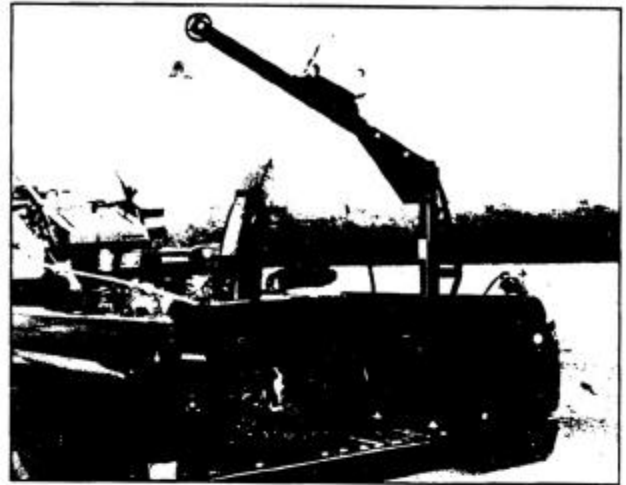


# OWNERS MANUAL

# Pickup Truck

# CRANE

*Operated By*  
*Power In/Power Out Winch*



Agricultural



Industrial



Maintenance



## The Perfect Addition To Your Utility Vehicle.

- Lifting, loading, unloading and positioning becomes easy with our pickup truck crane.
- Great for jobs too heavy for manual lifting or too light to justify rental equipment.
- The Pickup Crane can lift 500 lbs. \*when properly installed onto your 1/2 ton capacity pickup and 750 lbs. on your 3/4 - 1 ton.
- Two position, 360° rotating boom makes total use of available space. It's easy to rotate when loaded thanks to our exclusive Torq handle.

FAMILIARIZE YOURSELF THOROUGHLY WITH THIS MANUAL BEFORE USE.  
TO PREVENT DAMAGE TO CRANE AND PROPERTY AND AVOID PERSONAL INJURY.

## Bi-directional 12 Volt Winch

- Safely raises and lowers your precious cargo
- Positively controls rate of descent with our high torque motor, vented disk brake with double action calipers and metal/organic pads
- 12 feet of durable, weather resistant 1/4" aircraft cable



*Easy Grip Remote Control*

### Remote Control

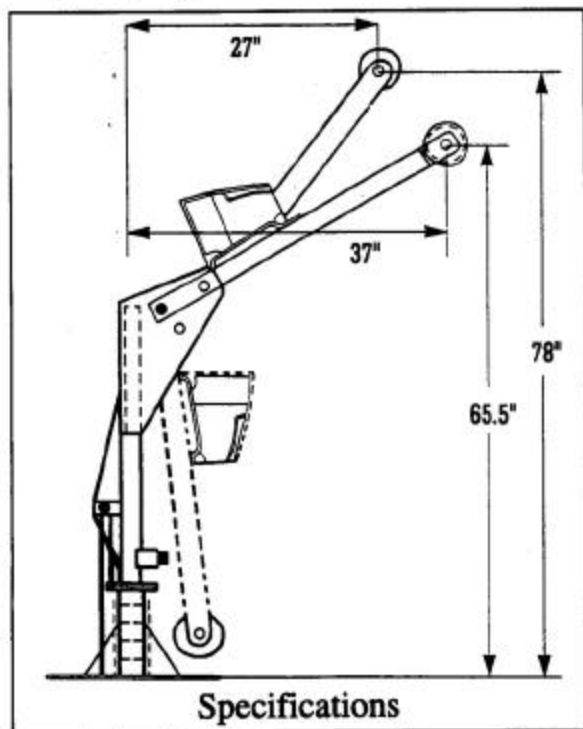
- Coated contact tips for long service life
- Provides positive control of the load from a safe distance



*Compact, Space Saver*

### Convenient Knock Down Style

- Enhances driver's vision
- Easy to transport
- Easy to remove for storage



### Power Requirements

Recommended voltage is 12 to 15 volts maximum with a battery of at least 55 Ah with 450 CCA minimum. For peak performance at rated capacity lifts, your vehicle should be running. Put the vehicle in park, or neutral for manual transmissions, with the emergency brake on, the wheels chocked and all auxiliary supports extended.

### Lift Capacities\*

Maximum lift for a full size 1/2 ton pickup truck:  
500 lbs. straight line lift  
Maximum lift for a full size 3/4 to 1 ton pickup truck: 750 lbs. straight line lift

Line speed @ full load 4 fpm  
Line speed @ no load 9 fpm

\* Recommended lift capacities are only for the crane unit itself and not necessarily the capacity at which the crane should be operated. The crane capacity is limited by the condition of your vehicle and the method of installation and the supporting structure that has been added to the vehicle to spread the force of the loaded crane over as wide an area as possible.

The truck owner/crane purchaser is responsible for ensuring that the vehicle is suitable for use with this crane and is solely responsible for damage as a result of the overloading, non-straight line lifts and abuse/misuse. Use common sense and extreme caution while using this equipment.

# INSTALLATION / ASSEMBLY

## TRUCK CRANE

**NOTE:** Installation of this product requires some drilling. Professional installation may be advised depending upon your installation skills and your ability to determine the load bearing strength of your truck bed and frame.

1. We recommend mounting the truck crane on the passenger side rear most corner of the bed. The use of an outrigger is necessary in some instances. This will help to reduce bed sag and reduce stress on the truck bed by keeping the crane upright as close as possible to 90 perpendicular to the level loading surface. With 3/4 ton capacity and larger trucks with stiffer suspensions, the need for such additional support devices decrease.

### **!!NOTE!!**

IF CRANE IS INSTALLED WITHOUT THE NECESSARY REINFORCEMENTS, SEVERE VEHICLE DAMAGE MAY OCCUR. IF IN DOUBT ABOUT ANY PART OF THESE INSTRUCTIONS CHECK WITH A QUALIFIED INSTALLER.

2. Before going too far, take time to check the parts list to ensure you have everything which we supply.

3. Use the upper base plate as a template for marking the position of the holes required for mounting. Drill carefully, ensuring that you are not drilling through or too near the gas tank, gas line, brake line, suspension part or any other vital component which may be relevant to the safe and proper operation of your vehicle. Do not bolt to or otherwise contact the gas tank or connecting flanges.

4. If adequate clearance exists, bolt an "L" bracket which will securely attach a lower base plate to the vehicle frame. This will lessen the likelihood of the can opener effect caused by accidental overloading or shockload. After determining that the upper and lower base plates do not interfere with the safe and proper function of your vehicle, bolt the base plates in place using the provided hardware. Check to ensure that all clearances are adequate, then tighten all 8, 1/2" mounting nuts and bolts and washers. Use of bed filler material may be necessary as a bed reinforcement.

5. Apply a small amount of axle grease or all purpose white grease to the bearing found at the base of the upright as well as to the area of the upright which directly contacts the upper base plate.

6. Carefully lower the upright into the receiver of the upper base plate. Attach boom to upright using 2pcs. each of 1/2" x 4.125" axle pins and keepers.

7. With boom in lowered position, attach winch to adapter plate section of boom specifically onto corresponding adapter plate studs(3). Position winch forward so that adapter plate studs fit snugly into small of winch plate hole allowing the anchor bolt (3/8" x 1") and lock washer to be installed.

8. Place winch in free wheel position, feed enough cable from spool to reach beyond the end of the boom approximately 1 foot. Remove axle pin from pulley assembly, allow the pulley to drop or slide forward 1/2" or so, clip safety hook onto guide, this will allow you to maneuver the hook past the cable guide. Then re-attach the cable pulley, ensuring that the cable lines up properly in the cable guide groove.

Check to Ensure weight is secure before using winch. **NOTE:** Cable weight is needed to properly spool the cable in the event the power out function is used.

**!!CAUTION!! READ AND UNDERSTAND BEFORE INSTALLATION AND USE !!**

**NOTE:** Proper installation will vary from truck to truck due to various bed thicknesses, frame configurations, and truck options such as extra gas tanks and hitch bars. Whatever reinforcement method you choose keep in mind the purpose of that reinforcement is to spread the energy of the loaded crane over as large an area as possible. Simply bolting the crane to the bed of your pickup truck without careful planning will probably result in a "Can Opener" effect and cause substantial damage to the bed of your truck and more. If in doubt as to proper installation, contact the nearest truck accessory / repair shop.



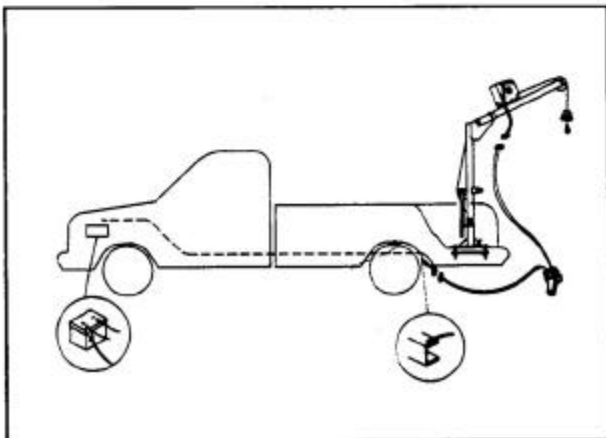
# INSTRUCTIONS / ASSEMBLY

## POWER IN / POWER OUT WINCH

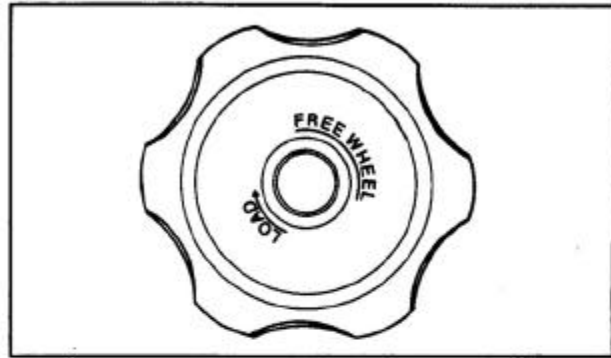
1. Connect winch loom to proper battery supply. Take care to ensure that the red positive wire is protected against damage from chafing, rubbing against sharp edges etc. We recommend that rubber grommets and plastic bushings be used when routing power cable through truck bed and frame. We recommend that winch be connected to either the vehicles' battery or an auxiliary battery mounted somewhere in the bed area. A 12 volt battery of at least 55aH capacity is recommended for rated capacity lifts. This is a minimum requirement for duty cycles made up of a combined 4 rated capacity lifts or lowerings of at least 8 feet of cable each. For rated capacity lifts at maximum duty cycle we recommend recharging the battery completely after 4 duty cycles. If your battery is connected to the vehicle charging system, you may want to leave vehicle running at a fast idle, with emergency brake on and wheels properly chocked. Battery and charging system condition directly affect the performance of your winch. Have these systems checked regularly.

2. Ensure that the breaker provided with the power loom is securely attached to the winches red wire and the positive battery cable.

3. Connect the power supply loom and remote control to the winch by firmly pushing the corresponding red colored quick connects found at one end of the power supply loom and on the winch, together. This connection will provide power to the remote control unit and ultimately to the winch.



4. Check to ensure that winch clutch knob is in the "Load" position (Turn clockwise until firm). The power lift and lower functions are activated by pressing the "In" or "Out" buttons.



5. For "Free Wheel" function, turn clutch knob counterclockwise but never more than 2 full turns.

DO NOT subject the winch to a series of repeated, quick direction changes as this will create a shock load which will damage vehicle and truck crane as well as cause personal injury to operator and bystanders.

## HOW TO USE

1. Select a hard, level surface on which to park your vehicle. Ensure the load is directly beneath the truck cranes' pulley assembly at all times.

**!!NEVER DRAG OR PULL THE LOAD TO THE CRANE. CABLE AND HOOK MUST ALWAYS BE AT 90 PERPENDICULAR TO THE SURFACE ON WHICH YOU HAVE PARKED !!**

2. If your truck is equipped with an outrigger, extend it out onto the flat, level surface which you are parked upon.

3. When using the crane to lift or to position a load, it is important to properly secure the load. Always use load straps or chains rated at a greater capacity than your crane. **!!Never wrap the winch cable directly around the load!!**

**!!NOTE!!**

**MAINTAIN A MINIMUM OF 5 WRAPS OF CABLE ON SPOOL AT ALL TIMES. THIS PROVIDES FOR THE BEST USE OF YOUR WINCHES HIGH TORQUE MOTOR AND TRANSMISSION.**

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4. After securing the load in the above manner and rechecking the setup to ensure its' stability and compliance with all the above requirements, lock the crane upright into a position which will allow the load to be lifted straight up without dragging or pulling. This will help prevent swinging loads and the resulting damage. Proceed with caution to lift and position your load.

5. When lowering load, take care to ensure that the load does not swing and that the crane upright is locked securely into position. Before lowering load onto its' ultimate resting place, check to ensure that the surface being lowered onto is capable of safely sustaining the load.

6. After lowering the load completely, release the tension from the cable, unhook the load from the winch hook and reposition the boom for the next lift or for transportation.

**!! WARNING !!**

**!! BEFORE MOVING VEHICLE !!**

ALWAYS SECURE TRUCK CRANE IN THE STORAGE POSITION USING THE PROVIDED STEEL PIN. RETRACT AND SECURE ANY SUPPORTS THAT MAY BE PART OF THE OUTRIGGER ASSEMBLY.

**!! IMPORTANT SAFETY INFORMATION ON OVERLOAD BREAKER OPERATION !!**

Your new truck crane winch is equipped with a thermal device which activates after the winch is subjected to an overload condition. CAUTION: This can happen during either lift or lower cycle. As soon as the breaker

interrupts the lift cycle, allow 20 seconds for the breaker to reset, then carefully lower and support the load with appropriate devices, then disconnect load from the crane cable. Correct the overload condition, then reattach cable. The breaker will not activate if the unit is subjected to a shockload... A load which is often destructive and caused by swinging, dragging or pulling rather than lifting. A load of this type will damage the vehicle and truck crane as well as cause personal injury.

**MAINTENANCE**

1. Inspect wire cable before and after each use. Do not use if cable is torn, frayed or otherwise damaged.

2. Clean and lubricate calbe daily by wiping clean with a clean dry rag. Make sure cable is dry before applying a coat of motor oil to the entire length of the cable. You may also use a good quality bearing grease if you prefer.

3. Keep winch and crane covered when not in use. Oil all pivot points on crane regularly. Grease all fittings with a good quality bearing grease.

4. Periodically check and retighten or replace hardware. Loose nuts and bolts can cause hazardous lift conditions.

5. Check battery connections frequently ... including ground connections at frame. Check for broken wires and chaffed insulation. Repair as necessary.

**TROUBLESHOOTING**

*Winch Fails to Operate*

No audible response

Breaker open due to overload condition

Power supply loom disconnected

Battery connections loose

Winch motor or solenoid damaged

Check for and Remedy Overload Condition, Try Again After 20 Sec.

Reconnect Power Supply Quick Connect

Check for broken power supply wires, repair as needed. Clean and tighten battery connections including ground wire.

Check winch system battery and charge as necessary

Repair or replace winch

Rapid chattering or clicking sound

Loose battery connections

\*Low voltage

Winch motor or solenoid damaged

## Winch Operation

### Caution (U07 Series)

1. The continual operating time shall never exceed 4 minutes.
2. Never use the winch as hoist for vertical lifting, and never exceed its rated capacity.
3. Always inspect the entire cable before use to check any sign of fraying or kinking which could cause the cable to break and result in property damage or personal injury. Be sure to have the winch inspected by a local service center if the cable becomes kinked or frayed, or should abnormal shock occur.
4. Be sure to turn the clutch knob clockwise until tight when use, and turn it counter clockwise until loose after use. This could prevent the spring from becoming fatigue due to continual compression.
5. Always keep the winch away from being wet.
6. The sound pressure level of the winch is 84 dB (A) when functioning.

**\* NOTE**

Low voltage will create a condition known as solenoid chatter. Most common cause is simply a loose battery (or ground) connection. If cleaning connections fails to remedy the condition, check to ensure host battery is fully charged. A bad battery will also cause the above condition. Have battery checked by qualified personnel and replace if necessary.

**NOTE:** We recommend outrigger assy. be installed by a professional truck accessory installer. Follow all the precautions outlined in this manual when installing outrigger assy. or any other support component.

## Symptom & Remedy

- ❖ 1. Symptom: For free wheel function. the clutch knob has been released counter clockwise, but the cable can not be easily pulled out of the winch spool.

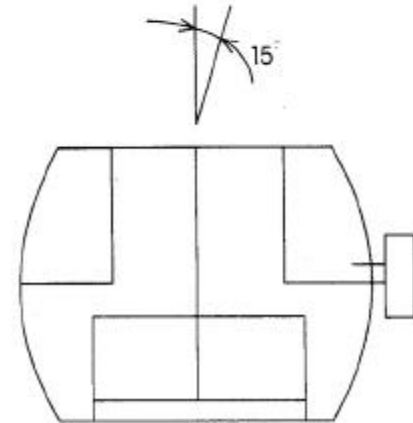
Remedy: The following two methods can be applied:

- Completely release the clutch knob by turning counter clockwise. Place the emergency hand crank on the shaft as shown in figure 10. and swing it counter clockwise. This may help manually release the cable.
- Turn the clutch knob clockwise until tight (Do not over tighten). Push the "OUT" button to release small amount of the cable from the winch pool, then turn the clutch knob counter clockwise. Try manually again to pull cable out of the winch spool.

NOTE: Preparation for the next use-Correctly retract the cable into the winch is a great help for the next use.

The following two points about retracting the cable into the winch shall be emphasized:

- When retracting the cable. the acute angle formed by the cable and the horizontal line (see figure shown on the right) shall be less than  $15^{\circ}$
- When retracting the cable. it is better to keep winching a load.



- ❖ 2. Symptom: When winching a load. the winch motor is running. However. the clutch is slipping and producing abnormal noise.

Remedy: Be sure to examine the clutch knob to make sure it is tightly tuned clockwise. If the clutch knob has been tightened and the clutch remains slipping. it indicates that the force needed to winch the load has exceeded the line pull capacity. The user shall stop operating the winch. or use pulley block assembly to winch the load.

- ❖ 3. Symptom: When winching a load. the circuit breaker disconnects the power supply due to overheating.

Remedy: When the circuit breaker disconnects the power supply, it shows that the force to winch the load gets closer to the line pull capacity, and that the functioning time of the winch has been too long. The user shall stop operating the winch for 20minutes. If the circuit breaker still periodically disconnects the power supply, it indicates that the force needed to winch the load has exceeded the line pull capacity. The user shall stop operating the winch. or use pulley block assembly to winch the load.

- ❖ 4. Symptom: Shortage of power supply

Remedy: When there is shortage of power supply, the emergency hand crank can be employed. However. the user has to be sure that he/she is able to manually handle the winching process. Please note that if there is no load applied, the clutch knob shall be loosened counter clockwise. If there is a load applied. the clutch knob shall be tightened clockwise and. Be sure not to use the emergency hand crank to help assist an operating winch motor.