Error numbers help discern the location of the problem the axis or spindle is reporting. The error number will follow the message. CALL THE SERVICE DEPARTMENT AND REPORT THE MESSAGE AND NUMBER ON THE SCREEN TO CORRECT THESE PROBLEMS.

1 NO MOTOR FEEDBACK

This message appears on power up if no motor feedback (resolver or encoder) or no motor motion is detected by the axis controller.

2 ENCODER NOT RESPONDING PROPERLY

This message appears during the rigid tap operation if the encoder feedback is interrupted during the spindle operation for any period longer than 3 seconds. The spindle operation is halted and this error message is displayed.

3 LOGIC JUMPER INCORRECT or COMMAND SIGNAL MISSING

This message appears on power up. An illogical motor-tach jumper configuration or failed component may cause the axis to runaway in the opposite direction of the command signal. To prevent runaway, axis operation is halted and this error message is displayed.

4 ENCODER IS NOT 1024 LINE

This message appears on power up, only for axes with a 1024–line encoder as motor feedback, if the count of the encoder lines per revolution of the screw is not 1024 lines per turn.

5 NO INDEX MARK DETECTED

This message appears during the cold start process if the index mark of the axis' primary feedback device, encoder or scale is not detected.

6 SWITCH 1 DISABLED– not used

7 RIGID TAP PRE-CYCLE ENCODER COUNT PROBLEM. NOT ENOUGH COUNT

This message indicates that the spindle feedback is not functioning properly. Prior to the rigid tap cycle the spindle feedback is checked for operational accuracy. Malfunction of the feedback results in termination of the cycle and display of this error message.

8 SPINDLE MAGNET NOT DETECTED or SPINDLE NOT RUNNING

This error message appears during spindle operation if the spindle magnet is not detected for any period longer than 3 seconds. This problem could be related to either command signal, spindle not turning, or spindle magnet malfunction.

9 SPINDLE FAULT LINE DOWN

The fault line signal down to the inverter should stay high during spindle operation. If this signal is held low when the spindle is running then this error message will be displayed.

10 ENCODER AND MAGNET NOT RESPONDING or SPINDLE NOT RUNNING

This is a spindle operation error message. During spindle operation, the encoder feedback and spindle magnet are monitored. If no proper response from either of them is detected for any period longer than 3 seconds, then this error message is displayed. This error could also be caused by the command signal, i.e., if the spindle is not turning.

11 MOTOR OVERLOAD. EXCESSIVE FOLLOWING ERROR– not used

12 MOTOR OVERLOAD. STEP COMMAND CHECKSUM ERROR

This message appears after the completion of a move. At the end of a move, the number of pulses required to complete that move is checked against the number of pulses taken by the axis controller. If the checksum is not corrected then the operation is stopped and this message is displayed.

13 MOTOR OVERLOAD. FOLLOWING ERROR GREATER THAN THE OVER LOAD FACTOR– not used

14 MOTOR OVERLOAD. MISSING 0 OR 1 COMMAND

This message appears if an axis move command is not initialized properly, usually due to a hardware-related problem.

15 TIME OUT ON RIGID TAP PRE-CYCLE TEST

If the spindle rotation is interrupted or the spindle magnet is not detected for a length of time during the rigid tap pre-cycle test, then this operation is stopped and this error message is displayed.

16 TIME OUT ON RESOLVER RESPONSE

This message appears any time the resolver "zero-crossing" pulse is not detected within the allowable time (4-10 msec). This pulse is hardware-generated every 1 msec.

17 BAD READING ON RESOLVER PORT

This message appears if the value of the resolver "counts", read from the resolver port when the "zero-crossing" pulse is detected, is too large, indicating possible failure of the resolver cables, 1010-4 card, or the resolver itself. Also caused by severe motor vibrations.

18 SERVO AMPLIFIER FAULT LINE DOWN

This message appears if the axis card no longer detects the fault line signal from the amplifier, or the signal strength drops below 10V, indicating a possible amplifier fault.

19 STACK OVERFLOW. OVERLOADED WITH STEP COMMAND

This message appears if the stack on the axis card (used to store CPU commands until they have been serviced) overflows.

20 MOVE TRANSFER FAULT. INCOMPLETE DATA FOR MOVE COMMAND

This message appears when an axis move command is improperly transferred to the axis card, as indicated by a checksum comparison between what the CPU sent and what the axis card has received.

21 SPURIOUS INTERRUPTS. NOT SERVICEABLE

This error appears if the interrupt currently being processed is not an expected interrupt, and thus cannot be serviced, indicating possible failure of the 1010-4, 1030, or main CPU.

22 BAD SCALE READING

This error appears if the feedback from the scale port is outside allowable limits, indicating possible failure of the EXE box, scales, cables, or 1010-4 card. Also caused by severe motor vibrations.

23 MOTOR OVERLOAD. ERROR > OVERLOAD FACTOR IN STANDBY MODE

This message appears (in stand-by mode) when the following error exceeds the user-defined overload factor, which sets, in motor turns, the maximum following error for the axis operation. MESSAGES 23, 24, 25, and 26 ARE NO LONGER RELATED TO ERROR 13.

24 MOTOR OVERLOAD. ERROR > OVERLOAD FACTOR IN POINT TO POINT MODE

See ERROR 23

25 MOTOR OVERLOAD. ERROR > OVERLOAD FACTOR IN CONTOURING MODE

See ERROR 23

26 MOTOR OVERLOAD. ERROR > OVERLOAD FACTOR IN JOB MODE

See ERROR 23

27 TIME OUT ON RETURN TO MAGNET

During rigid tapping at completion of each tap cycle, spindle magnet reorientation check is required within 6 seconds or this message is displayed.

28 TIME OUT. NOT DETECTING THE LAST MAGNET HENCE NO CALIBRATION

This message appears if the spindle controller could not detect the magnet within 10 seconds, either during spindle orientation or on the last rotation during rigid tap pre-cycle.

29 RIGID TAP PRE-CYCLE ENCODER COUNT PROBLEM. TOO MANY COUNTS

See ERROR 7

30 SURVEY TABLE CLEARED DUE TO BAD SURVEY

A checksum is run on the survey table during cold start. If the checksum is bad then the table is cleared and this message is displayed.

31 TIME OUT ON ORIENTATION

If the spindle magnet does not align within 10 seconds of an orient spindle then this error message is displayed.

32 SPINDLE WILL NOT STOP. CHECK INVERTER ZERO SPEED

If the spindle does not stop in 3 seconds from entering a spindle stop command then this error message is displayed.

33 ENCODER CHANNELS ARE REVERSED (RIGID TAP)

This message will display if the encoder connection for spindle motor is reversed at spindle control card.