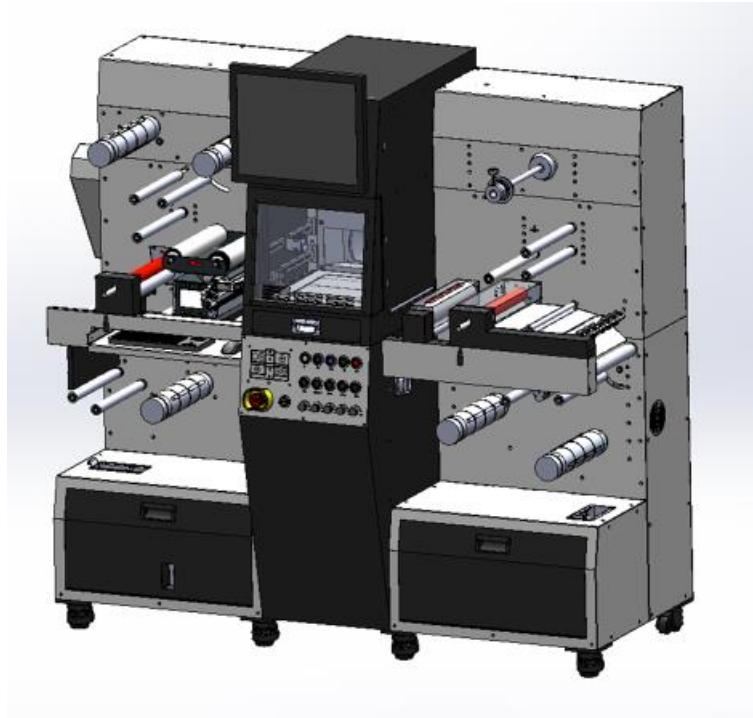


# any-CUTII

# User Guide



2018 Bitek Technology. All rights reserved.

## Preface

Thank you for choosing any-CUTII.

This guide describes how to operate the product and 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 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 the original copy.

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 caused by unauthorized operation of the equipment.

**anytron** is a registered trademark of Bitek Technology Inc.

**Bitek Technology's headquarter is located in 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](http://www.bitekps.com) / [www.anytron.net](http://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.



2018 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-CUTII meets the requirements of the applicable EC directives.

# any-CUTII Features

## Time & Cost Effective for Multi-task

- One stop solution for 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

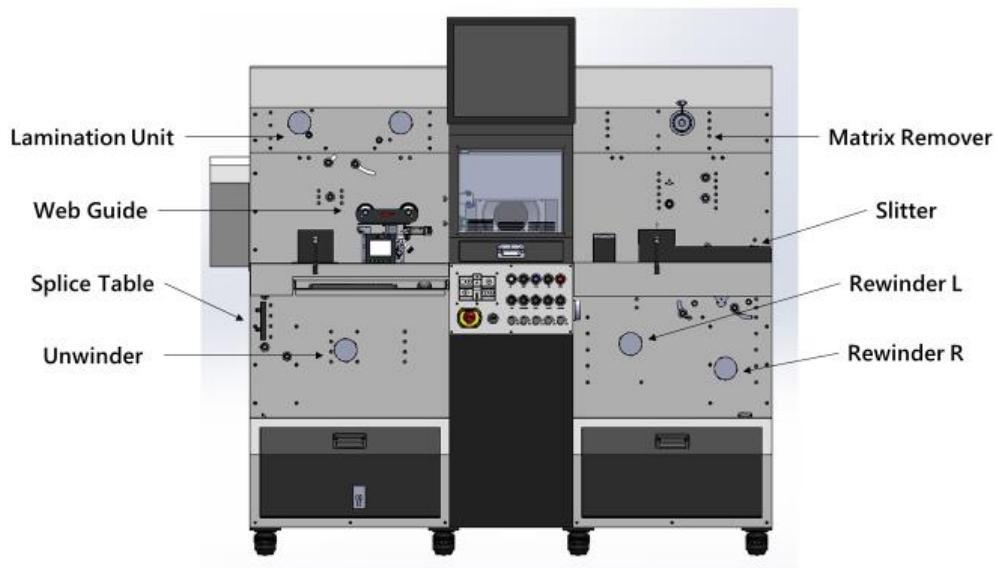
- 150W of laser power with quality proven optics

## User friendly

- Industrial electricity is not necessary
- Short training is sufficient

## Wide range of media supported

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



## Specifications

<b>Max web width</b>	250mm	<b>Max web speed</b>	20m/min
<b>Max roll diameter</b>	300mm	<b>Laser spot</b>	260 $\mu$
<b>Laser source</b>	CO2 / Water cooled/ 9.3 $\mu$ m	<b>Cutting area</b>	225mm x 225mm
<b>Dimension</b>	D815 x W1834 x H1755 mm	<b>Power supply</b>	220v AC
<b>Web Guide</b>	$\pm 0.1$ mm	<b>Weight</b>	1000kg
		<b>2<sup>ND</sup> Rewinder</b>	Supported

# Contents

1	Installation and Settings	20
1.1	Supported Operating Environments & Cautions	20
1.2	Components for Installation	21
1.3	Installation	22
1.3.1	Hardware	22
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	43
2.1	Hardware	43
2.1.1	Main Components and Functions	43
2.1.2	Switching On/Off the Power	46
2.1.3	Control Panel	47
2.1.4	Status light	48
2.1.5	Media Setting	49
2.1.6	Web Guide Setting	58
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	66
2.2.1	Illustrator	66

2018 Bitek Technology. All rights reserved.

2.2.2	anytron CUT	74
2.3	Guide for Operation	90
2.4	FAQ / Operation Tips	92
3	Maintenance	96
3.1	Parts Regular Inspection	96
4	Trouble Shooting	97
4.1	Power Supply Failure	97
4.2	Media Meandering	97
4.3	Wrong Cutting Position	98
4.4	No Laser Present	99
4.5	Abnormal Laser Movement	99
4.6	Laser Stays in Same Position	100
5	Spare Part List	101

# 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 4 laser which is included in any-CUTII emits invisible infrared laser radiation in the  $9.6\mu m$  CO<sub>2</sub> wavelength band.



CO<sub>2</sub> 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  $9.6\mu m$  CO<sub>2</sub> radiation** when in the same area as an exposed laser beam.



Direct eye contact with the output beam from the laser will cause

2018 Bitek Technology. All rights reserved.

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 CO<sub>2</sub> 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 CO<sub>2</sub> 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.



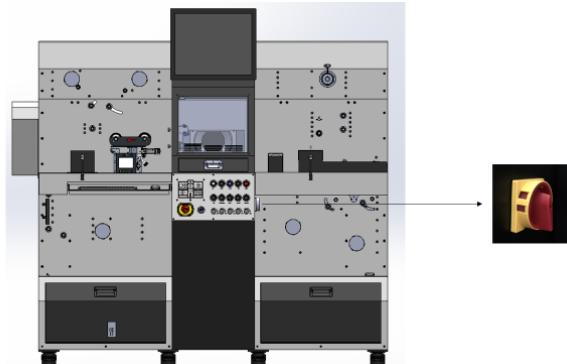
Do not use laser on any other material which is not guaranteed for user safety



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.



6 O'clock direction is 'Power On' state.



User can find this safety label beside the main power switch.



If any operators are working with the electric system, make sure to keep a lock around the main power switch as in the picture.

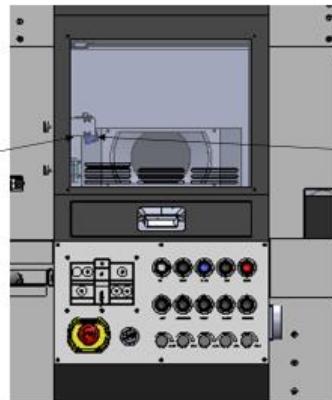


This safety label can be found near the switch.

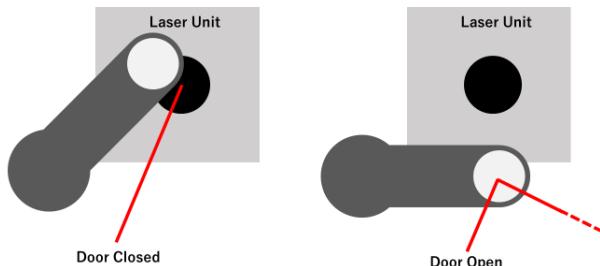
## 2. Safety Door



Safety Interlock  
- Unit side



Safety Interlock  
- Door side



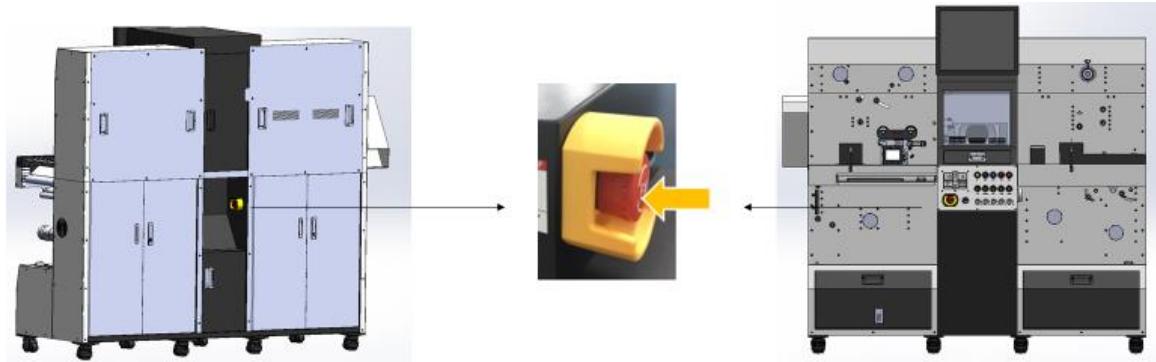
The Door Interlock is connected to the Shutter. Shutter is a part to shut the laser beam when the machine is not prepared for an operation. If the door is not closed, the shutter blocks the beam path not to reach the space of cutting space when it is not cleared for an operation. However, operator should always clear inside of the cutting space for safety reason.



These safety labels can be found near the door switch.

### 3. Emergency Button (EMO)

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



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



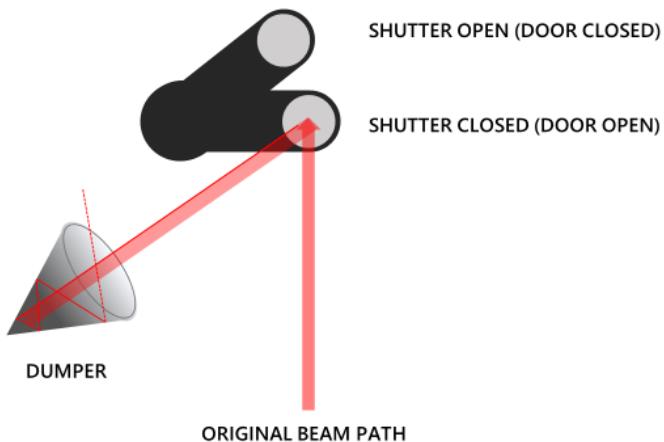
When Power should be ON again, turn this button into clockwise direction (CW) until the clicking sound is heard.  
Then, it is ready to be ON again. Press <RESET> - <ON> in order on the interface panel to switch on any-CUTII for use.

#### 4. Indicator Lamp

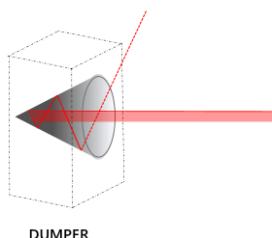


<b>RED</b>	ERROR / UNREADY
<b>AMBER</b>	IN OPERATION
<b>GREEN</b>	READY
<b>3TIMES BEEP</b>	JOB COMPLETED

### LASER SAFETY

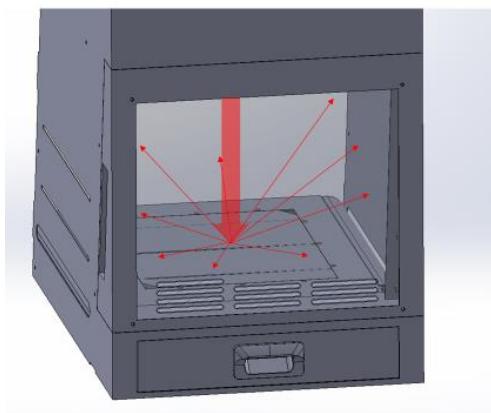


When the door is open, shutter cuts the beam path by physically blocking the beam. The beam will be reflected by the mirror(reflector) and goes to the dumper.

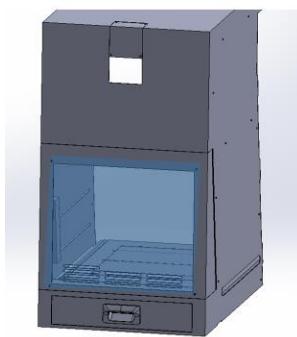


By its configuration, the beam goes inside the dumper will be spread reflected and the energy will be decreased to the safe level during the process of the diffused reflection. Also all the optics and laser related parts are anodized in black color which is more efficient in absorbing beam energy.

2018 Bitek Technology. All rights reserved.



The cutting area has been cased with anodized cover in all direction which the laser beam can be reflected for the safety except the front view window.



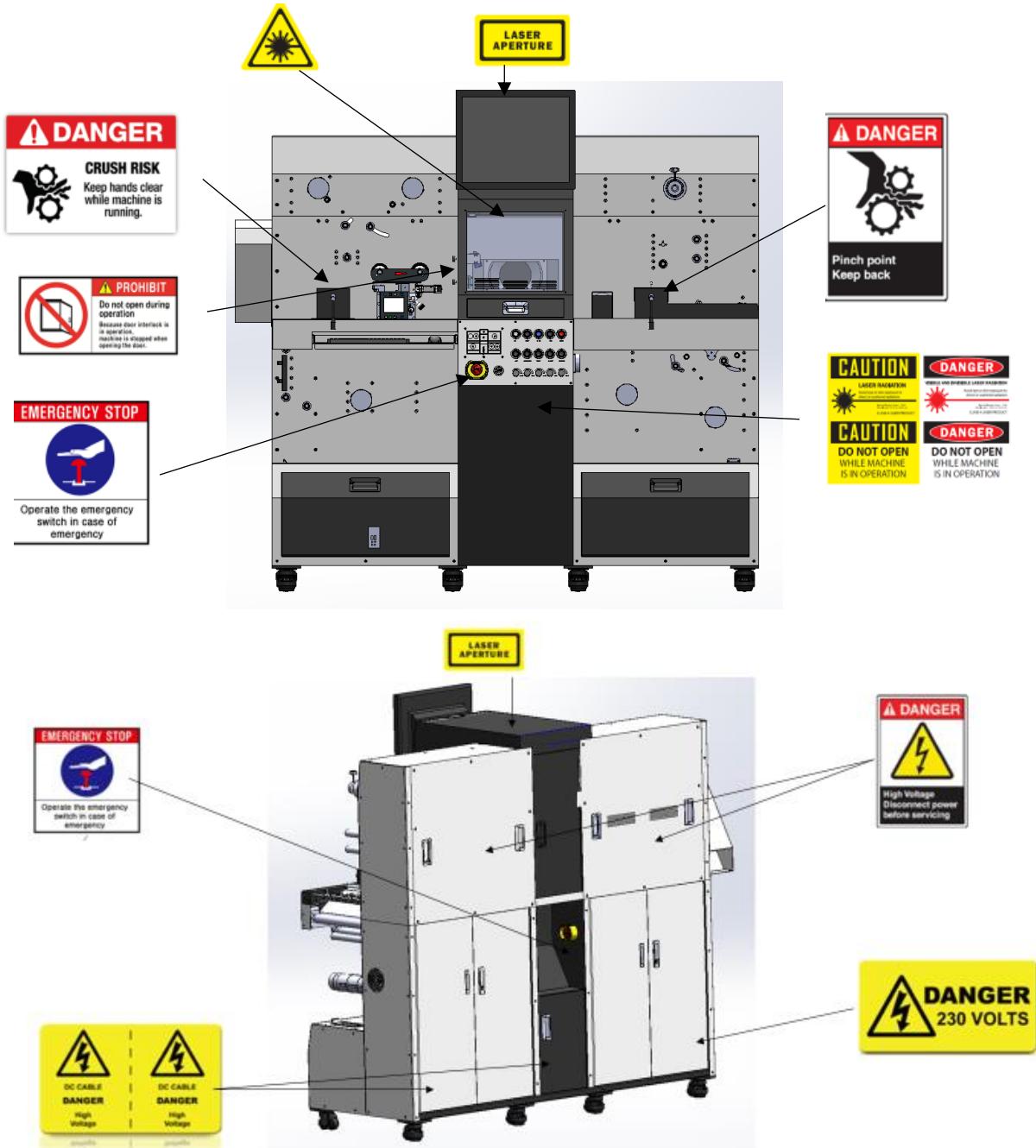
The view window is CE certified for the eye protection from the CO<sub>2</sub> laser (applied wave length) beam. However, it is recommended for all personnel to wear safety protection goggle provided during operation, maintenance or any activities related to the device.



2018 Bitek Technology. All rights reserved.

# Warning and Caution Labels

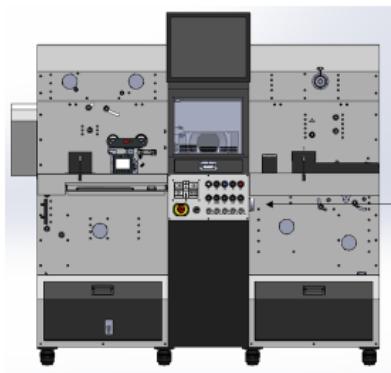
Be sure to follow the warning and caution labels placed on the machine. Do not touch areas with labels indicating high voltage or temperature. This can cause electric shock or burn.



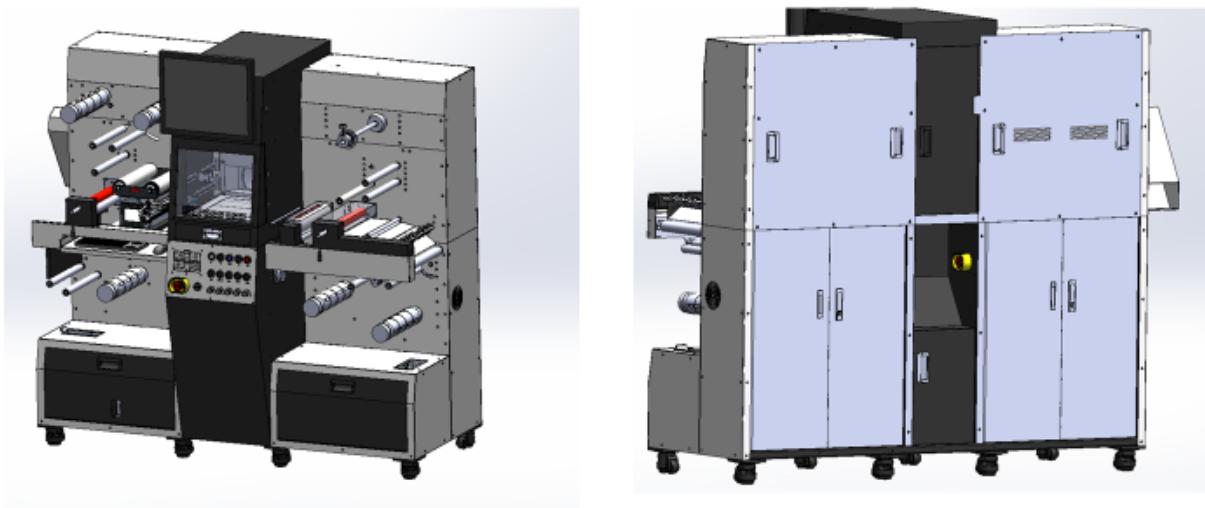
# Product Labels

Product Label can be found near on the left-hand side of the product.

	<b>Digital Laser Die-Cutter</b>	<b>CE</b>
<b>Equipment</b>	Digital Laser Die-Cutter	
<b>Model Name</b>	any-CUTII	
<b>Serial No.</b>	BTAC2101019021903-11	
<b>Rated Voltage</b>	220 VAC/1P+PE, 50/60 Hz, 16A	
<b>SCR</b>	10kA	
<b>Drawing No.</b>	BTRD-AC21811	
<b>Web Site</b>	<a href="http://www.anytron.net">www.anytron.net</a>	
<b>Date of Manufacture</b>	2019.02	
<b>Manufacturer</b>	BITEK TECHNOLOGY INC.	
<i>22, Venture-ro 100beon-gil, Yeonsu-gu, Incheon, South Korea / <a href="http://www.anytron.net">www.anytron.net</a></i>		



# Operational Area / Maintenance Area



OPERATIONAL AREA

MAINTENANCE AREA  
(PERMITTED PERSONNEL ONLY)

# 1 Installation and Settings

This chapter describes the supported operating environments and necessary settings to use any-CUTII.

## 1.1 Supported Operating Environments & Cautions

---

### Environment

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

**Temperature** Operation 15 - 26°C

Installation 0 - 40°C

**Humidity** 0 – 60 % RH, non-condensing

**Horizontal Angle** 0° (Flat ground)

**Area** 3m x 2m

**Allowable Load of Ground** About 2 tons

### Cautions

- (!) Extra care is required for external shocks during shipment
- (!) Laser beam Calibration and Beam Focusing should be done regularly for the quality and performance.
- (!) Optics / Laser / Electrical part should be kept safe from any severe movement, damages or humidity for safety.

## 1.2 Components for Installation

	Picture	Components	Qty	Note
1		any-CUTII	1	
2		Cutting pad (2types)	1	
3		Mouse and Keyboard (attached to the equipment)	1	
4		Duct hose	1	100 Ø
5		Lens Cleaning Kit	1	
6		Allen Wrench	1	
7		Laser Protection Goggle	1	
8		Beam Align Block	1	
9		20m Roll Media (Paper/Film) for Test		
10		Extra bolts/washer and etc.		

## 1.3 Installation

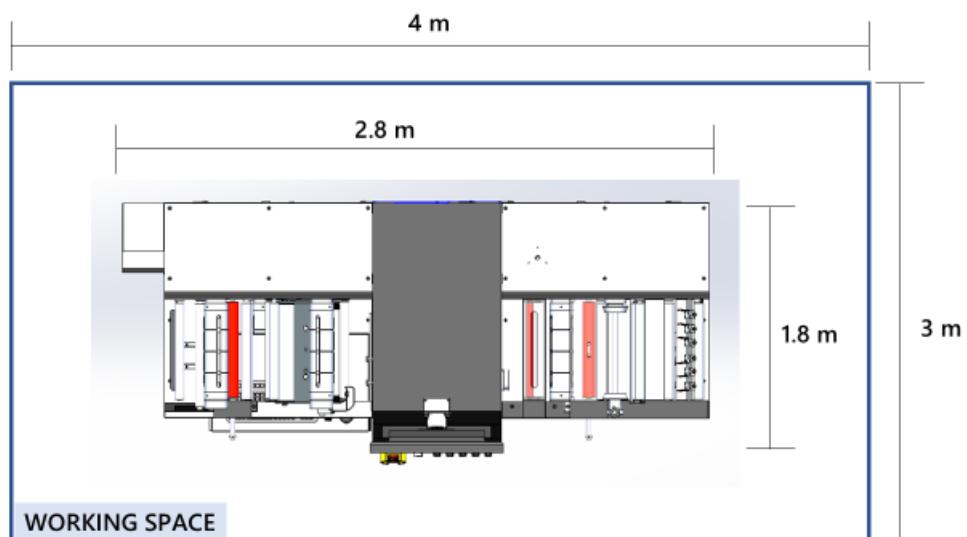
---

Optics should be protected at any time from damages or shocks. Also, all the software required for the operation are installed in the PC included in the equipment. Users are not required to install any software necessary to operate any-CUTII.

### 1.3.1 Hardware

#### Required Space for installation

TOP



### **1.3.2 Packing and Transportation**

- Wooden container is highly recommended to prevent damages during shipping. Optics and laser are very sensitive to external shocks. Using air buffer is also recommended for the device safety.
- Minimum container size  
D 1000 X W 2000 X H 2000(mm)
- Using dehumidifying agent is recommended to avoid corrosion for a long-distance shipment.
- Fork-lift which stands at least 800kg is necessary to shift any-CUTII when it is packed.

### **1.3.3 Power Connection**

#### **Main Power**

---

- 220-240VAC (50/60Hz) Single Phase
- 5M main power cable is provided upon order. Longer cable is also available on request.
- Circuit Breaker for 16A Current should be prepared at the installation site.
- Voltage transformer may be required in some area or countries. Please ask your local provider for any inquiries regarding the voltage and frequency used in your area.

## 1.3.4 External Device Connection

### 1.3.3.1 Chiller

Connect Chiller to any-CUTII.

Please check the specification of Chiller if it matches the least required specification guided below when order. The information below is the minimum requirement for choosing adequate Chiller to use any-CUTII. Please ask our Sales team when you have any further inquiries purchasing the unit. Our sales team will kindly provide a guide for you.

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

All the possibility of leakage has been prevented by its configuration, however, user may pay attention to unexpected leakage while using external devices. The back covers should be closed during all the time. Whenever there is any change has been made to the device, please advise every related personnel for the safety.

Chiller below is just an example for your reference.

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



any-CUTII



CHILLER

### 1.3.3.2 Dust Collector

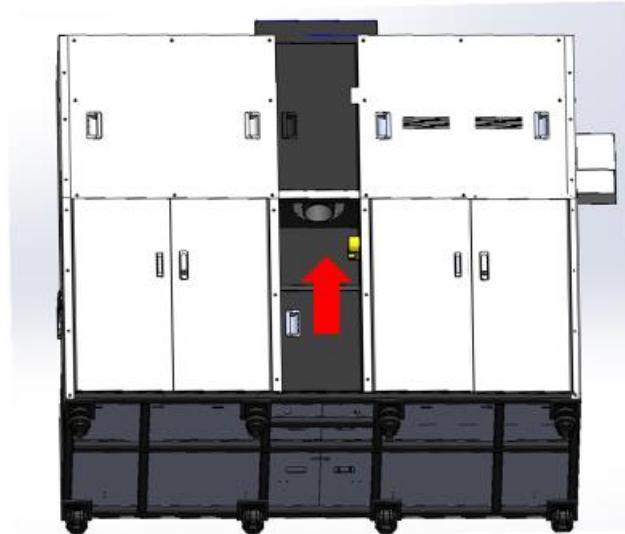
Connect Dust collector to any-CUTII.

Please check the specification of the dust collector if it matches the least required specification guided below when order. The information below is the minimum requirement for choosing adequate dust collector to use any-CUTII. Please ask our Sales team when you have any further inquiries purchasing the unit. Our sales team will kindly provide a guide for you.

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

The hose should be attached tightly on both sides. The picture below indicates where the hose should be connected on any-CUTII side.

The duct hose should be tied on the left-side(the opposite side of the EMO button at the back of any-CUTIII) to keep clear around the EMO button for any kind of emergency.



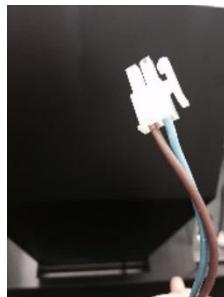
Make sure if dust collector has been powered on and the hose is tightly attached around the hole on the fume extraction side before use for the safety.

### **Remote Control Connection**

If the cable labeled as ‘Dust Collector’ is connected to the dust collector, user may switch the power on/off the dust collector on the interface panel of any-CUTII.



This is how the connector looks like.



User should check the specification of Dust Collector and its cabling options with ordering. Please ask our sales team for the specific information for the pin map.

### 1.3.5 Laser Setting

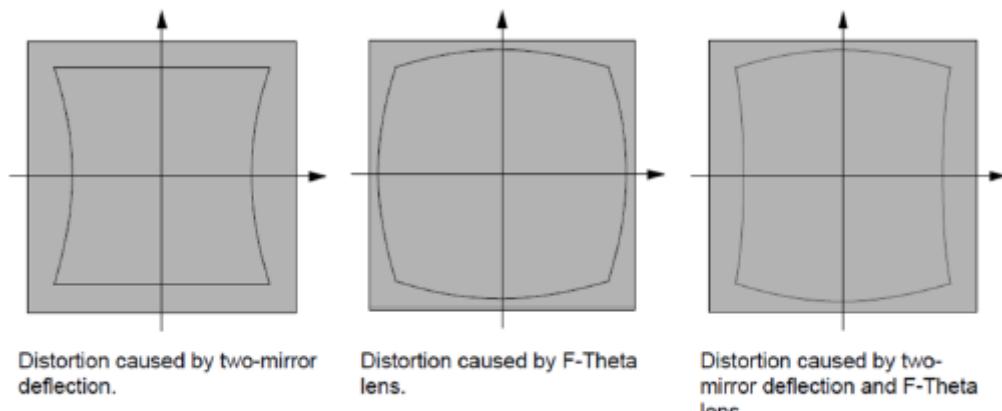
Laser setting consists of 3 steps.

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

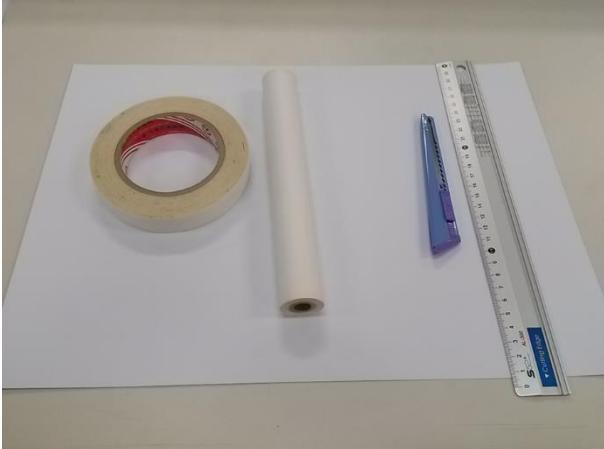
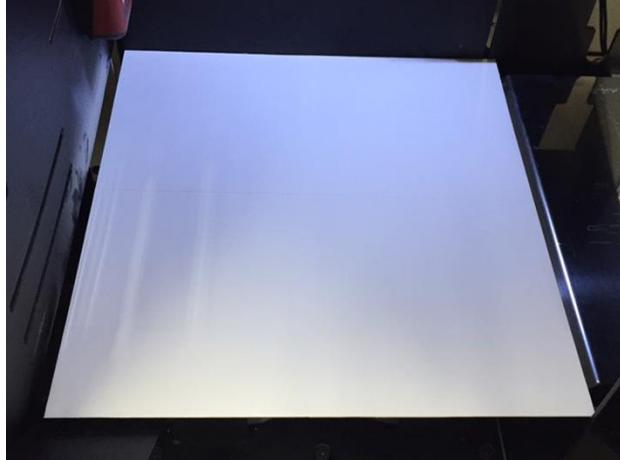
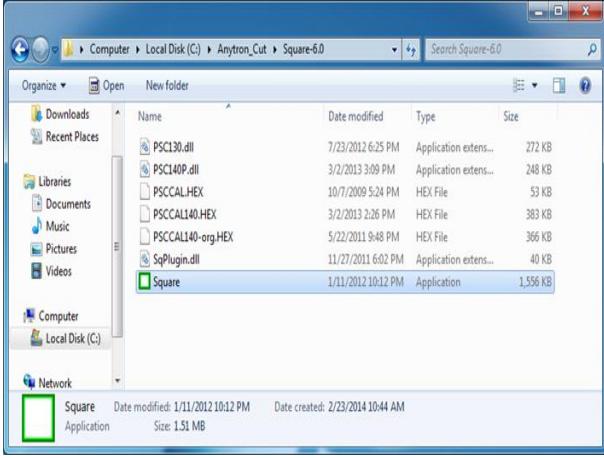
Here on the manual describes the last step, Calibration. User may refer to the training session regarding the other steps.

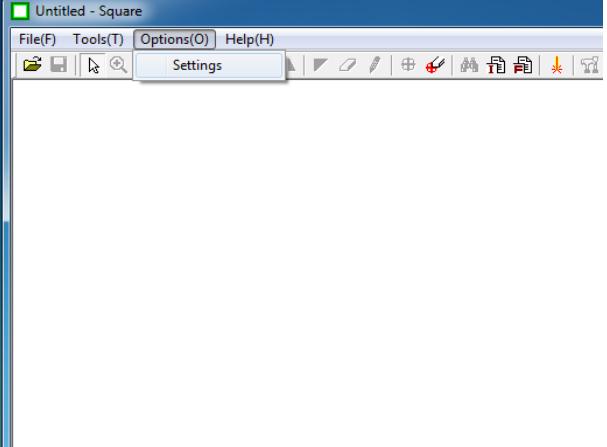
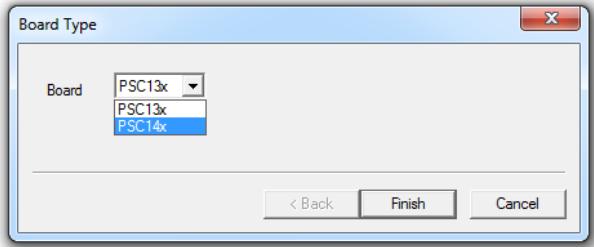
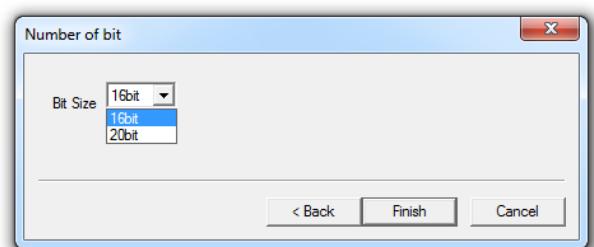
#### Calibration

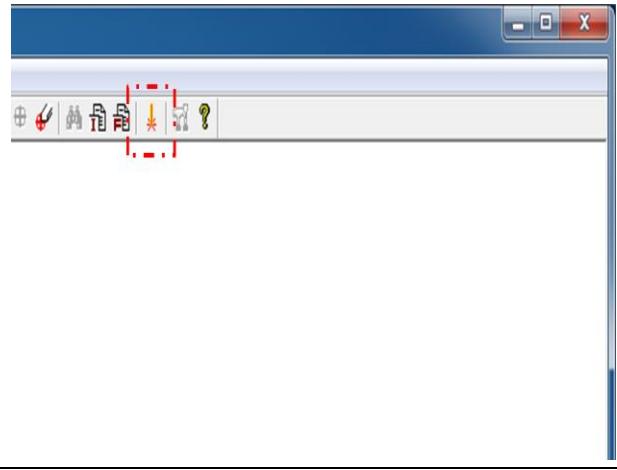
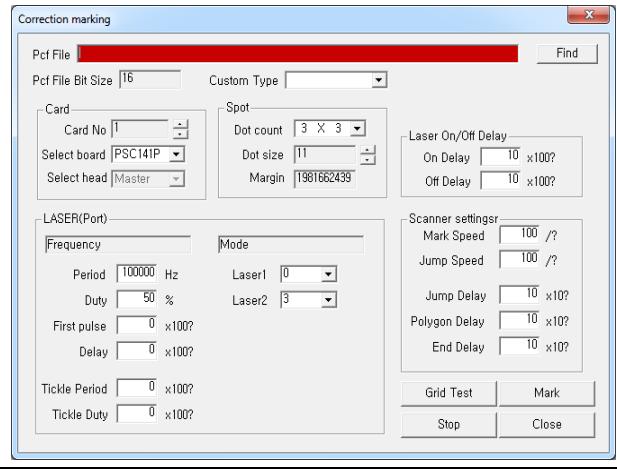
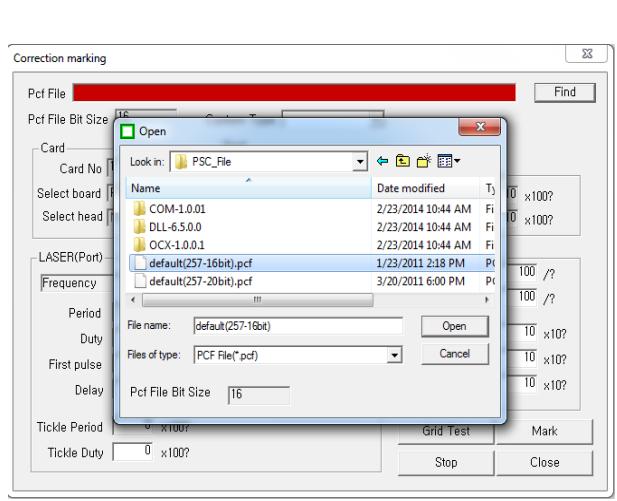
The purpose of the setting is to correct the beam distortion which can be caused by F-theta lens and 2 reflectors located inside the scanner. This distortion may vary on each unit. This process has to be done once every half a year either on every movement/environmental change since the optics are very sensitive to shocks, vibrations and temperature.

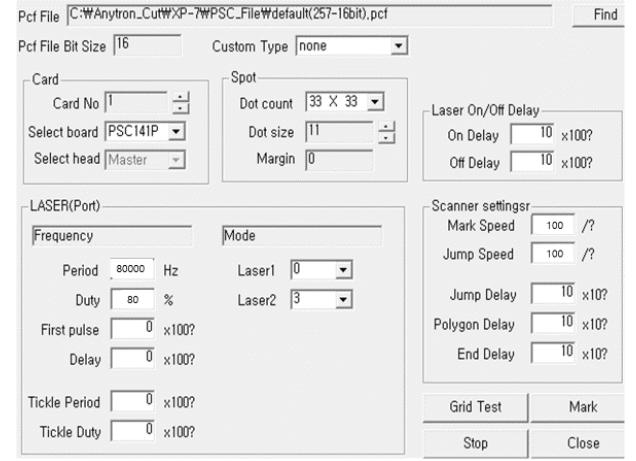
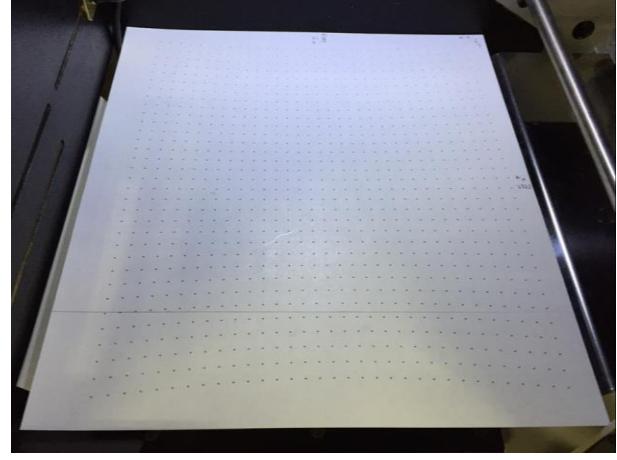
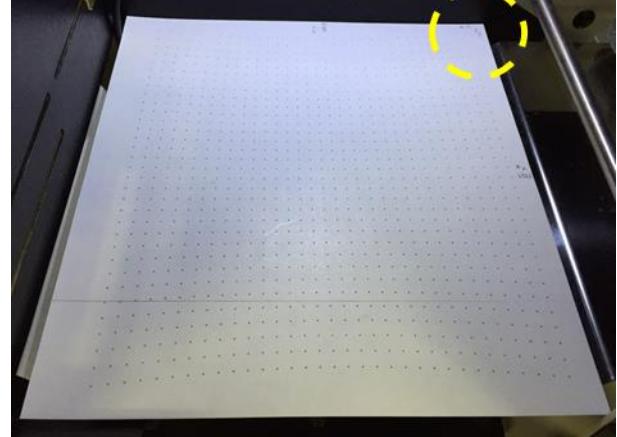


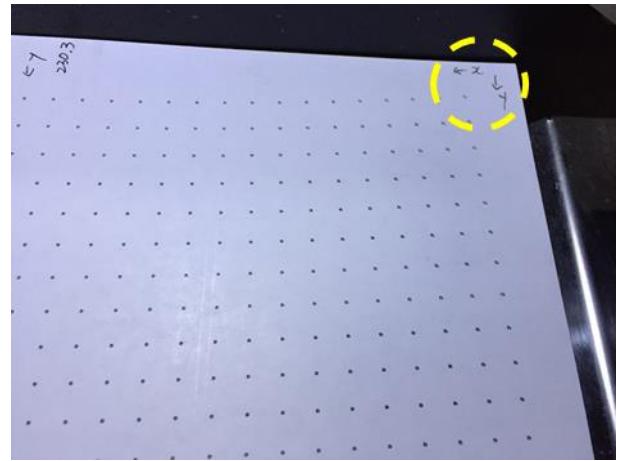
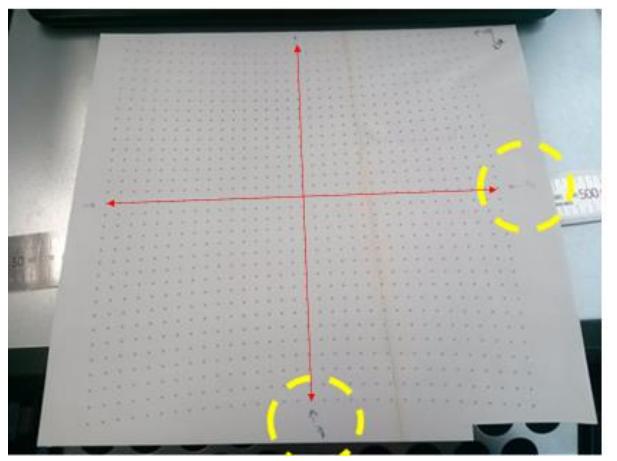
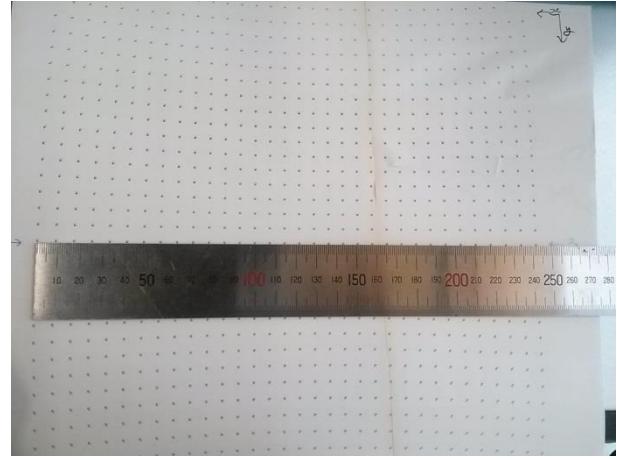
The concept of this process is to re-scale and re-shape the final beam position which currently is not the most accurate due to the distortion from the optics caused by sudden movement / temperature changes and etc. Once the software read the current status of the beam, it can create a correction file to apply. Operator should import this pcf format file to anytronCUT software to have the most accurate output.

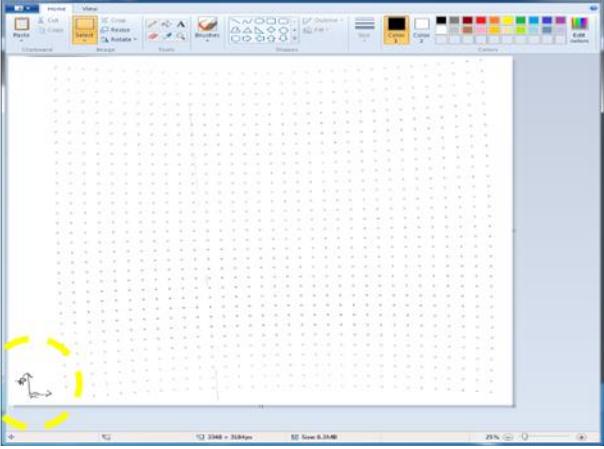
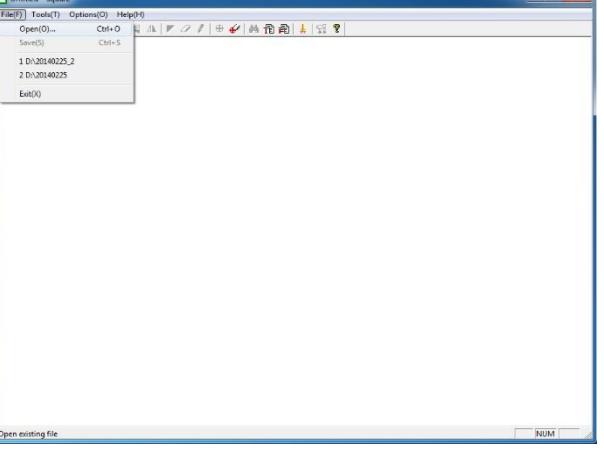
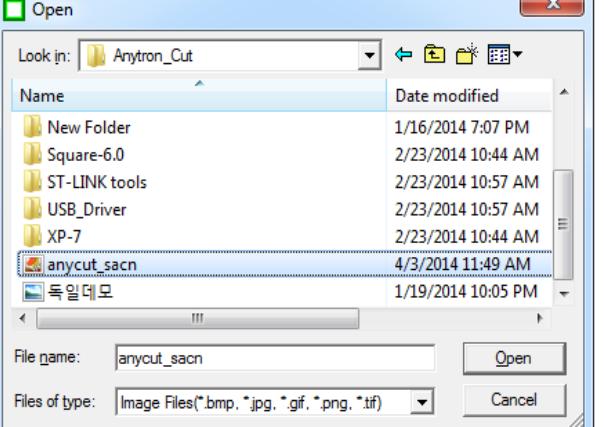
1		270x270mm Thermal Paper, Double-sided tape, Knife, Ruler should be prepared.
2		<p>Lay the paper on the cutting pad.</p> <p>*Be careful not to let the paper curved or crooked. Make sure the paper laid flat on the surface.</p>
3		<p>Start Square.</p> <p>Computer¥Cdrive¥Anytron e_BeamCut¥ Square-6.0</p>

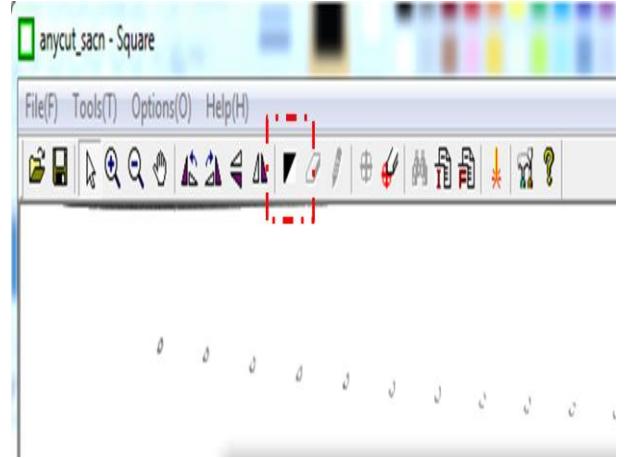
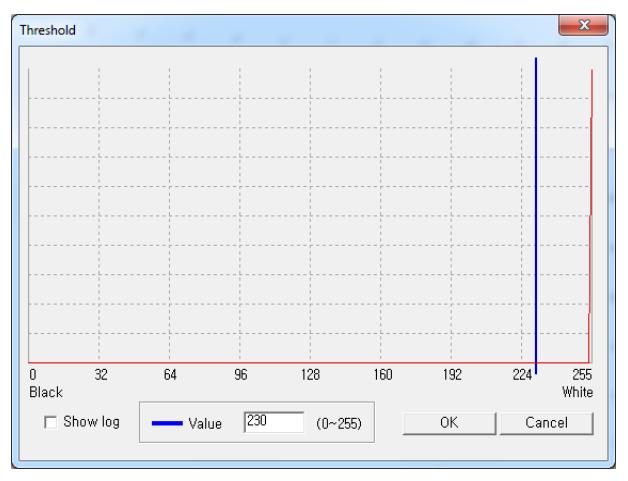
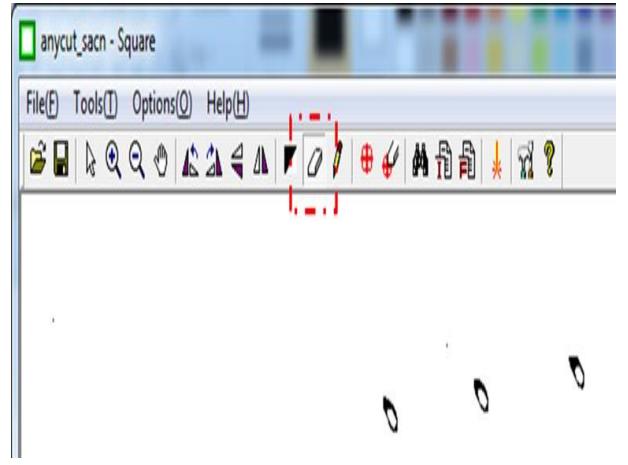
4		Option - Settings
5		Choose PSC14x
6		Choose 16bit.

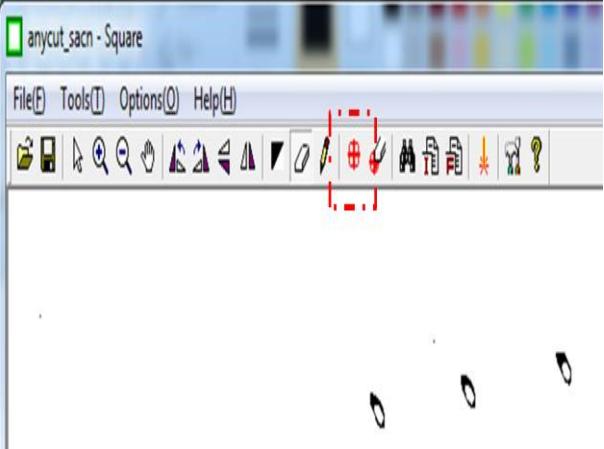
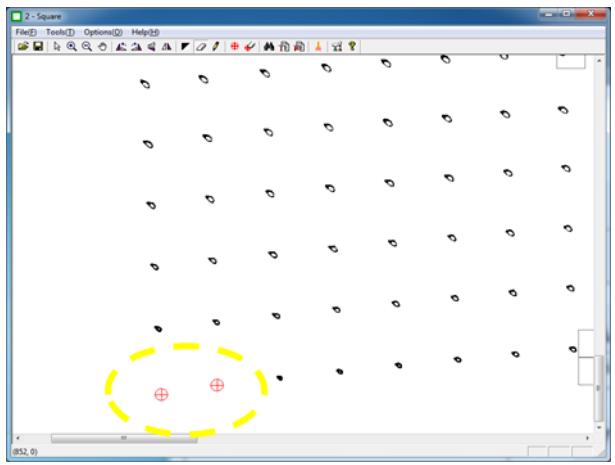
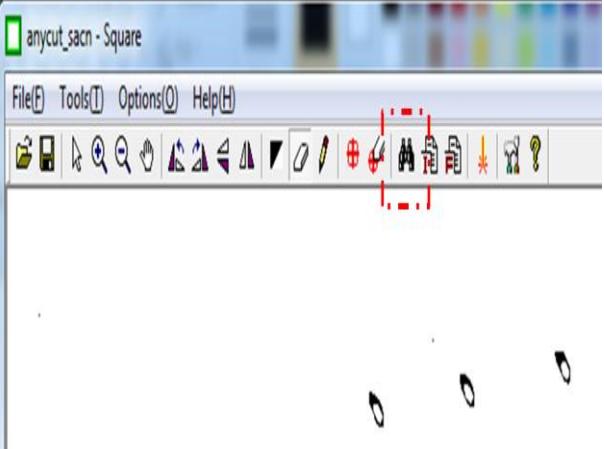
7		<p>Choose the icon as the picture.</p>
8		<p>Click [find]</p>
9		<p>Choose <b>default(257-16bit).pcf</b></p>

10	 <p>The screenshot shows the software interface for a laser cutting job. 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?), 'LASER(Port)' (Frequency: 80000 Hz, Duty: 80 %, Mode: Laser1: 0, Laser2: 3, First pulse: 0 x100?, Delay: 0 x100?, Tickle Period: 0 x100?, Tickle Duty: 0 x100?), and 'Scanner settings' (Mark Speed: 100 /?, Jump Speed: 100 /?, Jump Delay: 10 x100?, Polygon Delay: 10 x100?, End Delay: 10 x100?). Buttons at the bottom include 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 small grid pattern of holes. The machine's metal frame and a yellow safety beam are visible.</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>

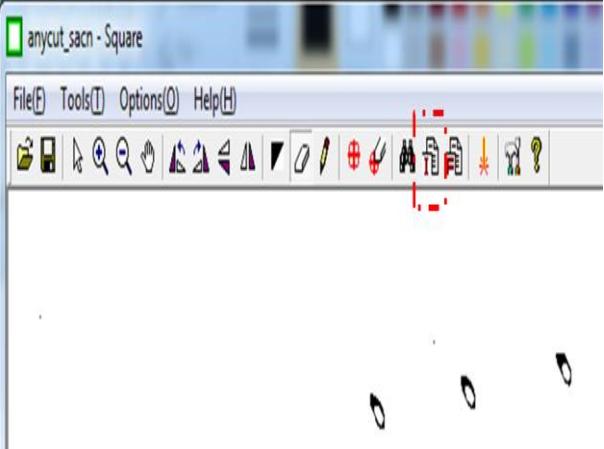
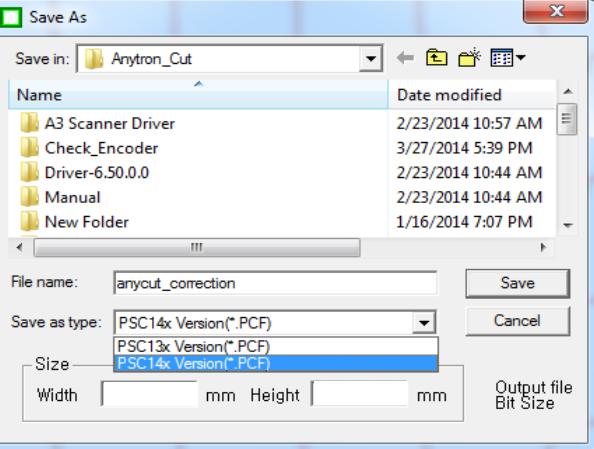
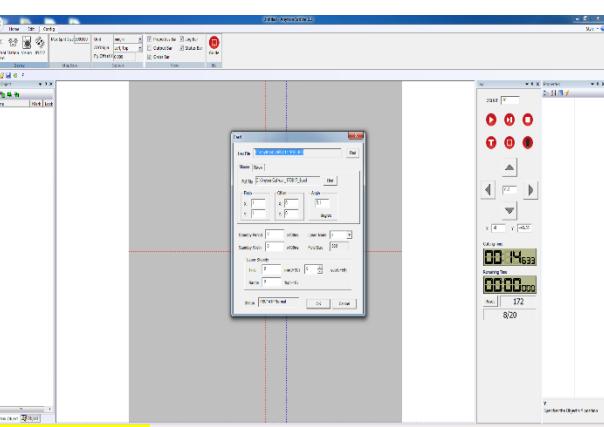
13		
14		<p>Mark 17<sup>rd</sup> dot (the middle) at the end of both X,Y sides.</p>
15		<p>Measure the die stance from one to the other end mark. Do both X and Y direction.</p>

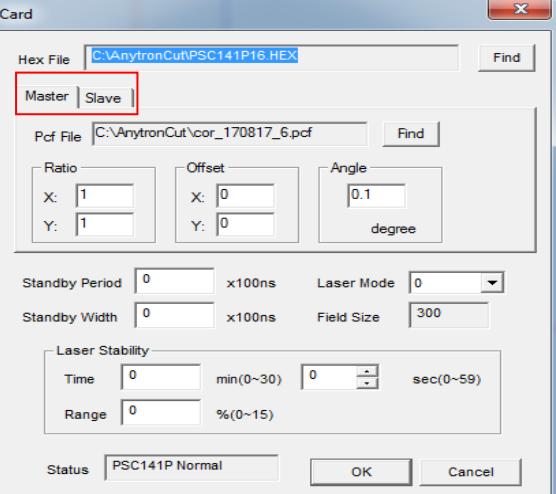
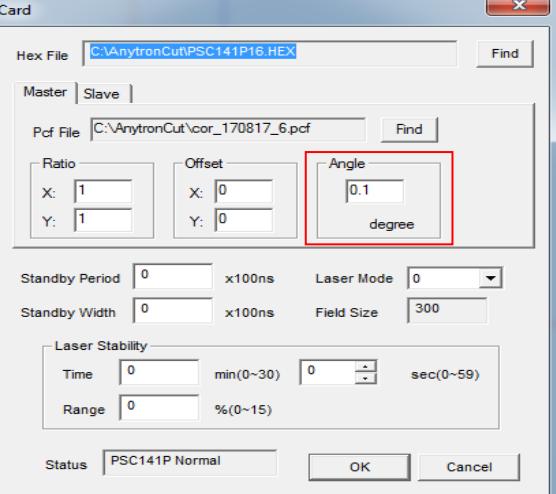
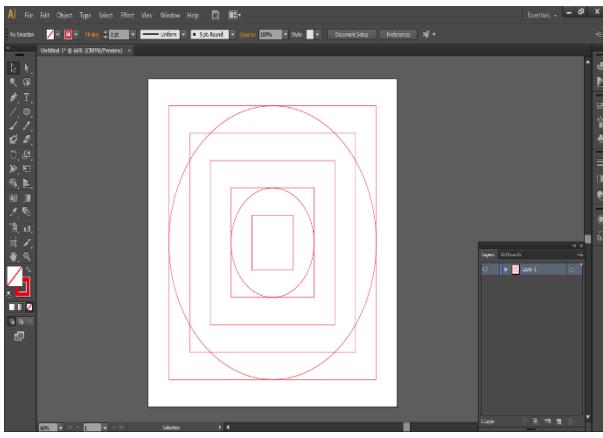
16		<p>Use A3 size scanner to have JPG/JPEG scan image and make sure the marked corner goes low-left corner, rotating the image.</p>
17		<p>Start Square.</p>
18		<p>Open the scan image.</p>

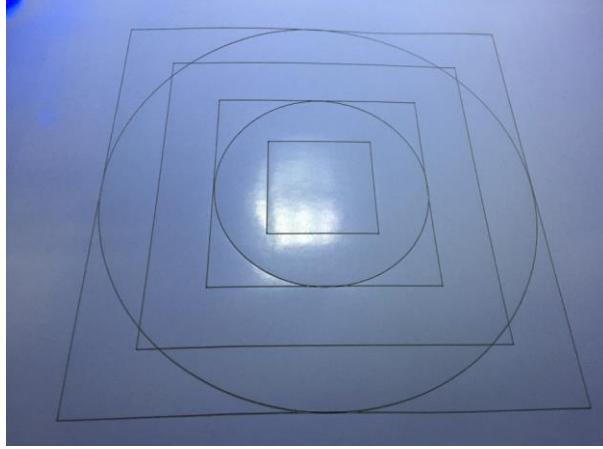
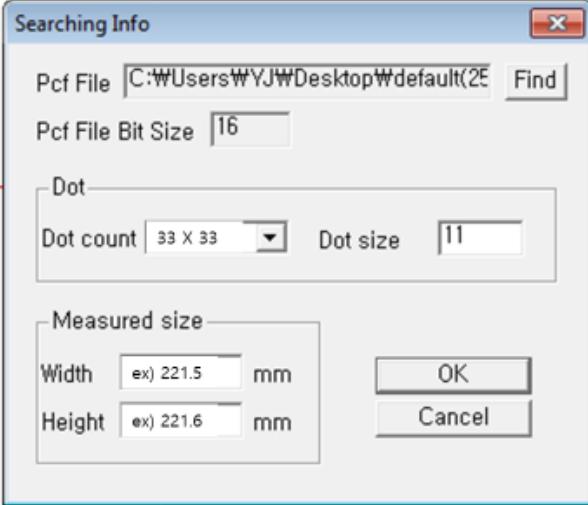
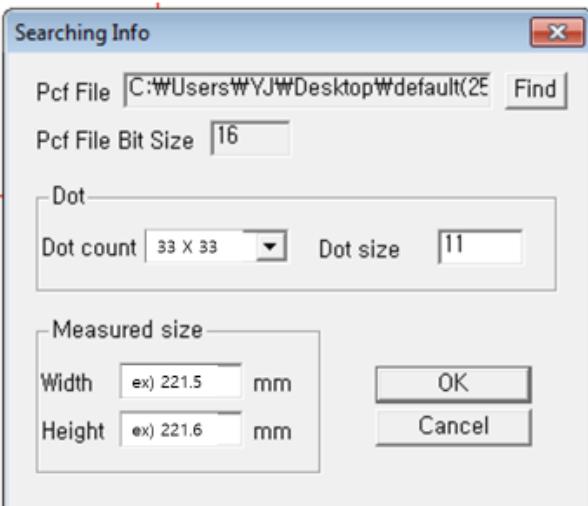
19		Click [Contrast] icon as in the picture.
20		Use 200-230 as the value and find an appropriate contrast rate which is clear enough to remove the dusts and get clear dot shapes. However, it depends on the scanning condition. User may adjust the number to have higher/lower contrast on the image.
21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

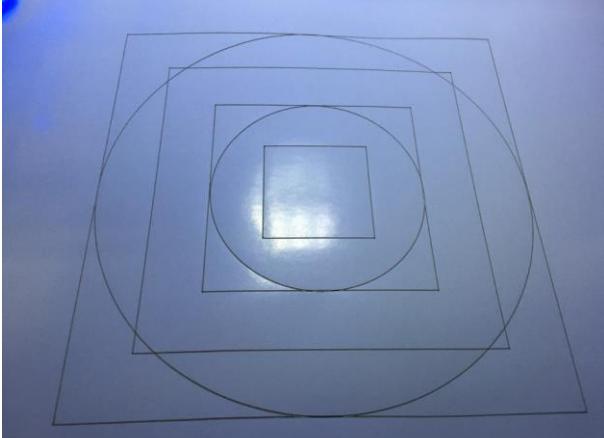
22		<p>If there is any dot missing, press  and locate an arbitrary dot where it was supposed to be.</p>
23		<p>This is how it would look like.</p>
24		<p>After cleaning the image, click .</p>

25		Choose one dot and drag tight around it.
26		<p>Width=Measured distance between 17th dots in X axis.</p> <p>Height=Measured distance between 17th dots in Y axis.</p>
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 completed, click [I] icon.</p>
29		<p>Choose PSC14x. Input Size Width 225 / Height 225 mm.</p>
30		<p>Go to anytron CUT. It will automatically start when starts Adobe Illustrator.</p>

31	 <p>Card</p> <p>Hex File C:\AnytronCut\PSC141P16.HEX Find</p> <p>Master   Slave  </p> <p>Pcf File C:\AnytronCut\cor_170817_6.pcf Find</p> <p>Ratio X: 1 Y: 1 Offset X: 0 Y: 0 Angle 0.1 degree</p> <p>Standby Period 0 x100ns Laser Mode 0</p> <p>Standby Width 0 x100ns Field Size 300</p> <p>Laser Stability Time 0 min(0~30) 0 sec(0~59)</p> <p>Range 0 % (0~15)</p> <p>Status PSC141P Normal OK Cancel</p>	<p>Setting &gt; Control Card &gt; PCF File [Find]</p> <p>*Both Master Tap and Slave Tap should import the same file.</p>
32	 <p>Card</p> <p>Hex File C:\AnytronCut\PSC141P16.HEX Find</p> <p>Master   Slave  </p> <p>Pcf File C:\AnytronCut\cor_170817_6.pcf Find</p> <p>Ratio X: 1 Y: 1 Offset X: 0 Y: 0 Angle 0.1 degree</p> <p>Standby Period 0 x100ns Laser Mode 0</p> <p>Standby Width 0 x100ns Field Size 300</p> <p>Laser Stability Time 0 min(0~30) 0 sec(0~59)</p> <p>Range 0 % (0~15)</p> <p>Status PSC141P Normal OK Cancel</p>	<p>Angle is 0. User may adjust it by 0.1 depending on the cutting results.</p>
33	 <p>The screenshot shows a complex polygonal shape in Adobe Illustrator. It consists of several nested circles and squares, creating a multi-layered geometric pattern. The interface includes various toolbars and panels typical of vector graphics software.</p>	<p>Make random data with simple polygons such as circles and squares to compare the actual cutting size. Simpler figure, the easier to compare.</p>

34		<p>Measure its actual size after 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 -&gt; Increase number</p> <p>Bigger than the actual size -&gt; Decrease number</p> <p>The concept is, by increasing/decreasing the measured size, operator may create different calibration file. If the actual size is smaller than the</p>

		<p>original data, the calibration file has been created based on the idea that the scale before the calibration process was bigger than the measured size. The software shrinks it to make the scale to fit the data which eventually caused the issue. For software to create a different calibration file to have increased size on the actual output, user may have to change the measured size into bigger number. The amount to be adjusted depends on how different is the actual output compare to the original data.</p>
		<p>Re-apply the new calibration file on anytron CUT – &lt;Config&gt; – &lt;Control Card&gt;. Repeat the process of 33-34 if not correct.</p>

### 1.3.6 Test after Installation

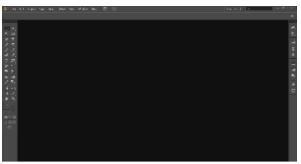
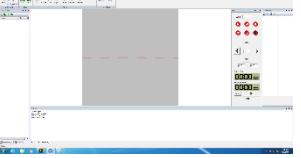
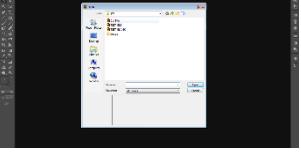
#### Hardware Check

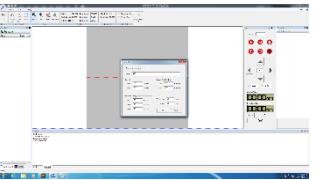
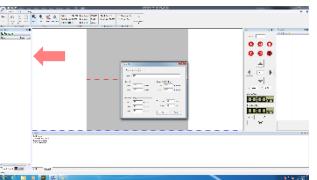
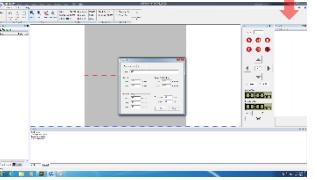
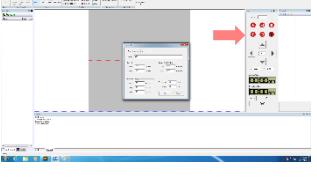
---

No.	Picture	Description
1		Check if both EMO buttons are not pressed and main power cable is correctly connected.
2		Turn the main power switch into CW direction and check if it shows 'ON'.
3		Go to interface panel and press <RESET>-<ON>. Operator should hear 'popping' sound when <RESET>button is pressed.
4		Press <UNW> button and check if the unwinder breaks by manually turning the bobbin. Turn the potentiometer knob and see if the motor resistance increases.
5		Press <REW L>/<REW R> button and check if both rewinders roll. Turn the potentiometer knob and see if the motor RPM increases.
6		Turn the feeder speed knob into CW direction and press <FEED> button and check if the motor works and speed changes while turning the knob.
7		Press <MATRIX> button and check if the motor works and speed changes while turning the knob.
8		Press <LAMI UNW> button and check if it breaks and motor resistance increases while turning the knob.
9		Check if LED reflects each motor's ON/OFF status.
10		Check the laser source status window if it is a normal status as in the picture.
11		Check if the water from the chiller circulates normal.
12		Check if dust collector works normal.

## Operation Check

---

No.	Picture	Description
1		Set the enclosed roll media. (Refer to 2.1.3.1) Sheet size of 225mm x 225mm can also be tested.
2		Start Adobe Illustrator CS6.
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 configuration following the parameter guide provided.
9		Save the parameter 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 provided by Bitek.

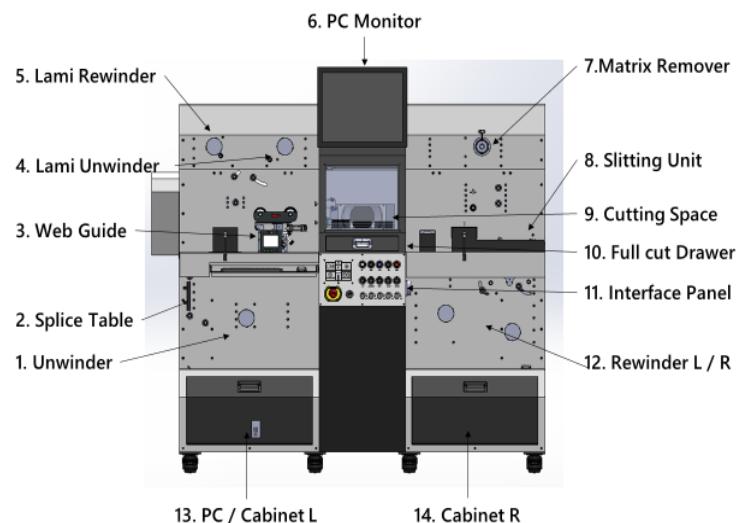
## 2 Basic Operation

### 2.1 Hardware

#### 2.1.1 Main Components and Functions

2018 Bitek Technology. All rights reserved.

## Front View



No.	Name	Description
1	Unwinder	Unwinds media to start a job
2	Splice Table	Flat table for connecting a roll end to a roll start
3	Web Guide	Fixes the web path
4	Lami Unwinder	Unwinds Laminate film
5	Lami Rewinder	Rewinds back liner of Laminate film
6	PC Monitor	
7	Matrix Remover	Removes left-out of media after cutting
8	Slitting Unit	Slits media after cutting
9	Cutting Space	Where Job cutting take place, featured with LED light, cutting pad, BM sensor, dust exhaust hall and door with safety interlock.
10	Full-cut Drawer	
11	Interface Panel	Consists of operation buttons, EMO Switch, indicators on LCD screen
12	Rewinder L/R	Rewinds media
13	Cabinet L / PC	
14	Cabinet R	

## Rear View



No.	Name	Description
<b>1</b>	Electricity System Box L	Consists of main board, drivers, circuit breakers and cables related
<b>2</b>	Dust collector connector	Where Dust collector connected to the equipment
<b>3</b>	Chiller Connector	Where Chiller hose connected to the equipment
<b>4</b>	EMO Switch	Turn off the power in emergency case
<b>5</b>	Electricity System Box R	Consists of drivers, circuit breakers and cables related
<b>6</b>	Electricity System Box C	Consists of SMPS, drivers and cables related

## 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.

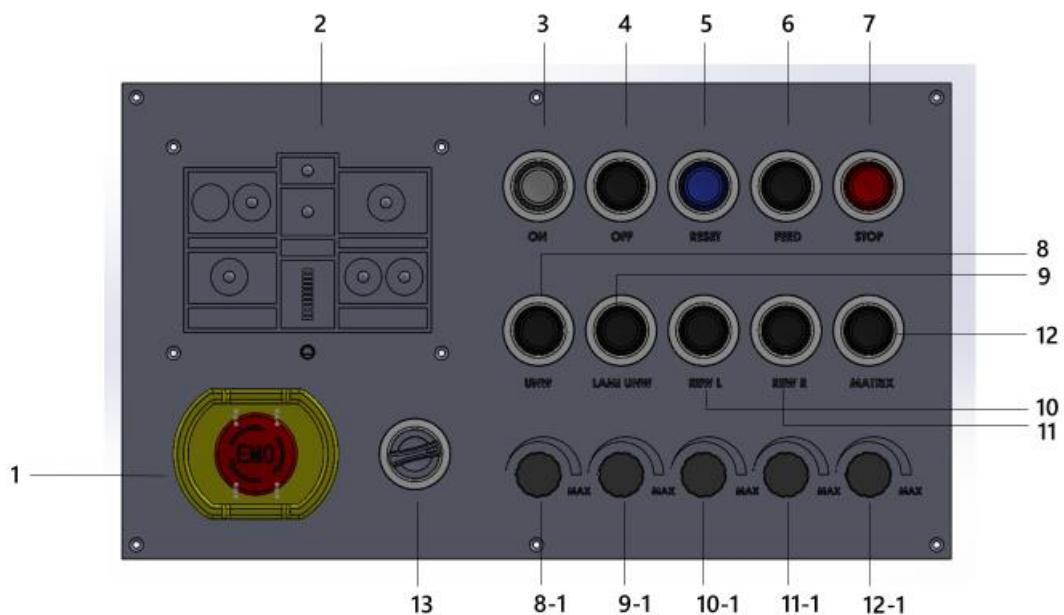
---

### Switching Off the Power

---

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

### 2.1.3 Control Panel

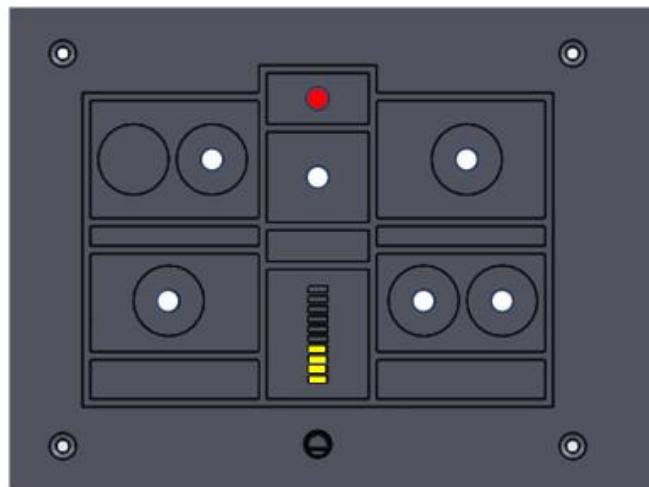


No.	Name	Description
1	EMO	Press to switch off the device in emergency case
2	Interface Panel / LCD	Job status and Device Status
3	ON	Press to switch on the device following <RESET> button
4	OFF	Press to switch off the device
5	RESET	Press to switch on the device followed by <ON> button
6	FEED	Press to feed media
7	STOP	Press to stop feeding
8	UNW	Press to switch on Unwinder
9	LAMI UNW	
9-1	LAMI UNW POTENTIOMETER	Turn in CW direction to find the proper
10	REW L	Press to switch on Rewinder1
10-1	REW L POTENTIOMETER	
11	REW R	Press to switch on Rewinder2
11-1	REW R POTENTIOMETER	
12	MATRIX	Turn CW direction to turn on/adjust tension strength.
12-1	MATRIX POTENTIOMETER	
13	DUST COLLECTOR	Press to switch on/off dust collector.

## 2.1.4 Status light

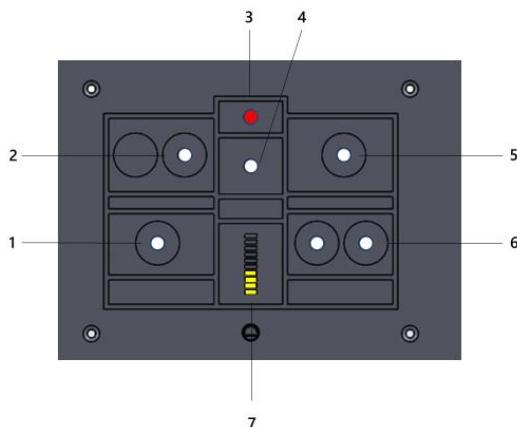
### Status light

---



### Configuration

---



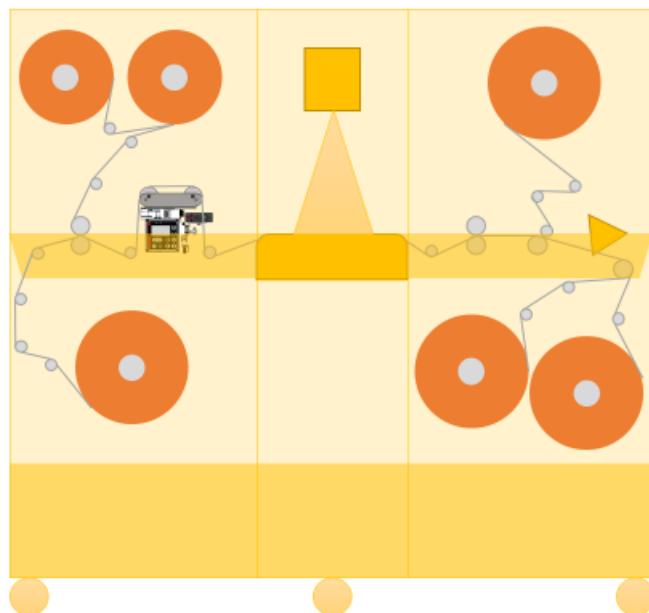
No.	Name	Description
1	Unwinder	ON – White light on / OFF – light off
2	Lamination Unwinder	ON – White light on / OFF – light off
3	Laser status	UNREADY/ERROR – Red light on / READY – light off
4	Door status	CLOSED – White light on / OPEN – light off
5	Matrix Status	ON – White light on / OFF – light off
6	Rewinder L/R status	ON – White light on / OFF – light off

## 2.1.5 Media Setting

### 2.1.5.1 Setting Roll Media

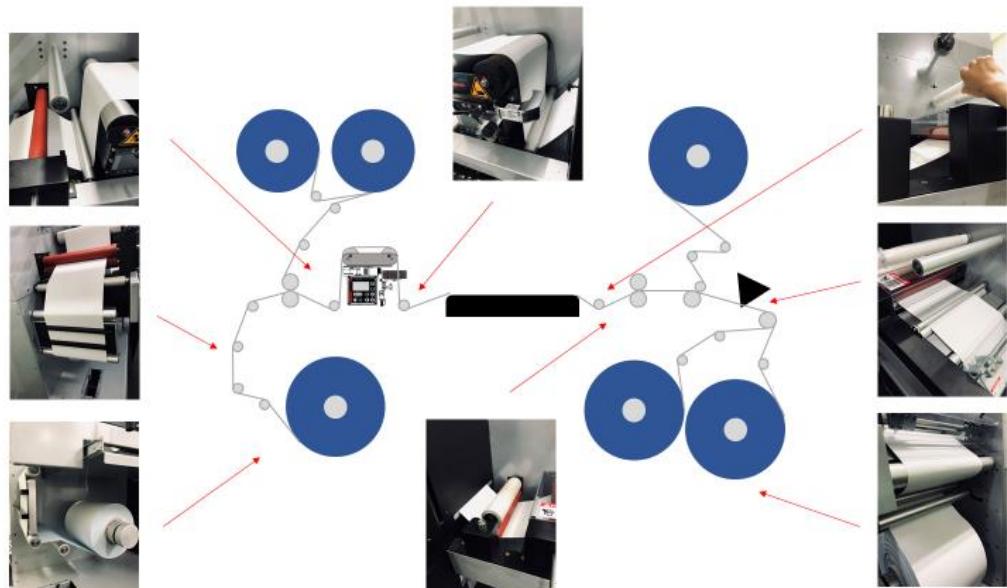
Web Path

---



Detail

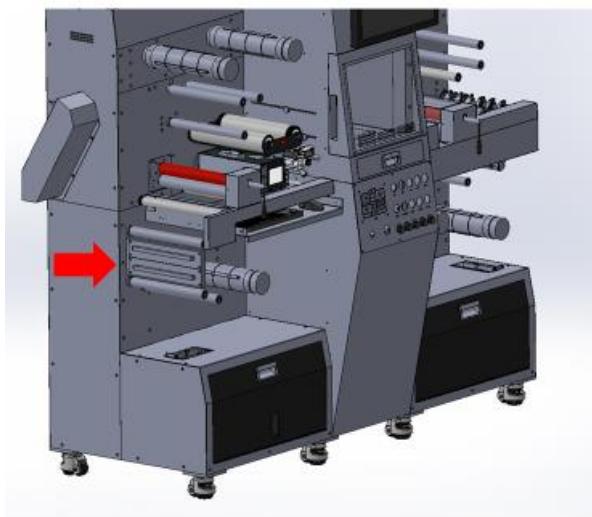
---



## 2.1.5.2 Splice Table

### Feature

---



### How to Set

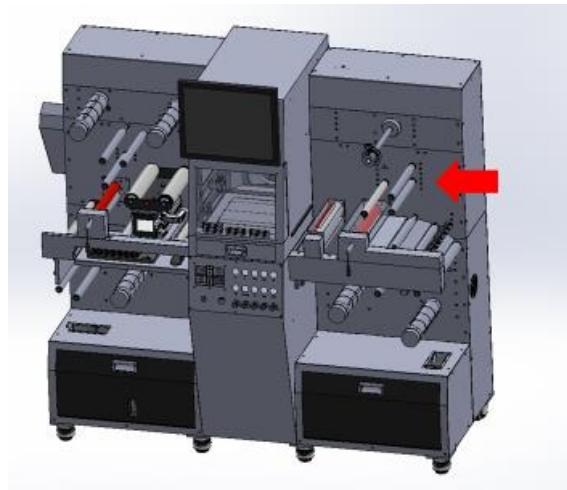
---

No.	Picture	Description
1		Locate the magnetic press bars on both sides as in the picture.
2		Cut the media. Use the gap on the surface of the table as a cutting guide for convenience.

3		Get rid of one of the magnetic press bars. Take out the remaining roll on the unwinder.
4		Replace the roll with new one and connect with the old media end.
5		Right edge of both media should match precisely for the web guide to read the connecting edge and maintain its straightness.
6		Place the magnetic bar again and tape them tightly.
7		Take out both magnetic press bars. It is ready to operate again.

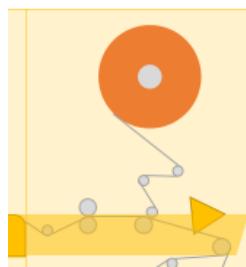
### 2.1.5.3 Matrix Removal

#### Feature



#### How to Set

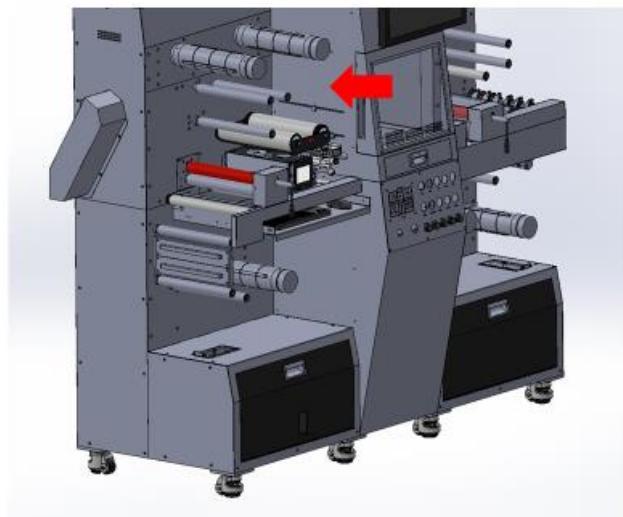
No.	Picture	Description
1		Unscrew the knob and take out the whole tab
2		Place a core with larger width than the media width and place the tab.
3		Lock the know tightly.

4		<p>Separate the matrix (sticky side) and set up as in the picture. Be mindful with the web path.</p>
		
5		<p>Go to interface panel and switch on the matrix.</p>
6		<p>Adjust the force with the Matrix Potentiometer knob.</p>

## 2.1.5.4 Laminating

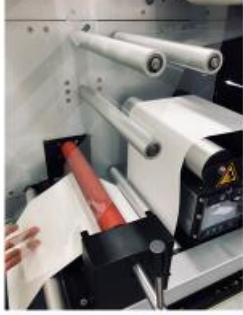
### Feature

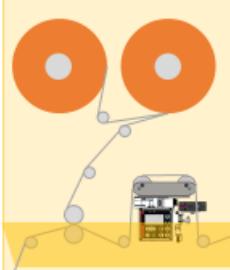
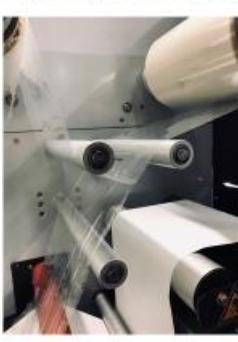
---



### How to

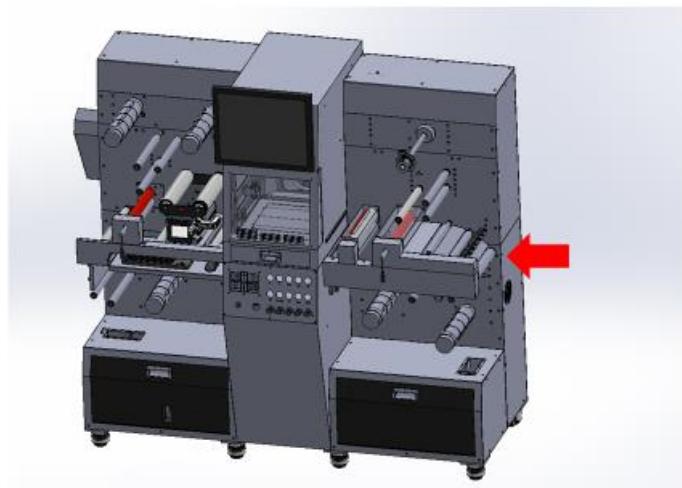
---

No.	Picture	Description
1		Install the laminating film on the laminating Unwinder. Go to interface panel and switch on LAMI UNW.
2		Pull down the film all the way down to the back of the nip roller as in the picture. Be mindful with the idlers and web path.

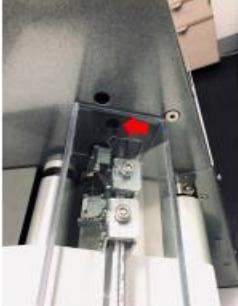
3		
4		<p>Separate the back liner if it has. Sometimes laminating film doesn't have back liner. In this case, user may skip this process.</p>
5		<p>Tape the end of the back liner on the core installed on the LAMI REWINDER. Be mindful with the web path.</p>
6		<p>Correct the position of the film/back liner core by feeding the media. If the film has been set in the middle of the media, user may lock down the nip roller.</p>

## 2.1.5.5 Slitting

### Feature



### How to

No.	Picture	Description
1		Open the safety guard by sliding it to the left-hand side.
2		Then, lift up the guard.
3		Take out the guard and keep it aside.

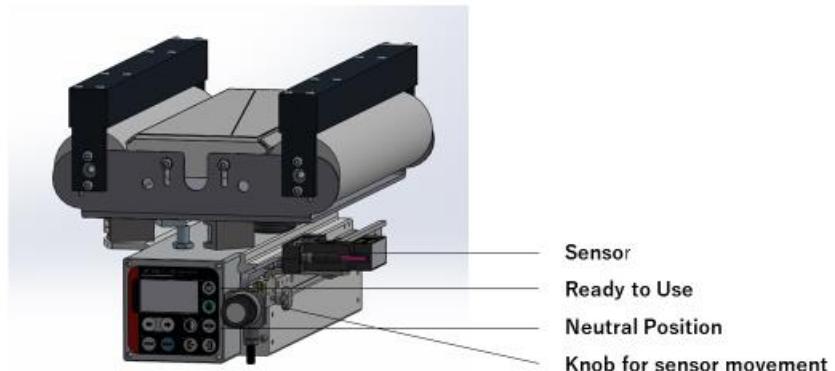
2018 Bitek Technology. All rights reserved.

4		Unscrew the top knob and manually move/locate the blade holder.
5		Unscrew the side knob and pull down the blade until the blade cuts through the media. While, the media should have proper tension.
6		If the position / depth of the knife has been set, screw both knobs tightly.
7		This is how it would look.
8		Place the guard again for the safety.

## 2.1.6 Web Guide Setting

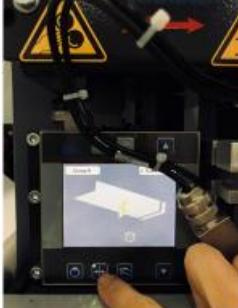
### Feature

---



### How to Set

---

No.	Picture	Description
1		Complete the media setting as in the picture.
2		Set the web guide in mechanically neutral position by pressing the button in the picture.

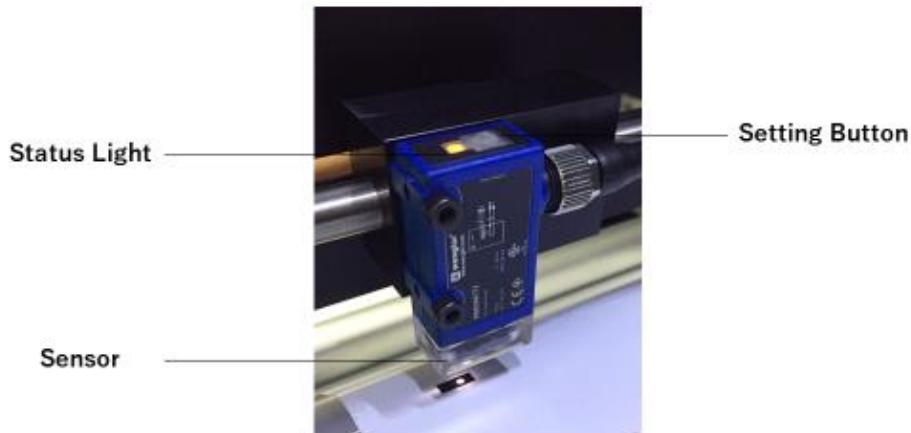
3		Press 'i' button as in the picture.
4		Press (touch screen) Sensor info. Button on the screen.
5		Check the current edge sensor position.
6		Unscrew the main knob and manually move the edge sensor.
7		If the number on the screen gets close to 0.00, turn the sub knob to make a subtle adjustment.

		If the number is close enough to 0, fix both knobs. Now press 'Operate' button as in the picture.
--	---	---

## 2.1.7 Black Mark Sensor Setting

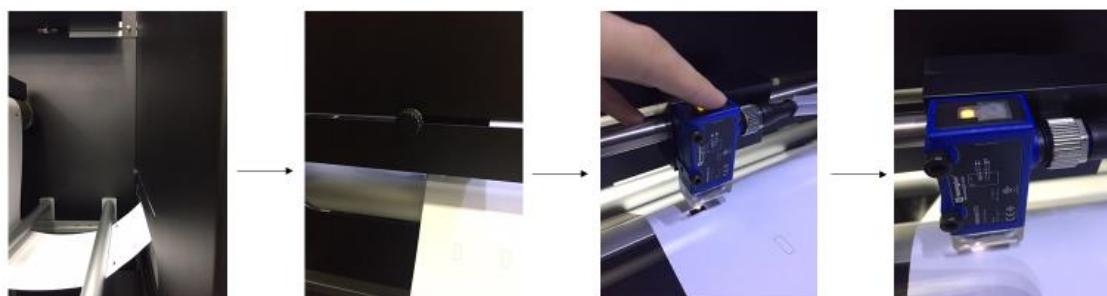
### Feature

---



### 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

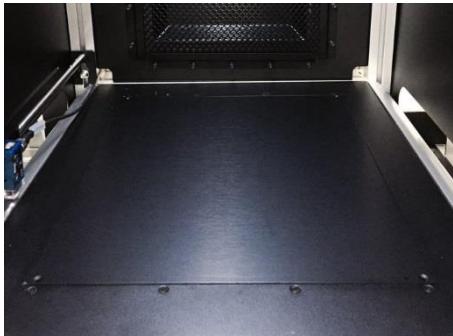
---

#### Full-Cut (Wedge) Bed

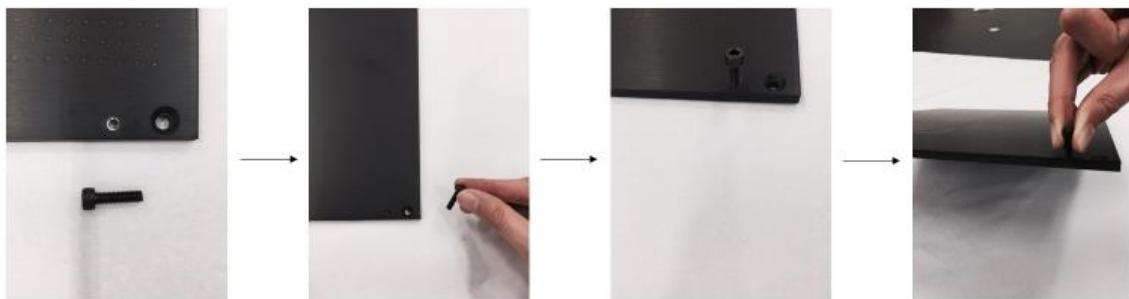


Stick the Wedge Beds into the holes around the Bed Frame. Place the sticks considering where to drop the full-cut pieces. The more sticks, the flatter the bed can be which increases the cutting quality, however, if any cut pieces left on the bed will interrupt the laser beam.

## 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.

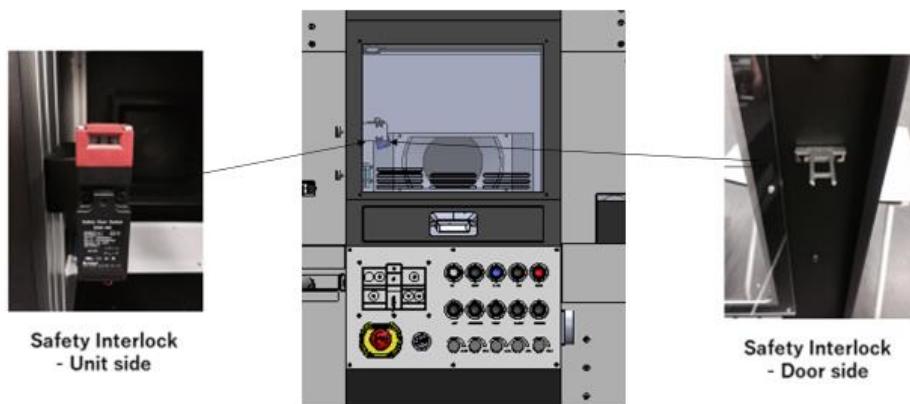
Screw this bolt into the hole.

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

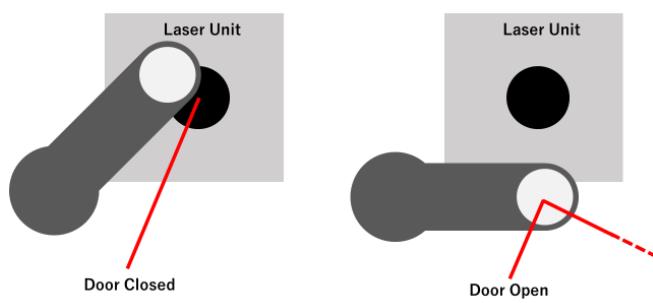
Carefully lift up the bed and take it out from the unit or put it back to the unit.

## 2.1.9 Door

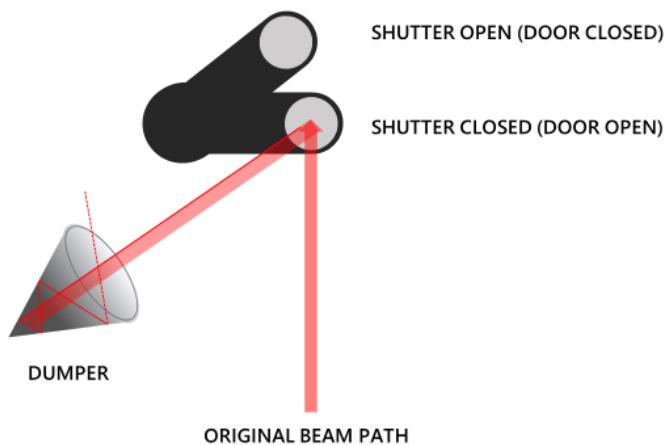
### Feature



### How to set



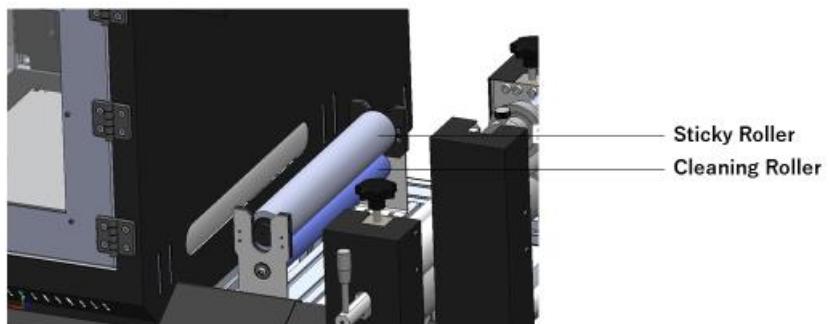
The Door Interlock is connected to the Shutter. Shutter is a part to shut the laser beam for the safety reason. If the door is not closed, the shutter blocks the beam path so that it doesn't reach the space of cutting.



## 2.1.10 Web Cleaner

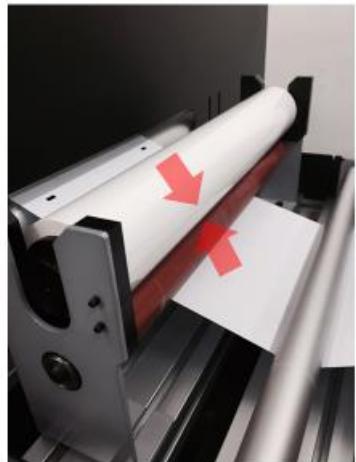
### Feature

---

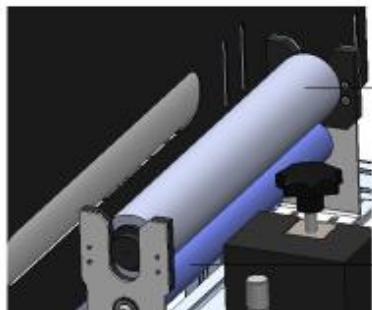


### How to Set

---



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.

## 2.2 Software

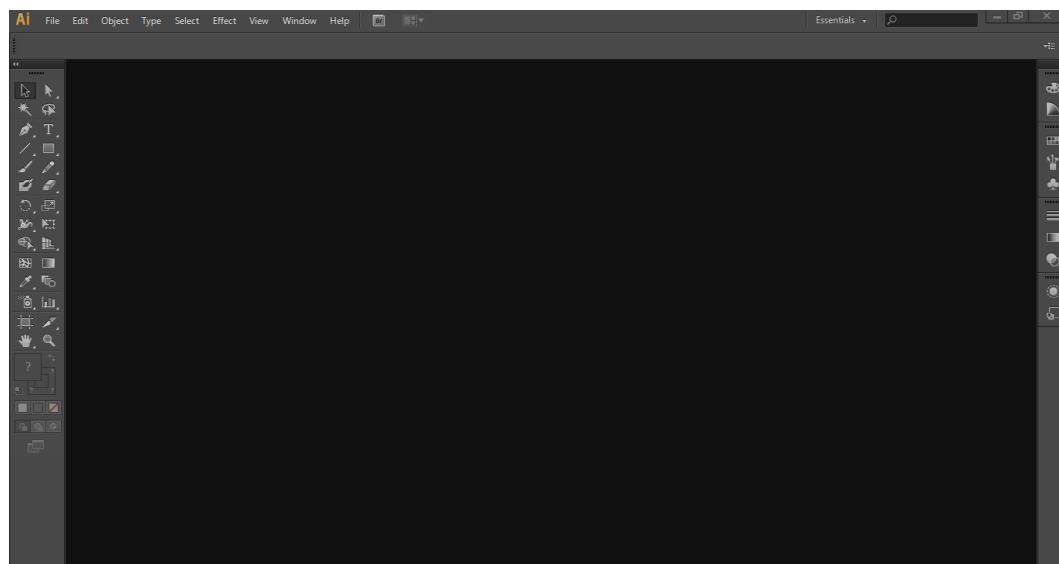
---

### 2.2.1 Illustrator

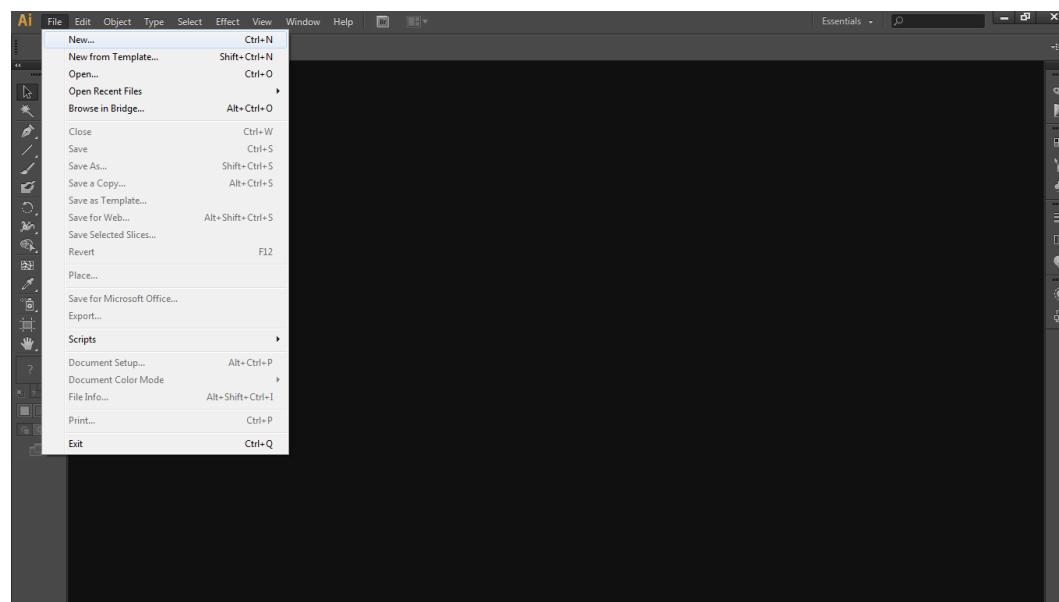
#### 2.2.1.1 Setting Artboard

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-CUll, with better efficiency and quality.

1. Open Adobe Illustrator CS6.



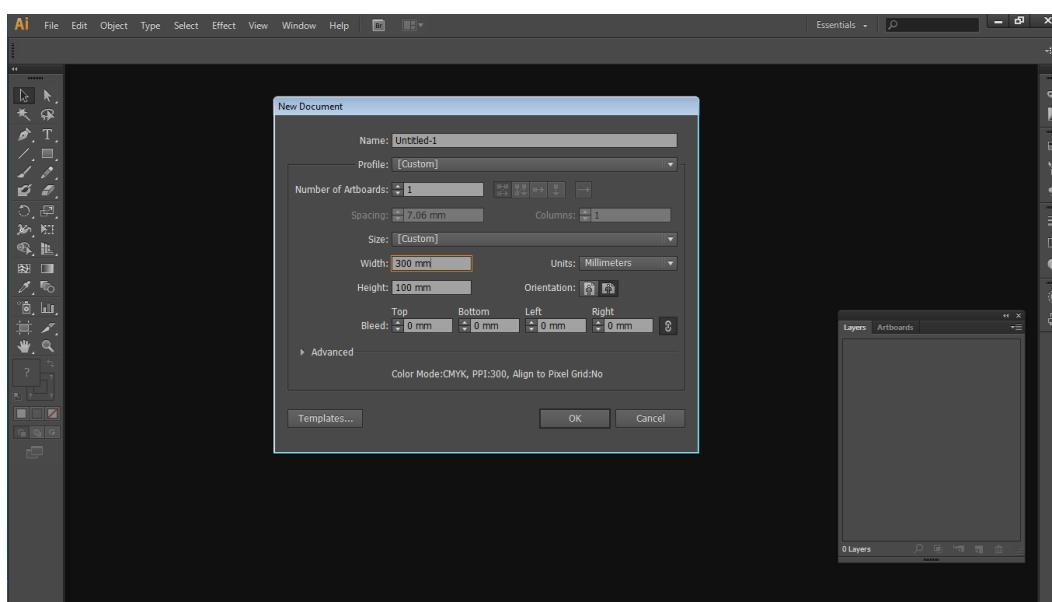
2. Click <File> - <New...>



- 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.

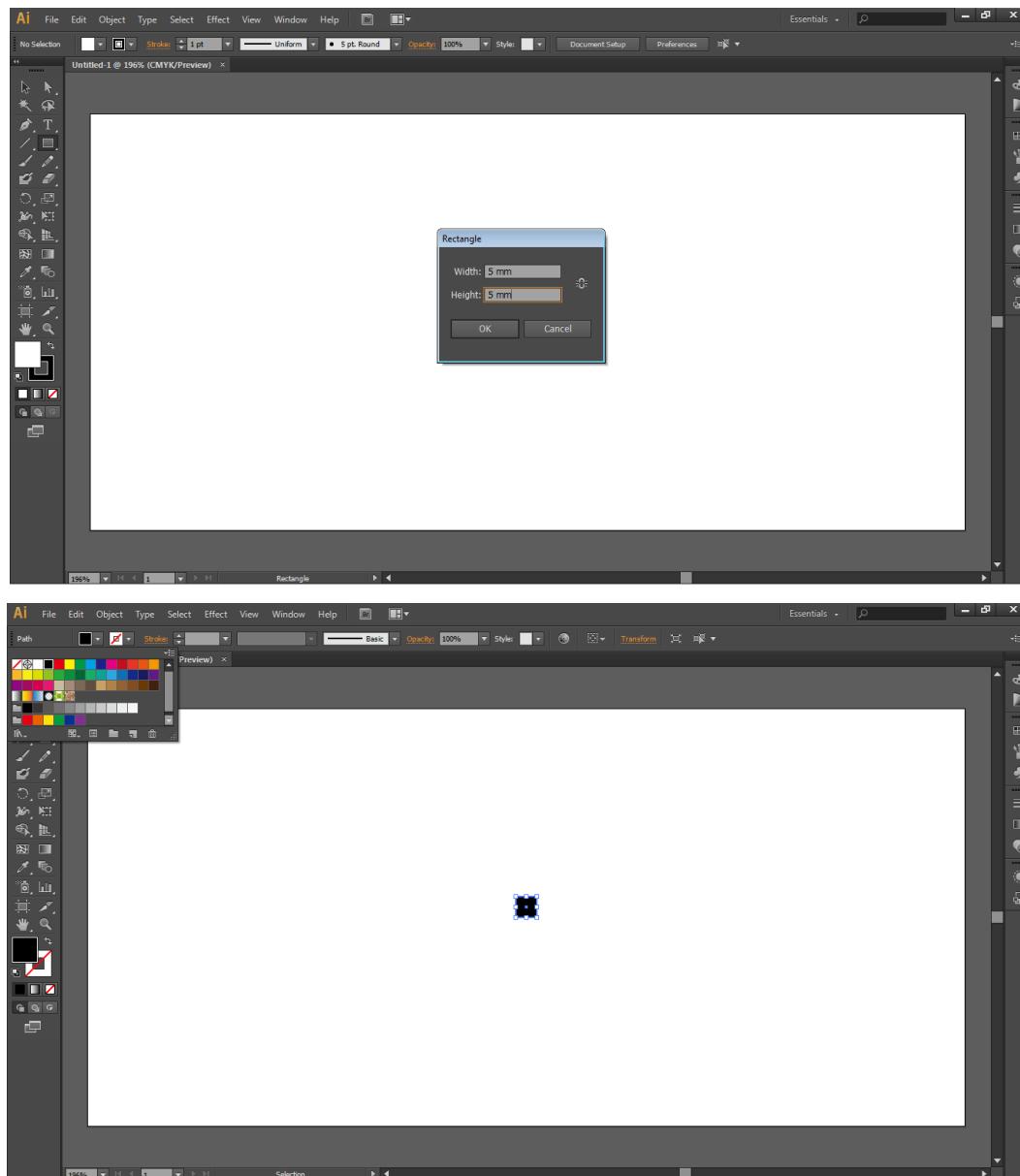
If the data shows on anytron CUT is not centered or not properly shown in the screen, please check the artboard setting again.



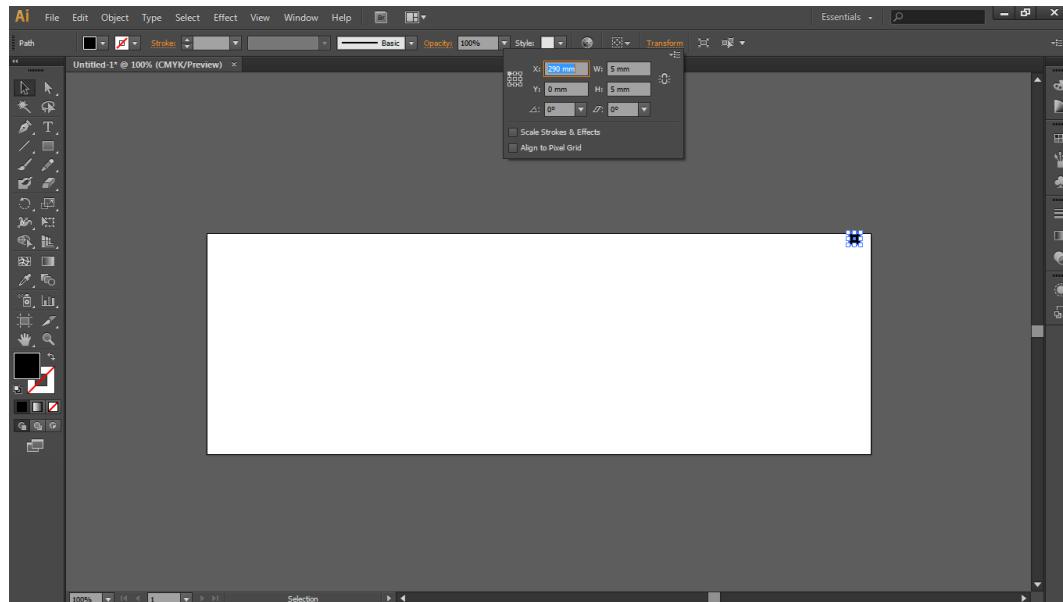
## 2.2.1.2 Create Black Mark

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.

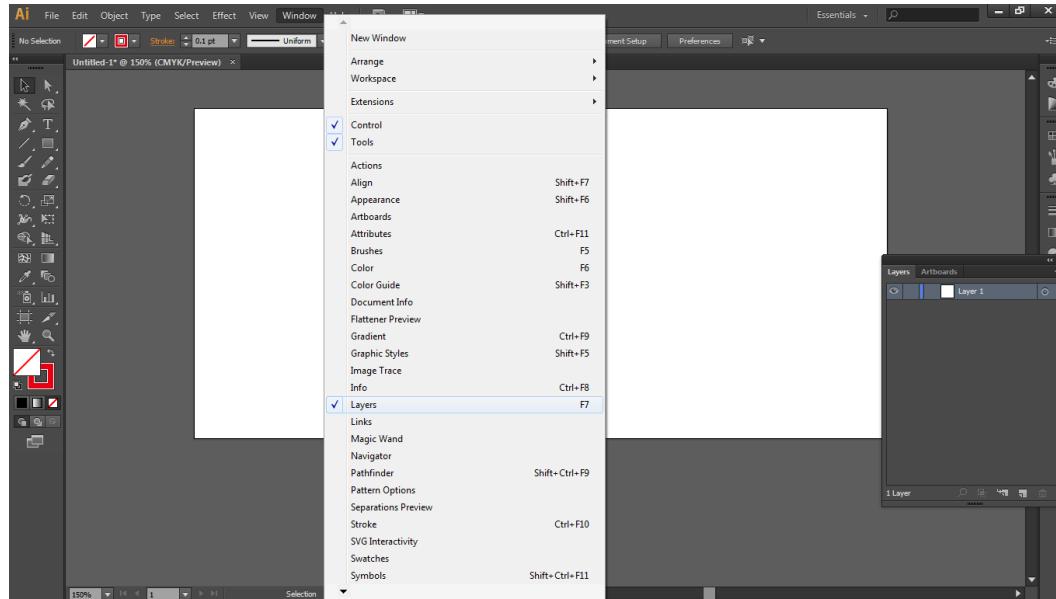


2. Position the BM with considering Print-out and BM sensor position. The very top of the Artboard is the recommended position of the BM(Y=0). BM can be on both sides of the layout for user's convenience.



### 2.2.1.3 Setting Layers and Cutting Order

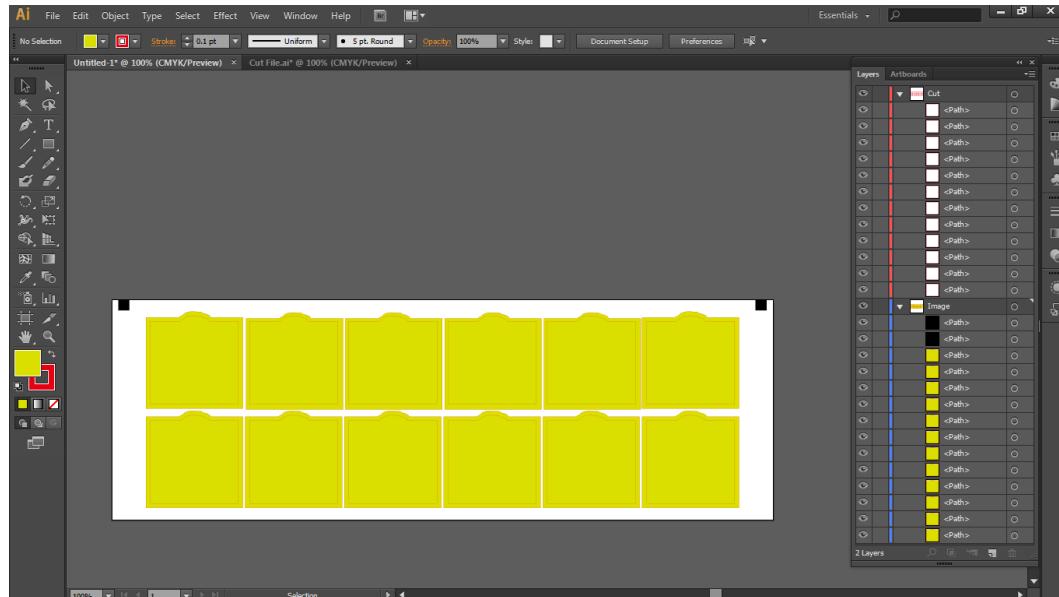
1. Click <Window> - <Layers> to separate the layers required for each job, marking, half-cut and full-cut.



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.

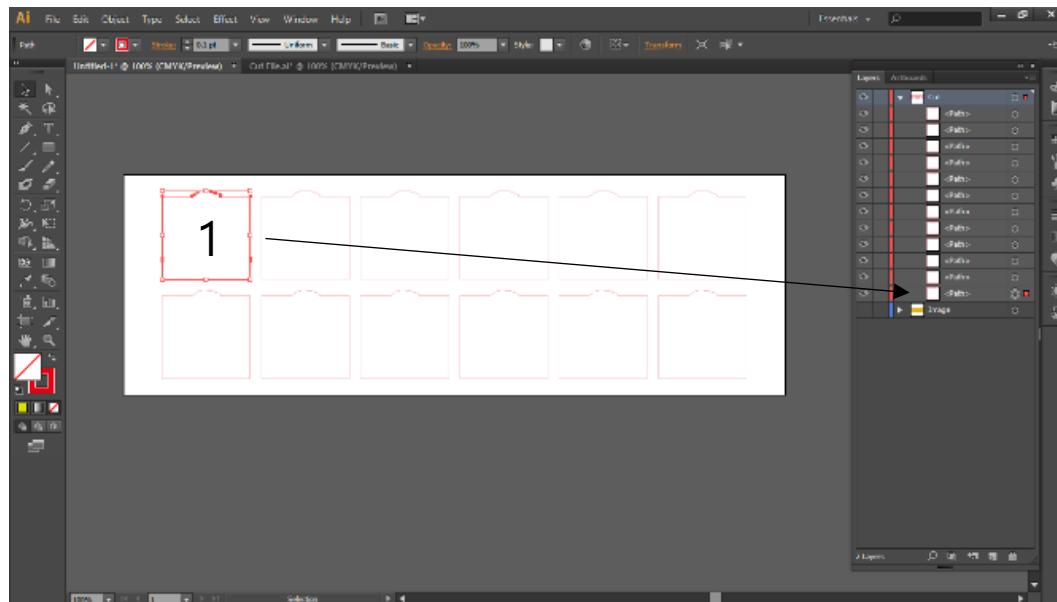
The name of the layer doesn't affect the operation.



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

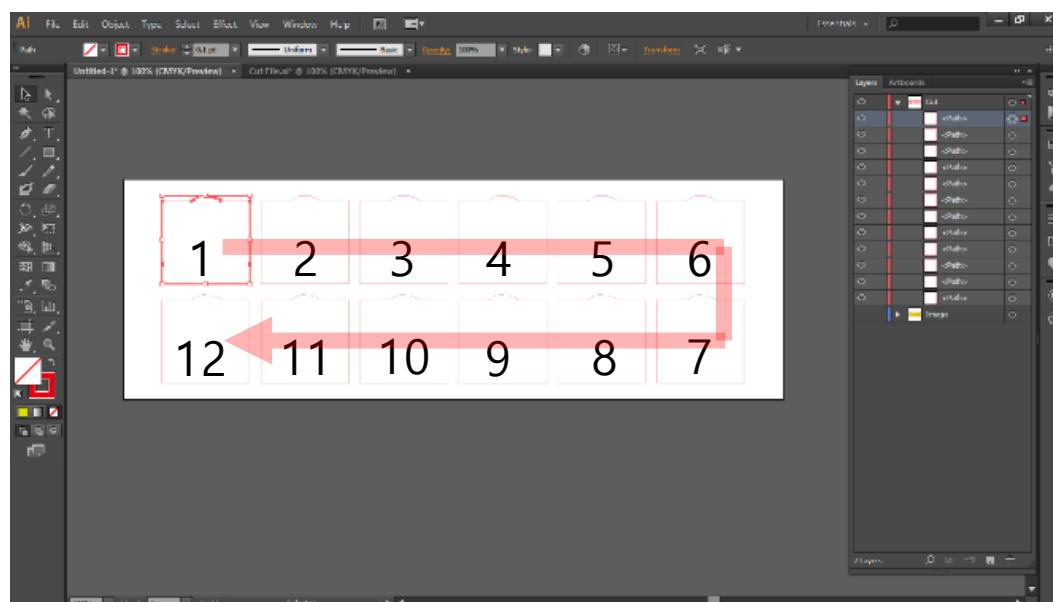
Click the image which has to be cut first out of the whole data during operation.

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.

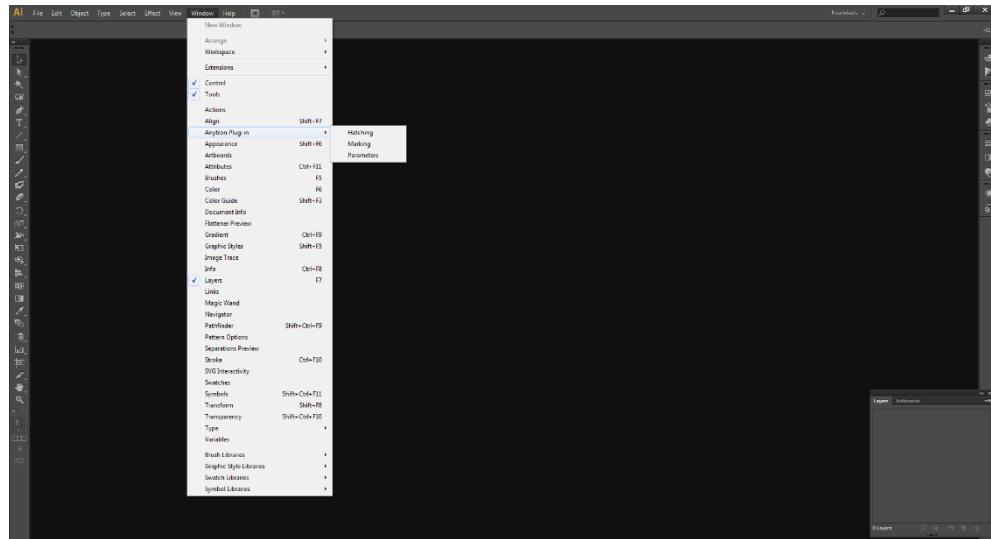
recommended layout of the cutting image is either ↗ or ↙ assuming that the top of the Artboard comes first for cutting and the laser movement. In this way, user can have the most efficient way of laser movement resulting productivity.



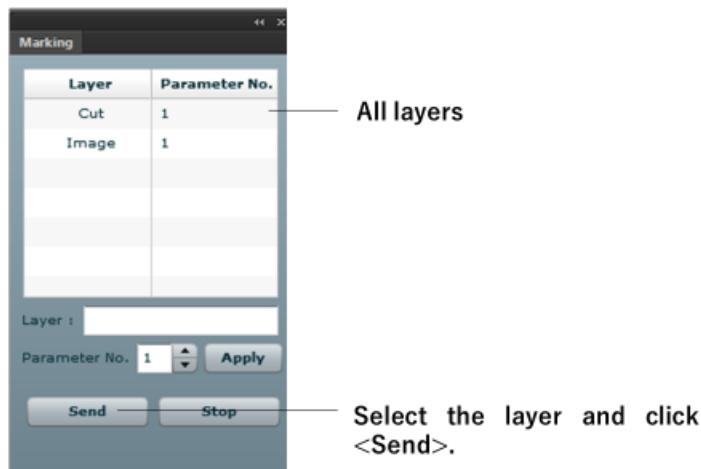
2018 Bitek Technology. All rights reserved.

## 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-CUTII.



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 :

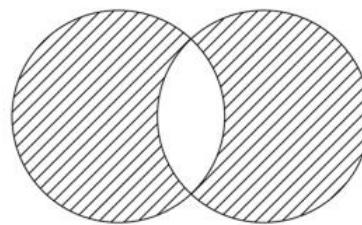
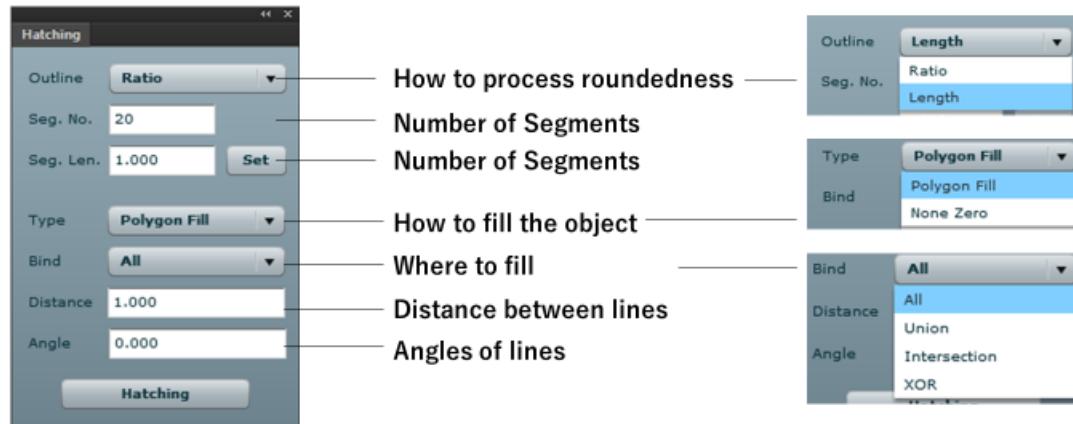
- 1) User can choose how to process roundness of the object/image.  
**<Outline>** : Change Bezier curve to Vector.  
**< Seg No. >** : The number of Vector data  
**<Seg. Len>** : The number of pieces of Vector cut from the original Bezier curve.

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.

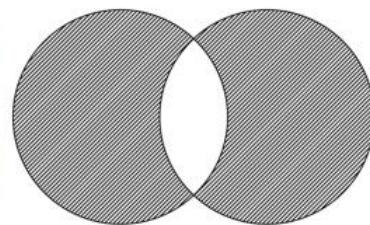
<**Type**> : Fill up the space with lines using vector information.

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

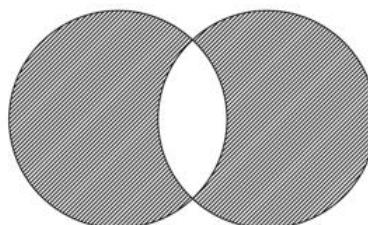
<**Distance**> : Set the distance between lines.



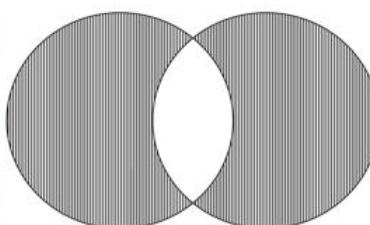
Distance : 3 (mm) Angle : 45° )



Distance : 1 (mm) Angle : 45° )



Distance : 1 (mm) Angle : 45° )



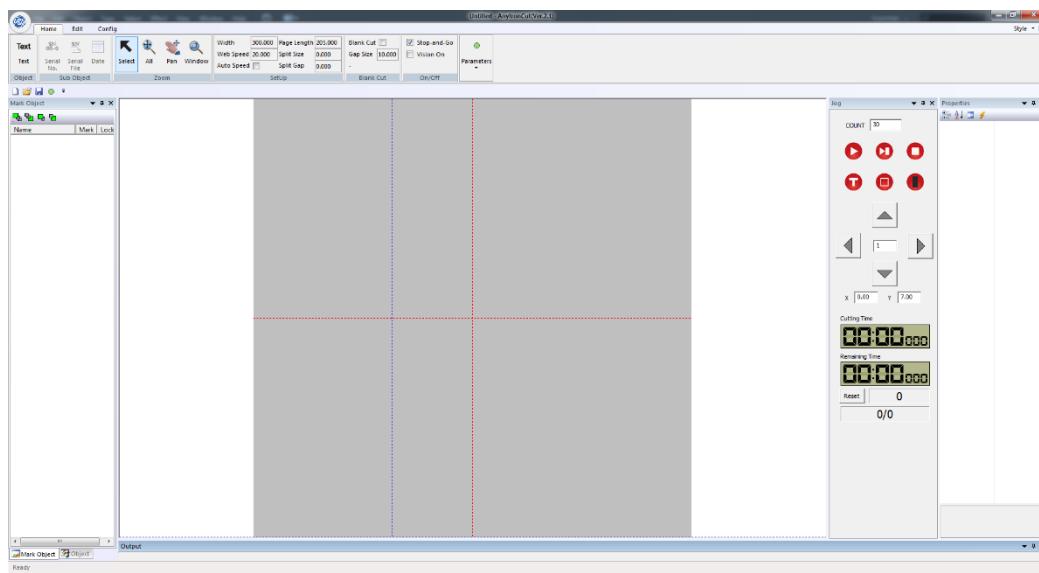
Distance : 1 (mm) Angle : 90° )



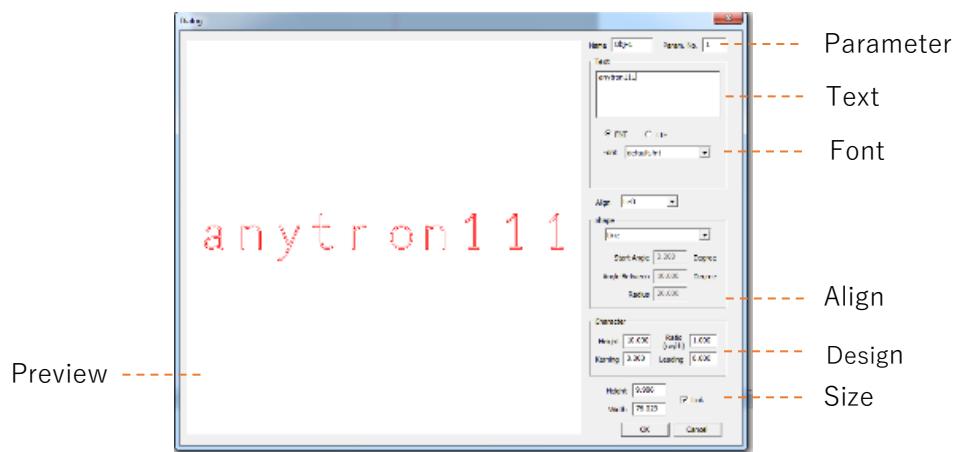
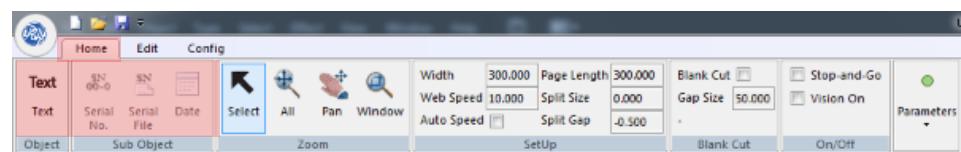
## 2.2.2 anytron CUT

### 2.2.2.1 Menu

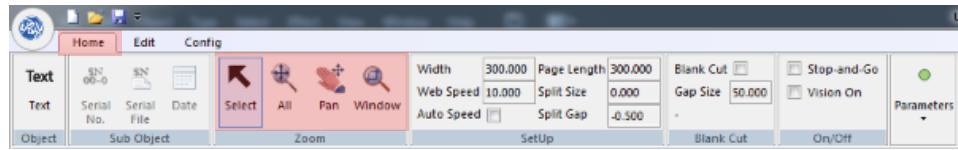
The picture below is the main screen. User can open/disable each taskbar.



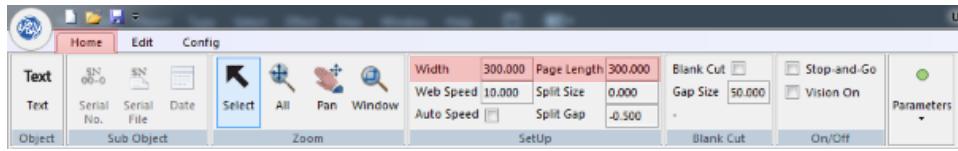
1. To add Text / Variable data on the cut data



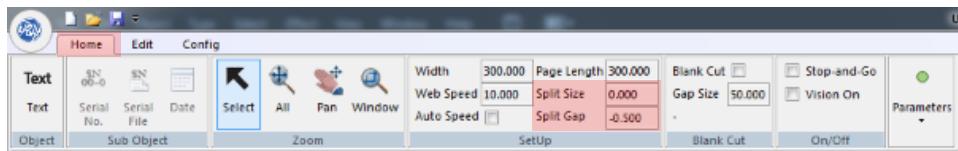
- To select how to see the Preview



- 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

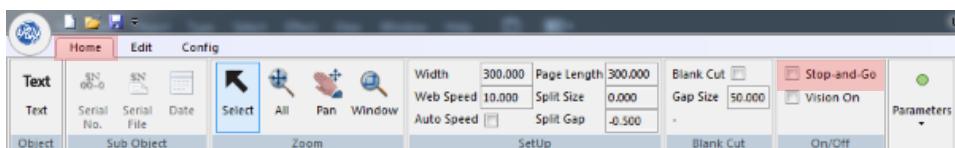
Using Black Marks printed on the media. User should move the black mark

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

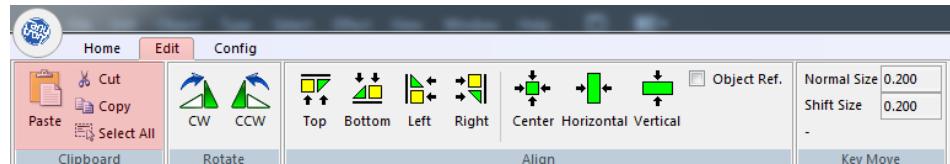
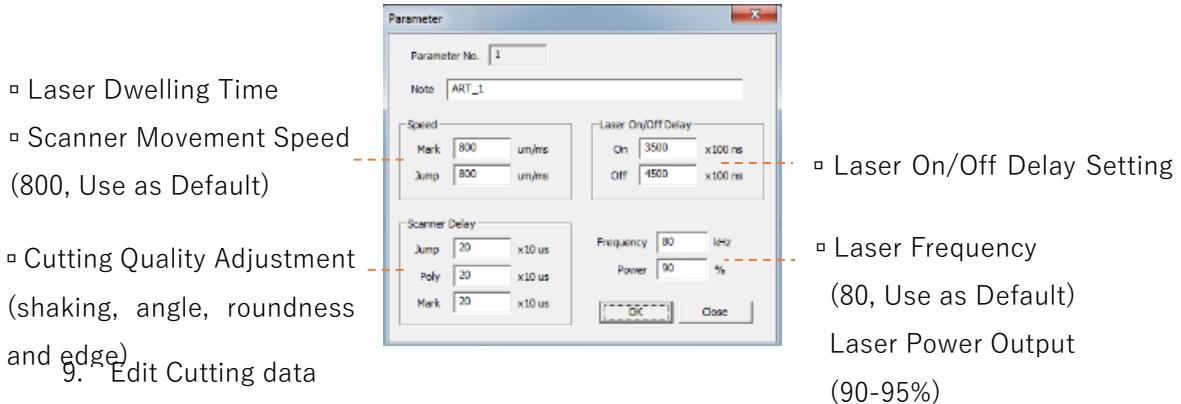
Media will stop feeding while the laser cuts the media. this mode supports comparably better accuracy. If the job consists of multiple complex images, perforation or multi-cut data, User may try On the fly mode.

Stop and Go(On the fly)

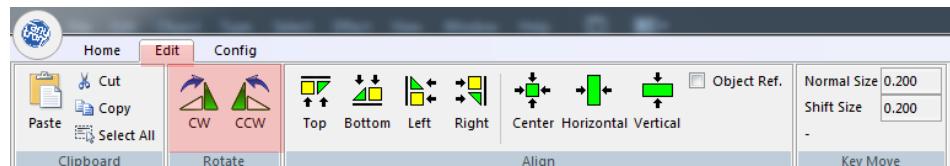
This mode supports better speed in general. User may adjust the speed by changing Web Speed from 1-30. However, if the laser skips jobs or cutting not completed, try to lower the Web Speed or use Stop and Go mode.

8. Laser Parameter Setting

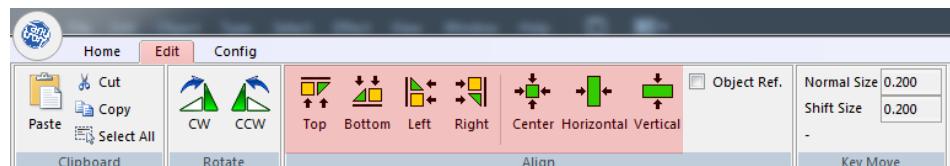




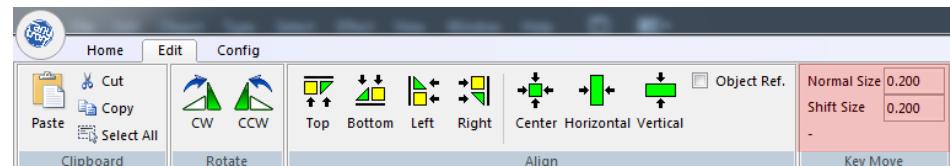
#### 10. Rotate Cutting data



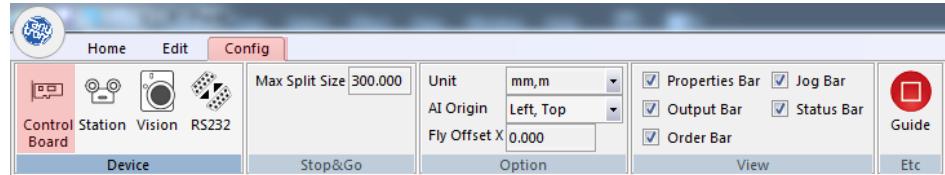
#### 11. Align / Position Cutting data



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

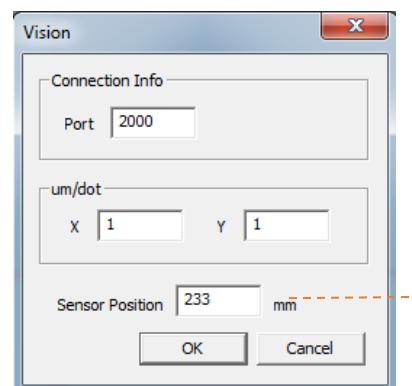
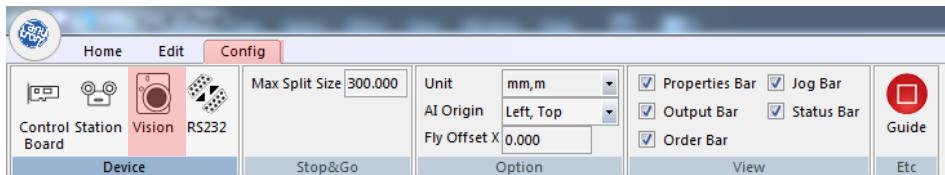


### 13. Control Card



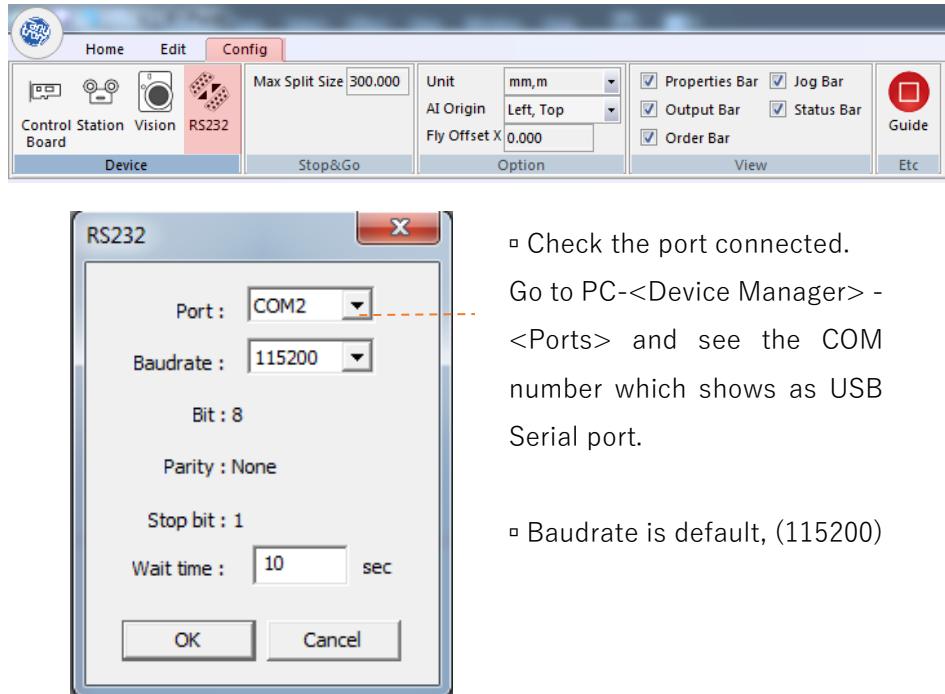
- Scale adjustment of actual Cut  
(Adjust by 0.05)
  - Default
  - Enhance the laser power for designated period of time to cover up sporadic power drops during the laser stabilization period
- 
- Default file
  - Calibration file
  - Angle  
(+0.1° = ⚙)
  - Check the status says 'PSC141P Normal' before operation

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



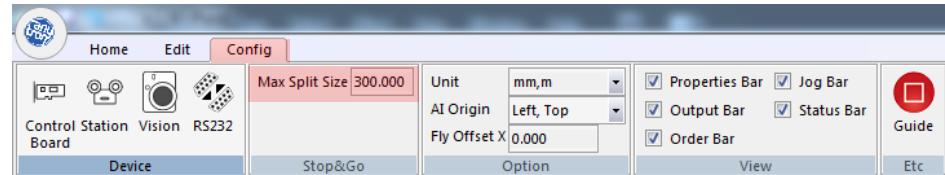
- The distance of the media feeds after Mark sensing until cutting.

## 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)

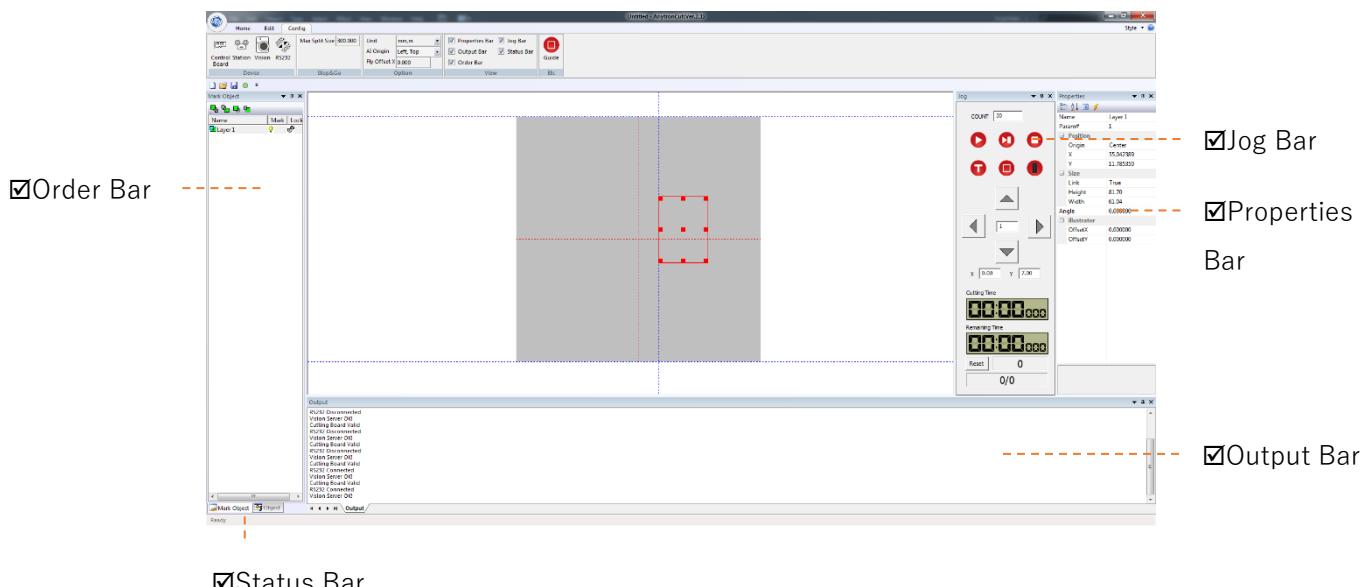
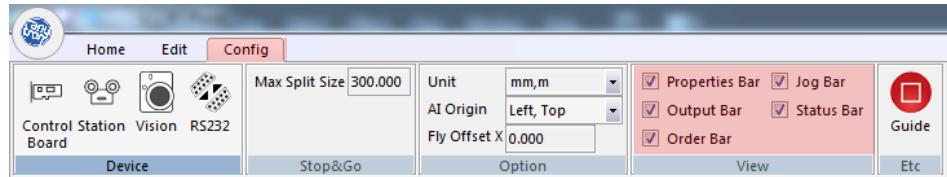
## 16. 300mm is the default figure of Split length in Stop and Go mode



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



## 18. Taskbar options



Status Bar

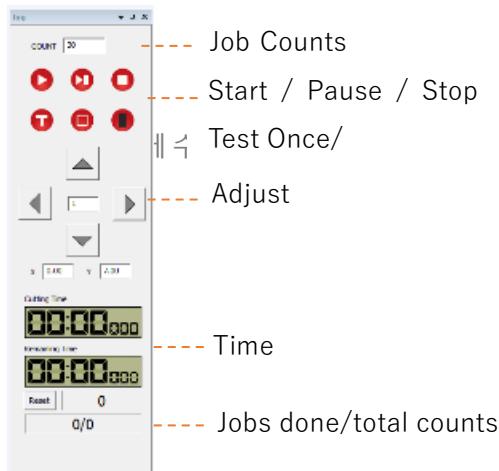
Order Bar : Layers shown in this window

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

Output Bar : Log information shown

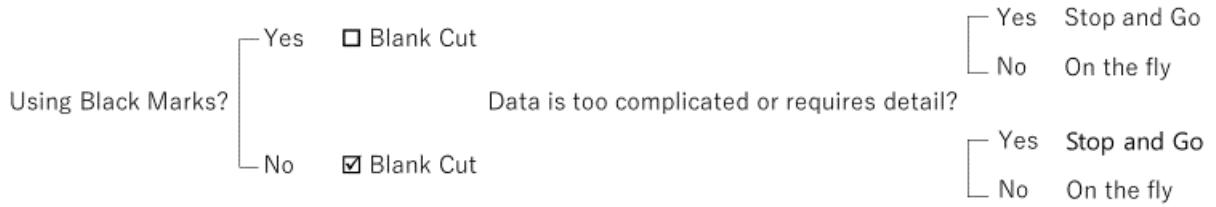
Properties Bar : Cutting data information

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

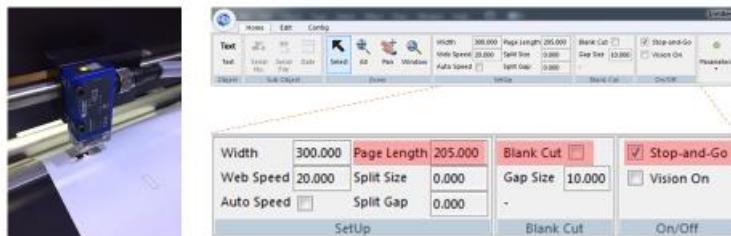


2018 Bitek Technology. All rights reserved.

## 2.2.2.2 Setting Mode

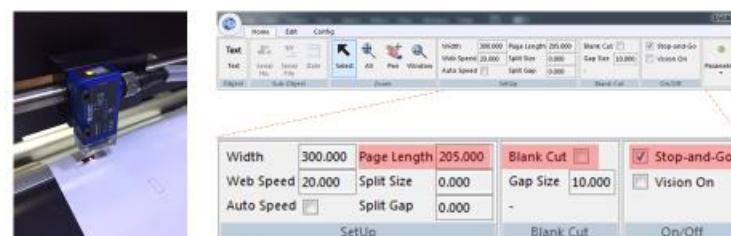


### 1. Using BM + Stop and Go mode



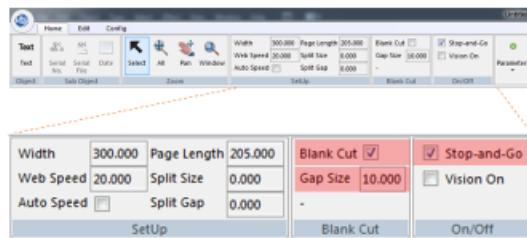
- a. Adjust the BM sensor position after auto-teach. (Refer to 2.1.7)
- b. Input Page Length, Uncheck Blank Cut and Check Stop-and-Go.

### 2. Using BM + On the fly mode



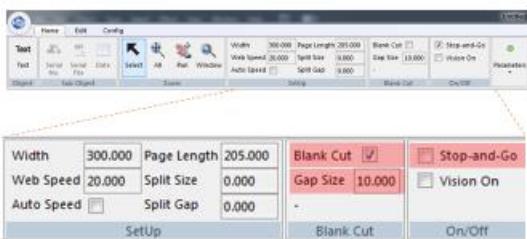
- a. Adjust the BM sensor position after auto-teach. (Refer to 2.1.7)
- b. Input Page Length, Uncheck Blank Cut and Check Stop-and-Go.

### 3. Blank Cut + Stop and Go mode



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

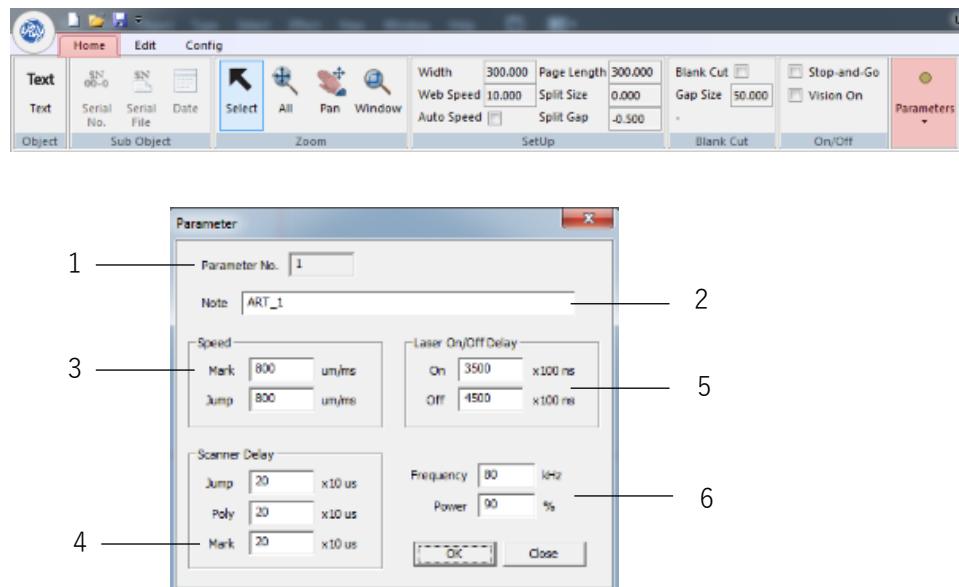
### 4. Blank Cut + On the fly mode



- 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.

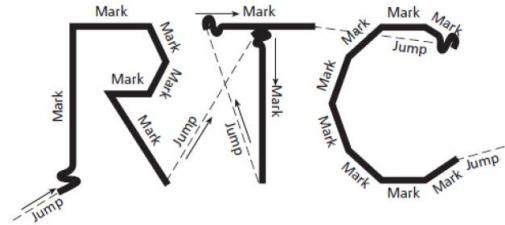
#### 4. Scanner related feature

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

##### ▫ Jump Delay

Waving shape around starting point adjustment.

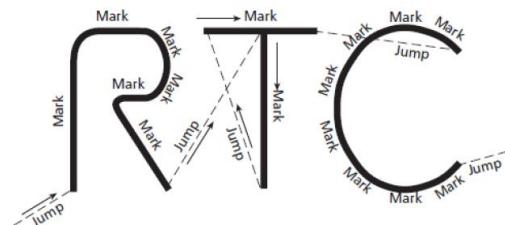
If this delay has not been increased enough, User will get an waving line around the time/position the laser comes on as the picture.



##### ▫ Poly Delay

Roundness/Angle/hole adjustment.

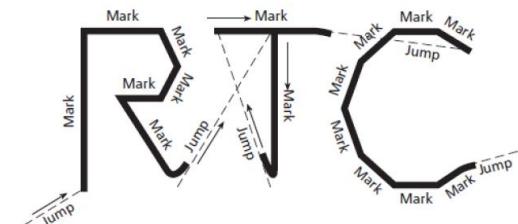
If the delay increases, User will get more angular shape. This can come with even with burn holes depending on the data. Normally 10-20 is the usual. It is up to User's preference.



##### ▫ Mark Delay

Up-stretched edge adjustment.

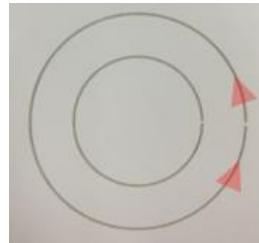
If this delay has not been increased enough, User will get an up-stretched edge around the time/position the laser goes off after cutting one shape as the picture. Normally, 20-30 is the usual. There is no change in shape when it is over increased, however, like all the other delays, it will take more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



#### 5. Laser related feature

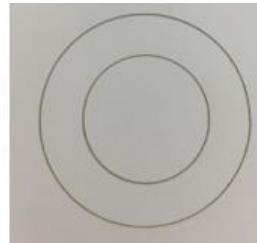
#### ▫ **Laser On Delay**

Time taken before laser comes on



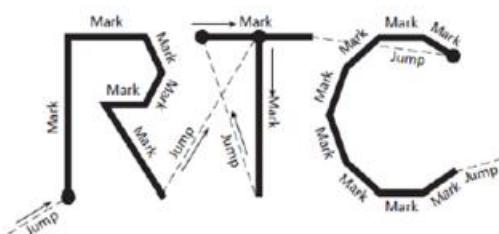
#### ▫ **Laser Off Delay**

Time taken before laser goes off

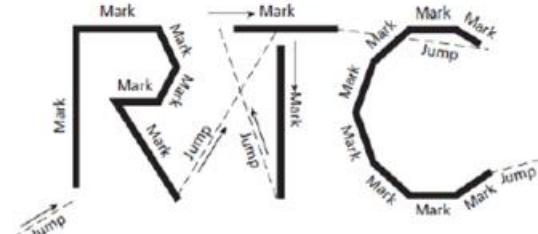


These delays are normally used when the laser starting point and the end point doesn't meet or match as the left picture. User can make the laser comes on faster either goes off later by adjusting the delays to make clean cuts.

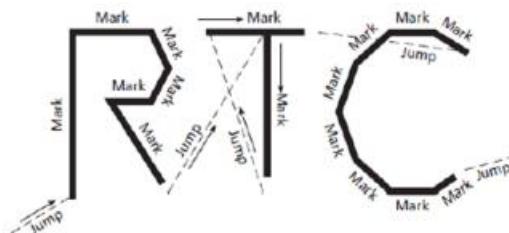
However, there is a limitation. When the laser comes on fast enough, it will start to make a burn spot and it is same when if goes off. The figures can be different depending on media you are using. However, there is a reference of certain materials which User can take as a guide when using parameters.



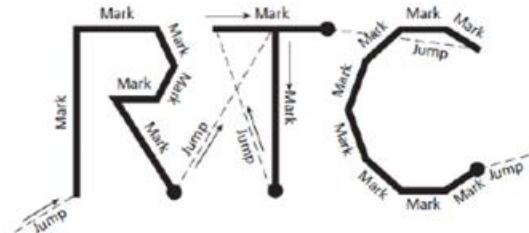
Laser On Delay too short



Laser On Delay too long



Laser Off Delay too short



Laser Off Delay too long

#### 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

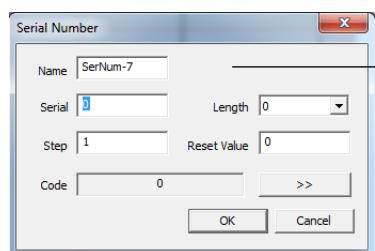
### Variable Data



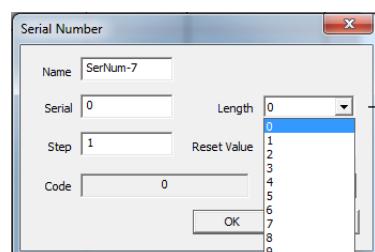
To activate Variable Data function as below, User need this Dongle Key.

Connect this Dongle key to USB Hub located near the monitor. The functions will be automatically activated.

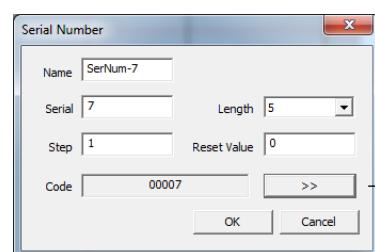
1. Serial No.: Make Serial Information to be marked



Set a Name of the Serial Data

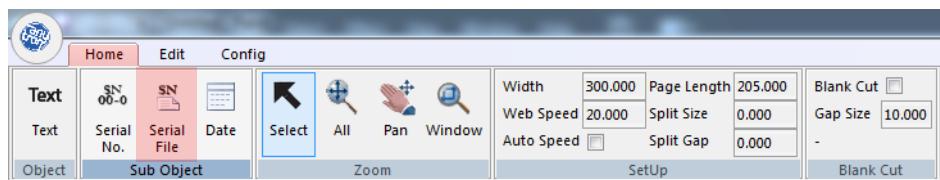


Decide the number of ciphers

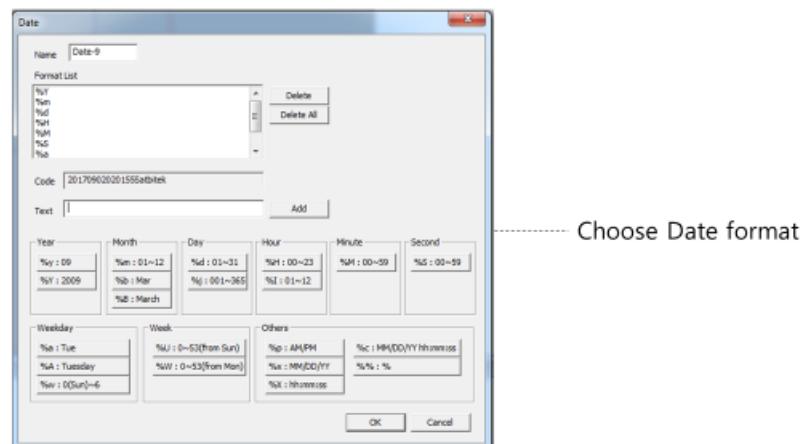


See Preview clicking >>

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



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

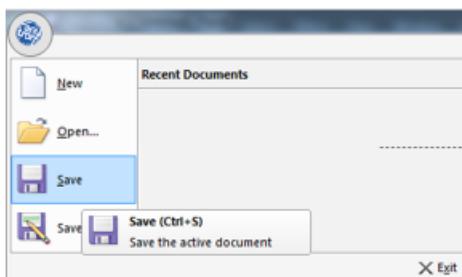


Choose Date format

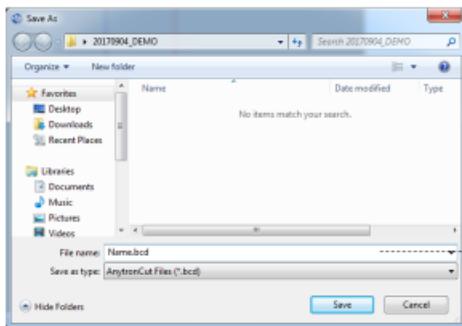
## 2.2.2.5 Save / Open Cutting Data

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

### Save Data

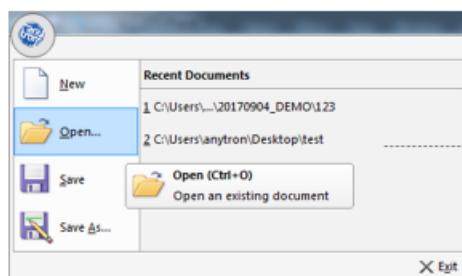


Click 'Save' after if all the data for the job has been set.

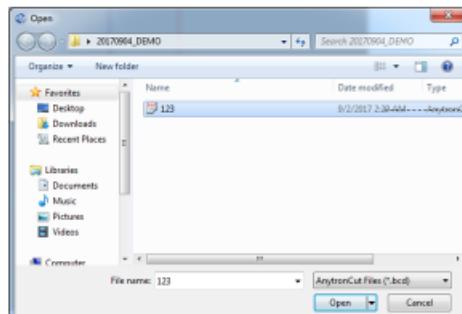


Set the name of the data. The file format is '.bcd'

### 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-CUTII	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	

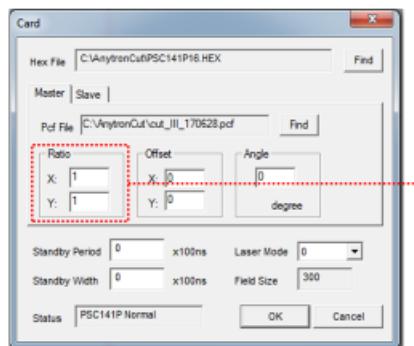
2018 Bitek Technology. All rights reserved.

				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)

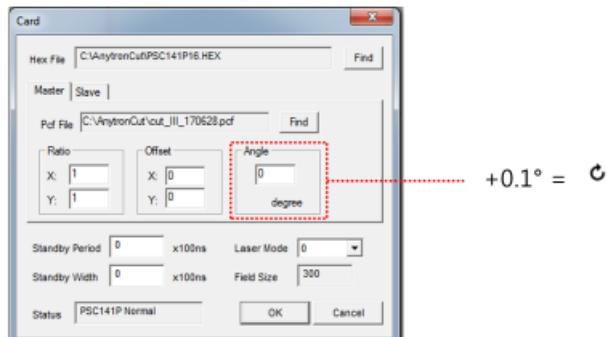
To make bigger scale in height  
 $Y : 1 \rightarrow Y : 0.99$  (for example)

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

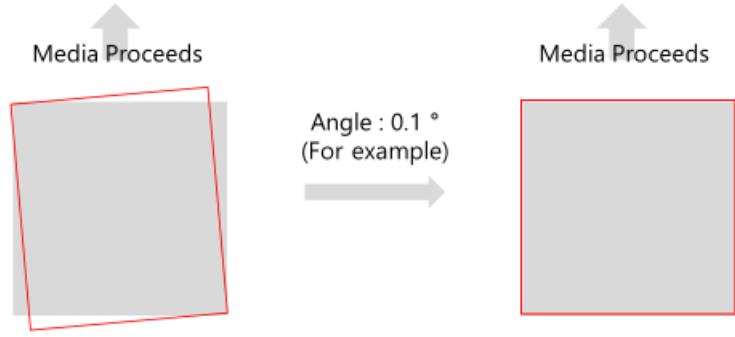
To make smaller scale in height  
 $Y : 1 \rightarrow Y : 1.11$  (for example)



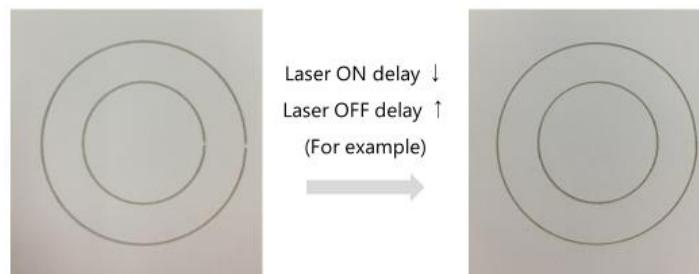
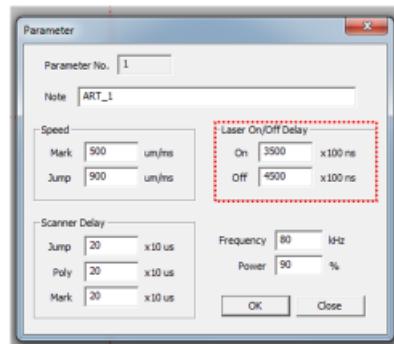
#### 2) Angle



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



### 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.

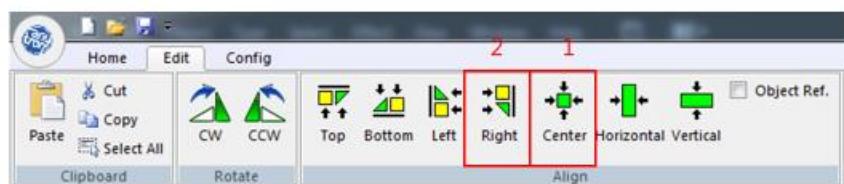
## 2. Software

### 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.

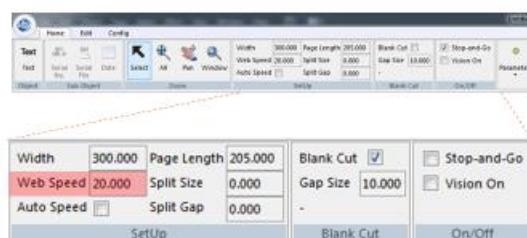
### 2) Incomplete Cutting line

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

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).

### 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 12-15 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-CUTII 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 (holder/hose) 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 brake potentio figure has been changed or brakes weaker		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?	$\pm 0.0$	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 wounded neat		2.1.6

2018 Bitek Technology. All rights reserved.

	and tight?		
--	------------	--	--

### 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 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. 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?			

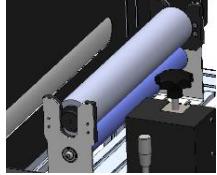
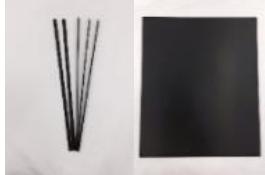
## 4.5 Abnormal Laser Movement

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	Fume Collecting Net		1
2	Fume Collecting Flexible Hose		
3	Cleaning Roller		5
4	Cutting Pad		1
5	Safety Switch(Door)		
6	Potentiometer		2

7	Fume Extractor Filter		2
---	-----------------------	--	---

**End of Document.**

2018 Bitek Technology. All rights reserved.