



Fault Detection and Correction

How to read Error Numbers from the Machine:

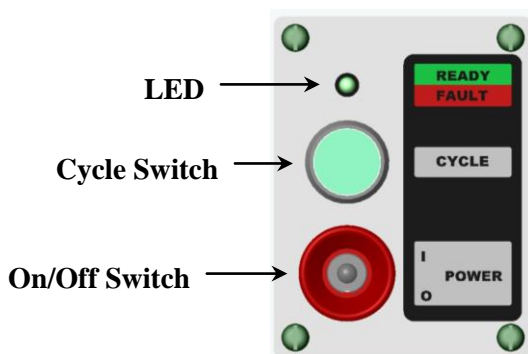
When an error occurs during the sharpening process the Bettcher® AutoEdge will abort the cycle and lift the grinding wheel off of the blade. It will then make a “chirp” sound and display a red blinking light. The actual event that caused the error is stored in the machine as a set of two numbers. The first is called the “Group Number” and identifies the general category that the error falls into. The second is called the “Item Number” and identifies the specific event that caused the error condition.

To read the “Group Number” just **press** the Cycle switch. The LED light will blink **Green**, accompanied by short beeps. The number of “green-beeps” is the Group Number. It will be from 1 to 6. If you are not sure you got the count right, just **press** the Cycle switch again. The error numbers are retained until the error is cleared.

To read the “Item Number” you must **press and hold** the Cycle switch until the LED light turns amber (as you hold the Cycle switch, the LED will change from off...to green...to red...to amber, and each change will also have a short beep). Release the Cycle switch while the LED is amber. The LED light will then blink **Red** accompanied by short beeps. The number of “red-beeps” is the Item Number. It will be from 1 to 4.

To identify the problem that caused the error, go to the **Fault Detection Guide** below. The errors are arranged by Group Number and Item Number and are described along with probable cause(s) and corrective action(s) recommended.

To clear the error you must **press and hold** the Cycle switch in until the LED light turns green (at the next beep), then release the cycle switch. The Bettcher® AutoEdge will attempt to reset itself, move the grinding platform to its fully up position and sit idle ready to sharpen a blade. Note that some types of errors (like “**FEED CANT FIND HOME**”) may cause the machine to fall right back into that same error until the cause is corrected. A second way to clear an error is to turn the Bettcher® AutoEdge off at the Power On/Off switch for a moment, then turn it back on. Once the error is cleared it is inaccessible.





Fault Detection and Correction (Continued)

Fault Detection Guide

Group 1: No Blade Contact: The grinder feed went all the way down, but the grinder wheel did not reach the blade.

| ERROR NUMBER | PROBABLE CAUSE | REMEDY |
|---------------------|---|---|
| 1.1 No Blade Found | Auto arm not set at correct position. | Refer to Positioning the Grinder Motor in the Instructions for Operation section. |
| | Obstruction preventing platform movement. | Remove obstruction. |
| | Bad wire connection at feed motor plug. | Check connections at (P3). Check for broken wires at arm pivot. |
| | Feed mechanism failure. | Consult with Bettcher Service Department. |

Group 2: Blade or Grinding Problems:

| ERROR NUMBER | PROBABLE CAUSE | REMEDY |
|------------------------|----------------------------------|---|
| 2.1 Warped Blade | Blade is installed improperly. | Reinstall blade. Ensure all surfaces are clean. |
| 2.2 First Grind Stage | Bad or worn out blade. | Discard blade. |
| 2.3 Second Grind Stage | Grinder wheel is worn. | Clean and/or replace the grinding wheel. |
| 2.4 Third Grind Stage | Blade is installed improperly. | Reinstall blade. Ensure all surfaces are clean. |
| | Bad or worn out blade. | Discard blade. |
| | Problem at the controller board. | Check that all wires and plugs are secure. Check that the micro-controller is plugged in fully and pins are not bent or broken. |
| | Feed mechanism is worn out. | Replace auto arm assembly. |



Fault Detection and Correction (Continued)

Fault Detection Guide

Group 3: Grinder Motor Current.

| ERROR NUMBER | PROBABLE CAUSE | REMEDY |
|------------------------|-----------------------|---|
| 3.1 High Motor Current | Motor bearing bad. | Replace grinder motor. |
| 3.2 Weak Motor | Worn brushes. | Replace grinder motor. |
| | Bad wire connection. | Check that all motor wire connections are secure. |

Group 4: Grinder Motor Failure.

| ERROR NUMBER | PROBABLE CAUSE | REMEDY |
|--|--------------------------------|--|
| 4.1 Shorted Motor; Electrical short in the motor circuit | Bad wire connection. | Check that all motor wire connections are secure. Check for broken or worn wire insulation. Replace or repair as needed. |
| 4.2 Motor Overload | Blade is installed improperly. | Reinstall blade. Ensure all surfaces are clean. |
| | Grinding wheel is worn. | Clean and/or replace the grinding wheel. |
| | Motor bearing is bad. | Replace grinder motor. |
| | Feed mechanism is worn out. | Replace auto arm assembly |
| 4.3 Open Motor | Worn brushes. | Replace grinder motor. |
| | Bad wire connection. | Check that all motor wire connections are secure. |