

# C-652 SUBKIT

99-07, CHEVY / GMC 1500 & 2500LD SILVERADO / SIERRA CLASSIC BODY ONLY - ALL BEDS  
 01-10, CHEVY / GMC 2500HD & 3500 SILVERADO / SIERRA CLASSIC & NEW BODY - ALL BEDS

7/13/2012

**\*\*DO NOT EXCEED RECOMMENDED VEHICLE TOWING WEIGHT!\*\***

**WARNING!!** BRAKE, FUEL, AND ELECTRICAL LINES MAY NEED TO BE LOOSENED OR REPOSITIONED TO PROVIDE CLEARANCE FOR NEW HARDWARE. ALL MODELS REQUIRE MODIFICATION OR REMOVAL OF HEAT SHIELDS. ON SHORT BED MODELS, CHECK FOR ADEQUATE TURNING CLEARANCE BETWEEN THE FRONT OF ALL TRAILERS AND THE TRUCK CAB.

**WARNING!!** ON TWO WHEEL DRIVE TRUCKS A CLEARANCE CHECK MUST BE PERFORMED WHEN TRUCK IS LOADED AND UNLOADED TO VERIFY THE INVERTED BALL WILL NOT INTERFERE WITH THE TOP OF THE DIFFERENTIAL

## INSTALLATION STEPS

**\*\*REMOVE ALL REAR WINDOW ACCESSORIES BEFORE TOWING\*\***

### BEFORE INSTALLING

An overhead lifting device, such as chain falls, engine hoist, or cable come-a-long, can be used to lift the center section of the hitch in place. Lower a loop of rope or chain through the hole in the truck bed floor and attach it to the round hitch receiver tube in the center section. Use the lifting device to raise the center section until the round hitch receiver tube that protrudes from the center section fits in the hole in the truck bed floor. Maintaining upward pressure may facilitate fastening the cross-member to the center section, especially if the truck bed floor has been distorted downward from heavy use. If you use an overhead-lifting device, it should be disconnected before squaring the center section across the frame, installing the sideplates and torquing fasteners.

- 1) Remove spare tire and heat shield. The heat shield under the bed floor needs to be removed or a section cut out for the hitch assembly to be installed. First, remove the heat shield from in front of the back crossmember. Next, remove the heat shield from the back of the crossmember located near the front of the wheel well.
- 2) Mark the location for the hole in the truck bed. Measure from the tail gate end of the truck bed, by hooking a tape measure over the **back of the truck box** and marking the correct location. **(NOTE: DO NOT MEASURE FROM EDGE OF TAILGATE)** Next, mark the center between the wheel wells. This marks the center point for the drill hole. This hole location is critical for the correct installation of this hitch. Measure, mark, and saw carefully. This location will put the ball 4"-6" in front of the axle.

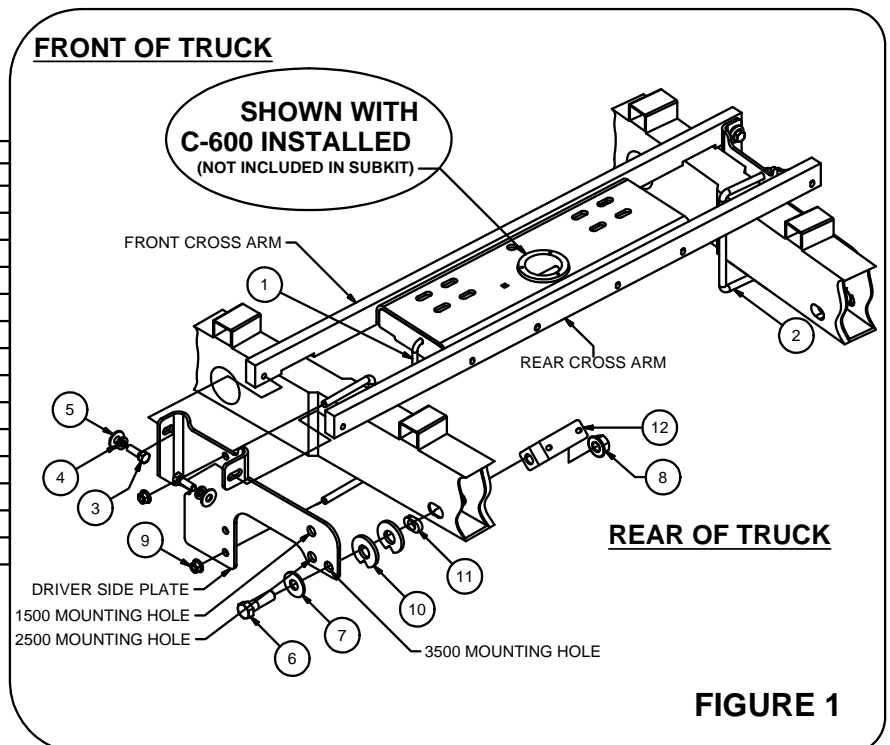
|   |                |
|---|----------------|
| <b>1 Ton Installation Long Bed</b>            | <b>50 7/8"</b> |
| <b>Short Bed Installation 1500 &amp; 2500</b> | <b>44 1/4"</b> |
| <b>Long Bed Installation 1500 &amp; 2500</b>  | <b>49 1/2"</b> |

### \*\*IMPORTANT NOTE\*\*

If truck bed has a spray on bed liner, Add 1/8" to 3/16" when measuring the location of the center hole.

**NOTE:** If the truck has a plastic bed liner, you may drill through both, but it is more difficult to accurately locate the midpoint between the wheel wells and to keep the bed liner from moving while cutting the hole. Make a 4" (3 5/8" for C-630/C-640) hole at this location using a 4" (or 3 5/8") hole saw, or by making a 4" (or 3 5/8") circle and cutting it out with a saber saw equipped with a metal cutting blade.

| Parts List |     |                      |  |
|------------|-----|----------------------|--|
| ITEM       | QTY | PART NUMBER          | DESCRIPTION                              |
| 1          | 2   | CM-1201-UBS          | 1/2-13 x 4 1/8 x 6 3/4 x 1 1/2 SQ U-BOLT |
| 2          | 2   | CM-1202-UBS          | 1/2-13 x 4 3/4 x 8 3/4 x 2 SQ U-BOLT     |
| 3          | 12  | 1/2 - 13 x 1 1/2     | HEX BOLT                                 |
| 4          | 12  | 1/2"                 | LOCK WASHER                              |
| 5          | 12  | FW12                 | FW, 12, ZP                               |
| 6          | 2   | 3_4 - 10 x 2 1/2 HEX | HEX HEAD BOLT-NC                         |
| 7          | 2   | 3_4 FW               | FLAT WASHER                              |
| 8          | 2   | 3_4 - 10 HFN         | HEX FLANGE NUT                           |
| 9          | 4   | HFN 1213             | HEX FLANGE NUT                           |
| 10         | 4   | CM-SP13              | 2.50 DIA. x .250" ROUND HOLE SPACER      |
| 11         | 2   | CM-C652-SP           | ROUND HOLE OBOUNDR SPACER                |
| 12         | 1   | CM-EBB               | ELECTRICAL BOX BRACKET                   |
| 13         | 2   | CM-11-CTM            | CABLE TIE MOUNT 1 X 1 UV BLACK           |
| 14         | 2   | CM-116415-CT         | CABLE TIE 11/64 X 15" 50# UV BLACK       |



**FIGURE 1**

Curt Manufacturing Inc., warrants this product to be free of defects in material and/or workmanship at the time of retail purchase by the original purchaser. If the product is found to be defective, Curt Manufacturing Inc., may repair or replace the product, at their option, when the product is returned, prepaid, with proof of purchase. Alteration to, misuse of, or improper installation of this product voids the warranty. Curt Manufacturing Inc.'s liability is limited to repair or replacement of products found to be defective, and specifically excludes liability for incidental or consequential loss or damage.

## C-652 SUBKIT

99-07, CHEVY / GMC 1500 & 2500LD SILVERADO / SIERRA CLASSIC BODY ONLY - ALL BEDS  
01-10, CHEVY / GMC 2500HD & 3500 SILVERADO / SIERRA CLASSIC & NEW BODY - ALL BEDS

**\*\*DO NOT EXCEED RECOMMENDED VEHICLE TOWING WEIGHT!\*\***

### INSTALLATION STEPS CONTINUED

**\*\*REMOVE ALL REAR WINDOW ACCESSORIES BEFORE TOWING\*\***

**\*\*NOTE: Before installing crossarms, run a 1/2-13 bolt or 1/2"-13 tap through crossarm holes to remove any powder or debris.\*\***

- 3) Install the rear crossarm by sliding it between the frame and truck bed floor above the passenger side rear tire. After spanning the frames, rotate the cross arm vertically with the holes towards the bottom. **On 1 ton applications**, slide the crossarm through toward the front of the third truck bed rail.
- 4) Install the front crossarm by sliding it between the truck frame and truck bed above the passenger side rear tire. With the crossarm spanning the truck frame, rotate it vertically with the holes towards the bottom.
- 5) Install the center section by carefully raising it above the fuel tank from beneath the truck. Insert four 1/2" x 1 1/2" hex bolts with a washer and lock washer through each of the slots on the inside of the center section, and thread them finger tight into the rear crossarm. Repeat that process for the front crossarm. While installing the center section, be sure that the round hitch cylinder that protrudes from the top of the center section is **positioned towards the rear of the truck** and fit it into the hole in the bed of the truck.
- 6) Install the sideplates with the large holes towards the back of the truck aligning them with the existing slot in the frame. **For '07 and up 2500 & 3500 new body styles:** Remove the electrical box on the inside of the driver side frame and attach it using the supplied electrical box bracket. Attach the bracket to the frame with the 3/4" bolt used to attach the sideplate, using the obround spacers provided to fill the slot in the frame.
- 7) Attach the sideplate flanges to the cross arms using two 1/2" x 1 1/2" hex bolts with 1/2" washers and 1/2" lock washers. Thread them through the inside of the sideplate flanges into the crossarms. **(Finger tight only!)**
- 8) Attach the sideplates to the frame of the truck using a U-bolt and 3/4" hex bolt. **For 3/4 and 1 ton applications**, use the large U-bolt in order to span the truck frame. The smaller U-bolt is used for **1/2 ton and 3/4 ton light duty trucks**. Position the U-bolt from the inside of the truck frame, make sure not to damage or pinch the wiring harness or brake lines. Attach to the sideplate using two 1/2" flange nuts. **(Finger tight only)** Attach the rear section of the sideplate to the frame using a 3/4" hex bolt and 3/4" washer through the sideplate and frame. Finger tighten a 3/4" flange nut to the bolt on the inside of the frame. **For 3/4 and 1 ton heavy duty trucks**, use the bottom hole on the sideplate. **For 1/2 ton and 3/4 ton light duty trucks**, use the top hole on the sideplate. These are called out on **Figure 1**.
- 9) With the sideplates installed on both sides, torque all 1/2" fasteners to 110 ft-lbs, and all 3/4" fasteners to 380 ft-lbs in the following order:  
**First:** Torque the center section to the front and rear crossarms.  
**Second:** Torque the sideplates to the truck frame on both sides. **(When torquing the U-bolts, make sure to tighten them slowly alternating between the top and bottom of the U-bolt until equally tightened to a maximum of 40 ft-lbs.)**  
**Third:** Torque the sideplate flanges to the front and rear crossarms.
- 10) If desired, trim the side plate u-bolt to provide additional handle rod clearance upon installation completion.

#### **WARNING!**

#### **INCORRECT INSTALLATION OF C-600 SAFETY CHAIN U-BOLTS MAY RESULT IN VEHICLE DAMAGE**

When installing C-600 safety chain u-bolts, be sure to use the u-bolt slots nearest the C-600 cylinder. This will prevent contact of the safety chain u-bolts with the vehicle fuel tank. Installation of u-bolts in outside slots may result in puncturing of the vehicle fuel tank.

Refer to the C-600 installation instructions for full installation of safety chain u-bolts.

**(REFER TO GOOSENECK HITCH INSTRUCTIONS FOR INSTALLATION AND OPERATION PROCEDURES)**

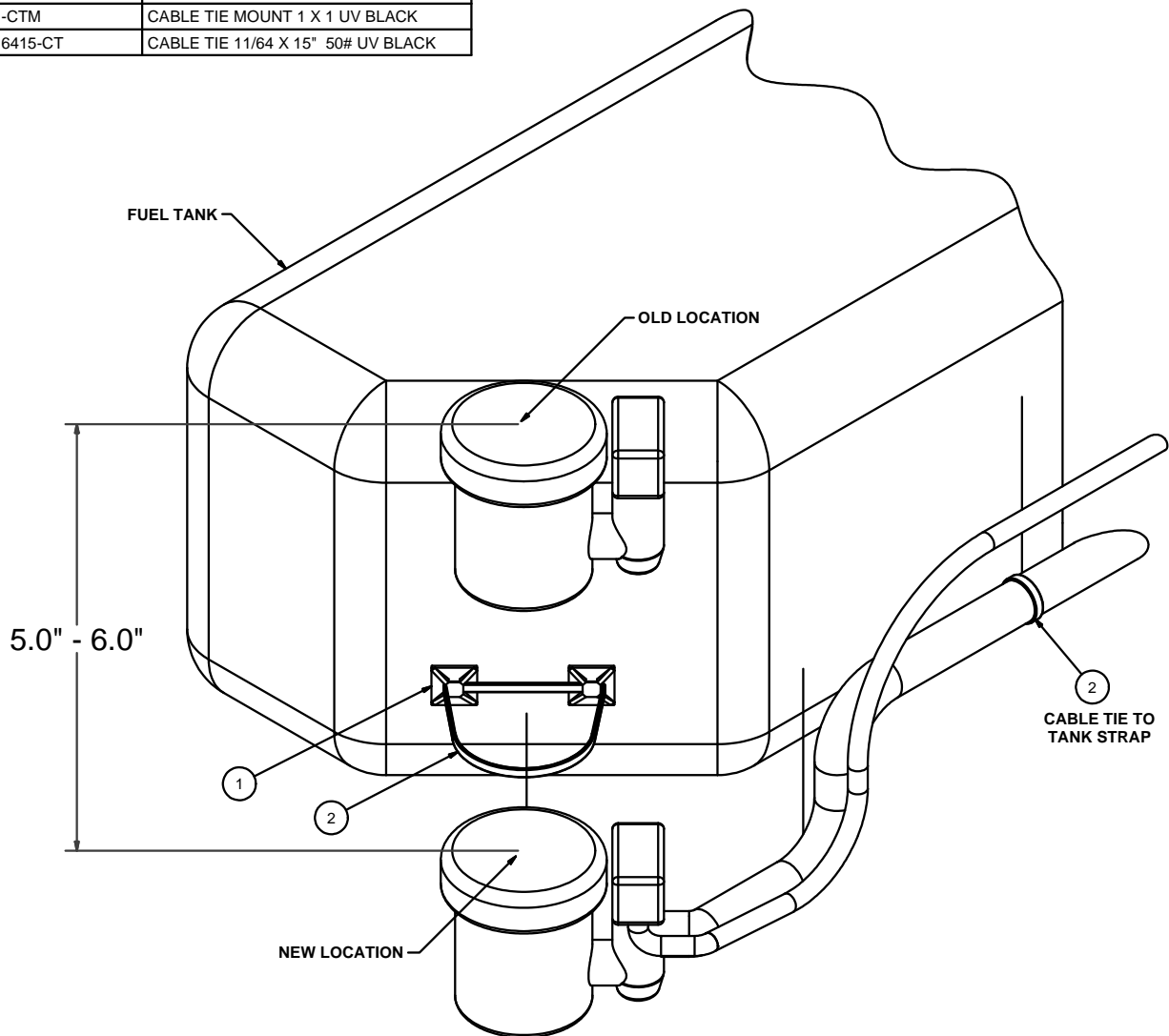
#### **Maintenance (Required every 30 days or prior to use)**

1. Keep hitch ball lubricated regularly. Use silicone spray or equivalent to prevent wear and rust.
2. Keep hitch assembly free of dirt and other foreign debris.
3. Check for proper torque on all nuts and bolts before each use. Also check for excessive wear.
4. Check ball wear before each use. **(Note: Do not tow trailer with worn or damaged parts.)**

Curt Manufacturing Inc., warrants this product to be free of defects in material and/or workmanship at the time of retail purchase by the original purchaser. If the product is found to be defective, Curt Manufacturing Inc., may repair or replace the product, at their option, when the product is returned, prepaid, with proof of purchase. Alteration to, misuse of, or improper installation of this product voids the warranty. Curt Manufacturing Inc.'s liability is limited to repair or replacement of products found to be defective, and specifically excludes liability for incidental or consequential loss or damage.

## C-34 VACUUM CANISTER RELOCATION

| Parts List |              |                                    |
|------------|--------------|------------------------------------|
| ITEM       | PART NUMBER  | DESCRIPTION                        |
| 1          | CM-11-CTM    | CABLE TIE MOUNT 1 X 1 UV BLACK     |
| 2          | CM-116415-CT | CABLE TIE 11/64 X 15" 50# UV BLACK |



### INSTALLATION STEPS

- 1) Remove vacuum canister from OEM mount.
- 2) Clean surface with rubbing alcohol.
- 3) Apply (2) cable tie mounts approximately 3" apart and 5"-6" lower than original location as shown.
- 4) Insert cable tie into mounts. Do Not Fasten.
- 5) Position vacuum canister over cable tie and fasten in new location.

**PERIODICALLY CHECK THIS RECEIVER HITCH TO ENSURE THAT ALL FASTENERS ARE TIGHT AND THAT ALL STRUCTURAL COMPONENTS ARE SOUND**

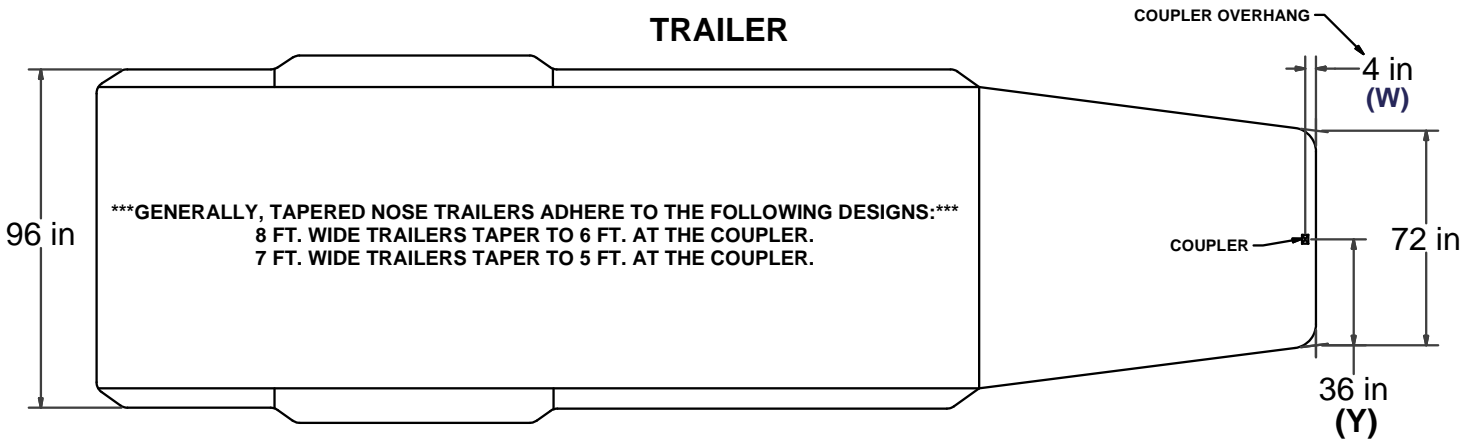
Curt Manufacturing Inc., warrants this product to be free of defects in material and/or workmanship at the time of retail purchase by the original purchaser. If the product is found to be defective, Curt Manufacturing Inc., may repair or replace the product, at their option, when the product is returned, prepaid, with proof of purchase. Alteration to, misuse of, or improper installation of this product voids the warranty. Curt Manufacturing Inc.'s liability is limited to repair or replacement of products found to be defective, and specifically excludes liability for incidental or consequential loss or damage.

# CAB TO TRAILER CLEARANCE

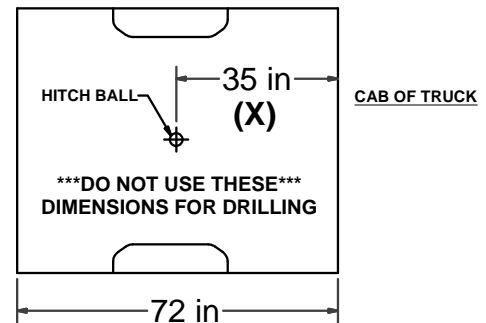
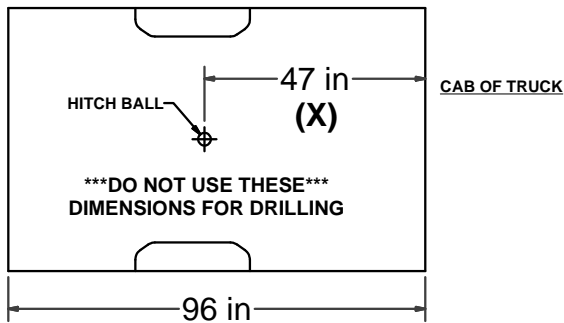
**\*\*DO NOT EXCEED VEHICLE MANUFACTURER'S RECOMMENDED TOWING CAPACITY\*\***

**\*\*REMOVAL OF REAR WINDOW ACCESSORIES MAY BE REQUIRED\*\***

## TRAILER



## LONG & SHORT TRUCK BEDS



**\*\*WARNING REFERENCE CLEARANCE CALCULATOR BEFORE TOWING\*\***

### CLEARANCE CALCULATION

$$\begin{matrix} \text{(CAB TO BALL CENTER)} & - & 1/2 \text{ (TRAILER WIDTH)} & = & \text{(MINIMUM CLEARANCE)} \\ \text{(X)} & - & \text{(Y)} & = & \text{(Z)} \end{matrix}$$

IF THERE IS AN OVERHANG FROM THE COUPLER THEN THE EQUATION IS:

$$[(X) - (W)] - (Y) = (Z)$$

**\*\*\*IF (Z) IS POSITIVE, TRAILER WILL NOT INTERFERE WITH CAB OF TRUCK.\*\*\*  
 IF (Z) IS NEGATIVE, TRAILER WILL INTERFERE WITH CAB OF TRUCK!!!**

#### EXAMPLE:

##### STANDARD TRAILER

$$\begin{aligned} X - Y &= Z \\ 35 - 36 &= -1 \\ \text{(TRAILER WILL INTERFERE WITH CAB)} \end{aligned}$$

##### TRAILER WITH OVERHANG

$$\begin{aligned} [(X) - (W)] - Y &= Z \\ [35 - 4] - 36 &= -5 \\ \text{(TRAILER WILL INTERFERE WITH CAB)} \end{aligned}$$

#### YOUR CALCULATION:

$$\begin{aligned} \text{(CAB TO BALL CENTER)} & \quad \underline{\hspace{2cm}} \\ \text{(COUPLER OVERHANG)} & \quad \underline{\hspace{2cm}} \\ 1/2 \text{ (TRAILER WIDTH)} & \quad \underline{\hspace{2cm}} \\ \text{(MINIMUM CLEARANCE)} & \quad \underline{\hspace{2cm}} \end{aligned}$$

Curt Manufacturing Inc., warrants this product to be free of defects in material and/or workmanship at the time of retail purchase by the original purchaser. If the product is found to be defective, Curt Manufacturing Inc., may repair or replace the product, at their option, when the product is returned, prepaid, with proof of purchase. Alteration to, misuse of, or improper installation of this product voids the warranty. Curt Manufacturing Inc.'s liability is limited to repair or replacement of products found to be defective, and specifically excludes liability for incidental or consequential loss or damage.