

1336 TROUBLESHOOTING GUIDE

FAULT CODES: Up to 37 fault codes may be displayed for the 1336. In each instance, a Fault may be reset by cycling power to the drive, or if Parameter 39 is set to 1, by pressing the Stop pushbutton. Resetting a Fault will not correct the problem. Corrective action must be taken prior to resetting the fault.

2-Position Mode Display Area



The two character PR display is not used as part of the fault code display. However, it may be used to indicate the loss of enable.

3-Position Fault Code Display Area

Freq *PR*

F01

The three character Freq display is used to indicate the fault code acronym. The fault acronym will be displayed until a drive reset is initiated.

Special Display- Enable Fault

Freq *PR*

— — — — —

The enable interlock is open. The enable interlock is:
Jumper 7-8 of J9 on the Main Control Board if interface option L1, L2, L3 is not installed. Terminal 30 of TB3 if interface option L1, L2, L3 is installed.

Motor Stalled

Freq *PR*
 --
F 0 6

Indicates that the drive has not been able to change output frequency for:
4 seconds for drives with Base Driver/Power Supply Board Firmware Versions 1.11, 1.13, 1.14 or
2.01. 10 seconds for drives with Base Driver/Power Supply Board Firmware Versions 1.01.

Conditions sensed are:

Excessive Current :

The motor is drawing excessive current (over 150%). The motor load is excessive and will not allow the drive to accelerate to set speed. A longer accel time or a reduced load may be required.

Bus Voltage Rise The bus voltage has risen to 110% of nominal bus voltage. This indicates a regeneration condition that will not let the drive decelerate to a lower frequency. A longer decel time or dynamic braking may be required.

Motor Overload

Freq *PR*
 --
F 0 7

The drive output current has exceeded the % of current set by Overload Current Parameter 38 for some period of time. The time is dependent on the level of current above the set value. The fastest time is 150% of Parameter 38 for one minute. This indicates an excessive motor load that must be reduced to the value programmed by Parameter 38.

Over Temperature

Freq *PR*
 --
F 0 8

Drive logic has detected an open temperature switch on the drive heatsink indicating that drive heatsink temperature is above 100°C. Check for blocked or dirty heatsink fins. Check that the ambient temperature has not exceeded 40 degrees C. For B100 or C010 units and larger units, check the operation of the drive cooling fan.

Open Potentiometer

<i>Freq</i>	<i>PR</i>
<i>F 09</i>	--

An open potentiometer circuit has been detected. Check the external potentiometer circuit at TB2, Terminals 1, 2 and 3 for an open circuit.

Serial Error

<i>Freq</i>	<i>PR</i>
<i>F 1 0</i>	--

This Fault indicates a break in communications between the drive and the 1336-MOD-G2 Remote I/O Board. This fault is sensed only after the drive is powered up and has sensed the presence of the Remote I/O Board by establishing a communications link to the board.

Operator Error

<i>Freq</i>	<i>PR</i>
<i>F 1 1</i>	--

Logic has detected incompatible parameters. Verify the drive reset sequence after exiting the programming mode when using the Local Programming and Display Panel.

Check Parameter 14. If set to 0, the stop input must be cycled once to generate code F01, then again after power-on-reset is complete to reset the drive. Verify that Parameters 10 and 42 are compatible with Parameter 41.

Parameter 10, Stop Select, and Parameter 42, Slip Compensation, must be compatible with Parameter 41, Motor Type, as detailed in the 1336 Programming Manual.

Overcurrent

<i>Freq</i>	<i>PR</i>
<i>F 12</i>	--

The drive has exceeded 180% of its current rating. Check for a short circuit at the drive output or excessive load conditions at the motor.

Ground Fault

<i>Freq</i>	<i>PR</i>
<i>F 13</i>	--

A current path to earth ground has been detected at one or more of the drive output terminals. Check the motor and external wiring to the drive output terminals for a grounded condition.

U VW Output Short

<i>Freq</i>	<i>PR</i>
<i>F 14</i>	--

A short circuit has been detected between two or more of the drive output terminals. Check the motor and external wiring to the drive output terminals for a shorted condition.

V UW Output Short

<i>Freq</i>	<i>PR</i>
<i>F 15</i>	--

A short circuit has been detected between two or more of the drive output terminals. Check the motor and external wiring to the drive output terminals for a shorted condition.

W UV Output Short

<i>Freq</i>	<i>PR</i>
<i>F 16</i>	--

A short circuit has been detected between two or more of the drive output terminals. Check the motor and external wiring to the drive output terminals for a shorted condition.

Negative Phase Transistor Short

<i>Freq</i>	<i>PR</i>
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F 17

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A shorted drive transistor has been detected. Check drive output transistors, both upper and lower portions of each transistor, for a shorted condition.

**Positive Phase
Transistor Short**

Freq *PR*

F18

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A shorted drive transistor has been detected. Check drive output transistors, both upper and lower portions of each transistor, for a shorted condition.

Precharge Open

Freq *PR*

F 19

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An error has been detected in the precharge circuit that does not allow precharge to occur. Check the precharge circuit.

Clear Jammed

Freq *PR*

F 20

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A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

PWM Check

Freq *PR*

F 21

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A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Drive Reset	<i>Freq</i>	<i>PR</i>
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	<i>F 22</i>	

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Loop Overrun	<i>Freq</i>	<i>PR</i>
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	<i>F 23</i>	

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Motor Mode	<i>Freq</i>	<i>PR</i>
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	<i>F 24</i>	

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Overspeed	<i>Freq</i>	<i>PR</i>
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	<i>F 25</i>	

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Power Mode	<i>Freq</i>	<i>PR</i>
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	<i>F 26</i>	

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

PWM Loss *Freq* *PR*

F 27 --

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Slave Timeout *Freq* *PR*

F 28 --

A fault has been detected originating from the Base Driver/Power Supply Board. Check all wire and cable connections to the Base Driver/Power Supply Board. Replace the Base Driver/Power Supply Board if required.

Hertz Error *Freq* *PR*

F 29 --

The drive cannot find a valid frequency. Check the combinations of skip frequencies to see if they completely overlap the minimum to maximum frequency range. Check that Minimum Frequency, Parameter 16, is less than Maximum Frequency, Parameter 19.

Hertz Select *Freq* *PR*

F 30 --

A fault has been detected originating from the Main Control Board. Check all wire and cable connections to the Main Control Board. **Replace the** Main Control Board if required.

Master Timeout *Freq* *PR*

F 31 --

A communication fault has been detected between the Main Control Board and the Base Driver/Power Supply Board. Check the cable connections between the boards. Replace the Main Control Board or Base Driver/Power Supply Board if required.

Diagnostic Current Limit*Freq**PR*

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F 36

The drive has reached 150% of rated output current--The drive's hardware current limit while Parameter 82 (Amp Limit Fault Enable) was on.

P-Jump Error**Freq****PR**

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F 37

An attempt has been made to enable both P-Jump and Slip Compensation. Parameters 78-80 are used to program a custom drive output waveform (a P-jump waveform) for specific applications. Parameter 78 (Traverse Period) will enable Parameters 79 and 80 if set to a value other than 0.0. Parameter 42 is used to program slip compensation. Slip compensation is active whenever Parameter 42 is set to a value other than 0.0 and cannot be used if a P-jump waveform has been programmed.