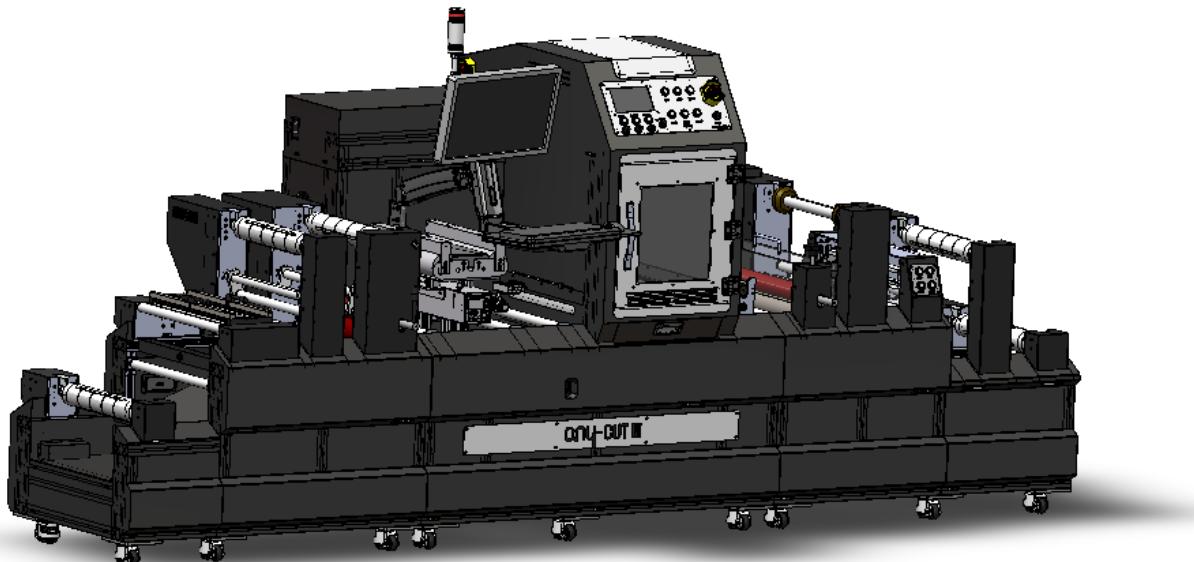


any-CUT III

User Guide



2017 Bitek Technology. All rights reserved.

Preface

Thank you for purchasing any-CUTIII.

This guide explains how to operate this laser die-cutter and the precautions that must be followed during operation.

To get the most out of this laser label finisher and to use it effectively, be sure to read this guide before use.

This guide assumes you are familiar with computers and the basic of laser configuration.

After reading this guide, keep it safe and handy for future reference.

In this manual, safety instructions are preceded by the symbol  Always read and follow the instructions before performing the required procedure.

Bitek Technology is not responsible for any direct or indirect damages such as breakdown of machines arising from or caused by any changes made by the third even if mentioned in this document.

Important

This manual is may not be copied or modified in whole or part, without the written consent of the publisher.

Parts of this manual are subject to change without prior notice.

We welcome any comments on ambiguities, errors, omissions, or missing pages.

Never attempt any procedure on the machine that is not specifically described in this manual.

Unauthorized operation can cause faults or accidents. Bitek Technology is not liable for any problems from unauthorized operation of the equipment.

 is registered trademark of Bitek Technology.

Bitek Technology's headquarter is located Incheon, South Korea.

Our mailing address is : Bitek Centre
22, Venture-Ro 100beon-Gil
Yeonsu-Gu, Incheon
Korea

Phone us at : +82-32-834-4860

Fax : +82-505-834-4869

Web Site : www.bitekps.com / www.anytron.net

Customer Service

For assistance with order or delivery status, service status, or to obtain a Return Authorization (RA) number, contact Bitek at +82-32-834-4860 and ask to speak to Sales representative, or you can email us by sending a message to info@anytron.net

Technical Support

Bitek's Sales managers are able to answer many technical questions regarding the installation, use, troubleshooting, and maintenance of our products. In some cases, they may transfer your call to a Tech Support Specialist.

Reference Materials

Bitek or regional agency can provide reference materials and product samples. Please ask Bitek through phone call or e-mail anytime.



2017 Bitek Technology. All rights reserved.

CE Certification indicates the product is certified to be in conformity with health, safety, and environmental protection standards for products sold within the European Economic Area(EEA). any-CUTIII meets the requirements of the applicable EC directives.



2017 Bitek Technology. All rights reserved.

any-CUT III Features

Time & Cost Effective for Multi-task

- One stop solution of laminating, scrap paper removal and slitting
- Different cutting methods for single label cut performance
- Barcodes, QR codes, Numbering, Date & Time can be added

Quality & Speed guaranteed

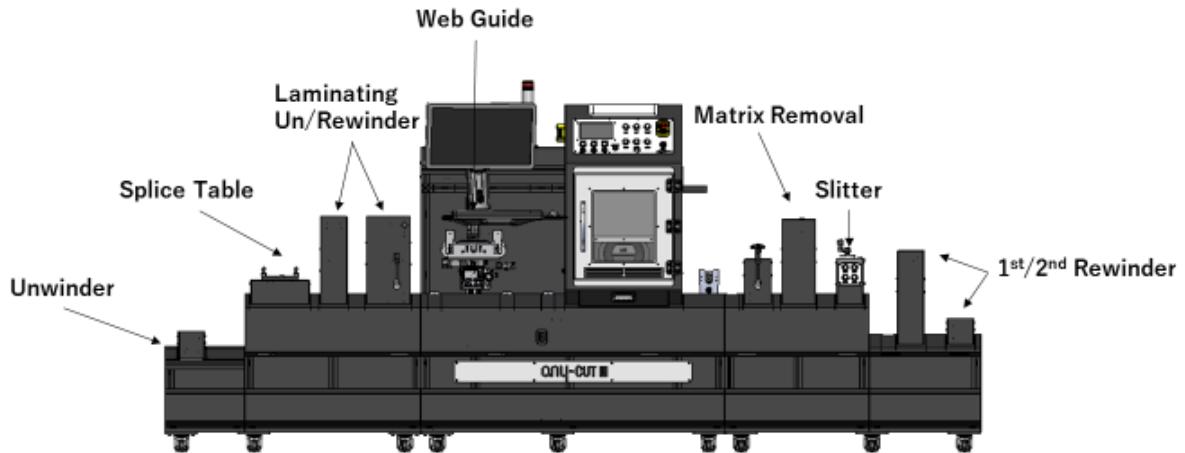
- 150W of laser power with quality proven optics

User friendly

- Industrial electricity is not necessary
- Short period of training required

Wide range of media supported

- Various thickness & types of media supported by fine laser quality



Specifications

Max web width	350mm	Max web speed	30m/m
Max roll diameter	400mm	Laser spot	260 μ
Laser source	CO2 / Water cooled/ 9.3 μ m	Cutting area	300mm x 300mm
Dimension	D3256 x W1045 x H1558 mm	Power supply	220v AC
Modularization	3pc	Weight	1000kg
Web Guide	$\pm 0.1\text{mm}$	2ND Rewinder	Supported

Contents

1	Installation and Settings	17
1.1	Supported Operating Environments & Cautions	17
1.2	Components for Installation	18
1.3	Installation	19
1.3.1	Hardware	19
1.3.2	Power Connection	23
1.3.3	External Device Connection	24
1.3.4	Laser Setting	27
1.3.5	Test after Installation	41
2	Basic Operation	46
2.1	Hardware	46
2.1.1	Main Components and Functions	46
2.1.2	Switching On/Off the Power	48
2.1.3	Control Panel	49
2.1.4	Interface Panel (LCD)	50
2.1.5	Media Setting	53
2.1.6	Web Guide Setting	60
2.1.7	Black Mark Sensor Setting	61
2.1.8	Cutting Bed	62
2.1.9	Door	64
2.1.10	Web Cleaner	65
2.2	Software	67
2.2.1	Illustrator	67

2017 Bitek Technology. All rights reserved.

2.2.2	anytron CUT	75
2.3	Guide for Operation	91
2.4	FAQ / Operation Tips	93
3	Maintenance	98
3.1	Parts Regular Inspection	98
4	Trouble Shooting	99
4.1	Power Supply Failure	99
4.2	Media Meandering	100
4.3	Wrong Cutting Position	100
4.4	No Laser Present	101
4.5	Abnormal Laser Movement	102
4.6	Laser Stays in Same Position	102
5	Spare Part List	103

Using this guide

Conventions

1. The following terms are used throughout this guide:

Important : Important information that must be read and followed.

Note : Additional information that merits emphasis.

Refer to “ ” : Reference within this guide.

2. The following symbols are used though out this guide:

[] : The names of the menu items on the computer or the device' control panel display.

Terms

1. BM : Black Mark
2. JOB : Data for operation
3. Media : Material, Cutting Material such as paper and film.
4. Chuck=Bobbin : Cylinder shaped parts connected to motors. Rotate in direction of web path.
5. CW / CCW : Clock Wise / Counter Clock Wise
6. Unit : Module
7. Matrix : Waste after cutting
8. Trim : Waste edges after cutting
9. AI : Adobe Illustrator
10. FE : Fume Extractor = Fume Collector = Dust Collector

Signs



: Must not proceed anything herein.



: User should be careful with dealing with laser-related procedures.



: User should be careful with dealing with electricity-related procedures.



: Warnings for Users to handle the equipment.

Safety Notes

Before using this product, read "Safety Notes" carefully for safety use.

Follow the following instructions for safety use.

Electrical Safety

⚠ WARNING

This product shall be operated by the power source as indicated on the product's data plate. Consult your local power company to check if your power source meets the requirements.

⚠ WARNING

This product is supplied with a plug that has a protective earth pin. Improper connection of a grounding conductor may cause electric shock.



Never touch the power cord with wet hands. It may cause electric shock.



Do not place an object on the power cord.



Always keep the plug and cables out of dust. The dusty and damp environment may bring about minute electric current in a connector. It may generate heat and eventually cause a fire accident.



Do not damage or alter the power cord. Damage and alteration may generate heat and eventually cause electric shock or a fire accident.



When cleaning this product, always

switch off and unplug it. Access to a live machine interior may cause electric shock.



Do not unplug or re-plug this product with the switch on. Plugging and unplugging live machine interior may deform the plug and generate heat and eventually cause a fire accident.

Laser Safety

⚠ Warning

The Class 5 laser which is included in any-CUTIII emits invisible infrared laser radiation in the $9.6 \mu\text{m}$ CO₂ wavelength band.



CO₂ laser radiation can be reflected from metallic objects even though the surface is darkened. Direct or diffuse laser radiation can inflict severe corneal injuries leading to permanent eye damage or blindness.

All personnel must wear eye protection suitable for $9.6 \mu\text{m}$ CO₂ radiation when in the same area as an exposed laser beam.



Direct eye contact with the output

2017 Bitek Technology. All rights reserved.

beam from the laser will cause serious damage and may cause blindness.



There is no visible indication at the laser head that is operating.



Exercise caution to protect against specular reflections, because reflections at the laser wavelength is invisible.



Use of controls or adjustments, or performance of procedures other than those specified herein, may result in hazardous radiation exposure.



Enclose the beam path whenever possible. Exposure to direct or diffuse CO₂ laser radiation can seriously burn human or animal tissue, which may cause permanent damage



This product is not intended for use in explosive, or potentially explosive, atmospheres.



Materials processing with a laser can generate air contaminants such as vapors, fumes, and/or particles that may be noxious, toxic, or even fatal.



The use of aerosol dusters containing difluoroethane causes

“blooming”, a condition that significantly expands and scatters the laser beam. This beam expansion can effect mode quality and/or cause laser energy to extend beyond the confines of optical elements in the system, possibly damaging acrylic safety shielding. **Do not use air dusters containing difluoroethane** in any area adjacent to CO₂ laser systems because difluoroethane persists for long time periods over wide areas.



To avoid potentially fatal electrical shock hazards from electrical equipment, follow all applicable electrical codes such as (in the U.S.) the National Electrical Code.

Operation Safety



Do not put anything inside the laser unit while Shutter is manually disconnected or lost power.



Do not use laser on any other material which is not guaranteed for user safety



Prevent children from getting close to the equipment and/or operating.

Safety Interlock

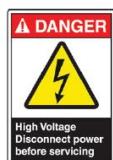
1. Lockout / Tagout



The **Main Power Switch** is located at the back, right-hand side of the Control box.



This is the normal state of 'Power On'.



User can see the switch with this label beside.

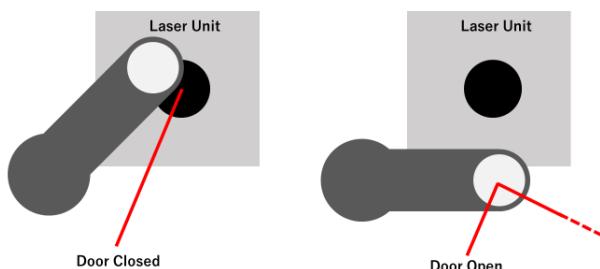
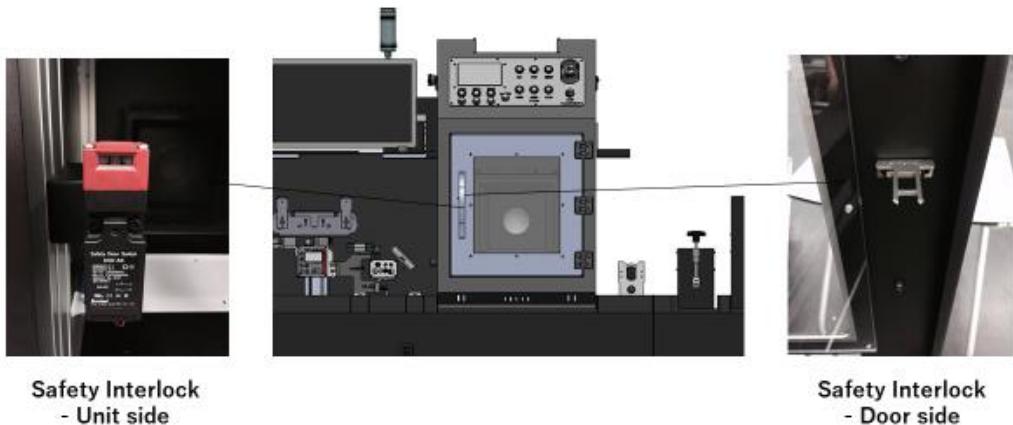


When looking into the control box or during work with the electric system, make sure Users use stick-shape material which has enough length to stick in between the space (holes) of the power switch as the picture. This will keep the Power Off status for the safety.



This safety label can be found near the switch.

2. Safety Door



The Door Interlock is connected to the Shutter. Shutter is a part to shut the laser beam for the safety reason. If the door is not closed, the shutter blocks the beam path so that it doesn't reach the space of cutting. However, User should not put anything inside the laser unit for safety reason.



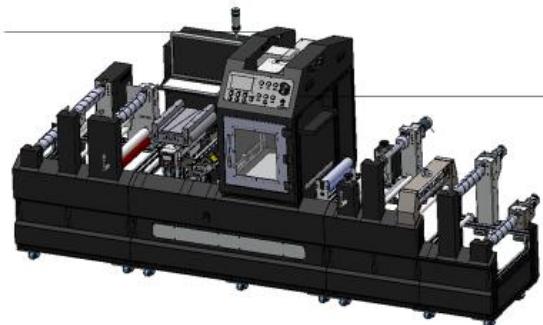
These safety labels can be found near the switch.

3. Emergency Button (EMO)

There are two Emergency Buttons(EMO) on this equipment for the efficiency and safety considering user's standing position.



Back Head (near Optics)



Control Panel)



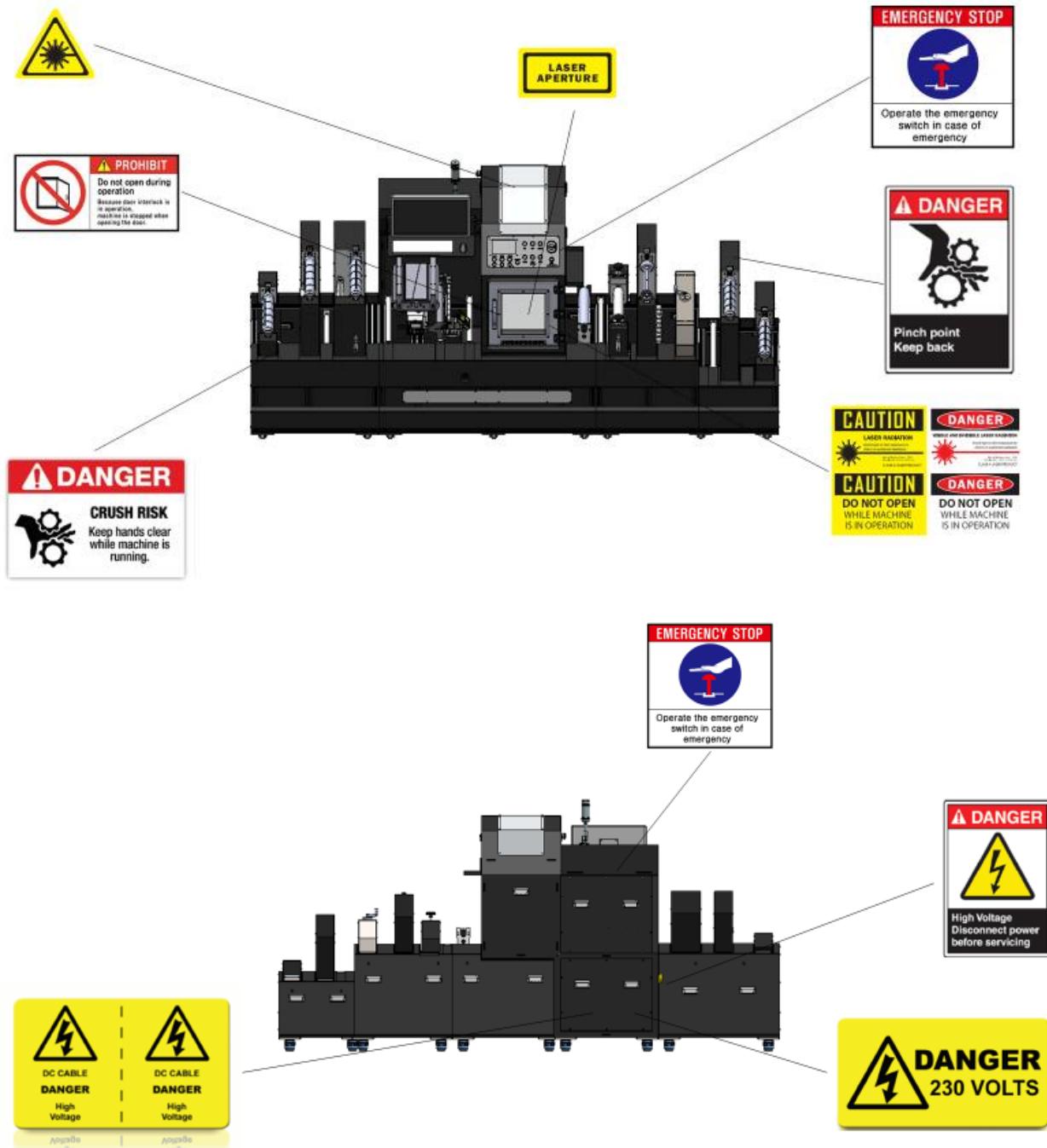
When emergency happens while the machine has been powered on, press this button hard and check if the power goes off.



When Power should be ON again, turn this button into clockwise direction (CW) until the clicking sound is heard. Then, it is ready to be ON again. Press <RESET> - <ON> on the control panel to switch on any-CUTIII for use.

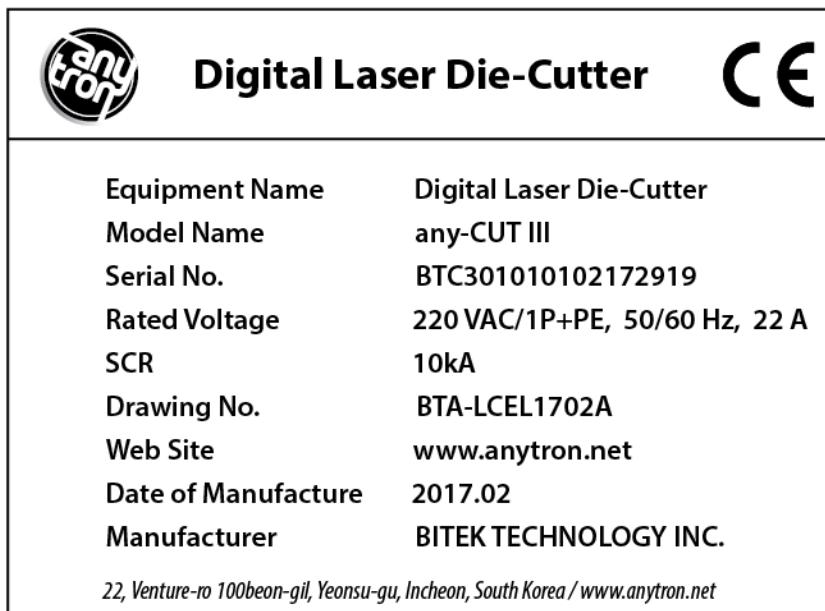
Warning and Caution Labels

Be sure to follow the warning and caution labels placed on the machine. Do not touch areas with labels indicating high voltage or temperature. This can cause electric shock or burn.



Product Labels

User can find Product Label near the Main Power Button which is at the back, right side of the control box.



1 Installation and Settings

This chapter describes the supported operating environments and necessary settings for using any-CUTIII.

1.1 Supported Operating Environments & Cautions

Environment

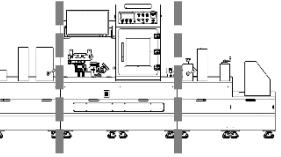
- ① This equipment must be installed in place of the temperature, humidity criterion is fulfilled
- ① This equipment must be installed on a flat floor which can withstand 3 times the load.
- ① Dust in the work space should be minimized in order to have fine quality on performance.
- ① 4 people or more are recommended for installation to avoid any safety related injury.

Temperature	Operation 15 - 26°C Installation 0 - 40°C
Humidity	0 – 60 % RH, non-condensing
Horizontal Angle	0°
Area	4m x 1.8m of space
Allowable Load of Ground	About 3 tons

Cautions

- ① Extra care required for external shocks while shipping.
- ① Laser beam Calibration and Beam Focusing should be done regularly for maintaining cutting quality.
- ① Similar to any other laser compartments, optics should be kept safe since it controls laser path and spot size

1.2 Components for Installation

	Picture	Components	Qty	Note
1		3 segments of any-CUTIII	1	
2		Black Mark Sensor	1	attached to the equipment
3		Web Guide	1	attached to the equipment
4		Cutting pad (2types)	1	
5		PC with Monitor, Mouse and Keyboard (attached to the equipment)	1	Windows 7 32bit
6		Duct hose	1	100 Ø
7		Lens Cleaning Kit	1	
8		Allen Wrench	1	
9		Laser Protection Goggle	1	
10		Beam Align Block	1	
11		20m Roll Media (Paper/Film) for Test		
12		Extra bolts/washer and etc.		

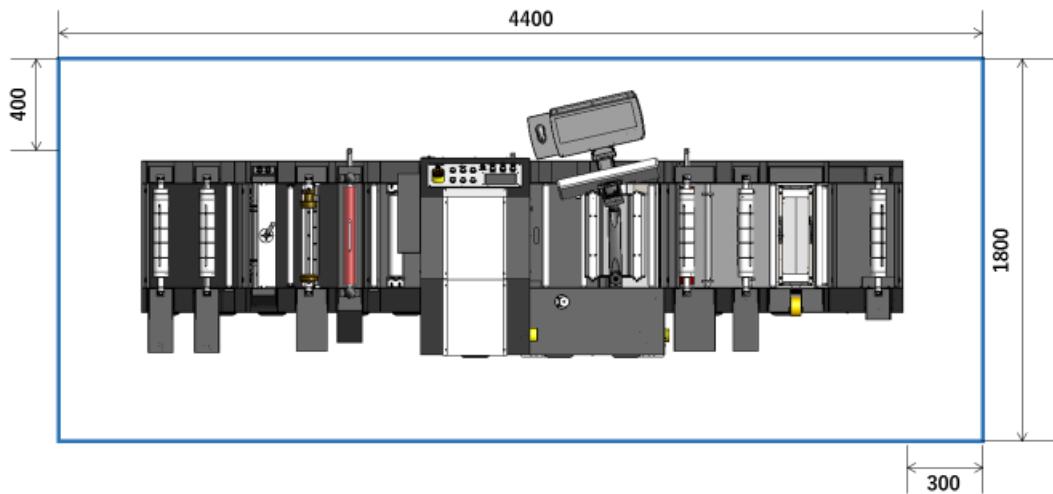
2017 Bitek Technology. All rights reserved.

1.3 Installation

any-CUTIII is modularized into 3 segments for convenient movement and installation. Optics should be protected at any time from damages or shocks. Also, all the software required for operation are installed in the PC attached to the equipment. User is not required to install any software necessary to operate any-CUTIII.

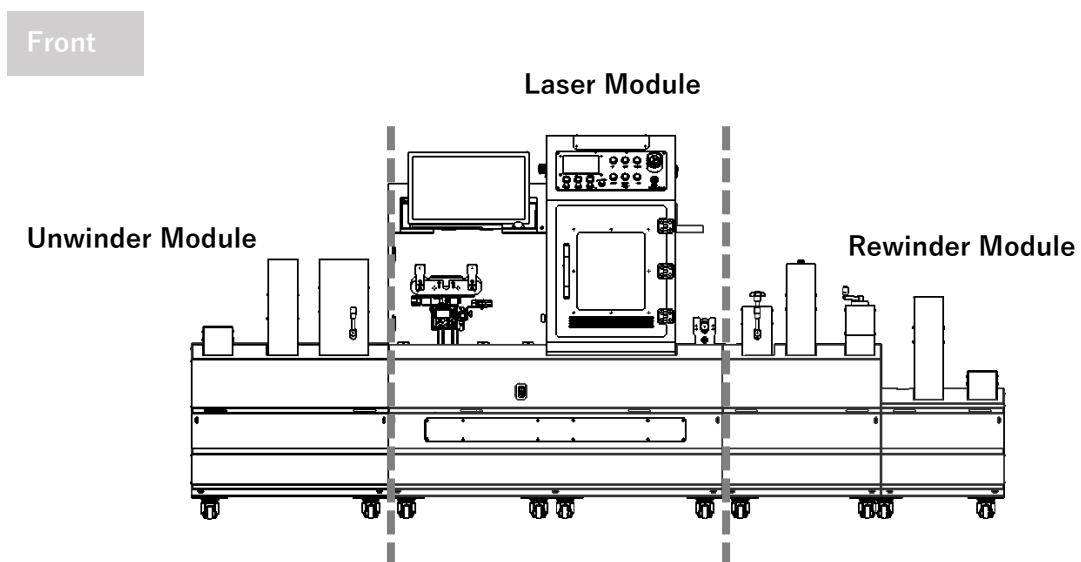
1.3.1 Hardware

Required Space for installation



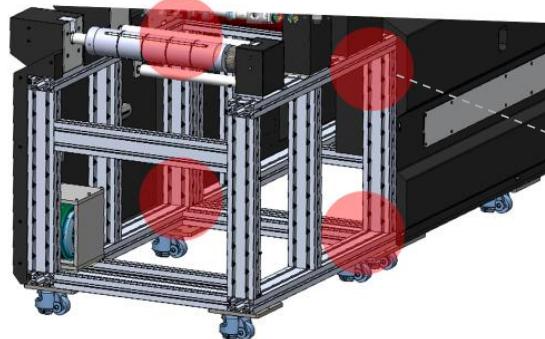
Step1. Connect 3 modules

Put 3 modules together and connect them with 8 brackets and 30 T bolts as below.

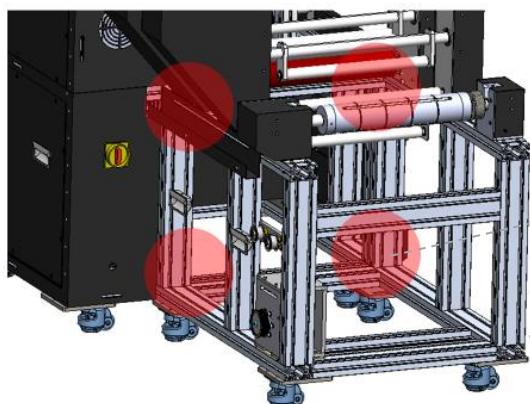


2017 Bitek Technology. All rights reserved.

Unwinder-Laser Module Connection



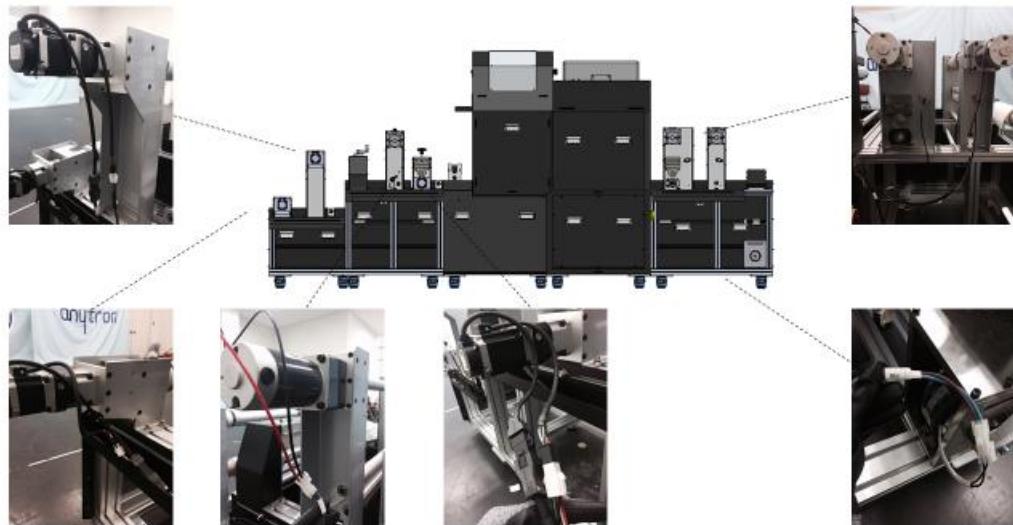
Laser-Rewinder Module Connection



Step2. Connect Cables

Each cable connector has different marks/colored labels. User can easily connect the cables which come out from the control box with the cables from each motor/potentiometer.

Connect each cable following pictures below.



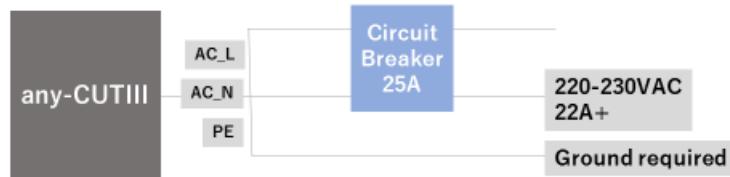
	Cable	Connector	Type	Note
1	Rewinder 1		AC motor	
2	Rewinder 2		AC motor	

3	Matrix Removal		DC Geared Motor (24v)	
4	Feeder		AC motor	
5	Lamination Unwinder		Potentiometer	
6	Lamination Rewinder		Potentiometer DC Geared Motor	
7	Unwinder		Brake (24v)	

1.3.2 Power Connection

Main Power

- 220-240VAC (50/60Hz) Single Phase
- 5m Wire is supported (AC_L, AC_N, PE) (10M is available on request)
- any-CUTIII should be connected directly to Switchboard, not any power outlet.
- Circuit Breaker for 25A Current should be prepared at the installation site since Maximum Current used in any-CUTIII is 22A.



Example.



any-CUTIII
Power Switch



Switch Board

1.3.3 External Device Connection

1.3.3.1 Chiller

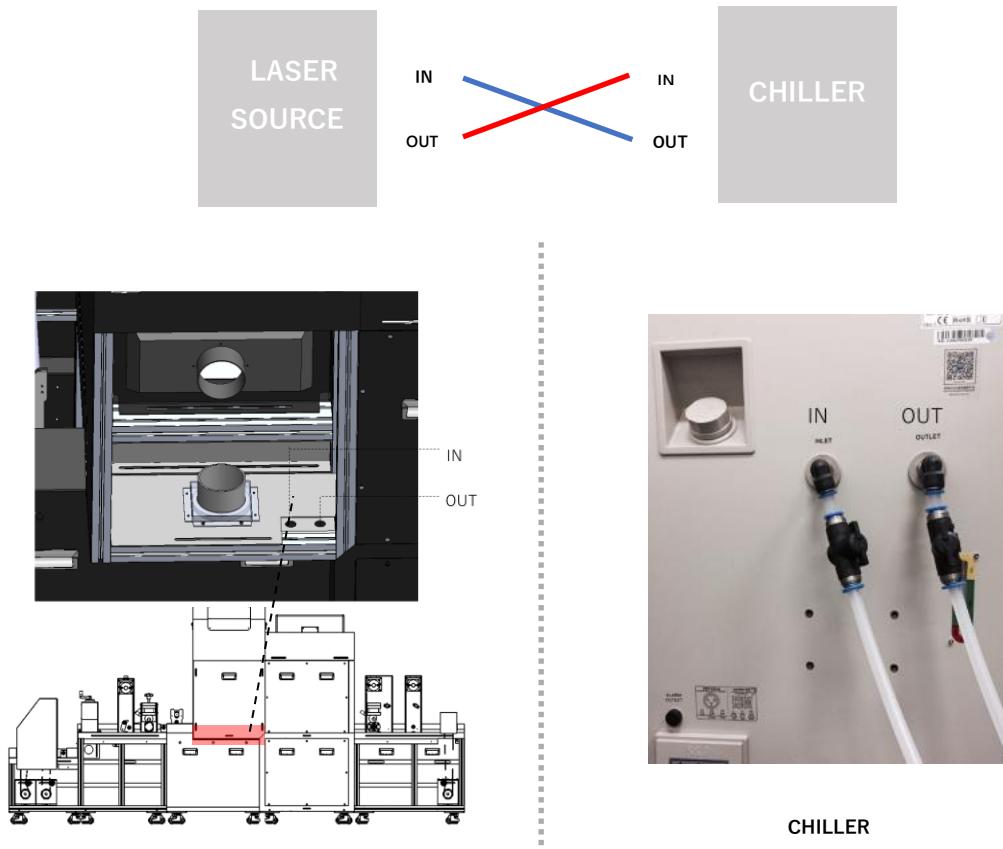
Connect Chiller with any-CUTIII.

User should check the specification of Chiller with ordering. The information below is minimum requirements for adequate Chiller for any-CUTIII. User can take them as a guide when purchasing.

Make sure the hose which water comes out from Chiller goes into 'IN' of Laser source. (Normally marked on the connecting point) The hose which water goes back to Chiller from Laser source goes into 'INLET or IN' of Chiller.

Chiller below is just an example for your reference.

Cooling Capacity	3200W
Flow Rate	2GPM flow
Water Temperature	20 °C
Connecting Hose Length	5M (10M Optional)
Connecting Hose Diameter	12mm



2017 Bitek Technology. All rights reserved.

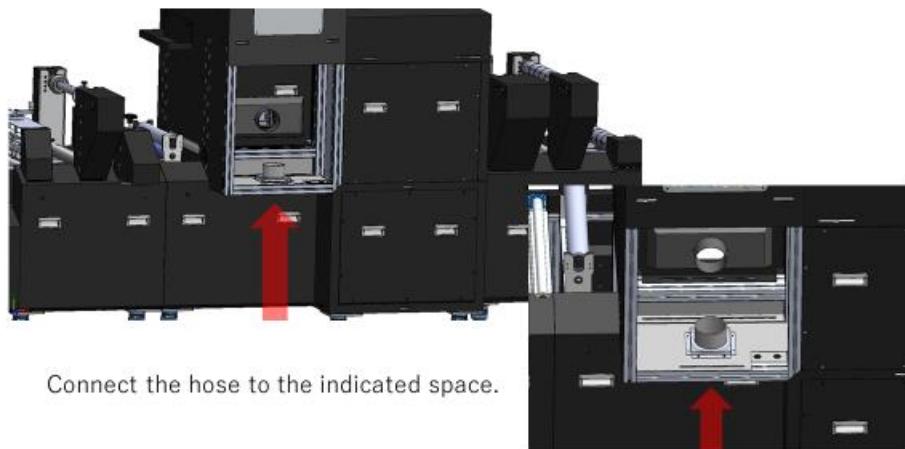
1.3.3.2 Dust Collector

Connect Dust collector with any-CUTIII.

User should check the specification of Dust Collector and its cabling options with ordering. The information below is minimum requirements for Dust Collector. User can take them as a guide when purchasing.

Pressure	>230mmAq
Wattage(Kw)	> 0.75KW
Air Volume	10CMM
Connecting Hose Length	5M (10M Optional)
Connecting Hose Diameter	100Ø

The hose should be attached tightly on both sides.



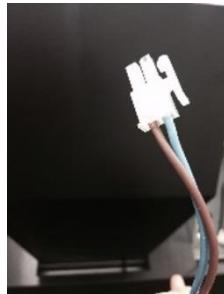
Make sure if Dust Collector is attached properly and working fine before every operation.

Remote Control Connection

User can find a cable labeled as 'Dust Collector' in the Electric Apparatus Box at the back of any-CUTIII.



This is how the connector looks like.



User should check the specification of Dust Collector and its cabling options with ordering.

Remote Control requires 2 lines out from the equipment.

1.3.4 Laser Setting

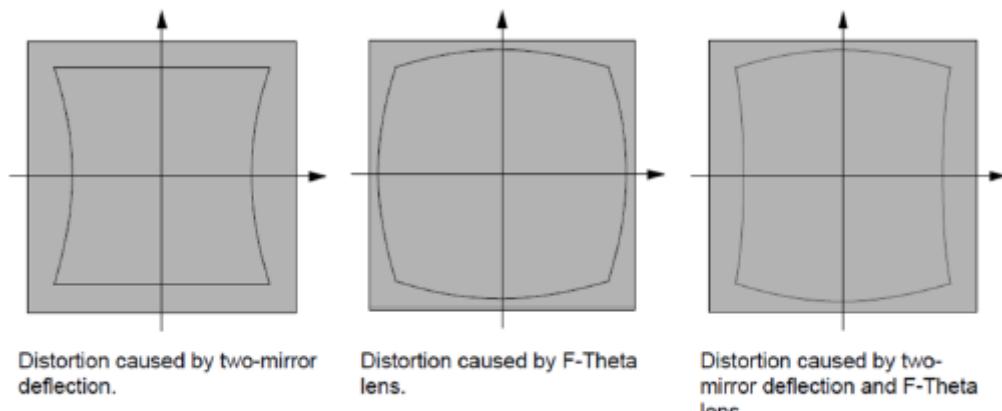
Laser setting consists of 3 steps.

1. Laser Beam Alignment
2. Laser Focusing
3. Laser Calibration

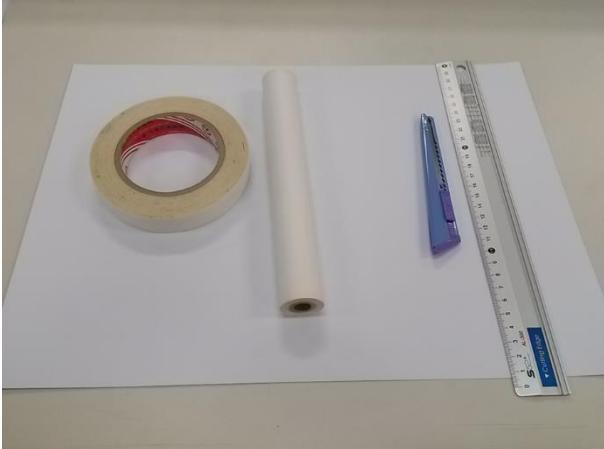
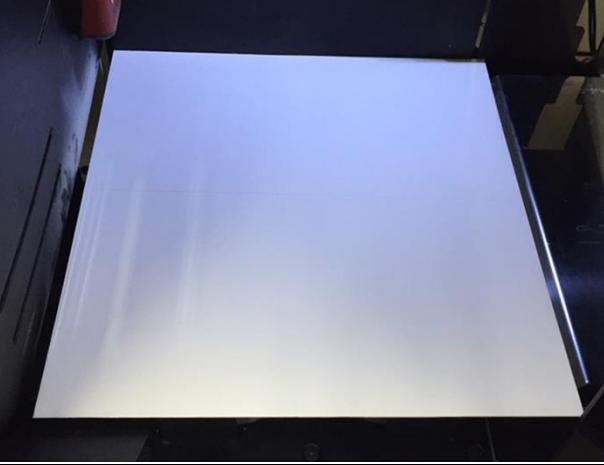
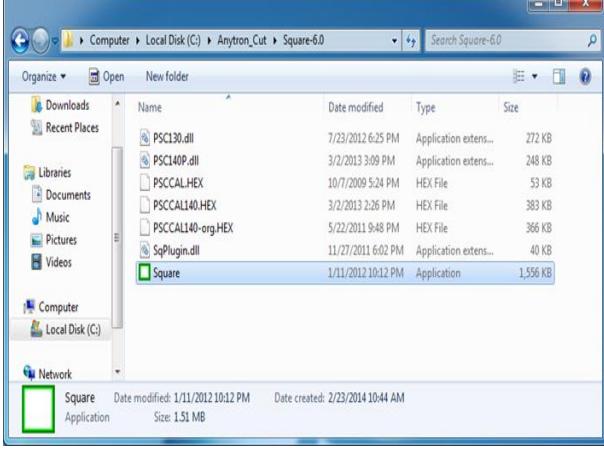
Here on the manual describes the last step, Calibration. User may refer to the training session regarding the other steps.

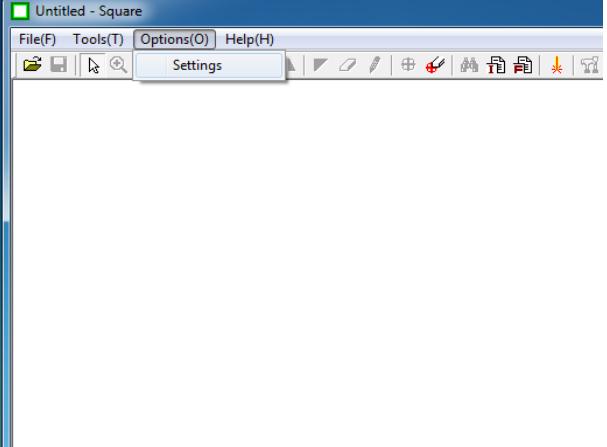
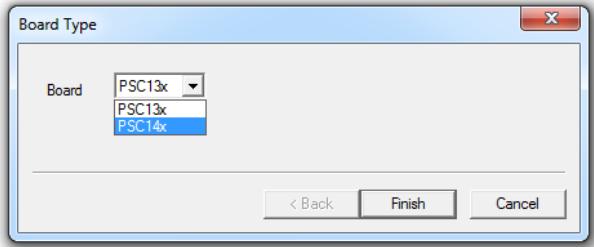
Calibration

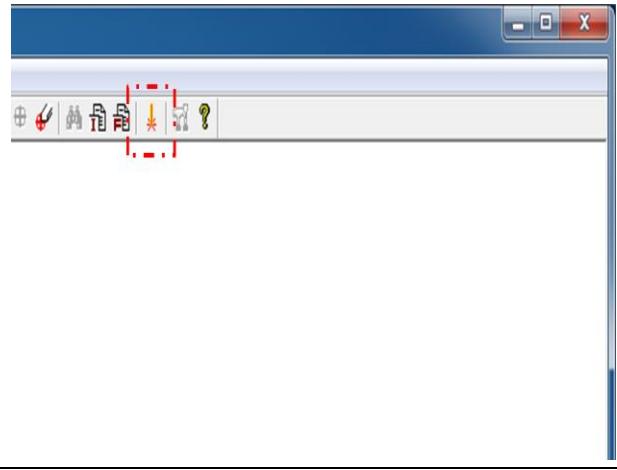
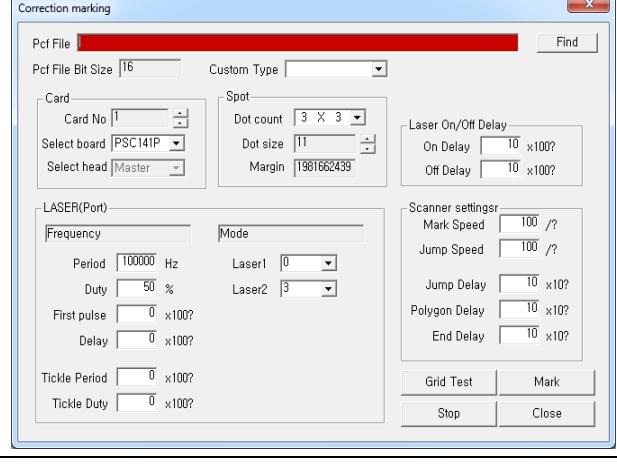
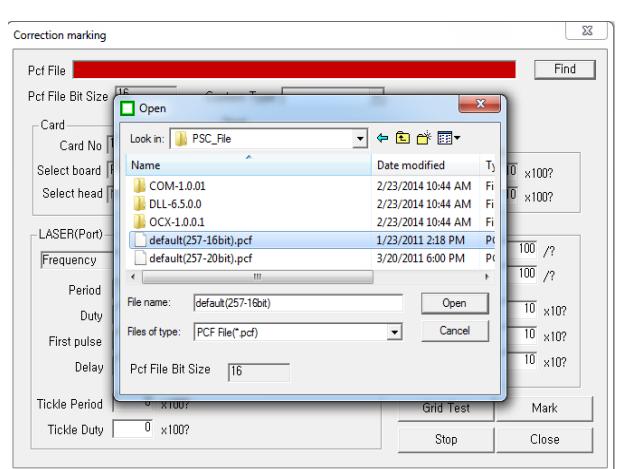
The reason for this process of setting is to correct the beam distortion which is caused by F-theta lens and 2 reflectors located inside the scanner. This distortion may differ on every unit. This process has to be done once every half a year either on every movement/environmental change.

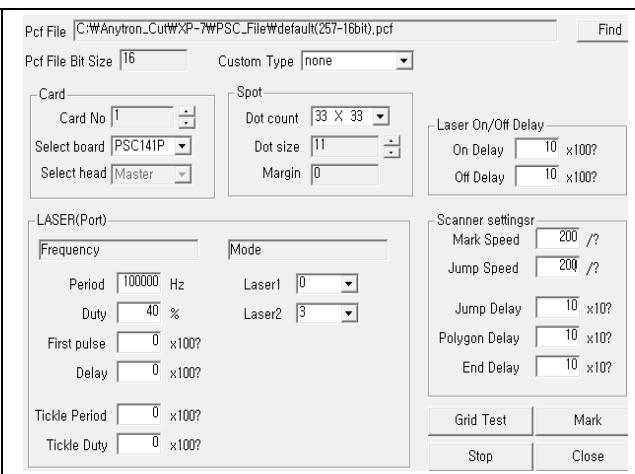
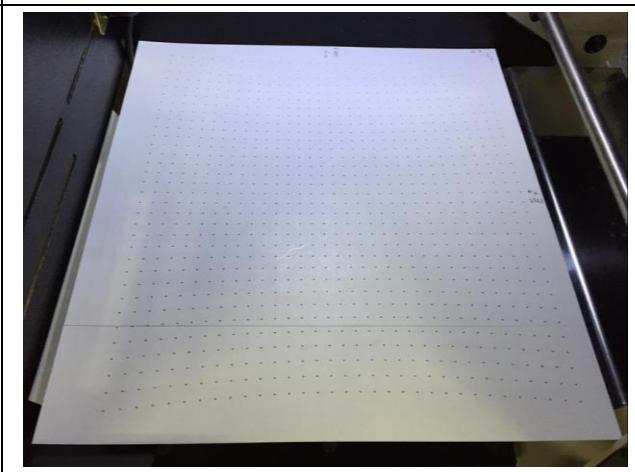
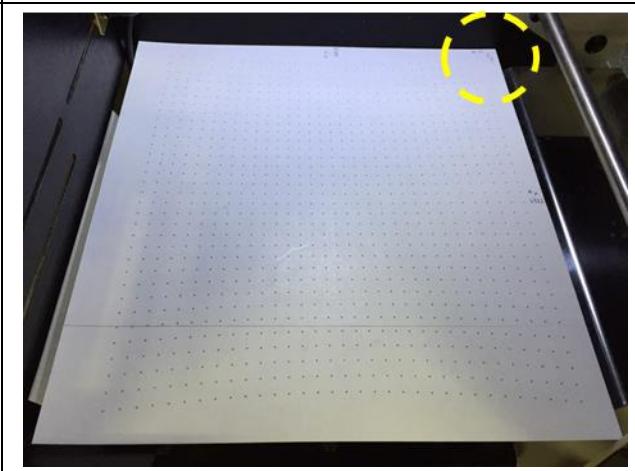


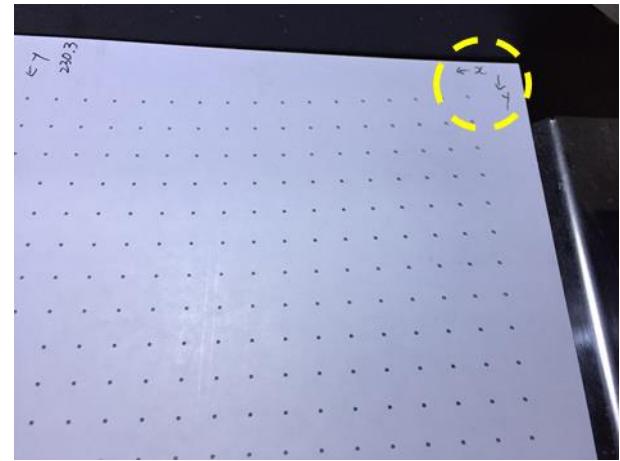
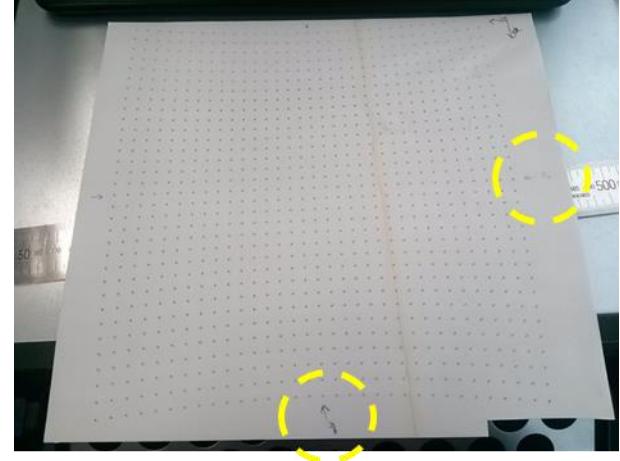
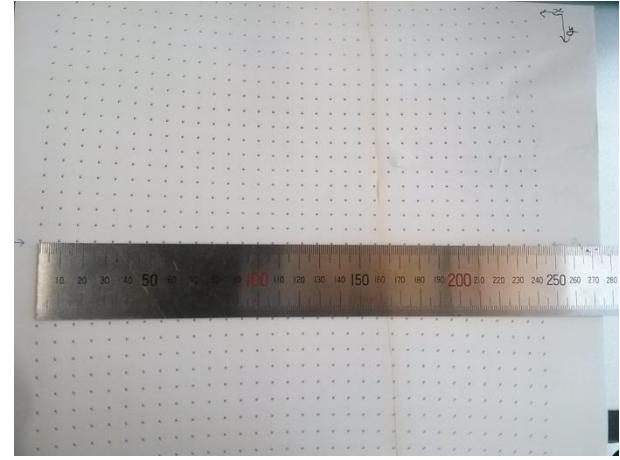
The concept of this process is to read the current scale and shape and make an adjustment to have an accurate reflection of the original data. With the current status information read, User may use 'Square', the Laser Calibration Utility, to make a correction file which is basically the calculated result of the current laser status. If this file is correctly applied to anytron CUT S/W, this will allow the unit's laser is properly calibrated and ready to operate.

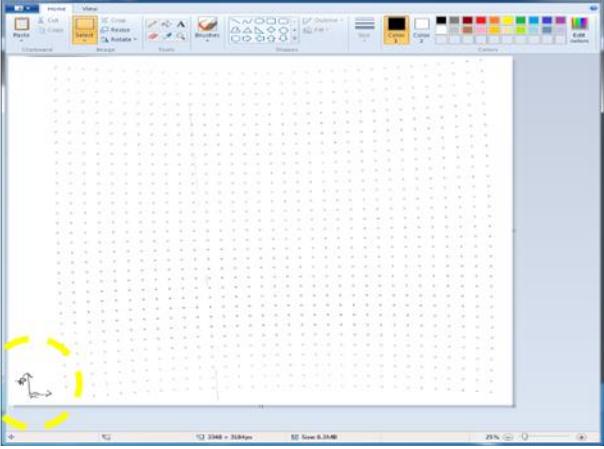
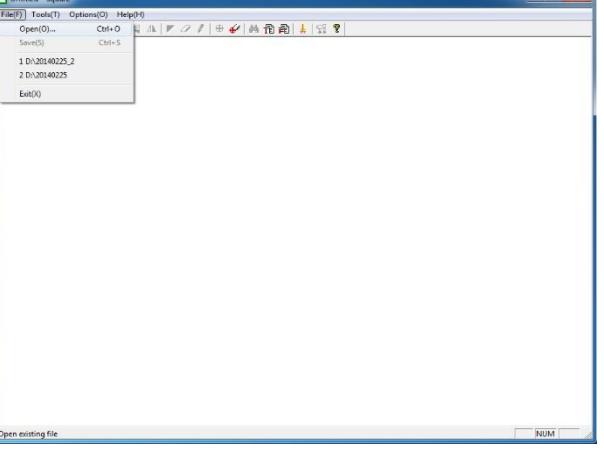
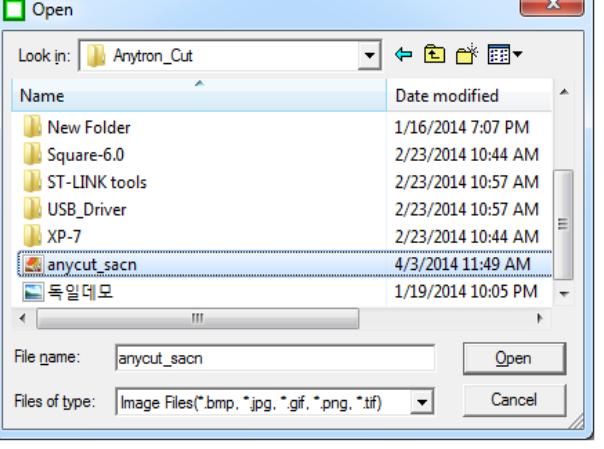
1		270x270mm Thermal Paper, Double-sided tape, Knife, Ruler should be prepared.
2		Lay the paper on the cutting pad. *Be careful not to let the paper curved or crooked. It will ultimately affect the quality.
3		Start Square. Computer¥Cdrive¥Anytron e_BeamCut¥ Square-6.0

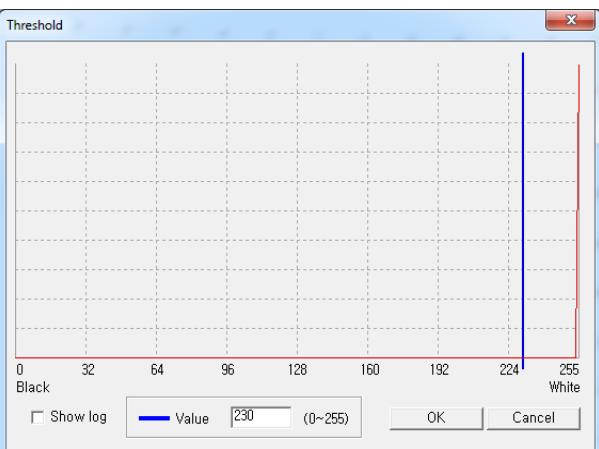
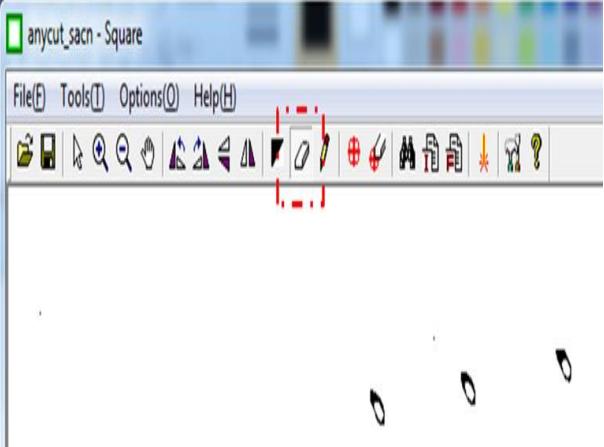
4		Option - Settings
5		Choose PSC14x
6		Choose 16bit.

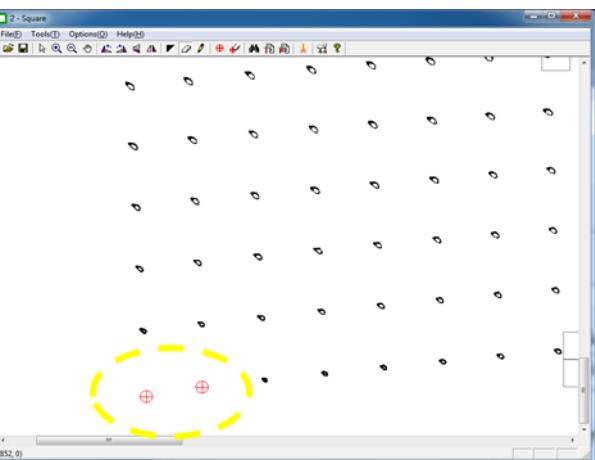
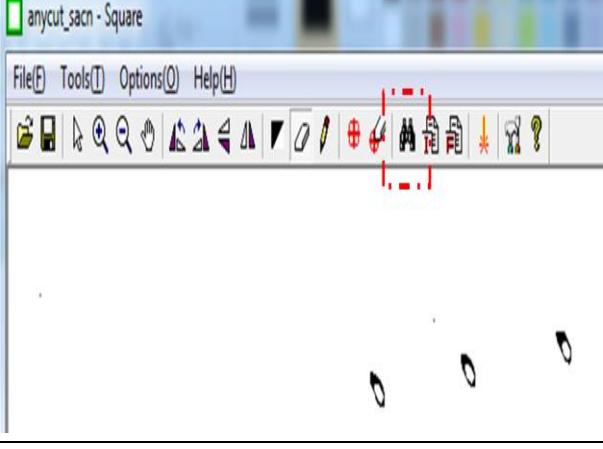
7		<p>Choose the icon as the picture.</p>
8		<p>Click [find]</p>
9		<p>Choose default(257-16bit).pcf</p>

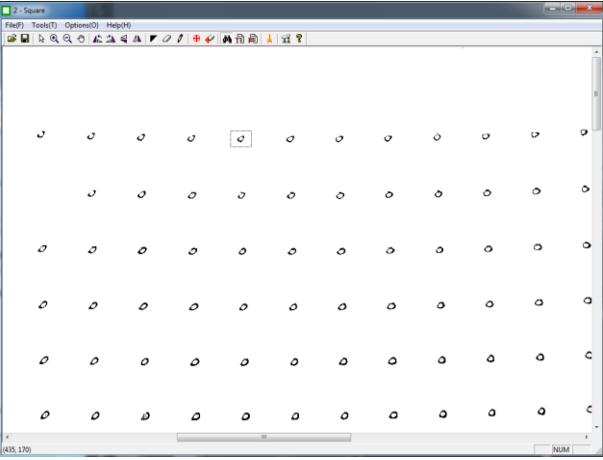
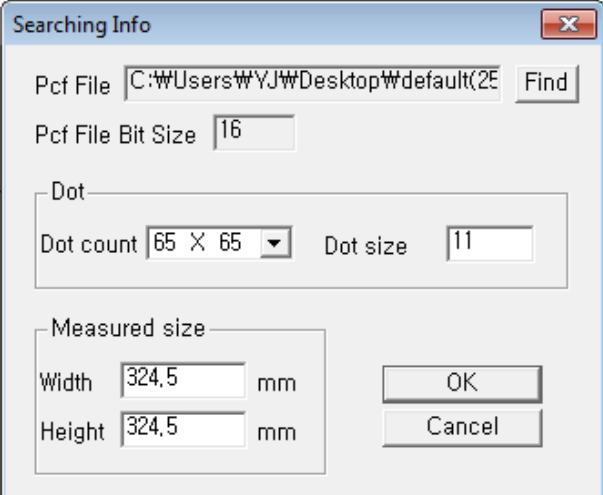
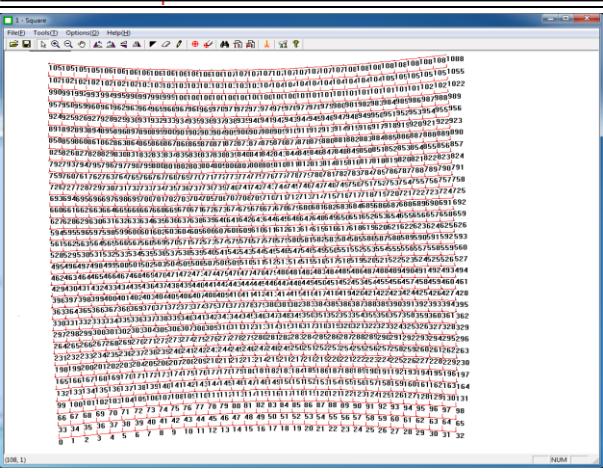
10	 <p>The screenshot shows the software interface for a grid test. It includes sections for 'Card' (Card No: 1, Select board: PSC141P, Select head: Master), 'Spot' (Dot count: 33 X 33, Dot size: 11, Margin: 0), 'Laser On/Off Delay' (On Delay: 10 x100?, Off Delay: 10 x100?), and 'Scanner settings' (Mark Speed: 200 /?, Jump Speed: 200 /?, Jump Delay: 10 x100?, Polygon Delay: 10 x100?, End Delay: 10 x100?). There are also buttons for 'Grid Test', 'Mark', 'Stop', and 'Close'.</p>	<p>Set the parameter refer to the picture.</p>
11	 <p>A photograph showing a white sheet of paper being processed by a laser cutter. The paper has a grid pattern of small holes, indicating where the laser has been fired.</p>	<p>Click [Mark]. It will start the laser beam.</p>
12	 <p>A photograph showing a white sheet of paper being processed by a laser cutter. A yellow circle highlights the top-right corner of the paper, which is the point where the laser beam starts.</p>	<p>Mark the top-right corner to refer its angle later.</p>

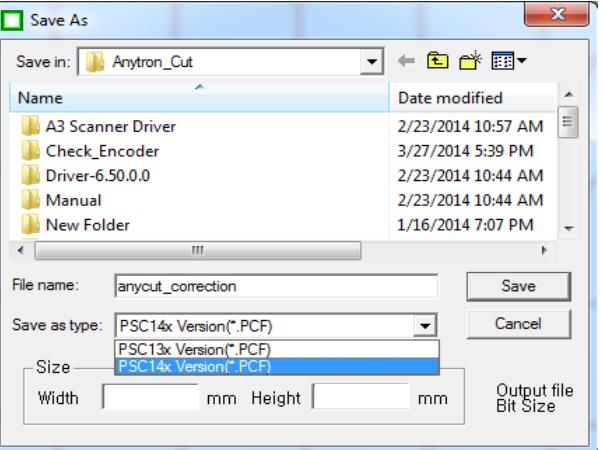
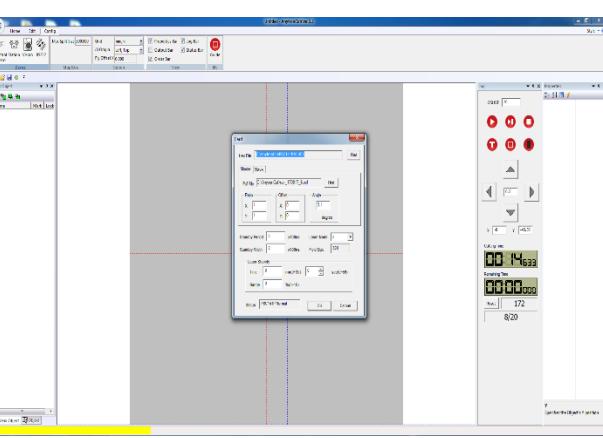
13		
14		<p>Mark 33rd dot (the middle) on both sides.</p>
15		<p>Measure the distance from one to the other mark. Do both X and Y.</p>

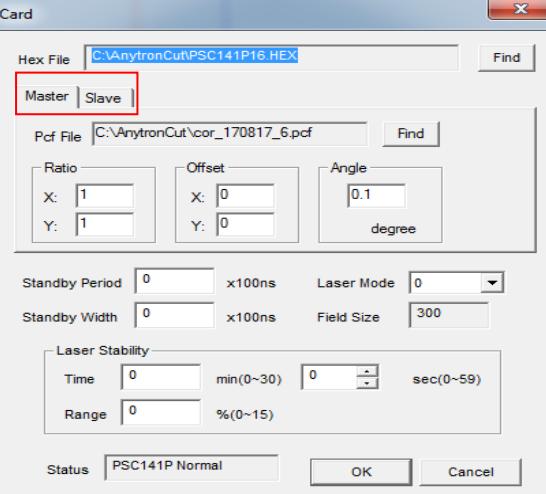
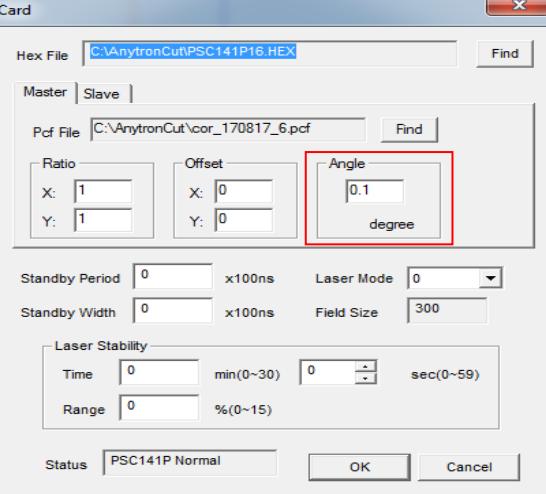
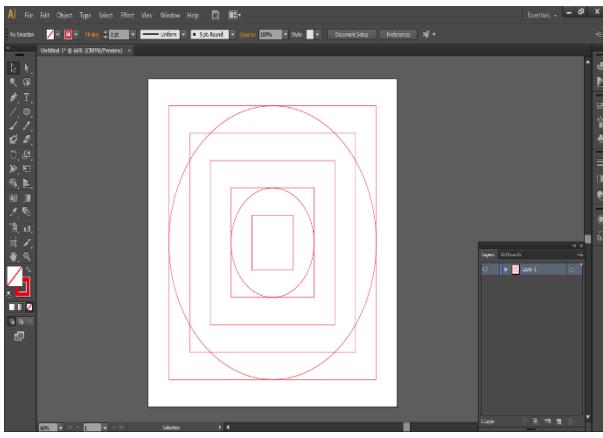
16		<p>Use A2 size scanner to have JPG/JPEG scan image and make sure the marked corner goes low-left corner, rotating the image.</p>
17		<p>Start Square.</p>
18		<p>Open the scan image.</p>

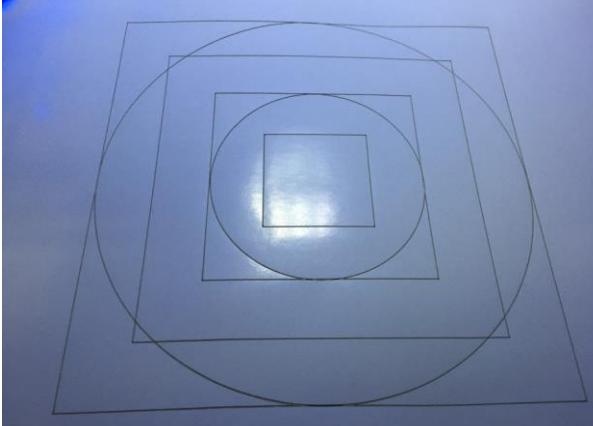
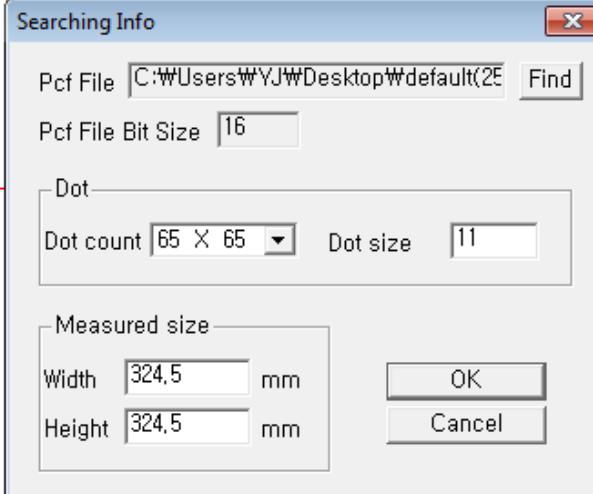
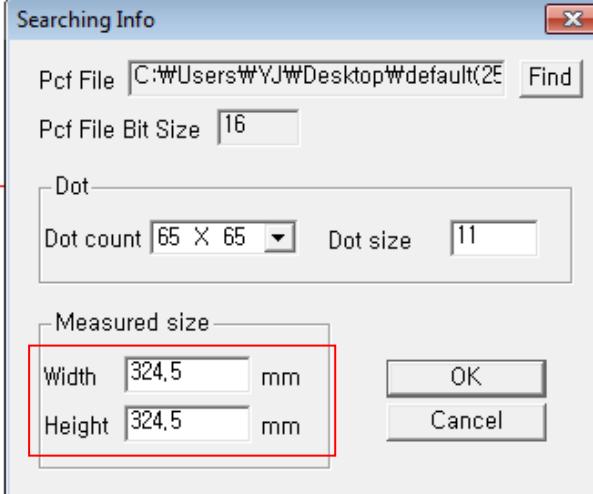
19		Click [Contrast] icon as in the picture.
20		Use 200-230 as the value and find an appropriate contrast rate which is clear enough to remove the dusts and get clear dot shapes. However, it depends on the scanning condition. User may adjust the number to have higher/lower contrast on the image.
21		Use [Eraser] to clear the rest of the image except the laser dots.

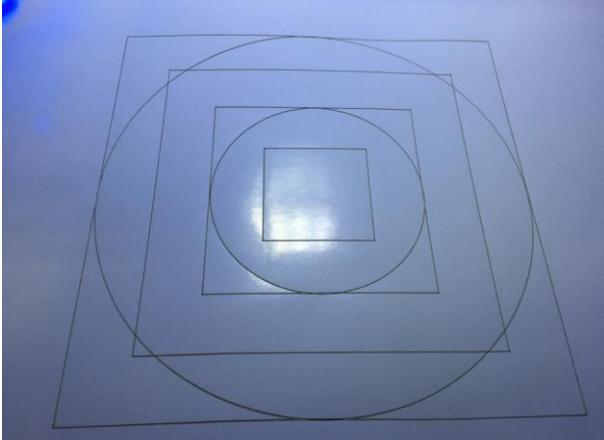
22		<p>If there is any dot missing, Press [Dot] icon and position arbitrary dots, considering its original position.</p>
23		<p>This is how it would look like.</p>
24		<p>After cleaning the image, click [telescope] icon.</p>

25		Choose one dot and drag around it.
26		Width=Measured distance between 33th dots in X axis. Height= Measured distance between 33th dots in Y axis.
27		The S/W will automatically calculate the offset. If cannot see the pattern as in the picture, repeat the process from 21.

28		<p>If done, click [I] icon.</p>
29		<p>Choose PSC14x. Input Width 300 / Height 300 mm.</p>
30		<p>Go to anytron CUT. It will automatically start when AI is started.</p>

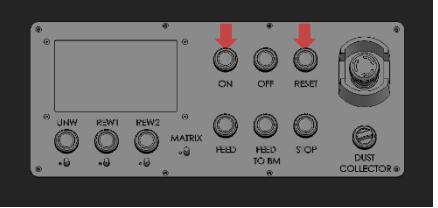
31		Setting > Control Card > PCF File [Find] *Both Master Tap and Slave Tap should import the same file.
32		Angle is 0. User may adjust it by 0.1 if needed.
33		Make random data with simple polygon such as circles and squares.

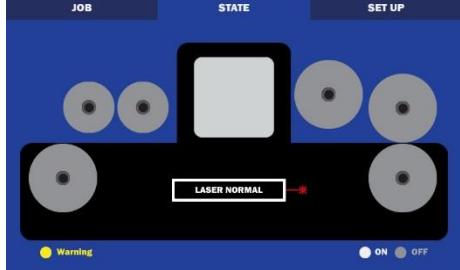
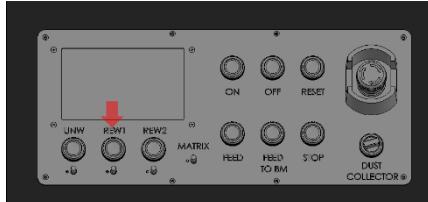
34		<p>Measure its actual size by Test cut.</p>
35		<p>If scale needs to be readjusted, you can go back to the step 24-26.</p>
		<p>In the step 26, change the Width and Height to adjust the scale.</p> <p>Smaller than actual size -> Increase number</p> <p>Bigger than the actual size -> Decrease number</p>

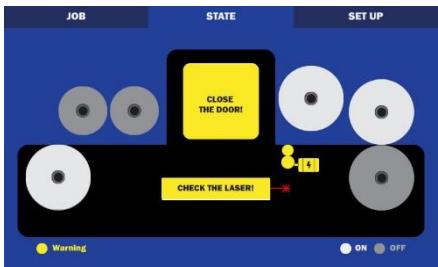
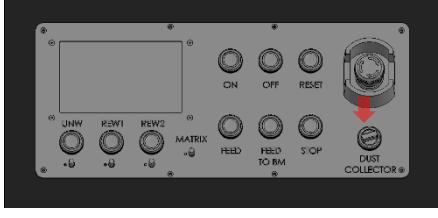
		<p>Re-apply a new calibration file on anytron CUT – Config – Control Card. Repeat the process of 33-34.</p>
--	---	---

1.3.5 Test after Installation

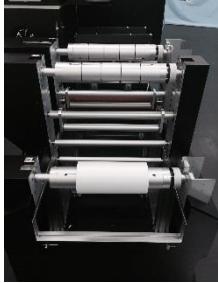
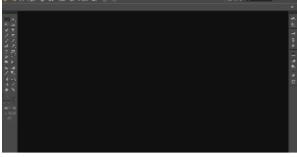
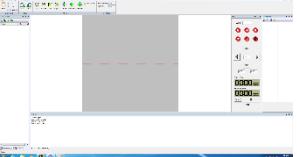
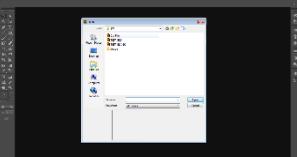
Hardware Check

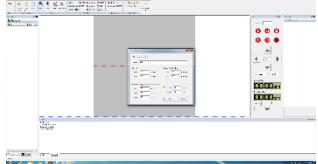
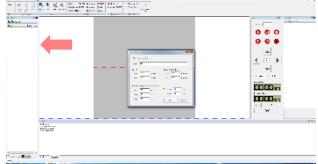
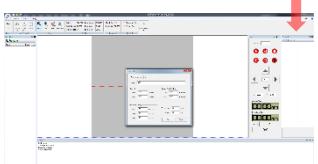
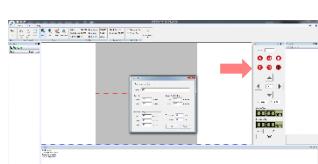
No.	Picture	Description
1		Switch ON Main Power by Turning the switch in CW direction.
2		Press <RESET>-<ON>
3		Go to <SET UP>-<DETAIL> on LCD Touch Screen. Press <Default> - Lami UNW Sensor <SAVE> - Lami REW Sensor <SAVE> - Servo Initialize <SAVE>
4		Turn Off any-CUTIII by pressing <OFF> on the control panel and wait 5 seconds.
5		Turn on any-CUTIII by pressing <ON>. Now the parameters for motors/sensors are saved.

6		Go to <STATE>.
7		Turn ON UNW by pressing the button on the control panel. Check if it brakes manually.
8		Turn ON REW1 by pressing the button on the control panel. Check if it rolls in CW direction.
9		Turn ON REW2 by pressing the button on the control panel. Check if it rolls in CW direction.
10		Pull Lami UNW handle manually and check if Lami REW rolls.
11		While pulling Lami UNW handle, pull Lami REW handle and check if Lami REW stops.

12		<p>Turn MATRIX knob in CW direction and check if MATRIX REMOVER rolls.</p>
13		<p>Open and shut the door and check if the error message shows up and gone.</p>
		<p>Switch ON DUST COLLECTOR by turning the knob and check if the collector is switched ON remotely on the control panel.</p>

Operation Check

No.	Picture	Description
1		Set the enclosed roll media. (Refer to 2.1.3.1) User can also test with sheets, size of 340mm x 340mm.
2		Start Adobe Illustrator.
3		anytron CUT is automatically activated.
4		Click <Home>-<Open>
5		Open 'Test.ai' file.
6		Adjust the image by setting artboard.

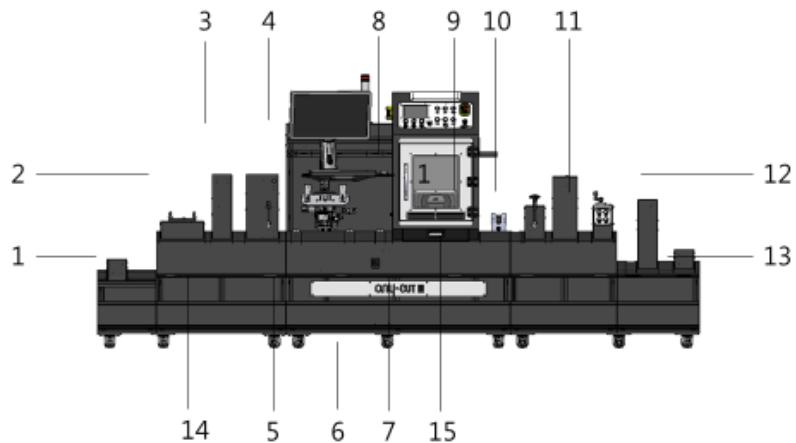
7		Send the data to anytron CUT by using Marking Plug-in and press <SEND>.
8		Go to laser <Parameter> and set laser figures following the previous test figures from Bitek.
9		Save the figure on the <parameter 1>.
10		Click the layer on the left.
11		Set <parameter 1> on the layer, using menu on the right-hand side
12		Try <Test> cut first. User can try On the fly/Stop and Go modes after checking laser presence and cutting shape.
13		Check if the quality is comparable with the sample from Bitek.

2 Basic Operation

2.1 Hardware

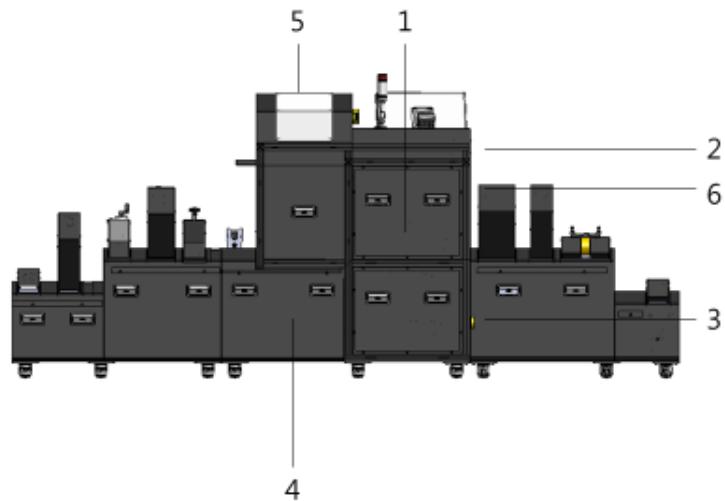
2.1.1 Main Components and Functions

Front View



No.	Name	Description
1	Unwinder	Unwinds media to start jobs
2	Laminate Unwinder	Unwinds Laminate film to be attached on the media
3	Laminate Rewinder	Rewinds back liner of Laminate film
4	PC Monitor	
5	Web Guide	Adjusts its body to make media path straight
6	PC	Import / Design files with Adobe Illustrator
7	Laser Unit	Where Job cutting take place, featured with LED light, cutting pad, BM sensor, dust exhaust hall and door with safety interlock.
8	Control Panel	Consists of operation buttons, EMO Switch, indicators on LCD screen
9	Cleaning Roller	Cleans dust on media after cutting
10	Matrix Removal Rewinder	Removes left-out of media after cutting
11	Slitting Unit	Slits media after cutting
12	Rewinder 1	Rewinds media
13	Rewinder 2	Rewinds media
14	Splice Table	Connect the next media to formal media to keep the web path easily
15	Full-cut Drawer	Where full cut pieces drop and able to be taken out easily

Rear View



No.	Name	Description
1	Control Box	Consists of main board, drivers, circuit breakers and cables related
2	Laser Source	CO2 Water cooled type laser source
3	Power Switch	Main Power Switch
4	Dust collector connector	Where Dust collector connected to the equipment
5	Optics	Decides the laser quality and path
6	EMO Switch	Turn off the power in emergency case

2.1.2 Switching On/Off the Power

Switching On the Power

Turn on Main Power Switch.

Make sure <EMO> button is not pressed.

Press <Reset> button on the control panel. Check if you hear popping sound at the back which comes from Relay.

Press <On> button on the control panel.

The light will be ON in the laser unit and you will see [READY] on the screen.

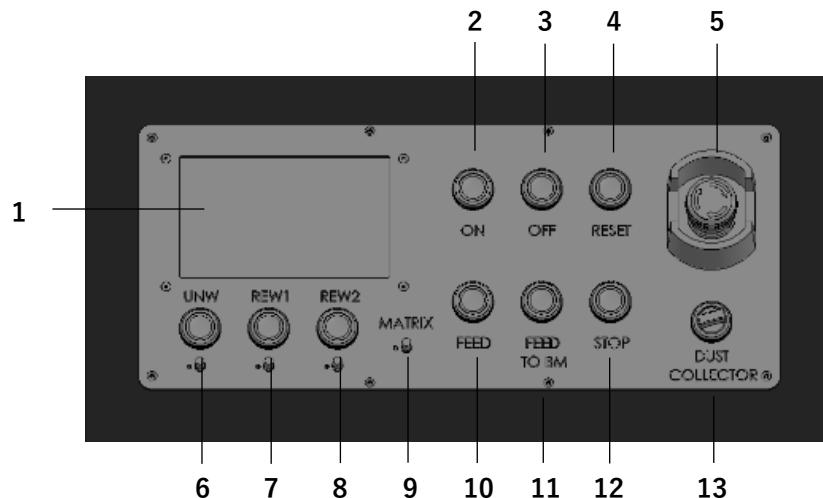
Important

- If display reads [UNREADY], the equipment is not ready for a job. Check if the door is not closed or Laser is not ready.

Switching Off the Power

1. Press <Off> button on the control panel.
2. Or, Press <EMO> if emergent.

2.1.3 Control Panel



No.	Name	Description
1	Interface Panel / LCD	Touch panel to check/control Job status and Device Status
2	ON	Press to switch on the device following <RESET> button
3	OFF	Press to switch off the device
4	RESET	Press to switch on the device followed by <ON> button
5	EMO	Press to switch off the device in emergency case
6	UNW	Press to switch on Unwinder
7	REW1	Press to switch on Rewinder1
8	REW2	Press to switch on Rewinder2
9	MATRIX	Turn CW direction to turn on/adjust tension strength.
10	FEED	Press to feed media
11	FEED TO BM	Press to feed media until BM sensor senses BM
12	STOP	Press to stop feeding
13	DUST COLLECTOR	Press to switch on/off dust collector.

2.1.4 Interface Panel (LCD)

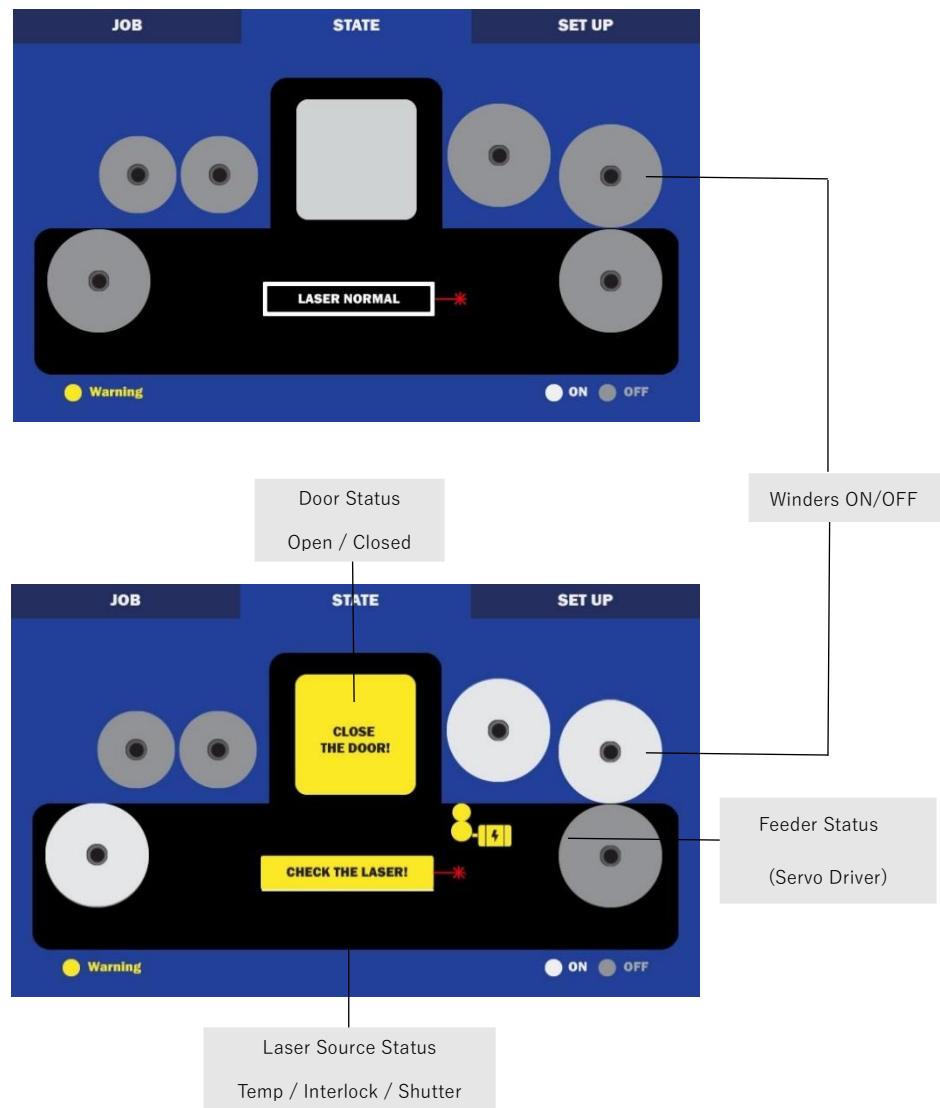
Welcome Screen



JOB Screen

The image shows the JOB screen of the ANY-CUT III interface panel. The screen has a dark blue background with yellow text. At the top, there are three tabs: "JOB", "STATE" (which is highlighted), and "SET UP". Below the tabs, the word "READY" is displayed in large yellow letters. To the left of the screen, a list of job modes is shown: "On the Fly Normal", "On the Fly Blank", "Stop and Go Normal", and "Stop and Go Blank". On the right side, there are two blue buttons with white arrows pointing up and down, labeled "Adjust WEB Speed". At the bottom, there is a small circular icon with the letter "E" and some text below the screen: "FED Media Distance" and "Resettable". Callout boxes point from the text on the left to the corresponding items on the screen, and from the right buttons to their respective labels.

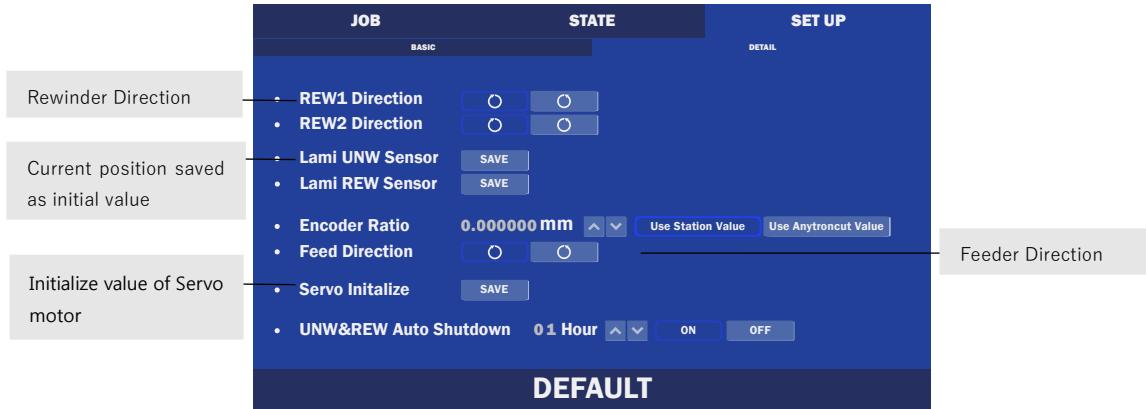
STATE Screen



SET UP Screen (BASIC)



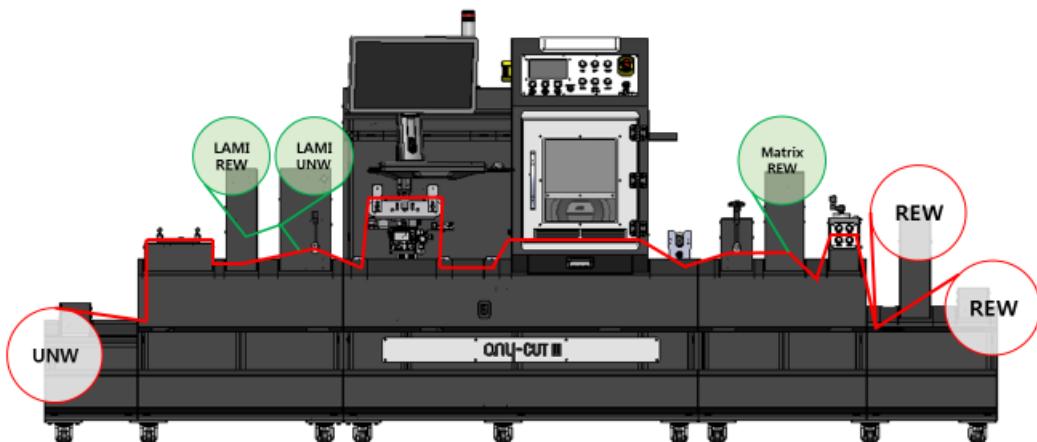
SET UP Screen (DETAIL)



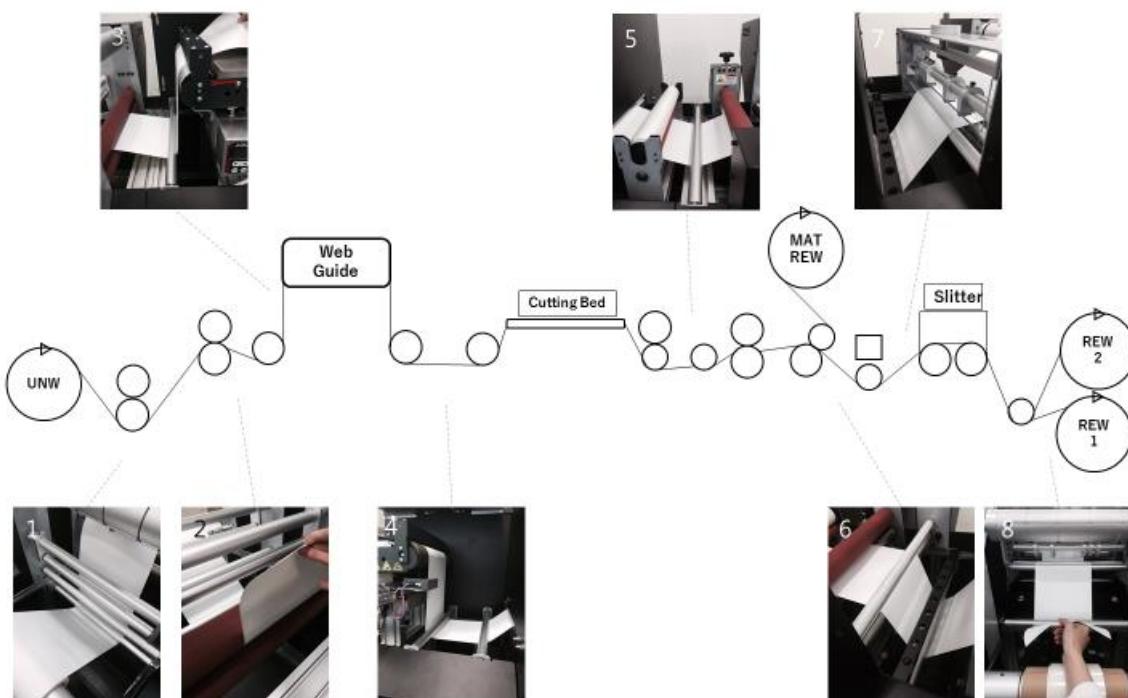
2.1.5 Media Setting

2.1.5.1 Setting Roll Media

Web Path



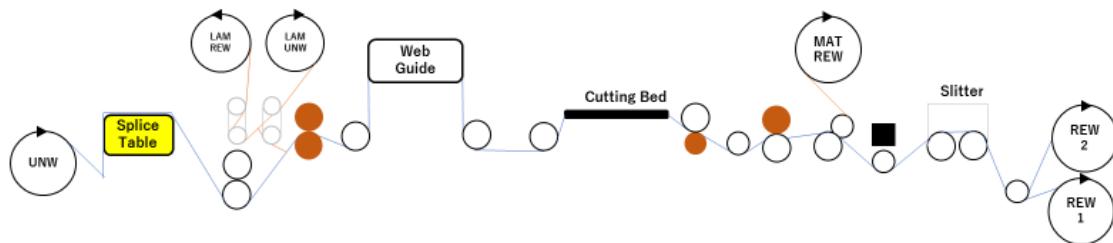
Detail



- 1-8 : Set the media, following the web path above. Check the distance between the media edge and one side of the bobbin/idler and make them consistent on every path.
- 1-8 : The media should have moderate tension on every surface and paths.
- 5-6 : Do not forget to latch the feeder lever until the lever points 6 o'Clock direction.

2.1.5.2 Splice Table

Feature



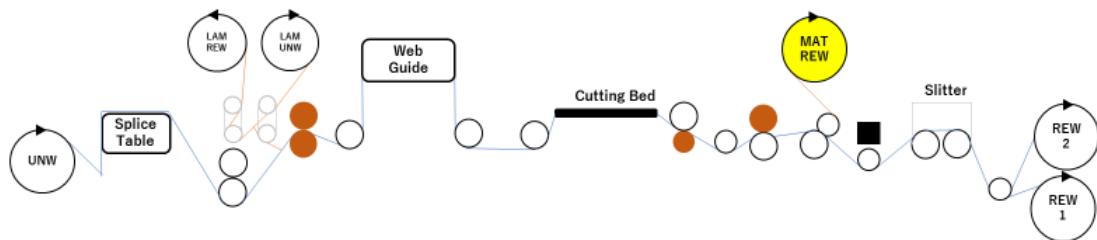
How to Set

No.	Picture	Description
1		Splice table consists of 2 levers to hold the media and duct tape holder on the side.
2		This is how user install the media.
3		If to connect another media to the previous media to maintain web path and tension, pull up both levers and fix the media. Then, cut the existing media using furrow on the surface as a guide.

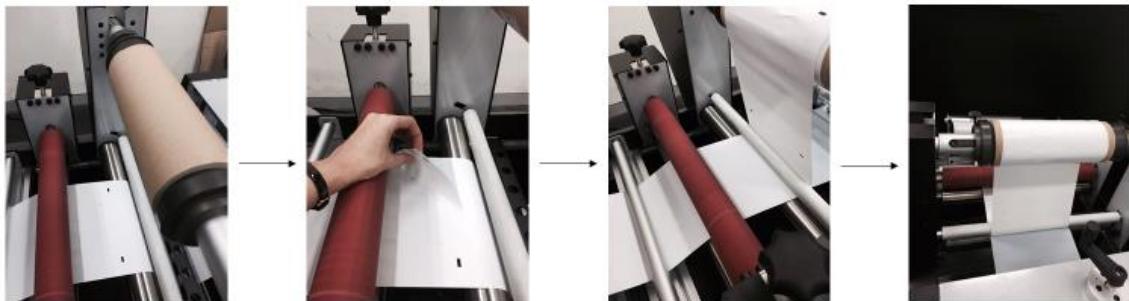
4		Put down the first lever and get rid of the existing media.
5		Connect another media matching the right side of both media. This is to maintain the edge which is sensed by the web guide sensor to maintain its position.
6		Pull out duct tape and attach it to connect both media.
7		
8		Put down the remaining lever to feed media.

2.1.5.3 Matrix Removal

Feature



How to Set



Put the chuck back to the equipment. Place the core in the center of the media. it is better to have cores with wider width than media in case of prior adjustment.

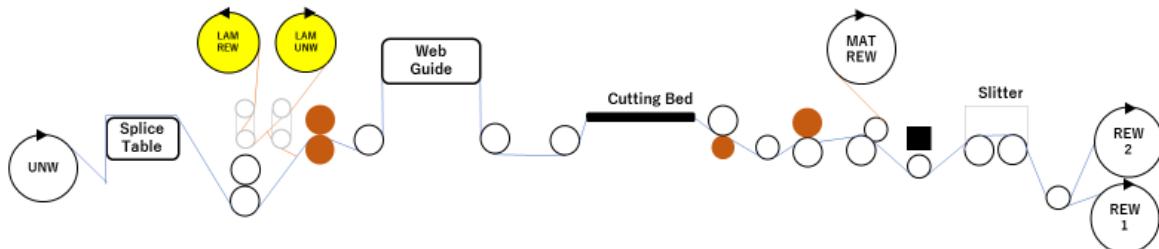
Peel off the sticker from the media using sharp tool such as cutter knife for the efficiency. Be careful with using the knife.

Put the sticker on the Matrix Removal core after slightly feeding the media .

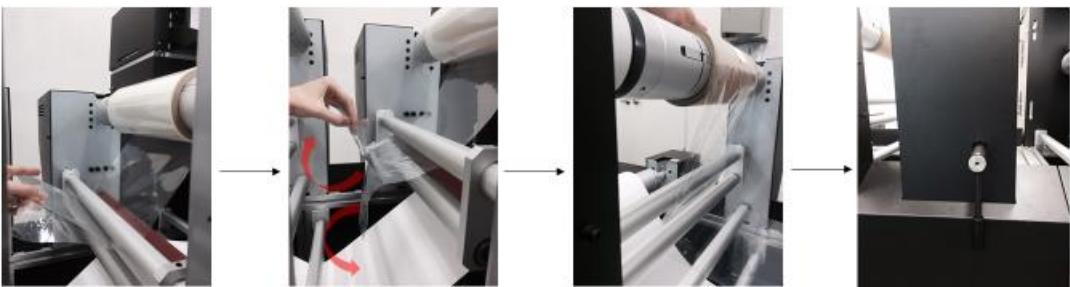
Adjust the tension using Matrix knob on the Control Panel. Make sure the media doesn't get wrinkled or lose tension.

2.1.5.4 Laminating

Feature



How to



Set the film on the Lamination Unwinder with the same way of Media Unwinder. Pull out the film and make it pass through in between the handle.

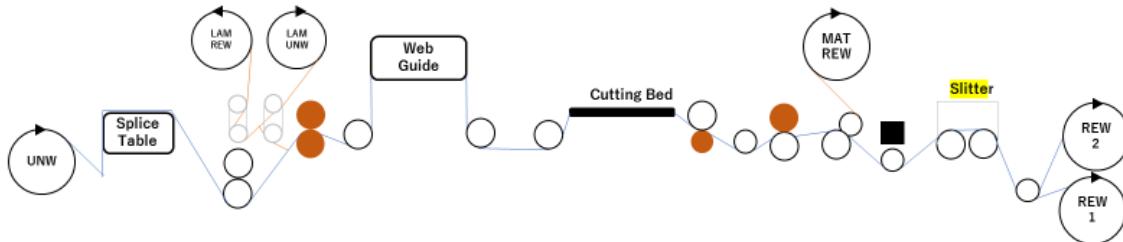
Separate the back liner. Attach the sticky part to the media.

Set an empty core on the Lamination Rewinder and stick the end of the back liner on the core as above. The back liner should go up by passing through in between the handle.

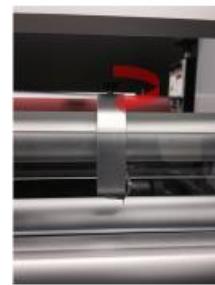
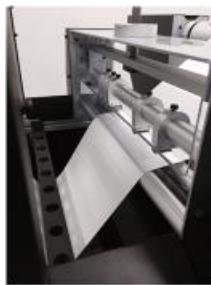
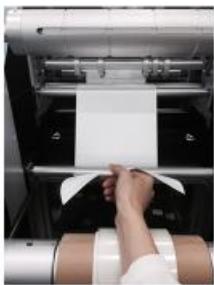
Feed the media watching if the film has been positioned at the center of the media. If it gets in position well, pull down the lever to fix them tight.

2.1.5.5 Slitting / Trimming

Feature



How to



Set the media and attach the end on the Rewinder to have appropriate tension on the media.

Place the slitter blades on the media.

Make the blade slightly tilted to make sharp cut.

Screw the bolts above the blades to fix its position.



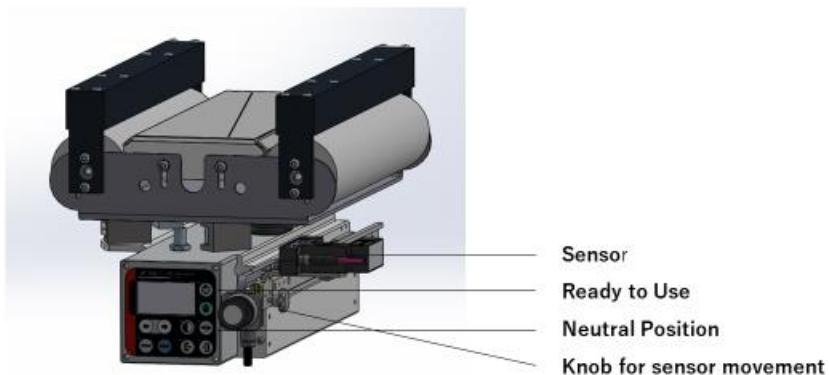
Turn the handle in CW direction to pull down the slitter blades until it touches the media.

User can utilize REW2 to wind the separated media. Make sure the diameter of every cores should be same. All the core should start simultaneously.

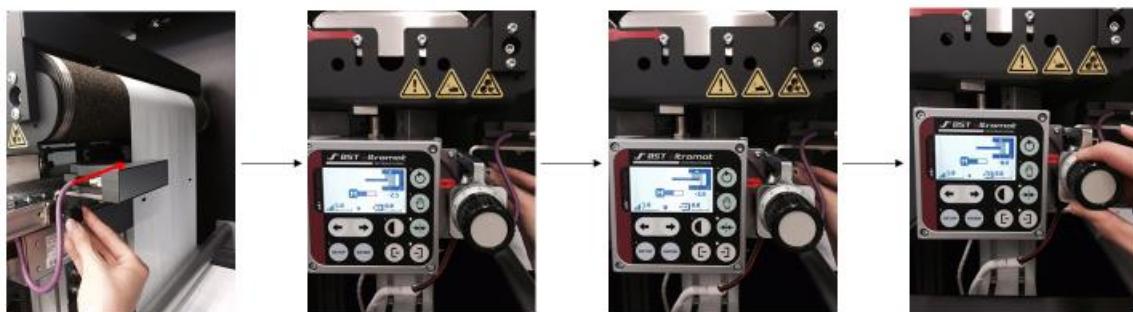
The blades which are not being used can be stored as the pictures above.

2.1.6 Web Guide Setting

Feature



How to Set

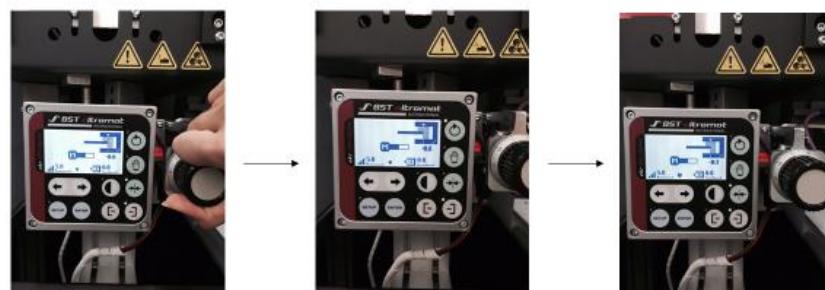


Unscrew the bolt and move the sensor until it reaches the edge of the media.

Check the number on the screen. Move the sensor until the number gets closer to '0'.

The number gets positive if the sensor is too close to the media. Move the sensor toward the opposite side. If the number gets negative, do the opposite.

If small changes required after fix the side knob, turn the front knob to move the sensor delicately.



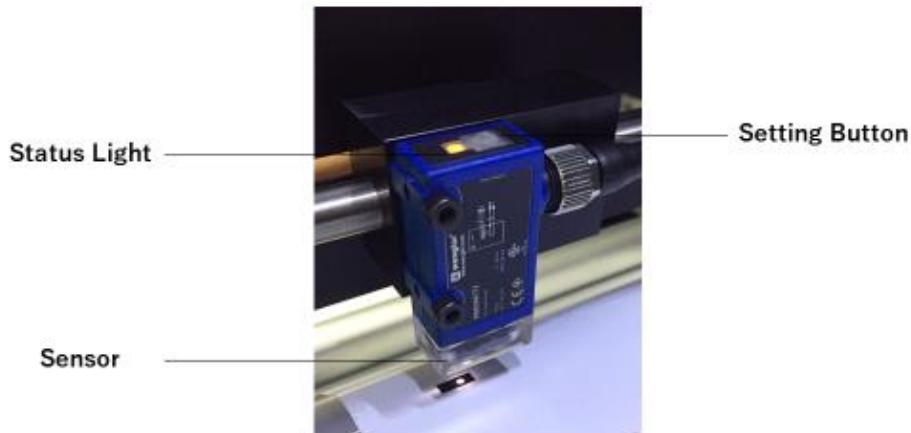
If it has reached '0', stop turning the knob.

Press C to activate.

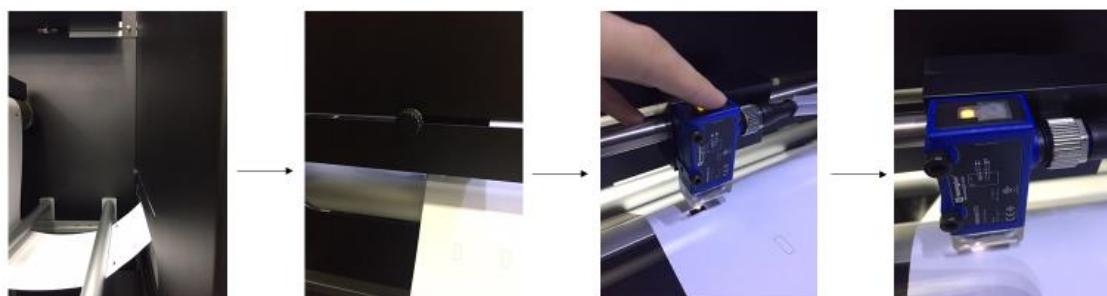
is to set the guide in neutral position.

2.1.7 Black Mark Sensor Setting

Feature



How to Set



Unscrew the bolt at the back of the sensor. It can be found on the left-hand side of the laser unit.

Move the sensor until it can sense the BM printed on the media. Then screw the bolt to hold the sensor tightly.

If the sensor is right above the BM, press the button on the top of the sensor for 3 times. It will blink.

Move the sensor to black area on the media where there is no BM, and press the same button for once. The light will go off on the black area and will be on sensing BM.

2.1.8 Cutting Bed

Feature

User has 2 options for the Cutting Bed. The Bed can be chosen upon the job required. If Full-Cutting is required, the cuts should drop under the cutting bed not to affect the rest of the cutting.



Full-Cut Bed



Half-Cut Bed

How to Set

Full-Cut (Wedge) Bed

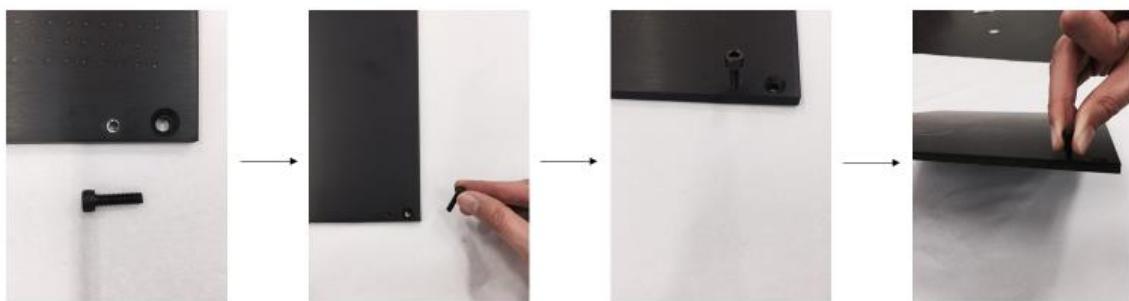


Stick the Wedge Beds into the holes around the Bed Frame. Place the sticks considering where to drop the full-cut pieces. The more sticks, the flatter the bed can be which increases the cutting quality, however, if any cut pieces left on the bed will interrupt the laser beam.

Half-Cut Bed



Half-Cut Bed is a normal flat bed for Half-Cut. Unlike Full-Cut Bed, it needs an extra effort to lift up since there cannot be any kind of handle. Please follow the procedure below to lift the bed.



Prepare M4 bolt. There is a hole on the Half-Cut Bed for the bolt. This bolt will be used as a handle to lift the bed.

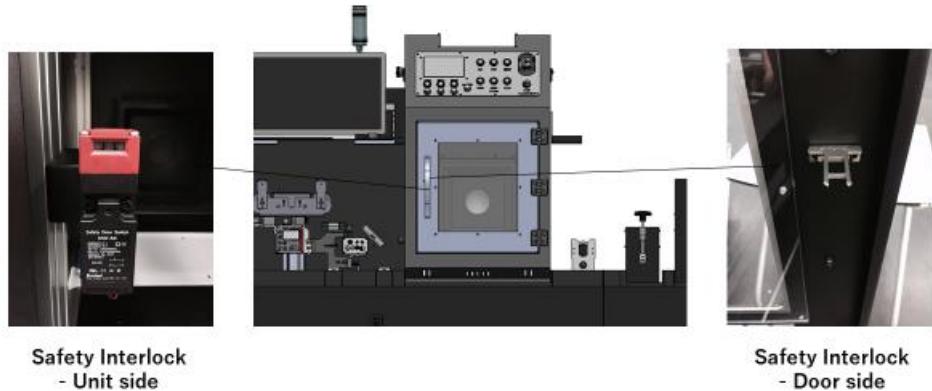
Screw this bolt into the hole.

If it has been bolted properly like the picture above, which has enough space to lift up by fingers, it is done.

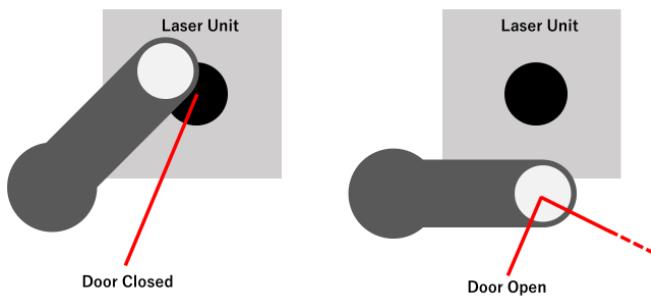
Carefully lift up the bed and take it out from the unit or put it back to the unit.

2.1.9 Door

Feature



How to set



The Door Interlock is connected to the Shutter. Shutter is a part to shut the laser beam for the safety reason. If the door is not closed, the shutter blocks the beam path so that it doesn't reach the space of cutting.

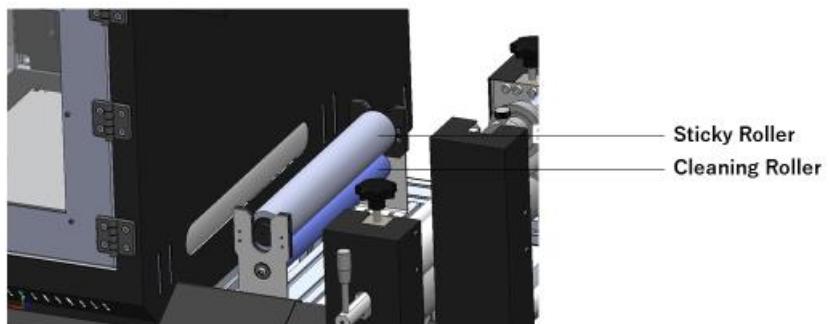


This screen will show up if the door is not closed. Check the door if it is properly closed.

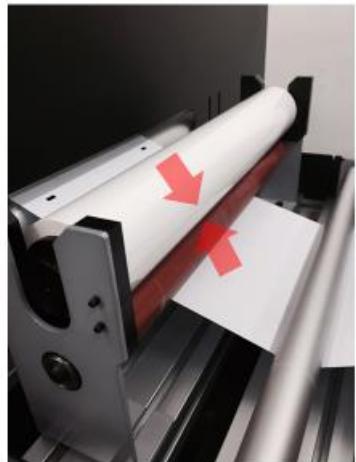
This screen should show up if the door is closed and the device is ready to operate.

2.1.10 Web Cleaner

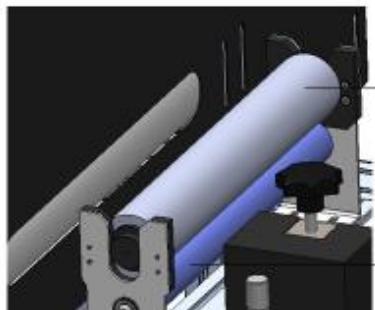
Feature



How to Set



Peel off the first layer of the Sticky Roller. Place the media under the Cleaning Roller.



Cleaning Roller removes dusts on the media after cutting.

Sticky Roller removes dusts on the Cleaning Roller. User can easily remove dirty cleaner paper of the Sticky layer by peeling off.

2017 Bitek Technology. All rights reserved.

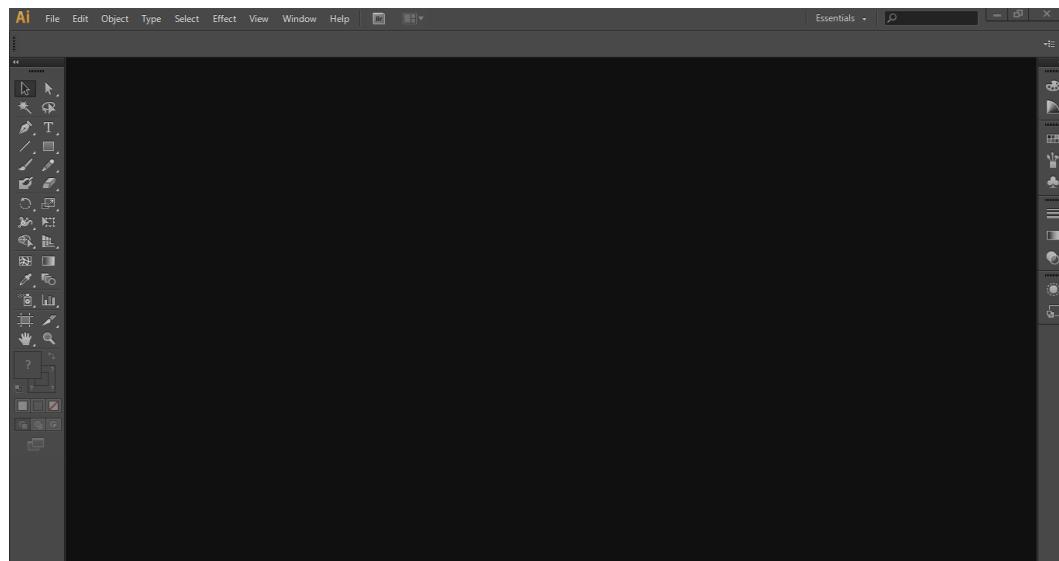
2.2 Software

2.2.1 Illustrator

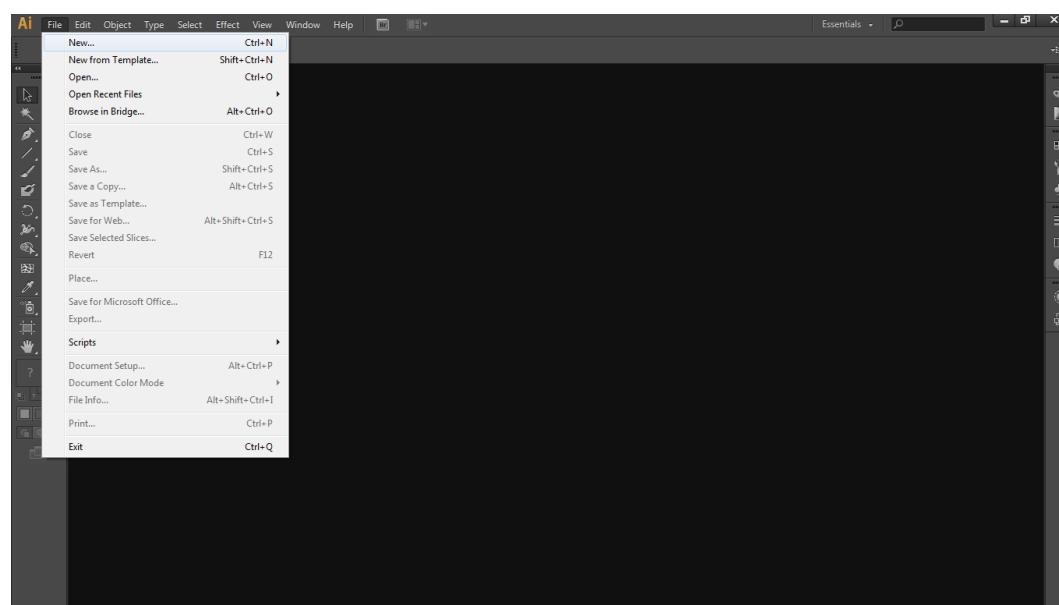
2.2.1.1 Setting Artboard

Setting Artboard is a process to set the layout of the job. Through setting the Artboard properly, user can set the cutting data on anytron Cut, the laser control software of any-CUTIII, with better efficiency and quality.

1. Open Adobe Illustrator CS6.



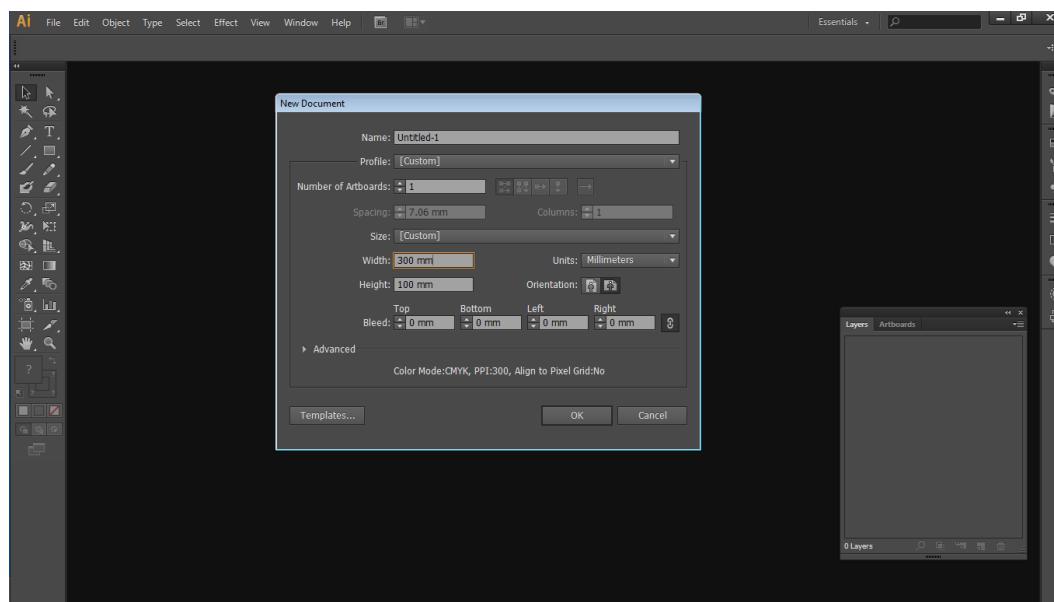
2. Click <File> - <New...>



- Set the Artboard size. **The width of the art board should be 300mm** so that the cutting data can be automatically center-positioned on anytron CUT, the laser control S/W. The reason why the intended cutting lines should be centered is related to the laser's feature. The cutting quality of laser comes out with the best accuracy when an object is at the center of laser reaching area. Therefore, the anytron CUT has been built to center the cutting data automatically based on the artboard size and the position within.

The top left corner of the artboard should be positioned at (x=0, y=0). This is also for the automatic recognition of the cut line position by anytron CUT.

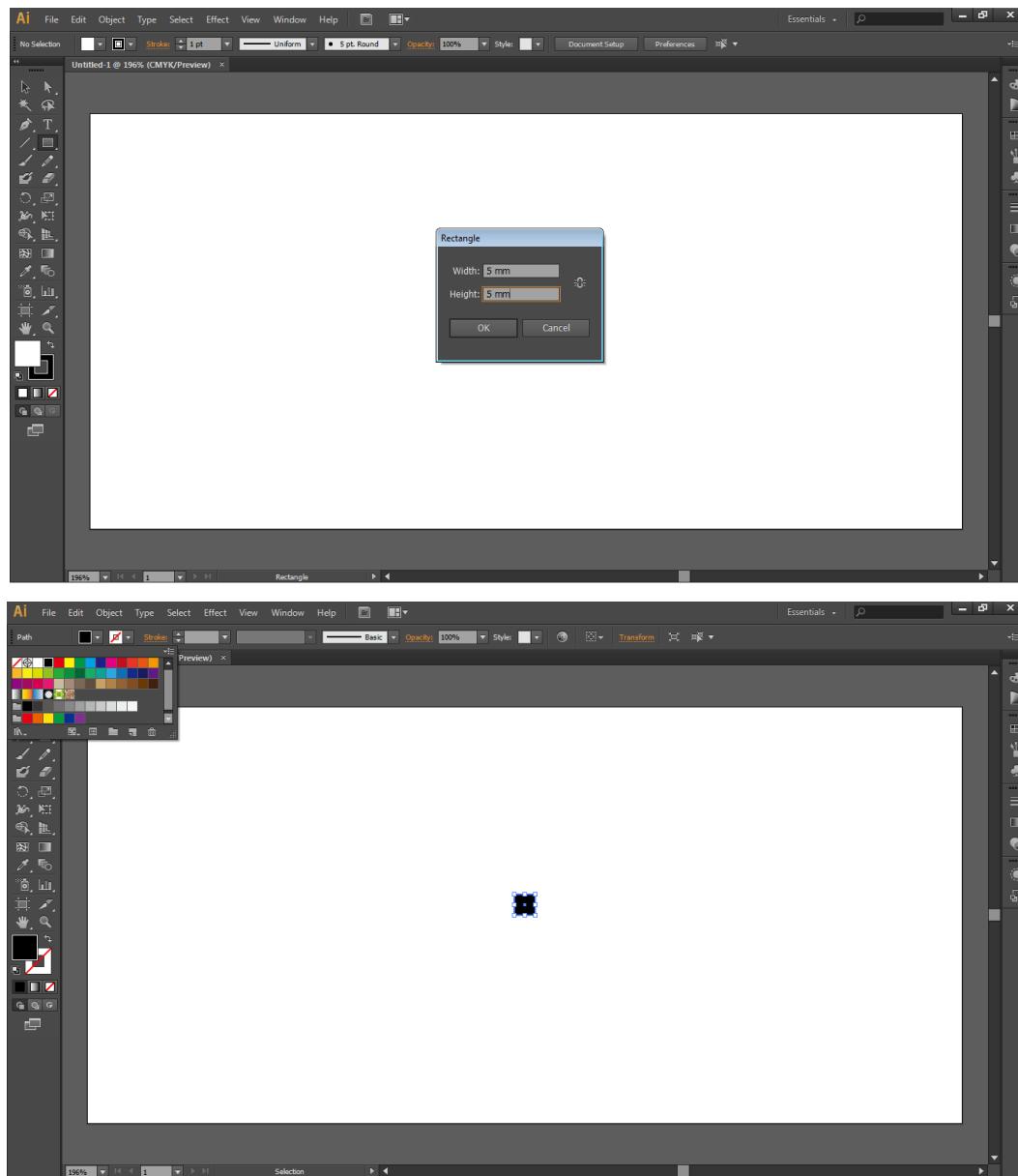
If the data shows on anytron CUT is not centered or not properly shown in the screen, please check the artboard setting again.



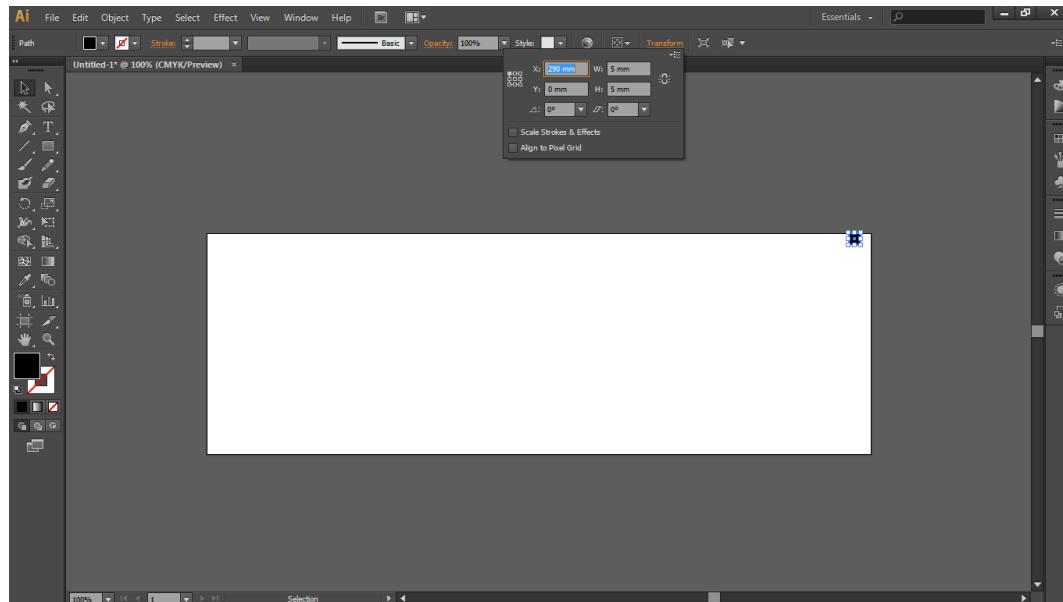
2.2.1.2 Create Black Mark

1. If the file has to be printed for using BM(Black Mark)/BM sensor, user has to follow the rules.

The size of the BM should be 5(or more)mm width x 5mm height. The color should be 100% Black.

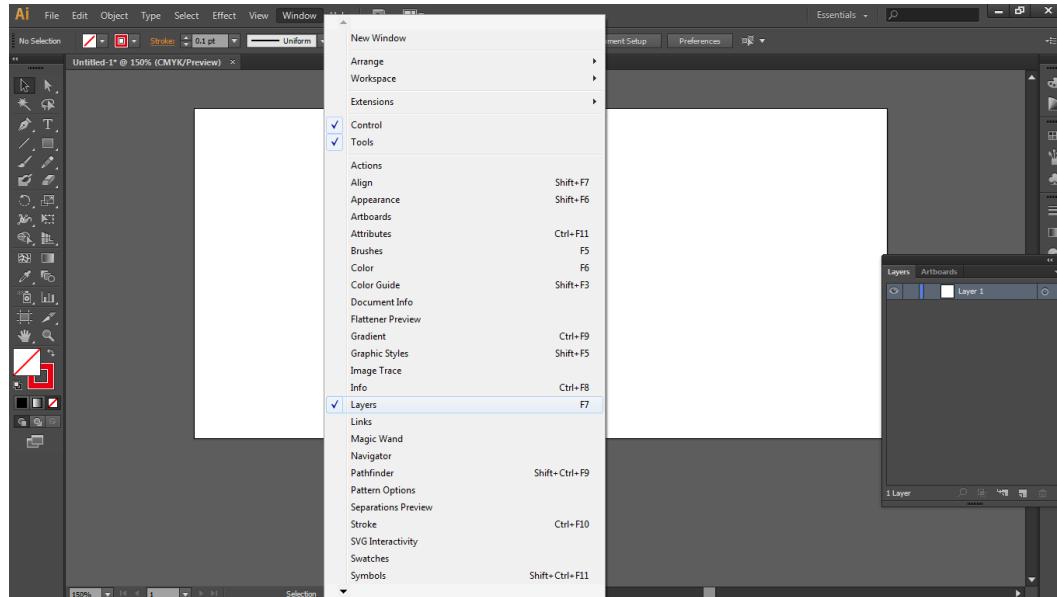


2. Position the BM with considering Print-out and BM sensor position. The very top of the Artboard is the recommended position of the BM(Y=0). BM can be on both sides of the layout for user's convenience.



2.2.1.3 Setting Layers and Cutting Order

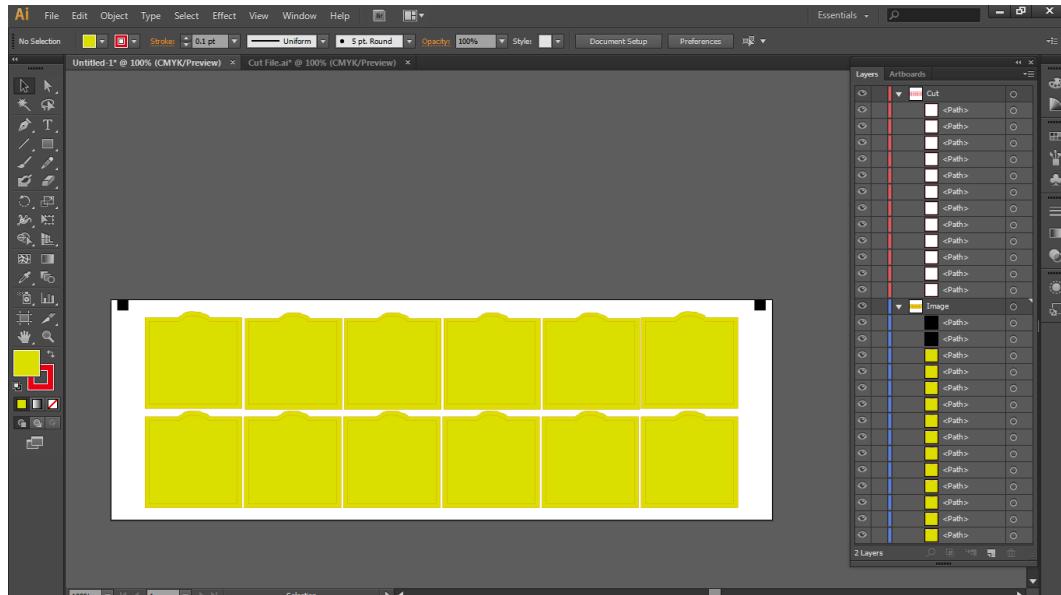
1. Click <Window> - <Layers> to separate the layers required for each job, marking, half-cut and full-cut.



2. The picture is an example of how the file can be made. The file includes the image data which will be printed out before cutting.

The Cut line is slightly smaller than the image in this example to provide extra space for the adjustment during the operation. It is not mandatory.

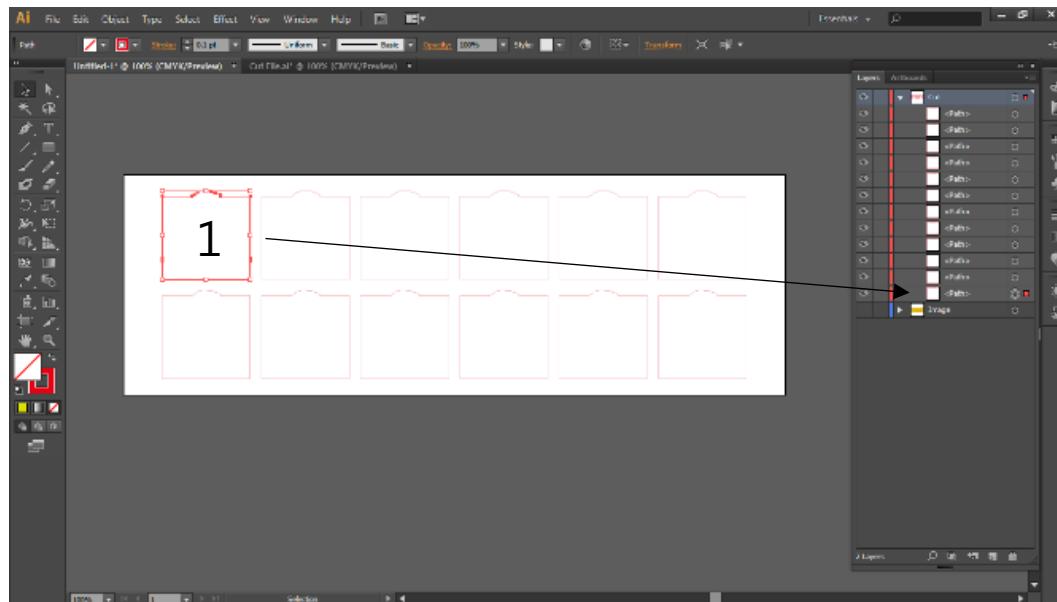
The name of the layer doesn't affect the operation.



3. The cutting order should be designated. Click ► of the ‘Cut’ layer. The objects included in the layer will show.

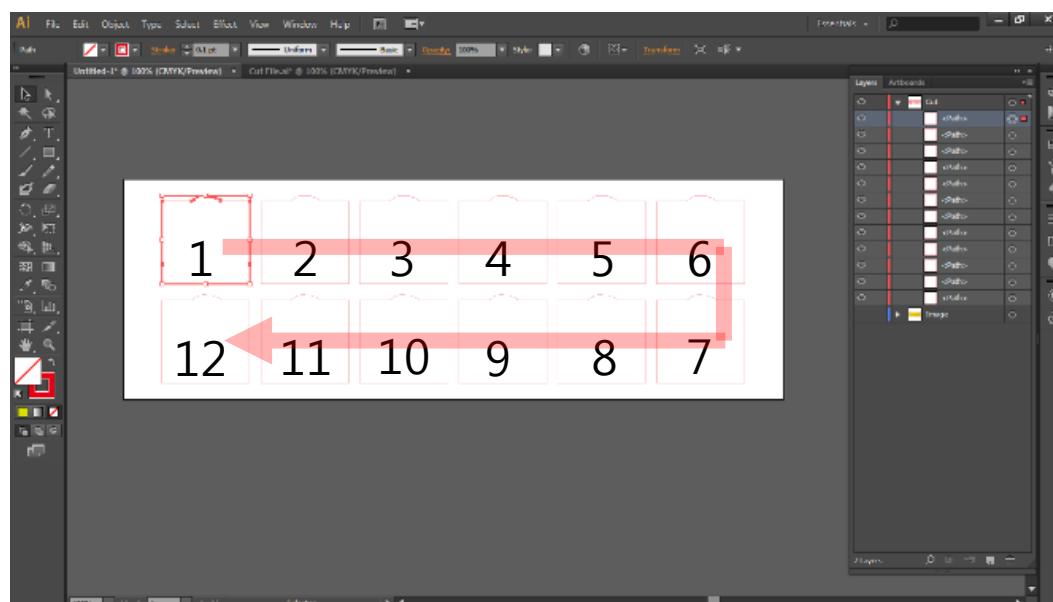
Click the image which has to be cut first out of the whole data during operation.

The order will show on the list of the layer. In the picture below, the first cutting data comes at last. Drag it and drop on the top of the list.



4. List all the cut images as below.

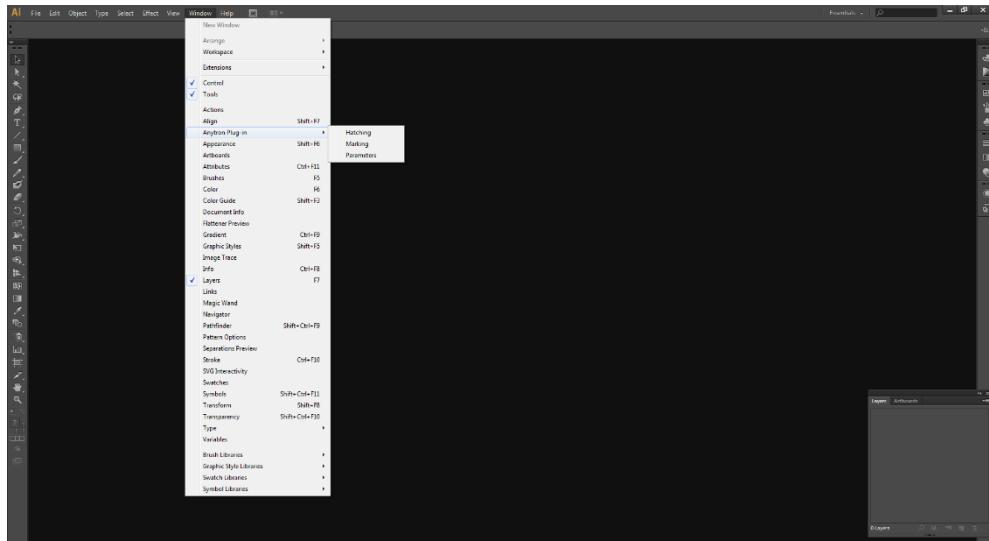
recommended layout of the cutting image is either ↗ or ↙ assuming that the top of the Artboard comes first for cutting and the laser movement. In this way, user can have the most efficient way of laser movement resulting productivity.



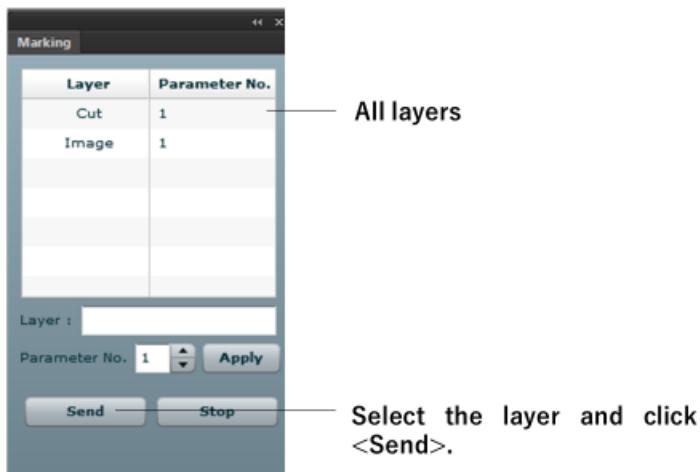
2017 Bitek Technology. All rights reserved.

2.2.1.4 Plug-In

1. Open Plug-Ins on the Illustrator. Click <Window> - <Anytron Plug-in> - <Marking> and <Hatching>. <Parameter> is not used in operating any-CUTIII.



2. Marking : Even if it shows the other layers away from the one which has the cutting data to be sent to anytron CUT, user may ignore them including Parameter No. on this window. This window will be used mainly to send data to anytron CUT.



3. Hatching :

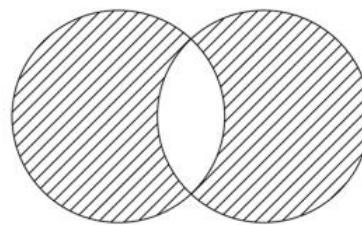
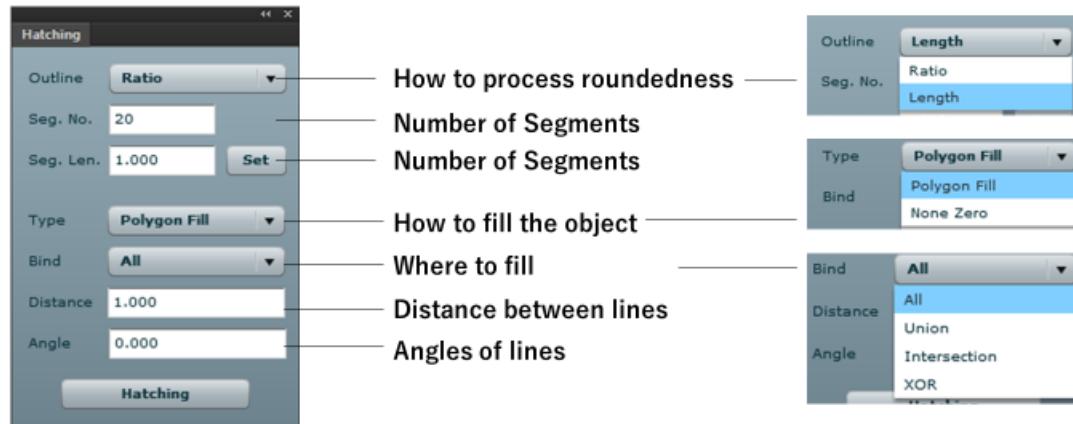
- 1) User can choose how to process roundness of the object/image.
<Outline> : Change Bezier curve to Vector.
< Seg No. > : The number of Vector data
<Seg. Len> : The number of pieces of Vector cut from the original Bezier curve.

2) User can fill up the object by using <Polygon Fill>option with choosing the area to be filled and the angle and distance of lines.

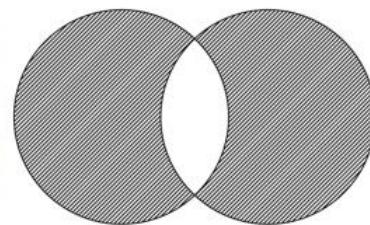
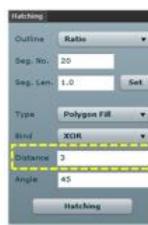
<**Type**> : Fill up the space with lines using vector information.

<**Bind**> : Choose the area to fill up.

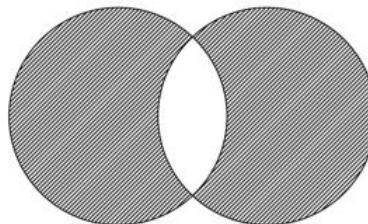
<**Distance**> : Set the distance between lines.



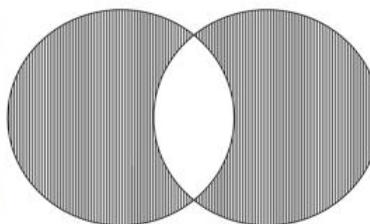
Distance : 3 (mm) Angle : 45°)



Distance : 1 (mm) Angle : 45°)



Distance : 1 (mm) Angle : 45°)



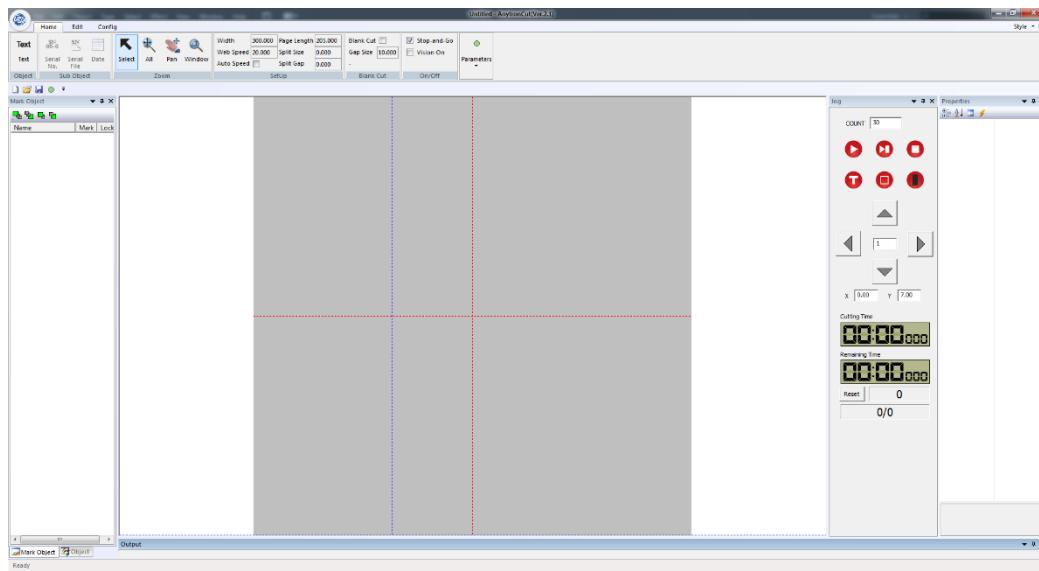
Distance : 1 (mm) Angle : 90°)



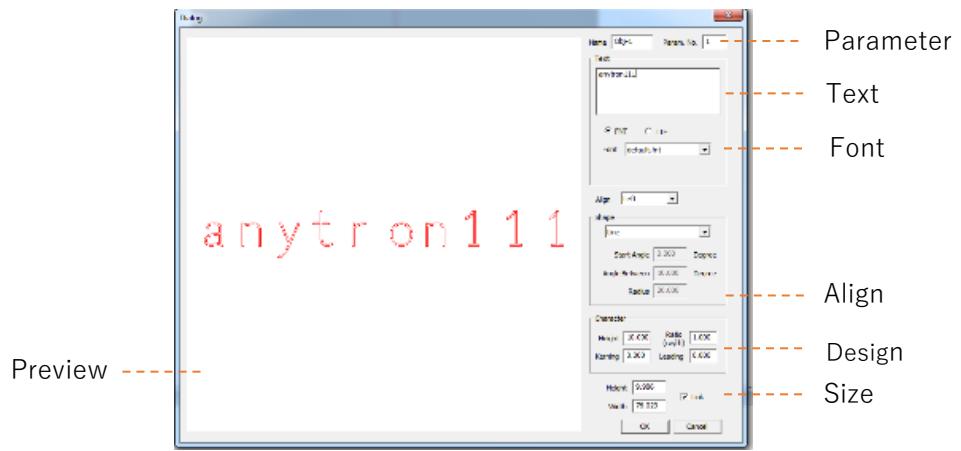
2.2.2 anytron CUT

2.2.2.1 Menu

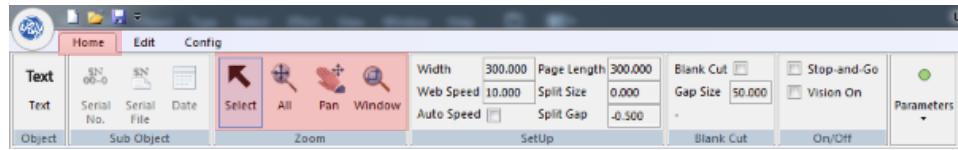
The picture below is the main screen. User can open/disable each taskbar.



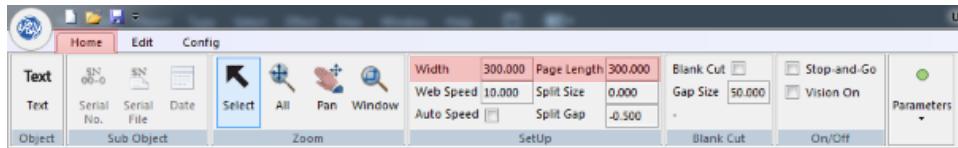
1. To add Text / Variable data on the cut data



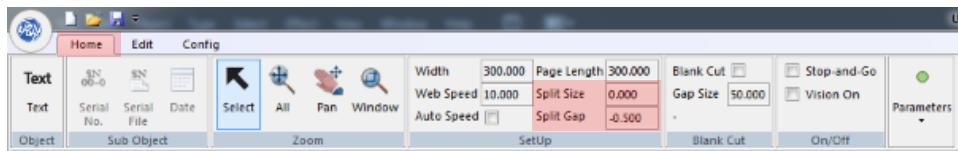
- To select how to see the Preview



- Artboard Size (User should type Page Length when not using Blank Cut or Test Cut)
The width of the data should remain 300mm. (Refer to 2.2.1.1.)



- Split Cut information



If the height of the job is longer than the cutting area limit which is 300mm, User may use Split cut. The default is '0' which is the basic setting. In this case, Cutting will be split by 300mm as the cutting area limit. However, if the image is 600mm for example, User may use the length which is same (can use '0') or less than 300mm. If User choose to use 100mm as a Split Size, the laser will cut by every 100mm.

- Blank Cut / Blank Cut (Using Black Mark)



Blank Cut

Not using Black Marks printed on the media. The software will read only the cut lines. User may not care about the page length when using Blank Cut mode.

User can use Gap size to set the gap between jobs.

Blank Cut

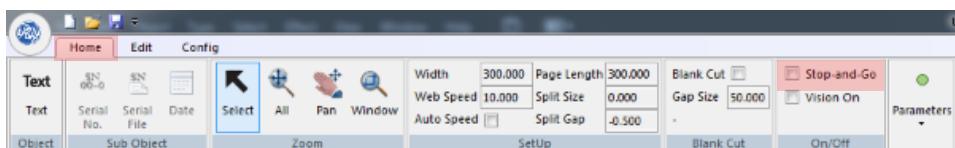
Using Black Marks printed on the media. User should move the black mark

sensor inside the cutting unit and auto-teach. Refer to 2.1.7. it is important to put the page length this time.

6. Gap length in between cuts in ‘mm’



7. Stop and Go / Stop and Go (On the fly)



Stop and Go

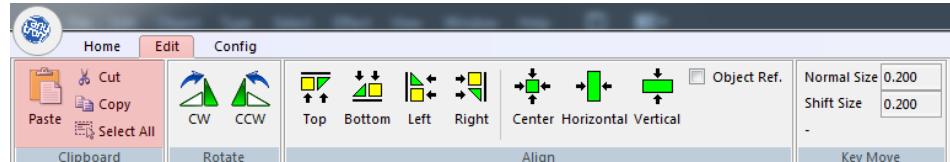
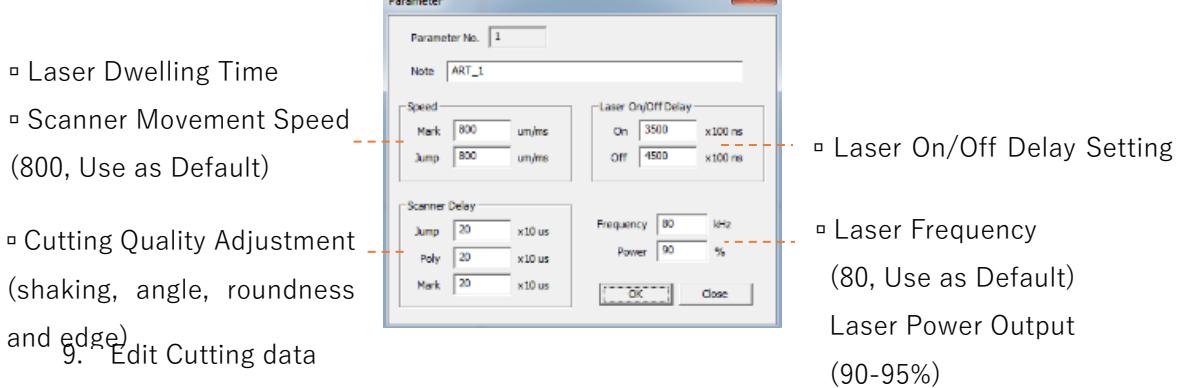
Media will stop feeding while the laser cuts the media. this mode supports comparably better accuracy. If the job consists of multiple complex images, perforation or multi-cut data, User may try On the fly mode.

Stop and Go(On the fly)

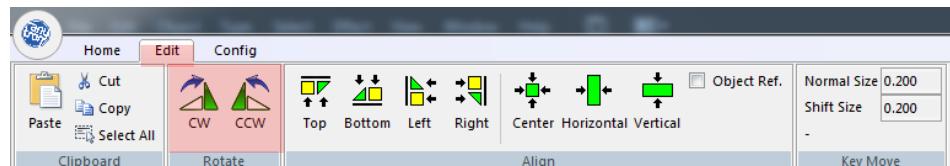
This mode supports better speed in general. User may adjust the speed by changing Web Speed from 1-30. However, if the laser skips jobs or cutting not completed, try to lower the Web Speed or use Stop and Go mode.

8. Laser Parameter Setting

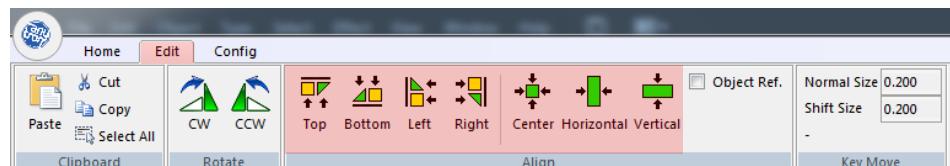




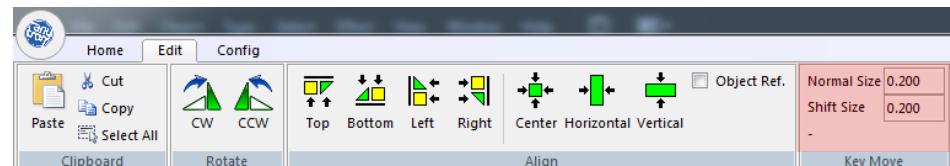
10. Rotate Cutting data



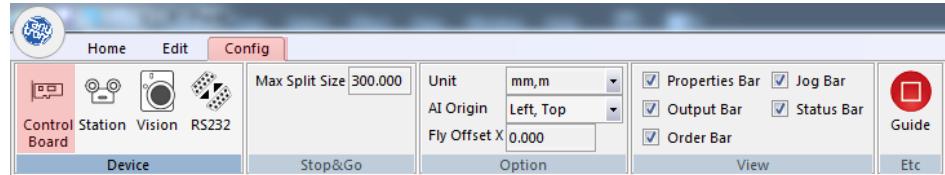
11. Align / Position Cutting data



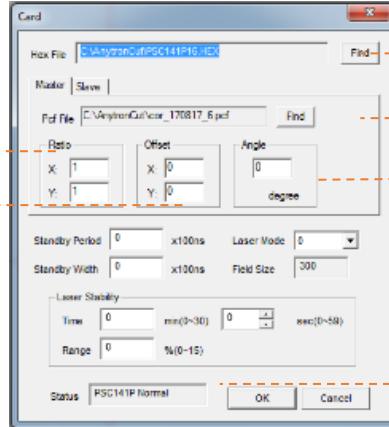
12. The distance can Cutting data be moved with Arrow keys.



13. Control Card

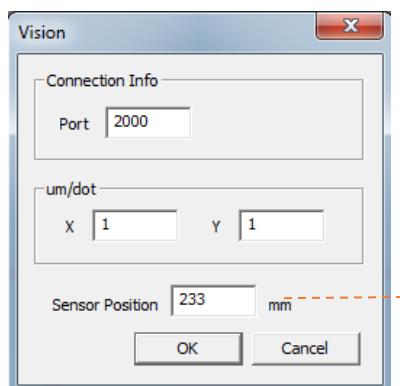
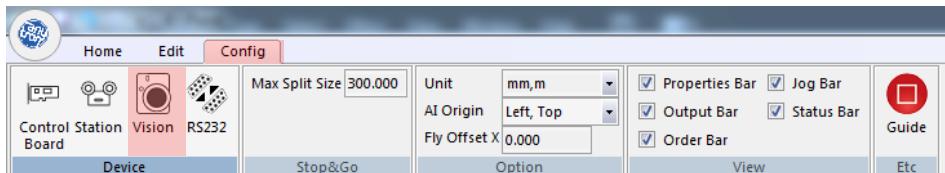


- Scale adjustment of actual Cut
(Adjust by 0.05)
- Default
- Enhance the laser power for designated period of time to cover up sporadic power drops during the laser stabilization period



- Default file
- Calibration file
- Angle
(+0.1° = ↗)
- Check the status says 'PSC141P Normal' before operation

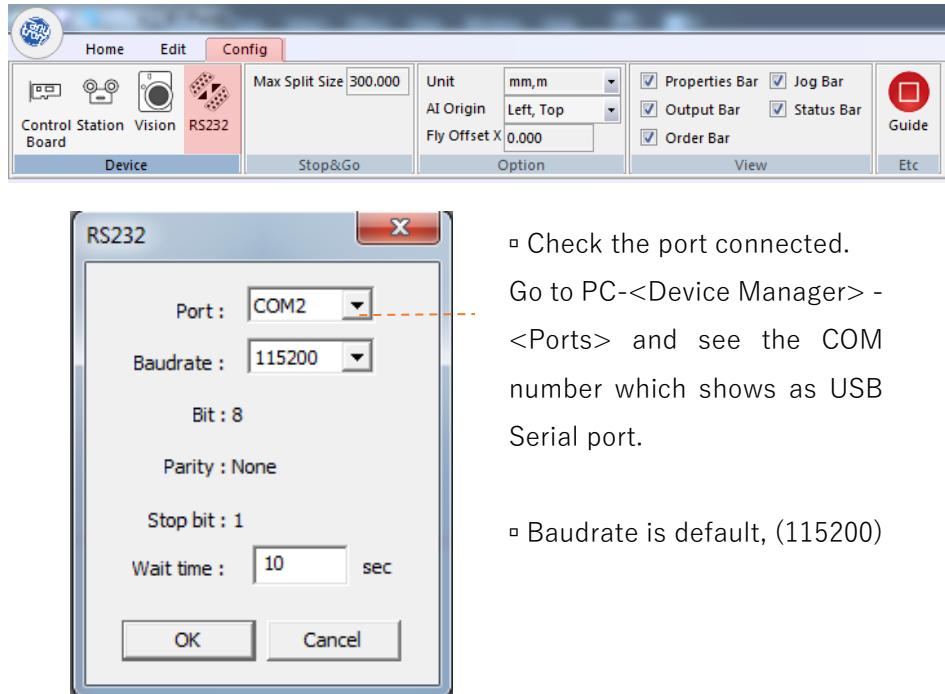
14. Vision is not used in any-CUTIII. This window is mainly to adjust Sensor Position which is to assign the distance to feed from Mark sensing to actual cutting point.



- The distance of the media feeds after Mark sensing until cutting.

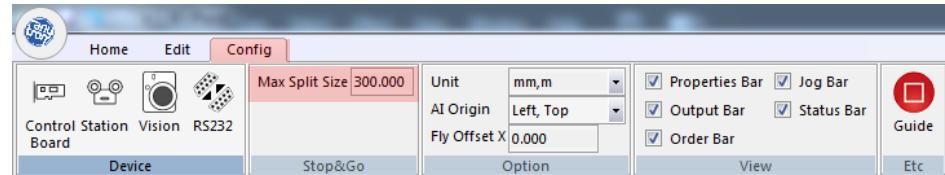
2017 Bitek Technology. All rights reserved.

15. RS232 (Communication port between PC-Station)



- Check the port connected.
Go to PC-<Device Manager> - <Ports> and see the COM number which shows as USB Serial port.
- Baudrate is default, (115200)

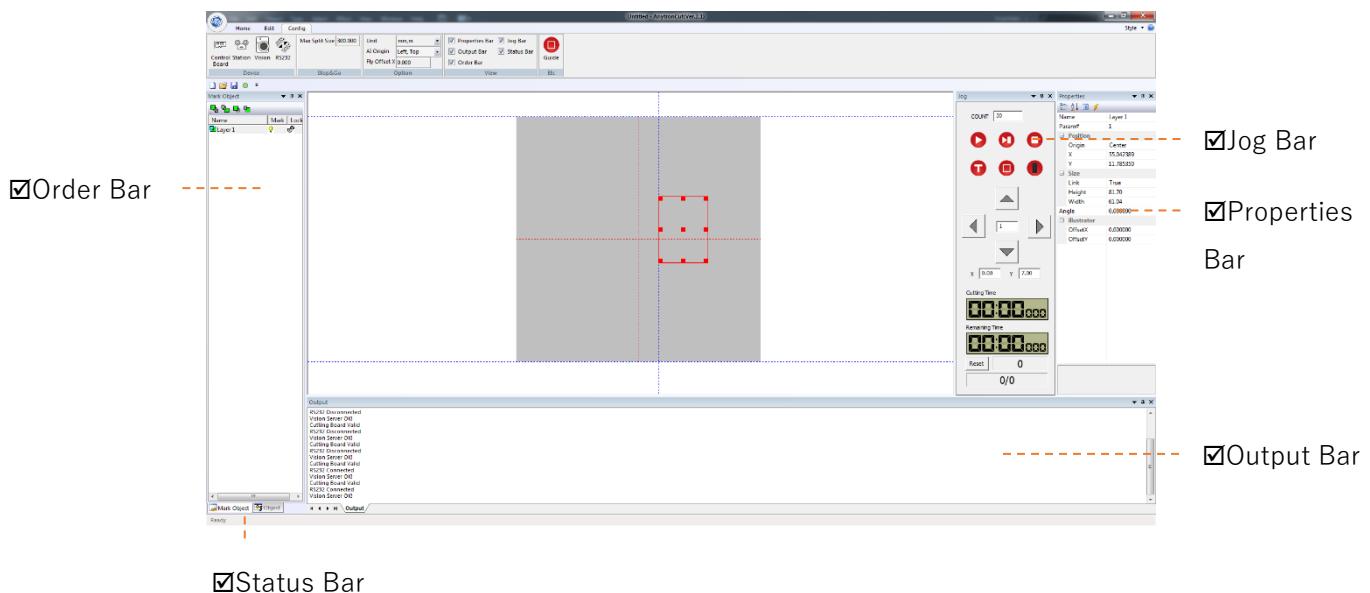
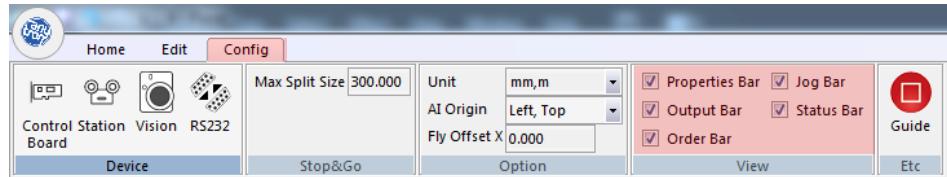
16. 300mm is the default figure of Split length in Stop and Go mode



17. Setting Unit / Origin point from Illustrator / Offset in On the fly mode



18. Taskbar options



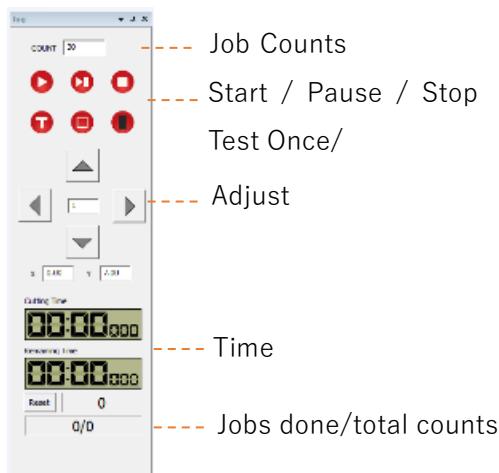
Order Bar : Layers shown in this window

Status Bar : Status shown of any-CUTIII, PC and S/W

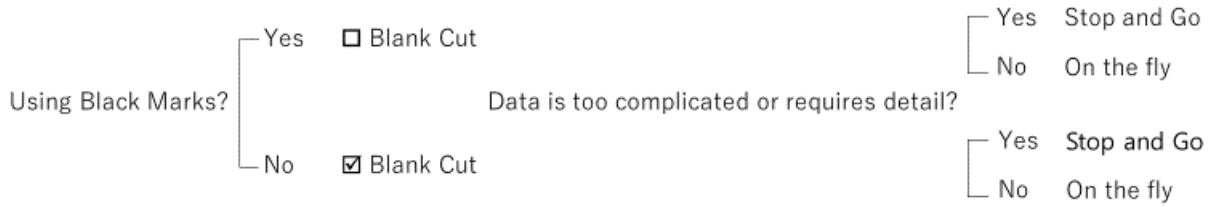
Output Bar : Log information shown

Properties Bar : Cutting data information

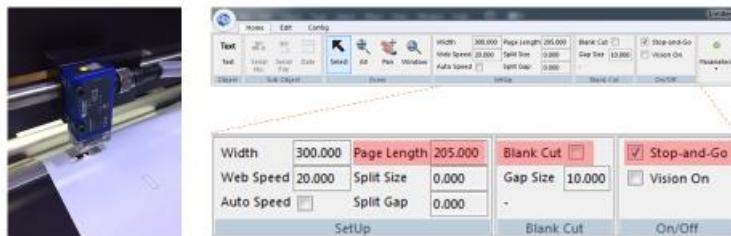
Jog Bar : Operation control (Position, Count, Start & Stop, Time taken and etc.)



2.2.2.2 Setting Mode

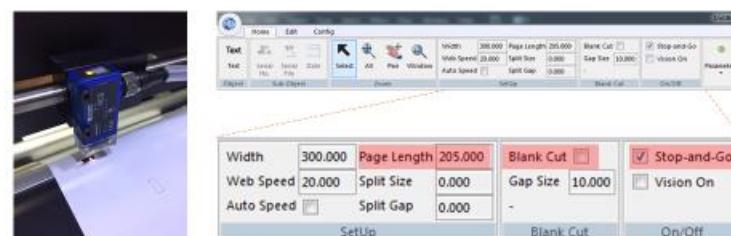


1. Using BM + Stop and Go mode



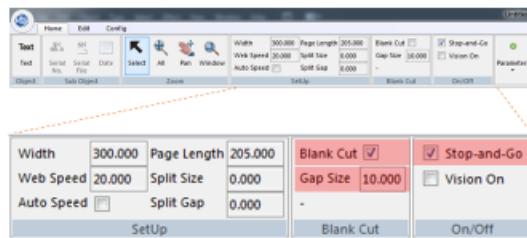
- a. Adjust the BM sensor position after auto-teach. (Refer to 2.1.7)
- b. Input Page Length, Uncheck Blank Cut and Check Stop-and-Go.

2. Using BM + On the fly mode



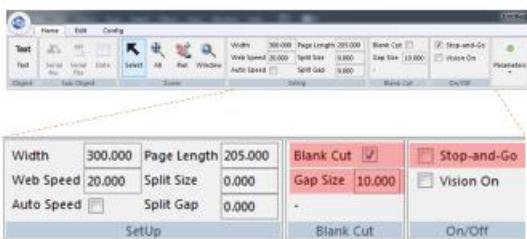
- a. Adjust the BM sensor position after auto-teach. (Refer to 2.1.7)
- b. Input Page Length, Uncheck Blank Cut and Check Stop-and-Go.

3. Blank Cut + Stop and Go mode



- a. Input Gap Size(distance between cuts),
Uncheck Blank Cut and Check Stop-and-Go

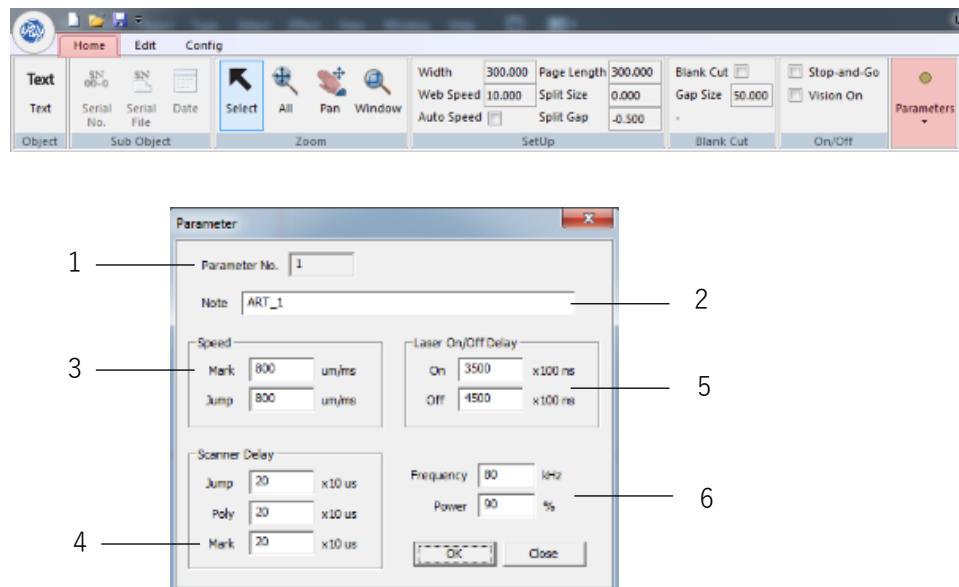
4. Blank Cut + On the fly mode



- a. Input Gap Size(distance between cuts),
Check Blank Cut and Uncheck Stop-and-Go
(=On the fly mode).

2.2.2.3 Parameter

Parameter is for laser power/movement/speed related setting. You can save up to 10 settings of each job and save as any kind of name including specific media.



1. □ Parameter Number

There are 10 parameters to save each settings. User can choose the layer on the <Order Bar> and apply the right parameter on <Properties Bar>.

2. □ Parameter Name

3. Scanner related feature

Scanner is a part to reflect laser beam and drop it on the target points. It consists of 2 motors which move 2 mirrors to reflect the beam.

□ Mark Speed

Laser dwelling time. When Mark Speed gets lower, the more heats the media gets resulting the same effect of higher laser power(output) since the laser stays longer on the same spot unlike the case of higher Mark Speed.

↓ = Laser Power ↑

Mark Speed

↑ = Laser Power ↓

□ Jump Speed

Laser Jumping Speed. Normally this figure is fixed.

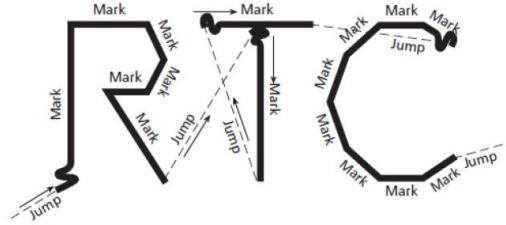
4. Scanner related feature

Adjustment of these delays is required for subtle change in quality output.

▫ Jump Delay

Waving shape around starting point adjustment.

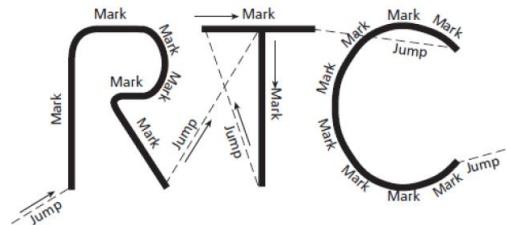
If this delay has not been increased enough, User will get an waving line around the time/position the laser comes on as the picture.



▫ Poly Delay

Roundness/Angle/hole adjustment.

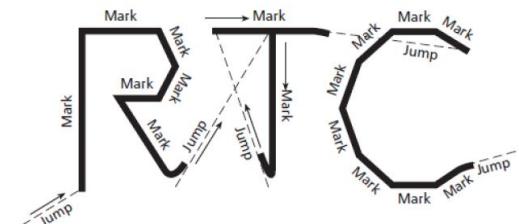
If the delay increases, User will get more angular shape. This can come with even with burn holes depending on the data. Normally 10-20 is the usual. It is up to User's preference.



▫ Mark Delay

Up-stretched edge adjustment.

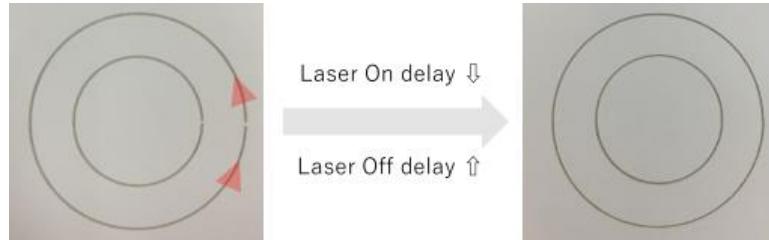
If this delay has not been increased enough, User will get an up-stretched edge around the time/position the laser goes off after cutting one shape as the picture. Normally, 20-30 is the usual. There is no change in shape when it is over increased, however, like all the other delays, it will take more time to get the job done.



5. Laser related feature

▫ **Laser On Delay**

Time taken before laser comes on

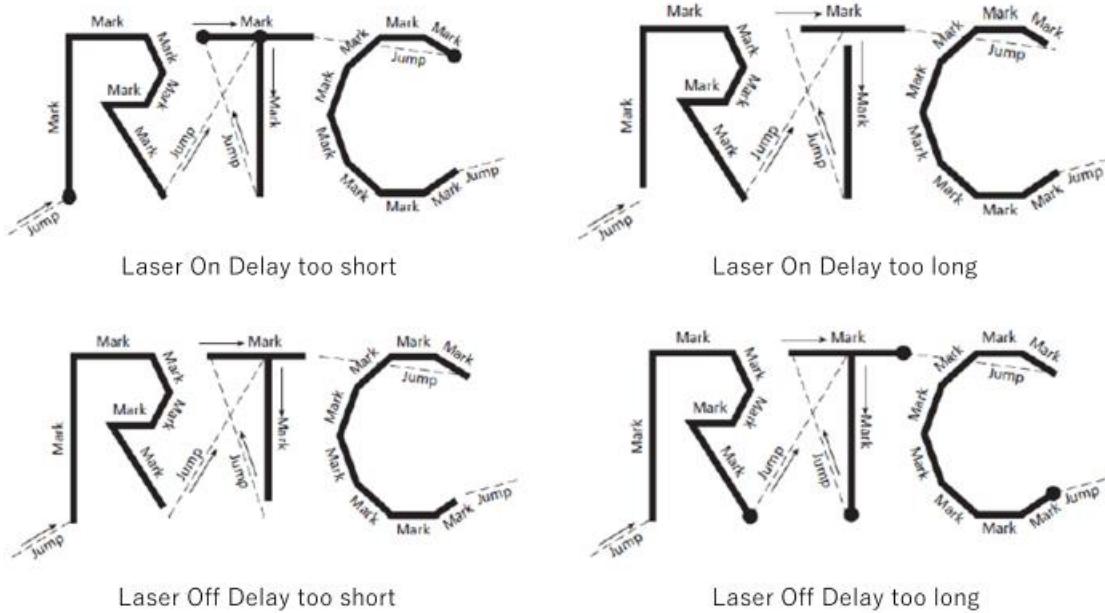


▫ **Laser Off Delay**

Time taken before laser goes off

These delays are normally used when the laser starting point and the end point doesn't meet or match as the left picture. User can make the laser comes on faster either goes off later by adjusting the delays to make clean cuts.

However, there is a limitation. When the laser comes on fast enough, it will start to make a burn spot and it is same when if goes off. The figures can be different depending on media you are using. However, there is a reference of certain materials which User can take as a guide when using parameters.



6. ▫ **(Laser) Frequency**

80(kHz) can be used in both film / paper materials.

▫ **(Laser) Power**

Out of 100% of the laser output, normally 90-95% is used for productivity. To

manipulate the depth and quality of cuts, User should fix the power as 90-95% and adjust **Mark Speed**.

Parameter Guide

	Media(Material)	Mark Speed	Duty
1	ART PAPER	400-500	90-92%
2	KRAFT	500-600	90-92%
3	PET	650-800	90-92%
4	LASER PP	650-800	90-92%

2.2.2.4 Text and Variable Data

Text

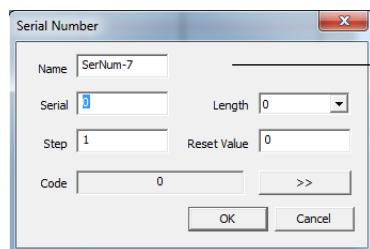
Refer to the section 2.2.2.1

Variable Data

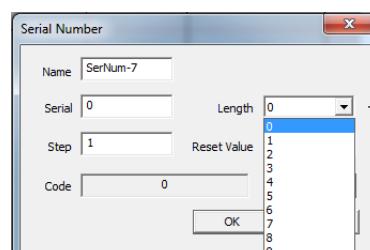


To activate Variable Data function as below, User need this Dongle Key.
Connect this Dongle key to USB Hub located near the monitor. The functions will be automatically activated.

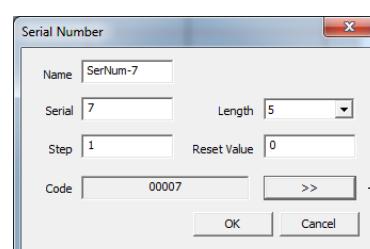
1. Serial No.: Make Serial Information to be marked



Set a Name of the Serial Data



Decide the number of ciphers

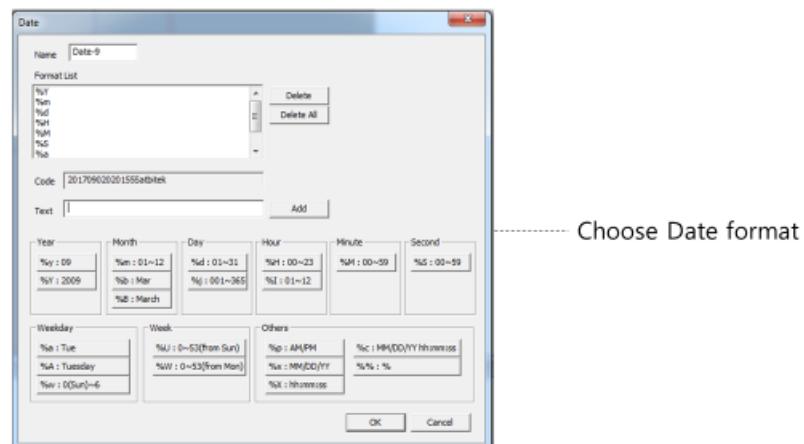


See Preview clicking >>

2. Serial File : Import Serial file in excel format.



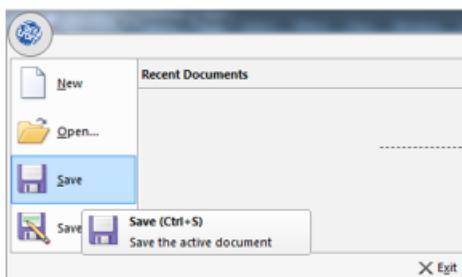
3. Date : Use Date information as Serial data to be marked



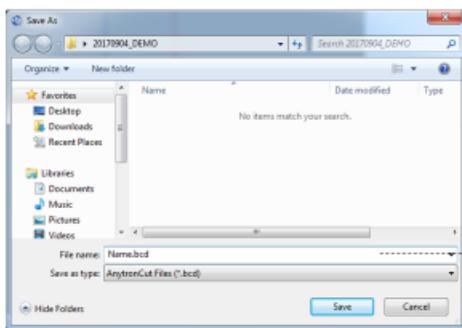
2.2.2.5 Save / Open Cutting Data

User can save job data including laser parameters, variable data, and etc. to perform repetitive operations.

Save Data

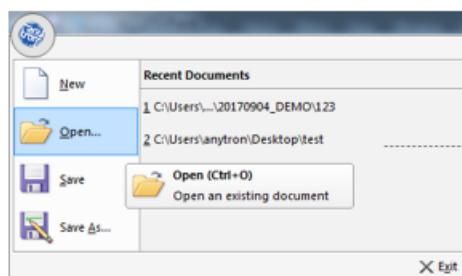


Click 'Save' after if all the data for the job has been set.

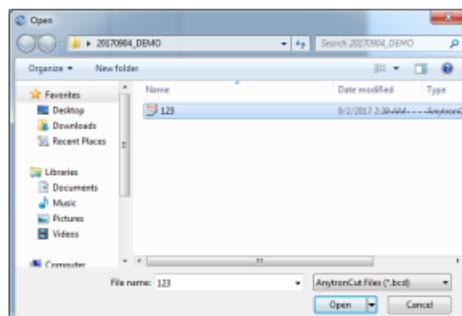


Set the name of the data. The file format is '.bcd'

Open Data



Click 'Open' to browse the saved file.



Select the file and Open. The data will be shown on anytronCUT.

2.3 Guide for Operation

No.	Operation Process		Reference	Description	Note
1	Power ON	A	1.3.3	Chiller, Dust Collector On	
		B	2.1.2	Main Switch On	
		C		Press <RESET>	Check EMO not pressed
		D		Press <ON>	
2	Set Media	A	2.1.5		a.Lock winders tightly b.Check if media goes straight while setting.
		B	2.1.6	Set Web Guide	
3	Set any-CUTIII	A		UNW, REW On	
		B		Feeding Test	Check the straightness (if Web guide works with normal condition)
4	Laminating (Optional)	A	2.1.5.3	Set film	Refer to the web path carefully.
		B		Latch the nip rollers	
5	Black Mark Sensing (Optional)	A	2.1.7	<input checked="" type="checkbox"/> Blank Cut <input type="checkbox"/> Blank Cut	(=Not using BM) (=Using BM)
		B		Position sensor above the black marks' path	
		C		Auto-teach the sensor and check	
6	Open Illustrator file	A	2.2.2	Set layer	a.Top-left corner (0,0) b.Width=300mm c.data should be center positioned
		B		Send data to anytron CUT (laser control S/W on PC) from <MARKING> plug-in, clicking <SEND>.	
7	Set anytron CUT	A	2.2.2	Set layout	a. Width=300mm b.Input Page Length when using BM (Blank Cut doesn't need the information)
		B	2.2. 2.3	Set Laser Parameter on each Layer	
		C		<TEST> and adjust	

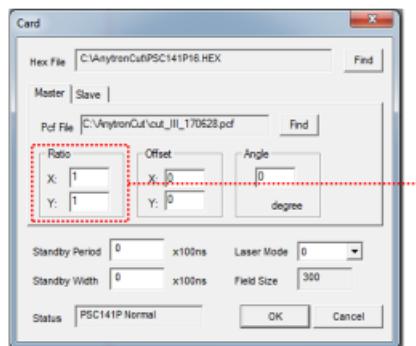
2017 Bitek Technology. All rights reserved.

				cutting position & laser parameter	
8	Variable Data (Optional)	A	2.2.2.4	Connect Dongle	Check if functions automatically activated
		B		Make Serial No. data or open a data file in excel format.	
		C		Go to <Text> and type ['The name of the data file']	
		D		Set font, size and position.	
		E		Date information can be used in the same way, using <Date>.	
9	Matrix Removal (Optional)		2.1.5.2		Easier to set wider core for removal.
10	Choose cutting mode	A	2.2.2.2	<input checked="" type="checkbox"/> Stop and Go <input type="checkbox"/> Stop and Go	(= On the fly)
		B		When using On the fly, adjust Web Speed.	

2.4 FAQ / Operation Tips

1. Cut Shape

1) Scale adjustment

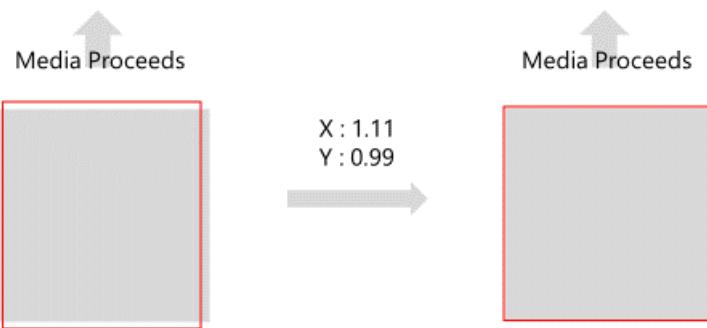


To make bigger scale in width
 $X : 1 \rightarrow X : 0.99$ (for example)

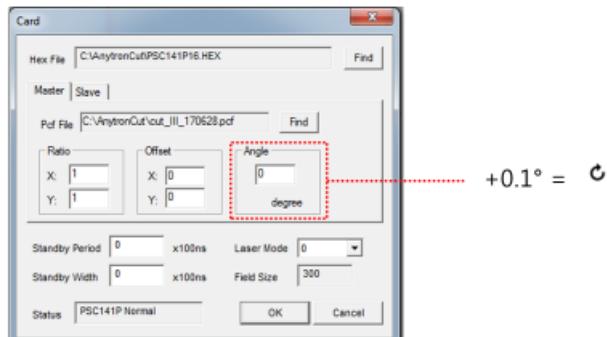
To make bigger scale in height
 $Y : 1 \rightarrow Y : 0.99$ (for example)

To make smaller scale in width
 $X : 1 \rightarrow X : 1.11$ (for example)

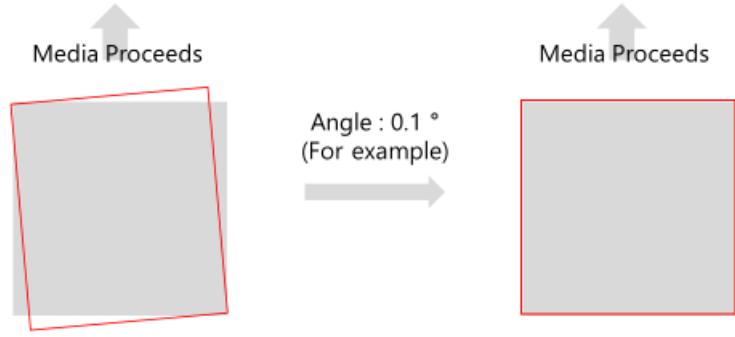
To make smaller scale in height
 $Y : 1 \rightarrow Y : 1.11$ (for example)



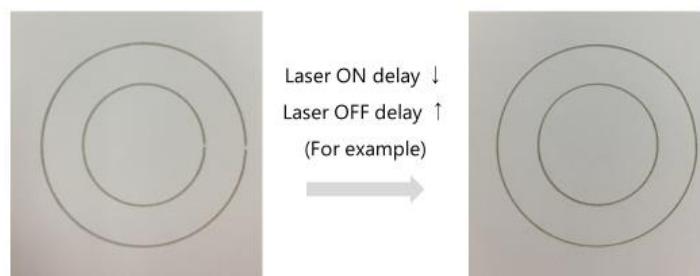
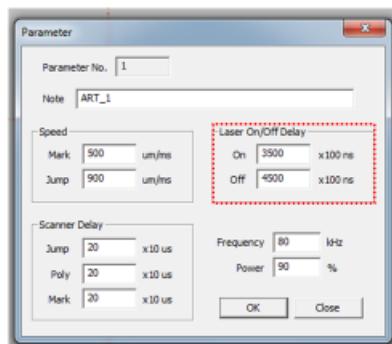
2) Angle



$+0.1^\circ = \text{clockwise}$



3) Meeting Points



4) Edge Laser Power drops / Laser Spot Size / Shape distortion

Edge Power drop : Beam Alignment Required

Laser Spot Size increase : Beam Focusing Required

Shape Distortion : Calibration Required

5) Laser – Sudden Power Changes

Check the temperature and humidity if it matches the guide. Laser is very sensitive to both. Make sure it is used in the limited environment.

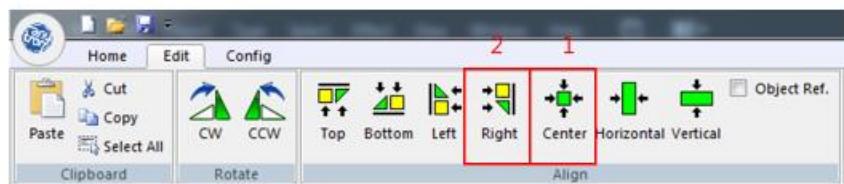
2. Software

1) Cutting Position Tip

The laser cut starting point has been automatically centered. However, User can adjust its cut starting position manually when it is required.

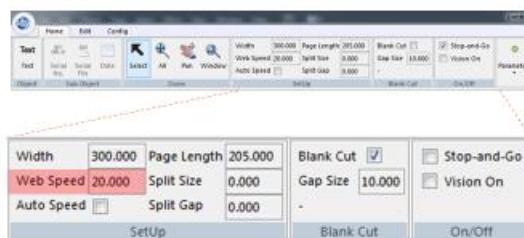
2) Incomplete Cutting line

In case of incomplete cutting at the bottom part of the original data, User might use the alignment tools on anytron CUT as long as it is a single layer data from AI. If the data layer gets aligned in Center – Right position, S/W automatically re-calculate its page length.



3) Speed Definition

a. Feeding Speed while cutting On the fly

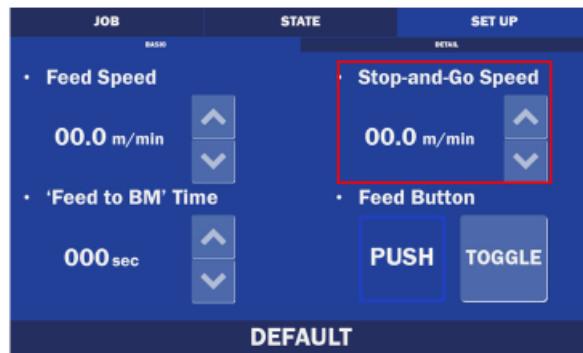


a. Input Gap Size(distance between cuts),

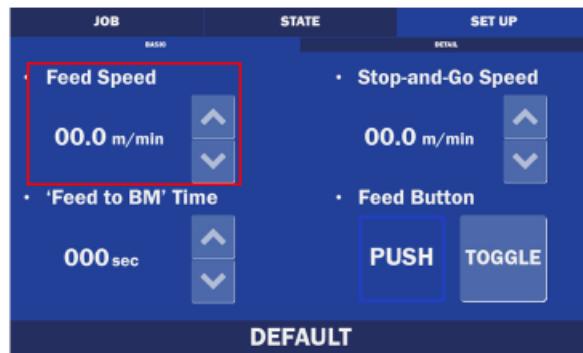
Check Blank Cut and Uncheck Stop-and-Go
(=On the fly mode).

b. Max Feeding Speed while cutting in Stop and Go mode

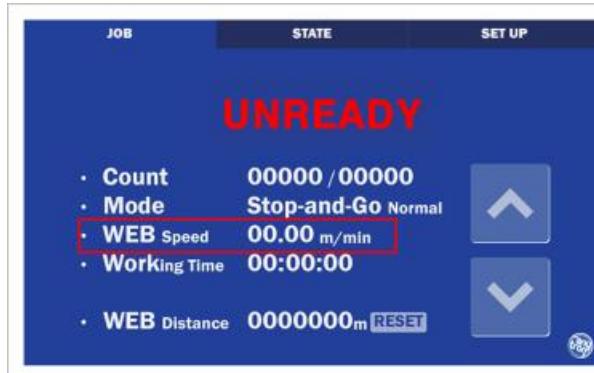
(Max reachable Feeding speed in between job)



c. Feeding Speed when pressing FEED button



d. Actual Feeding Speed during operation



4) Split Tip –Feeder Speed/ Gap size

Feeder Speed in On the fly mode can differ the gap size. It is recommended to measure the gap after set up the speed for feeding.

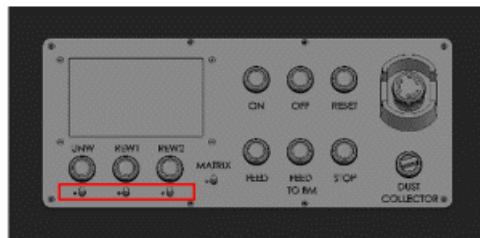
5) Cannot see data on the SW

Go to AI and check if the left top corner of the AI is aligned at (0,0) and the width is 300mm.
Go to Marking Plug-in and [Send] the data after deleting the former data on the S/W.

3. Hardware

1) Potentiometer adjustment

Make sure all the knobs point around 9 O'clock direction to start the operation. User may adjust the tension on demand.



2) Media Drafting

User should set the media carefully checking tension balance on every web path. The Web Guide can fix the web path up until 10mm Maximum. If the path doesn't settle even after 5m, try to reset the media and the Web Guide.

3) Slitting

All the cores used in rewinding when slitting should have the exact same diameter. even small difference can be resulted in loosening all the rewinding cores.

4) Media Setting Tip

User may use Unwinder (Brake) to have media tension while setting media. The tension has to be equivalent on all of the web path. After setting media all the way to Rewinder, User should feed less than a meter and then set the Web Guide. After setting the Web Guide, feed few meters until see the media gets in position on the Rewinder, winding properly.

5) Lower Media Waste

To lower media waste, User may use Guide paper attached to the starting point of the actual media. any-CUTIII needs Maximum 5m to make the path gets in position which is necessary for having cut accuracy.

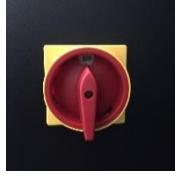
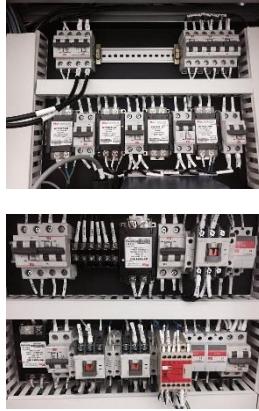
3 Maintenance

3.1 Parts Regular Inspection

	Parts	Interval	Check List	Procedure
1	F-theta Lens	Every day or two	Surface	Use Lens Cleaning tissue or Cleaning tools and wipe out the lens surface gently.
2	Optics	Every movement or half year	1.Cleaning 2.Beam Setting	Remove dusts from the Optic module. Alignment > Focusing > Calibration
3	Idlers	Every Use		Carefully wipe out idlers with sticker remover.
4	Fume Extractor (FE)	Every 3-4weeks (Depends on media, usage, filter, models and etc.)	1.FE apparatus 2.FE Filter	Carefully wipe out the fume extracting path with sticker remover.
5	Chiller	Every Week	Water Replacement	
6	Slitter	Every month or two. (Depends on media, usage, filter, models and etc.)	Bluntness of the blades	See the side of the slitter module where the blade is attached with bolts. Carefully unscrew the bolts and replace with a new one.
7	Cleaning Roll	When finished		Replace with a new one.
8	Brake Belt	When		Replace with a new one.
9	Cutting Pad	When contaminated or scratched		Replace with a new one.

4 Trouble Shooting

4.1 Power Supply Failure

No.	Status Check	Normal Operation	Note
1	Main Power Switch On?		
2	Followed the order of <RESET> - <ON>?	Main Power On - <RESET> - <ON>	The process of switching on consists of several steps for safety reason.
3	EMO Button Not Pressed?		The button should be popped out by turning it into CW direction.
4	Main Power Supply is stable?	220-240V	The main power should be 220-240V and consistent.
5	Is power 220-240v?		
6	Power cables correctly connected?		1.3.2
7	Any circuit breakers OFF?		

4.2 Media Meandering

No.	Status Check	Normal Status	Note
1	Web Guide Powered On?	ON (Check if Screen ON)	2.1.6
2	Web Guide set properly?	± 0.0	2.1.6
3	The Unwinder Chuck Handle tightly locked/screwed?		2.1.5
4	Unwinder On?	Check the main LCD	
5	Feeder latched?	Lever locked	
6	The Core on the Rewinder set in the center position?		2.1.6
7	The Core on the Rewinder is clean and has flat surface?		2.1.6
8	The media on the Unwinder wound neat and tight?		2.1.6

4.3 Wrong Cutting Position

No.	Status Check	Normal Status	Note
1	Scale / Angle adjustment needed?		Refer to 2.2.2.1 – 13. Control Card. Go to Control Card on anytron CUT. Change Ratio to make scale adjustment. If the scale needs to be bigger, try 0.99 or 0.98 instead of 1. Change Angle by 0.1 if the angle is not correct.
2	Adjusted Sensor Position?	233mm	Sensor Position is the distance to feed after sensing BM. Change the position by 0.5mm
3	Media feeding straight?		Check Web Guide and
4	Proper Calibration file applied?		Check <Control Card> on anytron CUT and

2017 Bitek Technology. All rights reserved.

			find if the calibration file has been properly imported.
5	Web speed Not too Fast?		2.2.2.1
6	The top left corner of the artboard in AI aligned at (0,0)?		2.2.1
7	Does it require scale re-adjustment?	<Control Card> - <Ratio> X=1 Y=1	
8	Does it require re-calibration?		Use [Square] to make calibration file.

4.4 No Laser Present

No.	Status Check	Normal Status	Note	
	<p>There are 5 indicators on the Laser Source.</p> <p>User can check these indicators to figure out error causing events.</p>	 NORMAL	 OVER TEMP	 OVER/UNDER VOLTS
1	Laser Fault Error Message shows?	READY (on LCD)	Check the main LCD if yellow error message shows along with UNREADY.	
2	Shutter lifted up during operation?	Shutter lifted up during operation.		
3	Laser/Scanner cable from PC-Station-Laser source connected properly?			
4	Scanner Powered on?			
5	Scanner Moves during operation?			

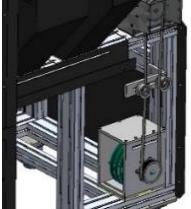
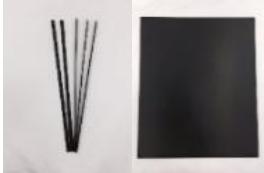
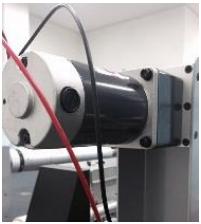
4.5 Abnormal Laser Movement

No.	Status Check	Normal Status	Note
1	Scanner cable from PC-Station-Laser source connected properly?		
2	Scanner Powered on?	Green light ON on the head of the scanner	Uncover the castle head.
3	Scanner Moves during operation?		Check the cutting position/lines.
4	Encoder functions normal?		Check the cutting position/lines.

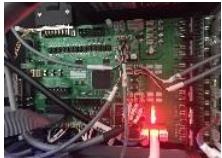
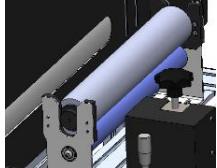
4.6 Laser Stays in Same Position

No.	Status Check	Normal Status	Note
1	Scanner cable from PC-Station-Laser source connected properly?		
2	Scanner Powered on?	Green light ON on the head of the scanner	Uncover the castle head.
3	Scanner Moves during operation?		Check the cutting position/lines.

5 Spare Part List

No.	Parts	Picture	Quantity
1	Brake Belt		1
2	Chuck (Bobbin)		1
3	Slitter Blade		5
4	Cutting Pad		1
5	DC Motor (Waste removal, Lami..)		2
6	Potentiometer		2

2017 Bitek Technology. All rights reserved.

7	Fume Extractor Filter		2
8	Safety Switch(Door)		1
9	Main PCB Board		1
10	Fume Collecting Net		1
11	Fume Collecting Flexible Hose		1
12	Cleaning Roller		2

13	F-theta lens		1
14	Mirror		2

End of Document.

2017 Bitek Technology. All rights reserved.