TigerStop® Manual *Menus & Short Cuts*

Motion Menu

EnterPw?∎	Calib/ ∎	Calib/ ∎	Calib/ ∎	Calib/ ∎
Autotest 0	Contrast 7	InAcel 75.000	InDcel 75.000	In Vel 25.000

EnterPw?∎	EnterPw?∎	EnterPw?∎	Calib/ ∎	EnterPw?∎
Lash 0.030	MaxLimit150.000	MinLimit0.000	Min-Max 0	MovDelay 0

Calib/ ∎	Calib/ ∎	Calib/ ∎	EnterPw?∎	Tiger H
OutAcel 75.000	OutDcel 75.000	OutVel 25.000	Scale 3.#####	Posit =current 1

Operation Menu

Calib/ ∎	EnterPw?∎	EnterPw?∎	Calib/ ∎	EnterPw?∎
Backoff 0.000	Ban #1 24.000	Ban #2 12.000	Bar Code 0	BFPen 1.000

EnterPw?∎	EnterPw?∎	EnterPw?∎	EnterPw?∎	EnterPw?∎
BF Score2.000	BF Time 2000	Clamp#1 0.000	Clamp#2 0.000	Clear 0.000

EnterPw?∎	EnterPw?∎	EnterPw?∎	Calib/ ∎	Calib/ ∎
Drop Box1.000	Feed Haz36.000	HandyOpt 0	HeadCut 0.000	LoadOff 0.000

Calib/ ∎	Calib/ ∎	EnterPw?∎	Calib/ ∎	Calib/ ∎
Max SPL 120.000	Outfeed 0.000	PET 0.000	Pnt Cut 0	PntName 0

Calib/ ∎	EnterPw?∎	Calib/ ∎	Calib/ ∎	EnterPw?∎
Pnt Type 0	RefOff 0.000	Ret-Off 0.000	Retract 0.000	Salvage 2.000

EnterPw?∎	Calib/ ∎	Calib/ ∎	Calib/ ∎	EnterPw?∎
Sys Mode 1	TailCut 0.000	TextDisp 0	TM Off 0.000	Waste 2.000

Calib/ ∎		**Service Menu**	1-BR 2-Lane 3-ZE	7-Zero Cutlist
Wastefst 0			4-IO 5-DBug 6-SN	8-CompCL

Timer Menu

Short Cut Keys

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Calib* Motion Menu

Version 4.2+

Concept ⟳ TigerStop movement is controlled by motion parameters stored and accessible at the Calib* Motion Menu. Parameters controlling TigerStop functions are at the Operation Menu.

How to Do It ⟳ To access the Motion Menu…

1. Press [Program List] [Space Calib] [✳].
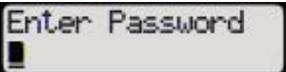
2. At [Enter Password ▮] enter your [PASSWORD] and press [=].

3. Scroll through the parameters by pressing [+] to go forward, or [−] to go backward. Some menu parameters are double password protected. [EnterPw?▮] indicates this.
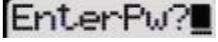
4. At a double password protected parameter, enter the password again and press [=]. This lets you change the parameter value.

5. After you change the parameter value, press [Program List] to save the change.

Continue ⟳ Motion Parameters

Motion Parameters

Concept Examples are shown with default values (unless noted otherwise), in the order they appear in the menu. All parameter values shown are in INCH mode.

Make sure you are not in METRIC mode before checking your machine's parameters!
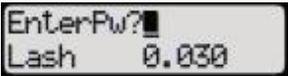
1. `EnterPw?` `Lash    0.030` Lash is simply defined as gearbox backlash. Lash default value is 0.030, but it can be increased to a maximum recommended value of 0.60. Increasing the value of the Lash parameter will SLOW DOWN TigerStop operation. LASH DEFAULT VALUE IS IN INCH MODE!

The METRIC Lash default value is 0.76. It can be increased to 15.24.

RIP FENCE Specific: TigerRip Fence Lash default value is 0.15. It should NOT be adjusted to a lower value.

The Rip Fence METRIC Lash default value is 3.81.

You should change the Lash parameter value…

- If the TigerStop is used in BOTH directions and cuts are made in random movements, the lash parameter should probably be INCREASED.
- If a belt has been slightly stretched, the lash parameter can be INCREASED to accommodate this and save you the expense of purchasing a new belt.

AUTOMATIC LASH RESET If a machine experiences a problem during the Home Routine, the lash parameter is automatically reset to 0 at Home Stage #1.
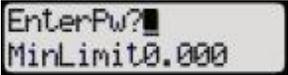
2. `EnterPw?` `MinLimit0.000` Min Limit is the minimum position closest to the zero point. This parameter should be changed ONLY by running the Min/Max routine, due to mechanical restrictions. (The value shown in the example is NOT the default.)
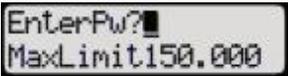
3. `EnterPw?` `MaxLimit150.000` Max Limit is the maximum position to which TigerStop can travel. This parameter should be changed ONLY by running the Min/Max routine, due to mechanical restrictions. (The value shown in the example is NOT the default.)

AUTOMATIC MIN LIMIT & MAXLIMIT RESET The MinLimit and MaxLimit values will change without manual intervention in the following conditions:

- If the Home routine or Min/Max routine encounters a problem, the Minlimit is changed to a value that is at least 1/2" greater than the MaxLimit, and the MaxLimit is changed to a value that is at least 1/2" less than the MinLimit.
- If factory settings are restored, MinLimit and MaxLimit return to their original values.

CAUTION! Manual change of the MinLimit and MaxLimit parameters is a safety hazard and a catastrophic failure can result if these are modified in any way.

4. `Calib/` `In Vel   25.000` In Vel (Inbound Velocity) is the speed (expressed in inches per second) that TigerStop moves towards the zero point.

RECOMMENDED VELOCITY: 25ips.

METRIC RECOMMENDED VELOCITY: 635mm/sec.

This should NEVER be increased.

Depending on the weight, material, and type of table being used this value can be decreased, and should be adjusted by inverse proportion to the weight of material being pushed.

RIP FENCE Specific:TigerRip Fence In Vel is set to 15ips or 5ips at the factory, depending on the model.

TigerRip Fence METRIC In Vel is set to 381mm/sec or 127mm/sec at the factory, depending on the model.

5. `Calib/` `InAcel   75.000` InAcel (Inbound Acceleration) is the acceleration (speeding up) of TigerStop towards the zero point expressed in ips² (inches per second per second).

RECOMMENDED ACCELERATION/DECELERATION: 75ips².

METRIC RECOMMENDED ACCELERATION/DECELERATION: 1905mm/sec².

This should NEVER be increased. Depending on the weight, material, and type of table being used, this value can be decreased.

RIP FENCE Specific: TigerRip Fence Acceleration and Deceleration parameters are set to 50ips² at the factory.

TigerRip Fence METRIC Acceleration and Deceleration parameters are set to 1270mm/sec² at the factory.
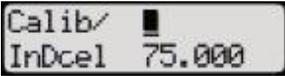
6. `Calib/` `InDcel   75.000` InDcel (Inbound Deceleration) is the deceleration (slowing down) of TigerStop towards the zero point expressed in ips².

If material being pushed is losing contact with the pusher, reduce the value of InDcel.

7. `Calib/` `OutVel   25.000` OutVel (Outbound Velocity) is the speed (expressed in inches or millimeters per second) that TigerStop moves away from the zero point (towards the far end).

8. `Calib/` `OutAcel  75.000` OutAcel (Outbound Acceleration) is the acceleration (speeding up) of TigerStop away from the zero point (expressed in inches or millimeters per second per second).

9. `Calib/` `OutDcel  75.000` OutDcel (Outbound Deceleration) is the deceleration (slowing down) of TigerStop away from the zero point expressed in ips².
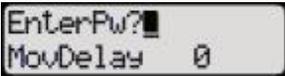
10. `EnterPw?` `MovDelay    0` MovDelay (Movement Delay) sets the time interval between the activation of the saw or other tool and TigerStop movement. This parameter is set in milliseconds (thousandths of a second), so a value of 500 equals 0.5 seconds.

TigerStop Menus

11. `Calib/ ▮`
    `Min-Max    0`   Min-Max is the parameter used to initiate the Min-Max routine. A parameter
    value of 0 is the default. Changing the value to 1 results in TigerStop running the Min-Max routine.
    For additional information, see Running Min-Max.

    The Min-Max Routine defines TigerStop's operating range (length of travel) by detecting the
    position of the end sensors at both extremities of the aluminum fence beam. Once completed, the
    minimum and maximum parameters are saved.

    Min-Max should be the ONLY method used to change the maximum or minimum parameters!
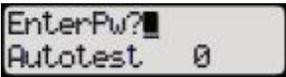
12. `EnterPw?▮`
    `Autotest    0`   Autotest is the parameter used to initiate the Auto-test routine. A value of 0
    in this parameter is the default. Changing the value to 1 results in TigerStop running the Auto-test
    routine. For additional information, see Set Up Auto-Test.

13. `EnterPw?▮`
    `Scale    3.#####`   Scale is the number of encoder impulses equal to 1/1000ths of an inch of
    movement. This parameter is set at the factory. If you must change the value of this parameter, see
    Scaling.

14. `Calib/ ▮`
    `Contrast    7`   Contrast adjusts the contrast of the controller display. Enter the value of the

    desired contrast and press (=) to make the change. After you press Program List you will exit the
    Calib* Motion Menu and any parameter values you have changed will be saved.

    The maximum value for contrast is 9. The factory default is 7.

4

Calib/ Operation Menu

Version 4.2+

Concept TigerStop functions are controlled by operational parameters stored and accessible at the Calib/ Operation Menu. Parameters controlling TigerStop movement are at the Motion Menu.

HowToDoIt To access the Operation Menu…

1. Press Program List | Space Calib | / .
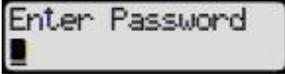
2. At Enter Password enter your PASSWORD and press = .

3. Scroll through the parameters by pressing + to go forward, or − to go backward. Some menu parameters are double password protected. EnterPw? indicates this.
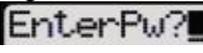
4. At a double password protected parameter, enter the password again and press = . This lets you change the parameter value.

5. After you change the parameter value, press Program List to save the change.

Continue Operation Parameters

Operation Parameters

Concept Examples are shown with default values (unless noted otherwise), in the order they appear in the menu. All parameter values shown are in INCH mode.

Make sure you are not in METRIC mode before checking your machine's parameters!

1. `Calib✓ ▮` `HeadCut 0.000` Global head cut affects only push feed and pattern cut lists. Enter the length of the trim cut you want to take off the material. TigerStop will push the material into position, so you can make the head cut. TigerOptimizer will not take any Pieces out of the head cut "zone" you specify.

2. `Calib✓ ▮` `TailCut 0.000` Global tail cut affects only push feed and pattern cut lists. Enter the length that you do not want to use at the trailing end of the material. TigerStop will not take any Pieces out of the tail cut "zone" you specify.

3. `Calib✓ ▮` `Outfeed 0.000` Global out feed, expressed as a negative number, affects only push feed and pattern cut lists. Enter the length or distance you want TigerStop to push your Pieces past the saw blade after each cut is made. Example: Out feed parameter of –1.500 pushes the material 1.5" past the blade.

4. `Calib✓ ▮` `Backoff 0.000` Global back offset affects only push feed and pattern cut lists. Use this parameter if you must have TigerStop's pusher retract (to clear safety guards, for example) before making the cut. Enter the position to which you want TigerStop to retract after it pushes the material into position. Example: Back off parameter of 8.000 retracts TigerStop 8" from the saw blade before the saw activates.

5. `Calib✓ ▮` `Retract 0.000` Global retract affects only push feed and pattern cut lists. It makes TigerStop retract the programmed value after every movement, moving away from the material. The position of the material before the retract movement is saved. On the next movement the carriage will stop at the saved position, plus the Ret-Off value (see next parameter).

6. `Calib✓ ▮` `Ret-Off 0.000` Global retract offset affects only push feed and pattern cut lists. The ret-off parameter is used to compensate for material movement during the machining process. Example: Retract = 2.000", Ret-Off = 0.5" TigerStop pushes the material to 36", then retracts to 38" and waits for tool activation. The tool (saw, etc.) is activated. When TigerStop next moves forward, the material will stop at 36.5", which should be the back of the material.

7. `EnterPw?▮` `Feed Haz36.000` Global feed hazard affects only push feed and pattern cut lists. This parameter limits the length a finished piece can be. It is a safety mechanism to prevent material from coming through and injuring someone when it could extend beyond the end of the feed table. The factory default value is set at 36". Example: If a piece in your cut list is longer than the value

`Feed Hazard`
`1-Cont   3-Halt`

of this parameter, the controller displays ⎡Feed Hazard / 1-Cont 3-Halt⎤ and a choice must be made. Enter 1 to continue to cut the piece and keep processing the cut list. Enter 3 to halt, and TigerStop will immediately exit the cut list.

`Calib∕   ▌`
`LoadOff 0.000`

8. Global load offset affects only push feed and pattern cut lists. Enter the distance TigerStop should retract to allow material to be safely loaded in front of the pusher. Example: Load off parameter of 6.000 retracts TigerStop 6" more than the clear length of your material to let you load it safely.

`EnterPw?▌`
`Ref Off 0.000`

9. Reference offset is used only with laser optimizing. This parameter is the measured distance between the leading end of the material and the laser's reference point (back stop). This double password protected parameter should only have to be entered once, when a system is installed. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

`EnterPw?▌`
`Clamp#1 0.000`

10. Inbound Clamp #1 parameter is used only in expanded I/O systems in which clamps are used to hold material firmly for processing (push feed and pattern cut lists only). Clamp #1 is on I/O-7. The clamp will activate whenever material comes within the dimension entered into this parameter. Set the value of Clamp #1 to the distance between the in-feed edge of the in-feed clamp and the zero point. It is always applied. If the pusher is ever at a smaller position than this, the in-feed clamp will not fire. It is best to measure to the outer third of the clamp to prevent it from catching on a bad or warped end, possibly forcing the material out of square. This parameter begins locked.

`EnterPw?▌`
`Clamp#2 0.000`

11. Outbound Clamp #2 parameter, as above. Clamp #2 is on I/O-8. Example: Inbound clamp #1 is positioned 5" before the zero point of the saw blade, and outbound clamp #2 is at 5" after the zero point. Enter 5.000 in Clamp #1 parameter and –5.000 in Clamp #2 parameter. (The clamps provided by TigerStop LLC are approximately 10" apart on center.) If the piece being cut is shorter than this length, the out-feed clamp will not fire. This parameter begins locked.

`Calib∕   ▌`
`Max SPL 120.000`

12. Global maximum set point length. In set point optimizing, it is theoretically possible to enter a Clear Length of 1000" accidentally, which would screw up your cut list. This parameter protects against such mistakes, by specifying a maximum clear length that can be entered for any machine. Default value of 120" is based on Tiger10. You can change this parameter to more closely match your TigerStop.

`Calib∕   ▌`
`WasteFst   0`

13. Global waste first is used only in optimizing. The default value of 0 for this parameter will cause TigerStop to optimize material, so that the waste will be taken out of each Clear Length last, after the Pieces have been cut. A value of 1 for this parameter will cause the Waste to be taken out of each Clear Length first, before the Pieces have been cut.

`Calib∕   ▌`
`TM Off   0.000`

14. TigerMeasure offset is used only in push feed applications with an expanded I/O. The value of this parameter is the distance from the TigerMeasure length sensor to the zero point of the saw blade. TigerMeasure is on I/O-4. When this parameter has a value other

than 0.000, you also must enter a value no less than 0.250 (1/4") in global head cut (see parameter 1, above). This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. For additional information, see TigerMeasure.

```
Calib/  ▮
TextDisp   0
```
15. Text display is a global parameter governing all cut lists. It controls what will appear on the top line of the controller screen. A parameter value of 0 will display the target position in the top left and the cut list number and percent complete in the top right corner. A parameter value of 1 will display 'print field 1' in the top left, and 'print field 2' in the top right corner (downloaded cut lists only). Set to 1, using a cut list that was manually entered, the target position will be in the top left, and the top right corner will be empty. A value of 2 will always display the actual material needed to finish the cut list. A value of 3 will always display the estimated material (estimated = actual x yield %). This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on.

```
Calib/  ▮
PntName    0
```
16. Print name is a global parameter affecting downloaded cut lists with Level 4 machines. Set to a value of 1, the cut list name as designated in TigerLink will be printed on the label. (It has no effect when the cut list is not downloaded, or when the controller is not set up for printing.) The default value of 0 disables printing the name. This parameter is visible only on controllers enabled for Level 4, or if Debug is turned on.

```
Calib/  ▮
Pnt Cut    0
```
17. Print cut is a global parameter governing cut lists on Level 4 machines. With a parameter value of 0 there is no change to normal behavior—cut lists that are manually entered will print blank labels. Downloaded cut lists must explicitly download the length information as a string, adding to the "Too Many Strings" error. While in a cut list, with the parameter value set to 1, the controller will print the length of the cuts on the labels, as figured by the cut list information. With this parameter set to a value of 2, and Print name set to 1, the length and the cut list name will both be printed in small font type on labels. (If Print name is set to 0, only the length will be printed, and in small font.) This parameter is visible only on controllers enabled for Level 4, or if Debug is turned on.

```
EnterPw?▮
InkJ Off 0.000
```
18. InkJet Offset is the distance between the zero point and the location of the Inkjet print head. This parameter affects only machines with Pnt Type (the next parameter) set to 3. This parameter is visible only on controllers enabled for Level 4, or if Debug is turned on.

```
Calib/  ▮
Pnt Type   0
```
19. Printer type, used only with label printing, specifies what type of printer is being used. This allows the current software version to be used with older TigerStops. On all TigerStops level 1, 2 and 3, the value of this parameter is set to 0, for 'No Printer,' and cannot be changed. On Level 4 TigerStops using an Eltron printer (on machines from 1995 to June 2002), the value of this parameter is set to 1. On TigerStops using a Zebra printer (July 2002–), the value of this parameter is set to 2 (the default value). On TigerStops using an inkjet printer, the value of this parameter is set to 3. This parameter is visible only on controllers enabled for Level 4, or if Debug is turned on.

```
Calib/  ▮
Bar Code   0
```
20. Bar code is used only with label printing, controls printing of cut lengths in "code 39" bar code (with small text version of the same information below it) on the labels. To print bar code on your labels, change the parameter value to 1. If you choose bar code printing,

only the lengths will be expressed in bar code and small text. No other downloaded information can be printed on the label. The print cut parameter must also be set to 1. This parameter is visible only on controllers enabled for Level 4, or if Debug is turned on.

21. `EnterPw?▮` `X2-Off   40.000` X2 Offset is the parameter that informs the controller of the offset position of the second flipstop on the TigerCrossCut. The value of this parameter is the distance in inches between the standard fence and the extended fence. The default value is 40". This parameter is visible only if Debug is turned on.

22. `EnterPw?▮` `X2-Alert    1` X2 Alert is the parameter that enables or disables the alert message that displays when switching between the standard and extended fences. The default value is set to 1, for enabled. To disable the alert message, change the value to 0. This parameter is visible only if Debug is turned on.

23. `EnterPw?▮` `BF Score2.000` Best fit score, used only in optimized cut lists, regulates the optimizer's efficiency. The default value of 2.000 is recommended. For more detail on this and the next parameter, see TigerOptimizer. A higher BF score results in faster but poorer optimization. A lower BF score results in slower but better optimization. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

24. `EnterPw?▮` `BF Time 2000` Best fit time, expressed in 1/1000ths of a second, is used only in optimized cut lists, limits the time allowed for the optimizer to come up with its best solution. The default value of 2000 is recommended. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

25. `EnterPw?▮` `BFPen   1.000` Best fit penalty is used only in optimized cut lists, helps regulate the way in which the optimizer comes up with its best solution. The value of best fit penalty is added to each board, in proportion to the inverse of its length. The default value is 1. The result of lowering this value is faster optimization with shorter average board lengths. The result of raising this value is slower optimization with longer average board lengths. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

26. `EnterPw?▮` `Ban #1  24.000` Banana #1, used only in precision end trim optimizing, restricts the values the optimizer is given in order to get good Pieces out of stock which is bent (banana shaped). The Banana #2 parameter does the same thing, but lets you have two levels of restriction. Typically, enter a longer length for less bent boards in Banana #1, and a shorter length in Banana #2 for badly bent stock. The optimizer will bypass longer lengths in the cut list when you select Ban1 or Ban2 before processing a board. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

27. `EnterPw?▮` `Ban #2  12.000` Banana #2, as described above, restricts the optimizer.

28. `EnterPw?▮` `Drop Box1.000` Drop box is the size of the drop box being used. This parameter is used only with laser optimizing. Any piece of salvage or waste smaller than their minimum settings will be cut down to a size smaller than this value. Example: If your drop box parameter is 5" and your

best solution leaves 12" Waste, the last Piece will be cut and TigerStop will retract to the longest length position, leaving the 12" Waste on the in feed side of the saw blade. Waste smaller than the drop box parameter will fall into the drop box. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

29. `EnterPw?` `Clear    0.000` Clear parameter, used only in precision end trim optimizing, controls the length of the move TigerStop must make to shove the PET cut into the drop box. Simply defined, it is the length of the movement made after every PET cut. The value entered in clear should be the distance from the zero point to the start of the drop box and cannot be longer than the PET value (see next parameter). This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

30. `EnterPw?` `PET      0.000` PET, used only in precision end trim optimizing, controls the distance TigerStop must move to cut out a split or check in the end of a board. The PET value is the length of the movement made by PET systems (SysMode 14) each time ⊖ is pressed before starting the actual cut list. It permits very precise end trims to be made, by advancing a small amount over and over so as to only cut out the split at the end of the board, regardless of how long it is. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

31. `EnterPw?` `Waste    2.000` Waste, used only with laser optimizing, regulates how waste is divided from salvageable material. Parts that are shorter than the Waste value will be chopped up into segments shorter than or equal to the Drop Box value (see Drop Box parameter, above). Used with a label printer, any part that is equal to or longer than the Waste value will be labeled "Waste = xx.xxx." This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

32. `EnterPw?` `Salvage 2.000` Salvage, used only with laser optimizing, regulates how defect material which might added to salvageable material is divided from totally useless waste. Parts that are shorter than the Waste value will be chopped up into segments shorter than or equal to the Drop Box value (see Drop Box parameter). Used with a label printer, any part that is equal to or longer than the Salvage value will be labeled "Salvage = xx.xxx." This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

33. `EnterPw?` `HandyOpt    0` HandyOpt is used only with laser optimizing. This double password protected parameter turns on the laser used in the HandyOpt system and should only have to be entered once, when a system is installed. To turn on the laser, change the parameter value to 1. The default value of 0 can be changed to 1 only on laser optimizing systems. This parameter is visible only on controllers enabled for Level 3, or if Debug is turned on. This parameter begins locked.

34. `Calib/` `HO Mode     1` HO Mode is a global parameter affecting optimized cut lists on laser defecting systems. Setting the value to 1 will cause Waste, Salvage and Defects to be grouped together as much as possible, resulting in fewer cuts and a speedier and more efficient operation. This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

35. ```
Calib✓ ▮
HO M-END   1
```
HO M-End, used only with laser optimizing, is the parameter that informs the controller of the location of the laser. This parameter permits the laser to be located at the motor end rather than the far end of the TigerStop, to facilitate cabling. Default value is 1, indicating laser location at the motor end. A value of 0 in this parameter indicates laser location at the far end. When replacing the controller on a HandyOpt with far end laser, the value of HO M-END must be changed to 0. This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

36. ```
Calib✓  ▮
HO Diff 0.150
```
HO Diff, used only with laser optimizing, sets the range that successive reads need to be within (for HO Cnt times) in order for the position to qualify as a mark. This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

37. ```
Calib✓ ▮
HO Cnt   5
```
HO Cnt, used only with laser optimizing, sets how many reads in a row the laser needs to make within the HO Diff range in order to qualify the position being read as a mark. This parameter accepts a range of values between 1 and 20, with a default value of 5. This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

38. ```
Calib✓  ▮
HO Limit105.462
```
HO Limit, used only with laser optimizing, sets the default limit for the laser range. Default value is set to the Maximum Limit of the TigerStop. HO Limit was introduced to eliminate potential errors caused when the laser is reflected and defaults to maximum range of 30 meters. When this occurred, the end plate laser mark would read as an error correction instead of home position, causing all marks not to be read. This parameter eliminates the laser plate that registered the home end, as well as the need to reset the home position due to a laser mis-reading. Default value is 78". Boundaries: Minimum = 40", Maximum = 240" This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

39. ```
Calib✓ ▮
Def Only   0
```
Def Only, used only with laser optimizing, enables the defect only mode, in which the system does not cut specific lengths of stock, but only removes defects as marked by the laser. Set to a value of 1, defect only is enabled. Default value is 0. This parameter is visible only on controllers enabled for Level 5, or if Debug is turned on.

40. ```
EnterPw?▮
Process     0
```
Process is a global parameter affecting general operation: Set to a value of 0 (the default value), this defines Normal operation, designed for wood workers, which prevents cuts at the zero point and semi-automatic set point cut lists. Set to a value of 1, this defines Metal working operation which permits cuts at the zero point and semi-automatic movement (SysMode 1). Set to a value of 2, this defines Drilling operation. While in a cut list, the length of cut 0 will be taken to be the maximum space between holes. The controller will automatically make a hole at the positions given by the head cut and tail cut, and will make evenly spaced holes in between such that the minimum number of movements are made and such that no distance between sequential holes is larger than the maximum given by cut 0. The controller will process as many identical boards as the number listed in the cut number of cut 0. This parameter is visible only if Debug is turned on.

41. ```
EnterPw?▮
CLOD   0
```
CLOD, set to a value of 1, enables Cut List On Demand on machines level 3 or higher. The default value is 0. This parameter is visible only if Debug is turned on.

42. `EnterPw?` `Sys Mode   1` System mode controls how TigerStop operates in conjunction with interlocks and other accessories. This parameter is set at the factory and should not be changed, except when setting up the Advanced Interlock in Full Auto mode. For other possible values, see the relevant application notes.

*0 No interlock installed (saw and TigerStop are not linked in any way).*

*1 Standard SIK interlock: The operator controls the saw cuts one at a time. After a cut is made, TigerStop automatically moves to the next cut length and/or decrements the piece count.*

*2 Advanced AIK interlock: The function of an AIK with a Sys Mode setting of 2 is indistinguishable from that of the SIK. The difference is that with the AIK, though the operator seems to be controlling the saw, TigerStop is actually controlling it.*

*3 Full Auto AIK interlock: The operator activates the saw to initiate an automated sequence in which saw and TigerStop work in conjunction, continuously, until the Clear Length is used up.*

*4 Rip Fence interlock: This parameter is only used with TigerRip Fence and causes TigerStop to function as a TigerRip Fence only.*

*14 Precision End Trim active: This parameter is used only with the PET option.*

*15 TigerMeasure active: This parameter is used only with the TigerMeasure option.*

# TigerMeasure or HandyOpt?

When System Mode is set to 15 TigerMeasure, it prevents HandyOpt from working.  When System Mode is set to 2 or 3, HandyOpt can be used, but TigerMeasure is prevented from working.

*TigerMeasure CANNOT be used with laser optimizing.*

# Calib+ Timer Menu

Version 4.2+

**Concept** The Calib+ Timer Menu contains parameters that control the time limits or delays between critical events. Timers are primarily used for clamping and releasing, first introduced with version 4.1. These are set to default values in 1000ths of a second. It is advisable not to change any of these values without a certainty of the outcome, as it would be easy to create a dangerous situation.

**HowToDoIt** To access the Timer Menu…

1. Press **Program List** **Space Calib** **+** .

2. At `Enter Password` enter your **PASSWORD** and press **=** . The first parameter will be displayed `Timer  # 1    500  ` .

3. Scroll through the parameters by pressing **+** to go forward, or **−** to go backward.

4. To change a parameter's value, simply scroll through the menu until it is displayed on the screen, enter its new value with the number keys, and press **=** to store it, **+** to store it and scroll to the next value, **−** to store it and scroll to the previous value, or **Program List** to store it, exit the menu and return to the Ready Screen.

   *It is only at this point that any changes are written to the Flash memory. Prior to reaching the Ready screen, a loss of power would result in no changes being recorded.*

**Continue** Timer Parameters

# Timer Parameters

- Timer #1 controls the time delay between when the controller asserts the Clamps On signal, and when it asserts the Saw Enable signal (Min limit of 0ms, a max limit of $10^8$ms, and a default value of 500ms).
- Timer #2 controls the time delay between when the Saw Enable signal is no longer asserted and when the Clamps On signal is no longer asserted (Min limit of 0ms, a max limit of $10^8$ms, and a default value of 500ms).
- Timers #3, #4 and #5 are reserved.
- Timer #6 is the timer for Clamp On before Saw Enable. When the foot switch is depressed and released in less time than the value of Timer #6, the clamps will stay enabled for the duration of Timer #6. If the foot switch is held down, Saw Enable will occur following a Timer #6 time out. The user can press  to turn Clamps off at any time. Timer #6 is only referenced in manual mode. (Min limit of 0ms, a max limit of $10^8$ms, and a default value of 2000ms).
- Timer #7 affects only machines in System Mode 2 or 3. It is the timer for DM to come on after Saw Enable. If the Dead Man signal is not asserted (the saw blade has started its motion) within the time expressed by the value of Timer #7 after the Saw Enable being asserted, the cycle will be aborted and the cut list (if the user is in one) will be terminated. (Min limit of 0ms, a max limit of $10^8$ms, and a default value of 2000ms).
- Timer # 8 affects only machines in System Mode 2 or 3. It is the timer for the top arbor to come on after DM. If the top arbor is not asserted (the saw blade has reached the top of its travel) within the time expressed by the value of Timer #8 after the Dead Man is asserted, the cycle will be aborted and the cut list (if the user is in one) will be terminated. (Min limit of 0ms, a max limit of $10^8$ms, and a default value of 2000ms).

# Access the Service Menu

**How to Do It** To access the Service menu…
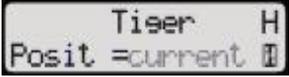
1. At the Ready screen `Tiger   H  Posit =current ▯` hold down **4** **1** **0** at the same time and then quickly release.

   *The screen prompts you for a password* `Enter Password ▮` .
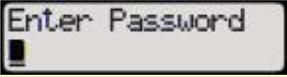
2. Enter the factory password **8** **1** **5** **5** **0** and press **=** .

3. The Service Menu will display `1-BR 2-Lane 3-ZE  4-IO 5-DBus 6-SN` the first six options.
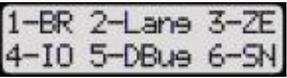
   *Version 3.1 displays only 4 options.  Version 3.5 and later displays 6 options on the first screen.*

4. Press **+** to view the second screen, showing options 7 and 8 `7-Zero Cutlist  8-CompCL` .
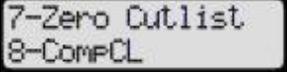
| 1 - Baud Rate | 2 - Language Selection | 3 - Zero End |
|---|---|---|
| 4 - I/O Control Menu | 5 - Debug | 6 - Serial Number |
| 7 - Global Clear Cut Lists | | |
| 8 - Compact Cut Lists | | |

5. Press **Program List** to exit the Service Menu.

# 1 - Baud Rate

**Concept**⟳The first setting in the Service Menu is the controller Baud Rate.

- In version 3.0 it appears as 1 - Baud.
- In version 3.5 and later, it appears as 1 - BR.
- The baud rate for the controller and the PC's com port must be set to the same value.

**How to Do It**⟳To change the baud rate…
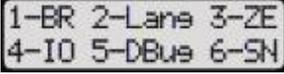
1. At the service menu ` 1-BR 2-Lane 3-ZE / 4-IO 5-DBus 6-SN ` press **①** to select the Baud Rate parameter.

   *The top line of the screen displays the current baud rate, the bottom line displays the new baud rate.*

2. Press **⊕** to cycle through the available baud rates from highest to lowest…

   ` OldBaud-115200 / NewBaud-115200 ` ➡   ` OldBaud-115200 / NewBaud- 57600 ` ➡   ` OldBaud-115200 / NewBaud- 38400 ` ➡

   ` OldBaud-115200 / NewBaud- 19200 ` ➡   ` OldBaud-115200 / NewBaud- 9600 ` ➡   ` OldBaud-115200 / NewBaud- 4800 ` ➡

   ` OldBaud-115200 / NewBaud- 2400 ` ➡   …and then it returns to ` OldBaud-115200 / NewBaud-115200 `.
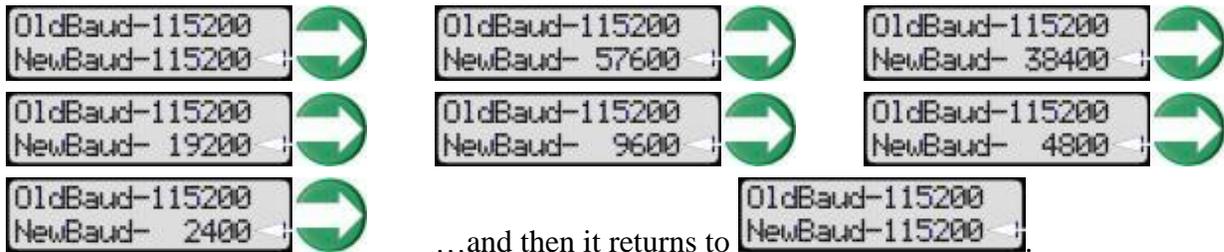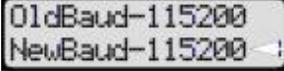
3. When the desired baud rate displays, press **=** to select it as the new baud rate and return to the service menu ` 1-BR 2-Lane 3-ZE / 4-IO 5-DBus 6-SN `.
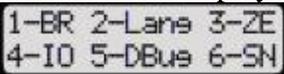
4. To exit the Service Menu, press **Program List**.

   *The baud rate change takes effect upon exit.*

# 2 - Language Selection

**Concept** There are two languages loaded into the TigerStop controller at the factory. The controller displays information in the language selected.

- The default language selection is English.
- The default languages loaded at the factory are English and Spanish.
- Any two available languages can be loaded into the controller at the factory.
- Available languages are: English, Spanish, French, German, Dutch.

  Contact TigerStop Technical Support *for assistance in obtaining alternate language files.*

**How to Do It** To select the display language…
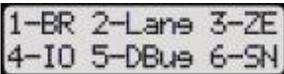
1. At the service menu `1-BR 2-Lane 3-ZE 4-IO 5-DBus 6-SN` press **2** to select the Language parameter.

2. Press **+** to toggle between the available languages…

   `Lane Selection 1 English▮` → `Lane Selection 2 Espanol ▮` → `Lane Selection 1 English▮`
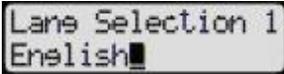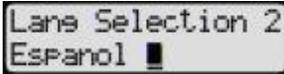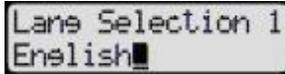
3. When the desired language displays, press **=** to select it as the display language and return to the service menu `1-BR 2-Lane 3-ZE 4-IO 5-DBus 6-SN`.
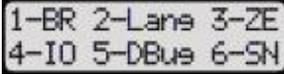
4. To exit the Service Menu, press **Program List**.

   *The language selection takes effect upon exit.*

# 3 - Zero End

**Concept** The default zero end for TigerStops is the motor end.

The default zero end for TigerRip Fences is the far end.

- The zero end can be changed to the opposite of the default at the service menu, switching TigerStop's zero end from the motor to the far end.

  *It is unlikely that the zero end of TigerRip Fence would have to be switched, but it is possible to do this using the method described below.*

**How to Do It** To reverse the zero end…
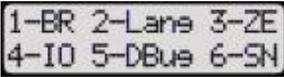
1. At the service menu `1-BR 2-Lane 3-ZE / 4-IO 5-DBus 6-SN` press **3** to select the Zero End parameter.

2. Press **+** to toggle between the two choices…

   `ZeroControl Menu / Motor end ZERO` → `ZeroControl Menu / Far end ZERO` → `ZeroControl Menu / Motor end ZERO`
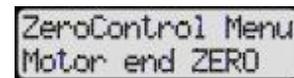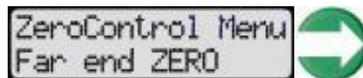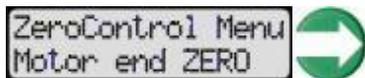
   *Some TigerStops may display the choices shown below, using alternate terms* drive end *and* idle end…

   `ZeroControl Menu / Drive end ZERO` → `ZeroControl Menu / Idle end ZERO` → `ZeroControl Menu / Drive end ZERO`
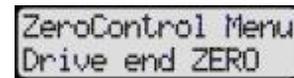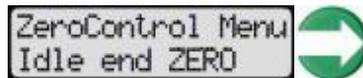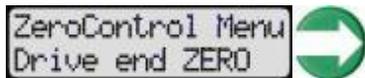
3. When the desired zero end displays, press **=** to select it.

4. TigerStop immediately runs the Home routine. Follow the prompts as usual during the Home routine. When the Home routine finishes running, the display returns to the service menu `1-BR 2-Lane 3-ZE / 4-IO 5-DBus 6-SN`.
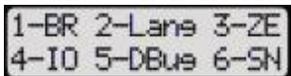
5. To exit the Service Menu, press **Program List**.

# 4 - I/O Control Menu

This parameter is for factory use only.

*Do NOT attempt to modify!*

# 5 - Debug

This parameter is for factory use only.

*Do NOT attempt to modify!*

# 6 - Serial Number

**Concept** When upgrading a TigerStop controller to a new software level, a new enable code must be assigned. To enable TigerStop for the use of the upgrade, the enable code must be entered at the serial number parameter in the service menu.

**How To Do It** To enter a new enable code…
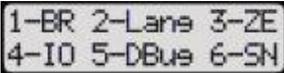
1. At the service menu `1-BR 2-Lane 3-ZE 4-IO 5-DBus 6-SN` press **6** to select the Serial Number parameter.

   *The screen displays the TigerStop serial number and the current enable code*
   `SN= 59837`
   `1701852451 9 ▮`

2. Press **Program List**.
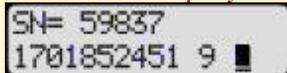
   *The display responds with* `Are you sure? 1-Yes 3-No`.
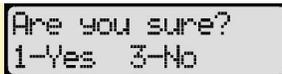
3. Press **1** **=** to reset TigerStop for a new enable code.

4. Press **Program List** to exit the service menu ➡ `Tiger    H Posit =current ▯`.
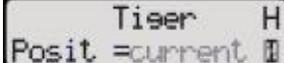
5. Turn TigerStop OFF (Fig. 1) and wait for 5 seconds.

6. Turn TigerStop ON.


Fig. 1
Power OFF

➡ Continue at Step 2 in Enable Your TigerStop.

# 7 - Global Clear Cut Lists

**Concept⟳** All cut lists stored in TigerStop memory can be cleared globally using the Zero Cutlist operation in the service menu.

⟳*This will also globally clear all GoSet Hot Keys!*

**How to Do It⟳** To clear (erase) ALL cut lists in TigerStop memory…
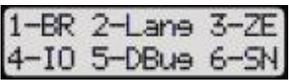
1. At the service menu `1-BR 2-Lane 3-ZE 4-IO 5-DBus 6-SN` press ⊕ to advance to the second screen of the service menu.
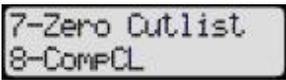
2. At the second screen `7-Zero Cutlist 8-CompCL` press ⑦ to select global clear cut lists.

3. At the prompt `Clear ALLCutlist 1 = Yes ▪` press ① if you want to clear ALL cut lists.

⟳*If you decide NOT to clear all cut lists, you can still back out without erasing all your cut lists by pressing* **Program List** **Program List** *to return to the Ready screen!* `Tiger    H Posit =current ▯`
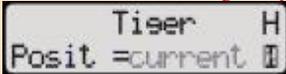
4. After you press ① to clear all cut lists, the display returns to screen 2 of the service menu `7-Zero Cutlist 8-CompCL`.
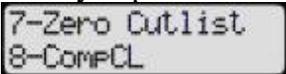
5. Press **Program List** to return to the Ready screen, which will display a numeric count down of the cut lists being erased in the lower right corner…

`Tiger    H Posit =current 3` ⟳    `Tiger    H Posit =current 2` ⟳    `Tiger    H Posit =current 1` ⟳
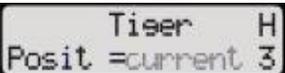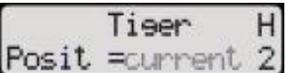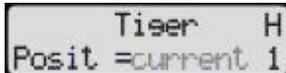
*When the normal flashing measurement unit indicator re-appears in the lower right corner of the Ready screen, the global clear operation is complete* `Tiger    H Posit =current ▯`
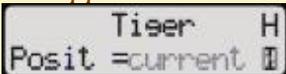
*The service menu MUST be exited after global clearing of the cut lists, before compacting.*

**Continue⟳** After a global clear, you must also compact cut list memory.

# 8 - Compact Cut Lists

**Concept** ⟳ Cut lists are compacted using the Compact CL operation, available at the service menu, screen 2.

- Compacting makes more room for cut lists in memory
- Compacting may resolve the problem that causes the "Check Sum Failure - Stop to Bypass" error message to appear.
- TigerStop automatically compacts cut lists in memory, but compacting should be done manually at the service menu whenever cut lists have been globally cleared.

**How to Do It** ⟳ To compact cut lists in TigerStop memory…
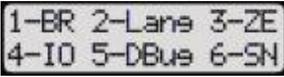
1. At the service menu `1-BR 2-Lane 3-ZE` `4-IO 5-DBus 6-SN` press ✚ to advance to the second screen of the service menu.
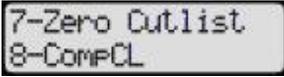
2. At the second screen `7-Zero Cutlist` `8-CompCL` press **8** to select compact cut lists.
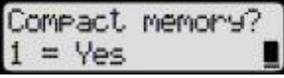
3. At the prompt `Compact memory?` `1 = Yes ▪` press **1** if you want to compact memory.

4. After you press **1** to compact cut lists, the display returns to screen 2 of the service menu `7-Zero Cutlist` `8-CompCL`.
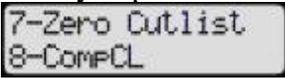
5. Press **Program List** to return to the Ready screen, which will display a numeric count down of the cut lists being erased in the lower right corner…

   `Tiger   H` `Posit =current 3` ➡   `Tiger   H` `Posit =current 2` ➡   `Tiger   H` `Posit =current 1` ➡
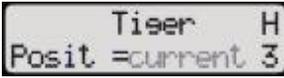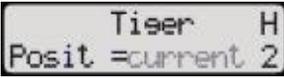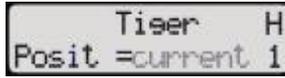
6. When the normal flashing measurement unit indicator re-appears in the lower right corner of the Ready screen, the compacting operation is complete `Tiger   H` `Posit =current ▯`.
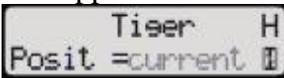
7. Access the Service Menu and run Compact CL again.

*The service menu must be exited before compacting the cut lists. The changes take effect upon the second exit.*

# Short Cut Keys

**Concept** The TigerStop controller gives you instant access to several menus and operations by means of short cut keys which are held down all at the same time, and then released. You always start at the Ready screen. There is also a group of short cut keys used only by TigerStop technical support. Some of these are used when TigerStop is powered ON and start from the Ready screen. Others are used by holding the keys down together with TigerStop powered OFF, and then powering ON while holding them down, before releasing them.

| | |
|---|---|
|  | **410 Service Menu**<br><br>At the Ready screen `Tiger H Posit =current` hold down **4 1 0** to access the Service Menu. |
|  | **74 Access Min-Max**<br><br>At the Ready screen `Tiger H Posit =current` hold down **7 4**. |
|  | **52. Operational Diagnostics**<br><br>At the Ready screen `Tiger H Posit =current` hold down **5 2 .**. |
|  | **10 Double End Toggle**<br><br>At the Ready screen `Tiger H Posit =current` hold down **1 0**. |

| | |
|---|---|
| | **Boot Diagnostics**<br><br>1. Power TigerStop OFF.<br><br>2. Hold down **Program List** and power TigerStop ON. |
| | **Motor Selection**<br><br>1. Power TigerStop OFF.<br><br>2. Hold down **Increm** and power TigerStop ON. |
| | **IK Auto-Detect**<br><br>Interlock auto-detect (SIK Standard Interlock)<br><br>1. Power TigerStop OFF.<br><br>2. Hold down **Space Calib** and power TigerStop ON.<br><br>Interlock auto-detect (AIK Standard Interlock)<br><br>1. Power TigerStop OFF.<br><br>2. Hold down **Space Calib** while depressing saw pedal and power TigerStop ON |
| | **Load Factory Settings**<br><br>1. Power TigerStop OFF<br><br>2. Hold down **STOP** **Clear** and power TigerStop ON<br><br>*Factory settings are now loaded!* |
| | **Load Default Values**<br><br>1. Power TigerStop OFF<br><br>2. Hold down **Clear** **=** and power TigerStop ON<br><br>*Default values are now loaded!* |
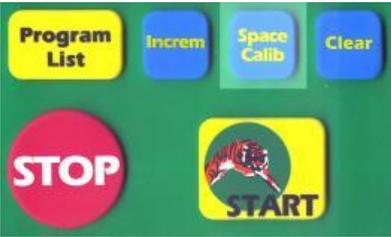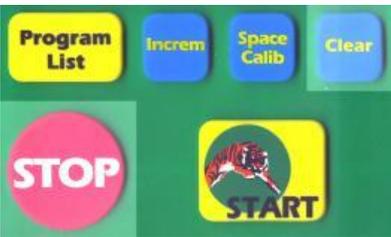
# Change the TigerStop Password

**Concept** Every TigerStop is programmed with a default factory password, the machine serial number. TigerStop recommends maintaining the machine serial number as the password, but it can be changed by following the instructions below.

**How to Do It** To change the TigerStop password on machines version 3.5 or later…

1. Press [Program List] [Space Calib] [=] [→] [Enter Password] .
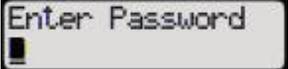
   *The screen prompts you to enter in a password.*

2. Enter the factory password [8] [1] [5] [5] [0] and press [=] .

   *The user will be prompted to enter in a new password [Enter new PW] .*
   *We recommend using the serial number as the password.*
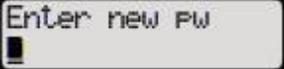
3. Enter the new password [PASSWORD] and press [=] .

   *The user will be prompted to enter in the new password again [Enter new PW] .*
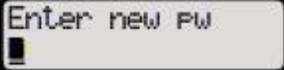
4. Enter in the same password [PASSWORD] and press [=] .

   *The display returns to the Ready screen and the password is changed.*

◔ NEVER use 81550 as the new password.

# TigerStop LLC

# Warranty Certificate

TigerStop System Products, TigerStop, TigerFence, TigerCrossCut, TigerRip Fence, Heavy Duty (HD2), TigerTurbo, TigerSaw, Accessory Products and Spare Parts

## LIMITED WARRANTY COVERAGE

All new TigerStop LLC machines warranted exclusively by the TigerStop LLC ("Manufacturer") limited warranty as follows: Each TigerStop LLC machine ("Machine") and its components ("Components") is warranted against defects in material and workmanship for a period of twelve (12) months from the date that a machine is enabled by the purchaser or the end user. In the event that a machine is not put into use, enabled within thirty six (36) months from shipment date the warranty shall lapse. If the machine is enabled before thirty six months (36) and after thirty (30) months, the warranty shall be in effect until thirty six (36) months from shipment date. Motors carry a warranty of twelve (12) months. Consumables, such as wear on painted surfaces, are not covered. One year shall constitute a period of 365 days or the equivalent of 2080 hours of production use. The warranty shall be deemed to have elapsed if either the machine is 365 days from enablement or it has been used for greater than 2080 hours, extended warranties notwithstanding. One (1) year extended warranties shall be subject to the same terms of duration as original Warranty. The foregoing is a limited warranty and it is the only warranty by manufacturer. Manufacturer disclaims all other warranties, express or implied, including but not limited to all warranties of merchantability and fitness for a particular purpose.

**REPAIR OR REPLACEMENT ONLY:** MANUFACTURER'S LIABILITY UNDER THIS AGREEMENT SHALL BE LIMITED TO REPAIRING OR REPLACING, AT THE DISCRETION OF MANUFACTURER, PARTS, OR COMPONENTS.
An additional one-year warranty extension may be purchased from your authorized TigerStop LLC distributor.

## LIMITS and EXCLUSIONS of WARRANTY

Except as provided above, buyer agrees that all warranties express or implied, as to any matter whatsoever, including but not limited to warranties of merchantability and fitness for a particular purpose are excluded. Components subject to wear during normal use and over time such as paint, window finish and condition, light bulbs, seals, chip removal system etc., are excluded from this warranty. Factory-specified maintenance procedures must be adhered to and recorded in order to maintain this warranty. This warranty is void if the machine is subjected to mishandling, misuse, neglect, accident, improper installation, poor or improper power conditions, improper maintenance, or improper operation or application, or if the machine was improperly repaired or serviced by the customer or by an unauthorized service technician.

Without limiting the generality of any of the exclusions or limitations described in other paragraphs, manufacturer's warranty does not include any warranty that the machine or components will meet buyer's production specifications or other requirements, or that operation of the machine and components will be uninterrupted or error-free. Manufacturer assumes no responsibility with respect to the use of the Machine and Components by Buyer, and manufacturer shall not incur any liability or Seller to Buyer for any failure in design, production, operation, performance or otherwise of the Machine or Components other than repair or replacement of same as set forth in the Limited Warranty above. Manufacturer is not responsible for any damage to parts, machines, business premises or other property of Buyer, or for any other incidental or consequential damages that may be caused by a malfunction of the Machine or Components.

**Peripherals including, but not limited to, computers, printers, communication devices, touch screens and related products sold by TigerStop LLC are warranted within the limitations of the original equipment manufacturer's warranty. TigerStop LLC does not and cannot accept any responsibility or liability for the condition, duration, or extent of such warranties. All customer questions and inquiries about warranties or repair should be directed to the original equipment manufacturer.**

## ADDITIONAL WARRANTY (SYSTEM PRODUCTS EXCLUSIVELY)

System Products carry a twelve (12) months labor and parts warranty, FOB Vancouver, WA. In the event that a service technician is required to make repairs at customer's place of business, then buyer agrees to prepay all travel costs and to provide prepaid ticket and rental car for a TigerStop LLC technician along with all other expenses incurred by technician. All other terms apply of the warranty certificate. Purchaser agrees that any other technical service provided by a third party is not covered under this warranty.

## SPARE PARTS WARRANTY EXCLUSION

Spare parts are warranted for a period of thirty (30) days from shipment date. All other terms of this warranty apply.

**LIMITATION OF LIABILITY AND DAMAGES: MANUFACTURER IS NOT LIABLE TO BUYER, SELLER OR ANY CUSTOMER OF BUYER FOR LOSS OF PROFITS, LOST DATA, LOST PRODUCTS, LOSS OF REVENUE, LOSS OF USE, COST OF DOWNTIME, BUSINESS GOOD WILL, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGE, WHETHER IN AN ACTION IN CONTRACT OR TORT, ARISING OUT OF OR RELATED TO THE MACHINE OR COMPONENTS, OTHER PRODUCTS OR SERVICES PROVIDED BY MANUFACTURER OR SELLER, OR THE FAILURE OF PARTS OR PRODUCTS MADE BY USING THE MACHINE OR COMPONENTS, EVEN IF MANUFACTURER OR SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. MANUFACTURER'S LIABILITY FOR DAMAGES FOR ANY CAUSE WHATSOEVER SHALL BE LIMITED TO REPAIR OR REPLACEMENT, AT THE DISCRETION OF MANUFACTURER, OF THE DEFECTIVE PARTS, COMPONENTS OR MACHINE.**

Buyer has accepted this restriction on its right to recover incidental or consequential damages as part of its bargain with Seller. Buyer realizes and acknowledges that the price of the equipment would be higher if Seller or Manufacturer were required to be responsible for incidental or consequential damages, or punitive damages.

This Warranty Certificate supersedes any and all other agreements, either oral or in this writing, between the parties hereto with respect to the warranties, limitations of liability and/or damages regarding the Machine or Components, and contains all of the covenants and agreements between the parties with respect to such warranties, liability limitations and/or damages. Each party to this Warranty Certificate acknowledges that no representations, inducements, promises, or agreements, orally or otherwise, have been made by any party, or anyone acting on behalf of any party, which are not embodied herein regarding such warranties, liability limitations and/or damages, and that no other agreement, statement, or promise not contained in this Warranty Certificate shall be valid or binding regarding such warranties, liability limitations and damages.

**WARNING: TigerStop, TigerFence, TigerCrossCut, TigerRip Fence, Heavy Duty (HD2) and TigerTurbo are machine components intended for use in conjunction with other potentially dangerous machinery. The use of these components does not make that machinery safe. TigerStop LLC's products are not intended to substitute, in any manner, for safety requirements in general, or in conjunction with other machinery. These components must be incorporated into machinery by persons qualified to design safety features to make the machine as safe as possible and to ensure that it meets federal, state and local law with respect to safety and all other regulatory requirements. In addition, TigerStop, TigerStop Heavy Duty 2 (HD2) and TigerTurbo are machine components that should only be operated by qualified persons trained in safe operating procedures. Illustrations of TigerStop, TigerStop Heavy Duty 2 (HD2) and TigerTurbo components in use do not show, and are not intended to show, safety features necessary to make the machinery safe to operate.**

## TRANSFERABILITY

This warranty is not transferable from the original registered owner to any other party.

## Limit of Liability

## Copyright

## Trademark

TigerStop® is a registered trademark of TigerStop LLC.

These specifications are subject to change without notice. (Rev.4: 8/15/2008)