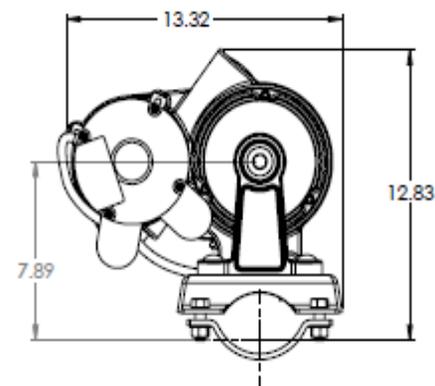
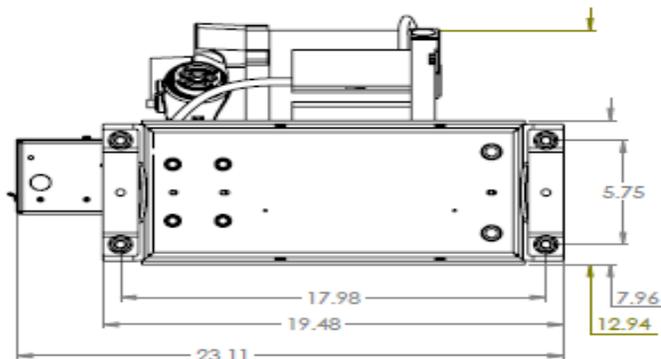
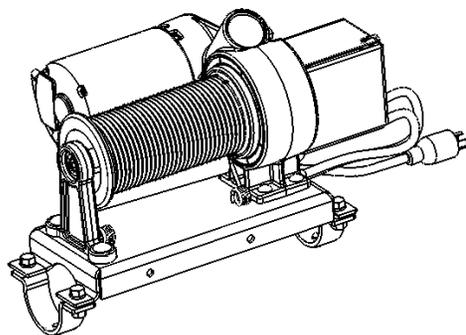
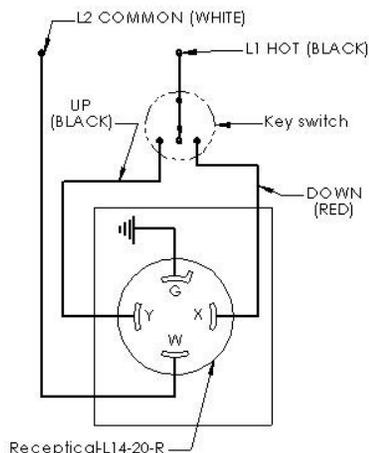


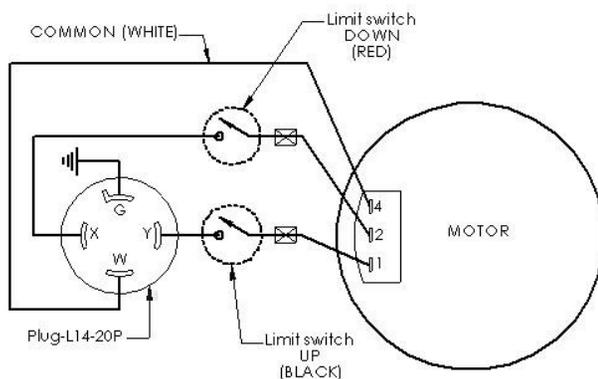
Welcome to the LynRus QR4 Basketball Goal hoist, *the* premium hoist of the gymnasium equipment market!



Key switch to receptical wiring schematic for Lynrus QR4 hoist with pigtail



Lynrus QR4 hoist wiring schematic with pigtail



UNIT	WINCH-QR4
WEIGHT	68 LBS
LENGTH	22.85 in
WIDTH	12.75 in
HEIGHT	13.45 in
POWER	
VOLTAGE	120 AC
CURRENT	11.5 FLA
FREQUENCY	60 HZ
DUTY	Intermittent 10 min.
CAPACITY	1250 LBS Max
TRAVEL	35 Feet
SPEED	9.6 ft/min Max

**WARNING:**

- Read all instructions prior to installation and use.
- This unit is intended for indoor use only
- Use appropriate lock-out and tag-out procedure when installing unit.

**Hardware packet includes:**

Description	Quantity
Washer, Flat, 1/2"x 1-3/8"	4
Washer, Lock, 1/2"	4
Nut, Hex, 1/2"	4
Screw, Hex head, 1/2"x 1-3/4"	4
Screw, Square head, 3/8"x 1/2"	2
Half Clamp, Pipe, 3"	2

**Tools needed:**

- twelve point socket 3/4 inch six or Socket drive
- 3/4 inch combination open/box end wrench
- 3/8 inch eight point socket
- 0-100 ft\* lb torque wrench
- Center punch & drive hammer
- 3/8 inch twist drill
- Cordless drill motor
- #3 Phillips screw driver

**Items that may not be supplied with your QR4:**

- 1/4" Galvanized Steel, 7 x 19 stranded Wire Rope (per MIL-DTL-83420 or Equivalent)
- 2 ea. 1/4" cable clamps
- Key Switch, UL Listed, Rated for 15A at 120 VAC (usually sold separately)

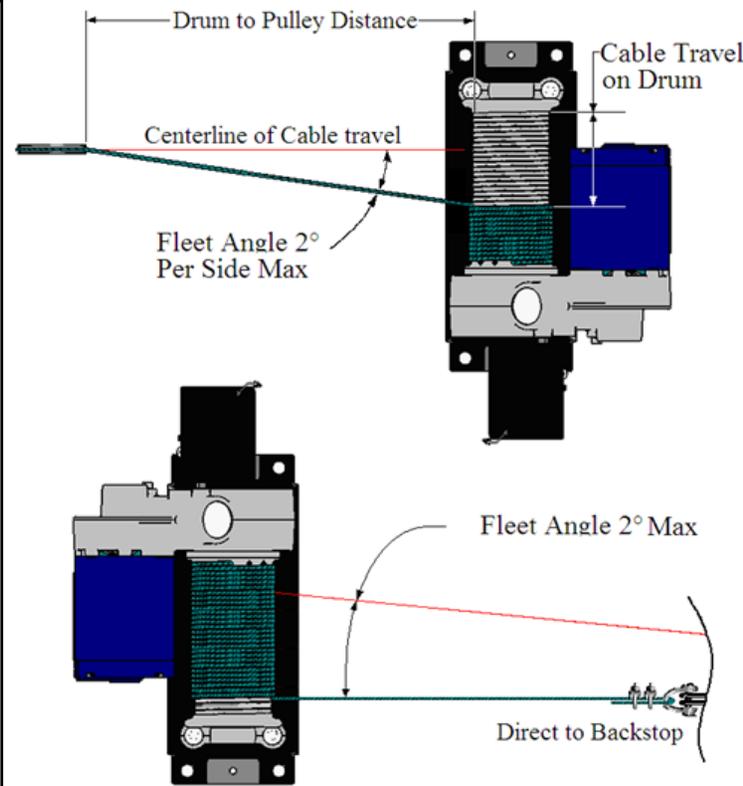
**WARNING:** When installing unit ensure that work platform is stable. Work platform (i.e. man lifts) may tip when extended to great heights. Make sure the work platform is clear of the backstop when testing the movement of the backstop. Do not stand on work platform during movement of backstop

## Installation Instructions

The clamps provided are designed for 3" pipe (3 1/2" outside diameter) or 4" tube (4" outside diameter).

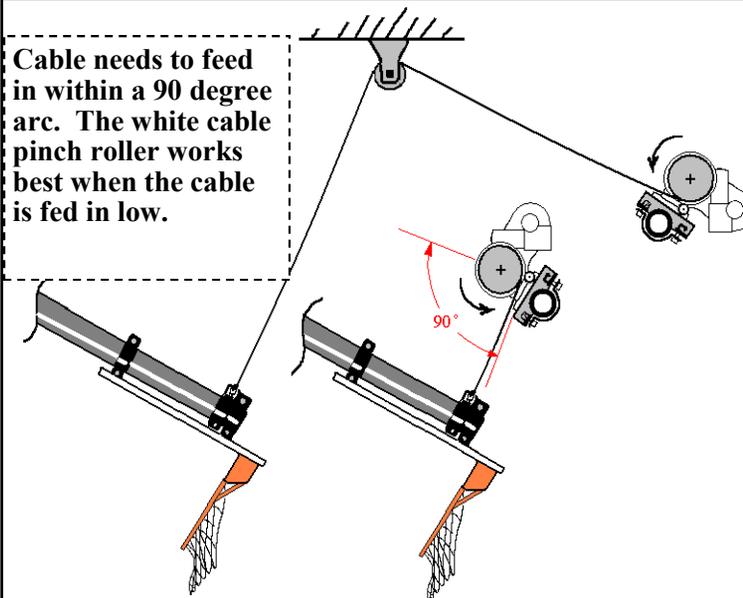
1. The basketball backstop must be in its down position for installation of the hoist. Locate the installation position of the hoist. It is important that the hoist be located a proper distance from the closest pulley or attachment point. This is based on the total travel distance of the cable pulled by the hoist. Generally speaking the greater the amount of cable drawn, the greater the distance needs to be. For any length of cable, the formula is 4 inches of offset per foot of cable drawn. (See winch drum chart)

Winch Drum Chart			
Cable payout in feet	# turns	IN. Linear travel on drum	Min drum to pulley distance
10	8.6	2.4	48
15	12.9	3.6	60
20	17.1	4.8	72
25	21.4	6.0	86
30	25.7	7.2	103

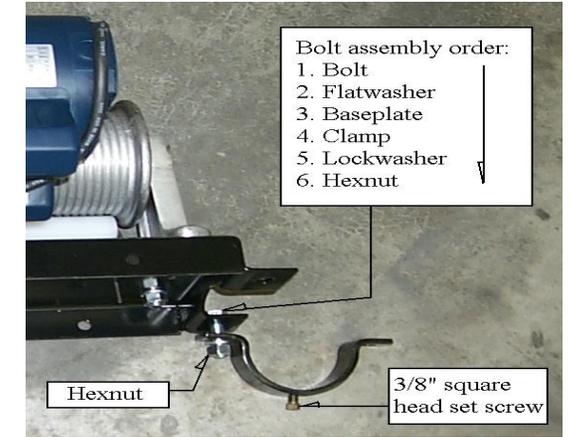


Determine the installation angle of the hoist ). During the full range of motion of the backstop, the cable must not ever rub on any part of the winch or backstop structure.

Cable needs to feed in within a 90 degree arc. The white cable pinch roller works best when the cable is fed in low.



2. Attach one half of each pipe clamp to the base plate of the hoist as shown. This is so that you can place the hoist on the mounting structure pipe and have the clamps handy for assembly.

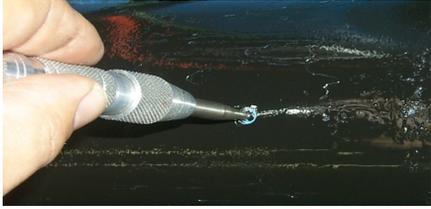


3. Insert the second set of bolts and washers into clamps and base plate.



4. Position the hoist and hand tighten the bolts so that the hoist will remain in position on the pipe.
5. Mark pipe for set screw hole. Use the 3/8" 8 point socket and drive handle to tighten the 3/8" square head set screw against the pipe enough to dent the paint on the pipe.
6. Loosen the clamp bolts enough that the QR4 Hoist can be rotated and moved about 3 inches to one side.

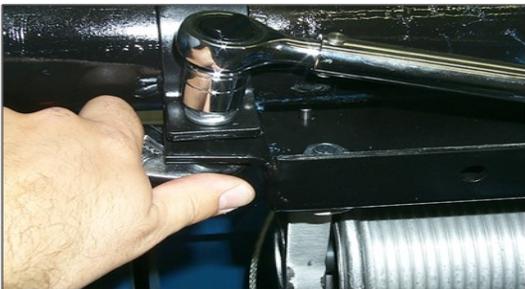
7. Use center punch to mark and indent the centers of where the set screw upset the paint on the mounting pipe. This is so that you can drill an index hole in the pipe to prevent rotation of the hoist



8. Drill the pipe with the 3/8" drill so that the holes pierce completely into the interior of the Pipe.



9. Re-position the hoist clamps over the holes in the pipe and tighten the square head set screws into the holes in the pipe. Torque the set screws to 18 ft\* lbs.
10. Tighten the four half inch hex bolts that hold the clamps to the base plate. Torque the nuts on the hex bolts to 35 ft\* lbs

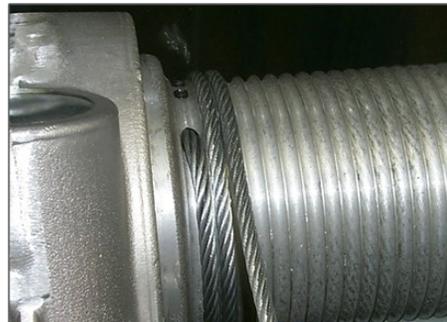


11. Ensure wiring is installed and power is active. Receptacle must be pre-wired and active to install cable. Ensure cable is strung and ready to go.
12. Plug twist lock plug into receptacle
13. Use only 1/4" Galvanized Steel, 7 x 19 stranded wire Rope (per MIL-DTL-83420 or Equivalent) Assure the cable set crews are loosened enough to allow the cable to insert fully into the drum. Insert cable into socket in drum, torque both set screws to 7 ft\* lbs.



**14. WIND A MINIMUM OF 3 SAFETY WRAPS OF CABLE ONTO THE DRUM BEFORE LOADING THE HOIST!**

15. The cable must wind onto the drum following the grooves on the drum. It will only wind properly on the drum in one direction.



**WARNING: Cable winding on drum poses a severe pinch hazard! Use extreme caution while installing cable. Do not guide cable onto drum with hands; use proper tools. Do not damage or nick the cable in the process of winding it onto the drum. Do not wear loose clothing, long hair, jewelry, etc. When installing cable on drum, ensure that the opposite end of the cable is free. Do not attach cable to backstop until the hoist unit is installed and the cable wound on the drum**

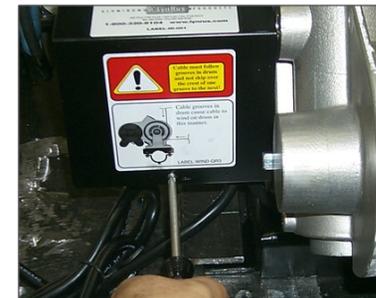
16. Attach far end of cable to the backstop. Leave 1-2 inches of slack in cable.



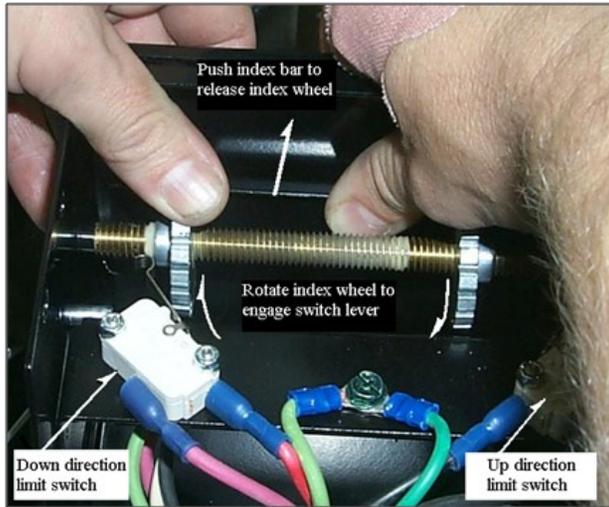
17. Lock out electrical power.

**WARNING: HIGH VOLTAGE!** Setting the limit switches is a hazardous operation. To set the limit switches you must access the hoist while the cable is installed. Lock out and tag the circuit breaker for this unit before adjusting the limit wheel settings. This prevents electric shock, and injury due to unexpected hoist movement.

18. Set limit switches. Loosen the retaining screw and remove the limit Box Cover



19. Press the black index locking bar away from the down direction index wheel so it can rotate freely. Rotate the wheel until the switch “clicks” indicating that the switch is active



20. Unlock and restore Electrical power. Twist the key switch in the down direction to verify the down switch setting. The hoist should not Move.
21. Lock out Electrical power and adjust the down direction wheel as necessary to obtain desired setting. The cable should have 1-2 inches of slack in the down position.
22. Estimate the amount of cable drawn when the backstop travels from the deployed (down) position to the stowed (up). The number of feet of cable is roughly equivalent to the number of threads between the two index wheels.
23. Set the Up Direction index wheel so that the two wheels are the same number threads apart as the cable travel in feet.
24. Unlock and restore power.

25. Operate the hoist to raise the backstop to its stowed position. Since each rotation of the drum is about 14.2 inches, the hoist should stop short of desired stowage; the drum rotates at the same speed as the limit shaft.

**WARNING:** Always directly observe the movement of the backstop whenever operating, watching for mechanical interference!

26. Remember to appropriately lock and unlock the electrical power. Adjust the up direction limit switch until the backstop is set.
27. Place the cover on the limit box and secure the screw with a screwdriver.

Congratulations! You have completed the installation of the LynRus QR4 Electric Backstop Winch. If you have any questions or concerns about the product or it's installation, please contact the manufacturer you purchased the product from or visit [www.lynrus.com](http://www.lynrus.com).



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### **Five Year Limited Warranty**

To ensure superior quality, all of our products have been manufactured and constructed to the most current procedures and specifications.

If, however, any product fails for reasons related to the quality of craftsmanship, materials or design, this warranty guarantees that the LynRus Aluminum Products LLC will repair or replace (at our discretion) the product.

This warranty is valid for a period of five years. After the five-year period expires, if a product fails due to craftsmanship, materials or design, the customer may be responsible for charges relating to repair or replacement.

This limited warranty does not cover failure of our products due to improper handling, misuse or improper installation.