

Q36 Solar Box

Installation Instructions



Priefert®

www.priefert.com 800-527-8616



IMPORTANT: Battery must be connected for operation! Remove cover to connect power supply. See page 4 of Assembly Instructions.

Congratulations on choosing the “Q36 Solar Control Box.”

The Q36 Solar Control Box is designed to attach to a Priefert Model RC19M Manual Roping Chute to convert it into a remote-controlled front-release chute. This state-of-the-art unit requires no electrical cords or air lines! A single button remote control is used to automatically open the chute's front release gate.

A solar panel is attached to the top of the compact release box, and utilizes the latest patented, high frequency Pulse technology. “Weather-proof” and highly efficient, the solar panel charges the integrated power cell when activated by sunlight. The power cell in the Q36 allows it to operate for periods when there is no sunlight to recharge the unit.

Made with quality products, the Q36 Solar Control Box is designed to perform dependably and provide years of service.

REMEMBER SAFETY FIRST!

**Be Alert - Eliminate unsafe habits and risky behavior,
recognize hazards as they exist and read and follow these Operational
Instructions to successfully operate the
Priefert Q36 Solar Control Box.**



**READ AND UNDERSTAND THESE INSTRUCTIONS
BEFORE BEGINNING INSTALLATION.
Follow all safety warnings and recommendations.**

**Additional information is provided in the Appendix
at the end of this manual.**

Using this manual:

This manual provides information necessary to safely, effectively install and operate your Q36 Solar Control Box. This manual also provides manufacturer's recommendation of proper use and operation. Read these instructions completely prior to beginning installation, and follow the recommendations to help ensure safe and efficient operation.

The information contained herein was current at the time of printing. These instructions are a compilation of engineering data and field experience, and are designed to help you with proper safety, operation and adjustments.

Your model may vary in design and configuration from those shown in this manual. There is a possibility that some illustrations in our manuals were of prototype models. Design of production models may vary in detail from those shown in our manuals.

Priefert Manufacturing maintains an ongoing program of continuous product improvement. Therefore, Priefert reserves the right to make improvements or modifications in design, or specification changes without incurring any obligation to replace said items on units previously sold.

Your Q36 Solar Control Box has an instructional DVD, and this manual available online in PDF format. Both have been designed to assist you in achieving optimal results with your Q36.

Terminology

“NOTE:” provides the operator a brief summary of information that will assist in operating the equipment.

“IMPORTANT:” denotes that the following content has significance in the operation or maintenance of the equipment.

“REMINDER:” provides information previously addressed, but important enough to address again for equipment or assembly familiarization.

“Left” or **“Right”** as used in this manual is determined by facing forward into the arena, as the direction the chute will operate while in use. **“Header Side”** for left, and **“Heeler Side”** for right, may also be used.

Owner Assistance

If customer service or repair parts are required, contact Priefert Manufacturing to reach our trained personnel who will assist you with repair parts and equipment needed to service your Q36 or your RC19. The parts on your Q36 or RC19 have been specifically designed and should only be replaced with genuine Priefert parts. Therefore, should you require replacement parts, contact our Support Center.

Customer Service

Priefert Manufacturing wants you to be satisfied with your new Q36. If for any reason you are not satisfied with the equipment, the following actions are suggested:

Contact your Priefert Ranch Equipment dealer and discuss any problems that you may be experiencing. Allow them the opportunity to assist in correcting any problems that you may be experiencing.

For further assistance contact:

Priefert Manufacturing

Attention: Customer Service

2630 South Jefferson

P.O. Box 1540

Mount Pleasant, Texas 75456-1540

1-800-527-8616

Web-site address:

www.priefert.com

sales.priefert.com



Safety Alert Symbols

The **SAFETY ALERT SYMBOL** indicates there is a potential hazard to personal safety involved and extra safety precaution must be taken. When you see this symbol, be alert and carefully read the message that follows it. In addition to design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, prudence and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

Owner/operator can prevent and may be responsible for accidents or injuries occurring to other people, themselves, and/or property and equipment.

Thoroughly read and understand the installation, operation, references and other material supplied with the Q36. If the installer or operator cannot read English, it is the owner's responsibility to explain this material to them.

We strongly recommend that children are not allowed to operate or play on or with this equipment. Do not allow untrained people to operate or service equipment.



Caution

Be familiar with handling livestock prior to use of this equipment. Working with livestock carries inherent risk of injury or death.

Livestock Safety²

One of the most important issues for consideration when handling livestock is safety. Although considered domesticated animals, working with livestock carries with it an inherent risk of danger. It is important to understand that livestock have both instincts and habits, known as behavior patterns, that are based on actions that make them the most comfortable. These instincts and habits allow them to react to changes in their environment.

Many instincts and habits are strong and potentially dangerous. Using common sense, practicing caution, and understanding livestock behavior can greatly reduce a handlers risk and enable him or her to work safely with livestock. This article will detail some important livestock behaviors as well as cautionary tips to practice when handling livestock.

Livestock Behaviors

- Animals who are used to being around other livestock can become frightened and agitated when separated, becoming dangerous and difficult to handle.
- The maternal instinct is also very powerful. Many times these instincts are not evident in an animal's behavior until shortly after giving birth. It is important to recognize these behavior patterns and use appropriate caution.
- Another behavior pattern that livestock may exhibit is a territorial instinct. Feed time is when this instinct is most readily observable.
- A valuable behavior is the instinct to follow the leader. Often times, all that is required is to begin one animal moving and the rest will follow.

- Livestock exhibit the most activity at sunrise and sunset. In contrast, livestock are the most inactive during night and at midday.
- The flight zone is one of the most important principles regarding livestock behavior and safe handling. It is an animal's personal space. Livestock will react in a variety of ways according to a handlers activities relative to their flight zone. For example, livestock will face a handler and maintain a safe distance, when the handler is outside their flight zone. In contrast, livestock will turn away from a handler who enters their flight zone. Individual animals will have flight zones of varying size. Working from the edge of the flight zone will generally keep livestock calm and manageable.
- The point of balance is another important behavioral principle to understand. An animal's point of balance is located at their shoulders. An animal will move depending on a handlers position relative to their point of balance. This principle can be used to calmly and easily be encourage livestock through crowding pens, chutes, and squeezes. For example, when a handler stands behind the animal's point of balance, the animal will move forward. When the handler stands in front of an animals point of balance, the animal will stop or back up. To encourage an animal forward, simply walk towards the animal, crossing the point of balance, and it will move forward.

Precautionary Measures

The following are precautionary measures that are recommended to anyone when working with livestock.

Be alert. It is impossible to fully know or predict an animals actions. Always be aware of what is happening around you. This is particularly important when handling livestock at sunrise and sunset when livestock are most active.

Keep animals together. Livestock will be more calm and cooperative when in groups. When alone, they quickly become agitated and frightened making them dangerous and difficult to handle.

Carefully approach animals. Because of the placement of their eyes, cattle have approximately a 270 degree range of vision. Despite their range of vision, cattle have poor depth perception, and are unable to see behind them. To reduce risk, always announce yourself when approaching an animal.

Leave yourself an out. Never enter small enclosed areas with livestock. If unavoidable, always be sure there is always a fast and easy method of escape.

Avoid quick movements and loud noises. Livestock can startle and frighten easily. Move slowly and deliberately around livestock. Be careful not to create excess noise.

Be patient. When working with livestock in a crowding pen, chute, or squeeze, prodding an animal when it has no place to go is dangerous. Animals can react quickly and violently.

Respect livestock. Do not fear them. Underestimating an animal's size, strength, and speed can result in serious injury. Always consider mature males to be dangerous. Be aware of animals who are sick, injured, or otherwise frightened.

Remember that livestock draw upon past experiences and treatment when reacting to a situation.

BE AWARE OF SIGNAL WORDS: A signal word designates a degree of level of hazard seriousness.

NOTE: Provides helpful information to the operator.

IMPORTANT: Indicates failure to observe may cause damage to equipment.

WARNING: Indicates a potentially hazardous situation which, 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.¹

CAUTION: Indicates an imminently hazardous situation, which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.¹

DANGER: Indicates an imminently hazardous situation, which, if not avoided, will result in death or serious injury. This signal word is limited to the most extreme situations, typically for machine components that, for functional purposes cannot be guarded.¹

1. Sentry Insurance, FEMA, *Owner's and Operators Manuals for Farm Equipment*, Sentry Insurance, Stevens Point, WI, revised Management Bulletin No. 112, 90-42; March 2007, pp S-2.

Features

- Fits any RC19M or RC22M.
- Requires no electrical cords or air lines, just the sun!
- Operates Day or Night on the battery power.
- Solar charging via weatherproof, highly efficient and virtually indestructible Solar panel.
- Charge controller maintains battery level with Low voltage warning system.
- Less components to assemble / Simple installation adjustment.
- Retains original manual release mechanism.
- Standard ATC/ATO circuit protection.
- External Antenna.
- Single button remote control opens front release gate.
- Ultra-Quiet Release Mechanism for improved horse command training.

Parts List

Q36 Control Box
w/Cover (1ea)
1 - Q36 Enclosure w/Solar Panel
1 - Q36 Box Lid



Parts Bag
for Installation (1ea)
2 - 1/4" x 3/4" x 3" Mounting Plates
4- 3/8" x 2 1/2" Bolts
1- 3/8" x 1" Bolt
5- 3/8" Lock Nuts
1- 5/16" x 5/8" Bolt
1- 5/16" Lock Nut
1- Retaining Clip
1- #12 Nylon Washer



Remote
(1ea)
TRANSQ36



Pull Arm (1ea)
1 - 1/4" x 1.07" x 10.44"

Leather Case for Remote
(1ea)
TCASE-10



Release Latch (1ea)
1 - 1/4" x 3.65" x 10.69"



Tools Needed

Ratchet & Socket Set



Tape Measure



Combination
Box-end Wrenches



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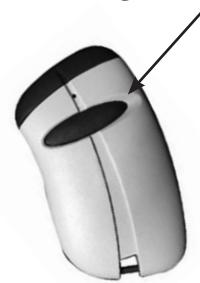
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Weather-proof Solar Panel



Q36 Solar Box
Q36

Single-Button Control



NOTE:
Remote is
packed inside
Q36 Solar Box
for shipping.

Q36 Remote Control
TRANSQ36



RC19M Part Identification



Scan with Smart Phone
for instructions on how to
install Box to your
current Chute

Q36 Installation

Step 1 - Replace Latch Release

Start by pushing Trip Handle to release front gate.

Use a socket and box-end wrench, remove the Latch assembly bolt, and remove Latch Assembly (Fig. 1).

NOTE: Do Not Lose Latch Return Spring (Fig. 1a).

Remove upper Latch Assembly Bolt and replace the Release Latch with the new Release Latch included in this kit (Fig 2).

Install bolt and nut and tighten just enough to allow free-play of movement. Be sure that the new Release Latch is fitted the same as the original Latch just removed.

NOTE: DO NOT OVER-TIGHTEN as this will prevent the movement of the Release Latch.

Reinstall new Latch assembly to chute spine with bolt and nut as the original, and again, tighten just enough to allow free-play of movement.



Fig 1 - Remove Latch Assembly



Fig 1a - Latch Return Spring



Fig 2 - Replace Release Latch

Step 2 - Install Pull Arm

Place Q36 Control Box on flat surface. Lay Solar Panel to the side. Remove and save four (4) cover screws, then remove Control Box cover. Remove the Remote and Leather Case from inside the Control Box and set aside.

Locate the Pull Arm and insert the slotted-end through the front of the Control Box, and over the spindle of the actuator arm (Fig 3).

Slide Nylon Washer over the spindle (Fig 4). Then push Retaining Clip over the Spindle and slip sideways to lock into place (Fig. 5).

NOTE: Be sure the Retaining Clip locks into place to hold the Pull Arm firmly on the Spindle.

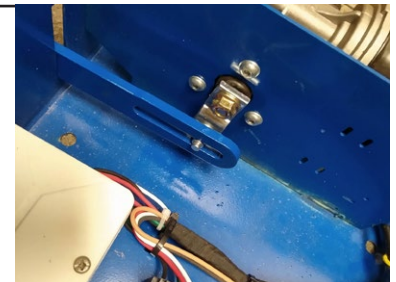


Fig 3 - Place Pull Arm over Spindle

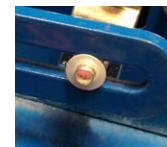


Fig 4 - Washer



Fig 5 - Retaining Clip

Step 3 - Install Control Box

Locate the two (2) 3" Mounting Plates from the Parts Bag and four (4) 2½" Bolts and Nuts.

Lay the Control Box on it's side, then insert a Bolt through each outermost hole on the Control Box bottom. Slip a Mounting Plate over the Bolt end and thread a Nut over the end. Do Not Tighten yet. Repeat for the other Bolt, Mounting Plate and Nut (Fig. 6).

Temporarily lay the Solar Panel inside the Control Box to prevent damage. Place the Control Box over the spine of the Roping Chute, fitting the Mounting Plates under the spine (Fig. 7). Insert the remaining 2½" Bolts through the two (2) innermost holes on the bottom of the Control Box, and through the Mounting Plates. Thread the two (2) remaining Nuts onto the Bolts.

Snug these four (4) bolts just tight enough to hold the Control Box in place, but do not fully tighten. The Control Box will have to be properly located before fully tightening these Nuts. (See Step 4 for locating).

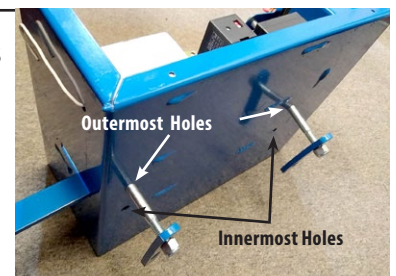


Fig 6 - Slip Mounting Plate over Bolt



Fig 7 - Fit Mounting Plates under Spine

Step 4 - Control Box Location

Measuring to the back of the Control Box from the end of the spine, locate the Control Box at 16 $\frac{3}{4}$ " (Fig. 8).

Use the $\frac{5}{8}$ " Bolt and Nut from the Parts Bag to attach the Pull Arm to the new Release Latch (Fig. 9).

Tighten just enough to allow free-play.

NOTE: DO NOT OVER-TIGHTEN as this will prevent the forward/backward movement of the Pull Arm.

Use a ratchet and wrench to tighten the four (4) Nuts on the Mounting Plates, uniformly, to attach the Control Box to the chute spine. Do Not Over-tighten. Check location again, adjust if necessary.

NOTE: Spindle of Actuator Arm should locate at the rear of the slot on the Pull Arm. Inset on Fig. 9 shows the correct positioning of the Control Box with the Pull Arm location. Proper location will be reviewed again in Step 5

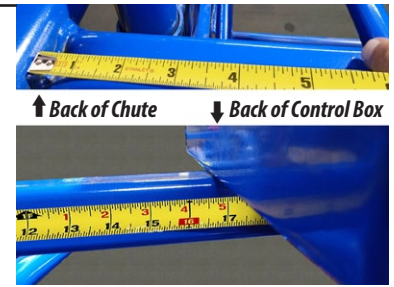


Fig 8 - Locate Control Box at 16 $\frac{3}{4}$ "

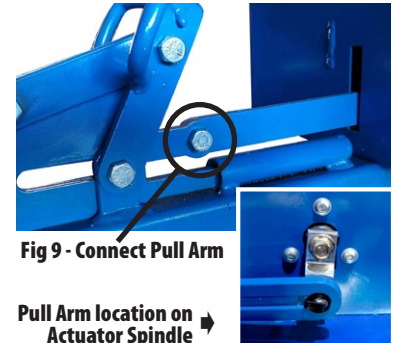


Fig 9 - Connect Pull Arm

Step 5 - Connect Power Supply

Attach the duplexed wire to the positive lead on the battery (Fig 10). The Q36 Control Box will not operate if this wire is not connected to the battery.

NOTE: To maintain the charge of the storage battery during shipment, a protective plastic cap may cover the positive lead.



Once you connect the Battery, it is a good idea to check the Control Box location. Find the Remote, turn Power Switch "ON". Observe the Actuator Arm while pressing Remote button. Close Chute Front Gate and Press Remote again to be sure Pull Arm trips the Release Latch. Adjust if necessary.



Fig 10 - Attach Duplexed Wire

Step 6 - Complete Installation

Set Solar Panel aside and place Cover back onto the Control Box.

Install four (4) screws removed in Step 2.

Snug screws, Do Not Over-tighten.

Remove protective backing from the 2-sided tape on the Solar Panel.

Attach Solar Panel to the top of the Control Box (Fig. 11).

Close Front Gate. Turn on Power Switch.

Chute is now ready to operate with the Q36 Solar Powered Control Box.

Operation is easily handled with one button on the Remote (Fig 12).

Remote is programmed from the factory, but if an additional remote is desired, it will need to be programmed to your Control Box (Programming Instructions are provided with additional remote).

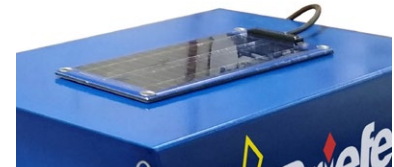


Fig 11 - Attach Solar Panel



Fig 12 - One Button Remote

Appendix

References

1. Sentry Insurance, FEMA, *Owner's and Operators Manuals for Farm Equipment*, Sentry Insurance, Stevens Point, WI, revised Management Bulletin No. 112, 90-42; March 2007, pp S-2.
2. Jill Webster Ph.D., & Mark Gonzalez; *Livestock Safety*; Agricultural Systems Technology and Education, Utah State University Extension; Utah State University , <<http://extension.usu.edu/files/publications/factsheet/AHS-11.pdf>>

Suggested References

Priefert assumes no liability for the use or misuse of information provided in the following references:

PRCA, [prorodeo.com](http://www.prorodeo.com); *Rodeo Terminology*, 2021

<https://www.prorodeo.com/prorodeo/rodeo/rodeo-terminology>

The Team Roping Journal; *Stupid is Scary: Safety First with Jake Barnes*, 2021

<https://teamropingjournal.com/horse-care/stupid-is-scary-safety-first-with-jake-barnes>

PRCA, [prorodeo.com](http://www.prorodeo.com); *Livestock Welfare Rules*, 2021

<https://www.prorodeo.com/prorodeo/livestock/livestock-welfare-rules>

AQHA, American Quarter Horse Association; *Roping Tips: Using Your Seat and Legs*, 1999, 2000

<https://www.aqha.com/-/roping-in-your-mind-s-eye>

Equine Wellness, *How to prepare your horse for roping*, 2020

<https://equinewellnessmagazine.com/horse-roping/>

FCC Compliance Statement:

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Limited Warranties:

Priefert Manufacturing Company, Inc., ("Priefert") 2630 South Jefferson, P.O. Box 1540, Mount Pleasant, TX 75456-1540, warrants for one (1) year from the purchase date to the original non-commercial, governmental, or municipal purchaser ("Purchaser") and warrants for six (6) months to the original commercial or industrial purchaser ("Purchaser") that the product purchased are free from defects in material or workmanship. Priefert will replace or repair, free of charge to the original purchaser any part(s) found, upon examination at our factory, to be defective under normal use and service due to defects in material or workmanship, provided that the original purchaser:

- a. Notifies Priefert in writing of any defect in material or workmanship within the above specified warranty period.
- b. Returns must be routed through an authorized Priefert dealer or distributor from whom the purchase was made.
- c. Purchaser is responsible for cost of shipping.

In no event will Priefert be held liable under this warranty unless written notice is received and failure must have occurred within the warranty period. Genuine Priefert replacement parts and components will be warranted for 90 days from date of purchase, or the remainder of the original equipment warranty period, whichever is longer.

This limited warranty does not apply to any part of the product which has been subjected to improper or misintended use, negligence, alteration, modification, or accident, damaged due to lack of maintenance or use of wrong oil or lubricants, or repairs that have been made with parts other than those obtainable through Priefert, or which has served its usual life. This limited warranty does not apply to any expendable item such as blades, shields, guards, or pneumatic tires, or other trade accessories since these items are warranted separately by their respective manufacturers, except as specifically noted in your Operator's Manual.

Except as provided herein, no employee, agent, Dealer, or other person is authorized to give any warranties of any nature on behalf of Priefert. Only Priefert is authorized to make any representation to the purchaser concerning "normal" use and service for its product as described in the Operator's Manual, or in authorized printed materials or stickers affixed to the product.

If after examination of the product and/or part(s) in question; Priefert finds them to be defective under normal use and service due to defects in material or workmanship,

Priefert will:

1. Repair or replace the defective product or part(s); if Priefert has made several reasonable number of attempts in repairing the product and/or part(s) to conform to the warranty; then
2. Priefert will replace part(s) or product.
3. Purchaser is responsible for any labor charges exceeding a reasonable amount as determined by Priefert and for returning product and/or part(s) to the Dealer, whether or not the claim is approved. Purchaser is responsible for the transportation cost for the product or part(s) from the Dealer to the factory.

The choice of remedy shall belong to Priefert. Repair or replacement are the only remedies against Priefert under this limited warranty.

Limitation of Liability:

1. Priefert disclaims any express (except as set forth herein) and implied warranties with respect to the product including, but not limited to, merchantability and fitness for a particular purpose.
2. Priefert makes no warranty as to the design, capability, capacity, or suitability for use of the product.
3. This warranty shall not be interpreted to render us liable for injury or damages of any kind or nature to person or property. Priefert will not be liable for any special, incidental or consequential damages based upon breach of warranty, breach of contract, negligence, strict tort liability, or any other legal theory. Such damages include but are not limited to loss of crops, loss of savings or revenue, cost of capital, loss of use of equipment, facilities or services, down time, expense or loss incurred for labor, supplies, substitute machinery, rental, and claims of third parties including customers, and injury to property.

Supplementary:

1. Proper venue for any lawsuits arising from or related to this limited warranty shall be only in Titus County, Texas.
2. Priefert may waive compliance with any of the terms of this limited warranty, but no waiver of any terms shall be deemed to be a waiver of any other term.
3. If any provision of this limited warranty violates any applicable law and is held unenforceable, then the invalidity of such provision shall not invalidate any other provisions.
4. Applicable law may provide rights and benefits to purchaser in addition to those herein.

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