



Error Messages and Trouble Shooting

When an error message appears on the display the motor will stop automatically to protect the electronics of the motor and most importantly, to protect the motor circuit board.

If an error message occurs be sure to repeat the action that caused the error message. Many times if you reactivate the treadle and start the motor again, the error message will clear indicating this was a False error message requiring no further action.

There are two types of error messages:

1) False error messages

2) True error messages if the error is repeated.

False error messages are common in areas where the electricity being supplied is unstable due to fluctuations, interference and spikes in electrical power supply to the motor. If these False error messages happen quite often it is recommended to contact a local electrician to see if the power supplied to the motor can be filtered. Doing so will eliminate False error messages.

True error messages do occur occasionally indicating a problem with an electrical component, the motor circuit board and on a very rare occasion, a faulty motor.

E1: Motor Control Error

1. Most E1 error messages occur because of unstable power being supplied to the motor.

♦ Release the pedal when the E1 error message occurs, then push down again to activate the motor. If the E1 error message no longer appears this was a False error due to unstable power.

2. If the E1 error message continues to appear:

♦ Replace the motor circuit board with a new motor circuit board. Once the motor circuit board is replaced the E1 error message should no longer display.

3. If the E1 error message still appears after changing the motor circuit board, this is a very rare occurrence due to a faulty motor.

E2: Motor Phase Signal Error (Hall Sensor Error)

1. It is possible to receive an E2 error message from unstable power which means it is a False error and the problem should resolve on its own.

2. Check the Hall sensor signal connector and socket (HER indicated) on the circuit board (Five Pin connector / socket), to make sure the 5 wires are connected to the board properly.

3. If the E2 error message continues to appear the motor is faulty and will not function properly. There is no repair possible and the motor must be replaced.

E3: Motor Protected Against Over Current

1. It is possible to receive an E3 error message from unstable power which means it is a False error and the problem should resolve on its own.

2. Usually, the E3 error message occurs when the motor rotation is stuck by something or blocked by a heavy load when sewing. When this happens, more and more electrical current is driven to the motor until the electrical current exceeds the amount allowed by the motor. If this happens, the E3 error message is displayed and the motor is stopped to protect the motor from overload or burn out.

♦ Remove the obstruction that is prohibiting rotation and the E3 error message should no longer display.

3. If nothing is blocking the sewing process and the motor can turn freely and the E3 error message is displayed, it is likely a faulty motor circuit board.

♦ Replace the motor circuit board and the E3 error message should no longer display.

E5: Display Module and Control Module Communications Error

1. It is possible to receive an E5 error message from unstable power which means it is a False error and the problem should resolve on its own.

2. E5 error message indicates a faulty LED display.

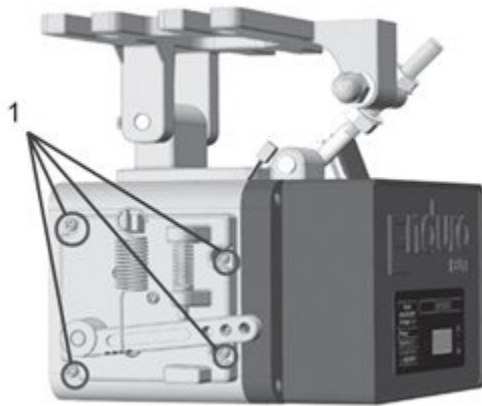
♦ Check connections on the LED display module to be sure it is securely fastened to the motor circuit board. If the E5 error message no longer displays, then the connection to the motor circuit board was loose.

♦ If the E5 error message continues to appear then replace the LED display module (No. SM109 for 4 digit readout) and the E5

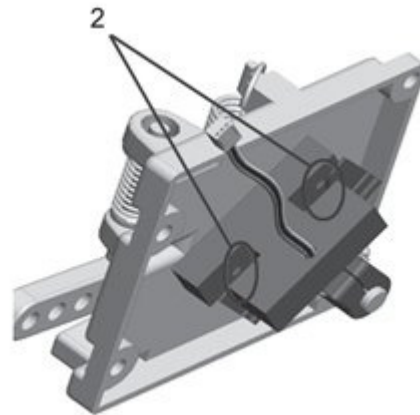
E6: Pedal Position Sensor Error

1. It is possible to receive an E6 error message from unstable power which means it is a False error and the problem should resolve on its own.
2. While the motor is on and the pedal position signal received by the motor circuit board is abnormal, it is possible to get the E6 error message. This is most common because of a faulty treadle sensor, misalignment of the sensor versus blocker, or improper operation such as the treadle is already pressed down before the motor is turned on.
 - ♦ Check the alignment of the sensor versus blocker on the treadle sensor plate. Adjust the position of the blocker if necessary (see diagram of Proper Replacement of Treadle Sensor).
 - ♦ Check the snap on connector of the treadle sensor and be sure it is securely attached. If the E6 error message no longer appears the connector was loose.
 - ♦ If the E6 error message continues to appear, then replace the treadle sensor (Dual channel sensor for positioner motors No. SM76), and the E6 error message should no longer display.
 - ♦ When replacing the treadle sensor be sure it is properly aligned. If the treadle sensor is not aligned properly you may have a problem with the motor continuing to run after releasing the treadle (see diagram of Proper Replacement of Treadle Sensor).
3. If after replacing the treadle sensor and the E6 error message continues to appear the motor circuit board is likely faulty.
 - ♦ Replace the motor circuit board and the E6 error message should no longer display.

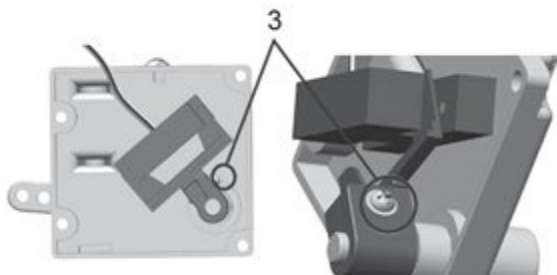
Treadle Sensor Installation Description with Diagrams (Proper Replacement of Treadle Sensor)



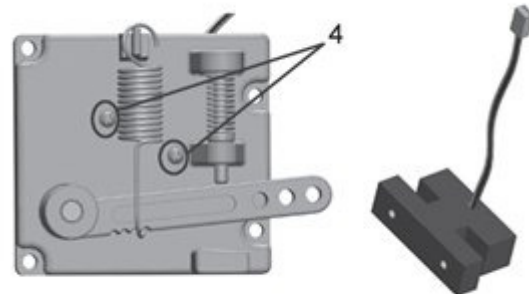
1. Remove the 4 screws on the treadle sensor plate.



2. Check the channel sensor. It should have a red light when the cable is connected to the motor circuit board and the motor is powered on. Check the cable connection if there is no red light.



3. Check the relative position of the sensor and light blocker. If the light blocker is in a position that has blocked the light when the treadle is not pushed down, the motor will rotate. Adjust the blocker position if necessary by loosening the screw and tightening it again.



4. Change the sensor if necessary by unscrewing and reinstalling the two screws. Then connect the cable to the motor circuit board. The red light should appear when the motor is powered on indicating it is working.