



## HYBRID™ WET/DRY TRIMMER

# USER GUIDE

V1.7

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# INTRODUCTION

Congratulations on your selection of the Trinator Hybrid™ commercial wet/dry trimmer! We want to help you to get the best results from your new trimmer and to operate it safely. This User Guide contains information on how to do that; please read it carefully before you set up and use your trimmer.

We suggest you read the [warranty](#) to fully understand coverage and your responsibilities of ownership. Keep this User Guide handy, so you can refer to it at any time. This User Guide is considered a permanent part of the trimmer and should remain with the trimmer if resold. The information and specifications included in this publication are those that were in effect at the time of approval for printing. Eteros Technologies, (Eteros) reserves the right, however, to discontinue or change specifications or design at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission.

## DISCLAIMER

Eteros Technologies recognizes that the Hybrid™ Trimmer is a purpose-built machine for processing cannabis by licensed producers. Please check all municipal, provincial/state, and federal laws and regulations before using the Hybrid™ Trimmer. Eteros Technologies does not promote or condone the use of processing equipment in any way that may be deemed illegal

Eteros Technologies recognizes that our equipment can be used for processing herbs, hops, flowers, and many other products. It is not the responsibility of Eteros Technologies to confirm alternative applications for our equipment.

## WARNING LABELS

Your safety and the safety of others are very important. We have provided important safety messages in this manual and on the Trimator Hybrid™. This information alerts you to potential hazards that could hurt you or others. Please read these messages carefully. Of course, it is not practical or possible to warn you about all the hazards associated with operating or maintaining a trimmer. You must use your own good judgment.

You will find important safety information in a variety of forms:

- **Safety Labels** - located on the trimmer.
- **Instructions** - how to use this trimmer correctly and safely.
- **Safety Messages** - preceded by a safety alert; a symbol and one of three signal words: DANGER, WARNING, or CAUTION.

	<p><b>DANGER:</b></p> <p>Indicates a hazardous situation that, if not avoided, will result in serious injury and/or death. This signal word is to be limited to the most extreme situations; typically for machine components that, for functional purposes, cannot be guarded.</p>
	<p><b>WARNING:</b></p> <p>Indicates a potentially hazardous situation that, if not avoided, could result in serious injury and/or death. It includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.</p>
	<p><b>CAUTION:</b></p> <p>Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.</p>

**Damage Prevention Messages - You will also see other important messages that are preceded by the word NOTICE. This word means:**

**NOTICE** Your trimmer or other property can be damaged if you don't follow instructions.

# SERVICE AND REPAIRS

Repairs may only be carried out by Eteros Technologies or a designated authorized agent (service technician).

Should the need arise, please notify us:

**Eteros Technologies**

**6175 South Sandhill Road, Unit 600,  
Las Vegas, NV 89120**

**[www.eteros.com](http://www.eteros.com)**

**[www.thetriminator.com](http://www.thetriminator.com)**

**[service@thetriminator.com](mailto:service@thetriminator.com)**

**(530) 265 4277**

Improper interfacing, improper repair, or an unauthorized modification could result in void warranty claims.

# WARRANTY

Thank you for your purchase of the Trimator Hybrid™.

The Trimator Hybrid™ is covered by our manufacturer's warranty as follows:

- No warranty on consumable parts, including blades/blade bars, tumbler, fan housing, filter bag, brush-bar, filters, trim tote gasket, die plates, rolls, bearings, and screens;
- Warranty coverage for one (1) year or 1,000 operating hours, whichever occurs first, on motors, electrical components, and the remainder of machine components.

The warranty period begins on the date the equipment is received by the customer. Any damage that occurs during shipping will be the responsibility of Trimator.

The above terms are valid if Trimator equipment is used and maintained as directed. If the equipment is modified in any way, all terms of this warranty are void. This warranty does not apply to cosmetic damage, such as scratches or general wear and tear.

Should you experience a technical problem with your equipment, please contact Eteros Technologies at the email or phone number outlined in the [Service and Repairs](#) section.

# SAFETY PRECAUTIONS

## KNOW THE SAFETY INFORMATION

Read and become familiar with the entire User Guide. Learn the equipment applications, limitations, and possible hazards.

## KEEP GUARDS AND SHIELDS IN PLACE

Keep all guarding in place and in working order to protect both the device and the operator.

## WORK IN A SAFE ENVIRONMENT

Do not use equipment in a dangerous environment or damp/wet locations. Never expose the control panel directly to rain or water. Keep the work area well-illuminated.

## WORK AWAY FROM FLAMMABLE LIQUIDS OR GASES

Do not use the device in the presence of flammable liquids or gases.

## KEEP THE WORK AREA CLEAN

Cluttered areas and workspaces invite accidents.

## TRAINED OPERATORS ONLY

Keep children and bystanders away from the device. visitors should be kept at a safe distance from the work area.

## DON'T FORCE THE EQUIPMENT

It will operate optimally and safely at the rate for which it was designed.

## USE THE RIGHT TOOL

Don't force the device to do a job for which it was not designed.

## WEAR PROPER APPAREL

Do not wear loose clothing, gloves, neckties, rings, bracelets, or other jewelry that may get caught in moving parts. Non-slip footwear is recommended. Wear a protective hair covering to contain long hair.

## ALWAYS OPERATE DEVICE IN A WELL-VENTILATED AREA

Dust generated from certain materials can be a health hazard. Use a dust collection system whenever possible.



### **WEAR A FACE MASK OR DUST MASK**

This device may produce dust or operate near other dust-producing machines. If dust extraction is not considered, a dust mask must be worn.

### **POWER DOWN AND DISCONNECT**

Power down and disconnect equipment before servicing and when changing any accessories, consumables, or other components.

### **CHECK FOR DAMAGED PARTS BEFORE OPERATION**

The equipment should be inspected prior to use to ensure proper operation in performing its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any damaged part including guards should be properly repaired or replaced.

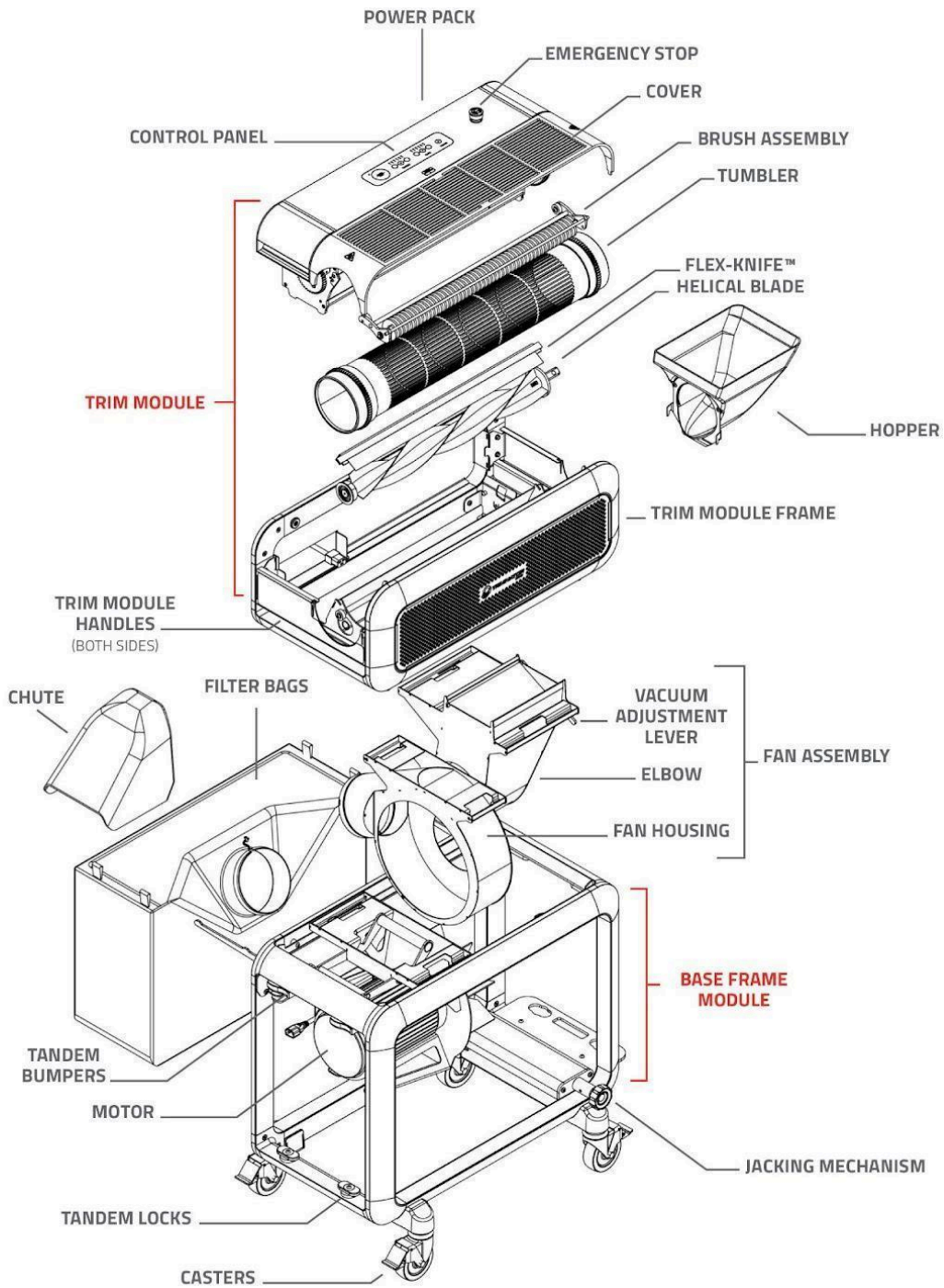
### **ALWAYS WEAR EYE PROTECTION**

Safety goggles can protect your eyes from fast-moving debris.

### **ALWAYS WEAR EAR PROTECTION**

Wear ear muffs or earplugs when operating loud machinery.

# COMPONENTS



# POWER PACK

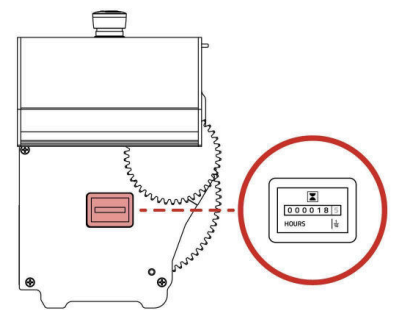
## POWER PACK CABLES

There are 2 connectors on the Power Pack; the AC supply cable and the vacuum motor output cable. The two connectors are different so it is not possible to plug in the wrong cable.

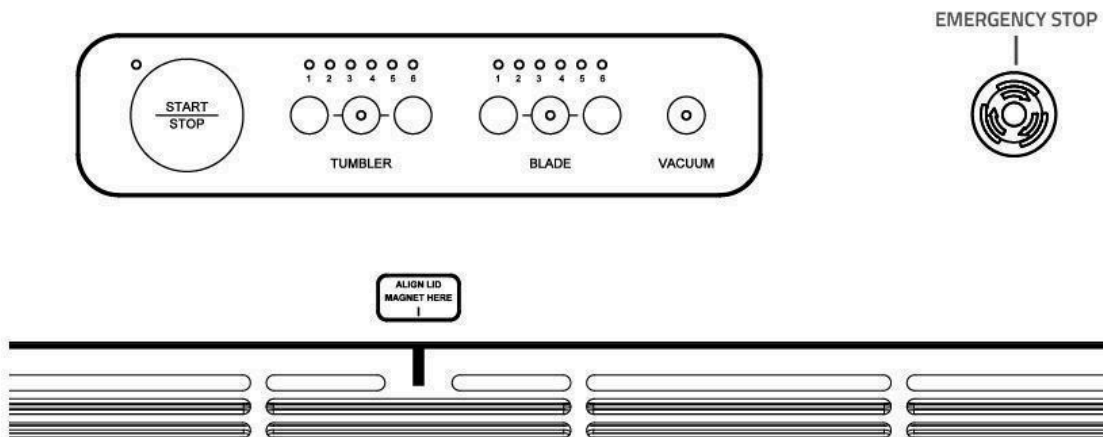
The AC supply cable requires a NEMA 5-20R outlet. Do not use the Hybrid™ Trimmer with an extension cord as the voltage drop across the extension cord will result in excessive current drawn by the Hybrid™, potentially tripping breakers and overheating the motors.

## POWER PACK HOUR METER

The Power Pack is equipped with an hour meter, located underneath the small tumbler drive gear. The hour meter records time when either the tumbler or helical motors are operating.



## CONTROL OVERVIEW



## EMERGENCY STOP

Pressing the emergency stop button will immediately shut down the machine, stopping the tumbler, blades, and vacuum system. When the emergency stop button is depressed, the tumbler chamber will be illuminated red.

**NOTICE** It is NOT recommended to use the emergency stop button to stop the machine in everyday operation.

## LID

The lid is an integral part of the safety system. Magnets are incorporated into the lid so the trimmer can detect when the lid is installed. When the lid is installed and the emergency stop button is not depressed, the tumbler chamber will be illuminated white and the trimmer ready for operation.

When the lid is removed, the trimmer will shut down, turning off all motors and control panel LEDs, and illuminating the tumbler chamber red. The lid is symmetrical and may be installed in either orientation.

## START/STOP

The START/STOP button acts as a master switch, toggling the Hybrid™ between the stop/standby and start/operational modes. Both modes allow for changes to the tumbler, blade, and vacuum settings. In operational mode, the machine will run with all current settings. In standby mode, the machine will turn off all motors. Toggling between standby and operational modes will not change individual motor on/off or speed settings.

The led above the START/STOP button will be illuminated during operational mode and off during standby mode. The tumbler chamber will be illuminated in white for both modes.

For normal day-to-day operations, the trimmer should be turned on and off using the START/STOP button instead of the emergency stop.

## TUMBLER

The tumbler center button toggles the tumbler rotation on and off. The tumbler will rotate when the integrated LED is illuminated red and the Hybrid™ is in operational mode. The left arrow decreases and the right arrow increases the tumbler speed. The six LEDs above the buttons indicate the current speed setting.

## BLADES

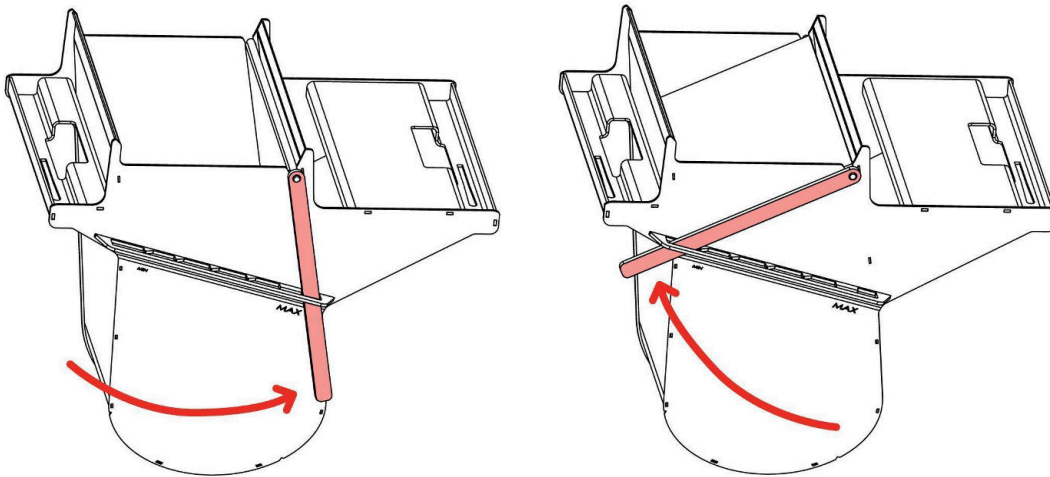
The blade center button toggles the blade rotation on and off. The blade will rotate when the integrated LED is illuminated red and the Hybrid™ is in operational mode. The left arrow decreases and the right arrow increases the blade speed. The six LEDs above the buttons indicate the current speed setting.

## VACUUM

The vacuum button toggles the vacuum motor on and off. The vacuum motor will turn on when the integrated LED is illuminated red and the Hybrid™ is in operational mode. While there is no speed control for the vacuum motor, it is possible to adjust the vacuum level by manipulating the vacuum adjustment lever.

## VACUUM STRENGTH

The vacuum adjustment lever, integrated into the bypass, is used to control the vacuum strength. To adjust the vacuum strength, push the handle away from the bypass and select one of the six notched positions. The side of the bypass is marked with "MIN" and "MAX" to indicate minimum vacuum and maximum vacuum positions.



MAX (6)

MIN (1)

## TRIMMER TILT

The product dwell time in the tumbler is controlled by the angle of the trimmer.

To prevent over-trimming and to ensure a constant flow of material through the tumbler, the trimmer should be raised on the infeed side. The closer the trimmer is to horizontal, the longer the dwell time in the tumbler. Conversely, a steeper tilt angle will move product through the tumbler quicker.

Locate the jacking mechanism knob on the front side of the base near the caster wheel. A  $\frac{3}{4}$ in hex head socket and cordless drill (not included) can be used to drive the jacking mechanism.

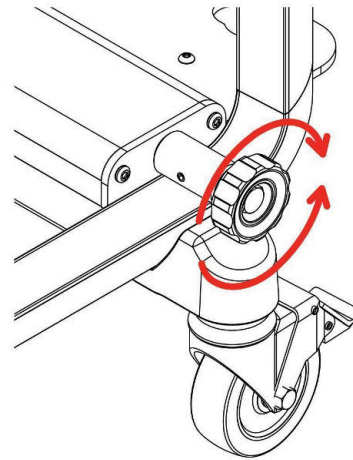
**NOTICE** Always lower the jack to the horizontal position when transporting the trimmer to avoid damaging the jacking mechanism.

- **INCREASE INCLINE**

Rotate the knob **clockwise** to increase the level of incline.

- **DECREASE INCLINE**

Rotate the knob **counterclockwise** to decrease the level of incline.



# SETUP

## FEED RATES

	<b>SINGLE MACHINE FEED RATE</b>	<b>TANDEM MACHINES FEED RATE</b>
<b>WET (18%+)</b>	40 lbs/hr	88 lbs/hr
<b>SEMI-DRY (11-18%)</b>	20 lbs/hr	45 lbs/hr
<b>DRY (9-11%)</b>	15 lbs/hr	35 lbs/hr

## OPERATING CONDITIONS

Location	Indoor or covered outdoor
Altitude	0-2000 m (0-6500 ft) above sea level
Temperature (Ambient)	5°C - 40°C (40°F - 105°F)
Maximum Relative Humidity	80% at 31°C (88°F), decreasing linearly to 50% at 40°C (105°F)
Voltage and Current Rating	120 V (60 Hz), 16 A
Overvoltage Category	II

Environment: While the Hybrid™ can be used in a variety of conditions, the best results are achieved in spaces with low humidity and cool temperatures.

**NOTICE** This machine should not be operated in conditions or orientations where accessing the emergency stop would be difficult or impossible. Always ensure that any operators have clear access to the power off and e-stop buttons.

**NOTICE** If this equipment is used in conditions outside the specified operating conditions, Eteros Technologies cannot guarantee that the built-in safety functions of the Trinator Hybrid™ will function as intended.

## UNCRATING THE HYBRID™

Your Trinator Hybrid™ Trimmer will arrive with the primary assemblies ready for operation.

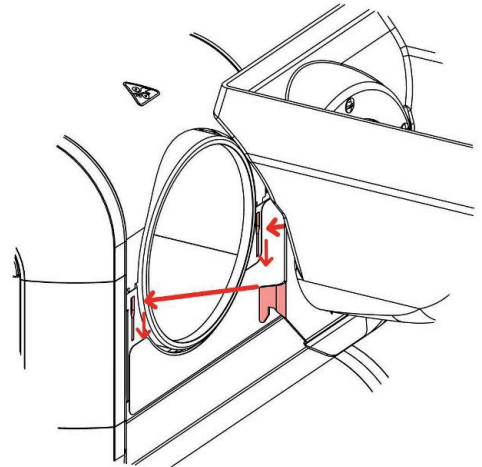
1. Remove the crate clips to release the top and side walls of the crate.
2. Release the ratchet straps.
3. Remove all packaging materials. Note that there is foam between the tumbler and the trim module; this foam must be removed prior to operation.
4. With the help of another person, lift the machine off of the supports and onto the floor. You can use the handles on the trimming module to lift it off of the base frame.
5. Unpack the box that is nested into the frame module. Inside, you will find the hopper, chute, and filter bags.



# ASSEMBLY / DISASSEMBLY

## HOPPER AND CHUTE INSTALLATION AND REMOVAL

The hopper and chute hang on the trimming module end plates. The hopper/chute have tabs and the end plates have corresponding slots. To install the hopper or chute, align the tabs with the slots, push the hopper/chute in towards the tumbler, and then push the hopper/chute down to latch them in place. To remove the hopper/chute, lift them up and then pull them away from the tumbler.



## TUMBLER COVER INSTALLATION AND REMOVAL

To remove the cover from the machine for cleaning, grasp the cutouts above the tumbler on either end of the machine and lift it up.

### TO INSTALL THE COVER:

1. Tilt one end down and engage the cover tabs into the cutouts in the end plate.
2. Rotate the other end and engage the second set of tabs.
3. The cover will be flush with the Power Pack and frame when installed correctly and the magnet will be aligned with the decal.

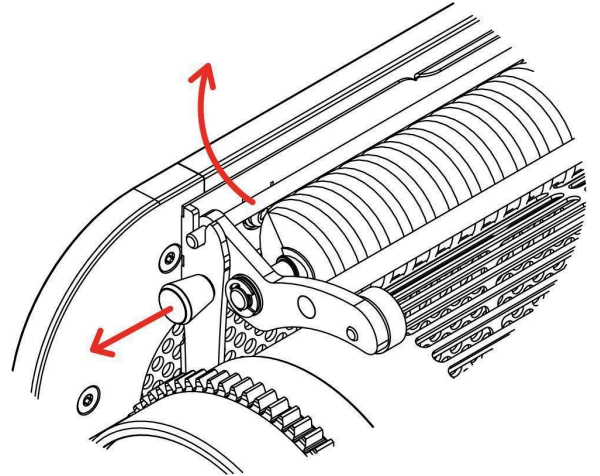
**NOTICE** The cover protects operators from dangerous rotating components. Never operate the trimmer with the cover removed.

## TUMBLER INSTALLATION AND REMOVAL

To facilitate regular cleaning, the tumbler is designed to allow for quick tool-free removal.

### REMOVAL

1. Make sure the machine is powered off and all motors have stopped turning.
2. Unplug the power cords.
3. Remove the hopper, chute, and cover.
4. Disengage the spring pin on the infeed side of the machine, pivot the brush up, and then remove it from the trimming module. Set the brush assembly aside for cleaning.
5. Lift the tumbler out of the machine.



### INSTALLATION

The tumbler can be re-installed by following the above steps in reverse order. The tumbler is properly seated when it protrudes evenly from both ends of the trimming module.

Ensure that when the brush assembly is re-installed that the spring pin clicks into place to lock the brush in the machine. Reinstall all guarding before resuming trimming.

## POWER PACK REMOVAL / INSTALLATION

The Power Pack is easily removable for cleaning and maintenance.

### POWER PACK REMOVAL

1. Unplug all cables.
2. Remove the cover as per the [TUMBLER COVER INSTALLATION](#) instructions.

3. Grasp the Power Pack by the handles on either end of the machine. Use two people if necessary.
4. Lift the Power Pack up and towards the tumbler to clear the hangers.
5. Set the Power Pack down on a stable surface.
6. Take care to set the Power Pack down on the feet and not the plastic gears.

## POWER PACK INSTALLATION

1. Ensure the cover is not on the machine.
2. Lift up the Power Pack so that the emergency stop will be on the infeed end of the machine (the jacking mechanism end).
3. Center the Power Pack in the stainless steel unibody and slowly lower it into place.  
**NOTICE** Be sure the helical blade access panel is in the up position against the blades. If it is in the down position, the power pack will not sit flush.
4. When the Power Pack is 1.5-2.0" above the extrusion rail, move the Power Pack away from the tumbler and towards the rear extrusion rail so the rear hangers can engage with the Power Pack.  
**NOTICE** Be careful not to damage the gears during this process.
5. The Power Pack should be flush with the trimming module frame when it is fully seated.

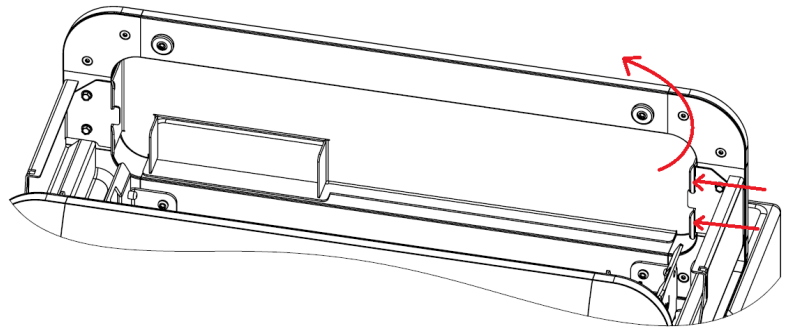
## FRONT & REAR PANEL REMOVAL & INSTALLATION

The front and rear panels can be removed to provide access for cleaning.

### PANEL REMOVAL

1. Remove the tumbler cover, brush assembly, tumbler, and Power Pack.

2. Press the two tabs on one end of the machine until the tab disengages with the slot.
3. Rotate the panel away from the middle of the machine.
4. Remove the panel.



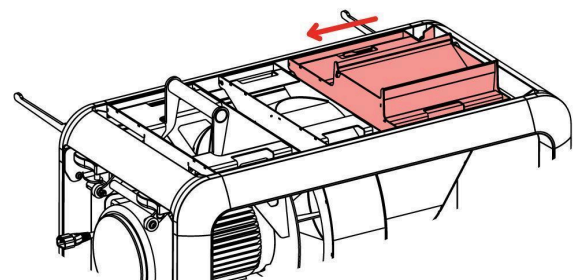
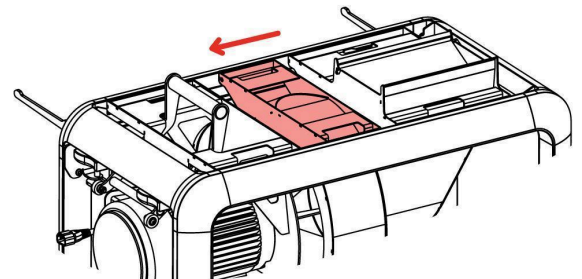
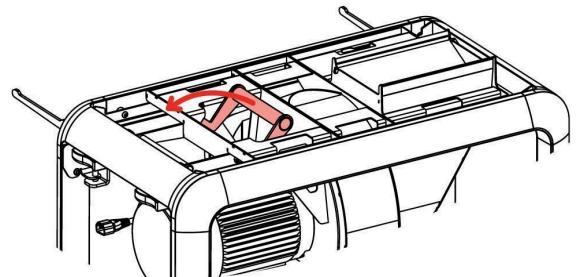
## PANEL INSTALLATION

1. The panel with the cutout belongs on the rear of the machine (Power Pack side) and the perforated panel belongs on the front of the machine (tumbler side).
2. Orient the panel so the logo is right-side up.
3. Align the two tabs and slots on one end of the panel.
4. Push the other side of the panel in towards the center of the machine until the second set of tabs and slots click together.

## VACUUM SYSTEM INSTALLATION AND REMOVAL

The elbow and fan housing can be easily removed for cleaning with no tools required. To access these assemblies for cleaning:

1. Make sure the machine is powered off and all motors have stopped turning.
2. Unplug the power cords.
3. Remove the hopper and chute from the trimming module.
4. With the help of a colleague, use the built-in handles on the infeed and outfeed sides of the machine to lift



the entire trimming module off the frame and set aside.

5. Remove the trim and kief bags from the fan housing.
6. Pull up the handle above the motor to unlock the vacuum system and allow for removal.
7. Slide the bypass assembly until it clears off the hooks in the rails, and lift it out of the machine using the built-in handles.
8. Slide the fan housing clear of the impeller blades, and lift out of the machine using the built-in handles.

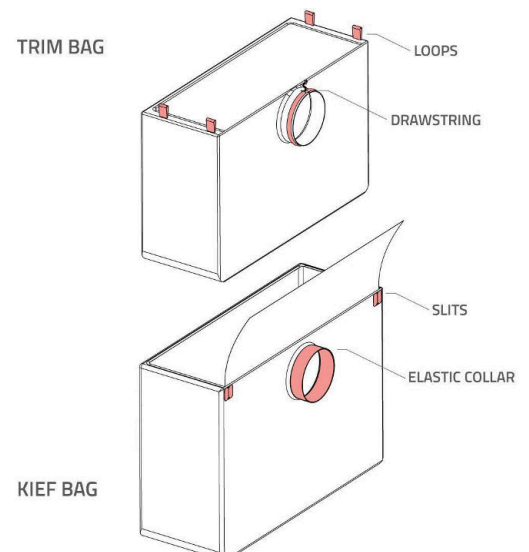
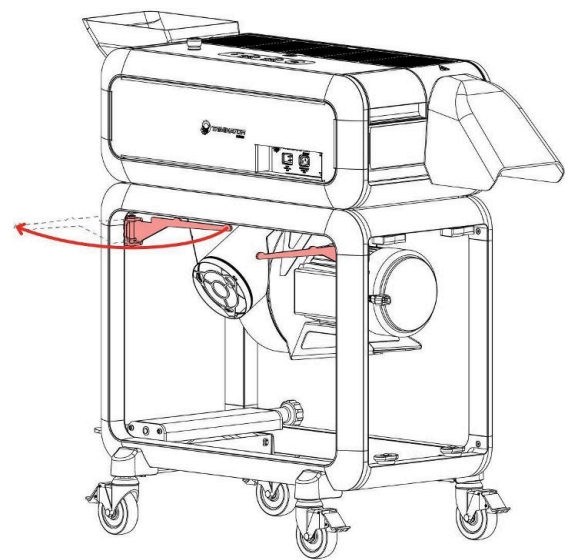
When finished with cleaning, the vacuum system can be installed by following the above steps in reverse order. Start with installing the fan housing, then install the bypass and ensure to slide the slots in the handles under the hooks in the side rails. Lock the assembly back in place by pushing the handle back down.

## TRIM AND KIEF BAG INSTALLATION

### WET TRIMMING

Prior to wet trimming, the trim bag should be installed to contain discarded plant material. To install the trim bag:

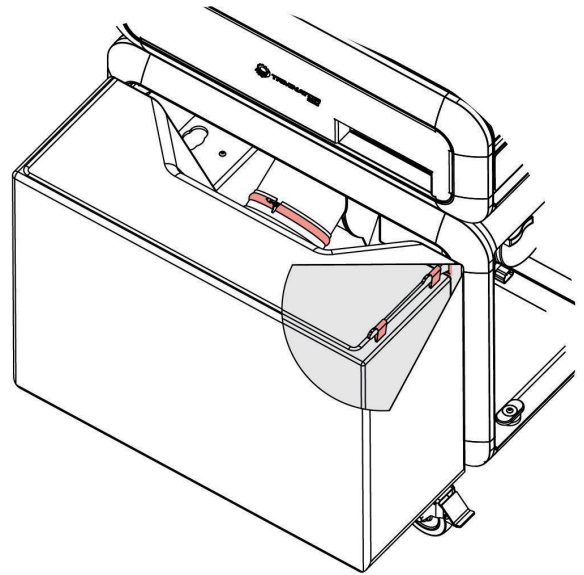
1. Swing both bag holder arms into the out position so they are perpendicular to the machine. The arms will lock into place once rotated to the correct position.
2. Slide the loops on the trim bag over the tabs on the arms.
3. Position the circular mouth of the trim bag over the outlet of the fan housing, and cinch the drawstring around the raised lip to secure the bag to the machine.
4. Ensure the trim bag is zipped completely closed.



## DRY TRIMMING

Dry trimming can result in kief dust in the exhaust air stream. The normal trim bag will not capture the kief dust, but the kief bag will. Prior to dry trimming, both the trim and kief bags should be installed to contain discarded plant material and dust. To install the bags:

1. Swing both bag holder arms into the out position so they are perpendicular to the machine. The arms will lock into place once rotated to the correct position.
2. Slide the arms through the slits in the kief bag and put the mouth over the fan outlet.
3. Unzip the kief bag and put the trim bag inside. Slide the trim bag loops over the arms.
4. Slide the trim bag mouth over the fan outlet and tighten the drawstring.
5. Slide the elastic kief bag mouth over the drawstring and onto the fan exhaust.
6. Ensure the trim and kief bags are both zipped completely closed.



**NOTICE** Installing the bags in reverse will result in the kief bag prematurely clogging and reduced trimming performance.

**NOTICE** When the machine is not in use or if the machine is being rolled on the casters, fold in the bag holder arms to avoid accidental contact and damage.

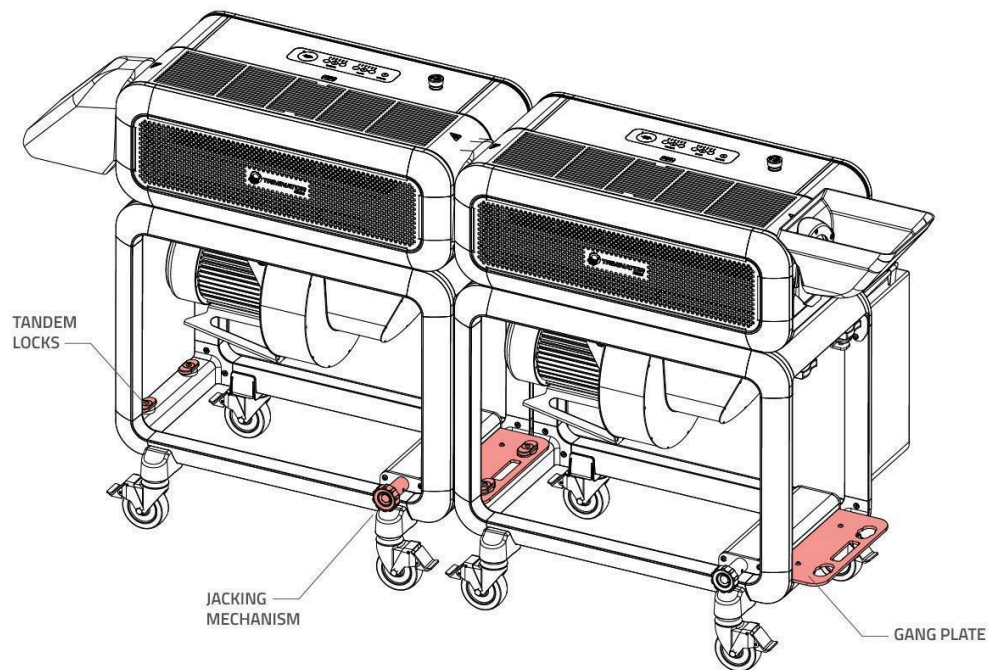
## CONNECTING TRIMMERS IN TANDEM

For faster processing times and/or a closer trim, two Hybrid™ Trimmers can be connected in tandem.

To connect your machines in tandem:

1. Use the jack mechanism to raise one of the trimmers until the gang plate is above the tandem locks on the other trimmer.
2. Align the cutouts in the gang plate with the tandem locks of the other trimmer.
3. Lower the trimmer onto the tandem locks, and turn the tandem locks 90° to lock the trimmers together in tandem.

**NOTICE** It is highly recommended that tandem operation only be performed on level ground. It will be extremely difficult to lock the trimmers together on non-level ground which could compromise operator safety and trim quality.



# OPERATION

## BEFORE YOU START

### SAFETY CHECK

**NOTICE** Please take the following steps to confirm the Hybrid™ Trimmer is ready to operate:

- Complete a thorough inspection of the equipment to ensure no damage occurred during shipment.
- Confirm the power cords are in good condition.
- Ensure the tumbler is properly seated and that the brush is installed and locked into place. (See [Tumbler Installation](#)).
- Ensure all guarding is properly installed and in good working condition. (See [Tumbler Cover Installation](#)).
- Ensure that the hopper, chute, and filter bags are properly installed. (See [Trim and Kief Bag Installation](#)).

## MACHINE START-UP SEQUENCE

### 1. START THE FAN MOTOR

- a. Press the vacuum button; the vacuum is on when the red status light is on.

**NOTICE** Never start the vacuum without the fan housing installed.

**NOTICE** Note that the vacuum will not run unless the start/stop button is in the "start" state.

### 2. START THE BLADE

- a. Press the blade button; the blade is on when the red status light is on.



- b. Press the arrow buttons next to the "BLADE" button to set the desired operating speed.

**NOTICE** Note that the blade will not run unless the start/stop button is in the "start" state.

### 3. START THE TUMBLER

- a. Press the tumbler button; the tumbler is on when the red status light is on.
- b. Press the arrow buttons next to the "tumbler" button to set the desired operating speed.

**NOTICE** Note that the tumbler will not run unless the start/stop button is in the "start" state.

## MACHINE STOP SEQUENCE

### 1. POWER DOWN

All motors can be stopped at once by pressing the main start/stop button.

Alternatively, the vacuum, blades, and tumbler can all be stopped individually under normal circumstances by toggling the start/stop button on the control panel for each.

### 2. DISCONNECT

With the motors stopped, disconnect the power cords.

## OPERATIONAL TROUBLESHOOTING

SYMPTOM	POSSIBLE CAUSE	CORRECTION
Trimmer will not start or has low power	No electric power from the outlet	Plug Hybrid into a functional electrical outlet.
	Outlet is overloaded	Check that the breaker is not overloaded and has not tripped. If

		tripped, switched the plug to a different circuit.
	Overcurrent circuit has been exceeded	Determine the cause of the excessive circuit resistance which may include: overloaded outlet, faulty extension cord, bad outlet, underrated generator, excessively dirty machine or an obstruction in the machine.
	Tripped power pack breaker	Reset the breaker switch on the underside of the PowerPack
Trim quality has decreased, finished trim appears rough	Unit excessively dirty	Clean tumbler, flex knife and helical blade
	Low vac setting	Adjust suction from min to max
	Clogged filter bags	Replace or clean soiled trim/kief bags
Vacuum motor won't start	Motor unplugged	Plug the vac motor into the back of the PowerPack
	Breaker tripped	Reset the breaker switch on the bottom of the vac motor electrical box
Excessive Dust	Clogged filter bags	Replace or clean soiled trim/kief bags
	Bags reversed	Esure the trim bag is installed first with the kief bag over top
Red error light won't clear	E-stop engaged	Release the emergency stop by twisting clockwise

	Missing lid magnet	Esure the magnet is installed on either side of the lid and that it lines up with the guide on the PowerPack
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# TRIMMING PLANT MATERIAL

With the trimmer tilted, and the tumbler, blades, and vacuum turned on:

## 1. LOAD THE HOPPER (OR CONVEYOR)

Load prepped, bucked, and destemmed plant material into the hopper (or infeed conveyor if applicable).

## 2. FEED THE TUMBLER

Feed unprocessed plant material into the tumbler, pushing material from the back of the hopper towards the tumbler.



Be careful not to put your hand inside the tumbler when pushing material.

## 3. CHECK AND ADJUST

Check the quality of the trim from your first batch, and adjust the machine tilt, vacuum lever, blade, and tumbler speed as required.

## TRIMMING TIPS

For best efficiency, run large batches of similar material through the machine. Each plant's waste and residue properties are different, so duration and settings may need to be adjusted.

## SUGGESTED SETTINGS

When feeding product into the Hybrid™, aim to keep the tumbler  $\frac{1}{4}$  to  $\frac{1}{3}$  full of material. Too little material may result in over-trimmed product and too much may result in poor trim quality due to low vacuum.

Note that these settings are a suggested starting point and you will need to fine-tune your adjustments for your specific strain.

Moisture Content	Tilt	Vacuum Lever Position	Tumbler Speed	Blade Speed
WET (18% +)	2.5 Turns	MAX (6)	3	6
SEMI-DRY (11-18%)	4 Turns	MAX (6)	3	6
DRY (9-11%)	7 Turns	4 to MAX (6)	4	6

## TRIM QUALITY TROUBLESHOOTING

Symptom	Possible Cause	Suggestion
Bud leaves are too long or under-trimmed	Helical blade cutting too slow	Increase blade speed
	Not enough vacuum	Increase vacuum setting Empty + clean trim bag(s)
	Tumbler too full to allow product to mix	Decrease amount of product in tumbler
	Tumbler rotating too fast to allow product to mix	Decrease the tumbler speed
	Incline to high and product passes through tumbler too fast	Lower the incline
Buds are over-trimmed	Tumbler too empty	Load more product into tumbler
	Too much vacuum	Decrease vacuum setting
	Incline too low	Raise the incline

# CLEANING YOUR TRIMMER

The toolless disassembly of the machine allows for easy breakdown and cleaning.

With the exception of the Power Pack and the fan motor, the machine can be pressure washed.

## PRESSURE WASHING

### 1. POWER DOWN

Shut off motors. Unplug power cords.

### 2. REMOVE THE TUMBLER

Remove the hopper, chute, cover, brush assembly, and tumbler and place them in the cleaning station.

### 3. REMOVE THE POWER PACK

Lift the Power Pack off of the assembly. Place it in a dry place during cleaning.

### 4. DISASSEMBLE AND REMOVE THE TRIMMING MODULE

Remove the Flex-Knife™ and place it in the cleaning station. Flip the helical blade access panel down to expose the helical for cleaning.

Lift the trimming module off the base frame and place it in the cleaning area.

Note: the front and rear panels may be removed to provide additional access for cleaning if required.

### 5. REMOVE VACUUM SYSTEM COMPONENTS

See [Vacuum System Installation](#). The elbow, fan housing, and vacuum adjustment lever can be pressure washed and cleaned directly. The impeller is the only part of the motor assembly that can be pressure washed. Take care not to pressure wash the fan motor.

### 6. PRESSURE WASH

Using a pressure washer with no more than 1800 PSI, lightly spray all components (EXCEPT for the Power Pack and fan motor assembly) with soap or degreaser, such as [GMP Solutions](#)

**Step 1 Cleaner**, focusing primarily on the Flex-Knife™, tumbler, helical blade, impeller, and vacuum housings.

## 7. DEGREASE

Let the degreaser sit on trimmer components (EXCEPT for the Power Pack and fan motor assembly) for several minutes.

## 8. RINSE

Using a pressure washer with no more than 1800 PSI rinse the degreaser from all components (EXCEPT for the Power Pack and fan motor assembly).

**NOTICE** For best results use hot water whenever possible. Be careful when selecting the degreaser that it will not damage the painted components of the trimmer. Always follow the operating instructions provided with the pressure washer.

**NOTICE** Take care not to damage the trimmer's finish by holding the nozzle too close to the machine or by focusing the spray directly on the helical blade bearing housings.

# HAND-CLEANING THE POWER PACK AND FAN MOTOR

## 1. PRE-SOAK

Cover the entire Power Pack and fan motor with a cleaner, such as **Step 1 Cleaner**, and follow the cleaners instructions for proper use.

## 2. HAND WASH

Using warm/hot water and a scrubber, clean the Power Pack and fan motor.

## 3. RINSE

Remove the soap residue with a damp cloth and let the components air dry.

# MAINTENANCE

## SERVICING YOUR TRIMMER

Proper maintenance is essential for safe, economical, and trouble-free operation. To properly care for your timer, follow the maintenance schedule. Other service tasks that are more difficult, or require special tools, are best handled by professionals and are normally performed by a Trinator technician.

To ensure the best quality and reliability, use only new, Trinator genuine parts or their equivalents for repair and replacement.

Some of the most important safety precautions follow. However, we cannot warn you of every conceivable hazard that can arise in performing maintenance. Only you can decide whether or not you should perform a given task. Failure to properly follow maintenance instructions and precautions can cause you to be seriously hurt or killed. Always follow the procedures and precautions in this User Guide.

## SAFETY PRECAUTIONS

Make sure all motors are off and power cords are unplugged before you begin any maintenance or repairs. Read the instructions before you begin, and make sure you have the tools and skills required.

## BREAKERS

The Hybrid™ is equipped with two push-to-reset breakers to protect operators and the equipment from potentially dangerous conditions. In the unlikely event of a breaker tripping, allow the trimmer to cool down and investigate for any potential causes. Push the breaker button back in to reset it and restore operation.

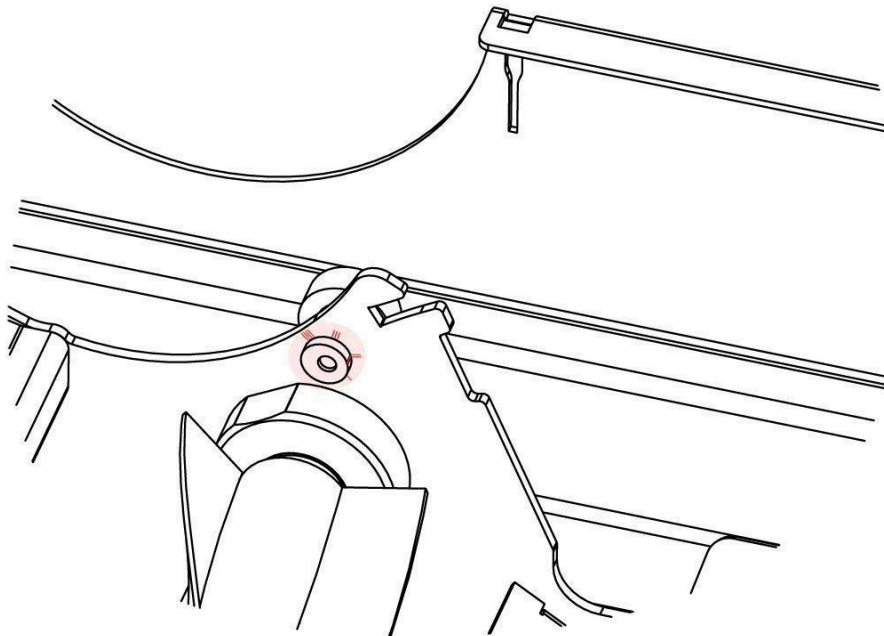
One breaker is located on the bottom of the Power Pack under the AC connectors and the other breaker is located on the vacuum motor electrical box.



## TUMBLER ROLLER ADJUSTMENT

The tumbler is supported by three urethane rollers. The bottom roller on each end of the trimmer can be adjusted to change the gap between the tumbler and the Flex-Knife™/helical blade interface.

There are four settings (I, II, III, & IIII), with I being the closest trim (lowest tumbler) position. The default position is II.



### TO CHANGE THE ROLLER POSITION:

1. Remove the cover, Power Pack, brush assembly, tumbler, and Flex-Knife™. Fold down the blade access panel.
2. Note the starting position of the eccentric nuts and determine if the new setting should be higher or lower.
3. Starting with one roller, use a 5/32" (4mm) hex key and loosen the screw that secures the bottom roller to the side plate until the eccentric nut can be removed from the sheet metal cutout.

4. Align the notched groove on the eccentric nut with the desired position indicated on the side plate.
5. Apply a drop of thread-locker to the screw.
6. Tighten the screw to secure the eccentric nut and roller firmly against the side plate.
7. Repeat the above steps for the other roller. Take care that both rollers are indexed to the same position.
8. Ensure there is no interference between the tumbler and the Flex-Knife™/helical blade by quickly rotating the drum by hand prior to powering on the trimmer.

## REMOVING OBSTRUCTIONS

If the trimmer becomes restricted or clogged:

**WARNING** Be sure the machine is off and disconnected from a power source before attempting to clear any obstruction.

1. Press the emergency stop.
2. Make sure that all rotating parts have come to a complete stop.
3. Disconnect the trimmer's power cords.
4. Remove the cover and tumbler brush.
5. Remove the Power Pack.
6. Remove the tumbler and Flex-Knife™.
7. Open the helical blade access panel.
8. Clear any obstruction(s).
9. Check all components for damage. Repair/replace them as required.

**NOTICE** Be careful not to bend or break any parts with excess force when clearing obstructions.

## MAINTENANCE SCHEDULE

<p><b>BEFORE EACH USE</b></p>	<p>Inspect all electrical cords for damage and replace as required. Never use a damaged or frayed power cord.</p> <p>Ensure the trim bag(s) are installed or the exhaust is properly vented.</p>
<p><b>DURING EACH USE</b></p>	<p>Monitor the trim and kief bags for product build-up and empty when they are <math>\frac{1}{2}</math> to <math>\frac{3}{4}</math> full. Vacuum performance will suffer if the trim bag is too full or if the kief bag is clogged-up.</p> <p>Monitor Flex-Knife™, helical blade, and tumbler rollers for product build-up and remove build-up as required.</p> <p>Listen for and recognize significant changes to the sound of the machine during use as this usually indicates a problem. Locate and address the source of the noise before proceeding.</p>
<p><b>AFTER EACH USE</b></p>	<p>Remove all loose trim material.</p> <p>Clean product build-up from Flex-Knife™, helical blade, tumbler, and tumbler rollers.</p> <p>Remove the Power Pack and clean the stainless steel unibody in the trim module.</p> <p>Clean hopper and chute.</p> <p>Clean elbow, vacuum adjustment lever, fan housing, and impeller.</p>
<p><b>EVERY 10 HOURS OF OPERATIONS</b></p>	<p>Inspect the Flex-Knife™ for excessive wear (some wear marks are normal but the helical should not wear through the Flex-Knife™)</p> <p>Check for loose fasteners and tighten as required.</p>