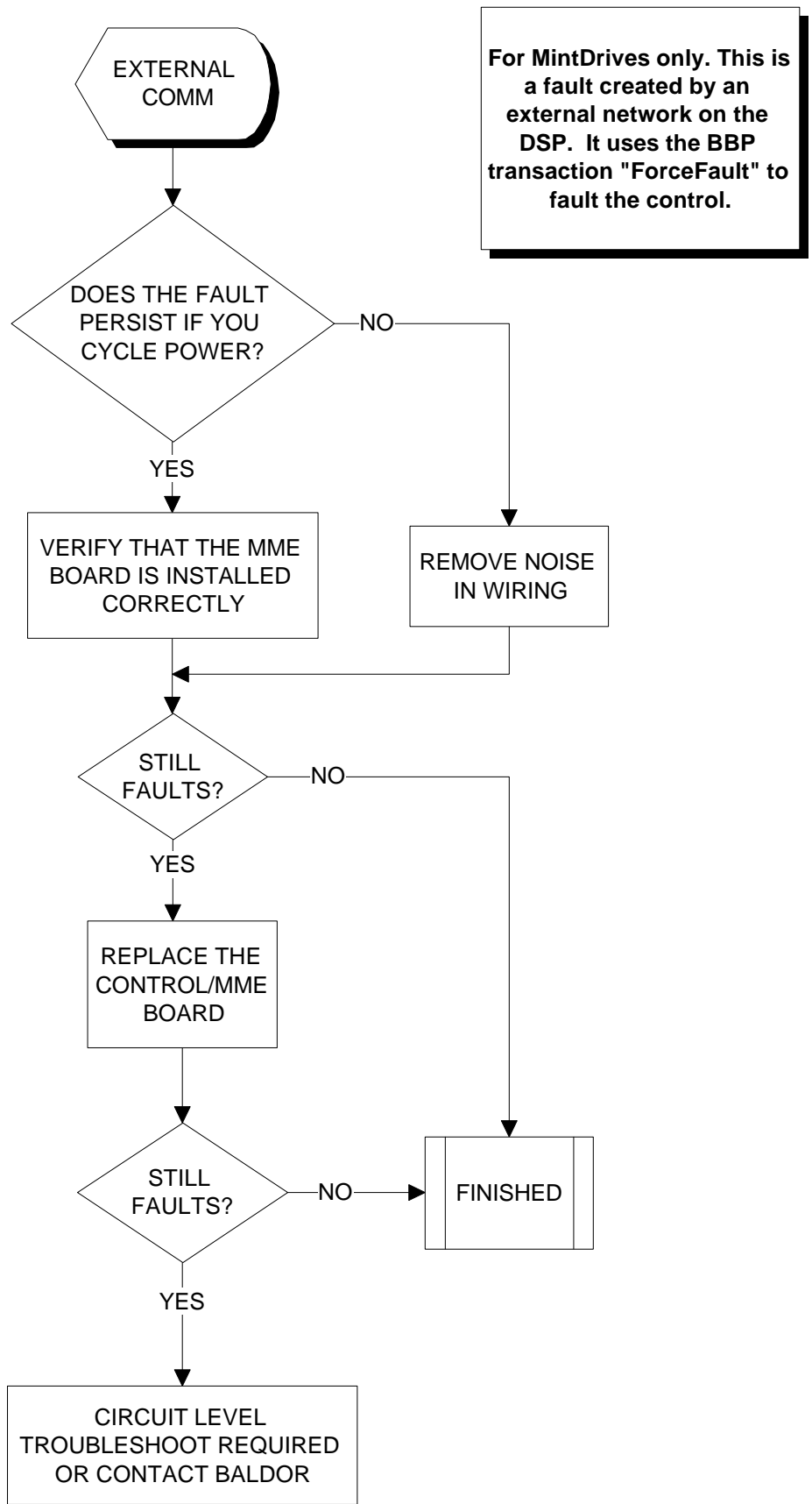




The DC Bus voltage has dropped below 400/200/100 VDC (460/230/115 VAC input). If this is a new installation with an external Regen Kit check the wiring on B+ and B-. The most common reasons for this fault are Regen Transistor failure, Soft Start circuit failure or a failed diode bridge. If it occurs during running, the likely failure is the soft start contactor is not closed.



The encoder has experienced a power supply loss, the coupling has slipped or there is excessive noise on the encoder signals. Occurs when the control board detects the encoder signal is running then is abruptly lost. Use the diagnostic screen to find the problem.



EXTERNAL
TRIP

ENSURE THERE IS NOT
AN OPEN CIRCUIT
BETWEEN J1-16 AND
J1-17

STILL
FAULTS?

NO

YES

PLACE A JUMPER BETWEEN J1-16 AND J1-17
THE DIAGNOSTIC SCREEN SHOULD SHOW A
"1" IN THE 9TH DIGIT

STILL
FAULTS?

NO

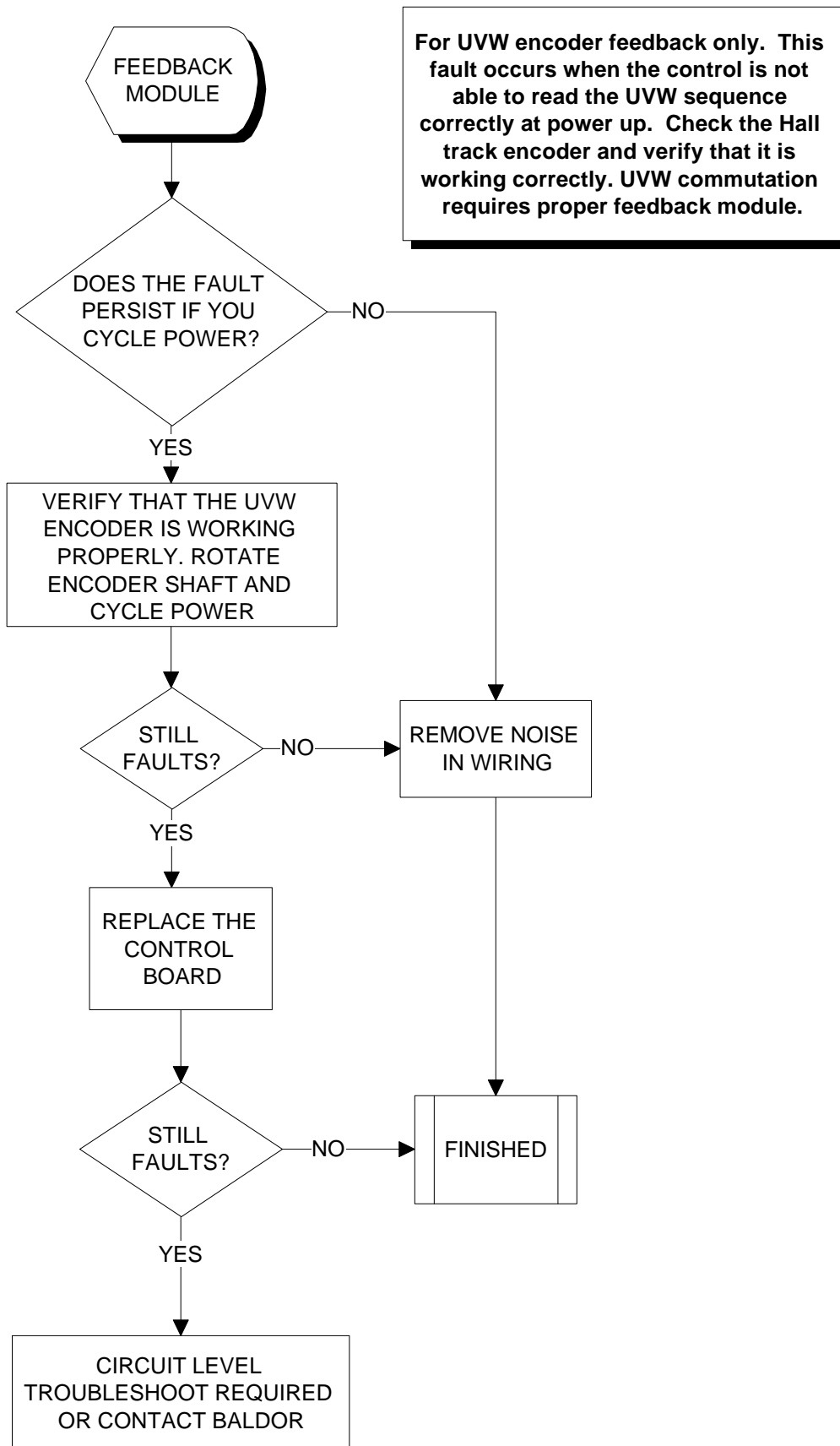
FINISHED

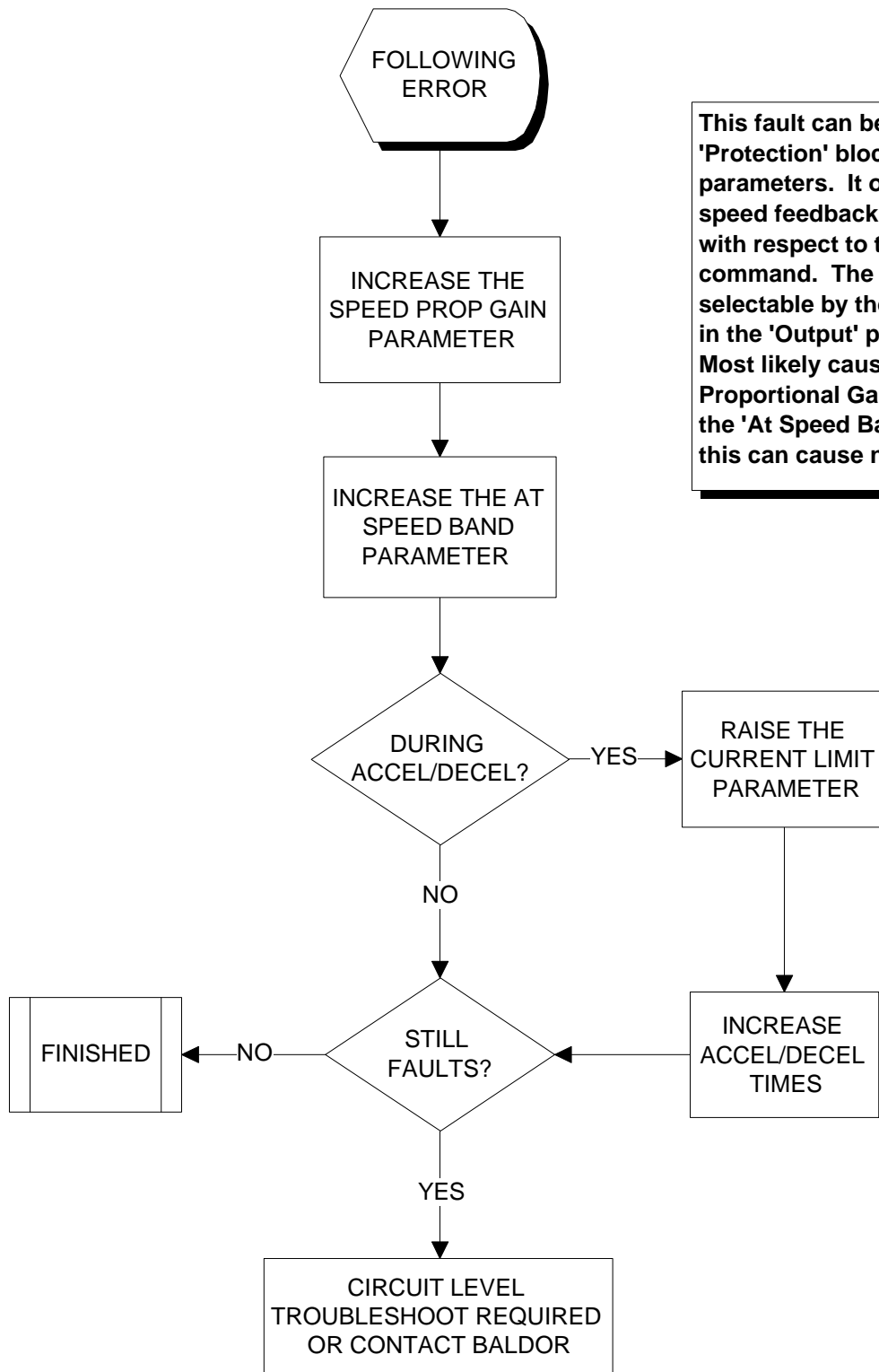
YES

CIRCUIT LEVEL
TROUBLESHOOT REQUIRED
OR CONTACT BALDOR

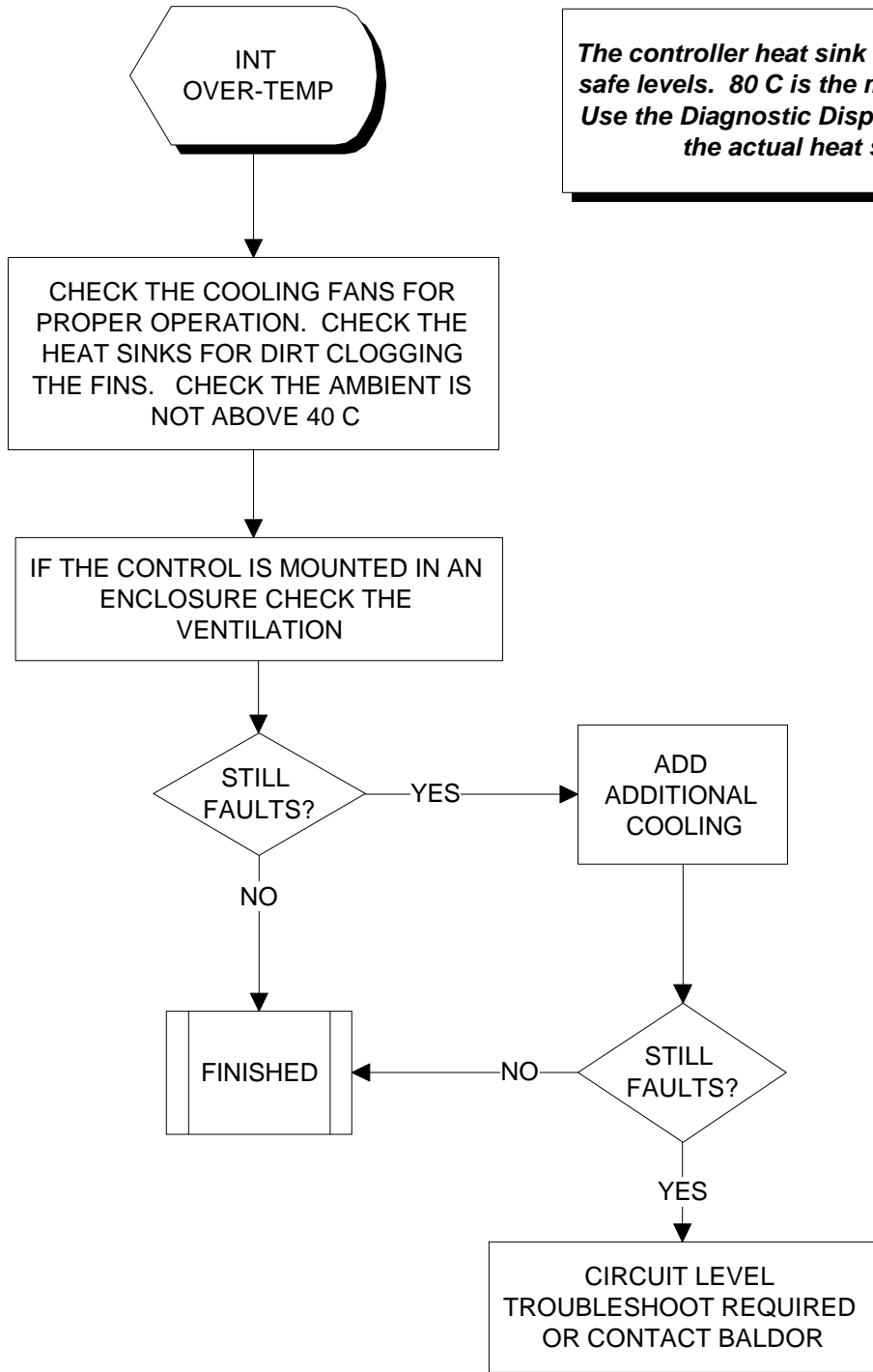
This fault is only active when turned on in the External Trip Parameter, Level 2, Protection Block. An external over temperature or open circuit has occurred between J1-16 and J1-17.

Use the Diagnostic Display DIGITAL I/O to verify the 9th position is a 1 (xxxxxxx1 xxxx).

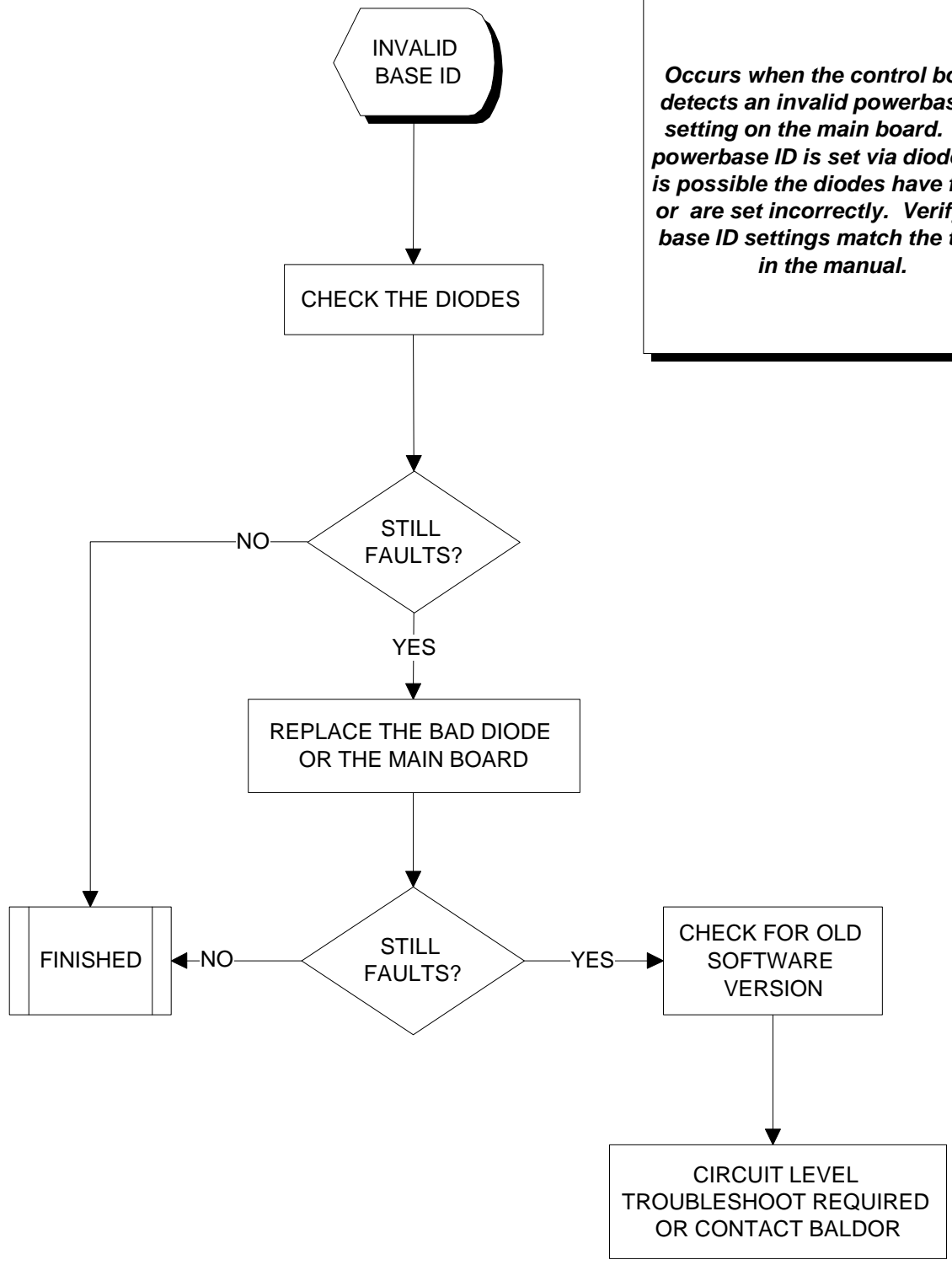




This fault can be turned off in the 'Protection' block of the parameters. It occurs when the speed feedback is out of tolerance with respect to the speed command. The tolerance level is selectable by the 'At Speed Band' in the 'Output' parameter block. Most likely cause is the 'Speed Proportional Gain' being too low. If the 'At Speed Band' is set too low, this can cause nuisance faults.

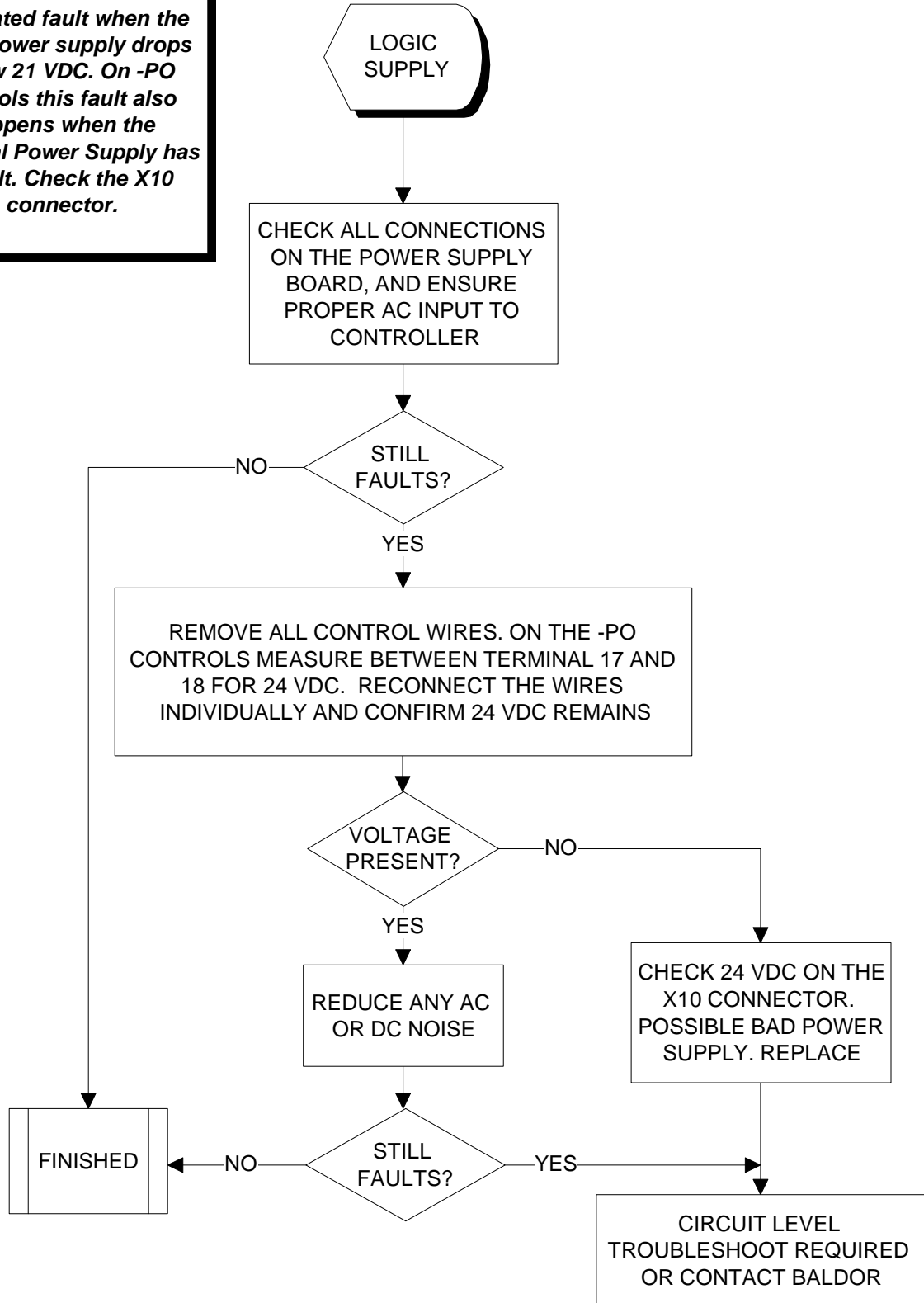


The controller heat sink temperature has exceeded safe levels. 80 C is the max heat sink temperature. Use the Diagnostic Display, CONTROL TMP to see the actual heat sink temperature.



Occurs when the control board detects an invalid powerbase ID setting on the main board. The powerbase ID is set via diodes. It is possible the diodes have failed or are set incorrectly. Verify the base ID settings match the table in the manual.

This is a hardware generated fault when the logic power supply drops below 21 VDC. On -PO controls this fault also happens when the external Power Supply has a fault. Check the X10 connector.



LOST
USER
DATA

RESET
FACTORY
PRESETS AND
RELOAD
PARAMETERS

NEW
SOFTWARE/
CONTROL
BOARD?

YES

RESET
FAULT

NO

REMOVE WIRES
FROM THE J1
CONNECTOR

STILL
FAULTS?

YES

REPLACE
CONTROL
BOARD

NO

IF SELECTING 2nd
PARAMETER TABLE,
ENSURE IT IS
PROGRAMMED

STILL
FAULTS?

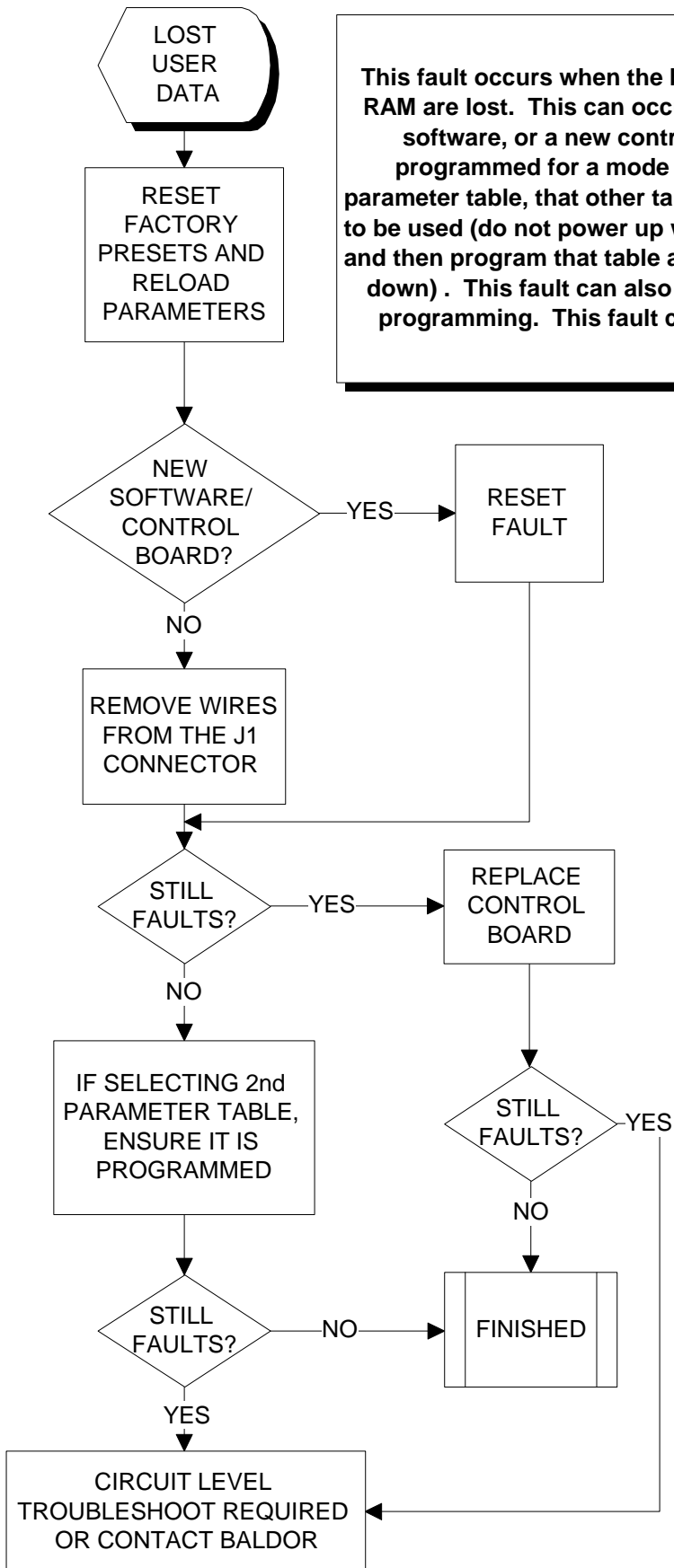
NO

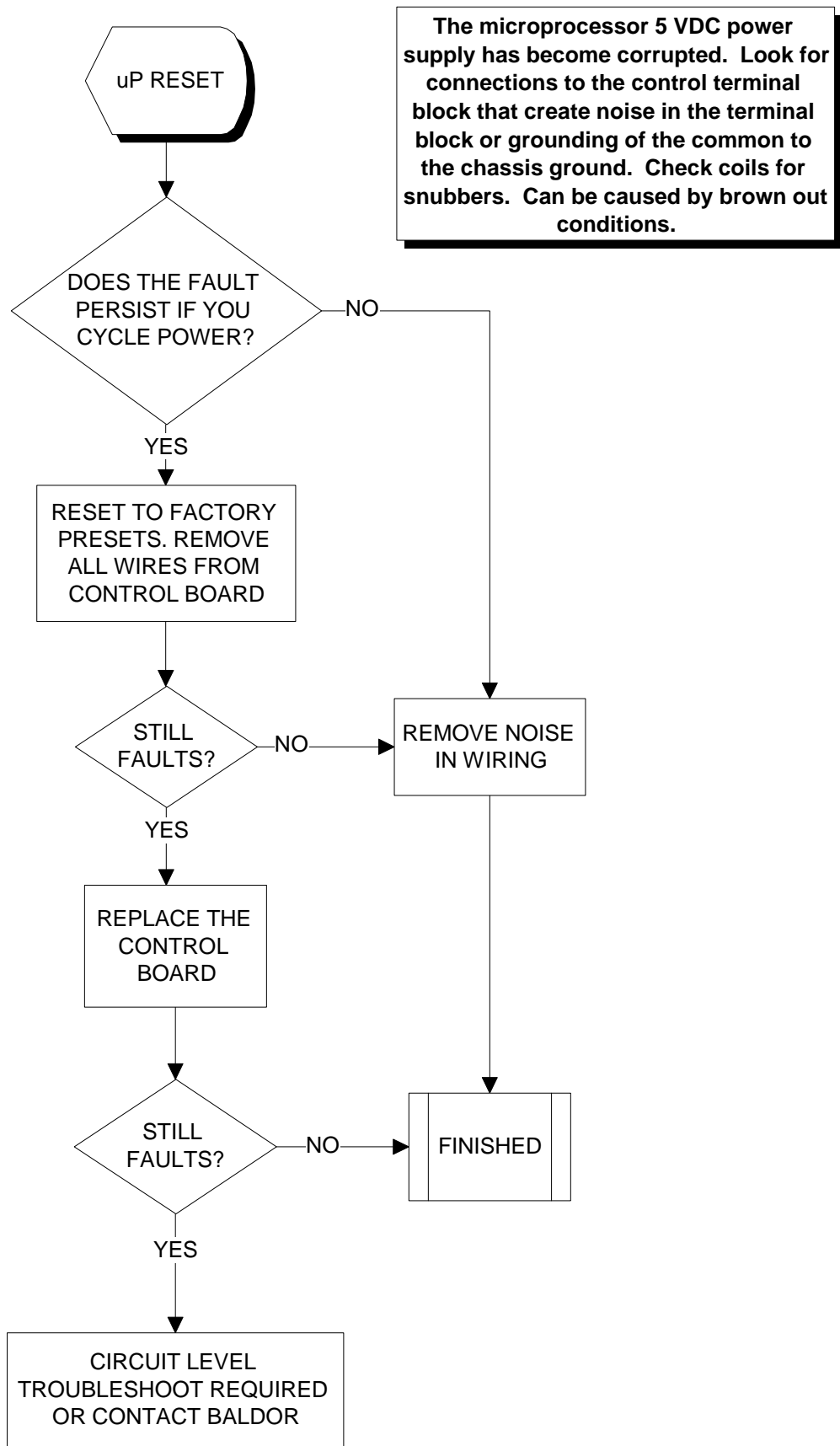
FINISHED

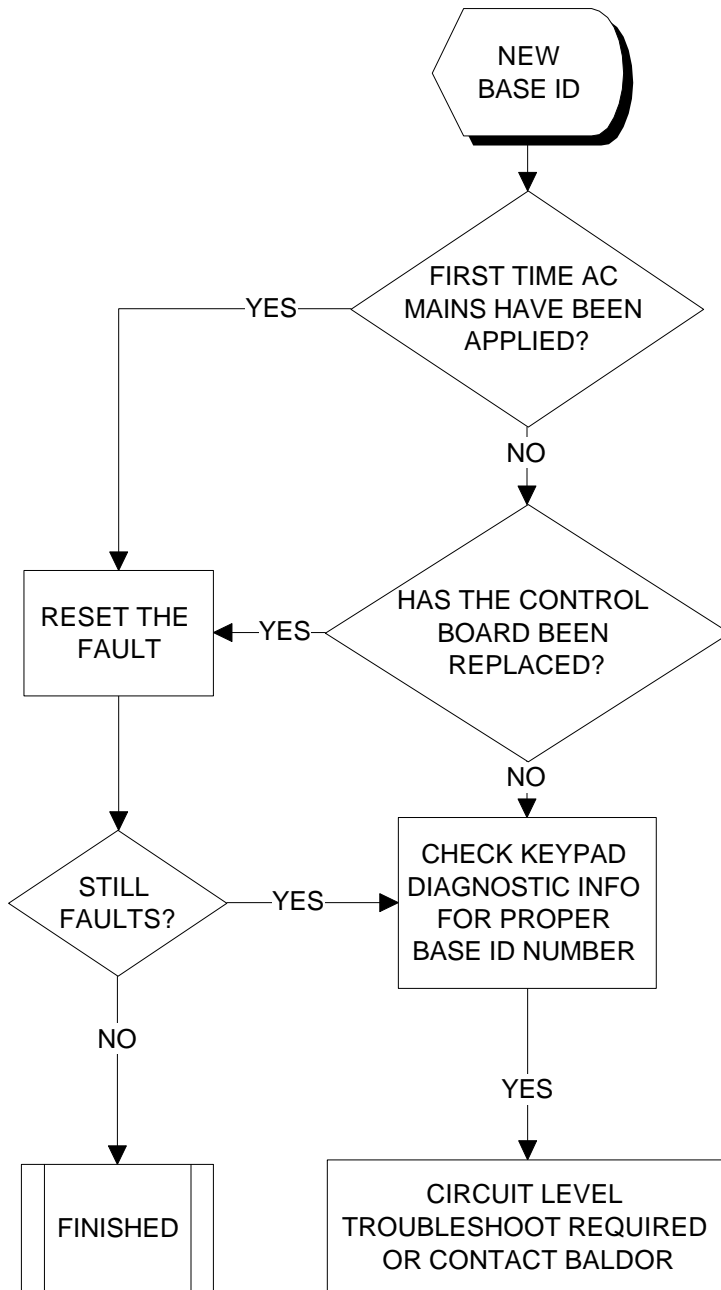
YES

CIRCUIT LEVEL
TROUBLESHOOT REQUIRED
OR CONTACT BALDOR

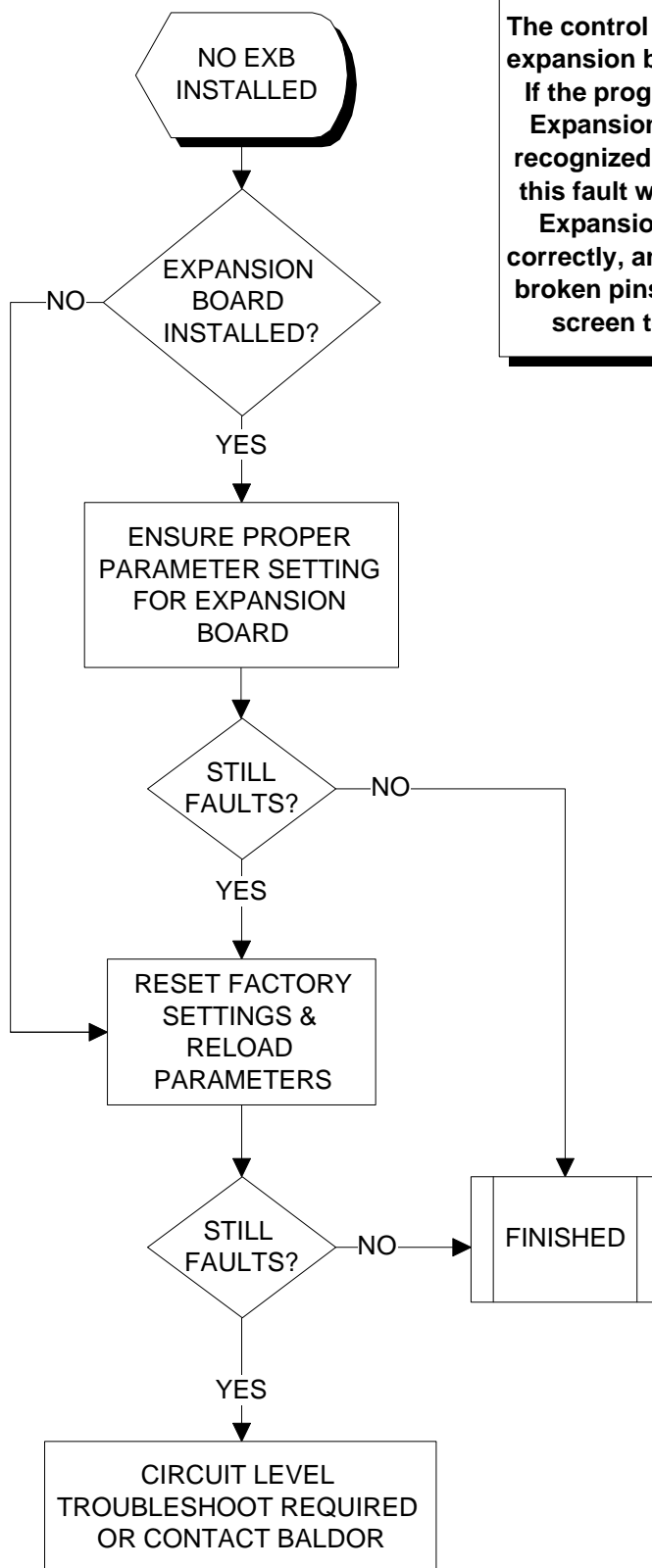
This fault occurs when the battery-backed parameters in RAM are lost. This can occur when installing either new software, or a new control board. If the control is programmed for a mode that allows more than one parameter table, that other table must be programmed if it is to be used (do not power up with the table "1" switch closed and then program that table as the data will be lost at power down) . This fault can also occur if power is lost during programming. This fault can also be caused by noise.



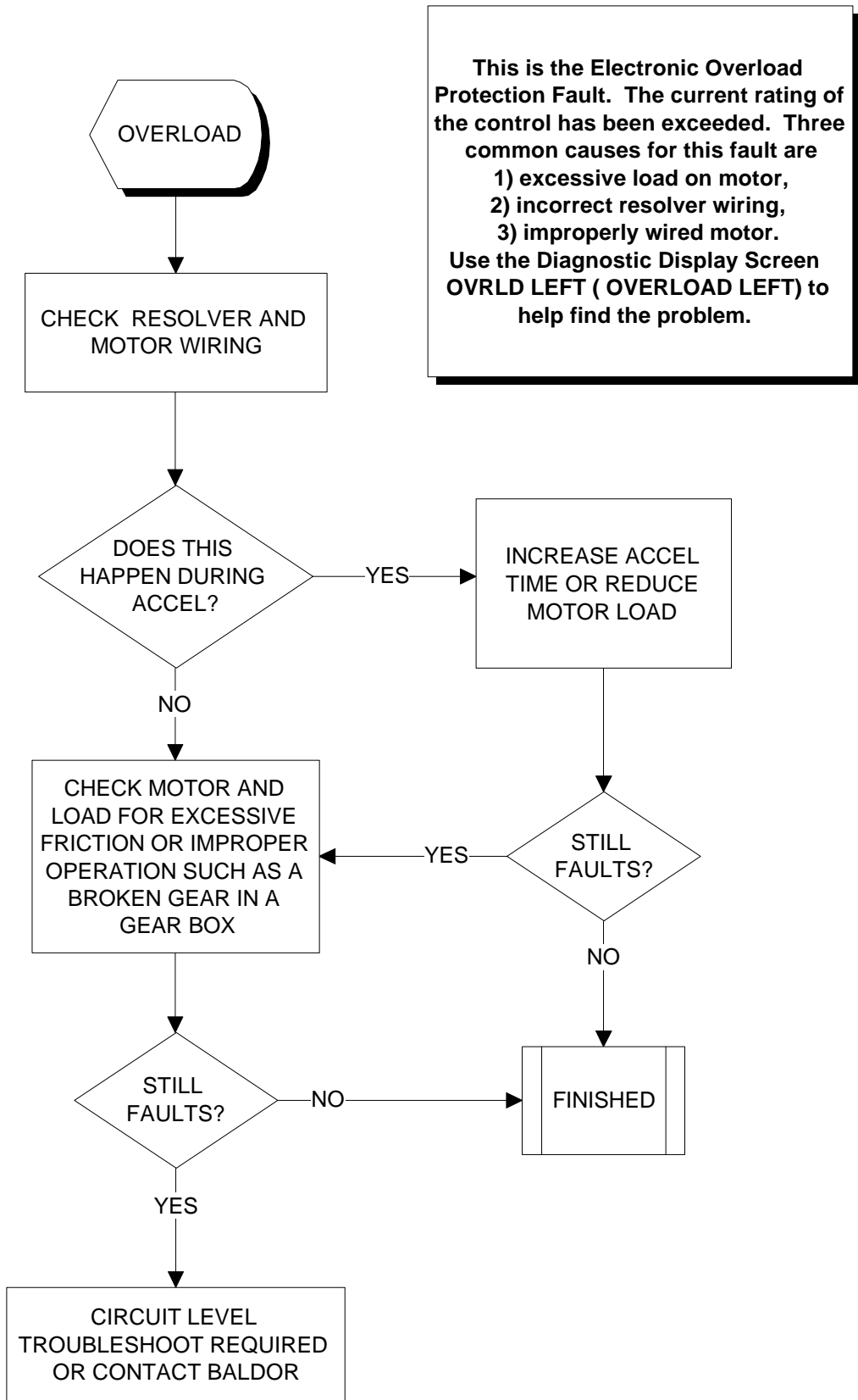




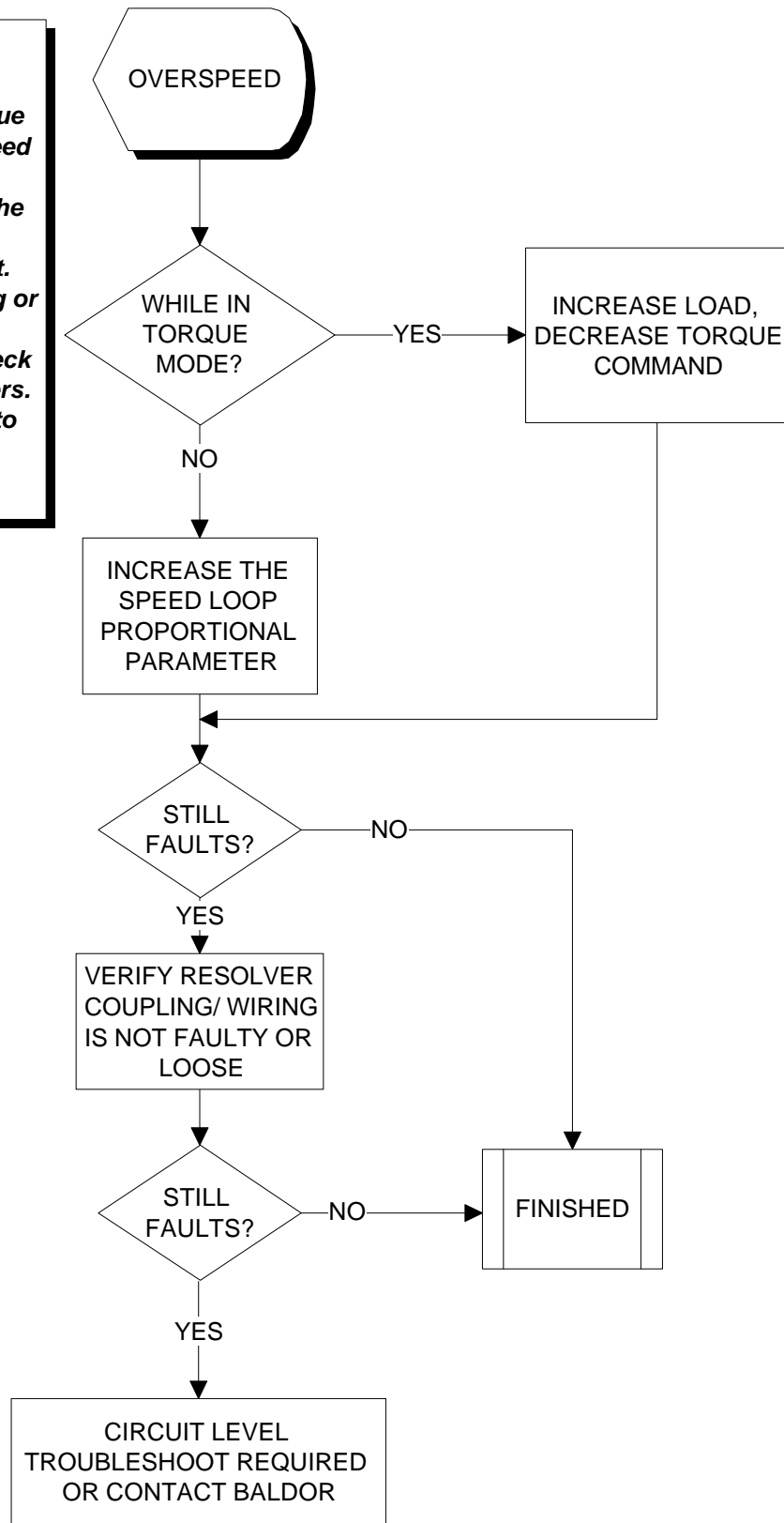
This fault occurs when a controller is powered up for the first time or when a new control board is installed on a controller. This fault will appear EVEN WHEN THE POWERBASE ID IS CORRECTLY SET ON THE MAIN BOARD. The fault occurs because the base ID stored is different than what the control found on power up. This fault is cleared by pushing the reset button.



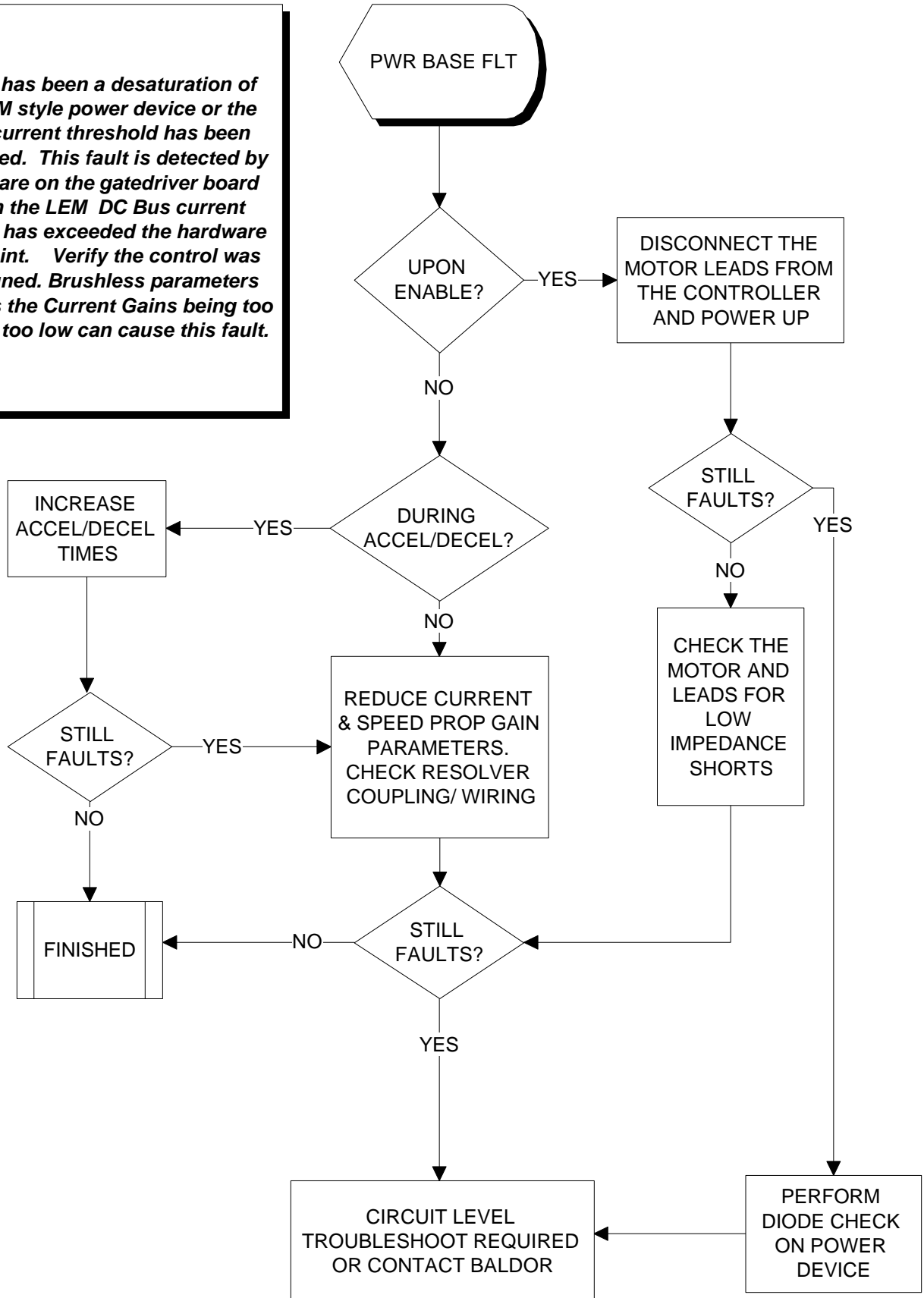
The control board recognizes any expansion board that is installed. If the programming calls for an Expansion board, and it is not recognized by the control board, this fault will occur. Ensure the Expansion board is installed correctly, and there are no bent or broken pins. Use the diagnostic screen to find the problem.

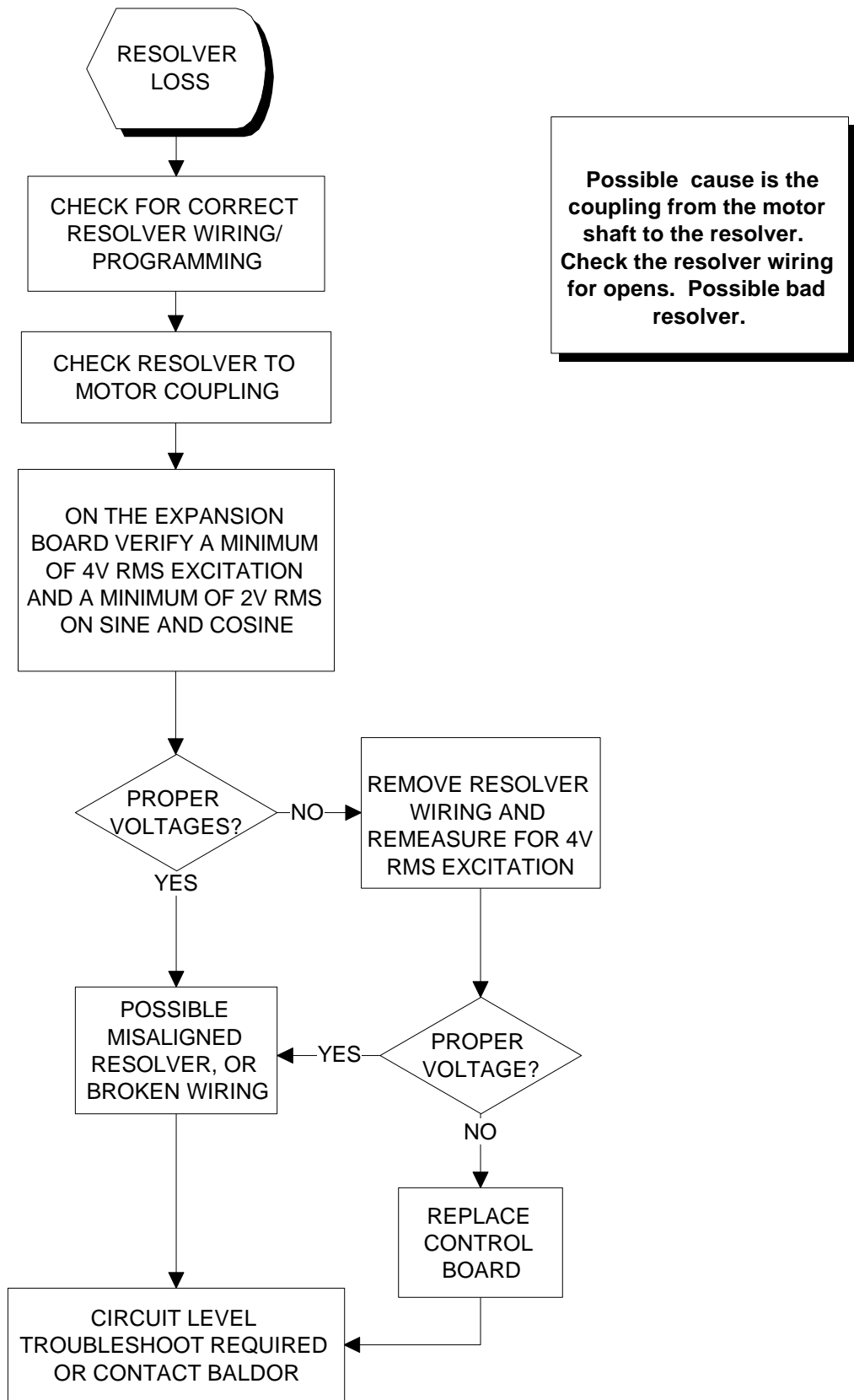


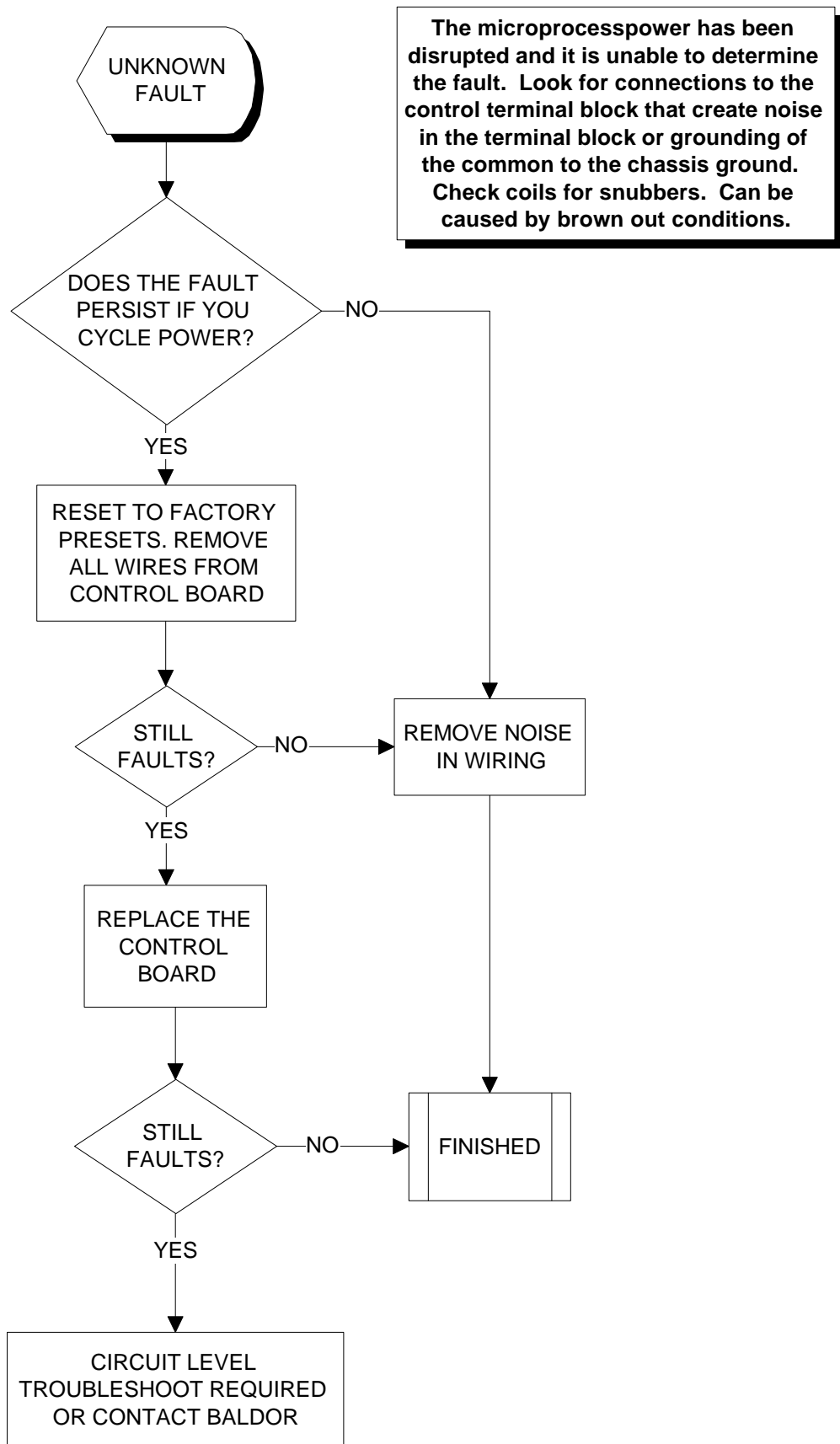
The motor speed has exceeded 110% of the value in the Maximum Motor Speed parameter. The control board has detected that the encoder frequency has exceeded a software limit. Check for a loose coupling or electrical noise on the resolver signals. Also check the Speed Loop Parameters. Check for motor ground to the control.



There has been a desaturation of the IPM style power device or the Bus current threshold has been exceeded. This fault is detected by hardware on the gatedriver board when the LEM DC Bus current sensor has exceeded the hardware trip point. Verify the control was autotuned. Brushless parameters such as the Current Gains being too high or too low can cause this fault.







USER TEXT
FAULT

VERIFY THAT ANY PARAMETERS
THAT HAVE BEEN CHANGED ARE
AVAILABLE FOR THIS VERSION OF
SOFTWARE?

STILL
FAULTS?

NO

YES

RESET
FACTORY
SETTINGS

STILL
FAULTS?

NO

YES

CONTACT DRIVE SUPPLIER
FOR USER FAULT
TROUBLESHOOTING

FINISHED

Baldor provides custom software for many special applications. This fault only occurs with custom software. In most cases Baldor does not know how this software functions in the application. The original purchaser of the drive from Baldor will be needed to solve this fault.