Skycut Series V with SignMaster

March 17, 2023

Do NOT read this entire manual… unless you want to.

- At the start of *Chapters 1 - 4* are short sections with references to find what you need plus some important reminders. PLEASE read these short sections at the very least and refer back to them, when needed.
- Chapters 1 and 2 are very important in terms of correctly setting up your Skycut to work with SignMaster and learning the ins and outs of cutting.
- Chapter 3 is for those owners wanting to perform print and cut applications.
- Chapter 4 covers using Skycut accessory tools.
- Chapter 5 covers several SignMaster functions of interest: creating contour cuts and engraving fills.

It's not practical to print this entire manual because:

- It's a waste of paper and ink if you only ever need certain sections.
- The live links to videos and web sites in the manual will not work.
- This manual will be updated from time to time.
- You cannot search on individual words.

Also:

- Note the green Video icons which link to videos related to the section in which they are located. These videos will enhance your learning experience.

Table of Contents

1. Introduction and Setting Up

1.00 Quick Reference for This Chapter

- How to download and set up SignMaster: *Section 1.11*
- How to set up communication between a computer and Skycut: *Section 1.12*
- How to use the control panel: *Sections 1.10* and *1.14*
- How to adjust the blade holder: *Section 1.07.5*
- Where to position the pinch wheels: *Section 1.09*
- The cutting mat is too sticky (or not sticky enough): *Section 1.08*
- How to use the USB Flash Drive feature: *Section 1.12.4*

Important Notes:

- Please read *Section 1.02* regarding safe operation of the Skycut.
- Report any damage or missing contents to your dealer promptly.
- Retain the original box and packing materials in case you ever need to ship your Skycut.

1.01 Support

- Thank you for choosing a Skycut digital die cutter. Before using a blade in your new cutter, we urge you to read *Chapters 1 and 2* and watch the videos linked in these chapters.
- If you run into difficulties with the operation of your Skycut, turn off the power and look for a solution in this manual. Note that *Appendix A* is a **Troubleshooting** section. If you continue to have technical questions or issues, please contact your dealer as soon as possible.
- If anything is missing from your order or you have mechanical issues with your Skycut, please contact your dealer as soon as possible. You can also contact Skycut directly using this email address: skycut@skycut.cn.
- For additional information and support with the Skycut, please check out the following:
  - ◊ Skycut web site: http://www.sky-cut.com/
  - ◊ Skycut Facebook page: https://www.facebook.com/skycutcuttingplotter/
  - ◊ Skycut YouTube channel: https://www.youtube.com/channel/UCrPn5hFLbiRNDgccY8iXwoA
- For SignMaster support, please go to http://signmaster.software/support/

1.02 Safety and Warnings

Please be aware of the following safety guidelines when working with the Skycut:

- Pinch Points: Keep hands, long hair, loose clothing, jewelry, etc. away from the moving parts.
- Risk to Children and Pets: Please supervise children around the cutter when it is in use.
- Movement and Touching: Do not move the Skycut or touch any circuitry while it is plugged in.
- DO NOT touch or jam the plotter's track while it is operating. If the cutter is damaged, it is the owner's responsibility.

- DO NOT shake the cutter while it is operating.
- DO NOT cut any materials that have staples or other embellishments attached.
- DO NOT touch the cutter with a magnet. It is safe, however, to cut magnetic materials, such as those used on refrigerators and car exteriors.
- DO NOT allow any liquids to spill into the cutter.
- DO NOT allow small items to fall into the cutter.
- Place the Skycut on a sturdy and stable table, desk, or trolley. The optional Skycut stand can also be used.
- Always turn off the Skycut when not in use. Leaving the cutter turned on for extended periods of time can possibly damage the machine.
- Always turn off the Skycut before unplugging or removing the power cable from the wall outlet or power strip.
- Unplug the Skycut from a wall outlet or power strip during an electrical storm or when the cutter will not be used for an extended period of time.
- Transporting: When transporting the cutter, move the pinch wheel lever into the upward position. Remove the blade from the blade holder and cover the tip with the plastic cap.

1.03 Warranty

- ***IMPORTANT!*** If your Skycut is damaged during shipment or appears to be defective, your dealer should be notified as soon as possible.
- For additional information regarding your warranty, please refer to your Skycut dealer.
- It is recommended that you retain the original box with packing materials in case you ever need to ship your Skycut.

1.04 Unpacking

- Verify that you have received all contents. There is a checklist in *Section 1.05*. Please notify your Skycut supplier immediately if anything is missing.
- Remove all packaging before turning on the Skycut. Currently, the cutter ships with two end cap foam protectors, four plastic zip ties, and tape on either end of the cutting strip. Be very careful when removing the zip ties - it's best to cut those ties from behind the machine versus in front. Gently remove the tape at the ends of the cutting strip by rolling the tape away. Do not pull straight up.
- Because the cutting mat must be folded over to fit into the box, it may have become slightly rounded during shipping. Gently and only partially roll the mat in the opposite direction to remove the roundness and place on a flat table to make sure the mat now lies horizontally to the surface. Refer to *Section 1.08* for additional instructions on preparing the mat for use.
- Use the enclosed test pen as you experiment and become familiar with operating the Skycut. Place scrap paper on the mat and simply draw shapes rather than cut them. This will prevent possible damage to the blade, mat, and cutting strip as you learn where shapes will cut and the basic operating procedures.

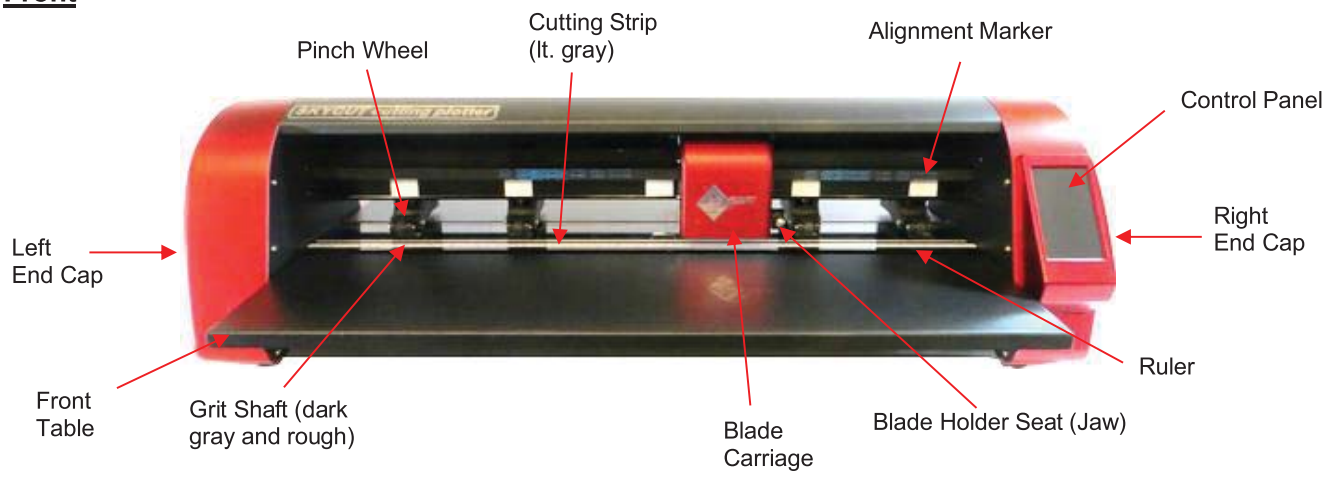
1.05 Contents

- Besides the cutter, your box should also contain the following items:

#	Description	Image	Quantity
1	Power cable		1
2	USB Cable		1
3	60° Blade(blue cap)		1
4	45° Blade(red cap)		2
5	Blade Holder		1
6	Test Pen and 1 Refill		1 set
7	Cutting Mat		1

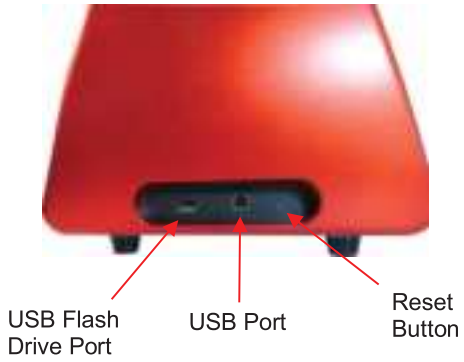
1.06 Parts of the Skycut

Front



- Alignment Markers: indicate to the user the available positions for the pinch wheels
- Blade Carriage: moves the Blade Holder Seat left and right
- Blade Holder Seat or Jaw: holds the blade holder, test pen, and other accessories
- Control Panel: used to change settings, set up Wi-Fi, calibrate camera, cut PLT files, and more
- Cutting Strip: protects a blade when cutting backed materials without using a cutting mat
- Front Table: keeps cutting mat supported horizontally
- Grit Shafts (5 on 24" model): allow the pinch wheels to grip the mat or material so they can be moved in and out of the cutter during cutting
- Pinch Wheels (4 on 24" model): grip the mat or material so that the grit shafts beneath will feed the mat or material in and out during cutting
- Ruler: for measuring and aligning rolled materials

Right Side

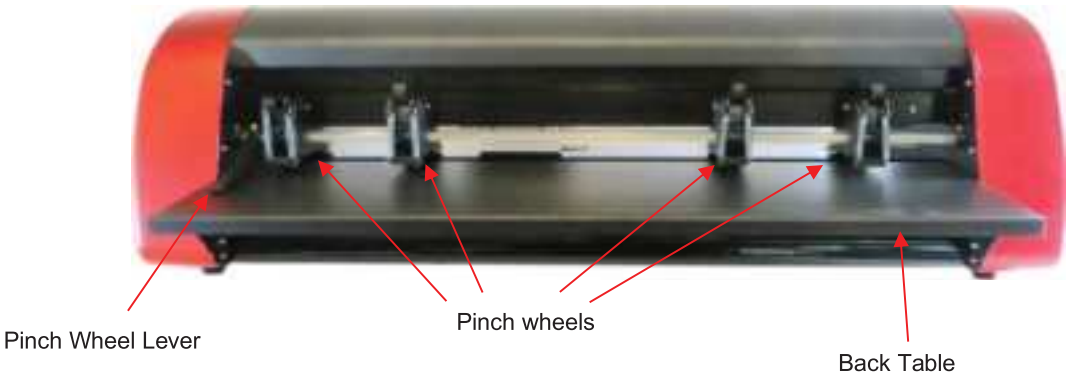


- USB Flash Drive Port: used to load PLT files via control panel for cutting
- USB Port: option to connect computer to Skycut with included USB cable
- Reset Button: used to reset Skycut's cutting buffer (does not reset calibrations)

Left Side

- Power Port: plug power cable into this port
- On/Off Switch: power cutter on or off

Back



- Pinch Wheels (4 on 24” model): grip the mat or material so that the grit shafts beneath will feed the mat or material in and out during cutting
- Pinch Wheel Lever: raises and lowers the pinch wheels
- Back Table: keeps cutting mat supported horizontally

Note: Newer models no longer have a single lever.

Each pinch wheel has its own lever to raise and lower.

1.07 Accessories

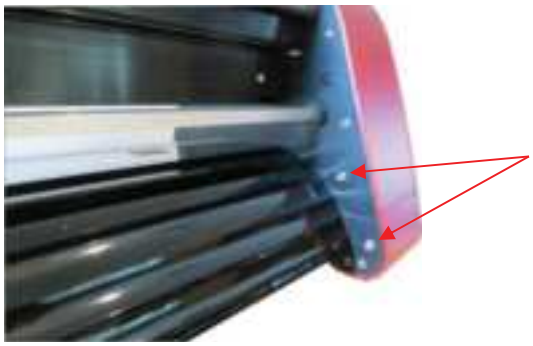
- Go to *Chapter 4* for details on using the engraving and scoring tools.

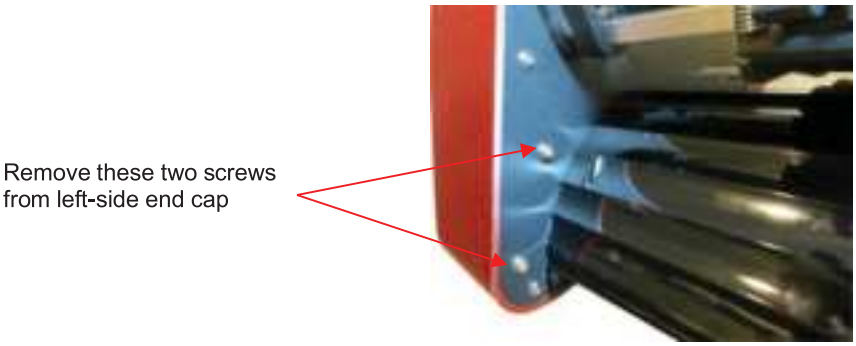
1.07.1 Assembling the Skycut Stand (optional)

- If you purchased the optional stand, please refer to this Video for detailed instructions on assembling the stand and mounting the cutter onto it.

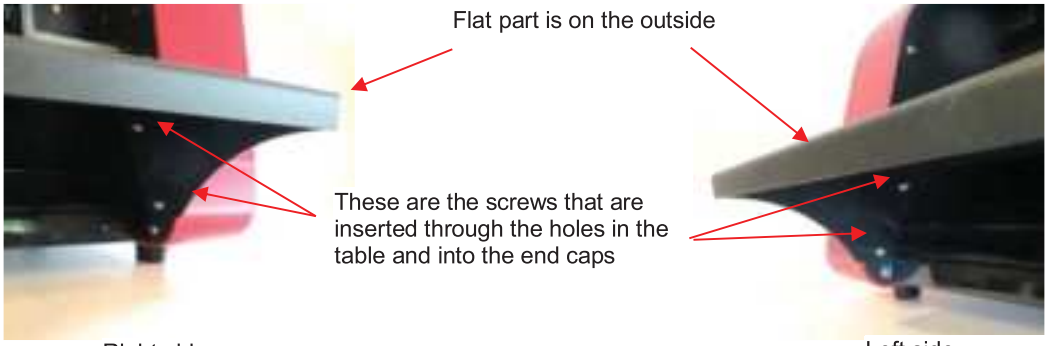
1.07.2 Tables

- The following instructions are for the original table design. If the tables you purchase have brackets that are not part of the table, please watch this video: Video
- While the two tables attach onto the cutter and do not require any support, you may prefer to not use them, especially if you are only cutting rolled materials. However, if you are using the cutting mat, the support they provide will keep the mat horizontal, thus reducing the chance of the mat drooping and causing materials to separate from the adhesive on the mat.
- The screws required for attaching are already installed in the Skycut. They will be removed and then, after aligning the holes in the table, replaced to securely attach the table.
- It’s much easier to install if you have a second person available to hold the tables in place while the screws are being inserted. It is also helpful to have a flashlight shining on the inside of the tables to better see the holes for alignment.
- The two tables are identical. Start with either the front or the back of the cutter.
- There are a number of screws mounted on the inside of the end caps. The ones to be removed are the second and third from the bottom. They are also the only two with washers:





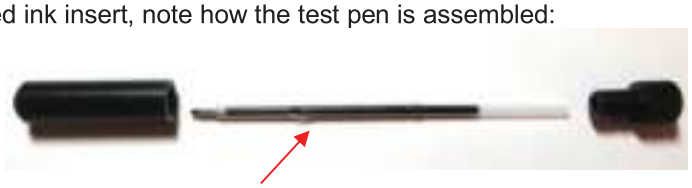
- Align the holes in the sides of the table with the holes in the end caps. Note in the following photos how the flat part of the table is on the outside:



- Insert the screws previously removed through the aligned holes and screw back into place. Then repeat on the other side of the cutter.

1.07.3 Test Pen

- The test pen should be used until you are comfortable with the operation of your Skycut and know, with certainty, where images will cut. The test pen should arrive pre-assembled. However, if you want to change out the insert to the red ink insert, note how the test pen is assembled:



1.07.4 Skycut Blades

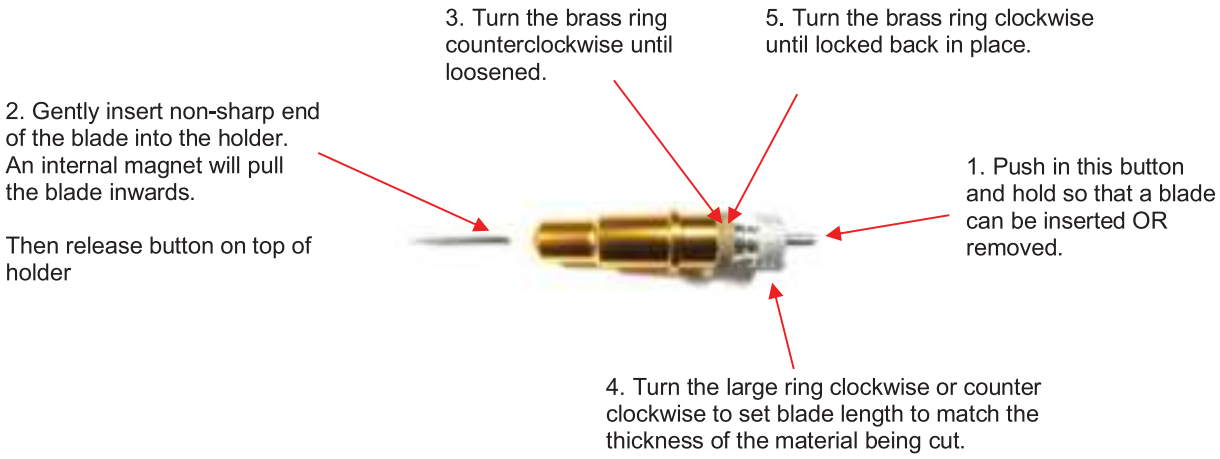
- There are three kinds of blades that fit inside the Skycut blade holder:

- ◊ The 45° **red** capped blade is suited for cutting thinner materials such as paper, all cardstock types, heat transfer vinyl, and wall/auto/decal vinyl.
- ◊ The 60° **blue** capped blade is a much longer blade and is well-suited for cutting thicker materials, such as gum paste, craft plastic, craft foam, and rhinestone template material.
- ◊ Sold separately is the 30° **yellow** capped blade. It is a wide blade and is well suited for cutting fabric, felt, and tint. It has been reported that it also works well with cardstock that has been exposed to humidity.

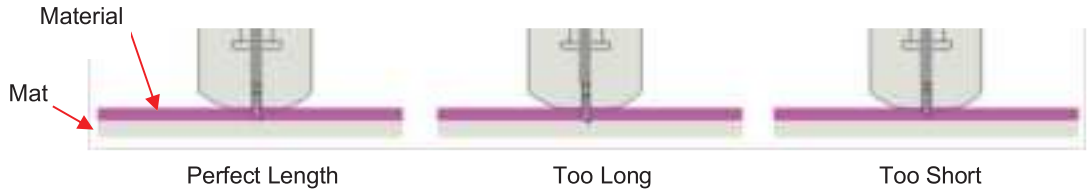
- Note that the red capped blade and blue capped blade have a cutback on the opposing side of the blade (right side, in the earlier photo). This reduces the blade offset value and allows for better detailed cutting of small shapes.
- Additionally, there are other tools sold separately, including a stand, an engraving tool and a creasing/scoring tool. Details on the engraving tool and creasing tool are covered in *Chapter 4.*

1.07.5 Blade Installation

- The blade must be carefully inserted into the blade holder. Do this over a soft surface (e.g., over a hand towel). It's important to protect the fragile blade! To install, follow the numbered steps as shown:



- The **Blade Length** (also called **Blade Exposure**) is how much blade is exposed at the bottom of the blade holder. For optimal cutting, you want this length to match the thickness of the material or be just a tiny bit longer.
- When setting the blade length (*Step 4* in the prior photo), hold the blade holder up next to the material before pressing the material to the mat, so that you can more accurately set the length to match the thickness of the material. For really thin materials, like vinyl and thin paper, just the very tip of the blade will be protruding from the bottom of the blade holder. In fact, you should just barely be able to feel it with your fingertip and not be able to see it very well, if at all. Having the blade fully extended will never result in better cutting. In fact, it can cause skewing, tearing of the material, damage to the blade, and damage to the mat or cutting strip.
- A good way to test your blade length is to fold a piece of the material onto itself and then cut a line into the material by hand. Press firmly but not too hard as more force will not determine if the blade is set to the right length. If the blade cannot cut through the material, you will need to extend the blade. If the blade cuts through the material and cuts into the next layer, you need to retract the blade. If the blade cuts through the material but does not cut into the layer below, you have the perfect length.



- When conducting a test cut, be sure to check your mat (or the top of a backing sheet) for cut lines after the test. You should be able to set the length to get clean cuts but with only fine lines or no lines in the mat or backing sheet. If you do see deep cut lines, retract the blade length ~¼ of a turn counterclockwise. Repeat your test cut.

1.08 Preparing and Caring for the Cutting Mat

1.08.1 Tips on Using the Cutting Mat

- Always use a mat to hold the material to be cut unless the material has its own protective backing. For example, vinyl and iron-on transfer both come with a layer that you do not cut. Thus, this backing layer serves as the carrier for cutting. Paper and cardstock do not have a backing, thus they must be cut on the mat.
- ***IMPORTANT!*** A new mat may be too sticky if you are cutting certain products. This can cause difficulty in removing cut items without tearing. Place an old but clean bath towel over the surface of the mat and press with a brayer or rolling pin. Then pull up. Test the stickiness by pressing the palm of your hand in the middle of the mat and lifting. If the mat remains stuck to your hand, repeat until the mat can still be lifted but will release. It should only take a few pressings to greatly reduce the stickiness as tiny (too small to be visible) fibers from the towel are added to the surface.
- Do not leave the pinch wheels in a down position when the Skycut isn't in use. This warps the plastic sooner, shortening the useful life of the cutting mat.

1.08.2 Cleaning and Replenishing the Cutting Mat

- When mats begin to lose their stickiness, they can be washed:
  - ◊ Use a mild dishwashing detergent, warm water, and a soft brush to thoroughly clean the surface. You're not trying to scrub the adhesive but just wet the invisible fibers that have been deposited from your cutting materials and get them released from the glue.
    - Rinse well, shake off excess water, and place sticky side down onto a bath towel.
    - Thoroughly dry the non-sticky side of the mat with another towel.
    - Pull the mat up and the sticky side should now be dry enough for immediate use. Test by making sure the mat will stick to your hand.
- While washing with soap and water should revive the original adhesive, you can add more adhesive if necessary:
  - ◊ Virtually any repositionable adhesive may be used on the cutting mat. Some of the popular choices include: Krylon Easy Tack, Aleene's Tack It Over and Over, Crafter's Companion Stick and Spray, Zig 2 Way Glue with wide tip, Craft Smart Off 'N On, and Scotch Repositionable Craft Stick. There's another spray adhesive, Scotch Super 77, which does not leave a sticky surface but is excellent for stabilizing paper and cardstock.
  - ◊ If you are cutting thicker materials, such as oil board or styrene, you may want to experiment with a stronger adhesive and use painter's tape to secure the material to the mat. If you are cutting thin paper, then you may want to experiment with a lighter adhesive.

- ◊ With most repositionable adhesives, you can control the tackiness based on the amount applied. Thus, always add a little bit at a time. As mentioned above, if you add too much, just apply a layer or two of cotton fibers by pressing with a bath towel.

- Other reported methods for cleaning mats:
  - ◊ Use a plastic scraper (an old credit card will suffice) to scrape off any random material pieces remaining on the mat after a cut.
  - ◊ For finer particles of paper or lint, you can use a lint roller. Tear off a sheet and then press down and pull up across the surface of the mat to clean in sections. Baby wipes can accomplish the same task.
  - ◊ To completely remove adhesive from the mat, apply Goo Gone, Duck Adhesive Remover, or Avon's Skin So Soft Bath Oil across the surface. Allow a minute to soak in and then scrape off with a sharp metal spatula. Repeat, as necessary until the mat is thoroughly clean and no longer sticky. Wash, dry and then add any repositionable adhesive.

- When necessary, the rubber wheels and the grit shafts may be cleaned with isopropyl alcohol or Un-Du. Apply the cleaner to a clean lint-free rag and rub the entire wheel and/or grit shaft until free of adhesive.

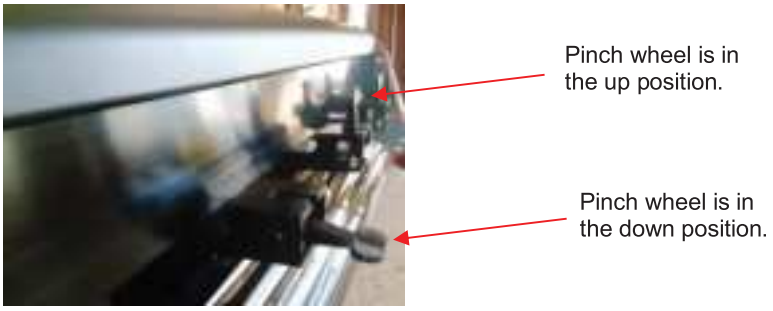
1.09 Pinch Wheels

1.09.1 Raising and Lowering

- The pinch wheels can be raised (for loading the material and/or mat) and lowered (for cutting). Depending on when your Skycut was manufactured, the method for this is different.

Newer Model Pinch Wheels

- If you do NOT have a single pinch lever, press down on an individual lever on a pinch wheel so that it can grip the mat or material. Lift up an individual lever to raise that pinch wheel.



Older Model Pinch Wheels

- If you have a single pinch lever located at the back-right side of the machine, press down on that lever and the pinch wheels will be raised. Pull the lever up to lower all pinch wheels so that they can grip the mat or the material inserted into the cutter. ***IMPORTANT:*** Always hold the lever while raising and lowering. Never allow the lever to pop up on its own as this can put a lot of stress on the two couplers gripping the pinch wheel bar in the back.

- *On the single pinch wheel lever models only*, there is also a small black lever on each individual pinch wheel. When the lever is raised, there is more downward pressure exerted. ***IMPORTANT:*** Only push these small levers up when an extra tight grip is needed, such as when cutting reflective film or thick chipboard. For normal cutting of most materials, it will not be required.

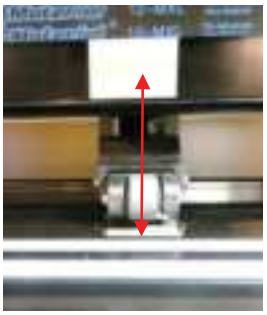
Lever is in down position. This is recommended for most cutting.

Lever is in up position. Do NOT use this position except with certain materials.

Note: These two photos ONLY apply to the single pinch wheel lever model.

1.09.2 Pinch Wheel Locations

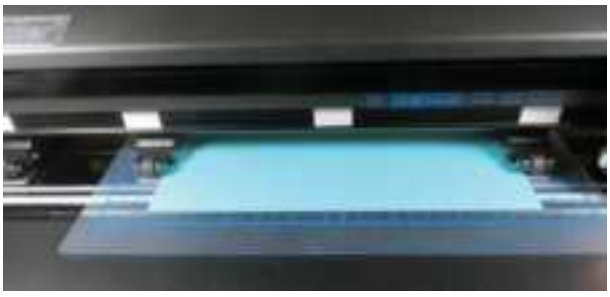
- Note that for a pinch wheel to grip properly, it must be positioned over a grit shaft. To facilitate alignment, note the white rectangles positioned along the horizontal bar behind the blade carriage. Slide the pinch wheels along the bar, as needed:



Wheels should be centered over grit shafts which are directly below the white rectangles

- When using the cutting mat, it is recommended that the material be placed in the middle of the mat and the mat placed roughly in the middle of the cutter. Then use the second and fourth pinch wheel locations for two pinch wheels. This keeps the pinch wheels off the material and provides an equal balance while the mat moves in and out during cutting:

Middle two pinch wheels are placed under 2nd and 4th white rectangles

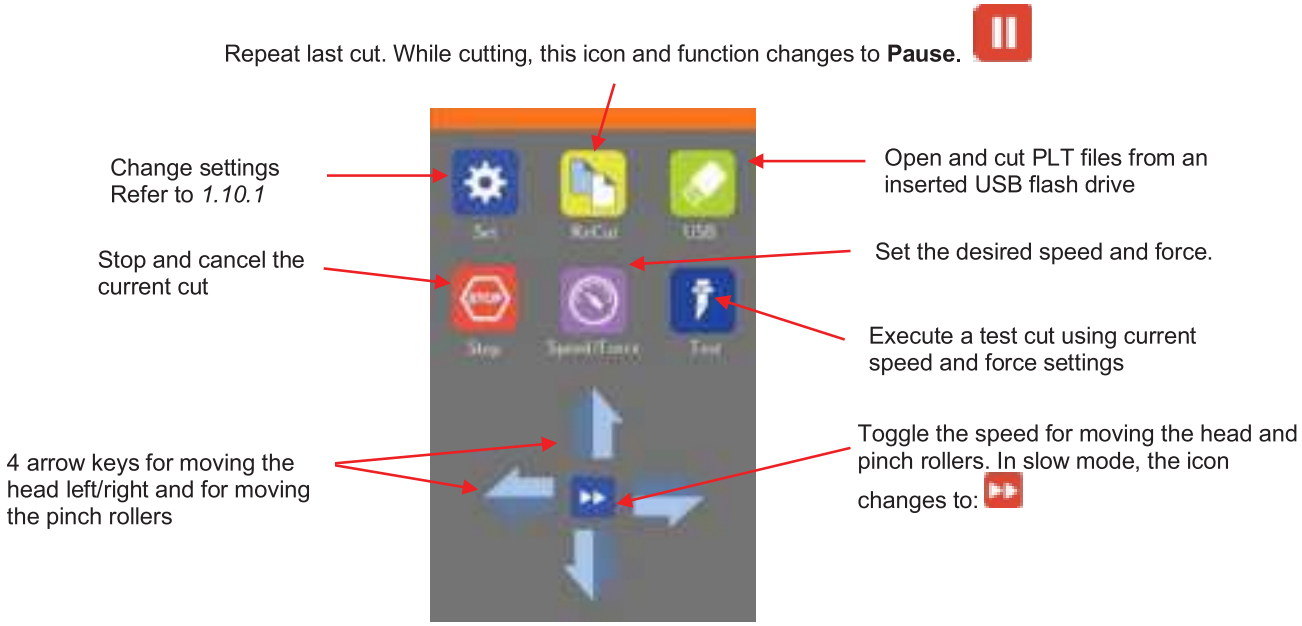


Pinch wheels are approx. the same distance from the outside edges of the cutting mat

- Note that if your material is very wide, then it is fine to have the pinch wheels over the material. However, you may need to be extra careful when removing any cut shapes or waste material in those locations.

1.10 Control Panel

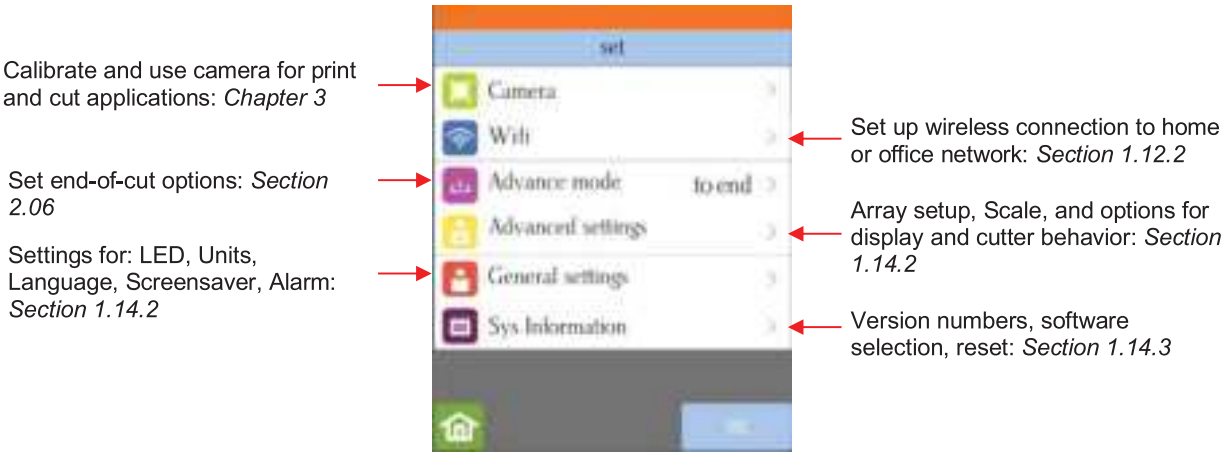
- When you first turn power on the Skycut, after several seconds, the following **Main Screen** or **Home Screen** will be displayed:



- Throughout this manual, the functions above will be referenced along with submenus and additional screens. You will also see the following icons at the bottom of many screens. Pressing the one on the left will always return you to the **Main Screen** above. Pressing the one on the right will return you to the prior window/screen.

1.10.1 Set Screen

- Pressing the **Set** icon opens the **Set Screen** which contains access to many functions and settings. Note the general description and section number (if you wish to learn more about that function now):



1.11 Registering and Installing SignMaster

1.11.1 Installing from a Download

- Once you have purchased a registration for SignMaster, the software can be downloaded from the following link. It's important to use this link so that the Skycut will be installed as the cutter of choice. You will need your **Product Serial Number** that was sent to you. Since you'll also need this number every time you update the software, keep this number in a safe place.

https://signmaster.estore.software/downloads

Also use this link to update your SignMaster software

- Note where the file will be saved on your computer so that you can later browse to that folder and launch the .exe file which has been downloaded. Follow the steps in the following *Section 1.11.2*, starting with *Step (4)*.

1.11.2 Installing from a CD

(1) Remove the CD from the case and insert into the CD ROM drive on your computer.

(2) The downloaded file is in.exe format, thus ready to launch.

(3) If Windows Autorun does not initiate a welcome screen, use Explorer to locate and click on the DVD drive letter for your computer. Double click on the *Welcome* file and the following window will open:

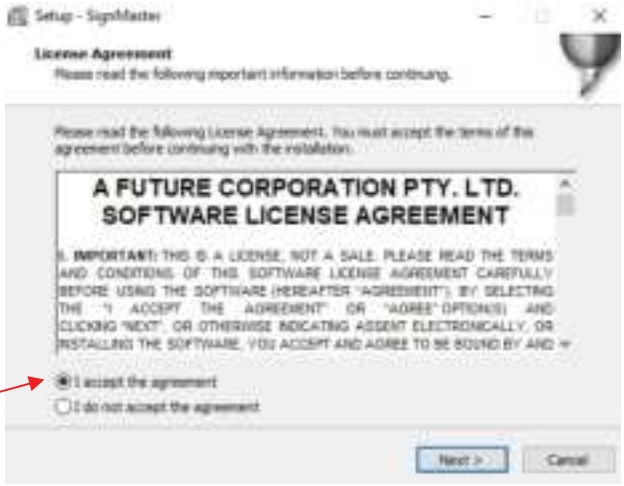
Click on **Install Software**

(4) Click on **Install Software** and wait for the installation program to open. Select the language you prefer:

Select preferred language and click on **OK**

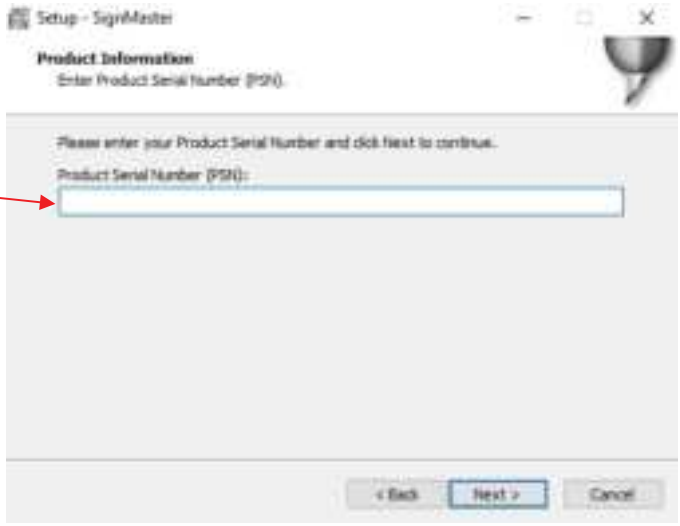
(5) Read and accept the license agreement:

Read the agreement, click on the accept option and click on **Next**



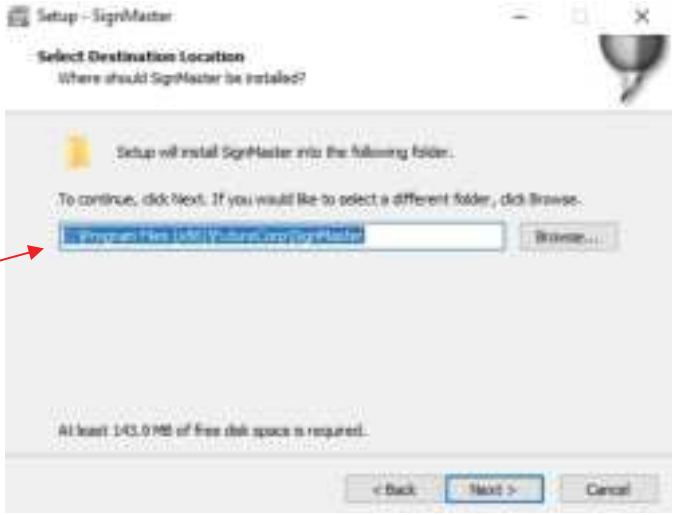
(6) Enter the **Product Serial Number** which should have been sent to you by email when you purchased SignMaster. Note that since you will need this same number any time you update the software, keep it in a safe place:

Enter the 20-digit **PSN** provided when you purchased SignMaster and click on **Next**



(7) Read and accept a second license agreement and then verify the destination for installing SignMaster:

Note where the program will be installed and click on **Next**



(8) Select your preferred **Units** but note that it can easily be switched once the software is open:

Select preferred **Units** and click on **Next**