# RONIN Instruction Manual

PN 1011-11 Ronin TL





#### WIND ENERGY







ARBORIST











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#### **User Disclaimer**

#### Warning

Training is required for any new users. This manual is not a substitute for user training. This manual is a general reference for users after training has been received.

To avoid injury, you should never remove the front cover of your Ronin TL or modify it in anyway. Any changes or modifications are considered out of compliance, which voids the warranty and the Lift's certification for commercial or personal use.

Never use the equipment until you have read and understand this instruction manual and have received training. Ronin Revolution Corporation and any of its distributing subsidiaries are not responsible for any damages, injuries or deaths that result due to usage outside the instruction of this instruction manual.

Always visit <u>www.roninpowerascender.com</u> for the most current version of this manual.

Tel: +1-657-444-2557 Email: info@ronin.inc



Never open the front cover of your Ronin TL.



You must receive training and read and understand this manual before using your Ronin TL.

## **Product Safety**

#### **Lithium-Ion Battery Information**

- The battery should always be removed from the Ronin before storage or extended periods of non-use. Failure to comply could result in degradation of the battery cells or loss of all battery life.
- The battery must be removed from the Ronin TL, before charging.
- Each Ronin battery has an overcurrent safety cutoff to prevent lifts over max safe working load.
- For shipping, the battery falls under UN3481 PI 966 Section II, Batteries shipped with equipment. Due to the weight and size of the battery you can only ship one battery per package. Contact Ronin for the Battery Safety Data Sheet. info@ronin.inc
- Stop use if battery becomes too hot to touch, or battery becomes swollen / bloated.
- The battery should never be connected to the Ronin TL in areas with poor ventilation or where gas may be present.
- Battery needs to be stored in a cool dry place when not in use.



Туре	Lithium-lon		
Voltage	48 VDC Nominal		
Amperage	45 amps		
Battery	3.0 Ah		
Capacity			
Operating	-4º F — 140º F (-20º C —		
Temperature	60º C)		
Mass	Approximately 5.3 lbs.		
Mass	(3Kg)		
Battery Life	Approximately 300		
Dattery Life	Charges		
Charge Time	Approximately 2 hours		
Charging	95 º F (35 º C) Maximum		
Temp			
	-4º F – 113º F (-20º C –		
Storage	45º C) Less than 1		
Temperature	month		
Temperature	-4º F – 95º F (-20º C – 35º		
	C) Less than 6 months		
Storage	≤ 85% Less than 1 month		
Humidity	≤ 70% Less than 6 months		
	60 ± 20% charge approx.		
Storage	is recommended for		
Voltage	extended periods of		
	battery storage		

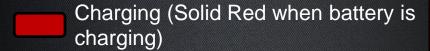
#### **Power Supply Information**

- The battery charger is adaptable from 100v – 240v outlets. The charger cables shipped with the unit fit type A, B or C.
- Do not leave any battery charging unattended for longer than 3–4-hours.
- Do not handle damaged or leaking lithium-ion batteries.
- Do not allow the battery to come into contact with fire or subject to extreme temperatures such as direct sunlight for extended periods of time.
- Regularly inspect AC power cord for damage.
- After use, wait 30 minutes before charging the battery.
- After fully charging the battery wait 30 minutes before use.



#### Power Supply Charging

Standby (Solid Green with no battery plugged in)



Fully Charged (Solid Green with battery plugged in)

Type	Lithium-lon Battery		
Турс	Charger		
Input	100 VAC – 240 VAC		
Charging			
Voltage			
Input	2 amps		
Charging			
<b>Amperage</b>			
Operating	32º F — 104º F (0º C — 40º		
Temperature	C)		
Operating	20% - 90%		
Humidity			
<b>Charge Time</b>	Approximately 2 hours		
Charging	104º F (40 º C) Maximum		
Temp			
Storage	-4º F — 176º F (-20º C —		
Temperature	80º C)		
Storage	0% - 95%		
Humidity			

## **Product Safety**

#### **Ronin TL Information**

- Do not use the Ronin TL without the required proper personal protective equipment (PPE).
   Not doing so may cause serious injury or death.
- Inspect all equipment prior to each use.
- Only use approved static ropes with the Ronin TL.
- Each Ronin battery has an overcurrent safety cutoff to prevent lifts over max safe working load.
- Ronin TL is IP54 rated for light rain and use of wet rope. Do not spray with direct water stream or use in heavy rain conditions.
- Do not stick any foreign metal objects into the Rope inlet or Rope exit holes for any reason.
- Stop using the device immediately if you begin to feel tired or if you experience discomfort or pain in your hands, arms or legs while operating the device
- Do not cover motor ventilation holes
- This product is recommended for adults 18 years of age and higher. Children under the age of 18 must be supervised by a trained adult.



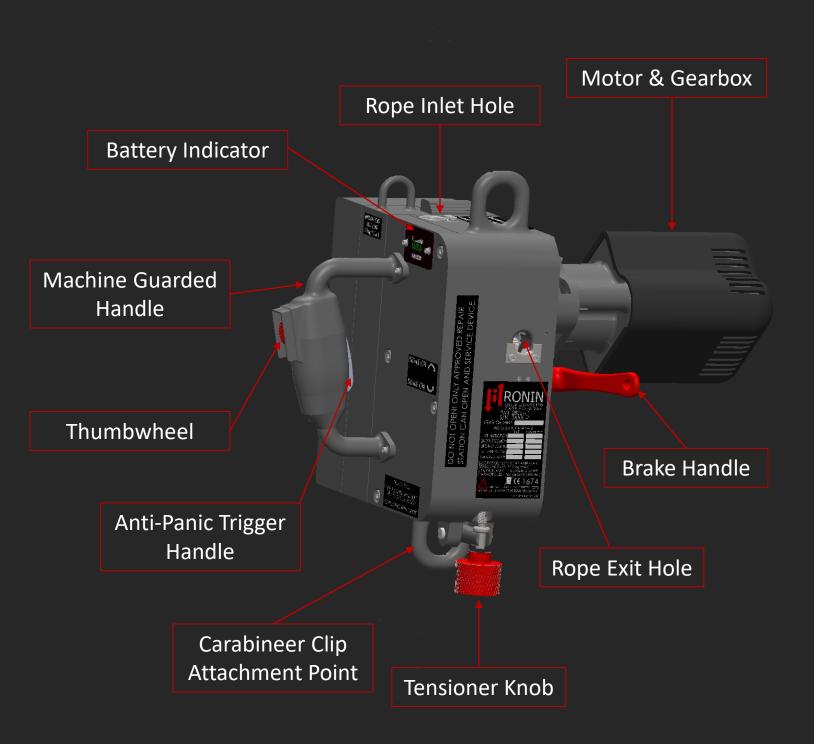




## **Ronin TL Technical Specifications**

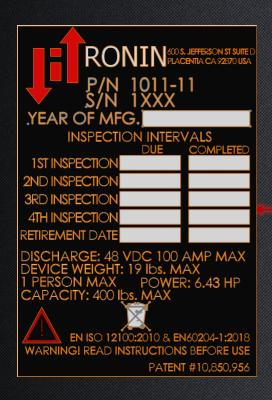
	48 VDC nominal		
	87 amps (15 sec burst)		
Motor	275º F (135º C) max operating Temp		
	6480 rpm		
	5.42 N-m continuous torque		
Gearbox	32:1 reduction		
	Pulse Width Modulation (PWM)		
Speed Controller	150 amps max		
	60 VDC Max		
Thumbwheel	.381k ohm		
mumbwheei	60º rotation		
Brake	Manual Operations Via Brake Handle		
Rope Diameters	Static Rope 11.5 mm to 13 mm		
Max Rated Power	2,160 watts		
Mass	Approximately 19 lbs.		
Speed	Variable at Approximately 0.50 – 1.5 ft/sec (0.15 -0.46m/sec)		
Operating Temp	32º F – 104º F (0º C – 40º C)		
Sound Level	83.1 dBa		
Vibration Level	6.9 m/s <sup>2</sup>		
Max Capacity	400 lbs. (181 kg) (1.78 kN) Max load or 1 Person Max		
Operational Humidity	0 – 85 %		
Operating Barometric	29.9 in. Hg – 7.04 in. Hg (101 kPa – 23.8 kPa)		
Pressure			
Storago Tomporaturo	-4º F – 113º F (-20º C – 45º C) Less than 1 month		
Storage Temperature	-4º F – 95º F (-20º C – 35º C) Less than 6 months		
Storago Humidity	≤ 85% Less than 1 month		
Storage Humidity	≤ 70% Less than 6 months		

## **System Overview**



#### **Device Labels**

Warning Label instructions: User must read the entire instruction manual and have a thorough understanding of the device, prior to use. A secondary rope grab must always be used. WARNING! READ
INSTRUCTIONS.
ALWAYS USE A
SECONDARY ROPE
GRAB SYSTEM



The Ronin TL ID Plate provides device information, part number, serial number, year of manufacture, device limits and capabilities, certifications acquired, and yearly maintenance intervals performed for the 5-year service life of the Ronin TL.

Service Bulletin ID Plate helps Ronin service locations to keep track of active service bulletins that have been applied.



#### **Device Labels**

DO NOT OPEN! ONLY APPROVED REPAIR STATION CAN OPEN AND SERVICE DEVICE.

The Ronin TL can only be serviced or repaired by Ronin or an approved certified repair center. The maintenance or repair can be scheduled by visiting

www.roninpowerascender.com and obtaining a Return Material Authorization (RMA). Do not open the Ronin TL or warranty will be voided. The "Do Not Open" label is a tear away one-use label for antitampering.

BRAKE OFF

BRAKE ON

The brake label provides instructions on which direction to operate the brake handle for releasing the brake. The brake is always in the "On" position. To release the brake, you must physically pull down on the handle and hold it open to descend. Once you release the brake, then it will automatically spring back to the on position. The brake is an On / Off switch and cannot be feathered. To control descent speed and ultimately come to a stop, it is recommended to tend the tailing line of the rope in your right hand, while holding the brake open with your left hand. Simply squeezing the rope with your right hand will slow you down or bring you to a stop, then release the brake handle. This will help to preserve your ropes life

#### **Device Labels**

TENSION KNOB

TURN KNOB LEFT LOAD ROPE
TURN KNOB RIGHT ASCEND

"READ INSTRUCTIONS FOR USE"

will have the below tensioner label. The tension label describes which direction to turn the red tensioner knob to apply less tension (Left Turn) or more tension (Right Turn) to the rope. Less tension (Left Turn) decreases the grip on the rope for lighter loads or to increase descent speed. Turning the tension fully to the left is to load rope only. Turning it to the Right (clockwise) direction increases grip on the rope for ascending / lifting loads.





#### Ronin TL Serial Numbers 3000-R and up

- 1: Ronin HP Rope by Marlow Ropes 11.5 mm dia.
- 2: Sterling Tech 125 12.7 mm (½") dia.
- 3: Korda's Titania 12 12 mm dia.
- 4: Yale Cordage Scandere 11.7 mm dia.
- 5: Sterling HTP Red 13 mm dia.
- 6: Sterling WorkPro 12.7 mm (½") dia.
- 7: Teufelberger X-Static 11.7 mm dia.

## Rope Requirements

# Ronin TL Serial Numbers 3000-R and up only

- Rope Type: Static Rope
- Rope Diameter: 11.5 mm 13 mm

If additional help is needed with your rope selection, then please contact us today info@ronin.inc.

Remember to never put dynamic rope into your Ronin Ascender. Only approved ropes tested by Ronin should be used. Please refer to page 12 to see Approved Ropes.



We do not force usage of a single rope for our ascender. However, not all ropes are created equal. With that in mind page 12 has a list of ropes we've approved for use with our system. Rope will have a big impact on how your ascender performs. We recommend choosing from the approved ropes list only.

#### Rope Preparation

Remove any tape or markers from the ends of the rope, before inserting into the Ronin TL. Make sure your ends are burnt so NO inner core is visible. A hot knife cut, or factory burn is not acceptable.

#### Please follow the instructions below.

- Remove any tape or markers from the ends of the rope.
- Eject the inner core out from the outer jacket about 0.5 in (1.3 cm).
- Cut the inner core with rope cutters and milk the outer sheath back over the inner core. The inner core should be recessed into the outer jacket now.
- Burn the ends of the rope with a torch and use a rag to cone the end after burning.
- Make sure your rope tip is coned and no inner core is visible.



Always check your ropes condition, prior to use with the Ronin TL. Ensure it and your secondary backup are in acceptable climbing condition.



Remove any tape or markers from your rope before loading into the Ronin TL.

#### **Box Contents**

1: Ronin TL Kit (Includes Bollard Friction Saver, Reverse Functionality, Anti-Panic Handle & Wireless Remote.)

2: Lithium-Ion Rechargeable Battery

3: AC Power Supply

4: Type A, B or C, AC Power Cord

5: Rubber Motor Protector

6: Perfect Burn Tip

7: Hard Case w/Custom Foam – Holds 2 Ronin Batteries

8: Rope Brush – Watch our instruction video on YouTube "Ronin TL Rope Brush Introduction."









# Battery Installation & Start up procedure

- Make sure you are using a secondary rope grab system.
- Check that your primary and secondary climbing lines are in acceptable climbing condition.
- All PPE is on and secured (Helmet, Gloves, eye protection.)
- Battery indicator is showing sufficient charge for the job.
- Be sure to clean out any rope fibers from the brake teeth, visible from the rope exit hole.
- Attach the battery to the Ronin TL and confirm you hear a series of 5 beeps.
   (Be sure to slide down the battery with some force, when connecting to the Ronin.)
- Slowly roll down the thumbwheel. The motor should activate and speed up as you roll down further. When you release the thumbwheel, the motor should turn off. (If you have a Anti-Panic handle upgrade then perform this while squeezing the Anti-Panic trigger)



Do not use if feeling tired, fatigued or on any medication that prevents use of heavy machinery.



You must read and understand this manual before using your Ronin TL.

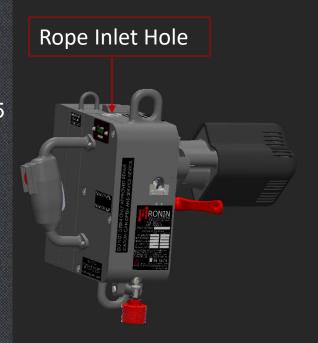
#### **Rope Loading**

Be sure you've read and understand the Rope Preparation section on page 14, before continuing.

Step 1: Fully rotate the red tensioner knob in the counterclockwise (Left) direction, until the rocker arm bottoms out on the ascenders housing. This will pull down the tensioner and create space to allow the rope to feed into the system. Make sure the red knob is turned fully counterclockwise (Left), until it cannot be turned any more.

Step 2: Insert an approved Static Line Rope (11.5 mm to 13 mm diameter) through the rope inlet hole. Push until it stops. TAP the thumbwheel once, while pushing the rope. The system should have pulled in about 2 in (5 cm) of rope



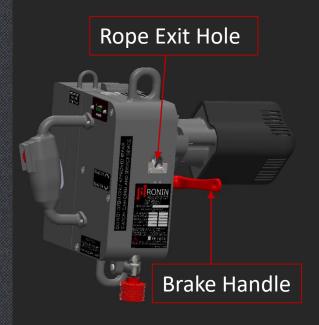


#### Rope loading

Step 3: Now pull down on the red brake handle slightly and slowly roll down the thumbwheel, until the rope comes out the rope exit hole. Do not pull the red brake handle fully open or this will activate reverse function.

Step 4: Before Ascending turn the red tensioner knob to the clockwise (Right) direction, until the upper flange on the tensioner knob starts to apply tension. Then turn the knob to the right 6 hand turns, not full revolutions, but hand turns of the wrist. If you feel the Ronin slipping on the rope during ascending or winching, then stop and turn the red tensioner knob clockwise (Right) 1-2 additional turns, until slipping stops. The system is a no slip system and should never slip, stop immediately if slippage is felt and adjust the system by turning the tensioner knob to the right.

Step 5: Roll down the thumbwheel slowly and run out the slack in your climbing line until your Ronin is at waste level.





Turn Fully to the Right until you start to feel resistance and then go hand tight.

Ascending & Descending for Ronin TLs

Step 1: Connect the Ronin TL to your harness with a load rated carabineer clip, using the lower housing attachment point

Caution: Ensure you have all safety equipment on and properly secured, prior to using Ronin TL. Misuse or improperly secured equipment could result in serious injury or death. Never use the Ronin TL without a secondary rope grab system, helmet, gloves and eye protection.

Step 2: Rotate the thumbwheel down slowly to start ascending. The thumbwheel switch is a variable speed thumbwheel capable of providing ascent speeds of 0.5 – 1.5 ft/sec (0.15 - 0.46 m/sec). The further you roll down the thumbwheel the faster the ascent will be.

(Note: The brake is always engaged automatically, while ascending. When you release the thumbwheel, the Ronin will automatically brake in that spot.)





Thumbwheel

## Ascending & Descending for Ronin TLs

Step 3: Once your reach your desired height, then simply release the thumbwheel. The brake will automatically hold you in place.

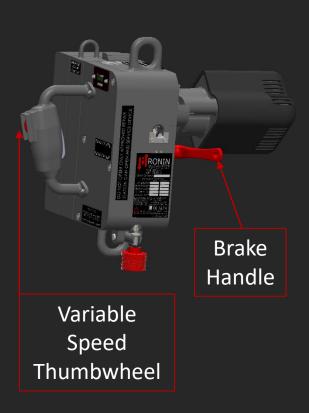
Step 4: There are three brake release methods:

Method 1: When ready to descend reach your left hand around the back of the Ronin device and grab the brake handle. Grab the tailing line with your right hand and pull down **HARD** pulling/putting the rope with your right hand under your butt for additional leverage. Now **FORCEFULLY** pull down the brake with your left hand. While holding the brake open control your descent speed by tailing the output line with your right hand letting it slide through as you descend.

(Note: If you do not descend or descend very slowly, this is due to over tensioning the system for more weight than you are lifting. Slowly turn the Red Tensioner Knob to the Left, while holding the brake open, until you start to descend. Then repeat this step.)

Caution: the Ronin's brake is an On / Off switch and cannot be feathered. Follow steps above for best performance.





## Ascending & Descending for Ronin TLs

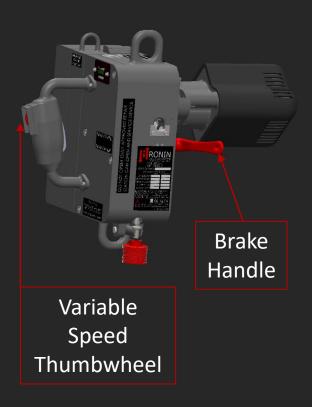
Method 2: When ready to descend reach your left hand around the back of the Ronin device and grab the brake handle letting the weight of your arm pull down on the handle. With your right hand **TAP** the thumbwheel (**This is dislodging the brake wedge**) and hold the brake fully open with your left hand. Now transfer your right hand to the output tailing line holding the rope under your butt and away from the inlet hole of the device. Pull down on the output line under your butt to control your descent speed, slow and/or stop.

(Note: If you do not descend or descend very slowly, this is due to over tensioning the system for more weight than you are lifting. Slowly turn the Red Tensioner Knob to the Left, while holding the brake open, until you start to descend. Then repeat this step.)

Caution: the Ronin's brake is an On / Off switch and cannot be feathered. Follow steps above for best performance.



Release the thumbwheel to stop the ascent



# Ascending & Descending for Ronin TLs

Method 3: When ready to descend using a carabiner attached to the side of your harness on a load rated "D" ring, route the output tailing line through the carabiner. Reach your left hand around the back of the Ronin device and grab the brake handle letting the weight of your arm pull down on the handle. Pulling the rope tight in your left hand, simultaneously, grab the handle. With your right hand TAP the thumbwheel (This is dislodging the brake wedge) and let go of the handle while still holding the rope in your right hand. Pull up on the output line with your right hand while holding the brake fully open with your left hand to control your descent speed, slow and/or stop

(Note: If you do not descend or descend very slowly, this is due to over tensioning the system for more weight than you are lifting. Slowly turn the Red Tensioner Knob to the Left, while holding the brake open, until you start to descend. Then repeat this step.)

Caution: the Ronin's brake is an On / Off switch and cannot be feathered. Follow steps above for best performance.



# Battery Installation & Start up procedure

- Make sure you are using a secondary rope grab system.
- Check that your primary and secondary climbing lines are in acceptable climbing condition.
- All PPE is on and secured (Helmet, Gloves, eye protection.)
- Battery indicator is showing sufficient charge for the job.
- Be sure to clean out any rope fibers from the brake teeth, visible from the rope exit hole.
- Attach the battery to the Ronin TL and confirm you hear a series of 5 beeps.
   (Be sure to push down the battery with some force, when connecting to the Ronin.)
- Slowly roll down the thumbwheel. The motor should activate and speed up as you roll down further. When you release the thumbwheel, the motor should turn off. (If you have a Anti-Panic handle then perform this while squeezing the Anti-Panic trigger)



Do not use if feeling tired, fatigued or on any medication that prevents use of heavy machinery.



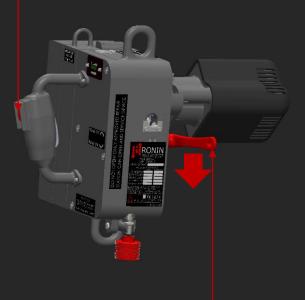
You must read and understand this manual before using your Ronin TL.

#### Removing Rope From The System

 Pull the brake fully open (Down) and rotate the thumbwheel down. Keeping the brake open will activate reverse function and back the rope out of the system.

Note: When you reach the end of the rope, the rope may not fully eject from the system. Release the thumbwheel and pull the rope out by hand if this happens.

Rotate thumbwheel down slowly with brake open



Hold brake fully open by pulling down

# Ronin TL Winching & Hauling

#### **Mechanical Advantage Lifting**

The Ronin TL can support mechanical advantage lifting using a wide range of pulley setups.

 The top attachment point on the Ronin TL can be used for using a 2:1 mechanical advantage. This means you can lift up to 800 lbs. (363 Kg).

Note: Each Ronin TL battery has an overcurrent safety cutoff. If your rigging is incorrect and you are over the safe working load, then the unit will shutoff. Press the estop switch on the battery and wait for 30 seconds to reset the system. The twist the knob to reset and turn the system back "on".

 For a 3:1 or 4:1 pulley setup you have the advantage to lift up to 1200 lbs. (544 kg) or 1600 lbs. (725 kg). The rigging point should be taking the additional load from the mechanical advantage system.





Stand clear of loads when winching or hauling. Use the wireless remote from a safe distance.

#### Wireless Remote



#### **Remote Features**

- Each wireless remote & matching receiver are a pair and cannot control other Ronin TL's.
- 2.4GHz two-way communication with 80 channels & automatic FM antiinterference.
- 32bit ID code
- Built-in lithium-lon battery good for approx. 10 hours when fully charged., using the micro-USB port.
- Center LED light will flash Red when battery is low.
- Remote will automatically turn off 5 minutes after signal loss.
- Remote control and receiver match automatically when remote and Ronin are powered on.
- Range for the remote is 300 ft (91 m) direct Line of site. Any buildings, trees or other obstructions will interfere with the max range.
- The Ronin TL's thumbwheel has priority and can override the remote, when used.
- The remote has a variable speed thumbwheel, just like the Ronin TL's thumbwheel. This allows for smooth controlled operation during usage.



Each remote will only work with the Ronin TL it's paired too. The serial number of the corresponding lift will be on the back of each remote.

#### **Remote Precautions**

- For use in reverse direction the Ronin TL's brake handle must be tethered fully open (down) by using the Ronin brake latch, a lanyard, or paracord. If your Ronin TL is not equipped with reverse functionality, then contact Ronin at <a href="info@ronin.inc">info@ronin.inc</a> for upgrade information.
- It is always recommended to have a stop knot at the top of the rope, when using the remote.
- Do not use the remote if severely damaged in anyway.
- Discontinue use if the thumbwheel does not rotate freely or spring back to the neutral position, when released.

#### Remote Charging

- The wireless remote takes approx. 2 hours to fully charge.
- The charging port on the remote is a standard micro-USB.
- Center LED light will be Green when charging and turn off when fully charged.





When winching or hauling with the remote, always use a stop knot at the end of the rope.













#### **Remote Operation**

Step 1: Install the battery onto the Ronin TL.

Step 2: Hold the remotes power button down for 3 seconds to power on. The 3 LED's will flash, and the left LED will be solid Blue, when paired. Make sure you are within range of the Ronin TL to pair with the Ronin TL's receiver.

Note: If the Blue LED is flashing then it is still attempting to connect with the Ronin TL.

Step 3: Roll down on the remote's thumbwheel for full variable speed control. Release the thumbwheel to stop the Ronin TL's movement.

Step 4: When finished using the remote you will hold down the power button for 6 seconds until all 3 LED lights are off.

Step 5: Remove battery from the Ronin TL, when finished



## **Inspection & Maintenance**

During the Ronin TLs life cycle, periodic inspections and maintenance is required. Some parts will experience wear and will need to be replaced. See table below for periodic inspection, maintenance check and parts replacement intervals.

Part Number	Description	Inspection Interval	Inspection	Maintenance Interval	Maintenance	Replacement Interval
1011- 114	Thumbwheel & optional Anti-Panic Trigger	Daily Prior to Use	With battery connected rotate thumbwheel downward slowly and verify motor increases in speed. Then rotate thumbwheel slowly back to neutral position and verify thumbwheel decreases motor speed to off. If your device has the Anti- Panic Trigger option, then verify the trigger springs back to the start position, when released. Make sure the thumbwheel does not activate the motor without the Trigger being Squeezed.		Annually Inspected	
1011- 117-1	Motor/ Gearbox	Daily Prior to Use	With battery connected rotate thumbwheel downward slowly and verify motor increases in speed. Then rotate thumbwheel slowly back to the off position and verify thumbwheel decrease motor speed to off in the neutral position. Ensure there is no debris blocking the air vents in the motor cover and the motor is free from debris inside. If debris is found blow out using air.	None	None	Every 2 yrs.
1011- 212-1	Tensioner Knob	Daily Prior to Use	Visually inspect tensioner knob threads are in good working condition and lubricated with Teflon grease	None	Apply Teflon based grease	Annually Inspected
1011- 106	Tensioner Assembly	At Servicing	Verify tensioner assembly moves up and down smoothly with operation of the tension knob	None	None	Every year
1011- 912483- 1	Battery Indicator	Daily Prior to Use	,		None	Annually Inspected
2805- 14815	Cam Cinch Assembly	Daily Prior to Use	Look into the Ronin TL rope Exit hole and visually inspect that Cam Cinch teeth are not clogged with any debris and are not worn	Before Every Use	Use an AWL, Pick or small file to clean cinch teeth	Every year

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Part Number	Description	Inspection Interval	Inspection	Maintenance Interval	Maintenance	Replacement Interval
1011- 105	Drive Shaft Assembly	At Servicing	Will be performed at authorized repair facility	None	None	Every year
1011- 217	Cam Insert, 11.5-13.0 mm	At Servicing	Will be performed at authorized repair facility	None	None	Every year
1011- 102	Guide Block Assy	At Servicing	Will be performed at authorized repair facility	None	None	Annually Inspected
1011- 230	Baffery   ,   Vern'y Sacces'y is not duringed)		None	None	Approx. 300 Charges	

## Returning For Service

When returning your Ronin TL to have the required annual service completed or any repairs, please follow the steps below:

- Complete an RMA (Return Material Authorization) by visiting <u>www.roninpowerascender.com</u> and click on the Service tab at the top of the page. Complete the RMA form and click submit.
- 2. Safely package products along with a copy of the RMA form.
- Make sure to package your return securely if you are not shipping back in the original packaging or Ronin hard case.

Note: Please do not hand deliver your product to the Ronin facility, even if you are local. This facility is not set up to receive visitors.

## **Annual Service Exceptions**

See annual service exceptions below:

- If you have a Ronin that is a backup unit and has not been used for the 12-month period, then there is no need to send it in for annual Service.
- Any Ronin that has ascended 2000 ft (610 m) or less of rope in a 12-month period, does not have to be returned for the annual service. Use the table below to track your usage.

	Tracking Your According						
	Tracking Your Ascending						
Part Number: 1011-11					Product: Ronin TL		
Serial Number:					First Date of Use:		
	Date	Number of Times		Height of Lift	Total Length of rop		
		Ascending		(ft/m)		ascended	
1			Х		=		
2			Χ		=		
3			Χ		=		
4			Χ		=		
5			Χ		=		
6			Χ		=		
7			Χ		=		
8			Х		=		
9			Х		=		
10			Х		=		



You Ronin's service life is complete 12 months after your 4th Annual Service

# ID Plate Servicing Information

- When you purchase your Ronin TL new the ID Plate will show the year of manufacture. Your first annual inspection will be 12 months after the first date of use. Date of Manufacture will show the Month followed by the year (ie: 05/2020).
- Your first inspection due date will be listed in the first column showing month followed by the year (ie: 06/20). The second column will be the date the inspection was completed showing the month followed by the year (ie: 06/20). The next inspection due will be filled in by the service center after each annual service is completed.
- Your Ronin TL will have an ID Plate for Ronin service locations to keep track of active service bulletins. This plate will be located just above the battery connector on the inside of the Ronin TL's main housing. If you Ronin does not have this plate, then do not worry. The next time you send your Ronin in for service, then the plate will be added and updated accordingly. With our worldwide network of certified repair locations, this assures you can send your Ronin to any location and the most current service updates will be completed





## Ronin TL duty Cycle

For users operating where CE certification is required...CE requires a duty cycle to ensure the device housing does not exceed temperatures defined by CE certification requirements as unsafe. The max CE permitted temperature is 129 °F (54 °C) in which skin can touch metal and not be burned. To meet this requirement please do not exceed the duty cycle described below:

- The Ronin TL can ascend 200 ft. of rope continuously in 100 °F (38 °C) temperature with max load of 400 lbs. (181Kg).
- Followed by a 30 min. rest and an additional 50 ft. (15m) can be ascended.
- The 30 min. rest and additional 50 ft. (15m) of ascent can be performed 3
  additional times after the initial 200 ft. (61m) of ascent.

Then unit needs to cool down back to 100 °F (38 °C) temperature. The duty cycle may be performed one additional time per day.

#### **End of Life**



After 5 years of service, the Ronin's service life is complete. Service life is based on time, which is defined by how many annual services the lift has received. A Ronin's service life is complete 12 months after the 4<sup>th</sup> annual service. Your annual services will be marked on the Ronin's id Plate, by the certified repair center that performed the service. If the Ronin does not need to be returned, because it falls under one of the Annual Service Exceptions, then the life of a Ronin can be extended up to 10 years. The service life of a Ronin cannot exceed 10 years under any circumstances. The Ronin TL is made of many materials that may be recycled. The battery contains lithium-ion materials, and the lift contains aluminum. The speed controller contains solder and electrical components. Ronin products can be recycled for free in the United States and Canada by dropping the product off at any number nationwide recycling locations.

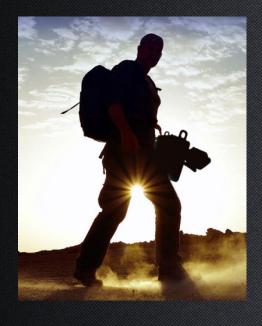
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## **Ronin Warranty**



Ronin products and accessories are guaranteed against manufacturing defects for 12 months from the original date of purchase or the minimum legally mandatory country requirement, from the original date of purchase. In the event of such defects, Ronin will repair or replace the defective part(s) or product(s) with comparable parts or products at Ronin's sole discretion. Damage resulting from use, water intrusion, physical damage, or normal wear and tear is not covered by this or any warranty. Ronin assumes no liability for any accident, injury, death, loss, or other claim related to or resulting from the use or misuse of any products. In no event shall Ronin be liable for incidental or consequential damages relating to or resulting from the use of this product or any of its parts. This product is not warrantied against user repairs and user repairs will void the warranty. Breaking the seal on the Ronin cover also results in immediate loss of warranty. Returns or replacements of parts and/or products may be subject to shipping, handling, replacement, and/or restocking fees.

If you have purchased your product(s) from an authorized Ronin distributor, then please contact the distributor for warranty claims.





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