



INSTALLATION MANUAL

MODEL #100398
50 IN. UNIVERSAL SNOW PLOW SYSTEM



REGISTER YOUR PRODUCT ONLINE

at championpowerequipment.com



1-877-338-0999

or visit championpowerequipment.com

SAVE THESE INSTRUCTIONS. This manual contains important safety precautions which should be read and understood before operating the product. Failure to do so could result in serious injury. This manual should remain with the product.

Specifications, descriptions and illustrations in this manual are as accurate as known at the time of publication, but are subject to change without notice.

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INTRODUCTION

Congratulations on your purchase of a Champion Power Equipment (CPE) product. CPE designs, builds, and supports all of our products to strict specifications and guidelines. With proper product knowledge, safe use, and regular maintenance, this product should bring years of satisfying service.

Every effort has been made to ensure the accuracy and completeness of the information in this manual at the time of publication, and we reserve the right to change, alter and/or improve the product and this document at any time without prior notice.

CPE highly values how our products are designed, manufactured, operated, and serviced as well as providing safety to the operator and those around the product. Therefore, it is **IMPORTANT** to review this product manual and other product materials thoroughly and be fully aware and knowledgeable of the assembly, operation, dangers and maintenance of the product before use. Fully familiarize yourself, and make sure others who plan on operating the product fully familiarize themselves too, with the proper safety and operation procedures before each use. Please always exercise common sense and always err on the side of caution when operating the product to ensure no accident, property damage, or injury occurs. We want you to continue to use and be satisfied with your CPE product for years to come.

When contacting CPE about parts and/or service, you will need to supply the complete model and serial numbers of your product. Transcribe the information found on your product's nameplate label to the table below

CPE TECHNICAL SUPPORT TEAM
1-877-338-0999
MODEL NUMBER
100398
SERIAL NUMBER
DATE OF PURCHASE
PURCHASE LOCATION

SAFETY DEFINITIONS

The purpose of safety symbols is to attract your attention to possible dangers. The safety symbols, and their explanations, deserve your careful attention and understanding. The safety warnings do not by themselves eliminate any danger. The instructions or warnings they give are not substitutes for proper accident prevention measures.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE

NOTICE indicates information considered important, but not hazard-related (e.g., messages relating to property damage).

IMPORTANT SAFETY INSTRUCTIONS

⚠ WARNING

Cancer and Reproductive Harm – www.P65Warnings.ca.gov

⚠ WARNING

- Read this manual thoroughly before operating your plow. Failure to follow instructions could result in serious injury or death.
- Do not exceed 5 mph, even with blade raised.
- Make sure that all nuts and bolts are tightened per installation instructions.
- Never operate this Champion Power Equipment product with missing or damaged parts.
- Drive slowly over bumpy and rough terrain, driving fast could cause damage to winch or plow.
- Never raise the plow above point of contact as it could cause damage to machine, plow or winch.
- Always perform regular inspections and maintenance on plow tubes and hardware before use.
- Operate with extreme caution on slopes, steep grades, and rough terrain.
- Be aware of any possible hidden objects under the snow.
- Do not ram the blade into the pile.

⚠ CAUTION

- Take care when installing PLOW SPRINGS as they will be under tension.
- Use care when lifting components into place.

⚠ DANGER

Never stand or ride on the plow.

Your snow plow requires some assembly.

If you have any questions regarding the assembly of your snow plow, call our help line at 1-877-338-0999. Please have your serial number and model number available.

PLOW BLADE INSTALLATION

🗨 NOTICE

Before starting the assembly of the blade and tubes see Hybrid Mount installation instructions to ensure it will work with your ATV.

🗨 NOTICE

Install all hardware loose at first. Once all hardware is correctly installed, tighten all bolts.

1. Install the left (6) and right (5) blade gussets to the support bracket (2) using the 5/16 x 3/4 in. (7.9 x 19.1 mm) standard carriage bolts (7.1) and nuts (7.2). This will create the blade frame assembly.

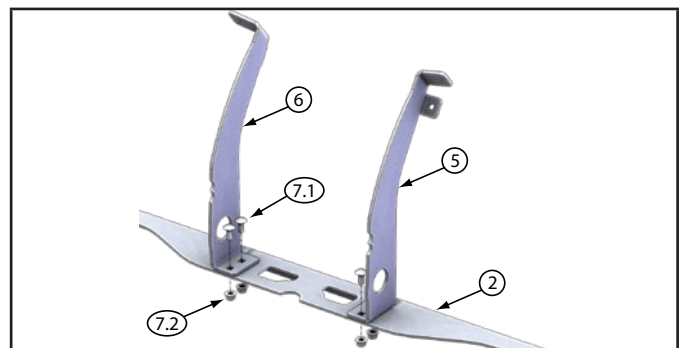


Figure 1 - Blade Frame Assembly

🗨 NOTICE

There are 2 different neck lengths on a carriage bolt, short and standard. See Figure 3 for differences.

2. Attach the blade frame assembly to the blade in location (A) using 5/16 x 3/4 in. (7.9 x 19.1 mm) short neck carriage bolts (7.5) and nuts (7.2). See Figure 2.
3. Next attach the wear bar (4) to the plow blade (1) by installing the five 5/16 x 1 in. (7.9 x 25.4 mm) standard carriage bolts (7.3) in the center through the cutter blade (4), plow blade (1) and support bracket (2). Secure the carriage bolts with 5/16 in. (7.9 mm) nuts (7.2). See Figure 2.
4. Install the blade feet (3) as shown in Figure 2 using the 5/16 x 1 1/4 in. (7.9 x 31.8 mm) standard carriage bolts (7.4).

🗨 NOTICE

Adjust the feet by loosening the nuts and sliding the feet up and down to the desired position. Start with feet in minimum height position and adjust for type of ground surface.

5. Tighten down all bolts.

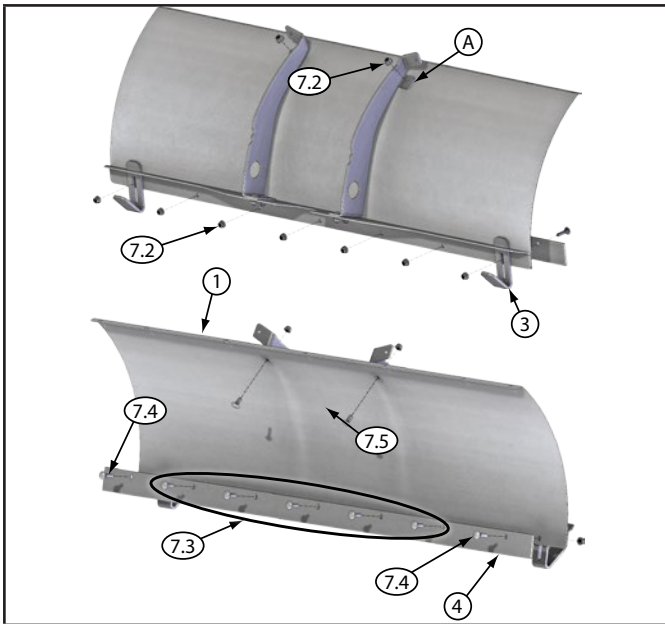


Figure 2 - Cutter Blade, Frame and Feet Install

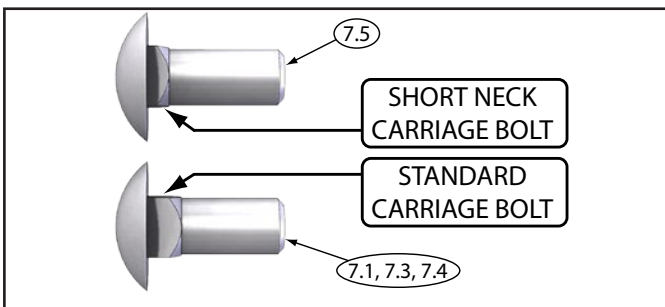


Figure 3 - Carriage Bolt Diagram

PUSH TUBE ASSEMBLY AND INSTALLATION

1. Assemble left handle plate (12), 2× washer (15.13), pivot handle (11), right handle plate (13), and hook plate (10) using the 5/16 x 11/2 in. (7.9 x 38.1 mm) standard carriage bolt (15.4) and 5/16 in. (7.9 mm) flange nut (15.5) as shown in Figure 4. Tighten down nut so that angle lever moves freely. This will create the angle lever assembly (B).

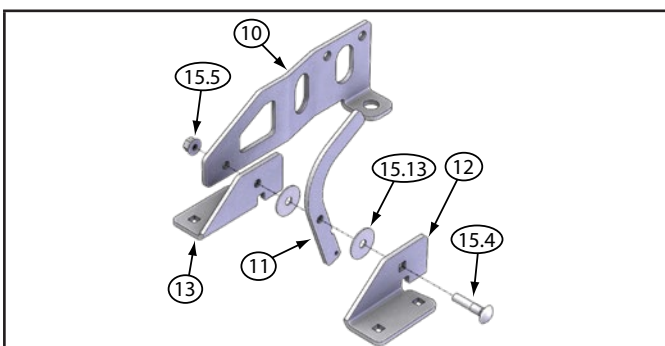


Figure 4 - Angle Lever Assembly (B)

2. Install angle lever assembly (B) to the tube weldment (8) as shown in Figure 5. Use the 5/16 x 1 in. (7.9 x 25.4 mm) standard carriage bolts (15.8) and 5/16 in. (7.9 mm) nuts (15.5) to secure the left and right handle plates. Tighten down bolts.
3. Secure the pivot plate (9) to the tube weldment (8) and hook plate (10) using the 5/8 x 13/4 in. (15.9 x 44.5 mm) structural bolt (15.10), 5/8 in. (15.9 mm) lock washer (15.14) and 5/8 in. (15.9 mm) lock nut (15.2) as shown in Figure 5. Tighten down nut and bolt so that the plate will pivot with ease but is not loose.

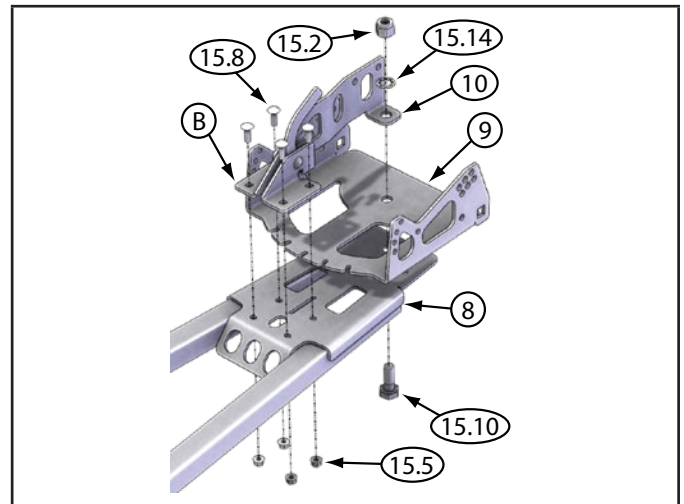


Figure 5 - Angle Plate and Angle Lever Assembly Install

4. Install the pivot lever spring (16) to the tab on the tube weldment (C) and the hole in the pivot handle (11) as shown in Figure 6.

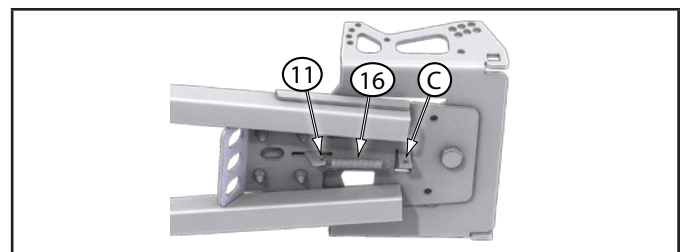


Figure 6 - Pivot Lever Spring Install

5. Place washer bearing (14) into hole in blade gusset and secure blade to tube system by fastening with the 1½ in. (38.1 mm) carriage bolt (15.1), USS flat washer (15.3) and lock nut (15.2), as shown in Figure 7. Repeat on right hand side.

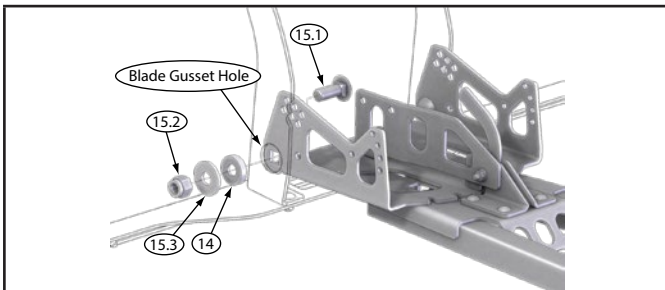


Figure 7 - Pivot Bolt Assembly

6. Hook the plow springs (18) into the smaller rear holes in the pivot plate (9), as shown in Figure 8. Place the eyebolts (15.11) onto the end of the plow springs and secure the eyebolts onto the plow blade gusset using nut (15.12) and washer (15.9), as shown in Figure 8. Leave spring tension loose as you will decide tension in Step 9.

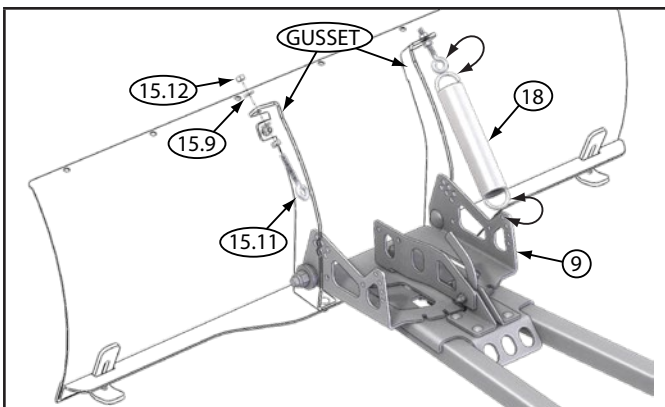


Figure 8 - Spring Assembly

7. Decide desired pitch of blade. Each hole allows 5 degrees of blade pitch adjustment.

NOTICE

Figure 9 shows the default position.

8. With springs installed and pitch blade under tension, install ¾ in. (19.1 mm) hex socket head cap screw (15.7) using ⅜ in. (9.5 mm) Allen wrench or pliers; and 7/16 in. (11.1 mm) lock nut (15.6) into desired pitch position hole. As shown in Figure 9.

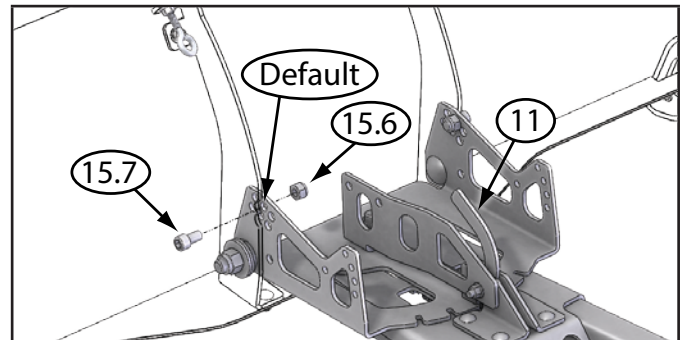


Figure 9 - Pitch Adjustment Bolt (spring not shown for clarity)

9. Tighten nuts down on eye bolt until desired spring tension is reached. See Figure 10 for default tension.

NOTICE

For each ¼ in. (6.4 mm) that the nut is tightened it will add 7 lbs (3.2 kg) of spring tension. This will make a total of 14 lbs (6.4 kg) with both springs.

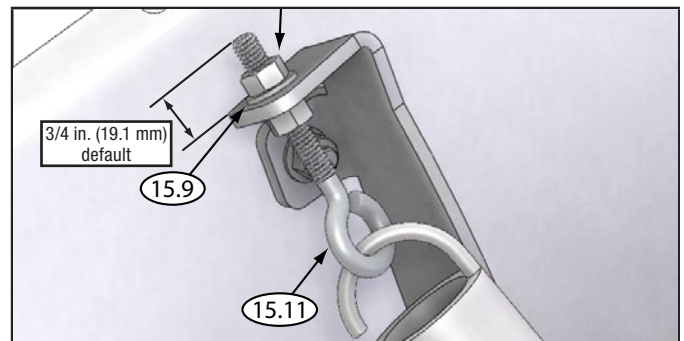


Figure 10 - Spring Adjustment

10. The tube system has five positions of rotation for your blade. Each adjustment is a 12.5 degree increment. To adjust, push down on the handle (Figure 11-A, Item 11) and rotate your blade left or right until you reach the desired angle.

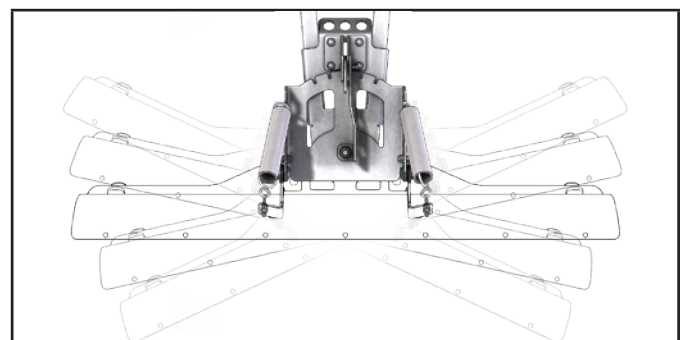


Figure 11 - Blade Rotation Angle

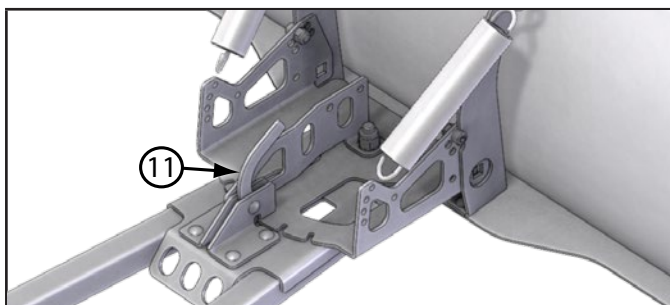


Figure 11-A - Blade Rotation Angle

NOTICE

Make sure handle is locked in before plowing.

11. Attach the tube system to the Hybrid Mount System, by first positioning the tube system, with blade installed, under your ATV. Then raise tube attach points to the mount and line up the holes on mount plate with the holes in the tube system. Insert Pin through holes and secure on other side with clips as shown in Figure 12.

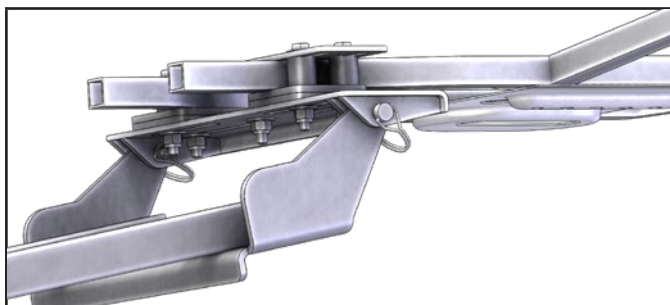


Figure 12 - Tube System Attachment

12. Attach winch hook to one of 2 locations. See Figure 13. Figure 14 shows the best winch line angle. Use this to determine which attachment point to use.

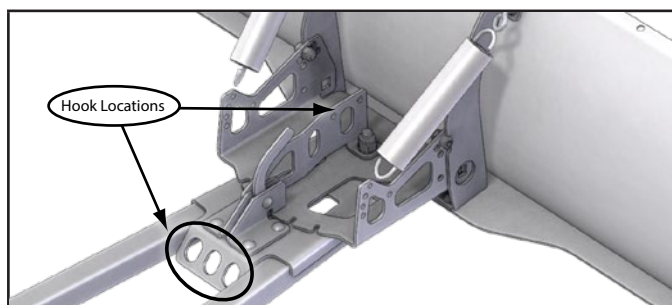


Figure 13 - Hook Attaching Points

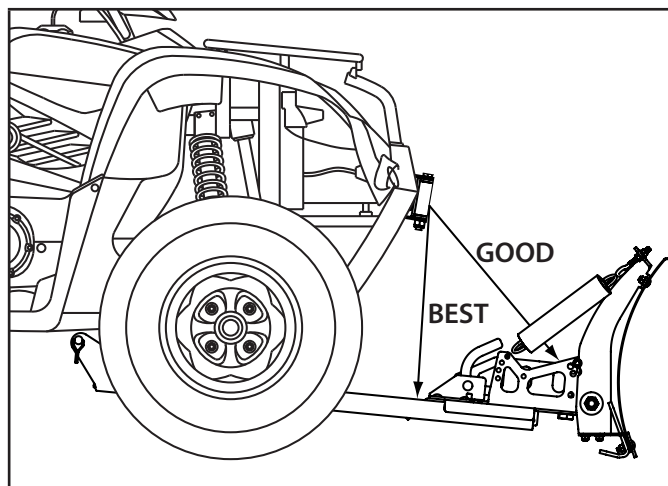


Figure 14 - Winch Line Angle

HYBRID MOUNT INSTALLATION INSTRUCTIONS

General Install Notes

1. Be sure that when installing the mount it is centered on your machine. Some frames are not perfectly centered as shown in Figure 15.

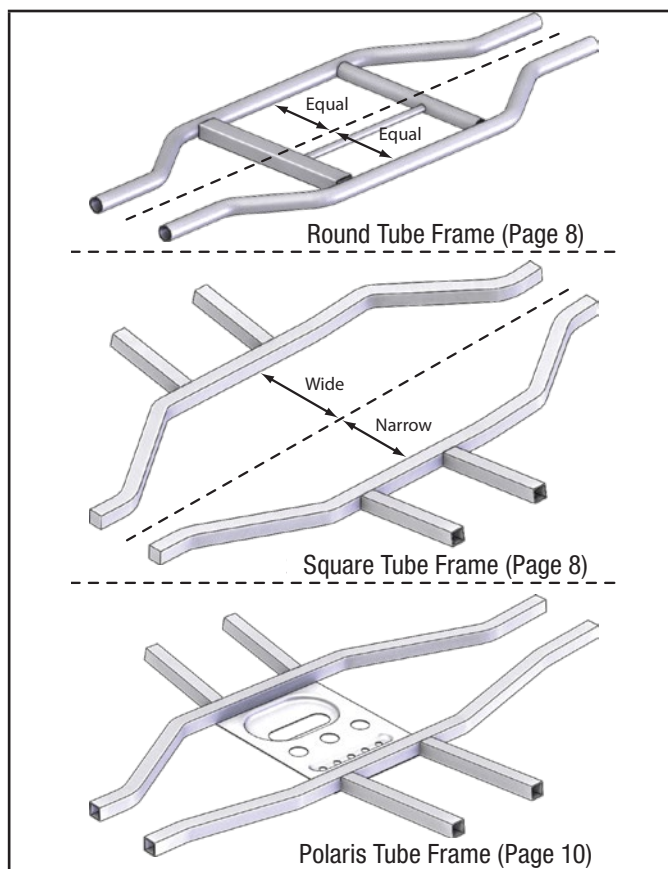


Figure 15 - Tube Frame Type

- The approximate distance that tab holes can be from the front of the machine is 26 in. (66 cm) as shown in Figure 16. Every machine can vary because of ATV front contour.
- Plow springs should not hit ATV when plow is angled fully.

CAUTION

Take care when installing mount fasteners. Damage could occur to the vehicle if installed improperly.

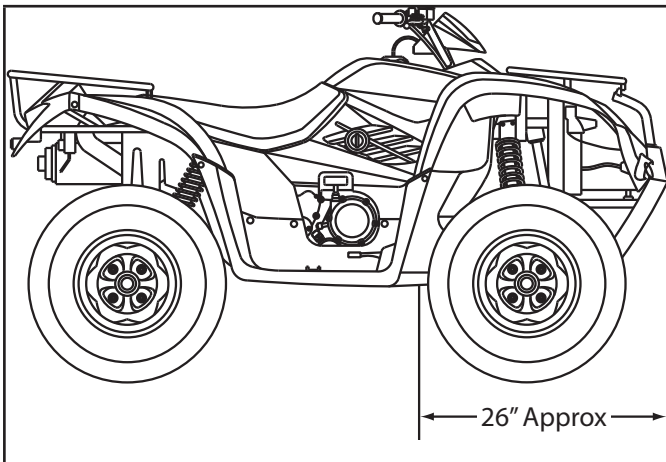


Figure 16 - Approximate Mount Distance

HYBRID MOUNT ROUND TUBE FRAME INSTALL

- Place the hybrid lower mount plate up to the frame at the location behind the front tires where the frame widens out, as shown in Figure 17. Determine the location allowing the mount to be centered, back as far on the frame as possible and the push tubes to be attached. Keep the mount holes within the approximate distance from the front of your machine (see Figure 16).
- Install the u-bolts to the frame in the locations that were determined in step one.

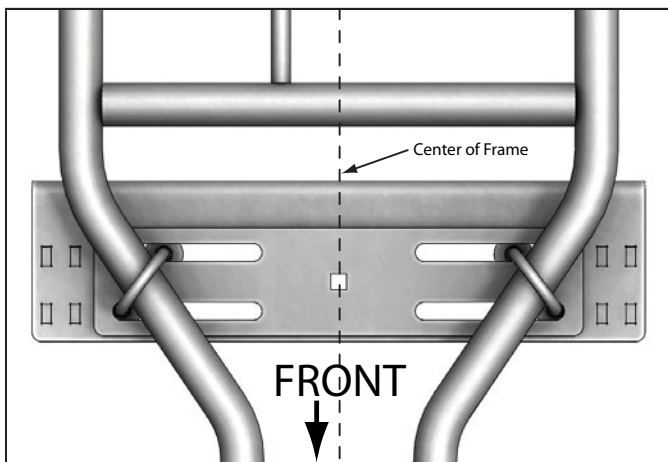


Figure 17 - Round Tube Mount Placements: Top View
(Frame Configurations Will Vary)

HYBRID MOUNT ROUND TUBE FRAME INSTALL

NOTICE

If there is a skid plate installed and you do not wish to remove it, you will need to mark the locations where the u-bolts will be installed and drill holes.

- Optional: Place the upper mount plate on top of the lower mount plate as shown in Figure 18. This is not required but adds strength to the mount for less flex when plowing.
- Install the plate assembly to the u-bolts using the washers (5.3) and 3/8 in. (9.5 mm) nuts (5.2) provided with the mount.
- Center the mount on the machine and tighten all bolts evenly.

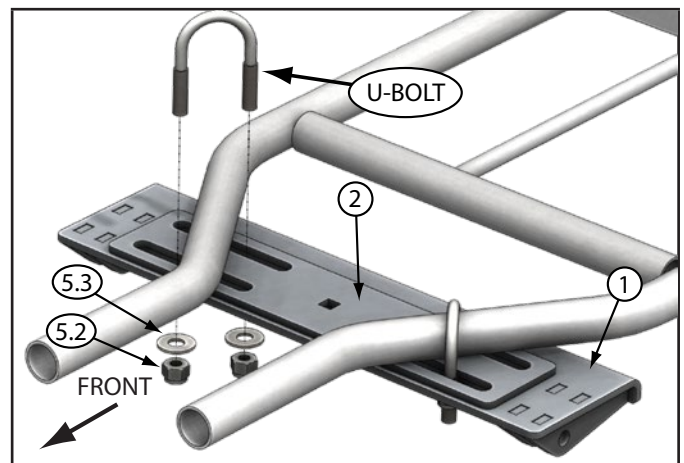


Figure 18 - Hybrid Mount Round Tube Install

HYBRID MOUNT SQUARE TUBE FRAME INSTALL

- Check to see if the u-bolts will fit over your tube frame. If they do, it is recommended to use the u-bolts (See round tube install, Page 8). If they do not, proceed to step 2.
- Measure the thickness of your tube frame and skid plate (if installed) see Figure 19. Then cut the provided rubber spacers to a 1/4 in. (6.4 mm) longer than the thickness of the tube frame.

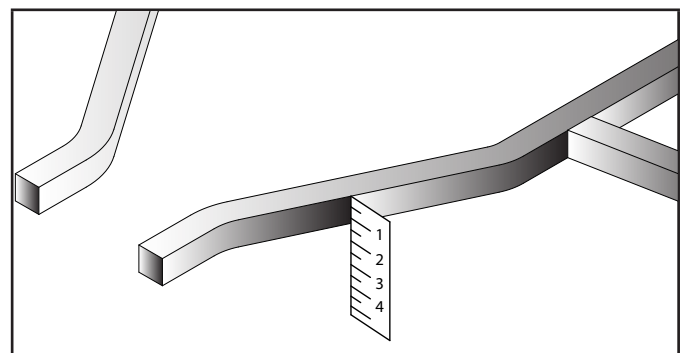


Figure 19 - Frame Measurement

3. Place the Upper Mount Plate (2) over the frame at the location behind the tires where the frame widens out. Refer to Figure 20 for best fastener placement.

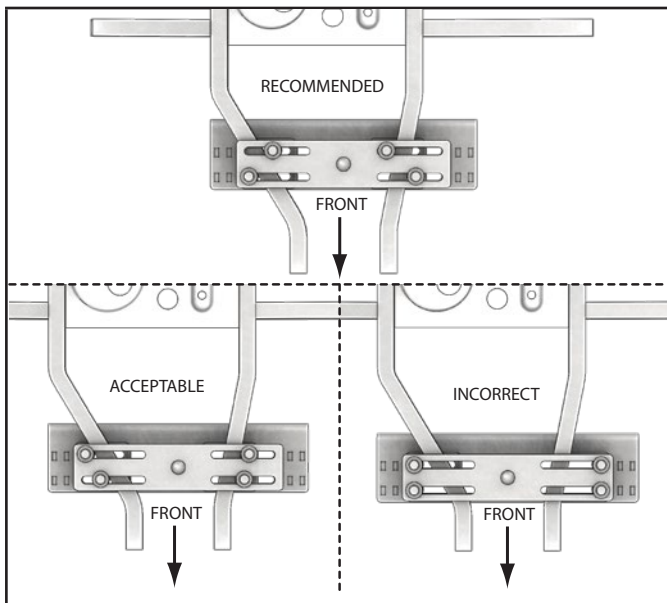


Figure 20 - Fastener Placement

4. Determine the location allowing the mount to be centered, back as far on the frame as possible and the push tubes to be attached. Keep the mount holes within the approximate distance (26 in. {66 mm}) from the front of your machine. See page 8, Figure 16.
5. Loosely install the upper mount plate (2) and lower mount plate (1) using the rubber spacers (4), 3/8 in. (9.5 mm) bolts (5.4), 3/8 in. (9.5 mm) carriage bolt (5.5), nuts (5.2) and washers (5.3) provided with your mount.

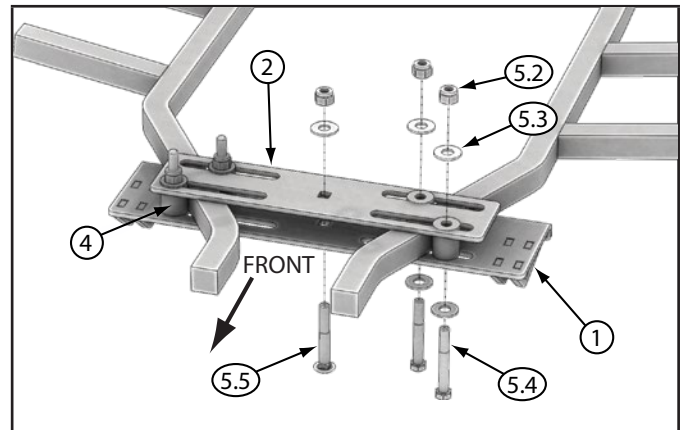


Figure 21 - Hybrid Mount Square Tube Install

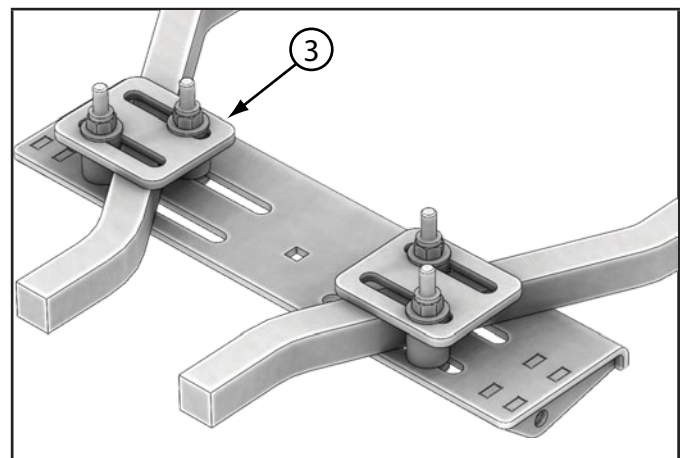


Figure 22 - Hybrid Mount Square Tube Install Using Spacer Plates

6. Tighten all bolts evenly. Carriage bolt only needs to be snug to plate as its purpose is to keep both plates from bending in the center.

NOTICE

If there is a skid plate installed and you do not wish to remove it, you will need to mark the locations where the bolts will be installed and drill holes. Install the hardware with the head of the bolts towards the ground if possible. This will maximize ground clearance. See Figure 21. If not you can cut the bolts after install.

NOTICE

If the upper mount plate (2) doesn't fit because of obstruction you may substitute the spacer plates (3) for the upper mount plate as shown in Figure 22.

NOTICE

Ensure that the rubber spacers are tight against the frame before tightening the bolts. If this is done incorrectly the mount could move and the plow may damage your machine.

HYBRID MOUNT POLARIS® SPORTSMAN® INSTALL

1. Measure the thickness of your tube frame and skid plate (if installed), see Figure 23. Then cut the provided rubber spacers to a 1/4 in. (6.4 mm) longer than the thickness of the tube frame.

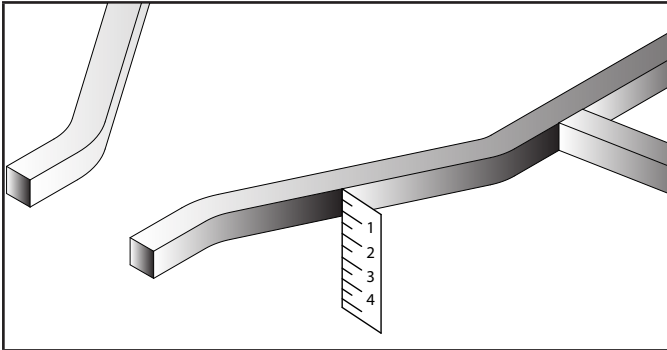


Figure 23 - Frame Measurement

2. Place the upper mount plate (2) over the frame at the location behind the tires where the frame widens out. Refer to Figure 24 for best fastener placement.

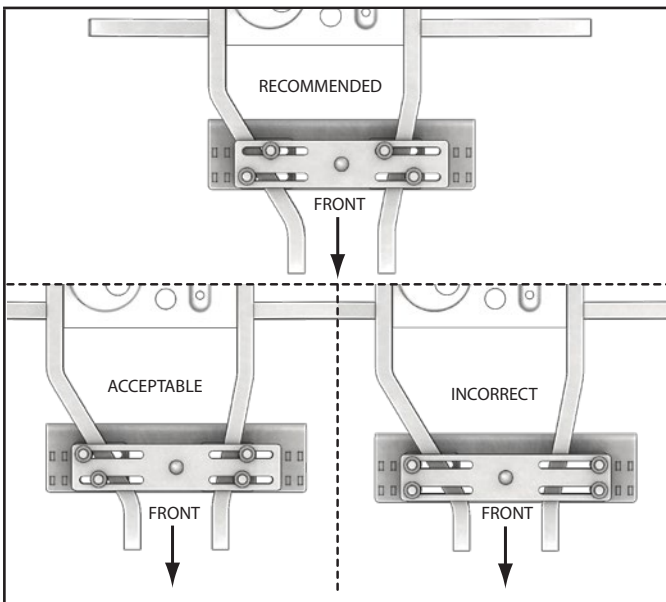


Figure 24 - Fastener Placement

3. Determine the location allowing the mount to be centered, back as far on the frame as possible and the push tubes to be attached. Keep the mount holes within the approximate distance (26 in. {66 cm}) from the front of your machine. See page 8, Figure 16.

4. Loosely install the upper mount plate (2), 4 spacer plates (3) and lower mount plate (1) using the rubber spacers (4), 3/8 in. (9.5 mm) bolts (5.4), 3/8 in. (9.5 mm) carriage bolt (5.5), nuts (5.2) and washers (5.3) provided with your mount. See Figure 25.

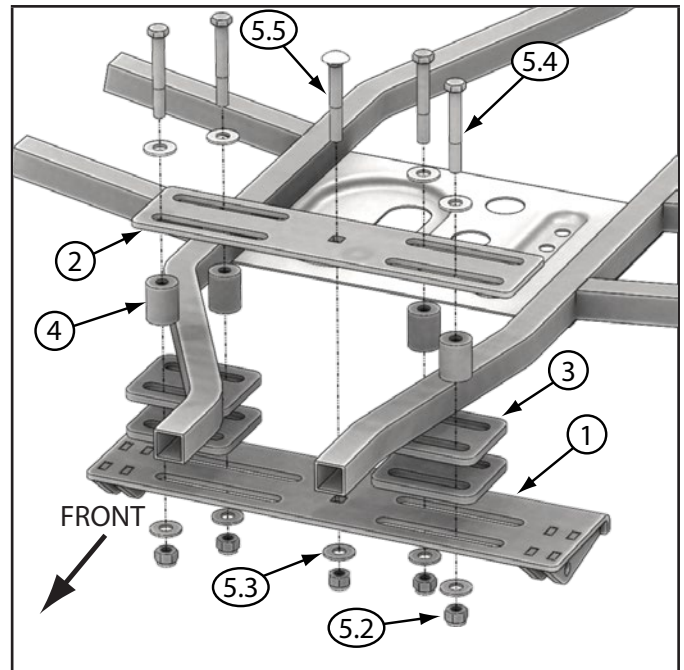


Figure 25 - Hybrid Mount Sportsman Install

NOTICE

If there is a skid plate installed and you do not wish to remove it, you will need to mark the locations where the bolts will be installed and drill holes.

5. Tighten all bolts evenly. Carriage bolt only needs to be snug to plate as its purpose is to keep both plates from bending in the center.

NOTICE

Ensure that the rubber spacers are tight against the frame before tightening the bolts. If this is done incorrectly the mount could move and the plow may damage your machine.

WARRANTY*

CHAMPION POWER EQUIPMENT
1 YEAR LIMITED WARRANTY

Warranty Qualifications

To register your product for warranty and FREE lifetime call center technical support please visit:

<https://www.championpowerequipment.com/register>

To complete registration you will need to include a copy of the purchase receipt as proof of original purchase. Proof of purchase is required for warranty service. Please register within ten (10) days from date of purchase.

Repair/Replacement Warranty

CPE warrants to the original purchaser that the mechanical and electrical components will be free of defects in material and workmanship for a period of one year (parts and labor) from the original date of purchase and 90 days (parts and labor) for commercial and industrial use. Transportation charges on product submitted for repair or replacement under this warranty are the sole responsibility of the purchaser. This warranty only applies to the original purchaser and is not transferable.

Do Not Return The Unit To The Place Of Purchase

Contact CPE's Technical Service and CPE will troubleshoot any issue via phone or e-mail. If the problem is not corrected by this method, CPE will, at its option, authorize evaluation, repair or replacement of the defective part or component at a CPE Service Center. CPE will provide you with a case number for warranty service. Please keep it for future reference. Repairs or replacements without prior authorization, or at an unauthorized repair facility, will not be covered by this warranty.

Warranty Exclusions

This warranty does not cover the following repairs and equipment:

Normal Wear

Products with mechanical and electrical components need periodic parts and service to perform well. This warranty does not cover repair when normal use has exhausted the life of a part or the equipment as a whole.

Installation, Use and Maintenance

This warranty will not apply to parts and/or labor if the product is deemed to have been misused, neglected, involved in an accident, abused, loaded beyond the product's limits, modified, installed improperly or connected incorrectly to any electrical component. Normal maintenance is not covered by this warranty and is not required to be performed at a facility or by a person authorized by CPE.

Other Exclusions

This warranty excludes:

- Cosmetic defects such as paint, decals, etc.
- Wear items such as filter elements, o-rings, etc.
- Accessory parts such as starting batteries, and storage covers.
- Failures due to acts of God and other force majeure events beyond the manufacturer's control.
- Problems caused by parts that are not original Champion Power Equipment parts.

Limits of Implied Warranty and Consequential Damage

Champion Power Equipment disclaims any obligation to cover any loss of time, use of this product, freight, or any incidental or consequential claim by anyone from using this product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

A unit provided as an exchange will be subject to the warranty of the original unit. The length of the warranty governing the exchanged unit will remain calculated by reference to the purchase date of the original unit.

This warranty gives you certain legal rights which may change from state to state or province to province. Your state or province may also have other rights you may be entitled to that are not listed within this warranty.

Contact Information

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