



Troubleshooting Using Boot Diagnostics

TigerStop Line

(TigerStop, TigerCrossCut, TigerFence, TigerRack, TigerTurbo, HeavyDuty 2)

Version 5.xx

TigerStop Boot Diagnostics allows us to test all of TigerStops sub systems. Use the instructions and the Version 5 Boot Diagnostics Worksheet (p#) to troubleshoot your TigerStop. Its important to note that Boot Diagnostics will not tell you what the problem is. It will show you what sub system your problem is in. The worksheet will give you more test procedures to run to find your issue.



1. Hold .
2. Power up while holding the button.
3. If done properly, you will see the boot diagnostics screen.

```
Encoder=      0
Motor   0 Max  0
G
CC= 24V      Wall=122V
```

Boot Diagnostics Screen Explained

```
Encoder=      0
Motor   0 Max  0
G
CC= 24V      Wall=122V
```

Line 1

Shows the encoder counts. Will count when TigerStop carriage moves. Counts positive when moving away and negative when moving towards the tool.

```
Encoder=      0
Motor   0 Max  0
G
CC= 24V      Wall=122V
```

Line 2

Shows the motor drive and max breakaway force. Shows as a positive number when motor is moving away and negative when motor is moving towards the tool.

```
Encoder=      0
Motor   0 Max  0
G
CC= 24V      Wall=122V
```



Line 3

Displays two letter sensor indicators. Also shows keypad button presses.

```
Encoder=      0
Motor   0 Max  0
G
CC= 24V      Wall=122V
```

Line 4

Shows power going to the controller. Also shows power coming from the wall to TigerStop amplifier.

4. Hold  for 20 seconds. If the motor moves, put a number 1 in the worksheet box labeled "Motor In". If the motor doesn't move, put a number 0 in the space.
5. Hold  for 20 seconds. If the motor moves, put a number 1 in the worksheet box labeled "Motor Out". If the motor doesn't move, put a number 0 in the space.
6. Pull the carriage, by hand, all the way to the TigerStop motor box. Once there, check the 3rd line of the screen. If it shows ME, put a number 1 in the worksheet box labeled "ME". If you get something other than ME or if ME was there before movement, put a 0 in the space.
7. Pull the carriage, by hand, all the way to the far end. Once there, check the 3rd line of the screen. If it shows IE, put a number 1 in the worksheet box labeled "IE". If you get something other than IE or if IE was there before movement, put a 0 in the space.
8. Look at the encoder number and write down what the number is. This number should count positive as you move the carriage out and should count negative as you move the carriage in. This number will show roughly 2000 counter per inch. If the encoder seems to work as per these guidelines, put a number 1 in the worksheet box labeled "ENC". If the encoder number doesn't work as specified, put a 0 in the space.
9. You will now have a fully filled out worksheet. Use the worksheet key to find the next diagnostic steps.

Boot Diagnostics Worksheet

Motor In	Motor Out	ENC	IE	ME		Result
					=	

Boot Diagnostics Worksheet Key


Motor In	Motor Out	Enc	IE	ME		Result
0	0	0	0	0		A
0	0	0	0	1		B
0	0	0	1	0		C
0	0	0	1	1		D
0	0	1	0	0		E
0	0	1	0	1		F
0	0	1	1	1		G
0	1	0	0	0		H
0	1	0	0	1		I
0	1	0	1	0		J

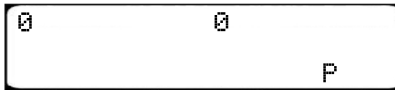
Motor In	Motor Out	Enc	IE	ME		Result
0	1	0	1	1		K
0	1	1	0	1		L
0	1	1	1	0		M
0	1	1	1	1		N
1	0	0	0	0		O
1	0	0	0	1		P
1	0	0	1	0		Q
1	0	0	1	1		R
1	0	1	0	0		S
1	0	1	0	1		T
1	0	1	1	0		U
1	0	1	1	1		V
1	1	0	0	0		W
1	1	0	0	1		X
1	1	0	1	0		Y
1	1	0	1	1		Z
1	1	1	0	0		AA
1	1	1	0	1		AB
1	1	1	1	0		AC
1	1	1	1	1		TigerStop Works - Settings Problem

Results

Results	Procedure to Follow
A-J, O-Q, S	Check your amplifier wiring
G,K,W,X,Y,Z,R,L,M,T,U,V,AA,AB,AC,N	Test the encoder , Test your motor , Run the I/O test.
L,M,T,U,W,X,Y,AA,AB,AC	Test the end sensors

Version 3.51 - 4.72

1. Power off TigerStop using the power button on the TigerStop motor box.
2. Hold .
3. Power up while holding the button.
4. If done properly, you will see the boot diagnostics screen.

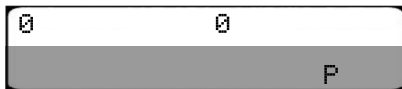


Boot Diagnostics Screen Explained





Line 1

Shows the encoder count (upper right corner) and the motor drive (middle).



Line 2

Shows the condition of the end sensors and shows any keypad button presses.

1. Hold  for 20 seconds. If the motor moves, put a number 1 in the worksheet box labeled "Motor In". If the motor doesn't move, put a number 0 in the space.
2. Hold  for 20 seconds. If the motor moves, put a number 1 in the worksheet box labeled "Motor Out". If the motor doesn't move, put a number 0 in the space.
3. Pull the carriage, by hand, all the way to the TigerStop motor box. Once there, check the 2nd line of the screen. If it shows ME, put a number 1 in the worksheet box labeled "ME". If you get something other than ME or if ME was there before movement, put a 0 in the space.
4. Pull the carriage, by hand, all the way to the far end. Once there, check the 2nd line of the screen. If it shows IE, put a number 1 in the worksheet box labeled "IE". If you get something other than IE or if IE was there before movement, put a 0 in the space.
5. Look at the encoder number and write down what the number is. This number should count positive as you move the carriage out and should count negative as you move the carriage in. This number will show roughly 2000 counter per inch. If the encoder seems to work as per these guidelines, put a number 1 in the worksheet box labeled "ENC". If the encoder number doesn't work as specified, put a 0 in the space.
6. You will now have a fully filled out worksheet. Use the worksheet key to find the next diagnostic steps.

Boot Diagnostics Worksheet

Motor In	Motor Out	ENC	IE	ME		Result
					=	

Boot Diagnostics Worksheet Key

Motor In	Motor Out	Enc	IE	ME		Result
0	0	0	0	0		A
0	0	0	0	1		B
0	0	0	1	0		C
0	0	0	1	1		D
0	0	1	0	0		E
0	0	1	0	1		F
0	0	1	1	1		G
0	1	0	0	0		H
0	1	0	0	1		I
0	1	0	1	0		J
0	1	0	1	1		K
0	1	1	0	1		L
0	1	1	1	0		M
0	1	1	1	1		N
1	0	0	0	0		O
1	0	0	0	1		P
1	0	0	1	0		Q
1	0	0	1	1		R
1	0	1	0	0		S
1	0	1	0	1		T
1	0	1	1	0		U
1	0	1	1	1		V
1	1	0	0	0		W
1	1	0	0	1		X
1	1	0	1	0		Y
1	1	0	1	1		Z
1	1	1	0	0		AA
1	1	1	0	1		AB
1	1	1	1	0		AC
1	1	1	1	1		TigerStop Works - Settings Problem

Results

Results	Procedure to Follow
A-J, O-Q, S	Check your amplifier wiring
G,K,W,X,Y,Z,R,L,M,T,U,V,AA,AB,AC,N	Test the encoder , Test your motor , Run the I/O test.
L,M,T,U,W,X,Y,AA,AB,AC	Test the end sensors