

DECEMBER 2010



 **SAWGEAR**TM
automatic length measuring by **TigerStop**[®]

Manual



© 2010 TigerStop LLC.

All Rights Reserved

Safety First!

- Any automatic equipment can be dangerous if used improperly, and this includes SawGear. It is essential to personal safety to use SawGear only for the purpose for which it was designed: **automatic length measuring for your saw.**
- But before you put your tape measure away and start making SawGear your next best friend, **please read and consider the following safety reminders**, some of which may relate to the operation of your other power tools as well as to SawGear.
- **Keep SawGear and all other power tools and automatic equipment OUT OF THE REACH OF CHILDREN!**



Keep the work area clean and well lit to avoid accidental injury.



Do not use SawGear in a dangerous environment.

Using power tools in damp or wet locations or in rain can cause shock or electrocution!



Do not operate near flammable liquids or in gaseous or explosive atmospheres!



Wear proper apparel, no loose clothes or jewelry which could get pulled into moving machinery or materials.

Wear non-slip footwear, safety glasses, ear protection, and a dust mask.

Do NOT operate this or any machine under the influence of drugs or alcohol!

Use only 3-wire extension cords that have 3-prong grounding-type plugs and 3-pole receptacles that accept the tool's plug.

The power head contains DC voltage with potentially **FATAL** amperage.

NEVER attempt any unauthorized actions inside the motor box!

**SEE ALSO:
Grounding Instructions**

No one should operate this machine except fully qualified personnel.

Read the Manual!



GROUNDING INSTRUCTIONS

In the event of a malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This tool is equipped with an electric cord having an equipment-grounding conductor and a grounding plug.

1. The plug must be plugged into a matching outlet that is properly installed and grounded in accordance with all local codes and ordinances.
2. Do not modify the plug provided. If it will not fit the outlet, have the proper outlet installed by a qualified electrician.
3. Improper connection of the equipment-grounding conductor can result in a risk of electric shock.
4. The conductor with insulation having an outer surface that is green with or without yellow stripes is the equipment-grounding conductor.
5. If repair or replacement of the electric cord or plug is necessary, do not connect the equipment-grounding conductor to a live terminal.

Check with a qualified electrician or service personnel if the grounding instructions are not completely understood, or if in doubt as to whether the tool is properly grounded. Use only 3-wire extension cords that have 3-prong grounding plugs and 3-pole receptacles that accept the tool's plug. Repair or replace damaged or worn cord immediately.

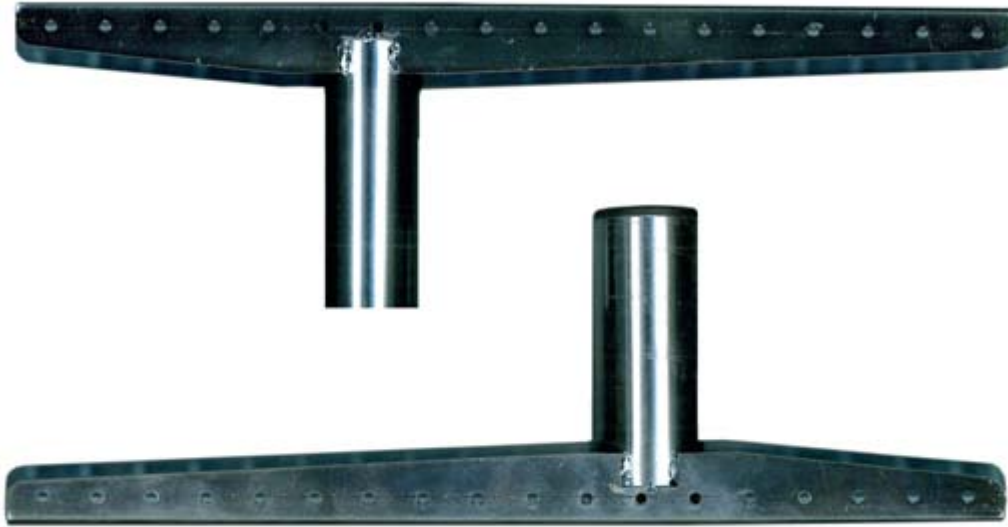


Table of Contents

BR-MSS Mounting Bracket Set.....	1
Install the Brackets.....	2
SawGear Bench Mount Brackets.....	3
Secure SawGear in the clamps.....	3
Get SawGear into exact position.....	3
Using a Support Leg SG-SL.....	3
Dismounting SawGear from the saw stand.....	3
Miter Saw Accuracy.....	4
Check Your Pivot Point.....	4
Adjusting the Miter Saw Pivot Point.....	4
SawGear Control.....	5
SawGear LCD Display.....	6
1st Power Up.....	6
Repeat a 1st Power Up.....	7
Normal Power Up.....	7
Start SawGear.....	7
Password Protection.....	7
Change the Password.....	8
Deactivate the Password.....	9
Setting the Distance Between the Stop and the Blade.....	9
1. Calibrate Straight Cut Distance.....	10
2. Calibrate Miter Cut X Distance.....	10
3. Calibrate Miter Cut Y Distance.....	10
4. Calibrate Miter Cut Z Distance.....	10
5. Calibrate Increment Distance.....	10
Straight Cutting.....	10
Basic Operation.....	10
How to Enter Dimensions.....	11
Negative Numbers.....	11
Data Entry Errors.....	11
Miter Cutting.....	11
Custom Miter Cutting.....	12
Increment.....	13
Saving Dimensions with List.....	13
Using a Saved Cut List.....	14
Entering Feet, Inches and Fractions.....	15
Largest Number Display.....	16
Entering Feet and Decimal Inches.....	16
Largest Number Display.....	16
Entering Non-Standard Fractions.....	17
Entering Millimeters.....	17
Largest Number Display.....	17
Entering Negative Numbers.....	17
Correcting Entry Errors.....	18
"Too Big" Error.....	18
"Too Small" Error.....	18

BR-MSS Mounting Bracket Set

SawGear can be easily mounted to your saw stand using a SawGear Miter Saw Stand Bracket Set. Order# **BR-MSS**. The components shown below are included in one set. For assembly instructions, see [Install the Brackets](#).



Saw Stand T-Support

T-Support unplugged (upper support) x 2
T-Support plugged (lower support) x 2



Tube Yoke
x 2



M-Grip
x 4



50cm Threaded Rod x 2



Self-tap
x 16



Nut
x 4



Set Screw
x 8



Rectangular
x 4



Nut
x 4



Bolt
x 4

Install the Brackets

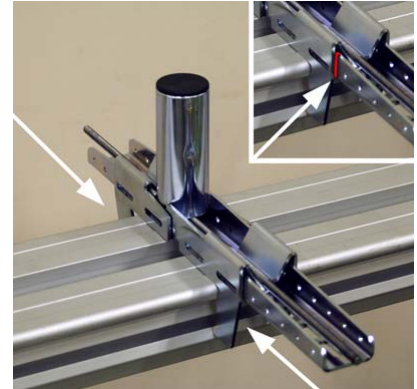
Install the SawGear mounting brackets onto your saw support following the steps illustrated below.



1. Place one plugged T-support on the saw stand.



2. Slide one threaded rod into the base of the T-support.



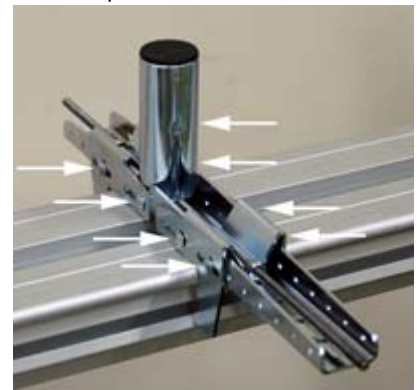
3. Slide 2 M-grips on the T-support, so the threaded rod passes over them, push them snugly against the saw stand, and mark their position.



4. Place the T-support with the M-grips in position onto a work surface and drive 4 self-tap screws into the slotted holes of the M-Grips and into the round holes of the T-support on both sides. Tighten all 8 screws, then back them off half a turn. Return the assembly to the saw stand.



5. Thread a rectangular washer and nut onto each end of the 50cm threaded rod and tighten them securely against the M-Grip on both sides.



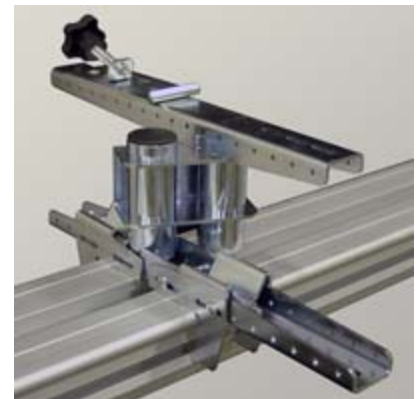
6. Retighten the 8 self-tap screws to firmly lock the T-support in place on the saw stand.



7. Turn 4 set screws into the holes in one tube yoke and slide the tube yoke onto the tube of the T-support. Rotate the yoke to approximate position and tighten down the set screws against the tube.



8. Insert one unplugged T-support inverted into the yoke as shown, and tighten the set screws to hold it in place.



9. Mount one SawGear bench mount bracket with knob (supplied with SawGear, not part of the mounting bracket set) to the top of the T-support using two bolts and nuts.

Repeat steps 1 to 9 to install the second SawGear mounting bracket at the opposite end of the saw stand. Any support legs you may be using come with integrated bracket.

SawGear Bench Mount Brackets

*SawGear comes with two (2) bench mount brackets. To order additional, use order# **BR-BM**.*

Secure SawGear in the clamps

1. Make sure both bracket mounts are approximately in line.
2. Lay SawGear across both bracket mounts in the desired position relative to the saw.
3. When SawGear is facing front, there is an angled channel running along the full length of the beam at the bottom. Pivot SawGear, so the curled front edge of both SawGear bench mount brackets fits into this channel.
4. Let SawGear lie flat against the surface of both clamps, so the beveled back lip of the SawGear beam can be secured by the locking knobs.
5. Turn the locking knobs to capture SawGear in both bench mount brackets.

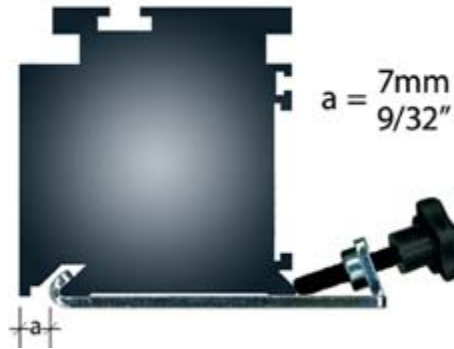


Fig. A - Section View



Fig. B - Plan View

Get SawGear into exact position

With SawGear secured by the two brackets, final positioning, leveling and adjusting is done by loosening the set screws in the tube yokes of the bracket mounts and raising or lowering, and rotating the components until the exact position is achieved, then tightening down all fasteners.

Using a Support Leg **SG-SL**

SawGear's longer lengths may require the use of an extra support leg.

- The support leg (Fig. C) is fully adjustable for height and can be placed wherever necessary.
- The support leg ends in an integrated bench support bracket.
- SawGear is attached to the support leg using the same clamping technique as described above.

Dismounting SawGear from the saw stand

SawGear is easily dismounted from the saw stand and any support legs by loosening the locking knobs and pivoting it off the brackets.

Always be sure to firmly tighten the locking knobs and all fasteners before using SawGear.

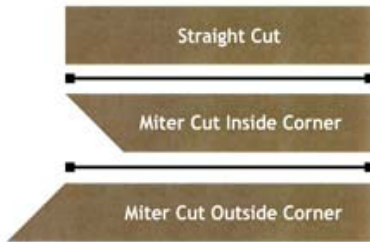
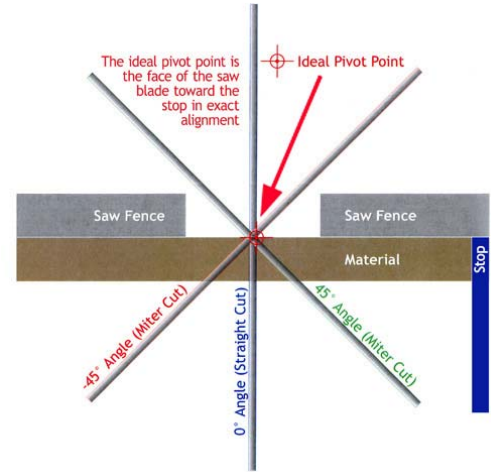


Fig. C

Miter Saw Accuracy

SawGear is an accurate measuring tool, but when cutting angles using a miter saw, the saw must be accurate too.

- *Miter saws rotate around a center called the 'pivot point.'*
- *The pivot point must be in exact alignment with the saw's back fence.*
- *Some miter saws have an adjustable back fence; others do not.*
- *If the pivot point is not in correct alignment and the fence cannot be adjusted, accuracy can be maintained by adjusting the length entered into SawGear by the amount of offset observed.*



Don't settle for less than perfect! Dial in your saw!

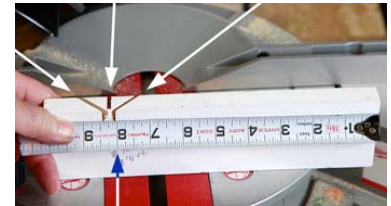
When the pivot point is in exact alignment, all your cut lengths, straight, inside and outside miters, will be exactly equal.

Check Your Pivot Point

This example assumes that SawGear is on the right of the saw, and that the observed pivot point is on the right side of the saw blade.

You can check for accuracy by comparing the straight cut and the left and right miter cuts:

1. End trim a sample board so it has a clean, square right end.
2. Using a tape measure mark 8" from the right end with a pencil and square.
3. Line up the pencil mark with the right side of the saw kerf, and clamp the sample board flat up against the back fence, keeping the clamp away from the path of the saw blade.
4. With the saw set at 0° make a partial cut into the sample board. This is the straight cut.
5. With the saw set at -45° make another partial cut into the sample. This is the outside corner miter cut.
6. With the saw set at 45° make another partial cut into the sample. This is the inside corner miter cut.
7. Unclamp the board and measure carefully from the right end of the board to each of the cuts. If the pivot point has been correctly adjusted, all three cuts should be the same. If they are not, readjust the back fence, and repeat the test process.

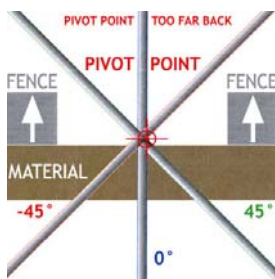


Adjusting the Miter Saw Pivot Point

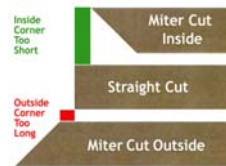
If your miter saw is cutting inaccurately when cutting miters, its pivot point is either too far back or too far forward.

The examples below show in which direction to adjust the fence to improve pivot point alignment.

Pivot point too far BACK

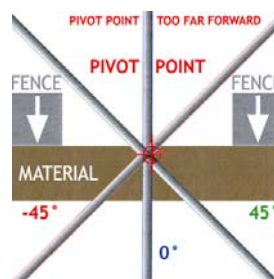


Inaccurate miter cuts
Inside miter too short
outside miter too long

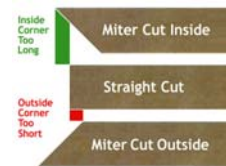


Push fence BACK

Pivot point too far FORWARD
















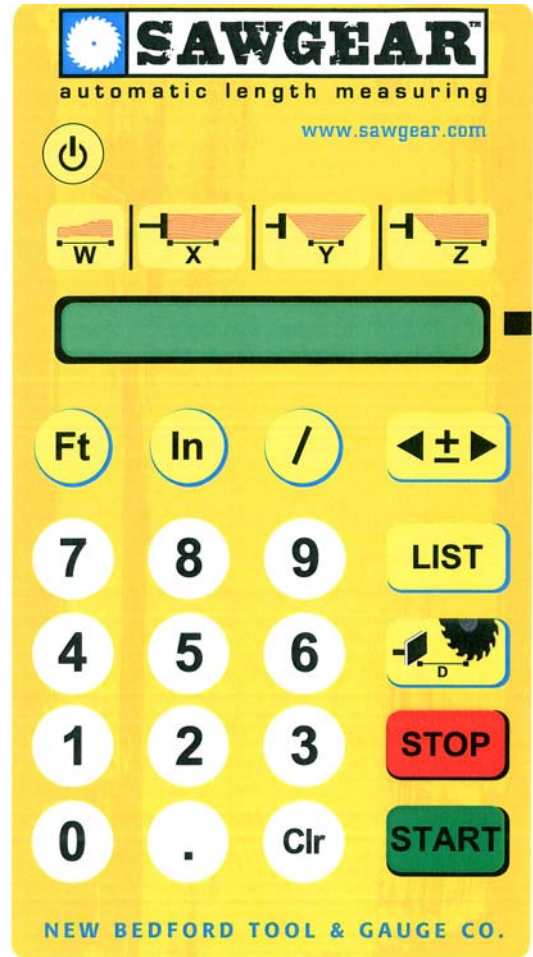
Inaccurate miter cuts
Inside miter too long
outside miter too short







Pull fence FORWARD

SawGear Control

-  [Soft Start] switches off power to save energy.
-  [W] Molding Width Entry for cutting 45° miters.
-  [X] Left Stile Inside Length Entry for miters.
-  [Y] Header Inside Length Entry for miters.
-  [Z] Right Stile Inside Length Entry for miters.
-  [Ft] Feet Entry denotes numbers as Feet.
-  [In] Inches Entry denotes numbers as Inches.
-  [/] Slash is used to enter fractional numbers.
-  [$\leftarrow \pm \rightarrow$] [Increment] adds or subtracts from current position by a given amount.
-  [LIST] [List] List stores dimensions for later use.
-  [-D-] Calibrate sets the distance from the saw blade.
-  [STOP] Stop halts movement immediately.
-  [Start] Start accepts an entered dimension, and causes movement.



-  [Clr] Clear backs up and erases one digit at a time to correct a data entry error.
 -  [.] Decimal is used to enter decimal numbers in both metric and inches.
 -  [.] [.] [.] inserts a minus sign before a dimension, allowing entry of negative numbers.
-  [n] Number keys are used to enter dimensions.

- When powered ON, SawGear emits a low hum, which indicates that SawGear is ON and ready to use.
- When powered OFF using the soft start key, the hum stops, indicating that SawGear is OFF.
- To power it ON again, push the soft start, and listen for the hum. The display will also come on.

SawGear LCD Display

Display Size:

- 16 characters wide x 1 character high

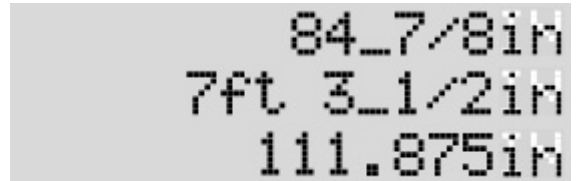


Ready Screen:

- Defined as when the stop is at position and the last 2 digits are blinking (heartbeat).

Display at Position in Foot Mode:

- Fractions divided from whole inches by an underscore.
- Feet divided from inches by "Ft" and a space.
- "in" for inches ALWAYS at end.
- "in" and "IN" blink back and forth.



Display at Position in Metric Mode:

- "mm" for millimeters ALWAYS at end.
- "mm" and "MM" blink back and forth.



1st Power Up

The following routine is followed only the first time SawGear is used, or whenever the *interface language, measuring system, saw side* or *working length* must be changed.

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

User steps	LCD screen displays
1. Plug into AC power. Press [Soft Start].	Language is English=1, Español=2, Français=3
2. Press [1], [2] or [3] to select language.	Units are Metric=4, Inch=6
3. Press [4] or [6] to select measurement system.	Saw is Left=7, Right=9
4. Press [7] if the saw is to the left of SawGear, or [9] if the saw is to the right.	Press Start to move
5. Press [Start] to move. <i>SawGear moves to the end away from the saw until it reaches maximum position. Then it moves to the end closest to the saw until it reaches minimum position.</i>	
<i>SawGear quickly displays</i> <i>and then the SawGear working length, +/- 0.5 inch. (96.253 is only an example.)</i>	Working Length 96.253in
<i>If the working length that displays is NOT the working length of the machine you are using the power head on, it MUST be changed. Enter the correct working length.</i>	
6. Press [Start] to confirm the SawGear working length. <i>SawGear backs out and stops at 6". CUT a sample at this length and MEASURE it.</i>	Enter length of cut piece and Press Start
7. Enter the length of the sample and press [Start]. <i>SawGear is now ready to use!</i>	

Repeat a 1st Power Up

If you need to change the interface language, the measurement system, or the saw location, or if you are moving the SawGear power head to a different measuring bar, you must perform a 1st power up.

 **Unplug the machine and plug it in again while HOLDING DOWN the [STOP] key.**

 **While still HOLDING DOWN the [STOP] key, press the soft start key until the active screen displays, and continue at 1st Power Up, step 2.**

Normal Power Up

The following routine is followed whenever SawGear is used, AFTER the first time.

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

User steps

LCD screen displays

1. Plug into AC power.

```
Please wait...  
Press Start to move
```

2. Press [Start].

SawGear homes itself and then scrolls:

```
Ready to work. Enter a  
dimension and press  
Start.
```

3. Enter length and press [Start].

*SawGear instantly moves to the length you entered.
Make your cut(s) and repeat the process.*

Start SawGear

If SawGear is plugged in to power but does not display the active screen, start it up using the soft

start key: 

SawGear will automatically power off the display when not in use.

Password Protection

SawGear can be secured by a password to prevent its use by unauthorized persons.

The following steps show how to activate password protection.

Once a password has been set, SawGear cannot be operated without it, so DON'T LOSE IT!

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

User steps

LCD screen displays

1. Unplug SawGear from AC power.

2. While holding down the [/] key, plug SawGear into AC power.

```
You are about to  
initialize the password  
system If you forget  
your password, the SG  
will be broken.
```

3. Press [Start].

```
Enter password
```

SawGear Manual

4. Enter a password consisting of 4 to 8 digits, and press [Start].
5. Re-enter password and press [Start].

Confirm PW

Please wait...

Press Start to move

6. Press [Start].

SawGear homes itself and then scrolls:

Ready to work. Enter a dimension and press Start.

SawGear is now ready to use!

The password MUST now be entered whenever SawGear is powered up by plugging it into AC power.

The password will NOT be demanded when powering up using the soft start key:



Change the Password

When password protection has been set, the password can be changed.

The following steps show how to change the password.

Once a password has been set, SawGear cannot be operated without it, so DON'T LOSE IT!

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

User steps

1. Unplug SawGear from AC power.
2. While holding down the [/] key, plug SawGear into AC power.
3. Enter the old password and press [Start].
4. Enter a new password consisting of 4 to 8 digits, and press [Start].
5. Re-enter password and press [Start].

LCD screen displays

Enter old PW

Enter password

Confirm PW

Please wait...

Press Start to move

6. Press [Start].

SawGear homes itself and then scrolls:

Ready to work. Enter a dimension and press Start.

SawGear is now ready to use!

The password MUST now be entered whenever SawGear is powered up by plugging it into AC power.

The password will NOT be demanded when powering up using the soft start key:



Deactivate the Password

When password protection has been set, it can also be turned off.

The following steps show how to deactivate password protection.

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

User steps

1. Unplug SawGear from AC power.
2. While holding down the [I] key, plug SawGear into AC power.
3. Enter the old password and press [Start].
4. Press [Start] [Start].
5. Press [Start] [Start] again.
This clears the password.

LCD screen displays

Enter old PW

Enter Password

Confirm PW

Please wait...

Press Start to move

6. Press [Start].

SawGear homes itself and then scrolls:

Ready to work. Enter a dimension and press Start.

SawGear is now ready to use!

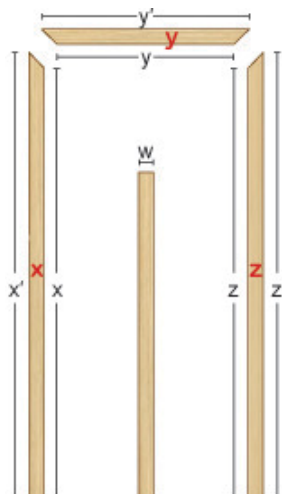
SawGear is no longer password protected and will not ask for a password when it is powered up by plugging it into AC power.

Setting the Distance Between the Stop and the Blade

This is how to set the distance between the stop and the saw blade using the Calibrate key:



SawGear is in Foot mode for these examples.



The Calibrate key will let you set five distances:

1. *Between stop and saw blade (straight cut distance)*
2. *Between stop and saw blade at 45° angle miter (X distance)*
3. *Between stop and saw blade at 45° angle miter (Y distance)*
4. *Between stop and saw blade at 45° angle miter (Z distance)*
5. *Between stop and saw blade (stored increment)*

1. Calibrate Straight Cut Distance

User steps

1. Cut a sample board at least 12 inches long.
2. Measure the cut board, and press [-D-].

The LCD screen scrolls:

Enter length of cut
piece and press Start

3. Enter the actual length of the sample piece and press [Start] to return to the ready screen.

2. Calibrate Miter Cut X Distance

- The calibration of the X, Y and Z values uses a calculated value based on the value of W (moulding width).
- SawGear will use whatever was the last known value of W to calibrate X, Y and Z values.
- See also Setting the Value of W.

User steps

1. Cut a sample 'X' moulding at least 12 inches long.
2. Measure the X distance of the cut board, and press [-D-] [X].
3. Enter the actual X length of the sample piece and press [Start] to return to the ready screen.

LCD screen displays

X=

3. Calibrate Miter Cut Y Distance

User steps

1. Cut a sample 'Y' moulding at least 12 inches long.
2. Measure the Y distance of the cut board, and press [-D-] [Y].
3. Enter the actual Y length of the sample piece and press [Start] to return to the ready screen.

LCD screen displays

Y=

4. Calibrate Miter Cut Z Distance

User steps

1. Cut a sample 'Z' moulding at least 12 inches long.
2. Measure the Z distance of the cut board, and press [-D-] [Z].
3. Enter the actual Z length of the sample piece and press [Start] to return to the ready screen.

LCD screen displays

Z=

5. Calibrate Increment Distance

User steps

1. Press [-D-] [<±>].

2. Enter the length of the desired increment and press [Start] to return to the ready screen.

LCD screen displays

Incr=

Straight Cutting

SawGear has been set up on a chop saw or miter saw and has been homed and is now ready to run.
SawGear can be used in Foot Mode or in Metric Mode.

Basic Operation

Consists of two simple steps:

1. Enter a dimension and hit [Start].
2. When SawGear moves to position, make your cut(s).

How to Enter Dimensions

Depends on whether you work in feet, inches and fractions, feet and decimal inches, or millimeters.

See the appropriate topics listed below:

Entering Feet, Inches and Fractions
Entering Non-Standard Fractions

Entering Feet and Decimal Inches

Entering Millimeters

Negative Numbers

Entering Negative Numbers

Data Entry Errors

"Too Big" Error

"Too Small" Error

Correcting Entry Errors

Miter Cutting

SawGear has been set up on a chop saw or miter saw and has been homed and is now ready to run.

SawGear can be used in Foot Mode or in Metric Mode.



These buttons, located along the top of the SawGear control, are used to set up your machine for miter cuts.

The most important thing to do in setting up SawGear to miter cut molding and other stock is to correctly enter the width of the material to be cut. The movements that SawGear makes are calculated from the width entered using the [W] key.

User steps

1. Press [W], enter the width of the molding being cut, and press [Start].
2. Make a square trim cut with the exterior edge to fence.
3. Press [X] to set the length of the left stile, enter the interior dimension of the casing, and press [Start].

SawGear moves to a length based on the width of the stock and the 45° angle of the first miter.

4. Swing the saw to the left, set it at -45°, make a trim cut from the front to the back fence, and remove the left stile.
5. Swing the saw to the right, set it at 45°, and trim off the residual miter from the previous cut.
6. Press [Y] to set the length of the header, enter the interior dimension of the casing, and press [Start].

SawGear moves to a length accounting for the 45° angle of the two miter cut ends.

7. Move your piece to the stop, swing the saw to the left, set it at -45°, make the cut, and remove the piece.
8. Swing the saw to the right, set it at 45°, and trim off the residual miter from the previous cut.
9. Press [Z] to set the length of the right stile, enter the interior dimension of the casing, and press [Start].

SawGear moves to a length based on the width of the stock and the 45° angle of the last miter.

10. Move your piece to the stop, return the saw to 0°, make the final square cut, and remove the right stile.

SawGear returns to the ready screen and is waiting for your next move.

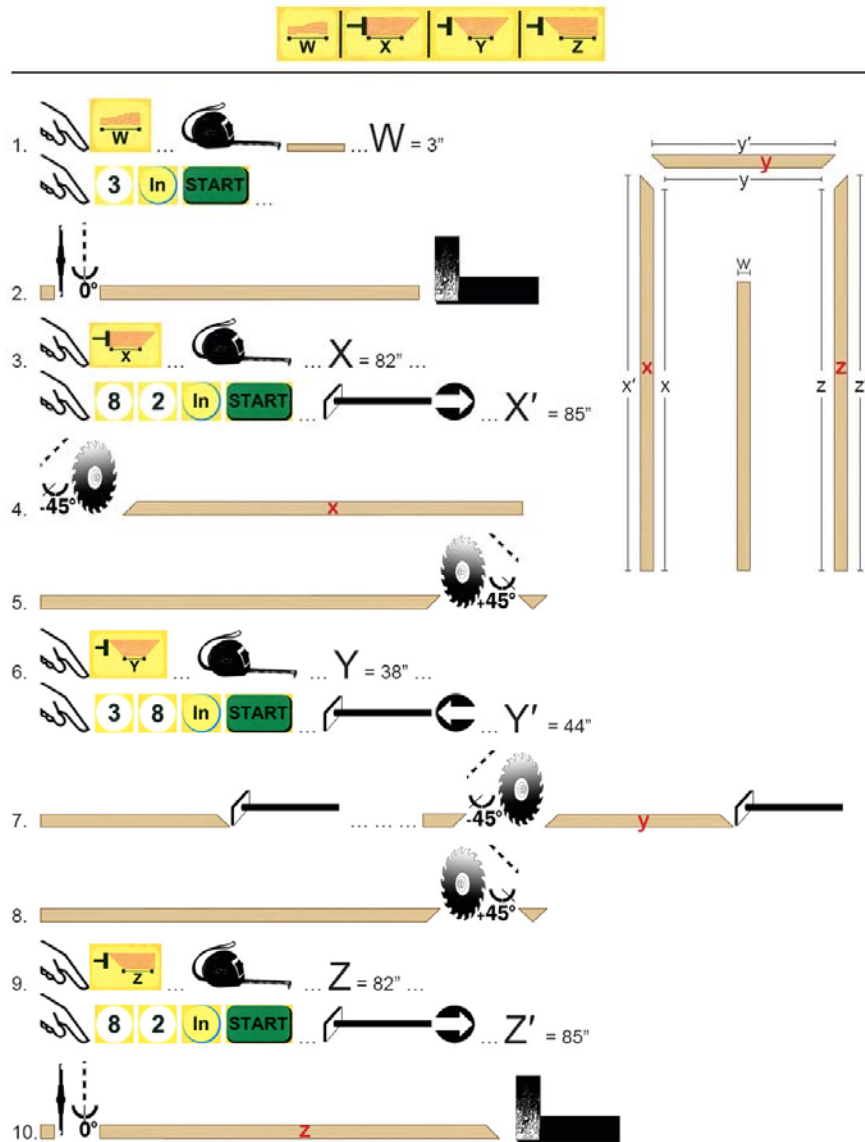
LCD screen displays

W=

X=

Y=

Z=



Custom Miter Cutting

SawGear has been set up on a chop saw or miter saw and has been homed and is now ready to run. Miters to be cut will be at various angles.

SawGear can be used in Foot Mode or in Metric Mode.



These buttons, located along the top of the SawGear control, are used to set up your machine for miter cuts.

SawGear can be used when you must cut custom angled miters for crown or other trim moldings.

The [W] key is used to input the angle of any miter that is not 45°. The following steps show how.

User steps

LCD screen displays

1. Press [W], enter the width of the molding being cut, and press [W] again.



Enter the angle of the miter being cut, and press [Start].



If an angle greater than 89.000 is entered, SawGear will not accept it and continue to await your correct input. You can exit the input screen by pressing [Start]. The default miter angle of 45°, or whatever custom angle was most recently input, will be saved.

2. Make a square trim cut with the exterior edge to fence.
3. Press [X] to set the length of the left stile, enter the interior dimension of the casing, and press [Start].

X=

SawGear moves to a length based on the width of the stock and the 45° angle of the first miter.

4. Swing the saw to the left, set it at -45°, make a trim cut from the front to the back fence, and remove the left stile.
5. Swing the saw to the right, set it at 45°, and trim off the residual miter from the previous cut.
6. Press [Y] to set the length of the header, enter the interior dimension of the casing, and press [Start].

Y=

SawGear moves to a length accounting for the 45° angle of the two miter cut ends.

7. Move your piece to the stop, swing the saw to the left, set it at -45°, make the cut, and remove the piece.
8. Swing the saw to the right, set it at 45°, and trim off the residual miter from the previous cut.
9. Press [Z] to set the length of the right stile, enter the interior dimension of the casing, and press [Start].

Z=

SawGear moves to a length based on the width of the stock and the 45° angle of the last miter.

10. Move your piece to the stop, return the saw to 0°, make the final square cut, and remove the right stile.

SawGear returns to the ready screen and is waiting for your next move.

Increment

Small incremental moves (nudges) can be made by pressing the increment key:



Every time the [$\leftarrow\pm\rightarrow$] key is pressed, the stop moves one increment in the direction indicated.

The increment key is actually two keys in one.



Press the Left Arrow side of the key to nudge the stop to the left.



Press the Right Arrow side of the key to nudge the stop to the right.

The value of Increment is set as the last step in setting the distance between the stop and the blade.

Saving Dimensions with List

SawGear lets you save dimensions you are working with by storing up to 10 lengths in each of 10 cut lists. The following examples show how to enter dimensions into a list.

The messages shown below SCROLL across the screen if longer than the LCD's 16 character width.

SawGear is in Foot mode for these examples.

User steps

LCD screen displays

1. Press [List].

Select the list # to
use

2. Enter [5].

List#5

Or any number from 0 to 9.

The screen displays "List#" followed by the number you entered.

If this is NOT the list number you want, exit by pressing [STOP].

If the list number you entered is correct&ldots;

3. Press [Start].

1#Empty Cut

The first cut displays with "Empty Cut" to tell you this list is empty. Enter your first dimension.

SawGear will move to each new dimension as it is entered, so be sure nothing is in the way.

4. Enter [4] [8] and press [Start].

1#48

The dimension displays exactly as you entered it. In Foot mode, inches is assumed.

When you press [Start], SawGear moves immediately to the dimension, and prompts you for the next dimension.

2#Empty Cut

5. Enter [2] [3] [In] [7] [8] and press [Start].

2#23in7/8

When entering inches and a fraction, use the [In] key to separate the fraction.

When you press [Start], SawGear moves and prompts you for the next dimension.

At any point you can exit the list by pressing [STOP] and the dimensions will be saved.

6. Enter [2] [Ft] [3] [In] [3] [/] [6] and press [Start].

3#2ft 3in3/16

When entering feet, inches and a fraction, use the [Ft] key to indicate the feet, and the [In] key to separate the fraction. When you press [Start], SawGear moves and prompts you for the next dimension.

7. Enter as many as 10 different dimensions into a list.

*#36in15/16

The prompt for the tenth dimension displays with an asterisk () for the number 10.*

8. Press [STOP] to exit a list.

Leaving cut list

Using a Saved Cut List

Select a cut list that has dimensions saved in it the same way as you create one.

To use the dimensions in a saved cut list, simply press [Start] without entering a new dimension at the prompts.

SawGear is in Foot mode for these examples.

User steps

LCD screen displays

1. Press [List].

Select the list # to use

2. Enter [5].

Or any number from 0 to 9.

The screen displays "List#" followed by the number you entered.

If this is NOT the list number you want, exit by pressing [STOP].

If the list number you entered is correct&ldots;

List#5

3. Press [Start].

1# 48.000in

The first dimension displays in decimal inches.

4. Press [Start] again.

1#48

SawGear moves to the first dimension, and then displays the next one in the list.

Every time you press [Start], SawGear moves to the dimension it has just displayed and then displays the NEXT dimension in the list, ALWAYS in decimal inches. If the list does not contain 10 dimensions, when it comes to the first memory with nothing in it, it displays the cut number and "Empty Cut".

You can exit the list by pressing [Stop] or add another cut.

*#Empty Cut

To use a list repeatedly...

5. After the last cut in the list, press [STOP].

6. Press [List], re-enter the list number, and press [Start].

List#5

You can now run the cut list another time.

7. Press [STOP] to exit a list.

Leaving cut list

Entering Feet, Inches and Fractions

The following examples show how to enter dimensions into SawGear and how it interprets the data. SawGear is in Foot mode for these examples.

User steps	LCD screen displays
1. Enter [6].	6
2. Press [Start]. <i>SawGear moves to position at 6 inches.</i>	6in
RULE: When neither [Ft] nor [In] are pressed, SawGear assumes Inches when in Foot mode.	
DISPLAY: In Foot mode, if there are inches, when at position the last two digits are ALWAYS "in".	
3. Enter [5] [/] [8].	5/8
4. Press [Start]. <i>SawGear moves to position at 5/8 inch.</i>	5/8in
RULE: When [/] is used in a dimension, SawGear assumes Inches when in Foot mode.	
5. Enter [6] [In] [5] [/] [8].	6in5/8
6. Press [Start]. <i>SawGear moves to position at 6-5/8 inches.</i>	6_5/8in
DISPLAY: Inches are separated from fractions by an underscore when at position.	
7. Enter [8] [Ft] [6] [In] [5] [/] [8].	8ft 6in5/8
8. Press [Start]. <i>SawGear moves to position at 8 feet 6-5/8 inches.</i>	8ft 6_5/8in
DISPLAY: Feet is ALWAYS followed by "Ft" and is separated from Inches by a space when at position.	
9. Enter [8] [Ft] [6].	8ft 6
10. Press [Start]. <i>SawGear moves to position at 8 feet 6 inches.</i>	8ft 6in
RULE: Any number entered after [Ft] is interpreted as Inches.	
11. Enter [6] [Ft].	6ft

12. Press [Start].

SawGear moves to position at 6 feet.



RULE: Any number in whole feet with neither inches nor fractions must be followed by [Ft], otherwise the number will be interpreted as Inches.

DISPLAY: If a dimension is entered in feet and no inches, "0in" will ALWAYS display at the end of the number when at position.

Largest Number Display

The LCD display has 16 characters available, which limits the maximum number.

SawGear is in Foot mode for this example.

The number of feet is related to SawGear working length.



Entering Feet and Decimal Inches

The following examples show how to enter dimensions into SawGear and how it interprets the data.

SawGear is in Foot mode for these examples.

User steps

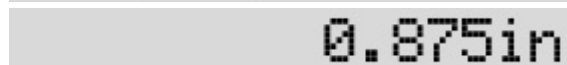
LCD screen displays

1. Enter [0] [.] [8] [7] [5].



2. Press [Start].

SawGear moves to position at 0.875 inches.



3. Enter [1] [1] [1] [.] [8] [7] [5].



4. Press [Start].

SawGear moves to position at 111.875 inches.



RULE: When neither [Ft] nor [In] are pressed, SawGear assumes Inches when in Foot mode.

DISPLAY: If a dimension is entered ENTIRELY in inches and decimals, "in" will ALWAYS display at the end of the number when at position.

5. Enter [6] [Ft] [9] [.] [8] [7] [5].



6. Press [Start].

SawGear moves to position at 6 feet 9.875 inches.



RULE: When entering feet and decimal inches, after pressing [Ft] any further entry is assumed to be inches, so there is no need to press [In] for inches.

DISPLAY: If a dimension is entered in feet, inches and decimals, "in" will ALWAYS display at the end of the number when at position.

7. Enter [6] [Ft].



8. Press [Start].

SawGear moves to position at 6 feet.



RULE: Any number in whole feet with no inches must be followed by [Ft], otherwise the number will be interpreted as Inches.

DISPLAY: If a dimension is entered in feet and no inches, "0.0in" will ALWAYS display at the end of the number when at position.

Largest Number Display

The LCD display has 16 characters available, which limits the maximum number.

SawGear is in Foot mode for this example.

The number of feet is related to SawGear working length.



Entering Non-Standard Fractions

It is possible to enter a *non-standard fraction* of an inch and have SawGear move to the exact position. When at position, the display will show the closest standard fractional equivalent.

SawGear is in Foot mode for these examples.

User steps

1. Enter [1] [6] [In] [2] [/] [3].
2. Press [Start].

LCD screen displays

16in 2/3

16_21/32in

SawGear moves to position at 16-2/3 inches, but the display shows the position as 16-21/32.

It is not recommended to enter dimensions in non-standard fractional inches, but to enter decimal inches when working with lengths that must be more precise than 1/64 of an inch.

Entering Millimeters

The following example shows how to enter dimensions into SawGear and how it interprets the data.

SawGear is in Metric mode for this example.

When in Metric mode, the [Ft], [In], and [/] keys are disabled.

User steps

1. Enter [1] [1] [1] [.] [8].
2. Press [Start].

LCD screen displays

111.8

111.8mm

SawGear moves to position at 111.8 millimeters.

RULE: When in Metric mode, SawGear assumes every dimension is in millimeters.

Largest Number Display

The LCD display has 16 characters available, which limits the maximum number.

SawGear is in Metric mode for this example.

The number of millimeters is related to SawGear working length.

9999.99mm

Entering Negative Numbers

The following example shows how to enter a negative dimension into SawGear.

Negative numbers can be entered when setting an increment.

SawGear is in Foot mode for this example.

User steps

1. Enter [.] [.] [.]

*SawGear displays a minus sign whenever you press [.] three times.
Then, enter the actual number.*

2. Enter [3] [/] [4].

3. Press [START].

SawGear moves to position at minus 3/4".

LCD screen displays

—

-3/4

-3/4in

Correcting Entry Errors

The following example shows how to correct an entry error using the Clear key: 
SawGear is in Foot mode for these examples.

User steps	LCD screen displays
1. Enter [6] [2] [In] [3] [/] [8]. <i>You notice you entered 3/8 by mistake. It should have been 5/8.</i>	62in3/8
2. Enter [Clr] [Clr] [Clr]. <i>Your entry is erased starting with the last digit entered.</i>	62in3/8
3. Enter [5] [/] [8]. <i>Your new entry replaces the error.</i>	62in5/8
4. Press [Start]. <i>SawGear moves to position at 62-5/8 inches.</i>	62_5/8in

"Too Big" Error

You cannot enter a dimension at the SawGear control longer than the maximum limit.
SawGear is in Foot mode for this example.

User steps	LCD screen displays
1. Enter [2] [4] [4] and press [Start]. <i>SawGear assumes "inches" and displays an error message.</i> <i>Then, it quickly returns to the ready screen and displays the actual position, waiting for your valid input.</i>	244 TOO BIG 84_7/8in
2. Enter any dimension that is not MORE than SawGear's maximum limit, and press [Start] to move.	

"Too Small" Error

You cannot enter a dimension at the SawGear control less than the minimum limit.
SawGear is in Foot mode for this example.

User steps	LCD screen displays
1. Enter [.] [.] [.] [3] [/] [4] and press [Start]. <i>SawGear assumes "inches" and displays an error message.</i> <i>Then, it quickly returns to the ready screen and displays the actual position, waiting for your valid input.</i>	-3/4 TOO SMALL 84_7/8in
2. Enter any dimension that is not LESS than SawGear's minimum limit, and press [Start] to move.	