

EMERGENCY LOWERING OF BACKSTOP IN CASE OF POWER FAILURE

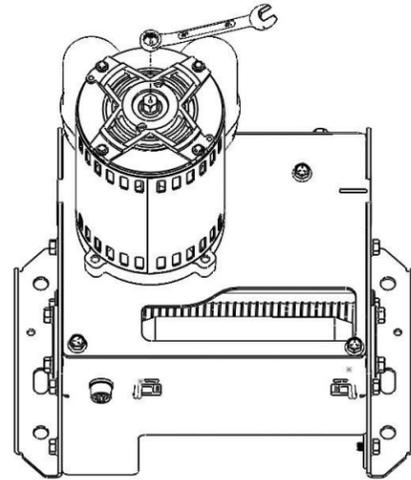
If the winch is not able to be used because of a power failure, etc., it is possible to turn the winch manually to lower the backstop.

The winch motor comes standard with a 1/2" hex on the end of the shaft at the back of the motor.

Use a 1/2" socket and a cordless drill or hand tools over the hex shaft.

Turning the shaft clockwise will slowly lower the backstop.

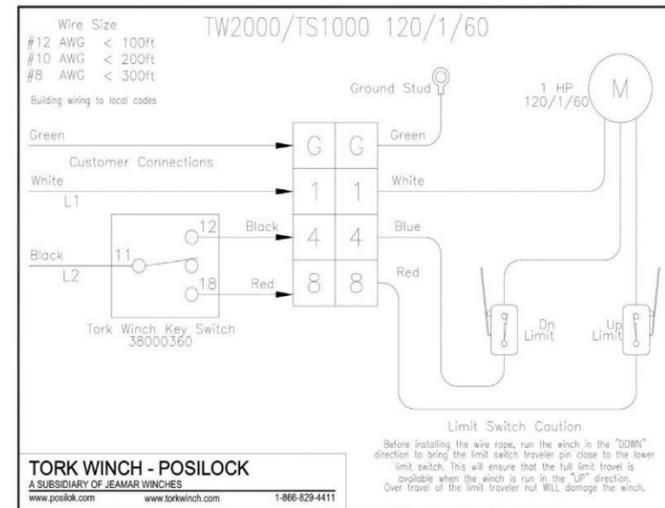
PLEASE NOTE: The limit switches will not stop this winch if operated manually through motor shaft. Take care not to drive the winch past the lower limit switch as this will damage the limit switch and require repair.



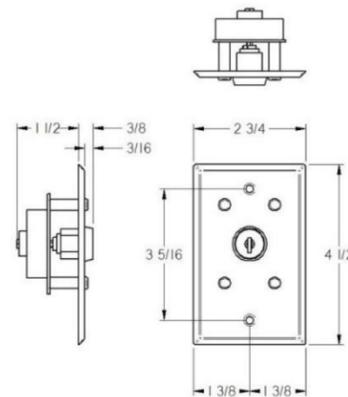
TORK WINCH

TW 2000 BASKETBALL BACKSTOP WINCH

Installation Instructions



Sizes of wall masonry boxes required for single and ganged key switches—All boxes 2" (w) x 3 3/4" (h) x 2 1/2" (d).



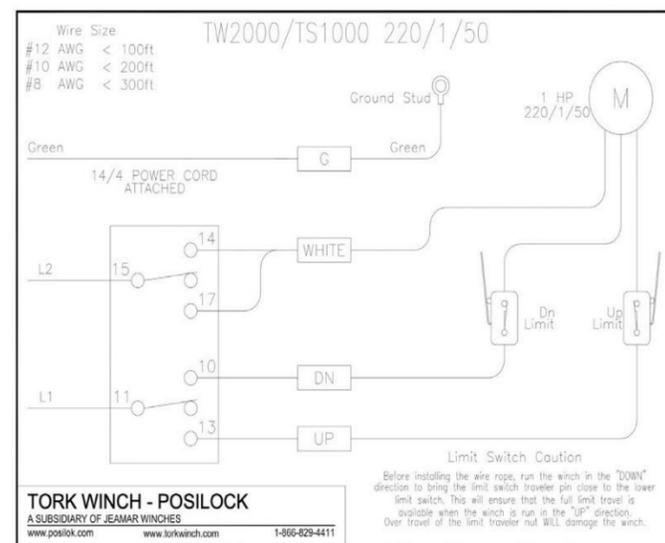
The above figure outlines the dimensions of the single gang key switch (Part #K-SK13710).

NOTE: For 220V models, a DPDT key switch is required (Part #39000420).

If you encounter any difficulties installing or servicing your product, contact your dealer or Tork Winch directly.
P: 1-866-829-4411 | E: sales@torkwinch.com

USA: Tork Winch USA LLC
5020 Hazel Jones Road
Bossier City, LA | 71111

CANADA: Tork Winch
125 Bysham Park Drive
Woodstock, ON | N4T 1P1



THANK YOU FOR YOUR PURCHASE OF
A TORK WINCH TW 2000.

Every single Tork Winch is electrically and load tested in our factory to assure 100% performance.

If you experience any issues, please call our head office immediately:

1-866-829-4411

CAUTION

1. As with any lifting device, the installation shall be made only by persons suitably experienced and qualified for work on hoisting equipment, in accordance with local requirements.
2. The electrical supply and connection to the winch shall be made in accordance with local electrical code and by qualified personnel.
3. The instructions address the areas of proper mounting, rope installation, wiring and limit switch adjustment, but they are not intended to cover every aspect of installation of your hoisting system, not to replace the need for normal good care, workmanship and proper practices on the part of the installer.

MOUNTING WINCH ON A FLAT SURFACE

1. Four 9/16" diameter holes are provided for mounting the unit. The fastener type and size required will vary according to the type of mounting surface but must be adequate to safely sustain all loads imposed by the backstop.

MOUNTING WINCH TO A PIPE (FIG. 1)

1. Use the two pipe clamps supplied to secure the winch to a standard 3" (3 1/2" O.D.) standard pipe. The use of clamps for a standard 3 1/2" (4" O.D.) pipe can be provided upon request at the time of order. The pipe clamps will line up with the two pairs of mounting holes on the front flange of the winch (see fig. 1).
2. The winch may be mounted with the rope port(s) up, down or sideways because there are no lubricant levels to be concerned with or oil to drip. Two rope ports are provided and either one may be used to bring the rope out to suit your installation arrangement. Using the provided 1/2" lock nuts, securely fasten the winch to the pipe.

PLEASE NOTE: Do not over-tighten U-bolts; over-tightening can cause deflection and weakening of the frame—creating an unsafe situation and voiding warranty.

3. Drill two 9/32 holes in pipe, using frame holes in winch as guides. Thread in self-tapping screws (provided) to lock against rotation. If this is not done correctly, the winch can rotate on the pipe under load.

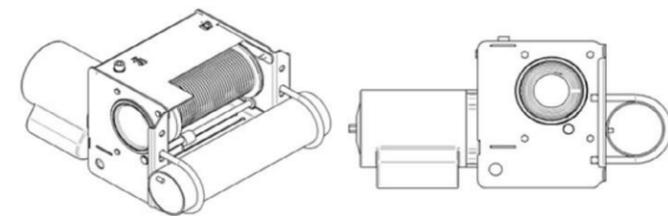


Figure 1

WINCH WIRING

1. Two 7/8" diameter knock-outs are provided, one on each side of the winch, to accept 1/2" conduit connectors and provide wire access to the electrical compartment at the bottom of the winch case.
2. Remove the two screws securing the lower cover, slide the cover out from its locating tabs and withdraw it.
3. The wiring diagram is on the inside surface of the cover. Field connections are made directly to the terminal block provided. We recommend using a minimum of 12-gauge conductor wire as a power supply line to the winch. All circuit breakers must be dedicated. Check for voltage drops under load. (The limit switches are located in the same compartment.)

DO NOT USE LONG EXTENSION CORDS TO POWER THE WINCH. USE A MINIMUM OF 12/3 GAUGE-MAXIMUM 100 FT. WHILE INITIALLY CONNECTING THE WINCH DURING INSTALLATION PERIOD. RUNNING THE WINCH UNDER DEGRADED VOLTAGE CONDITIONS WILL RESULT IN OVERHEATING, LOW POWER AND DAMAGE TO THE CAPACITORS.

PLEASE NOTE: The winch limit switches are pre-wired at the factory. Never test run the winch with the limit switches bypassed as this may cause over-travel of the limit mechanism and result in damage to the winch.

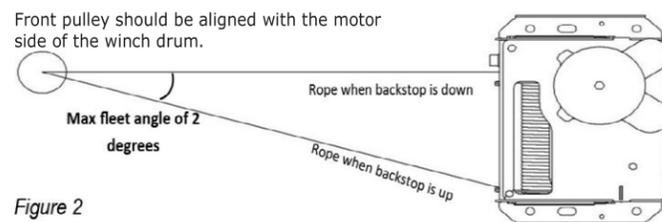


Figure 2

WIRE ROPE INSTALLATION

The winch is designed for standard 1/4" diameter 7 x 19 aircraft cable.

1. Cut the wire rope to the desired length. Allow 3' of additional length to serve (3) dead wraps on the winch drum. Ensure a clean cut.
2. Manually turn the motor shaft with a 1/2" wrench to bring the wire rope mounting hole in winch drum to an easily accessible position.
3. Pass the cable through the provided rope clamp. Allow a 1" extension past the rope stop (see figure below). Three set screws have been provided to secure the rope. Gradually snug each set screw using an Allen key. Tighten the set screws to 90 in.lbs of torque using a torque wrench.
4. Pass the wire rope from outside the winch in through the desired rope port and then through the opening in the drum. The drum has a large hole followed by a slot. The rope stop must be inserted into the hole and then pulled forward to the front of the slot. Failure to pull the rope snugly forward can result in a falling load.
5. Running the winch in the "Up" direction will begin winding the wire rope onto the drum. Run the winch so that a total of 3 revolutions of cable are wound on the drum. These revolutions are considered "dead wraps"—this length of wire rope must remain on the drum at all times. Use extreme caution and keep hands and clothing away from moving parts.
6. A) The cable can now be reeved over directional pulleys and down to the mast as per the backstop manufacturer's recommendations. At the starting side of the drum, the rope must exit perpendicular to the winch (0° fleet angle) as it travels to the head pulley (see Figure Below).
6. B) If no head pulley is installed in the system and the winch is used as a direct pull; the fleet angle MUST be as close to 0° as possible when the backstop is in the fully raised position.

PLEASE NOTE: Put only three "dead wraps" on the drum at the start of the lift. Excessive dead wraps use space on the grooved drum—forcing the rope onto a second layer when it is not needed.

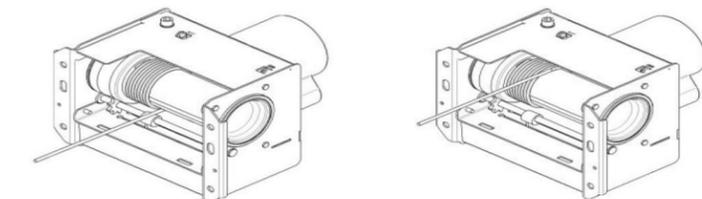
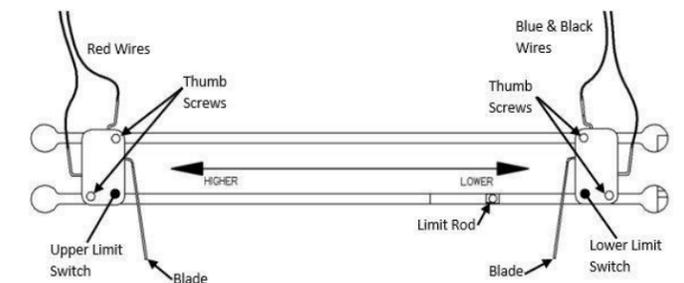


LIMIT SWITCH ADJUSTMENT

PLEASE NOTE: One upper and one lower travel limit switch is provided. Proper adjustment is simple and quick with the following procedure. Always shut power off from the winch when working inside the electrical compartment.

The cover has been designed for quick removal to simplify limit switch adjustment.

1. Run the winch in the "up" direction to raise the backstop to the desired (fully raised) position and stop it in this position. Turn off the power to the winch at the breaker and remove the electrical compartment cover. (2 hex screws)
2. Loosen the two thumb nuts holding the upper limit switch.
3. Slide the upper limit switch across until the blade contacts the limit rod, then slide it a little further until an audible click is heard as the switch opens. Tighten the thumb nuts. **Do not over-tighten thumb nuts as this may crack the limit switches.** The top limit is now set.
4. Temporarily reinstall the cover and run the backstop down to the desired lower stop position. Set the lower limit switch the same way.
5. Run the backstop up and down again to ensure that the limit positions are set correctly. Note: The wire rope should not be under a slack condition when the backstop is in the lower position.
6. Make a final check to make sure that all fasteners are tight and the rope is tracking properly in the drum grooves before putting the winch into use.



Rope must be wound in this direction.

Rope wound in the wrong direction.

Installation Instructions Continued >