

SECTION 2.0

INSTALLATION

INSTALLATION

STEP 1 OLD BUMPER REMOVAL (Here's rust in your eye)

Remove present bumper and brackets from vehicle.

WARNING: On older model trucks with rusted on mounting bolts, use the proper fitting wrenches and a controlled force when trying to break them free. Be aware of all pinch points and sharp edges that may cut your hands, should the wrench slip .



AND DON'T BE BULLHEADED USE EYE PROTECTION!!!

DOUBLE WARNING:

If you are considering flame cutting; remember that gasoline is extremely explosive and many trucks have their fuel tanks between the frame rails near the bolts. Flame cutting these bolts is a very dangerous practice with **NO ROOM FOR ERROR**.

We strongly discourage this practice and recommend the safe use of a 1/2" or 3/4" drive impact to remove rusted bolts.

STEP 2 INSTALLING MOUNTING BRACKETS (Do I really need all these bolts?)

Mount the proper mounting brackets on the truck frame as pictured and only hand tighten bolts.



Please Note: Due to the variances in the stamping patterns found in all truck frame manufacturers, it may occasionally be necessary to re-drill a hole or drill additional holes for proper secure fit up.

WARNING: USE NO LESS THAN QTY 3: 1/2" 5 GRADE BOLTS (OR QTY 2: 5/8" GRADE 5 BOLTS FOR FORD TRUCKS) TO AFFIX EACH BRACKET TO THE FRAME .

INSTALLATION

STEP 3 MOUNTING THE STO-AWAY POWER CRANE

(OK, you got strong arms, Yea, I trust you, but guess what? I'm still not getting under it!!!)

Remove **STO-AWAY** Power Crane from the box and position it near the brackets using a lifting hoist and/or jack stands supports that safely & securely hold the unit. Bolt the bumper crane to the brackets using the grade 5 bolts provided. Just snug up all the bolts.



SAFETY WARNING: DO NOT lie under the bumper crane when mounting unit in the unbolted condition:

Should you decide to ignore our warning and lie with your face under the bumper crane, and the unit slips off the supports while trying to line up the mounting bolts. This will result in a very serious dental and nose job bill. Should you be lucky enough to live, no amount of ketchup, mustard and relish will change the taste that a 250 pound bumper crane will leave.

REMEMBER: BE SAFE NOT SORRY

INSTALLATION

STEP 4: SQUARING THE POWER CRANE TO THE TRUCK

(You're the half bubble off, and if I ever see that \$.49 handyman special level again, I'll pop your bubble!!)

Raise the mast and **INSERT LOCKING PIN FULLY**, now level and square the bumper crane with the truck, from the rear of the truck and from the side as shown (you may need shim unit as necessary in order to get unit square). Tighten all the mounting bolts, torque wrench and/or 1/2" drive impact when the unit looks square.



PLEASE NOTE: This leveling and squaring is very important to assure an easy and controllable loading and unloading objects, and also will help to keep the neighbors from laughing uncontrollably at you when you pull in your driveway .

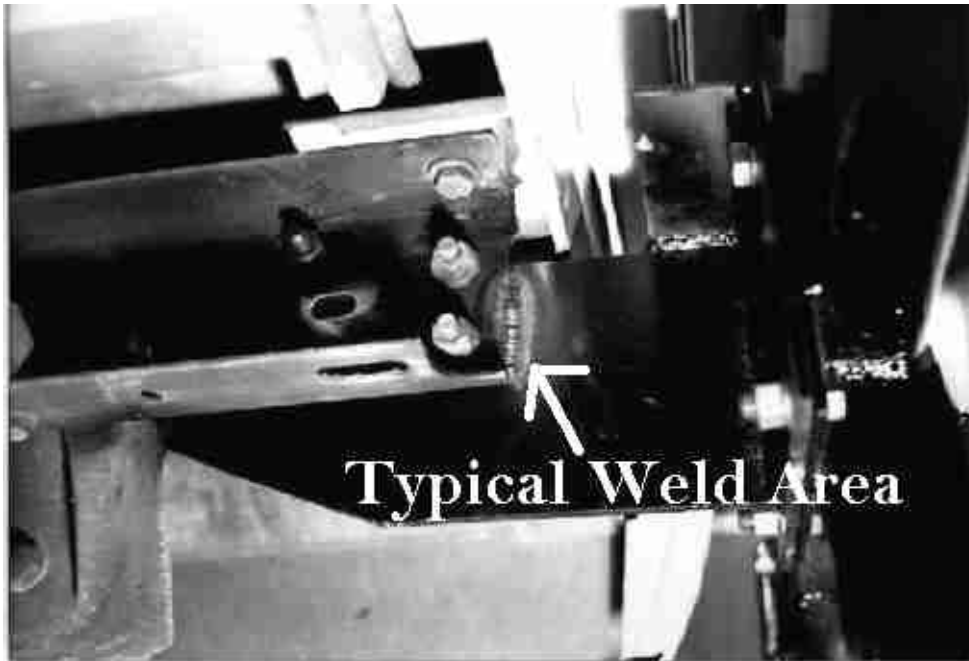


INSTALLATION POINTER:

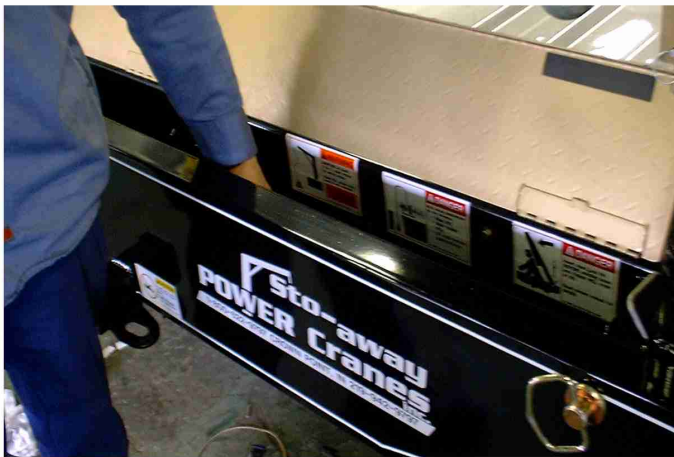
For the units that we install at our shop, we just "eye ball" the squaring with the lines of the trucks' bed and "tact" weld the brackets to the frame in a few spots (as shown) to prevent misalignment when the bumper crane is used in lifting heavy loads and when the operator fails to use the outrigger like the operating manual & warning sticker on the boom states.

INSTALLATION POINTER: Continued

This is a basic bracket, your model may vary: please contact factory for specific details concerning your model: 800-622-9797 or you may e-mail stoaway@comcast.net.



In order for the system to be operational you must first turn on the hidden toggle switch. Moving the switch towards the Drivers side of Vehicle is **ON**. Make sure to turn this switch **OFF** when the system is not in use to avoid any Battery drain.



Green LED will be lit when System is **ON**

WIRING UNIT

INSTALLATION

STEP 5 INSTALLING THE WIRING

(How does Sto-Away expect me to fit under this truck? Hey Louie get the skinny new kid over here!!)

And you have guessed it right. This is the fun part.

Now you are ready to route the winch's power leads and the optional Rocker Switch wiring to the front of the truck. Fishing all these wires around Hot things, Sharp things, and Moving things needs to be done right the first time. So take your time and completely pre-plan your actions. I must point out a few key Safety notes.

1) Mount the main power cables and control wiring as, not to come in contact with any sharp edges, pinch points, or moving parts. Secure the wiring with as many nylon wire ties as needed.

2) Keep in mind that the catalytic converter becomes extremely hot and do not route the wiring near the exact system. Take note where the truck manufactures places there wiring. This will give you a good idea where to go.

WARNING: DO NOT ROUTE POWER LEADS ON ANY BRAKE OR FUEL LINES; THESE POWER LEADS DO CARRY LARGE AMOUNTS OF AMPERAGE AND CAN EASILY BURN THROUGH METAL FUEL AND BRAKE LINES.

REMEMBER:

USE COMMON SENSE THAT GOD GAVE YOU, AND DON'T BE IN A HURRY OR AFRAID TO GET HELP, A PERSON'S LIFE MAY BE AT STAKE AND IT MIGHT BE YOURS! TAKE YOUR TIME, ROUTE, AND SECURE POWER LEADS PROPERLY!!!!



INSTALLATION

STEP 7: THE ELECTRICAL CONNECTIONS & TESTING CONTROLLER

(Hey, gopher, get me two 1/2", 7/16" and 3/8" open ends and DON'T TOUCH THAT BATTERY LEAD WIRE till I'm done)

WARNING: The last connection made is to the hot side of the battery. Common sense should tell you that this is the **ONLY SAFE WAY** to work with the power leads and always use the circuit breakers supplied with the bumper crane.

The **Sto Away Power** Crane is shipped completely wired and tested and the only connections should be to the battery .

KEY INSTALLATION NOTE: Once you attach the power lead to the battery, then turn the ON/OFF toggle switch to the **ON** position, and the **LED** light should be lit, if not you may have the power lead to the battery backwards.

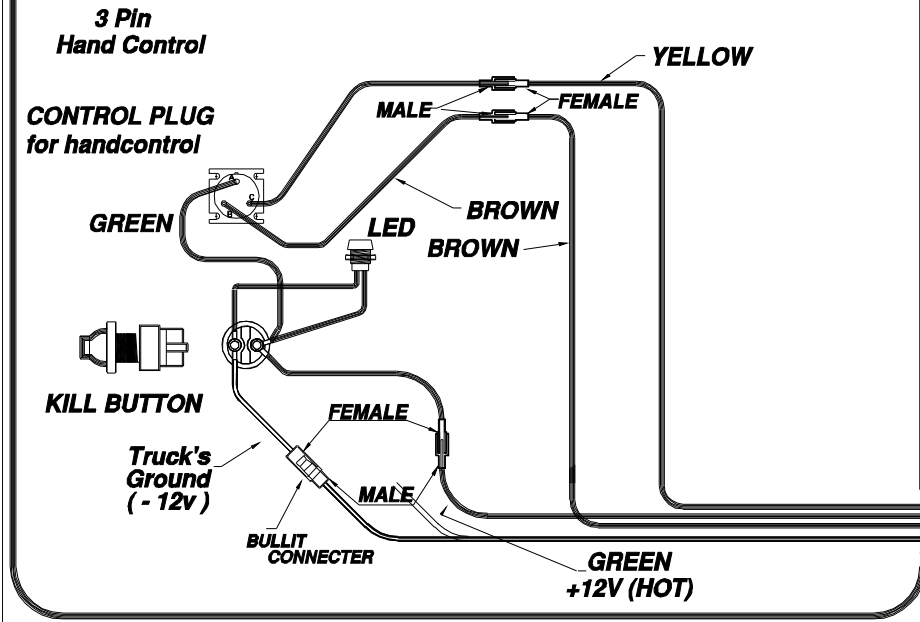
KEY INSTALLATION NOTE: This bumper crane absolutely needs a clean, dry, and solid battery ground!!! Without this, you will run the risk of burning up the winch motor due to low voltage across the motors windings. Also the control and emergency kill circuits may not respond as they should. You shouldn't need to work on the wiring under the black cover for quite some time as long as the unit always has solid connections, but if you need to, keep two thoughts in mind.

One is that all of the solenoid connections are covered with a water proof coating that will break loose if you break any fitting. And the second is below.

INSTALLATION NOTE: WHEN MAKING THE WIRING CONNECTIONS ALWAYS HOLD THE BACK JAM NUT (found on the winch motor and solenoid posts) TO TIGHTEN OR LOOSEN THE CONNECTION!! IF YOU DON'T, YOU RUN THE RISK OF DAMAGING THE INTERNAL CONNECTIONS OF THE SOLENOIDS AND/OR WINCH MOTOR & YOU CAN KISS THE WARRANTY COVERAGE GOODBYE!!!!

IN THE CORNER OF THE BUMPER

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01/01/1998



This is the Control Panel schematic.

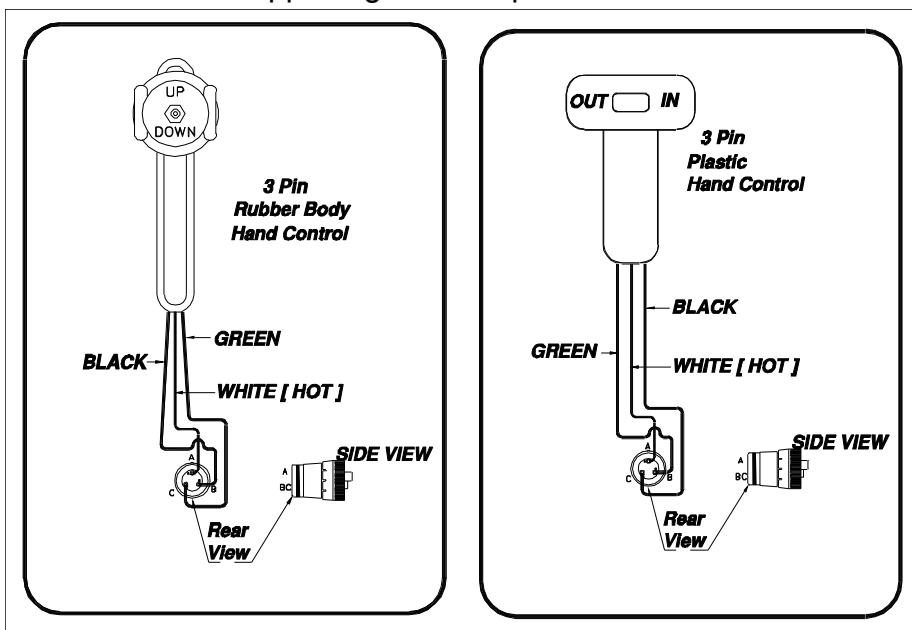
This control panel is a sealed assembly and a key part of the "Emergency Kill" system of the crane and we do not allow field service to this component. The Control Panel assembly comes as a complete replacement package should it need replacing. The terminals on the Control Panel are specially mated to the wiring harness. Do not change their gender. If you need replacement

terminals call the factory for support.

Now you are ready to connect the circuit breaker to the battery and test the direction of the lifting cable to the hand controller. If the lifting cable moves in an opposite direction, then recheck the leads to the battery.

The Yellow and Brown wires can control the direction of the crane. By swapping these connections at the corner of the bumper you can change direction of the lifting cable and still not affect the kill circuit.

Hand control schematic. It takes a special tool to remove the pins from the plug body. Call 1.800.622.9797 for supporting in the repair of the hand control.

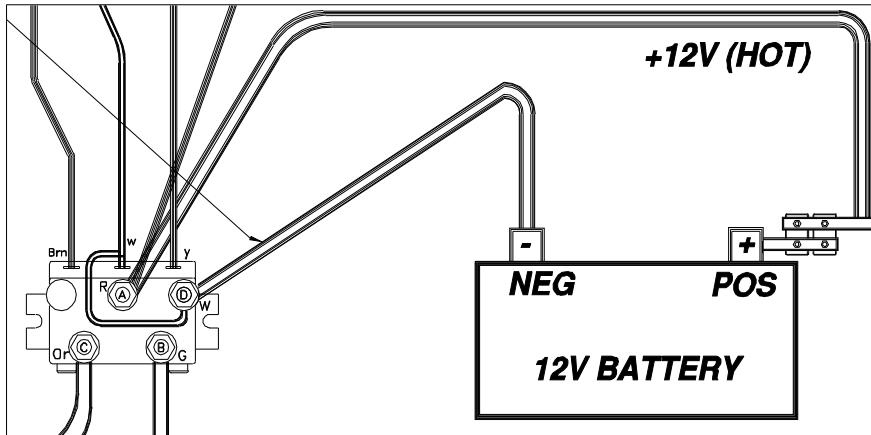


The wiring diagram on this page is for bumper cranes that have the **Albright solenoids**:

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INSTALLATION

SECTION 2.3



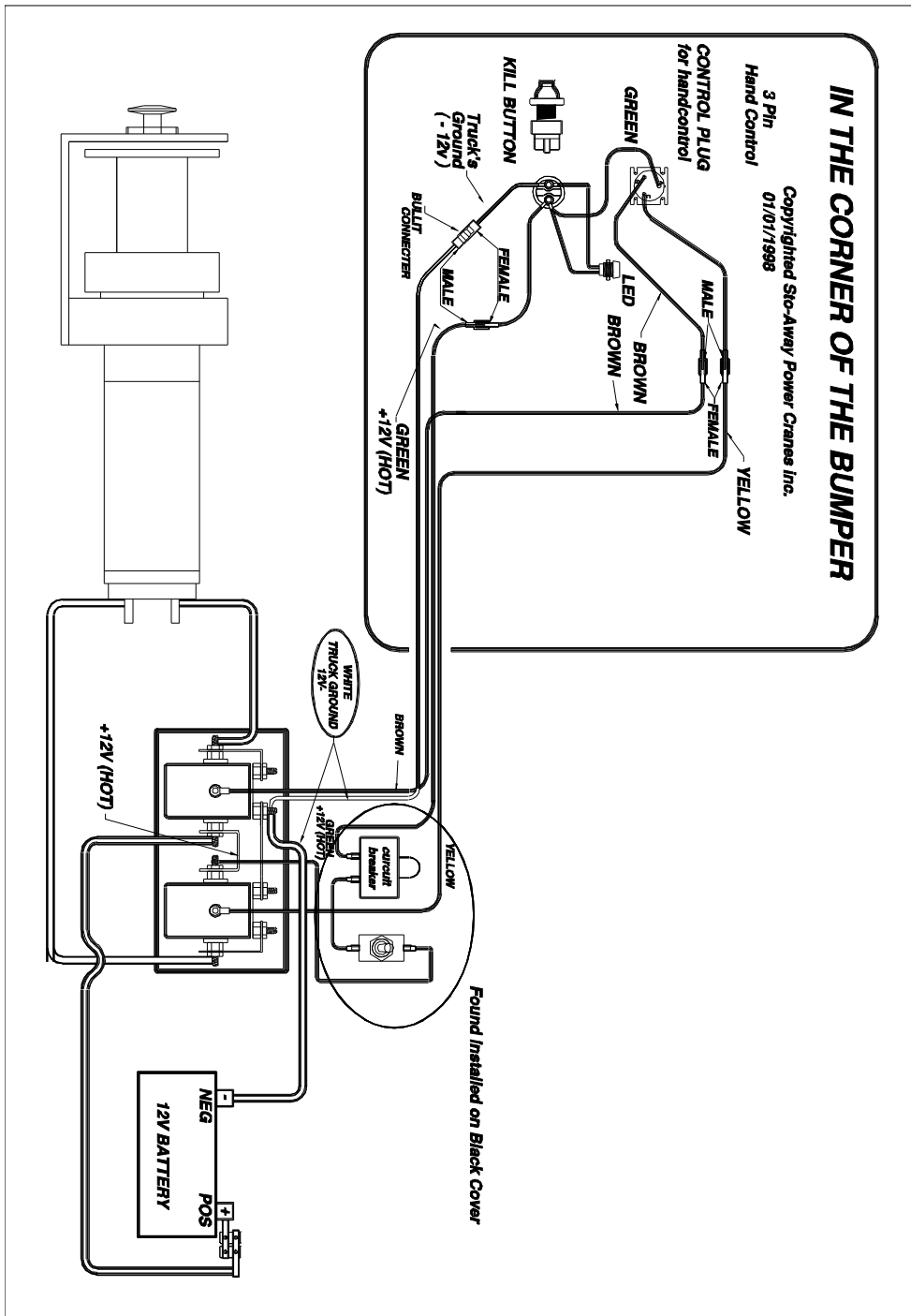
BATTERY SCHEMATIC

CAUTION: Do not tie any of the wiring to any part of the fuel system. Keep wires away from hot or moving parts.

CAUTION: Do not operate the winch

without circuit breakers, or do not bypass the circuit breakers. Bypassing creates a dangerous situation to the personal safety of the operator.

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Your crane is now ready for operation. Refer to operation section of this manual before operating.

Read it carefully and follow all instructions for proper and safe procedures. complete wiring schematic is in the figure below.

ELECTRICAL CONNECTIONS

It is imperative that all electrical connections are clean, dry and secure. Loose nuts, corroded terminals, and cracked or stripped wire insulation, robs the winch motor of the required voltage and amperage to lift or pull sustained heavy loads.