



Healthy Soil with Managed Grazing – Easy

## Power Arm Operation Manual



Shown installed on Razer Grazer



Shown as individual components

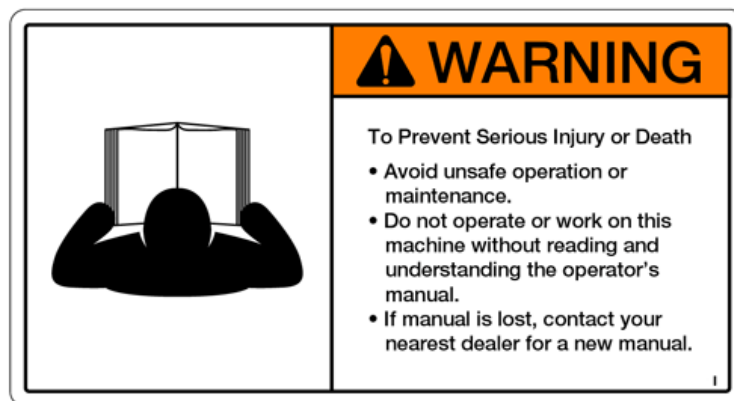
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## Power Arm

### INTRODUCTION

Thank you for purchasing Power Arm, manufactured by Range Ward Inc. Our mission at Rangeward is to provide innovative tools and solutions used in the management of regenerative grassland ecosystems. Power Arm is part of a product line of equipment used for portable temporary electric fencing to control livestock. Power Arm is the result of consultation, collaboration, and testing with experienced Grazers. To see Range Ward's other product lines, please join us at [www.rangeward.ca](http://www.rangeward.ca).

The Power Arm has been designed to safely reel out and reel in electric rope used to control livestock. The Power Arm has three important features.

- 1) The Power Arm comes as standard equipment on a Razer Grazer and can be removed from the Razer Grazer and used as a standalone electric reel winding machine.
- 2) The Power Arm comes in a single- and double-reel model. Double reel models are capable of reeling in one or two Power Braid Reflective ropes at the same time,
- 3) As a standalone machine, it can be used as supplemental equipment used in strip grazing with the use of a Rangeward Power Grazer Trailer or with a Rangeward Power Reel Stand in conjunction with a household current or 12 volt battery operated fence energizer such as a Gallagher S Series Energizer.



**The Razer Grazer comes complete with a removable Power Arm in one- and two-reel models. The Power Arm is attached to the Razer Grazer by means of a standard 2 ins receiver situated below the post storage**

## WARRANTY

Rangeward Inc. has manufactured the Power Grazer series of equipment for over ten years and has an excellent reputation for quality and workmanship. Rangeward Inc. warrants the Power Arm for two years since date of purchase. Please contact the manufacturer if you feel a component has not lasted to your expectation. These concerns will be handled on a case-by-case basis. Contact the Rangeward Inc. factory for replacement parts.

### Serial Number Locations



The Razer Grazer comes complete with a Power Arm which is attached to the machine in a 2 in receiver located under the post storage portion of the Razer grazer. In this case the Power Arm uses the serial number of the Razer Grazer which is located on the inside door of the toolbox



When the Power Arm is purchased separately the serial will be located on the structural arm situated below the reel.

## Safety

### Terms and Definitions

- **Operator:** The operator is the person using the machine for the purpose intended by the manufacturer and complying with the information for operation, including safety practices, as specified by the manufacturer in the operators' manual and by signs on the machine.
- **Normal operation and service:** Normal operation and service applies to use of the machine for the purpose intended by the manufacturer by an operator.
- **Service technician:** The service technician is the person specifically trained to service, maintain, diagnose, and repair the machine.

All product operators must read and understand this manual prior to equipment operation. This manual is considered part of your machine and should always remain with the machine. Do not allow anyone to operate or maintain this equipment who has not fully read and comprehended this manual. Failure to follow the recommended procedures may result in personal injury or death or equipment damage.

Information in this manual is designed to help owners and operators to obtain the best results and safe operation from their investment. The life of any machine depends largely on the care it is given, and we suggest that the manual should be read and understood and referred to frequently. If for any reason you do not understand the instructions and safety requirements, please contact your authorized dealer or Rangeward Inc. The intent of this manual is to provide guidelines to cover general use and to assist in avoiding accidents and injuries.

There may be times when circumstances occur that are not covered in the manual. At those times it is best to use common sense and contact your authorized dealer or Rangeward Inc.

The requirements of safety cannot be emphasized enough in this publication. We urge you to make safety your top priority when using and maintaining the equipment. We strongly advise that anyone allowed to operate this equipment be thoroughly trained and tested, to prove they understand the fundamentals of safe operation.

Some photographs, diagrams or illustrations in this manual may show doors, guards and shields opened or removed to aid in clarity and understanding of a procedure. All guards, shields and safety devices must be in their proper position prior to operation.

Read and understand this manual and all safety signs before operating and maintaining. Review the safety instructions and precautions annually.



**This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death**



**DANGER:** Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to the most extreme situations typically for machine components which, for functional purposes, cannot be guarded.



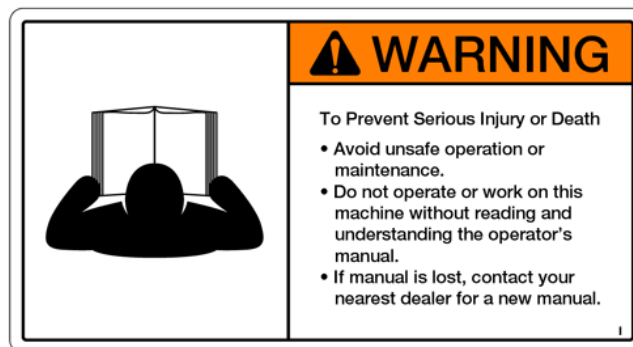
**WARNING:** Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



**CAUTION:** 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.



**NOTICE:** Used to address safety practices not related to personal safety.





## Safety Signs Located on Two Reel Power Arm



### Caution - Reel Switch

Be aware of reel switch location. Only use your hand to depress reel safety switch button.



**Caution – Keep Hands Clear**  
Keep hands away from rotating reel.

## Safety Signs Located on One Reel Power Arm



### Momentary Reel Switch Indicated by Red Colored Toggle Switch



**Danger – Be aware of rotating reel,**  
**Pinch point exists**

**Keep Hands away from Rotating Reel**

## SAFETY Signs CARE

- **REMEMBER:** If Safety Signs have been damaged, removed, become illegible or parts replaced without decals, new decals must be applied. New decals are available from your authorized distributor or factory.
- Always keep safety signs clean and legible
- Replace safety signs that are missing or have become illegible
- Replaced parts that displayed a safety sign should also display the current sign.
- Safety signs are available from your Distributor or Dealer Parts Department or Rangeward In

## How to Install New Decals

- Be sure that the installation area is clean and dry.
- Decide on the exact position before you remove the backing paper.
- Remove the smallest portion of the split backing paper.
- Align the decal over the specified area and carefully press the small portion with the exposed sticky backing in place.
- Slowly peel back the remaining paper and carefully smooth the remaining portion of the decal in place.
- Small air pockets can be pierced with a pin and smoothed out using the piece of decal backing paper.



### BEFORE OPERATION

- Wear protective clothing and equipment appropriate for the job, such as safety shoes, safety glasses, hard hat and ear plugs.
- Clothing should fit snug without fringes or pull strings to avoid entanglement with moving parts.
- Prolonged exposure to loud noise can cause hearing impairment or hearing loss. Wear suitable hearing protection such as earmuffs or earplugs.
- Operating equipment requires the operator's full attention. Avoid wearing radio headphones or earbuds while operating equipment.
  - Wear protective clothing and equipment appropriate for the job, such as safety shoes, safety glasses, hard hat and ear plugs.
- Carefully study and understand this manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes
- Give the unit a visual inspection for any loose bolts, worn parts or cracked welds, and make necessary repairs. Follow the maintenance safety instructions included in this manual.



- Be sure that there are no tools lying on or in the equipment.
- Do not use the unit until you are sure that the area is clear, especially children and animals.
- Do not hurry the learning process or take the unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.

### **ATV Operation When used as a Carrier Vehicle for the Power Arm**

To safely operate a utility type vehicle, the operator must use similar safe work habits as used with tractors, skid steer loaders, and ATVs. A safe, successful driver should become familiar with the machine before using it. This can be done by reading the owner's manual and following safety labels found on the vehicle. A qualified operator (salesperson) can also demonstrate the correct operation.

Here are additional safety practices to follow when driving a UTV:

- Always keep legs and arms inside the vehicle.
- Drive slowly and turn smoothly to avoid an overturn.
- When using the receiver on a quad or side x side, the vehicle's center of gravity is changed, increasing the chance of overturning.
- Drive completely up or down a slope or hill before making a turn. Do not turn the vehicle in mid-slope or hill as this increases the probability of overturning.
- Use the appropriate speed on rough terrain.
- Operators and passengers have been thrown from vehicles.
- Stay clear of ditches and embankments.
- Passengers must be tall enough to reach handhold while their backs are against the seat and their feet are flat on the floorboards.
- Each passenger must ride in his/her own seat, not anywhere else on the UTV.
- Operators must back up carefully. The Power Arm increases the overall length of the vehicle. Look especially for children before backing.
- Operators should be free from the influence of drugs or alcohol.
- Due to the hauling purpose of a UTV, special attention should be paid to making sure cargo or material is properly secured during transport. When transporting extra reels of Power Braid Reflective Rope be aware that each ½ mile reel is 53 lbs.
- **Since UTVs are often used with implements in the rear receiver, it is important to follow safety practices. When transporting the Power Arm with the use of the vehicle receiver make sure the cargo box is loaded to assume good traction for driving and stopping. Be sure to carry the Power Arm load at a speed slow enough to maintain control. Remember, the stopping distance increases with speed and weight of a hauled load. Follow the manufacturer's recommendations for weight limits for receiver carried equipment.**
- The safety practices, listed above, are recommendations of how to safely operate a UTV. As with all machinery, use the UTV as designed. Utility vehicles are tools, not toys and following the recommended safety practices will help ensure an enjoyable experience for both driver and passenger

## Additional Note for ROVs

ROVs are the recreational variant of Side-by-Sides. The same operational instructions and safety rules apply in a general sense. But since recreational use may occur at higher speeds and on more challenging terrain than utility use, the operator must be especially cautious and operate the vehicle at speeds appropriate for the terrain, use extra care in turning and crossing hills, avoid stunt-riding, and never operate under the influence of alcohol. Recreational use requires operators and passengers to wear a helmet and other protective gear, use the seat belts, and keep all parts of their bodies inside the ROV. Several crashes, rollovers, injuries, and fatalities have occurred because ROV drivers have violated these common-sense rules and driven aggressively.



### DURING OPERATION

- Children should never be allowed on the haul vehicle.
- Never carry riders or allow children to operate the haul vehicle.
- Clear the area of small children and bystanders before moving the equipment.
- Shift haul vehicle unit to a lower gear before going down steep downgrades, thus using the engine as a retarding force. Always keep haul vehicle in gear. Slow down for corners and rough terrain.
- **Make sure you follow all local and state regulations regarding transporting equipment on public roads and highways. The Power Arm is an accessory to a carry vehicle to be used for installation and dismantling of temporary electric fence used to control livestock. The Power Arm extends backwards from the carrier vehicle and may have to be removed and stored in the box or tray of the carry vehicle when it is on public roads and highways.**
- Beware of bystanders, **particularly children!** Always look around to make sure that it is safe to start the engine of the carry vehicle or move the unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- **NO PASSENGERS ALLOWED** - Do not carry passengers anywhere on, or in, the carry vehicle or equipment. Passengers are only allowed when the manufacturer of the carry vehicle has provided a passenger seat.

- Keep hands and clothing clear of moving parts.
- Always keep all shields and guards in place and securely fastened.
- Do not clean, lubricate or adjust your equipment while it is moving.
- When halting operation, even periodically, set the carry vehicle brakes, shut off the engine and **remove the ignition key**.
- Be especially observant of the operating area and terrain - watch for holes, rocks or other hidden hazards. Always inspect the area prior to operation.
  - **DO NOT** operate near the edge of drop-offs or banks.
  - **DO NOT** operate on steep slopes as overturn may result.
  - Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.



## HIGHWAY AND TRANSPORT OPERATIONS

- Always drive at a safe speed relative to local conditions and ensure that your speed is low enough for an emergency stop to be safe and secure. Keep speed to a minimum.
- Reduce speed prior to turns to avoid the risk of overturning.
- Avoid sudden uphill turns on steep slopes.
- Always keep the carry vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting flags and necessary warning devices to protect operators of other vehicles on the highway during daylight and nighttime transport. Various safety lights and devices are available from your local automotive supply store.
- The use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving a carry vehicle such as a tractor, truck, quad, or side by side and equipment on the road or highway under 40 kph (20 mph) at night or during the day, use flashing amber warning lights and a slow-moving vehicle (SMV) identification emblem.

- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge loading ratings. Do not cross bridges rated lower than the gross weight as which you are operating.
- Watch for obstructions overhead and to the side while transporting.
- Always operate equipment in a position to provide maximum visibility. Make allowances for increased length and weight of the equipment when making turns, stopping the unit, etc.
- Pick a level or close to level route when transporting across fields. Avoid the edges of ditches or gullies and steep hillsides.
- Be extra careful when working on inclines.
- Maneuver the carry vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose fill, rocks and holes; they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns.
- Operate the haul vehicle from the operator's seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment attachments unattended.
- As a precaution, always recheck the hardware on equipment following every 100 hours of operation. Correct all problems. Follow the maintenance safety procedures

### **Assembly and Extra Equipment**

The Power Arm comes fully assembled and when used in conjunction with a receiver on a truck, the Power Arm can be powered by plugging in to the 7-pin trailer plug. The 20-amp circuit breaker on the Power Arm is used to protect the carry vehicles electric circuitry as well as the circuitry on the Power Arm. Do not replace the breaker with a higher amperage.



If the Power Arm is used on a quad or side x side, it can be powered by use of a supplied wiring harness. The harness uses alligator clips for the 12 volt battery with a female 7 pin trailer plug on the other end that accepts the male 7 pin plug on the Power Arm

To order extra harness please specify -Power Grazer Harness



Additional reels can be purchased in three configurations.

- ½ mile of Power Braid Reflective Rope
- ¼ mile of Power Braid Reflective Rope
- ½ mile empty reels
- ¼ mile empty reels

To order reels specify ¼ or ½ mile size, complete with or without rope.



To order extra Quiklocs please specify – Power Arm Quiklocs

## Circuit Breaker

**20 Amp Manual Reser Circuit Breaker on a One Reel Model - Black Button Pictured to the Right of the Red Button**



The Power Arm comes with a manual reset water resistant circuit breaker. This is used for the protection of the electrical motor on the Power Arm and the protection of the mobile unit electrical system.

## 20-amp Manual Reset Circuit Breaker on a Two Reel Model



The Power Arm comes with a manual reset water resistant circuit breaker. This is used for the protection of the electrical motor on the Power Arm and the protection of the mobile unit electrical system.

This breaker is located on the chain cover of the Power Arm



**Danger – Do not replace this 20 amp switch with an automatic reset switch or with a higher amperage. The manual switch prevents the reel from restarting on its own. Only replace with a Rangeward safety 20 amp breaker**



## Fence Installation

**With One Person.** Tie Braided Rope to secure post with slip knot and slowly drive the haul vehicle, allowing reel to unspool rope. Place temporary posts in ground about 50 feet apart and position rope onto temporary posts as you drive along.

**With Two People.** Tie Braided Rope to secure post with slip knot. With post installation assistant at the rear of haul vehicle and in a safe position to the side of the rope, the operator of the haul vehicle (when safe to do so) slowly drives ahead allowing the reel to unspool rope. The post installation assistant then walks behind the trailer at a safe distance installing posts approximately 50 feet apart and installing rope into the pigtail post. Park haul vehicle at desired location.

## Tip –Unspooling the Rope

Tying the rope to a secure post with a slip knot prevents the plastic gate handle from breaking while unrolling long distances of rope as well as pulling the permanent wire off the fence the gate handle is attached to. The slip knot allows the operator to release the rope from the post while the rope is electrified.



Tension rope by pulling rope by hand and tying off in one of three ways.



- 1) Leave the haul vehicle in position and tension and tie off the rope to the insulated rope guide on a two reel model, or the insulated tie off on a one reel model



- 2) Use a Gallagher High Strain Insulator Kit to tighten and tie off rope to a permanent post. At the desired location, leave the partially filled reel flat on the ground to avoid ground contact with the electrified rope.



- 3) Use a Rangeward Power Hammer Ground Rod with Multi Bracket, tension and tie off rope to insulated multi bracket, Position Gallagher S Series Energizer onto Multi Bracket. Install energizer ground to Power Hammer and connect energizer hot wire to rope with clamp.

Picture shown with the use of a hand reel but can also be used with the Power Arm Reel.

**If external mains or battery energizers are used, the energizer can be turned on at this time.**

**Caution - At this point the rope has been electrified.**

Return to start of the fence, pull insulated gate handle to release rope from post and reconnect insulated handle onto existing fence using “dead end: or “power beyond” feature.

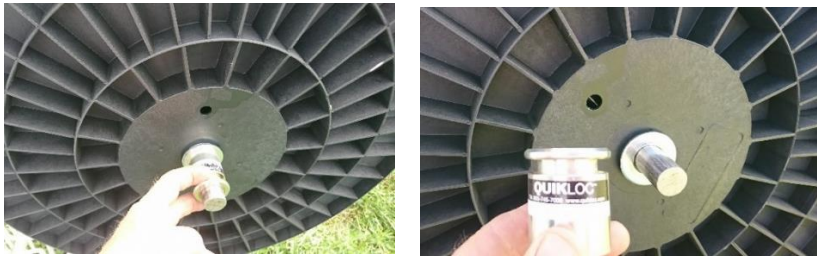
Re-tension rope by moving several pig-tail posts slightly offline.

### **Freewheeling the Reel**

The reel can be disengaged from the drive pin to allow freewheeling. Using two fingers, pull outer ring of Quikloc to allow the Quikloc to slide outward on the shaft. Slide Quikloc until reel is disengaged from the drive pin and still touches tension spring. The reel will now spin with very little resistance.

**Notice – The reel can only be run backwards in the freewheel position. Failure to disengage from the drive pin will cause damage to the gear box attached to the electric motor. Gearbox failure from this application is not covered by warranty.**

### **Removing the Reel**



Using two fingers, pull on outer ring of Quikloc, and slide lock to desired location for freewheeling or completely off the drive axle to change and mount a new reel. Always mount the Quikloc with the outer ring facing away from the machine. Installed in a backwards position permanently locks the Quikloc onto the drive axle.



**Caution – the reel with 1/4 mile of Power Braid Reflective Rope weighs 26 lbs. The reel with 1/2 mile Power Braid Reflective Rope weighs 52 lbs. Do not allow reel to drop on feet or strain back when sliding off of the drive axle or reel storage position.**

### **Fence Retrieval**

**Notice – When retrieving the rope, always remove the rope from the pigtail posts BEFORE re-spooling the rope. The rope will cut the plastic insulation on top of the pigtail post when it is pulled through!**

Turn fence energizer to off position. Remove rope from each post and store posts in post rack provided on the trailer. Unhook rope from secure end post. Return to trailer and hold the safety toggle switch while training the rope onto the reel.

### **Single Reel Models**

When retrieving the rope use one hand to compress the safety toggle switch. Use the other hand to train the rope onto the reel. The rope should have slight tension when re-spooling. Assure the rope is evenly dispersed across the reel.

### **Double Reel Models**

When retrieving the rope, use one hand to compress the red switch located on the hand hold of the rope guide while at the same time guiding the rope back and forth across the reel face with the guiding mechanism.

**Notice –On Razer Grazer One Reel Models, the safety reel switch is a toggle switch located on top of the Power Arm. The switch can only be activated with continuous compression of the toggle switch. Releasing the toggle switch will stop the movement of the reel.**

**Should this switch become defective, only replace with an approved Range Ward Inc. momentary safety switch.**

**Notice – On Razer Grazer Two Reel Models, the reel safety switch is a momentary switch with button situated on the reel guide handle. The reel switch can only be activated by continuous compression of the red button. Releasing the button will stop the movement of the reel.**

**Should this switch become defective, only replace with an approved Range Ward Inc. momentary safety switch.**

**Safety Switch – One Reel Model**



**Safety Switch – Two Reel Model**



**Danger -On One Reel Models, use a tight-fitting glove to train the rope onto the reel. Be aware of rope connections as they approach the reel.**

**Be aware of the plastic gate handle secured to the end of the rope as it approaches the reel.**

**Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel**

## Safety Reel Switch and Rope Positioning onto Two Reels

Only operate the Electric Power Reel with the **Rangeward Safety Switch**. This momentary switch will automatically disconnect the reel from the power source when switch is released.



Depress reel safety switch and move rope training arm back and forth to safely and evenly position electric rope onto the one or two reels.

Manually move the rope guide back and forth using the safety handle with safety switch.



**Danger – Do not replace the momentary reel switch with a on/off toggle switch. . Only replace with a Rangeward momentary switch.**

**Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel**



**Danger - Be aware of rope connections as they approach the reel.**  
**Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel.**



The reel drive axle comes equipped with a safety pin. Under extreme side pull conditions the Quikloc may slide on the drive axle. The safety pin prevents the Quikloc from sliding off the axle



**Danger – Always remove the safety pin when retrieving and respooling the rope to prevent the safety pin from catching clothing or fingers**



**Danger - Braided Rope is an excellent conductor of electricity. Do not allow the rope to come in contact with other power sources such as residential power lines. This contact may occur when retrieving the rope.**  
**Use a spotter for the rope when spooling out or spooling in rope when the operator does not have a clear view of the rope.**



***Danger - Do not operate the Razer Grazer Trailer or Power Arm within restricted Class 1 – Hazardous Location Areas, such as oil and gas installations.***

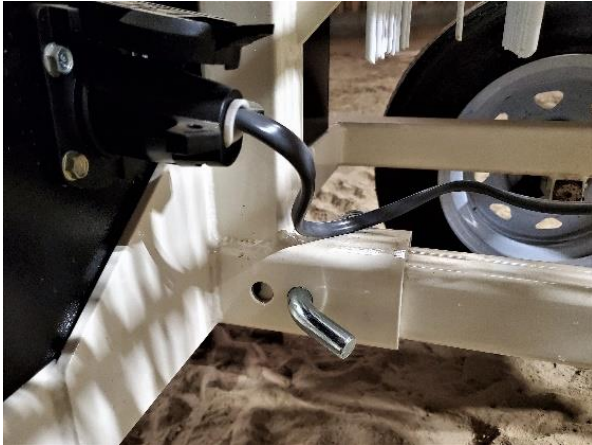
**Notice- Do not leave a non-electrified reel of braided rope exposed to livestock without having the braided rope energized. Damage to a non-electrified rope and harm to livestock may result when livestock can chew or rub on the rope.**



## The Power Arm Removal from Razer Grazer

The Razer Grazer comes complete with a removable Power Arm. Simply remove the Power Arm and insert into any standard two-inch receiver.

Located under the post storage



- 1) Remove male socket from 7-pin trailer plug situated on the rear of the tool box
- 2) Remove pin from standard 2 in receiver
- 3) Slide the Power Arm from standard 2" receiver
- 4) Reinstall on Quad, Side x Side, or Truck



**Caution –The Power Arm weighs approximately 45 lbs without reels mounted on the drive axle. Do not allow the power arm to drop on feet or strain back when retrieving or mounting on a 2 in receiver. Always remove reels before mounting or retrieving the Power Arm.**

**A reel with 1/4 mile of Power Braid Reflective Rope weighs 26 lbs. A reel with 1/2 mile Power Braid Reflective Rope weighs 52 lbs. Do not allow reels to drop on feet or strain back when sliding off of the drive axle or reel storage on a carry vehicle.**



**Caution – The weight of a two-reel model Power Arm equipped with two 1/2 mile reels is 150 lbs. Refer to the operator's manual for your Quad, or Side x Side for carry vehicle weight restrictions when equipment is mounted on the receiver. The extra weight of the Power Arm may cause a smaller quad to become severely unbalanced.**



## Truck Mounted Power Grazer



Power Arm mounted on the rear truck receiver and plugged into a standard 7 pin truck trailer light socket

## Side x side Mounted Power Arm



Installation on a side x side can easily be accomplished with the Power Arm – battery to 7 pin socket wiring harness. This is supplied with a Razer Grazer and a Power Arm when purchased separately. Refer to the carry vehicle operators manual on how to safely hook up the wiring harness to the battery.

## Rope Tie off – Two Reel Model



The plastic guide can be used to tie the rope, allowing the fence to be tight, while at the same time not electrifying the trailer.

## Rope Tie Off – One Reel Model



The Power Arm comes equipped with an insulated plastic tie off, located on the end of the arm.

The electric rope can be tied off to this plastic hub, allowing the fence to be tight, while at the same time not electrifying the entire trailer

## Safety Reel Switch

### One Reel Models



**Notice – The safety reel switch is a toggle switch located on top of the Power Arm. The switch can only be activated with continuous compression of the button. Releasing the button will stop the reel.**



**Danger – Do not replace this switch with an automatic reset switch. The manual switch prevents the reel from restarting on its own. Only replace with a Rangeward momentary safety switch.**



**Danger - Use a tight-fitting glove to train the rope onto the reel. Be aware of rope connections as they approach the reel. Three rope connections have been made to make one km of rope. Also, beware of the plastic gate handle secured to the end of the rope as it approaches the reel.**

**Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel**

**Notice – On Razer Grazer with Two Reel Power Arm model the reel safety switch is a momentary switch with button situated on the reel guide handle.**

**The reel switch can only be activated by continuous compression of the red button. Releasing the button will stop the movement of the reel. Should this switch become defective, only replace with an approved Range Ward Inc. momentary safety switch**

### Safety Reel Switch One Reel Model



### Safety Reel Switch Two Reel Model Models



**Danger -On One Reel Models, use a tight-fitting glove to train the rope onto the reel. Be aware of rope connections as they approach the reel. Three rope connections have been made to make one km of rope. Also, beware of the plastic gate handle secured to the end of the rope as it approaches the reel.**

**Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel**

### Rope Guide – after Nov 1, 2019



Single reel and twin reel Power Arm- located in the 2-inch receiver at the rear of the Razer Grazer, or sold as a separate unit, come equipped with a rope guide. The guide can be manually moved back and forth to evenly load the rope onto one or two reels at a time.



**Danger - Be aware of rope connections as they approach the reel. Be aware of the spinning reel. Do not wear loose fitting clothing. Do not place fingers in the spinning drive axle or spinning wheel.**

### Safety Pin

The reel drive axle comes equipped with a safety pin. Under extreme side pull conditions the Quikloc may slide on the drive axle. The safety pin prevents the Quikloc from sliding off the axle.





**Danger – Always remove the safety pin when retrieving and respooling the rope to prevent the safety pin from catching clothing or fingers.**

### **Rope Tie One Reel Models**



The Power Arm comes equipped with an insulated plastic tie off, located on the end of the arm. The electric rope can be tied off to this plastic hub, allowing the fence to be tight, while at the same time not electrifying the entire trailer.

### **Rope Tie off Two Reel Models**



On models equipped with a rope guide - the plastic guide can be used to tie the rope, allowing the fence to be tight, while at the same time not electrifying the trailer



***Danger - Turbo Rope is an excellent conductor of electricity. Do not allow the rope to come in contact with other power sources such as power lines. This contact may occur when retrieving the rope. Use a spotter for the rope when spooling out or spooling in rope if the operator does not have a clear view of the rope.***





***Danger - Do not operate the Razer Grazer Trailer or Power Arm within restricted Class 1 – Hazardous Location Areas, such as oil and gas installations.***



**Always turn the fence energizer off before fueling the carry vehicle when attached to the Power Arm. Refer to your carry vehicle manual for refueling safety. Always remember, the electric fence may produce a very small, momentary spark (1/30,000 of a second) on fault areas of the fence.**

## TROUBLESHOOTING

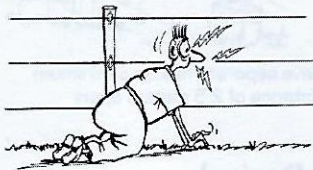
PROBLEM	POSSIBLE CAUSE	SOLUTION
Reel does not turn	Black colored circuit breaker switch next to reel switch on one-reel model and on chain cover on two-reel model has tripped	Reset breaker by pushing black switch down until it clicks in or replace  <b>Only install Rangeward 20-amp manual reset switch</b>
	Safety switch that controls reel,	 <b>Only Install Range Ward Inc. momentary safety switch</b>
	Dead Battery on Razer Grazer	Check solar regulator. Green light – bulk charging Green light fast blinking – regulator float stage No light – night condition Red Blinking – error fault, see Sun Keeper manual Red light on – critical fault
	Dead hot wire to 7-pin trailer plug on carry vehicle	Replace battery on carry vehicle or recheck fuse for hot wire to 7 pin trailer connectors.



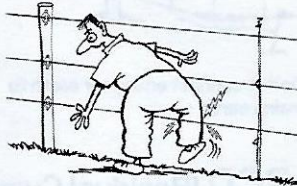


## Gallagher Fence Safety Tips

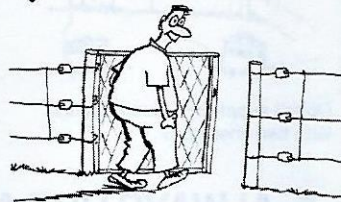
### 1. AVOID CONTACT



Do not touch the fence with head, neck, mouth or torso



Do not climb over, through or under

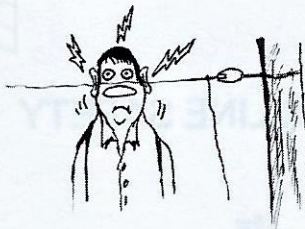


Use a gate or a specially designed crossing point

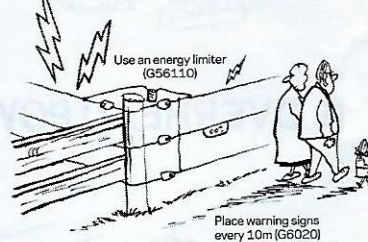
### 2. KEEP OTHERS SAFE



Keep young children away from electric fencing



Do not place single live wires at head height



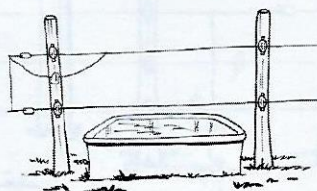
In public areas:

- Use an energy limiter (G56110)
- Place warning signs (G6020) every 10m and at gates & access points.

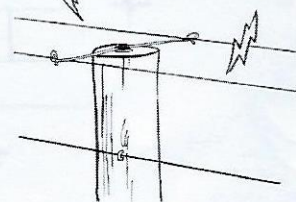
### 3. AVOID ENTRAPMENT



Do not electrify barbed wire fences



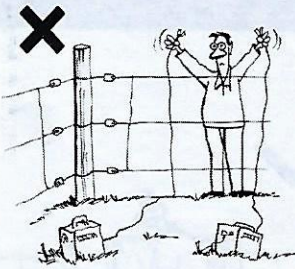
Turn fence off before working on water trough



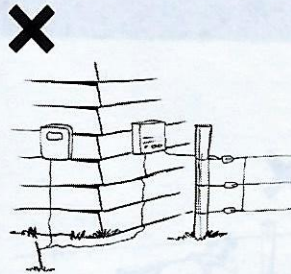
Place offsets a minimum distance of 150mm from non-electrified fence wire



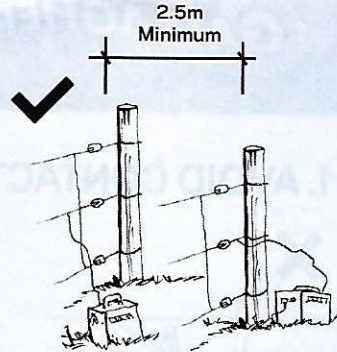
#### 4. OTHER TIPS



Do not supply one electric fence with two energizers

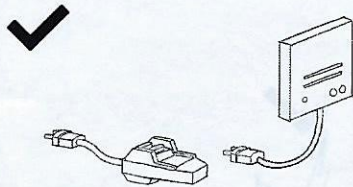


Do not connect energizer earth to mains earth

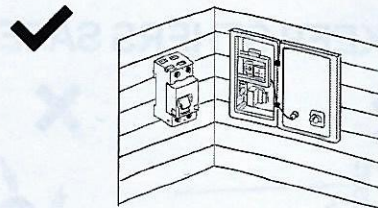


Have separate fences a minimum distance of 2.5 meters apart

#### 5. ALWAYS USE AN RCD (Residual Current Device) OR A GFCI (Ground Fault Circuit Interrupter)

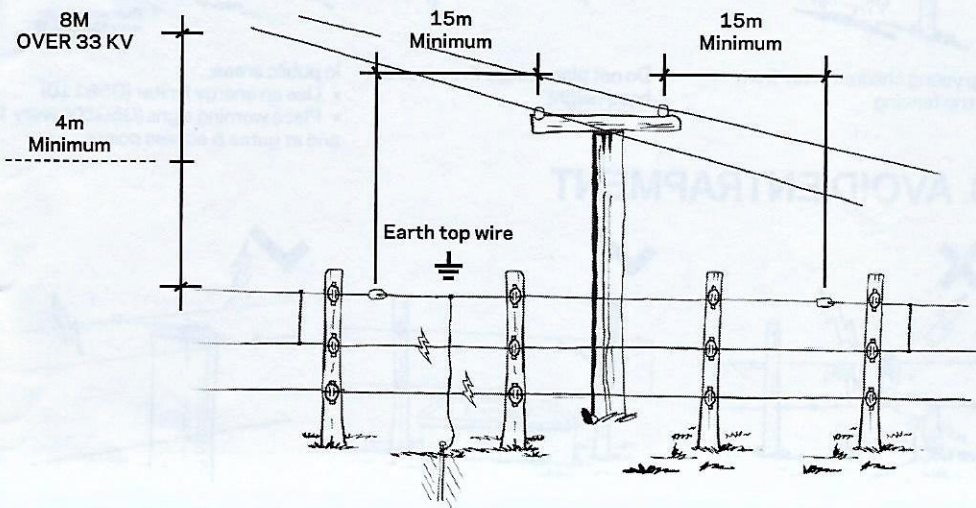


OR



#### 6. OVERHEAD POWER LINE SAFETY

a. Earth top wire  
b. Observe minimum clearance distances



3E0965 03/16

[www.gallagher.com](http://www.gallagher.com)

## WARRANTY REGISTRATION

This form must be filled out by the dealer and signed by both dealer and customer at time of delivery.

Customer name \_\_\_\_\_ Dealer name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

City, state, code \_\_\_\_\_ City, state, code \_\_\_\_\_

Phone number ( \_\_\_\_\_ ) \_\_\_\_\_

Model \_\_\_\_\_ Serial Number \_\_\_\_\_ Delivery date \_\_\_\_\_

### DEALER INSPECTION REPORT

\_\_\_\_\_ Wheel bolt tight  
\_\_\_\_\_ Fasteners tight  
\_\_\_\_\_ Chains adjusted  
\_\_\_\_\_ Check tire pressures  
\_\_\_\_\_ Lubricate machine

### SAFETY

\_\_\_\_\_ All decals installed  
\_\_\_\_\_ Reflectors, SMV clean  
\_\_\_\_\_ Guards and shields installed  
\_\_\_\_\_ Review operating and safety instructions

I have thoroughly instructed the buyer on the above-described equipment; review included the operator's manual content, equipment care, adjustments, safe operation and applicable warranty policy.

Date \_\_\_\_\_ Dealer's signature \_\_\_\_\_

The above equipment and operator's manual have been received by me, and I have been thoroughly instructed as to care, adjustments, safe operation and applicable warranty policy.

Date \_\_\_\_\_ Owner's signature \_\_\_\_\_

WHITE	YELLOW	PINK
MFG.	DEALER	CUSTOMER