

This fault can only happen in the first 3 seconds after power up. The processor looks at the armature voltage. The voltage needs to be near 0. Possible cause is a rotating motoring upon power up with an external field supply, or permanent magnet. If the armature wires are off, the feedback will be high, causing this fault.

CURRENT
SENSE
FAULT

CHECK THAT THE J2
CONNECTOR ON THE
FEEDBACK BOARD IS
FIRMLY SEATED AND
NOT DAMAGED

ENSURE THAT J1 AND
J7 CONNECTORS ARE
FIRMLY SEATED ON THE
BASE ID BOARD

STILL
FAULTS?

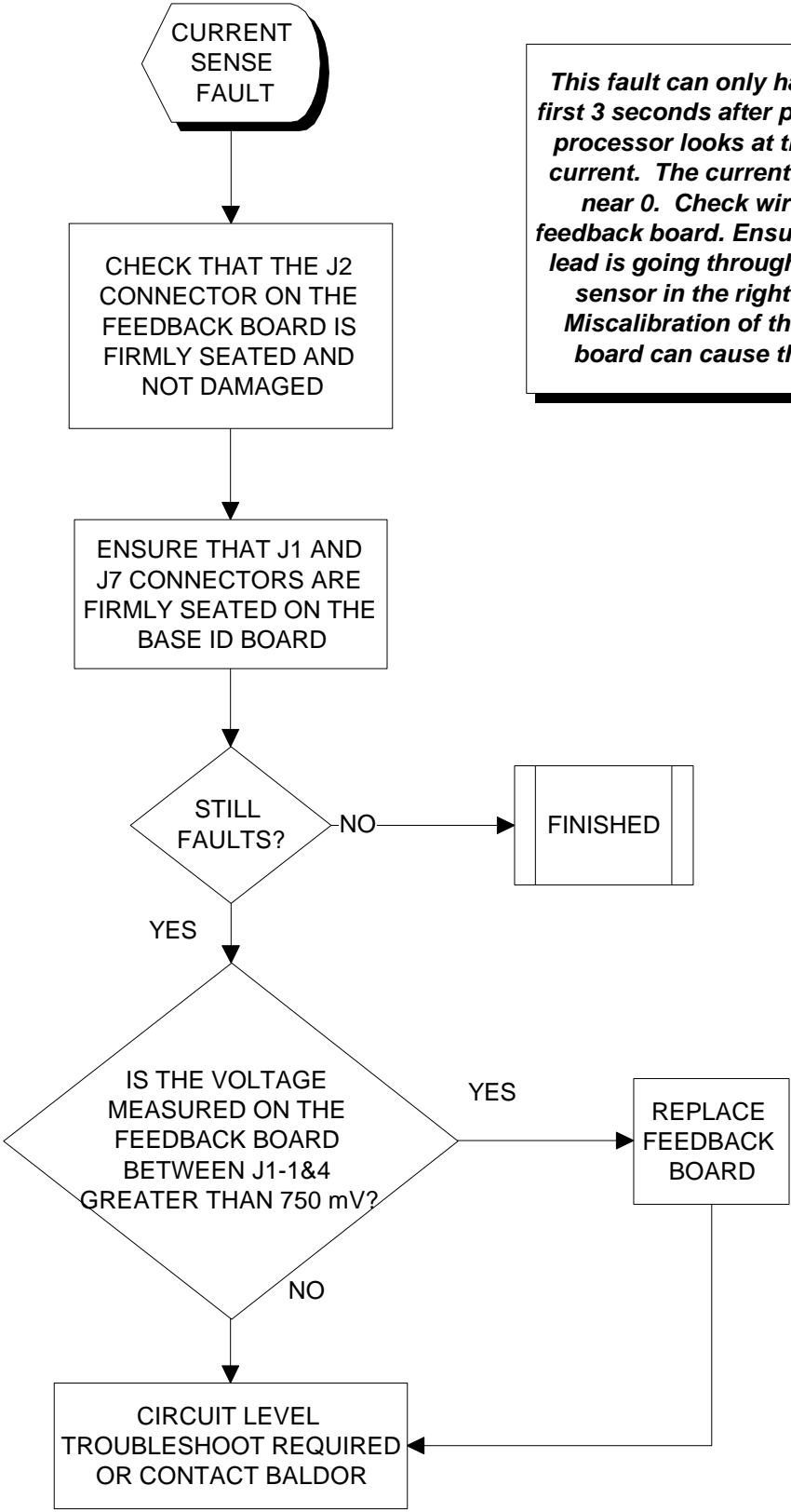
FINISHED

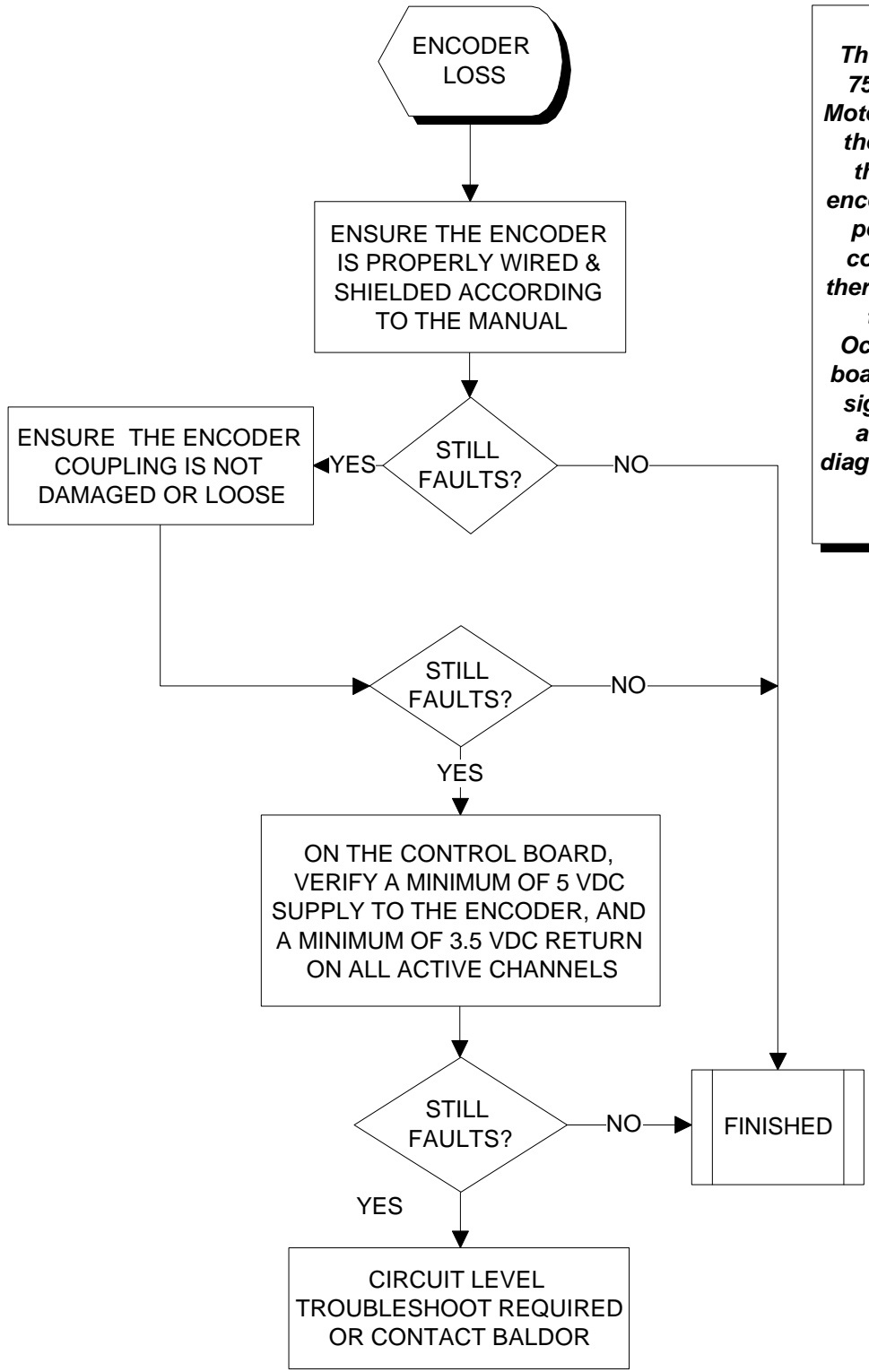
IS THE VOLTAGE
MEASURED ON THE
FEEDBACK BOARD
BETWEEN J1-1&4
GREATER THAN 750 mV?

REPLACE
FEEDBACK
BOARD

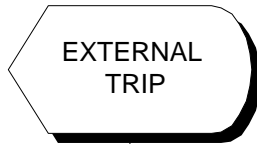
CIRCUIT LEVEL
TROUBLESHOOT REQUIRED
OR CONTACT BALDOR

This fault can only happen in the first 3 seconds after power up. The processor looks at the armature current. The current needs to be near 0. Check wiring to the feedback board. Ensure that the A2 lead is going through the current sensor in the right direction. Miscalibration of the feedback board can cause this as well.





The Armature Voltage is 75% or greater than the Motor Rated Arm Volts, and the processor sees less than 8% of speed. 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.



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



NO

YES

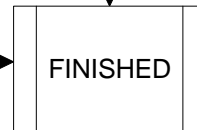
PLACE A JUMPER BETWEEN J1-16 AND J1-17 THE DIAGNOSTIC SCREEN SHOULD SHOW A "1" IN THE 9TH DIGIT



NO

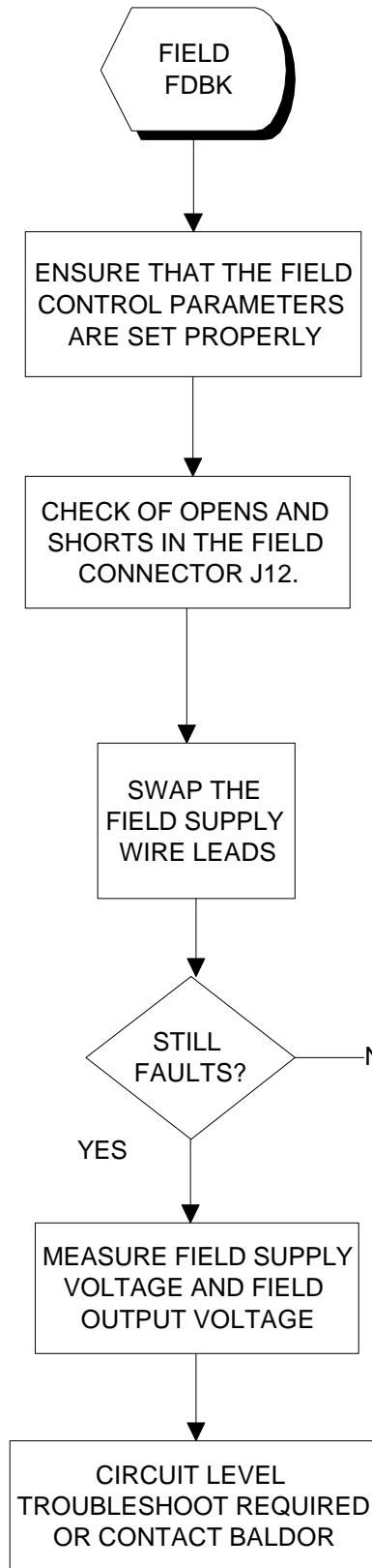
YES

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 only happen in the first 3 seconds after power up. The processor looks at the field current. The current needs to be near 0. Check wiring to the field power module. Possible cause is an open between the J12 connector on the Field Power Module to the J3 connector on the Base ID board. Incoming line for field must be phased properly.

FIELD LOSS

ENSURE THERE IS NO DAMAGED/OPEN WIRING & NO FIELD SUPPLY FUSES ARE BLOWN

ENSURE THAT THERE IS INPUT VAC AND OUTPUT VDC ON THE FIELD POWER MODULE

ENSURE THE MULTI-CONNECTOR TO THE FIELD SUPPLY IS CONNECTED PROPERLY

STILL FAULTS?

FINISHED

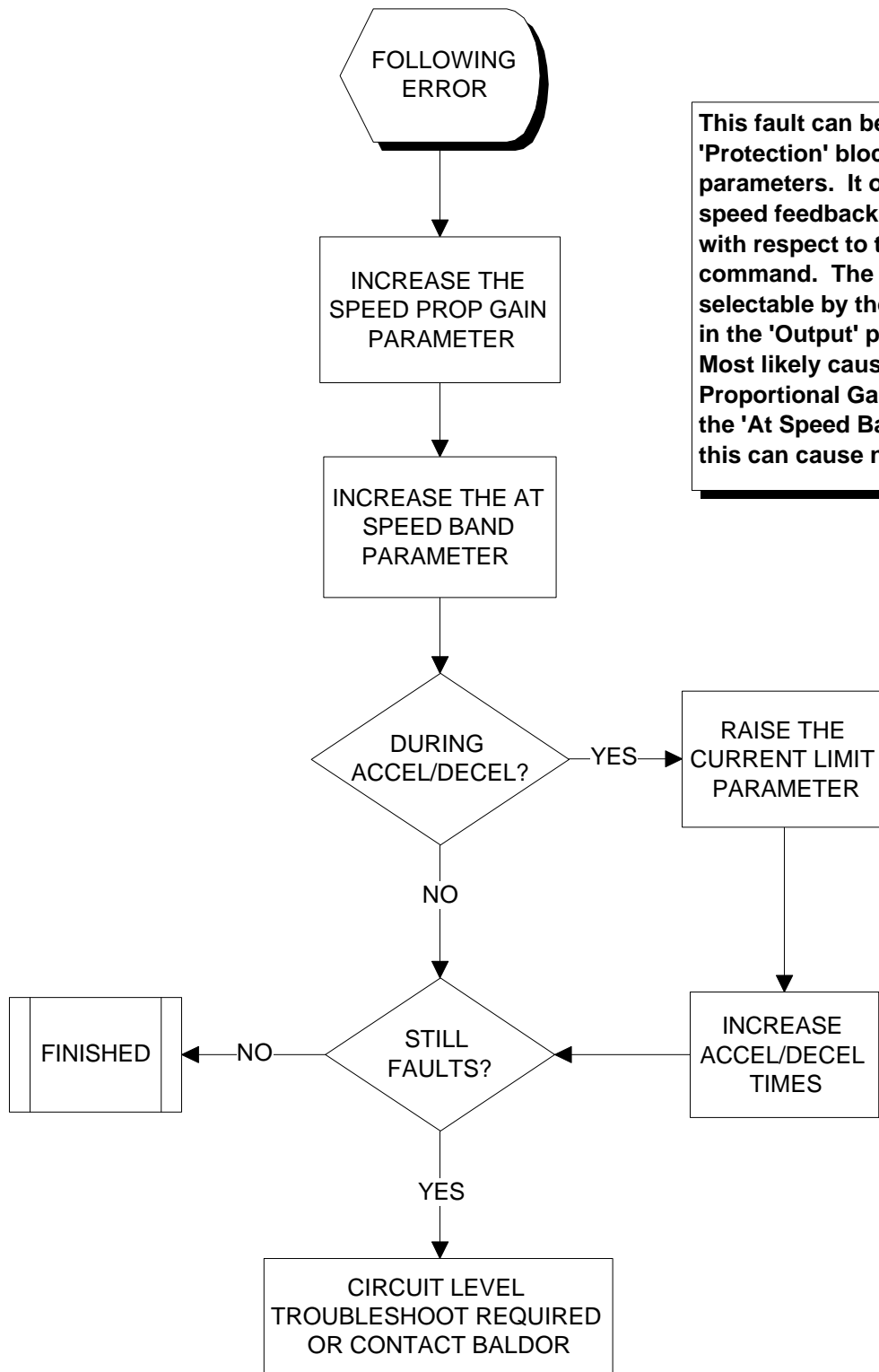
REMOVE FIELD WIRES AND MEASURE FIELD RESISTANCE

RESISTANCE MATCH NAMEPLATE?

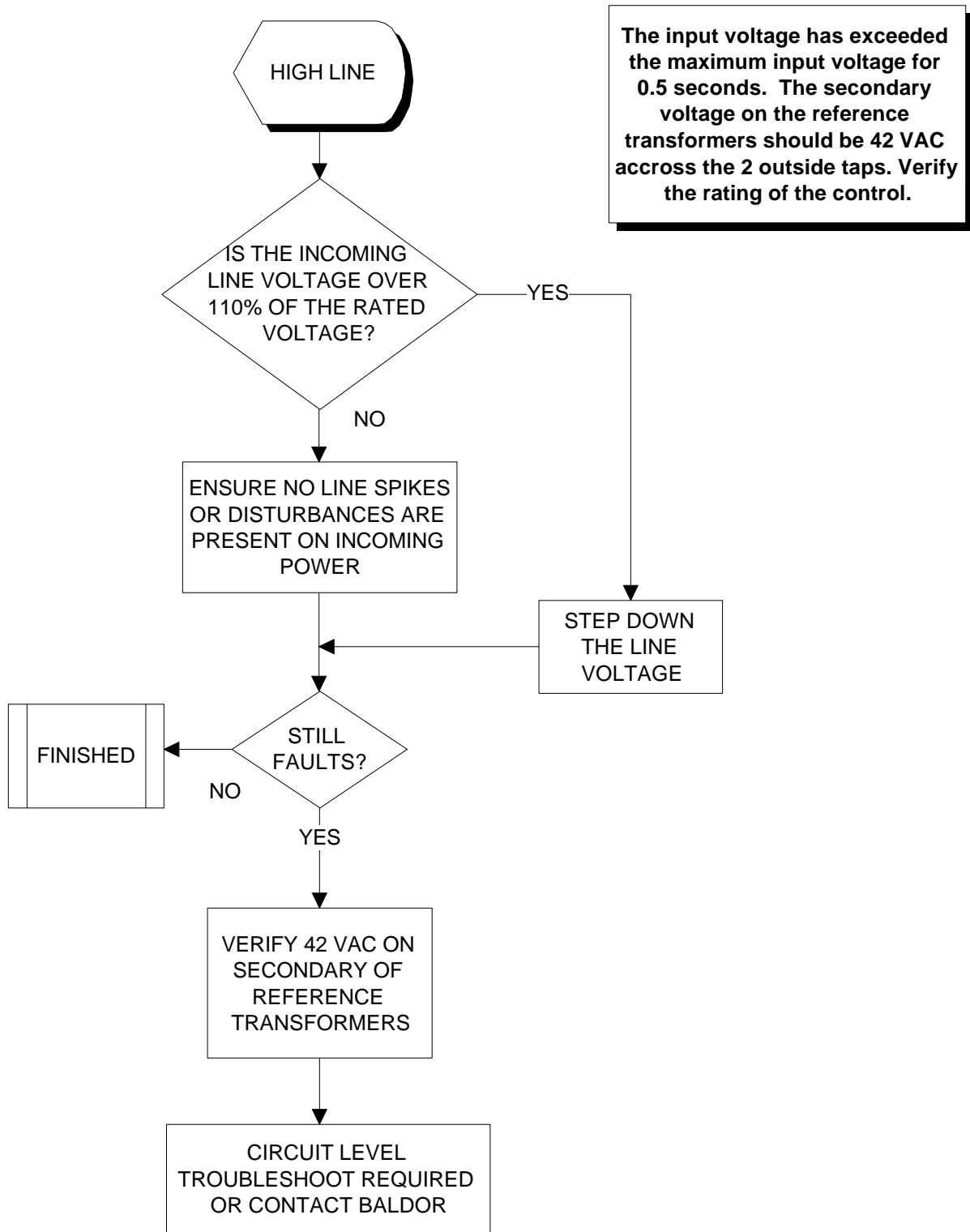
POSSIBLE MOTOR FIELD OR WIRING PROBLEM

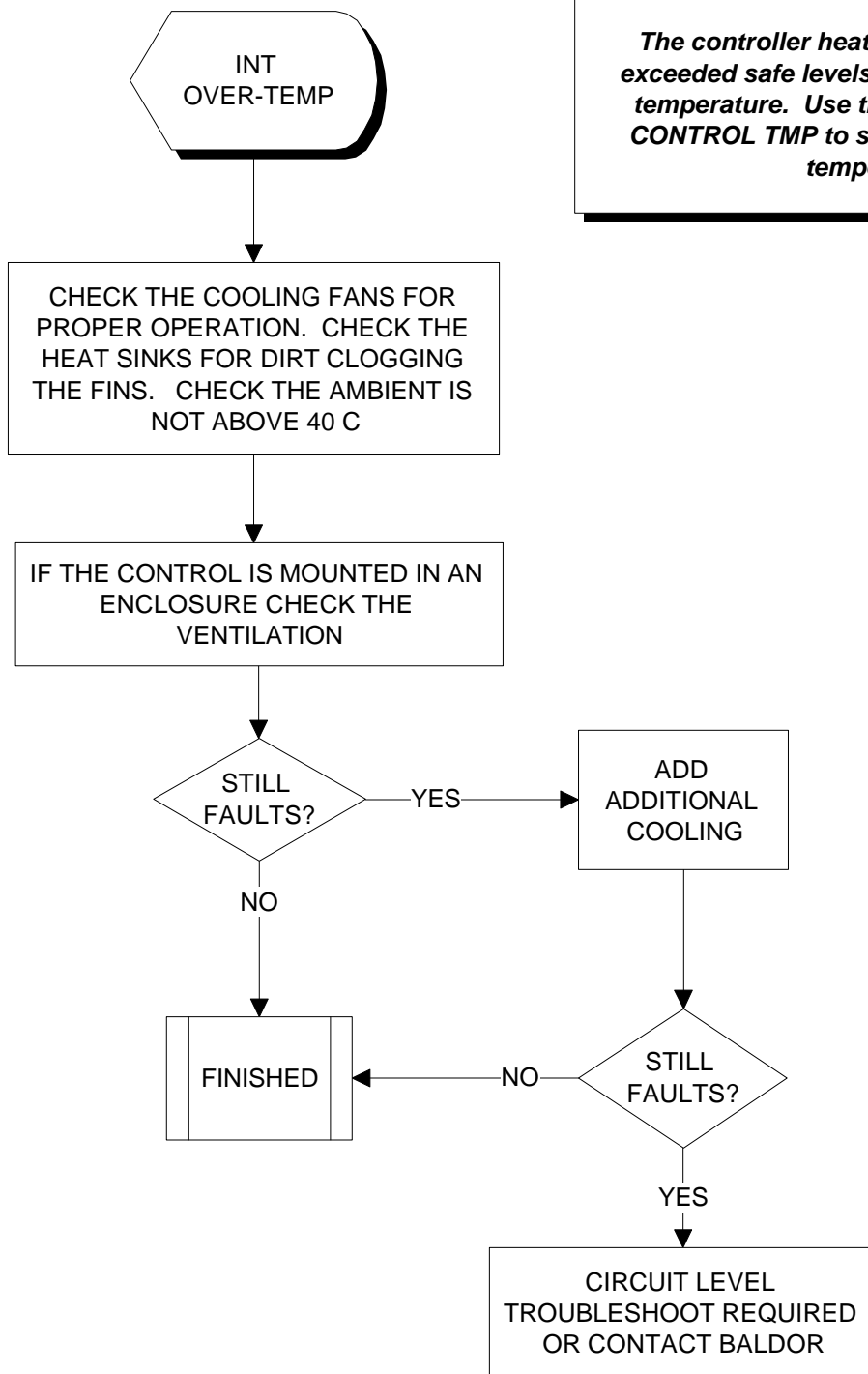
CIRCUIT LEVEL TROUBLESHOOT REQUIRED OR CONTACT BALDOR

On a 15A/40A Field Supply, this fault occurs when there is less than 58 mA/175 mA of field current sensed for 3 seconds. This fault is not active if there is no field current command(Econ set to 0, PM motor, & Field Supply set to none)

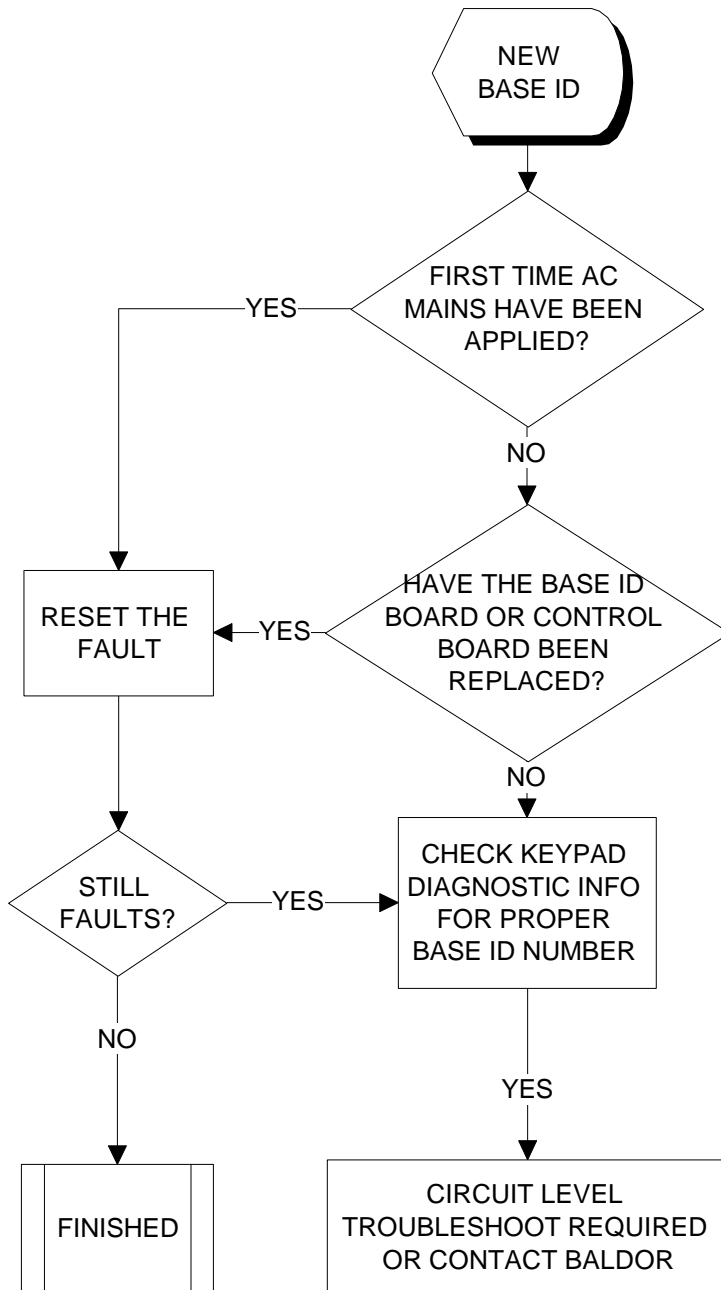


This fault can be turned off in the 'Protection' block of the parameters. It occurs when the speed feedback is out of tolerance with respect to the speed command. The tolerance level is selectable by the 'At Speed Band' in the 'Output' parameter block. Most likely cause is the 'Speed Proportional Gain' 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. 90 C is the maximum temperature. Use the Diagnostic Display, CONTROL TMP to see the actual heat sink temperature.



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 BASE ID 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.

LOST
USER
DATA

RESET
FACTORY
PRESETS AND
RELOAD
PARAMETERS

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.

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?

YES

NO

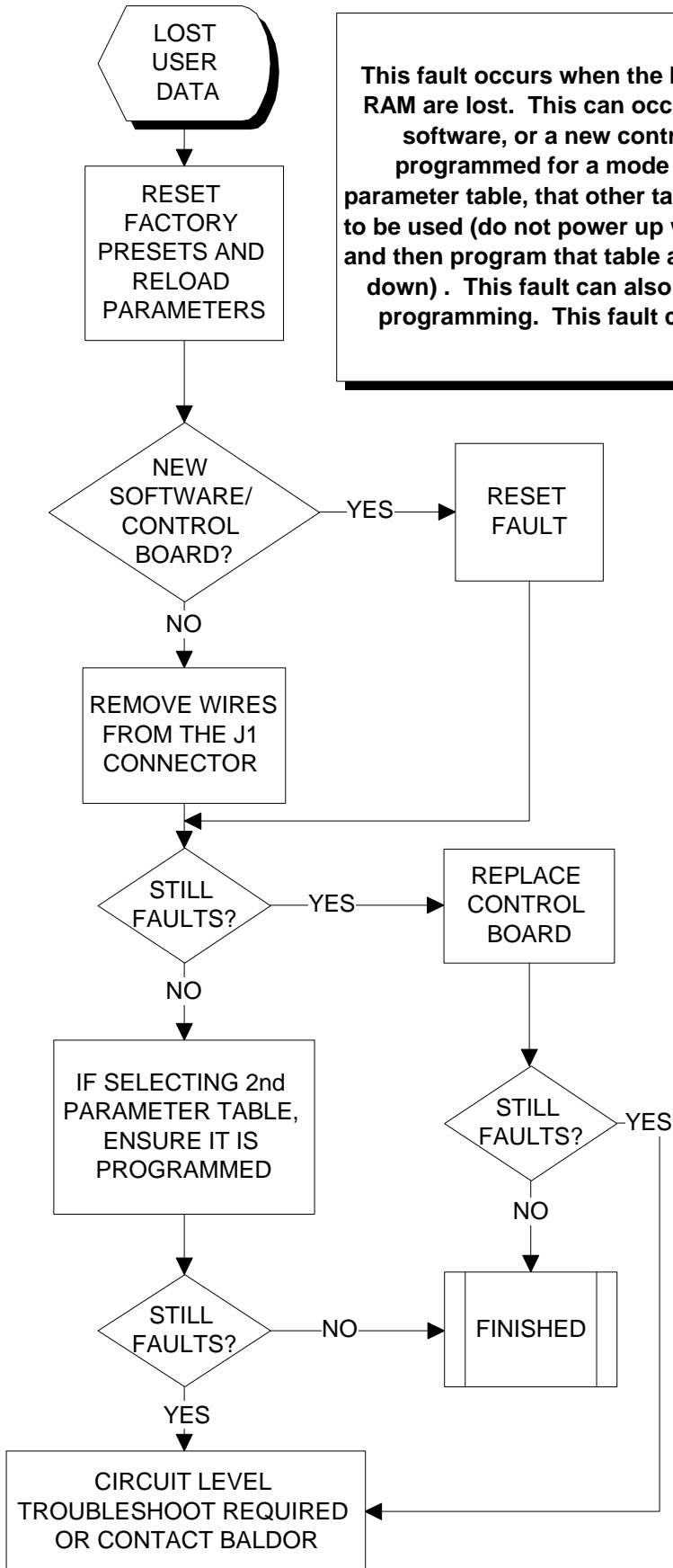
STILL
FAULTS?

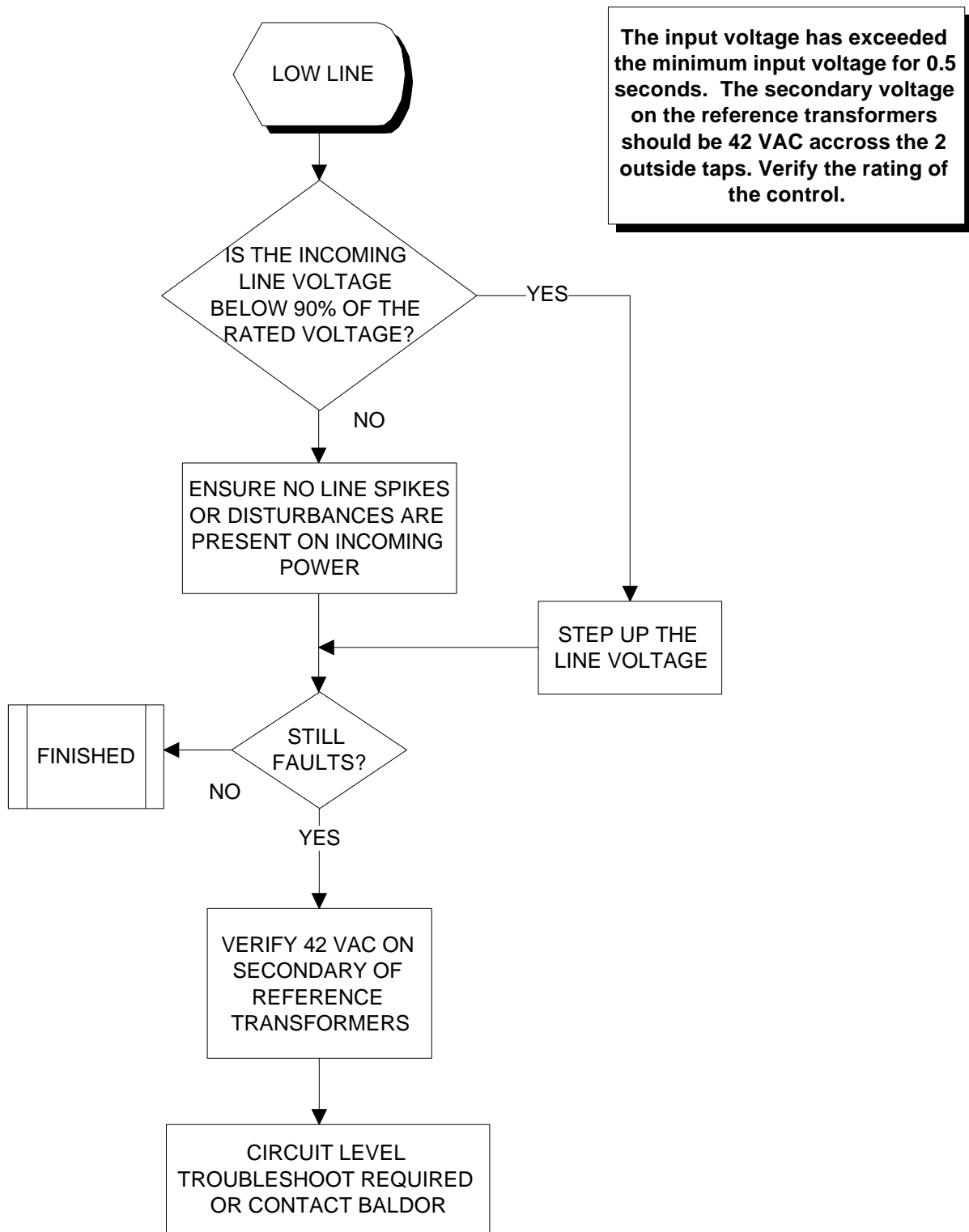
NO

FINISHED

YES

CIRCUIT LEVEL
TROUBLESHOOT REQUIRED
OR CONTACT BALDOR





MEMORY
ERROR

Parameter Checksum failure due to corrupted data. Occurs on power up when the parameter checksum in the NV memory does not match the active parameter checksum. This is caused by a bad battery, bad EPROM, or possible noise on the control signal wiring.

CYCLE POWER
ENSURE BUS VOLTAGE
IS COMPLETELY BLEED
DOWN BEFORE POWER
BACK UP

STILL
FAULTS?

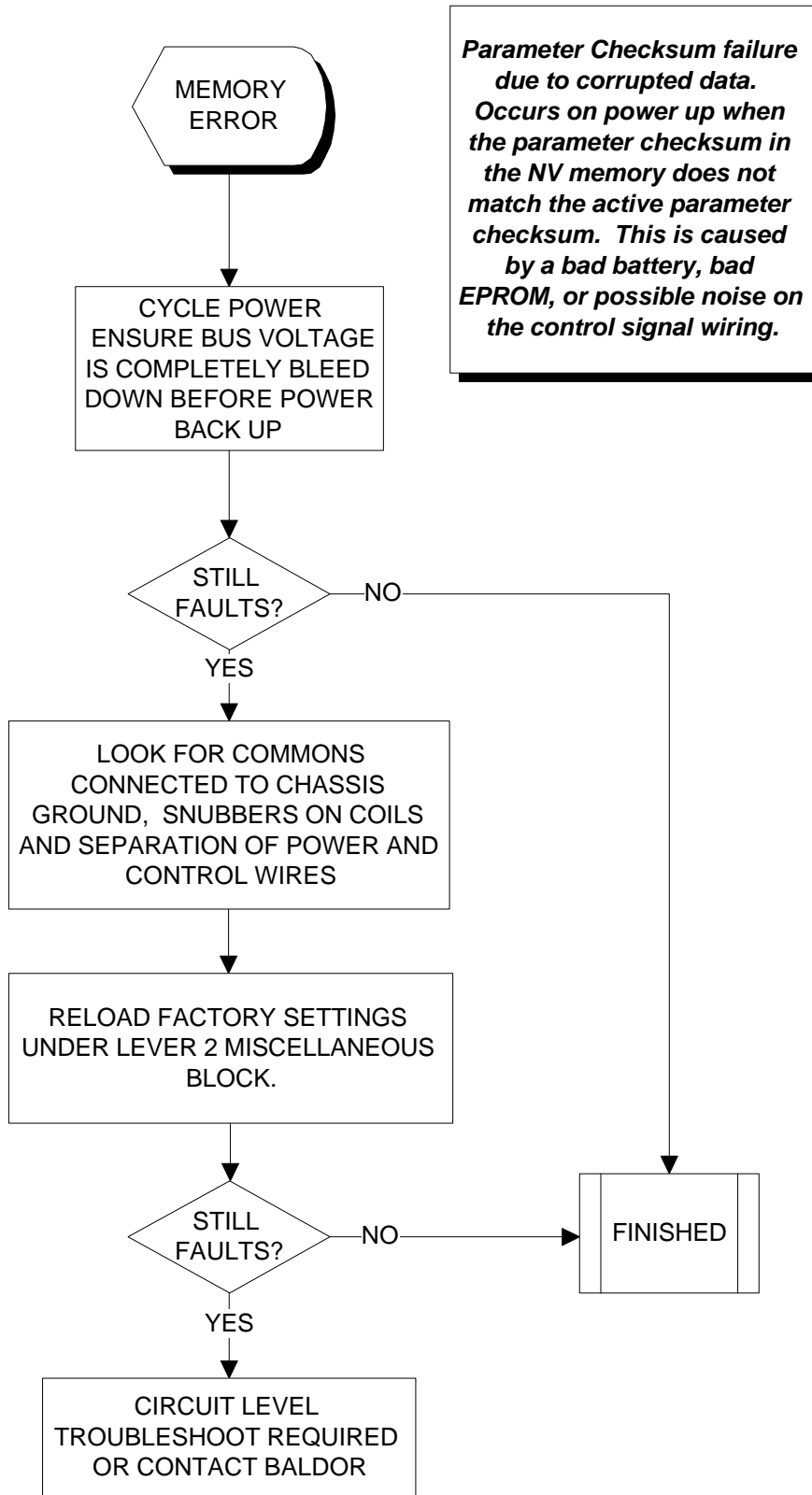
LOOK FOR COMMONS
CONNECTED TO CHASSIS
GROUND, SNUBBERS ON COILS
AND SEPARATION OF POWER AND
CONTROL WIRES

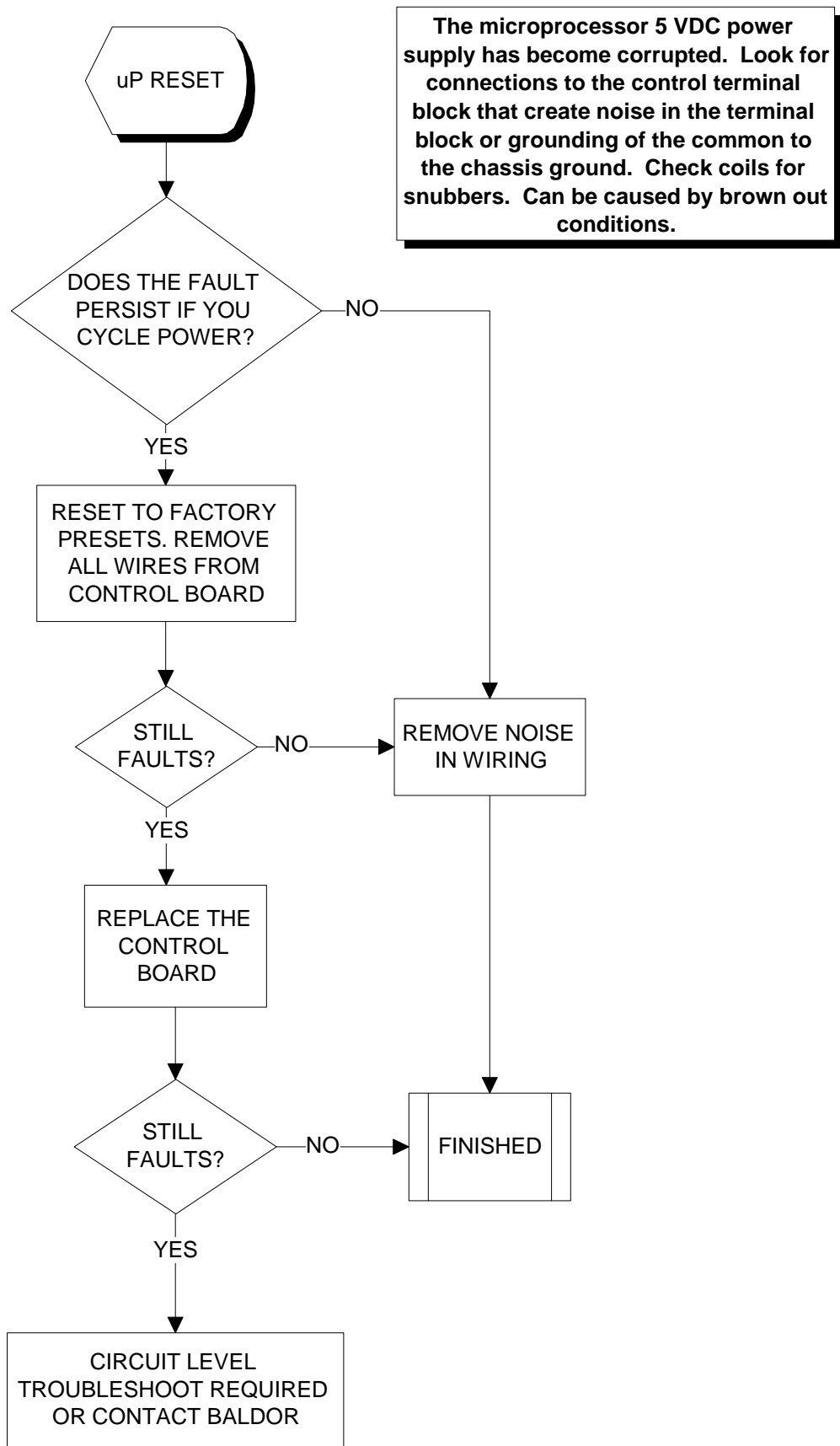
RELOAD FACTORY SETTINGS
UNDER LEVER 2 MISCELLANEOUS
BLOCK.

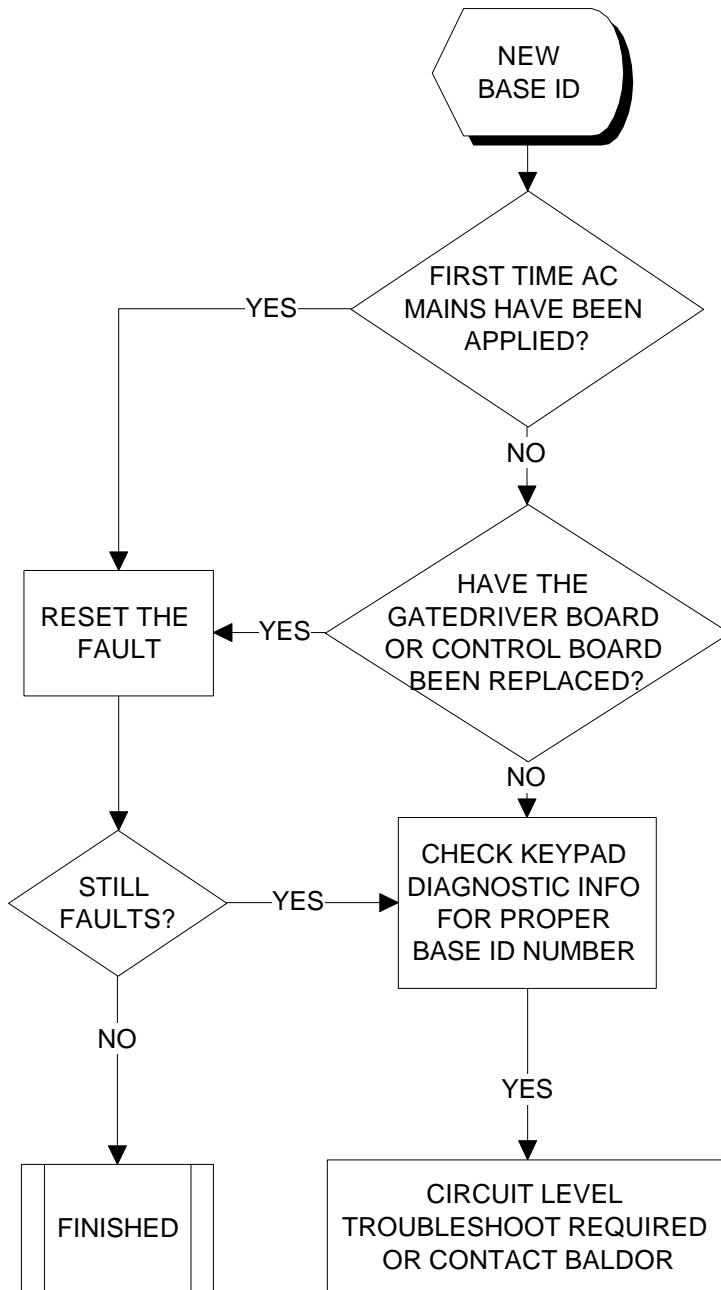
STILL
FAULTS?

CIRCUIT LEVEL
TROUBLESHOOT REQUIRED
OR CONTACT BALDOR

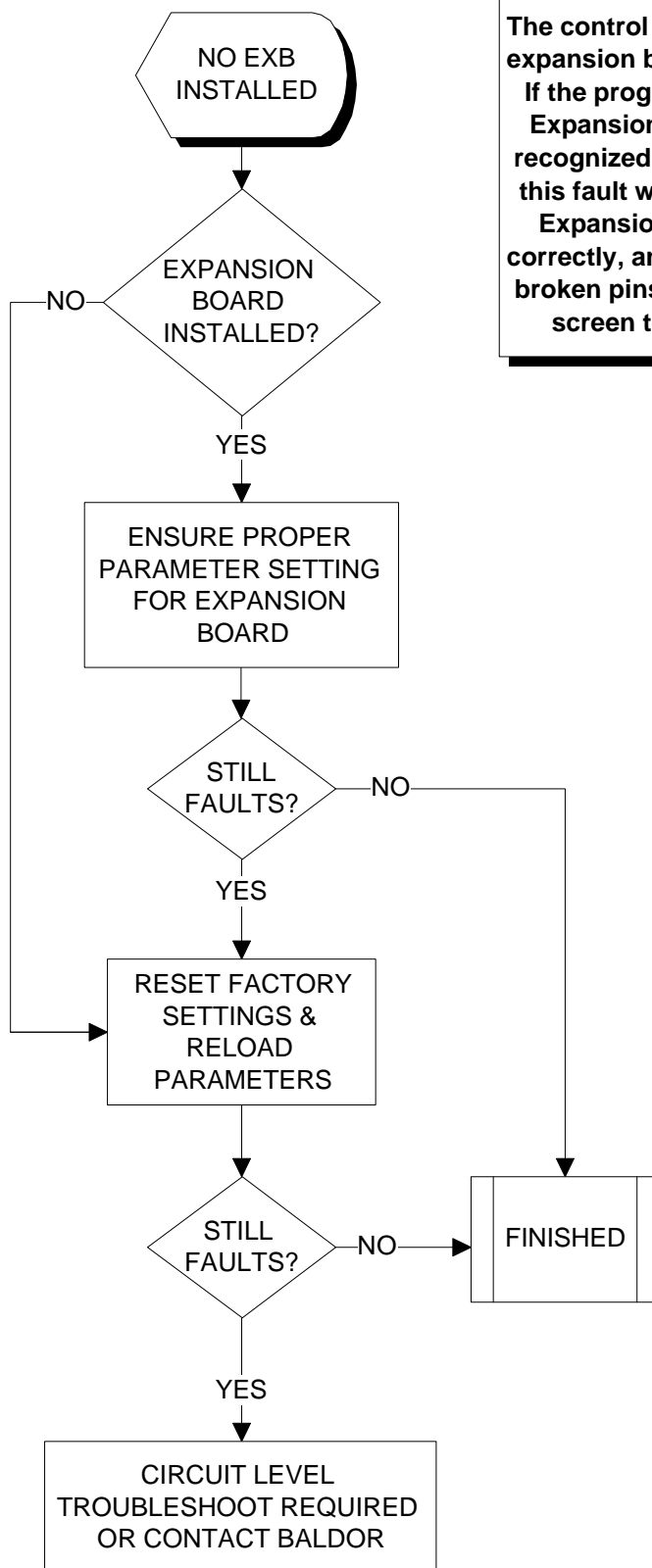
FINISHED



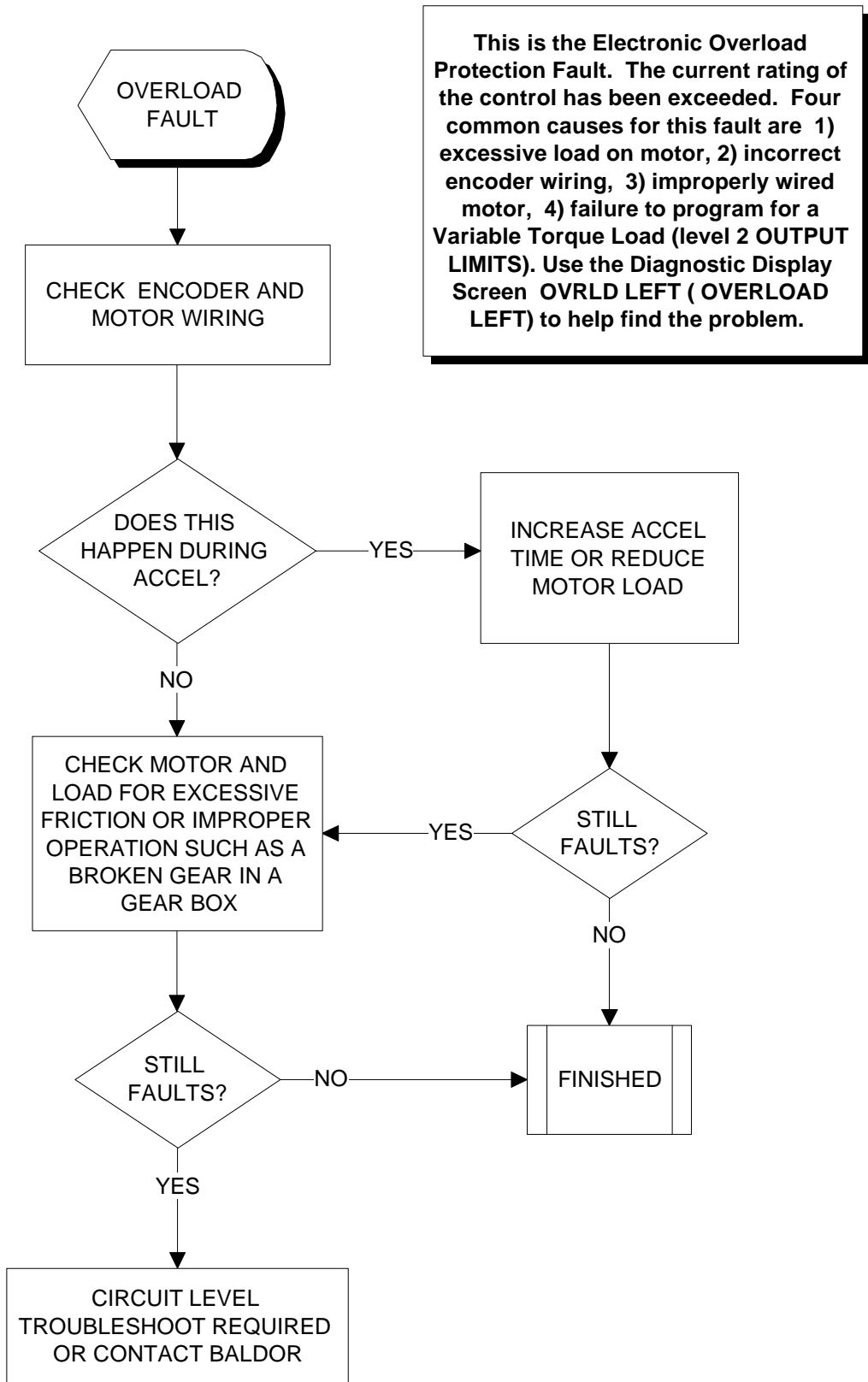




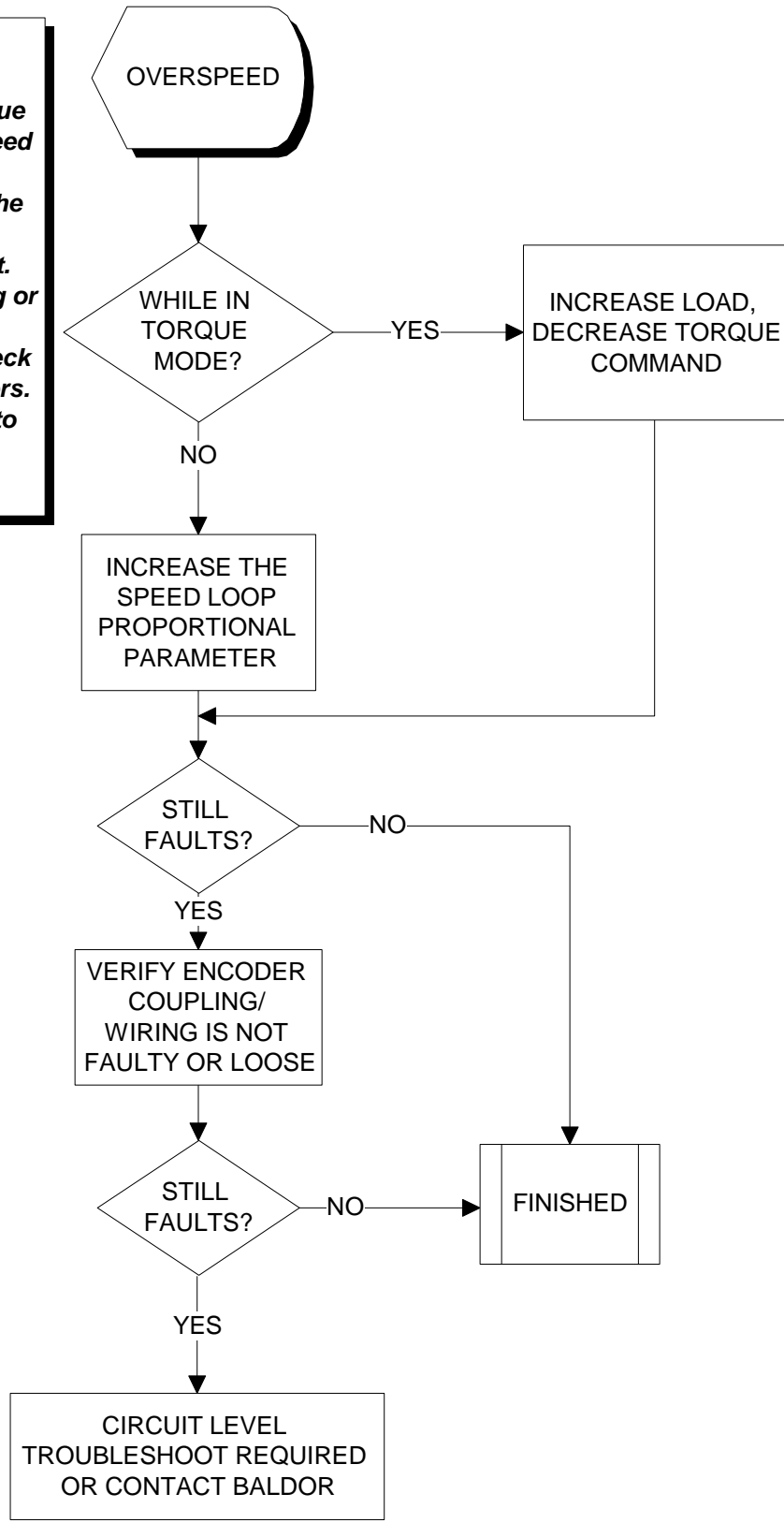
This fault occurs when a controller is powered up for the first time or when a new control board is installed on a controller. This fault will appear EVEN WHEN THE POWERBASE ID IS CORRECTLY SET ON THE GATEDRIVER BOARD. The fault occurs because the base ID stored is different than what the control found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

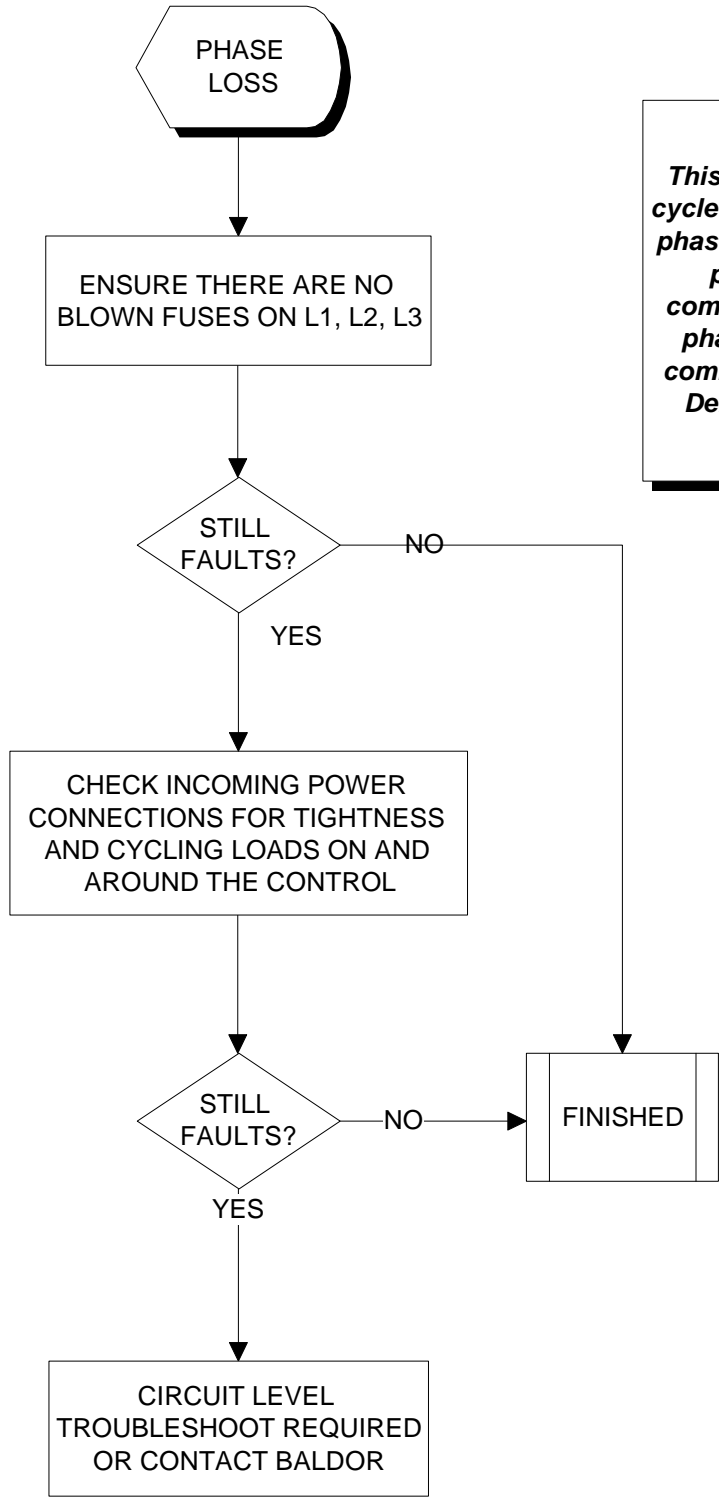


The control board recognizes any expansion board that is installed. If the programming calls for an Expansion board, and it is not recognized by the control board, this fault will occur. Ensure the Expansion board is installed correctly, and there are no bent or broken pins. Use the diagnostic screen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

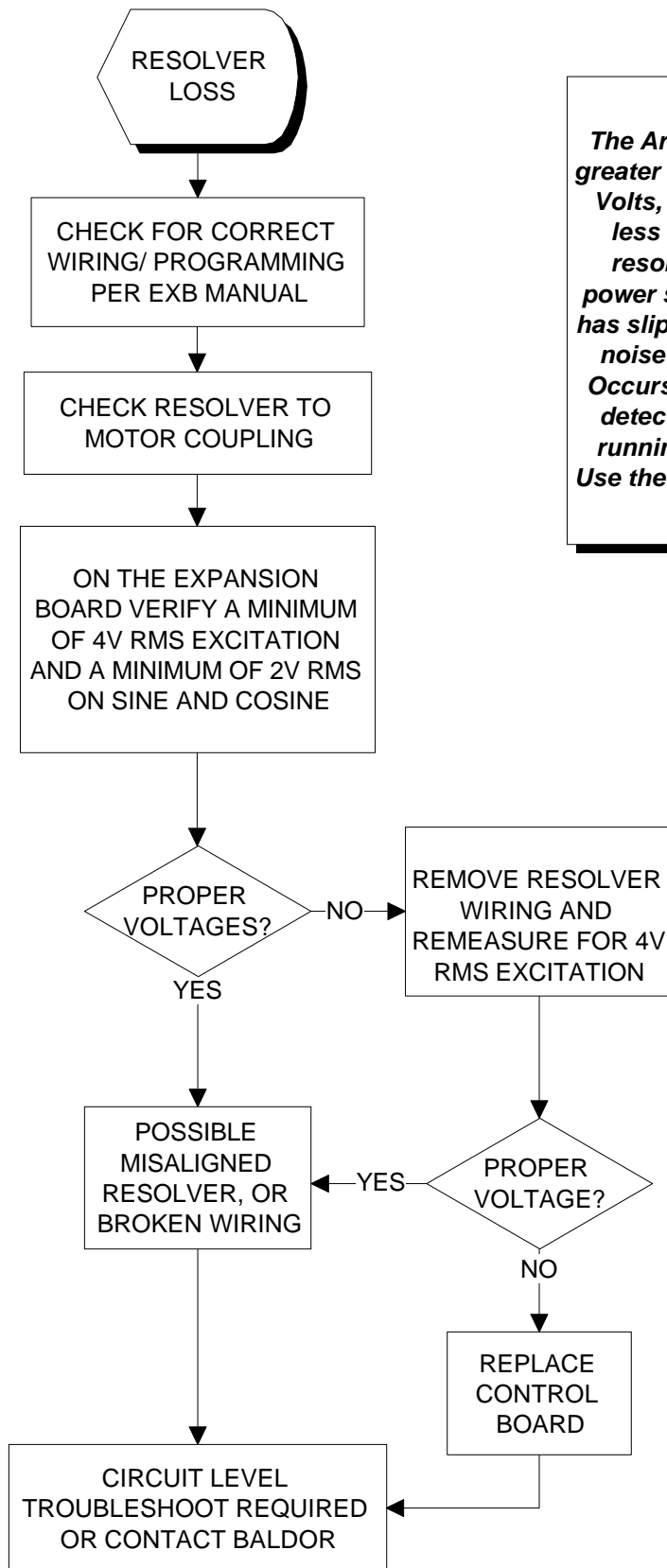


The motor speed has exceeded 110% of the value in the Maximum Motor Speed parameter. The control board has detected that the encoder frequency has exceeded a software limit. Check for a loose coupling or electrical noise on the encoder signals. Also check the Speed Loop Parameters. Check for motor ground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

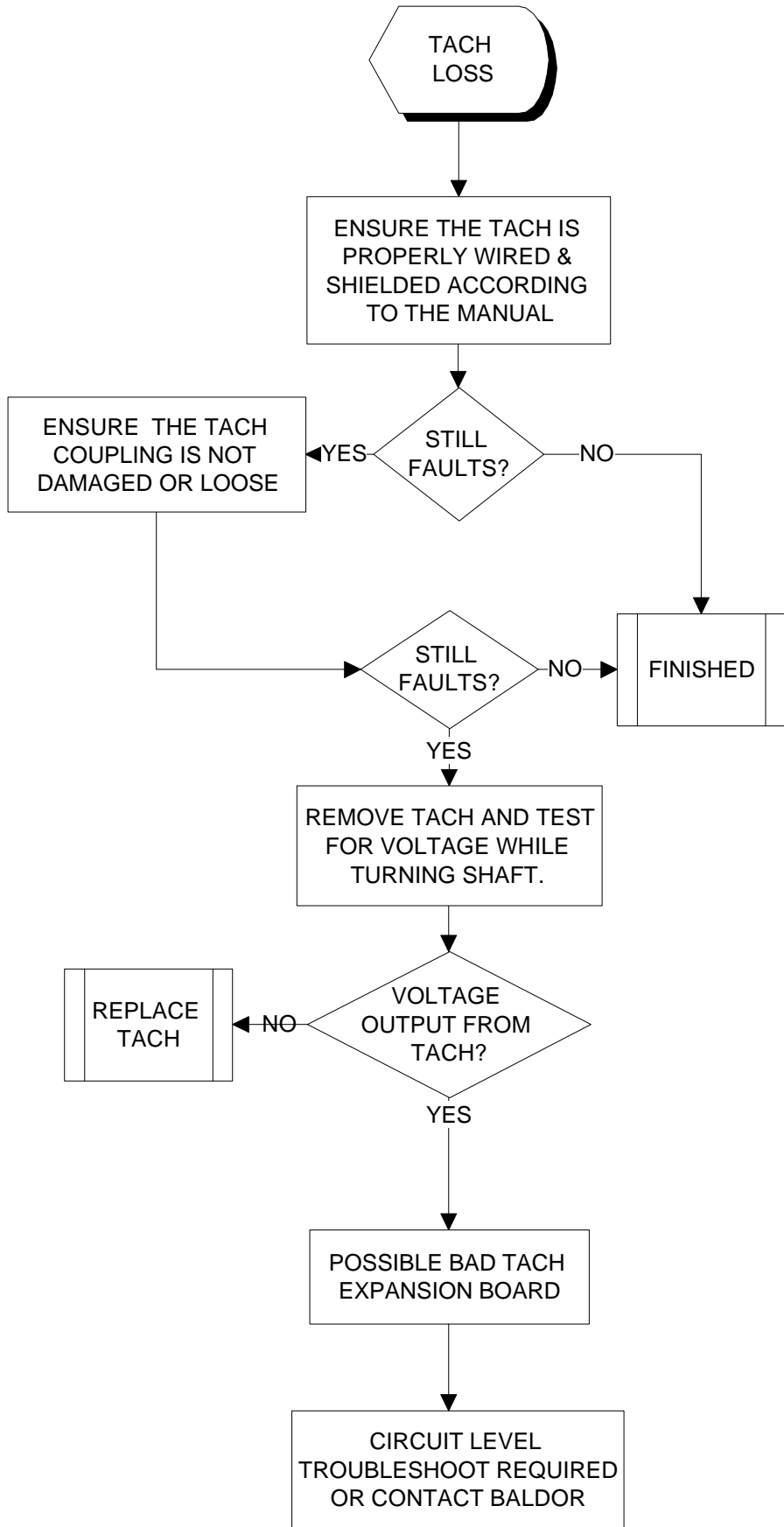




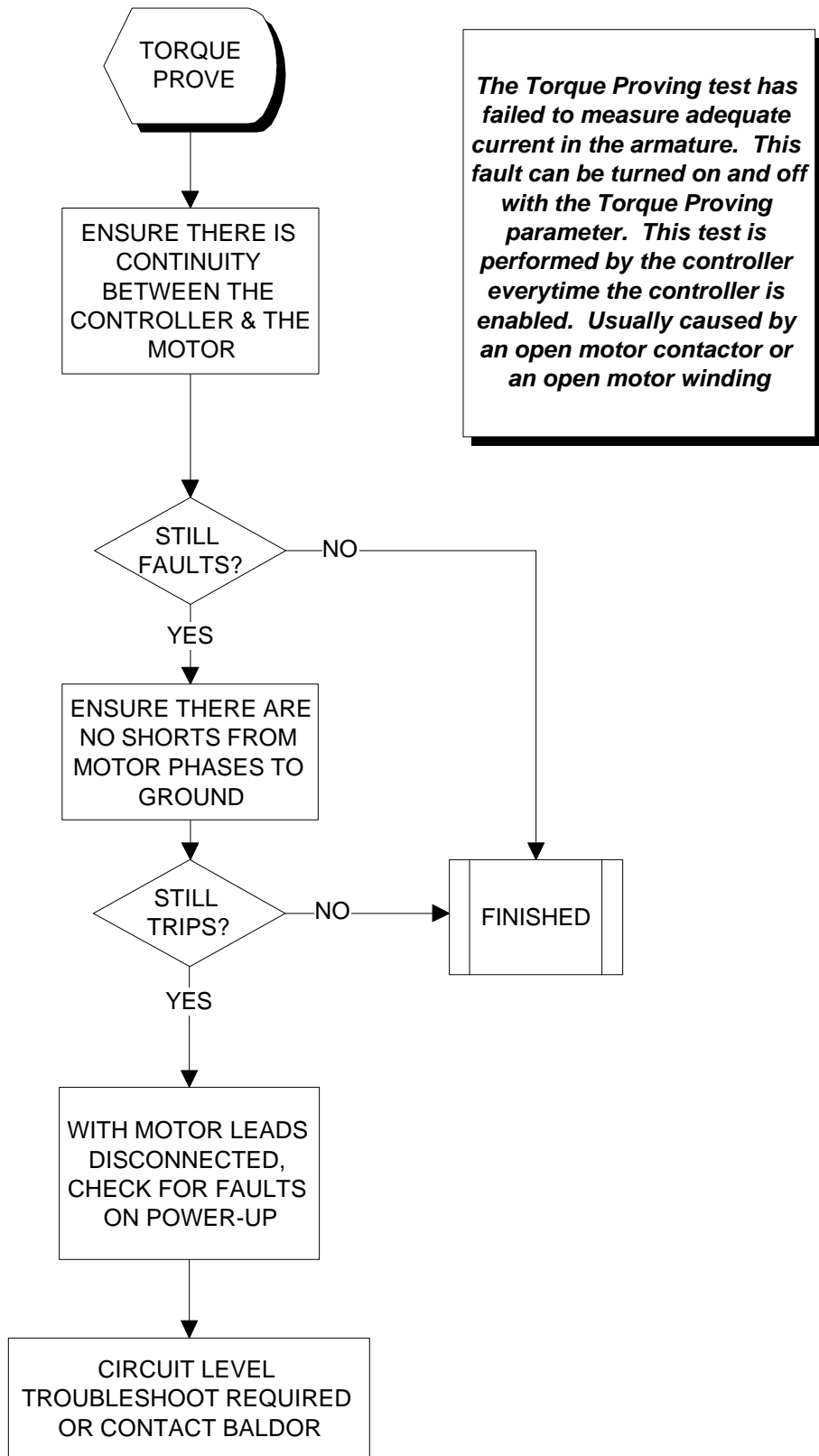
This fault occurs after 5 cycles of a phase loss or a phase that is no longer in proper sequence compared to the other 2 phases. This is more common on Unbalanced Delta power supplies.

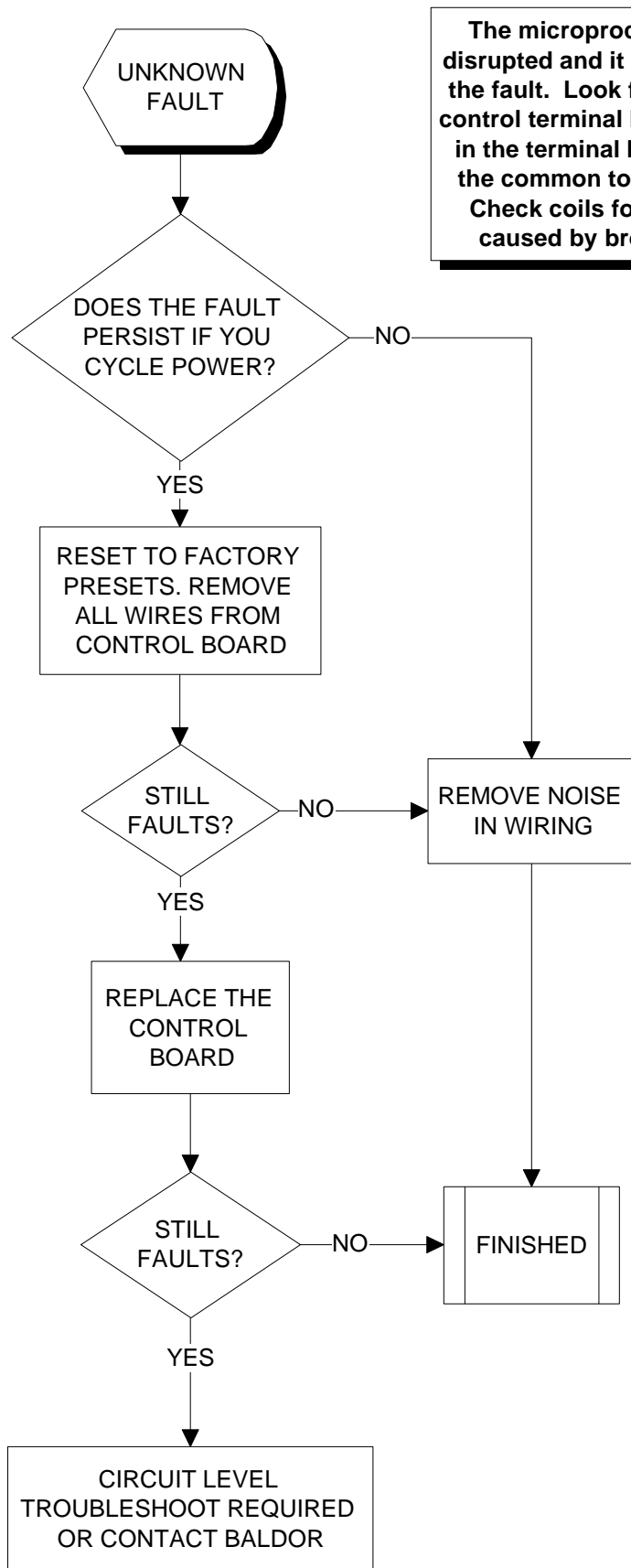


The Armature Voltage is 75% or greater than the Motor Rated Arm Volts, and the processor sees less than 8% of speed. The resolver has experienced a power supply loss, the coupling has slipped or there is excessive noise on the resolver signals. Occurs when the control board detects the resolver signal is running then is abruptly lost. Use the diagnostic screen to find the problem.



The Armature Voltage is 75% or greater than the Motor Rated Arm Volts, and the processor sees less than 8% of speed. The tach has experienced a power supply loss, the coupling has slipped or there is excessive noise on the tach signals. Occurs when the control board detects the tach signal is running then is abruptly lost. Use the diagnostic screen to find the problem.





The microprocesspower has been disrupted and it is unable to determine the fault. 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.

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.