

## Most Common Error Codes Guide

### Embedded Touch Screens

This guide contains troubleshooting for the most common error codes that may occur on an embedded touch screen.

## Error Codes & Definitions

### Error Code 6

This is reported when the FitCPU does not receive a response from the CCB during boot-up.

### Error Code 14

This is reported when the display does not receive a response from the CCB during boot-up.

### Error Code 21

This is reported when the display times out waiting from a command from the FitCPU during boot-up.

### Error Code 38

This occurs when the incline calibration values are out of range.

### Error Code 40

This occurs when the speed sensor signal has been lost. In many cases the MCB has triggered a DFR code related to speed.

### Error Code 42

This occurs when the MCB has indicated that the incline is stuck.

## Troubleshooting

The following troubleshooting documents are in this guide:

- Error Code 6
- Error Code 14
- Error Code 21
- Error Code 38
- Error Code 42

## Error Code: 6

### Embedded Touch Screen

Error Code 6 is reported when the FitCPU does not receive a query id from the Translator Board when the treadmill is powering up.

#### Possible Causes:

- Loose/disconnected communication cable between the FitCPU and Translator Board (treadmills only).
- Faulty communication cable between the FitCPU and Translator Board (treadmills only).
- Faulty Translator Board (treadmills only).
- LCB software predates the embedded touch screen (old software).

#### Recycle Power

1. Turn the treadmill off by the on/off switch. Wait 30 seconds and turn the treadmill back on.
2. Wait for the embedded screen to completely reboot. If the error code 6 continues, check connections.

#### Check Connections

1. Turn the treadmill off by the on/off switch.
2. Ensure the communication cable between the Translator Board and FitCPU are firmly connected.
3. Turn the treadmill back on. If the Error Code 6 continues to appear test communication cable.

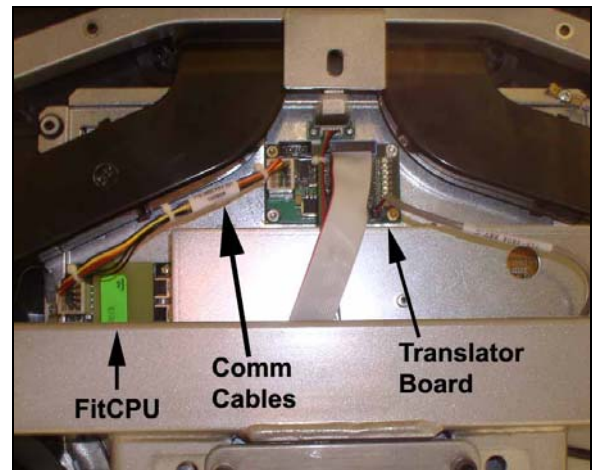


Fig. 1

#### Test Communication Cable

1. Using a multi-meter, verify that there is continuity between each wire on the communication cable. Check continuity between all wires.
2. If there is no continuity between any of the wires, replace the communication cable. If the communication cables test good, replace the Translator Board.

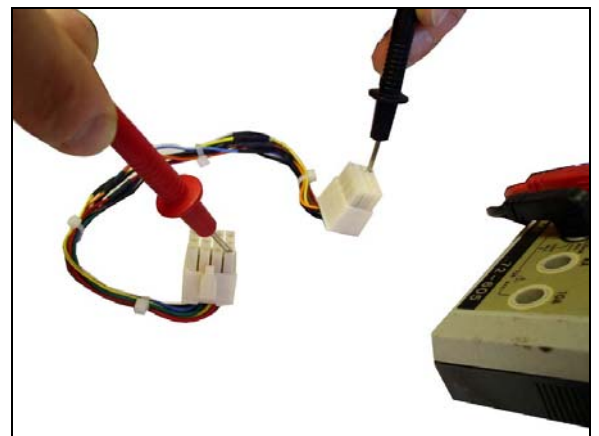


Fig. 2

## LCB Software

1. Remove the LCB from the unit.
2. There is a label on each LCB that identifies what version software it contains.
3. The software must be as least version 1.57 or higher. If the software is before 1.57, replace the LCB.



Fig. 3

## Error Code: 14

### Embedded Screen Products

Error Code 14 is reported when the display does not receive a query id response from the CCB during boot up.

Possible Causes:

- Loose/disconnected communication cable between the Display and CCB.
- Faulty communication cable between the Display and CCB.
- Faulty CCB.

### Check Connections

1. Turn the unit off.
2. Ensure the communication cable (715-3772) between the Display and CCB are firmly connected.
  - a. COMM (JP2) connector on the bottom of the display.
  - b. Power cable is plugged into the JP6 on the CCB.
  - c. COMM cable is plugged into JP4 on the CCB.
3. Turn the unit back on. If the Error Code 14 continues to appear, test the communication cable.

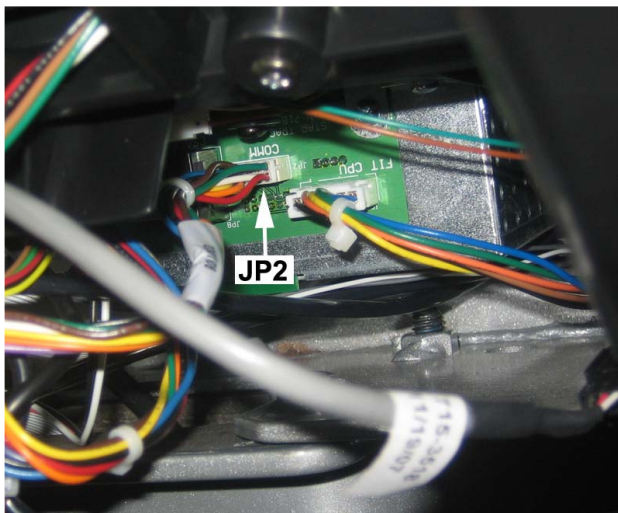


Fig. 1

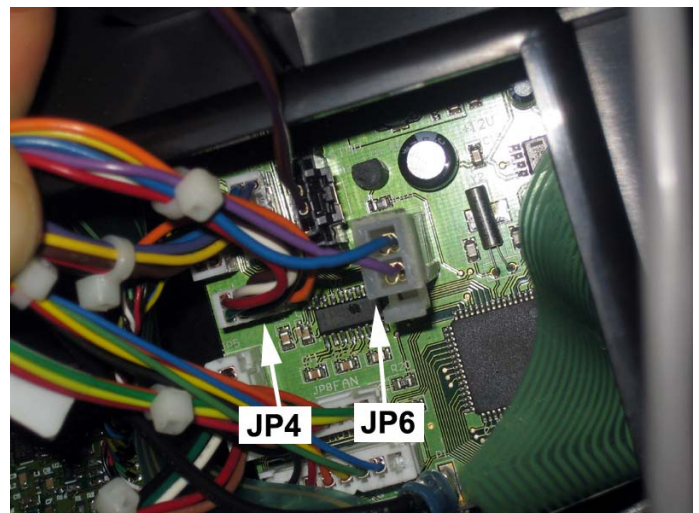


Fig. 2

## Test Communication Cable

1. Using a multi-meter, verify that there is continuity between each wire on the communication cable (715-3772). Check continuity between all wires.
2. If there is no continuity between any of the wires, replace the communication cable. If the communication cables test good, replace the CCB.

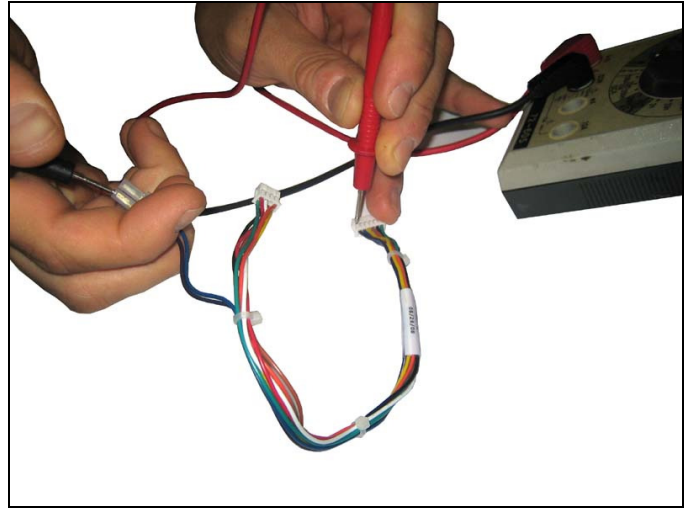


Fig. 3



## Error Code: 21

### E-TRe and E-TRxe Treadmills

Error Code 21 is reported when the display times out waiting for a query id command from the FitCPU during boot up.

#### Possible Causes:

- Loose/disconnected communication cables between:
  - MCB and Translator Board.
  - Translator Board and FitCPU
  - FitCPU and Display.
- Faulty communication cable between the Translator Board and FitCPU.
- Faulty communication cable between the FitCPU and Display.

#### Recycle Power

1. Turn the treadmill off by the on/off switch. Wait 30 seconds and turn the treadmill back on.
2. Wait for the embedded screen to completely reboot. If the error code 21 continues, check connections.

#### Check Connections

1. Check the Translator Board (Fig. 1). Verify that some of the LED's on the board are lit.
  - a. If all LED's are off, ensure the ribbon cable is firmly connected at the Translator Board (Fig. 1) and at the MCB (Fig. 2). Check the ribbon cable for pinches or tears. Replace if any are found.
  - b. If some of the LED's are on, go to step 2.

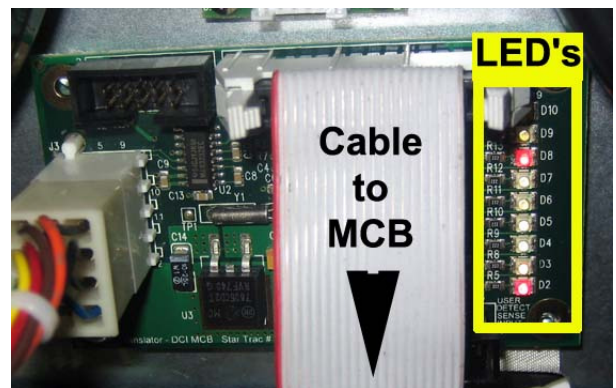


Fig. 1



Fig. 2

2. Check the FitCPU. Verify that some of the LED's on the board are lit (Fig. 3).
  - a. If all LED's are off, ensure the comm. cable (715-3800) between the Translator Board and FitCPU is firmly connected (Fig. 4). If FitCPU LED's do not light up, replace comm. cable (715-3800).
  - b. If some of the LED's are on, go to step 3.

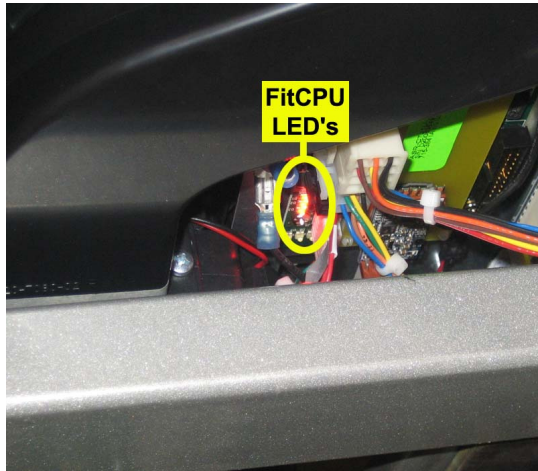


Fig. 3

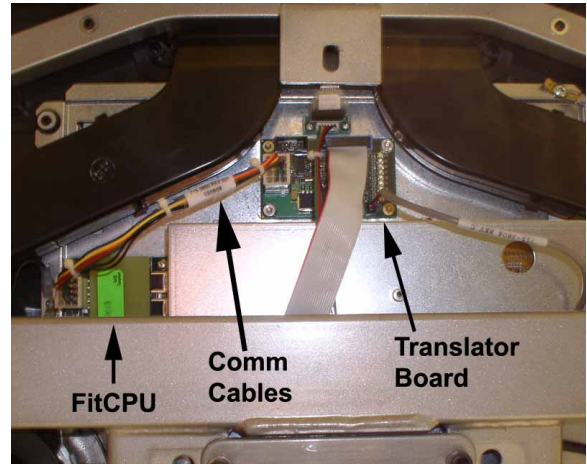


Fig. 4

3. Check the display comm. cable (715-3783) connections between the FitCPU (J3) and the Embedded Screen (JP6).
  - a. Disconnect and reconnect to ensure there is a firm connection. *Note: The picture of Fig. 5 is of a screen which is not mounted on a treadmill.*
4. Recycle power again. If the Error Code: 21 continues to appear, replace comm. cable (715-3783).

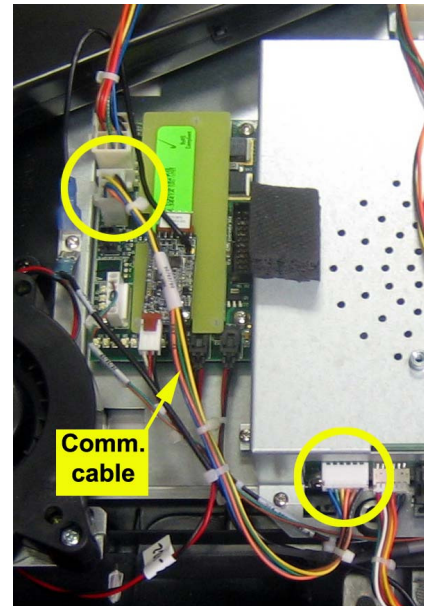


Fig. 5

## Error Code 38

### E-TRe and E-TRxe

An Error Code 38 is an elevation range error. If the incline number, during elevation calibration, goes above 1024 at 0% or below 25 at max incline, an EC 38 will be displayed. When the treadmill is rebooted, it will boot right into EC 38 and the Service Menu cannot be accessed. Below are instructions for resolving this issue.

**Tools Required:**

- Phillips screwdriver
- Multi-meter
- FISP Uploader (with appropriate version of Translator Board software)

1. Turn off the treadmill and remove the motor shroud so the elevation motor is visible (Fig. 1)



Fig. 1

2. Remove the screw (Fig. 2) holding the cap to the motor and remove the cap to expose the elevation potentiometer (pot) (Fig. 3).



Fig. 2

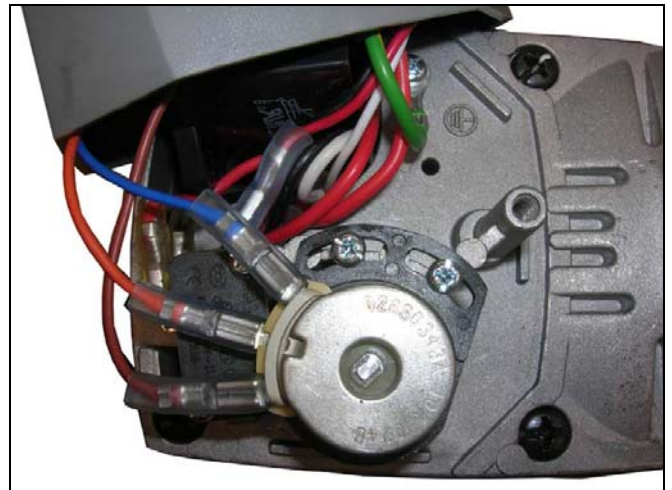


Fig. 3



3. Unplug the elevation motor from the Motor Control Board (MCB). Set the multi-meter to measure ohms. Insert the multi-meter leads: one in the orange wire, one in the blue wire (Fig. 4).

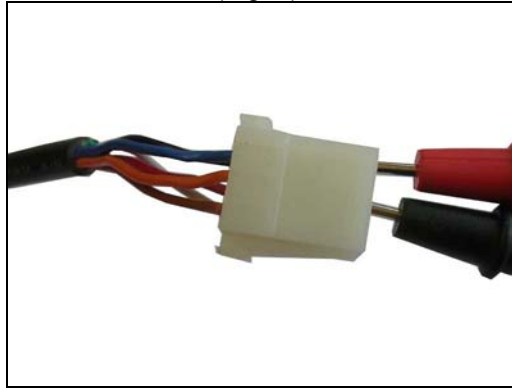


Fig. 4

4. Loosen the two screws holding the elevation pot.

- If the unit is at max elevation, turn the pot counter-clockwise until the screws are completely to the right side of the pot slots (Fig. 5). Tighten the screws.
- If the unit is stuck at 0% elevation, turn the pot clockwise until the screw are completely to the left side of the pot slots (Fig. 6). Tighten the screws.

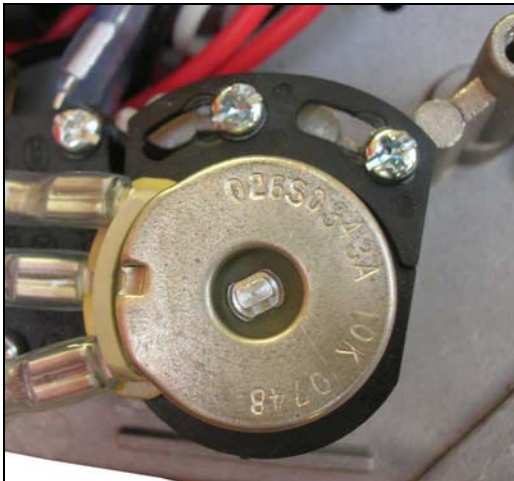


Fig 5

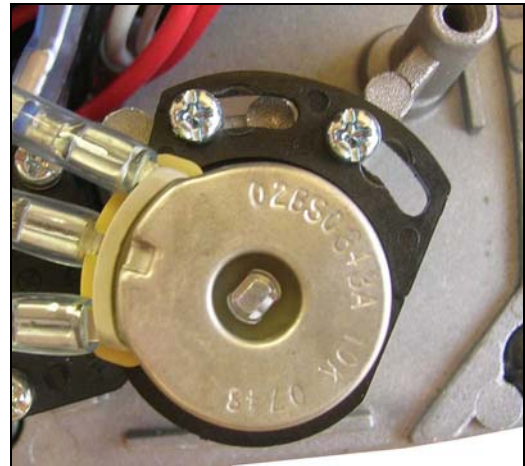


Fig 6

5. Check the multi-meter.

- If the unit is at the max elevation, the value must be between 500-600 ohms.
- If the unit is at 0%, the value must be between 9.4 – 9.5 k ohms.

If the pot is turned all the way to the right or left and the ohm values are not within the necessary range, go to Step 6. If the values are within the range, go to Step 8.

## Troubleshooting

6. Remove both screws holding the pot in place. Gently wiggle the pot to pull it out (Fig. 7). Once the pot is pulled out, gently turn the center shaft of the pot to get the desired ohm value (Fig. 8).



Fig. 7



Fig. 8

7. Put the pot back in the motor. Be careful to not twist it. Once the pot is in place, verify that the ohm value is still in the desired range. Install the two screws and tighten the pot in place (Fig. 9).

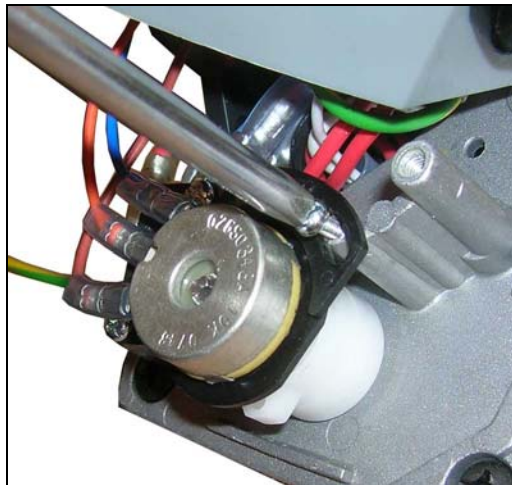


Fig. 9

8. Turn the treadmill on if the Error Code 38 does not appear, turn the treadmill on and go to step 9. If the Error Code 38 continues, use the FISP Uploader to reinstall the translator board software (Fig. 10)

**Note: Ensure you are installing the proper version of software for that model (see Service Bulletin: 637-1343). Installing the wrong version will cause the speed calculation to be incorrect.**

Once the translator board software has been uploaded, reboot the treadmill.

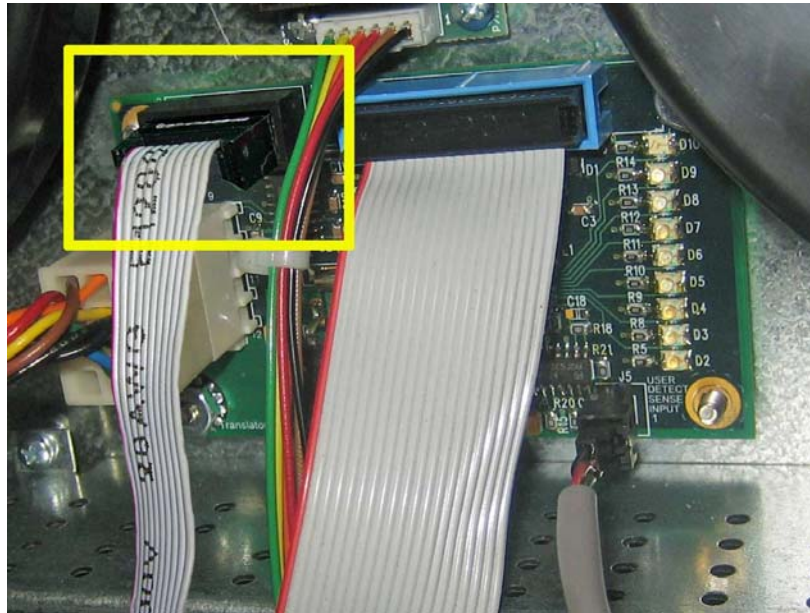


Fig. 10

9. Once the treadmill has booted up, enter the "Service Menu" to run the elevation calibration program. Once complete, reinstall the elevation motor cap and motor shroud. The unit is now operational.

## Error Code: 42 - Basic Troubleshooting

### E-TRex and E-TRxe

An Error Code (EC) 42 is an “Elevation Stall” meaning the elevation has been commanded to move but there is no sensed movement. This typically happens when the elevation system has not been calibrated or after the translator board has been flashed (software update).

To resolve this, the “Elevation Calibration” program must be performed.

1. Reboot the machine to clear the EC 42. Once the first splash screen is shown (Fig.1), press the following three keys: channel ‘+’, volume ‘+’ and ‘3’.

*Note: There is 4 second window to enter the “Service Menu” once the first splash screen has been displayed before it displays EC 42 again.*

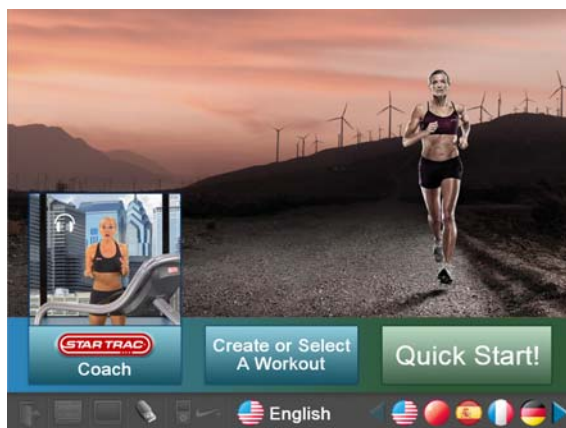


Fig. 1

2. Once in the “Service Menu” press the ‘Calibration and Setup’ (Fig.2). The display will ask for a code which is ‘2 1 8’, then press ‘OK’ on the screen (Fig. 3). Once in “Calibration and Setup”, press ‘Incline Calibration’ (Fig. 4)



Fig. 2



Fig. 3





Fig. 4

2. Press the 'Start' button to run the elevation calibration program (Fig. 5). Numbers will show on the "Incline Counts". The numbers will decrease while the unit elevates. When done, the Elevation Status will read "Calibration Completed" (Fig. 6).

## DO NOT STAND ON THE TREADMILL DURING THE CALIBRATION PROCESS

*Note: If the unit stops at the max elevation but "Calibration Completed" does not show, press 'Stop' and then restart the calibration. When the calibration is done, the elevation will not come down until you exit the "Service Menu".*

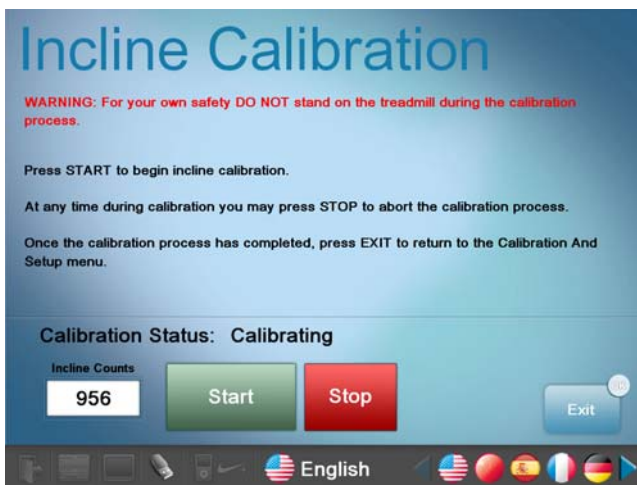


Fig. 5

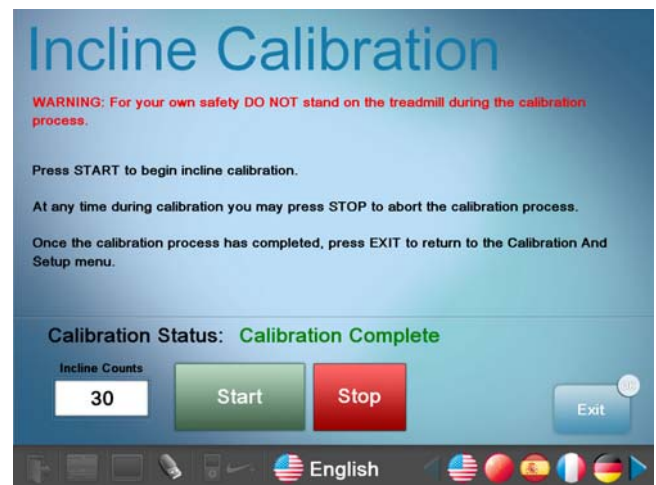


Fig. 6

3. Once the calibration has completed, exit to the main screen and test the unit. Verify that the unit elevates to the max position and comes back down to 0%