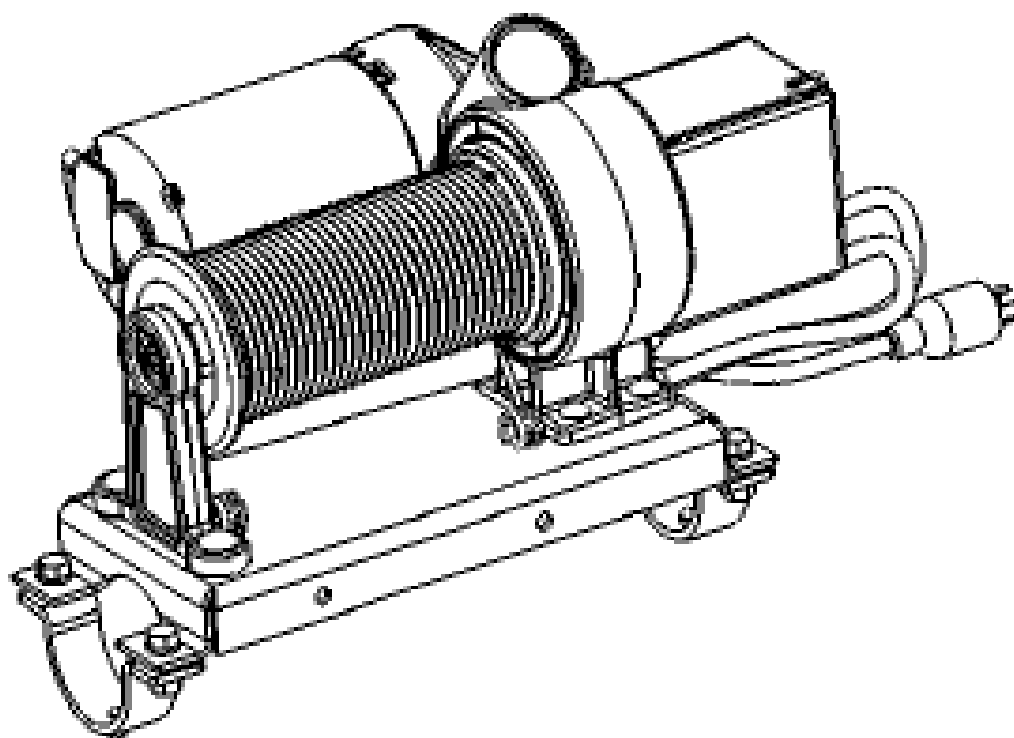




Electric Backstop Hoist

Model 1194



Installation and Maintenance Instructions

Please read all instructions before attempting installation or operation of these units

SAVE THESE INSTRUCTIONS FOR FUTURE USE

PUBLICATION No.
501755510

Winch Attachment and Wiring

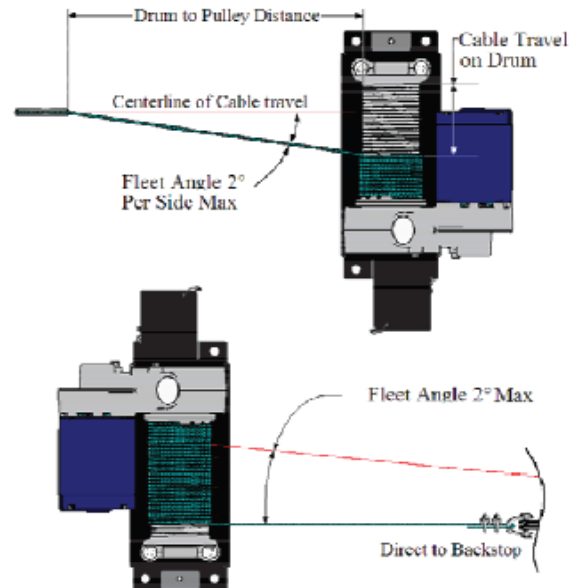
WARNING: When installing unit ensure that work platform is stable. Work platform (i.e. man lifts) may tip when extended to great heights. Make sure the work platform is clear of the backstop when testing the movement of the backstop. Do not stand on work platform during movement of backstop

Installation Instructions

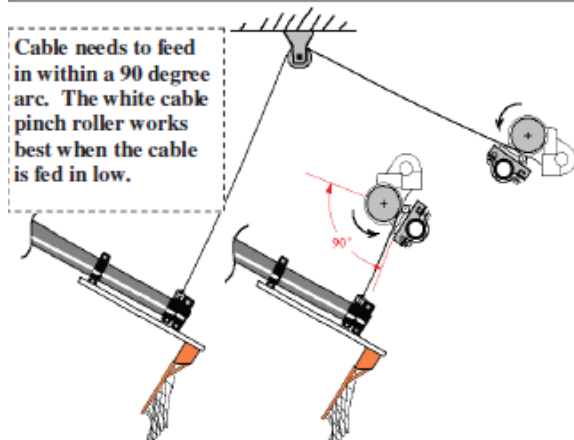
The clamps provided are designed for 3" pipe (3 1/2" outside diameter) or 4" tube (4" outside diameter).

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](#))

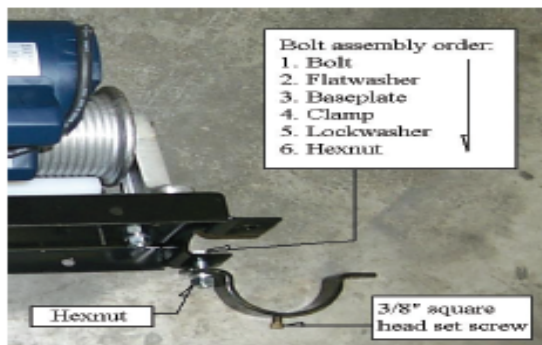
| Winch Drum Chart | | | |
|----------------------|---------|---------------------------|-----------------------------|
| Cable payout in feet | # turns | IN. Linear travel on drum | Min drum to pulley distance |
| 10 | 8.6 | 2.4 | 48 |
| 15 | 12.9 | 3.6 | 60 |
| 20 | 17.1 | 4.8 | 72 |
| 25 | 21.4 |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



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.



Winch Attachment and Wiring (cont.)

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

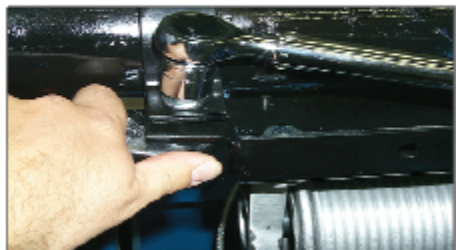


8. Drill the pipe with the 3/8" drill so that the holes pierce completely into the interior of the Pipe.



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.

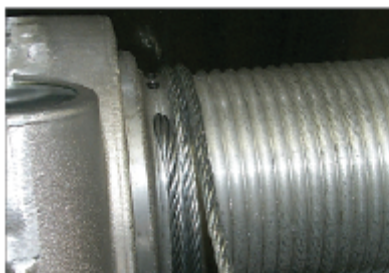
12. Plug twist lock plug into receptacle

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 two safety straps of cable on the drum.

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.



Winch Attachment and Wiring

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.



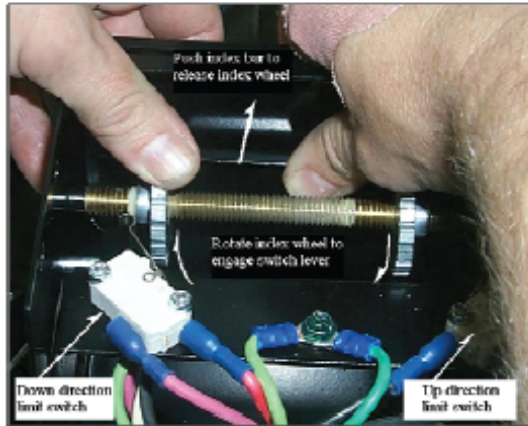
17. Lock out electrical power.

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.
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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.
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