



*The* **Lead Sled®** *DFT*  
*Dual Frame Technology* <sup>TM</sup>

## Assembly, Use and Care Instructions

Product #336647

Instruction #1007053 Rev. G



Thank you for purchasing a Caldwell® Lead Sled® DFT. The Lead Sled DFT comes to you partially assembled. It will require only a few minutes, using the three provided hex keys and the included wrench to fully assemble your rest.

**STOP!**

If you have a problem with this product, **DON'T RETURN IT TO THE STORE WHERE YOU PURCHASED IT.** Contact customer service at...

**Battenfeld**  
Technologies, Inc.

2501 LeMone Industrial Blvd. / Columbia, MO 65201  
573-445-9200 / Email: [sales@battenfeldtechnologies.com](mailto:sales@battenfeldtechnologies.com)  
Or visit our website @ [www.BTibrands.com](http://www.BTibrands.com)

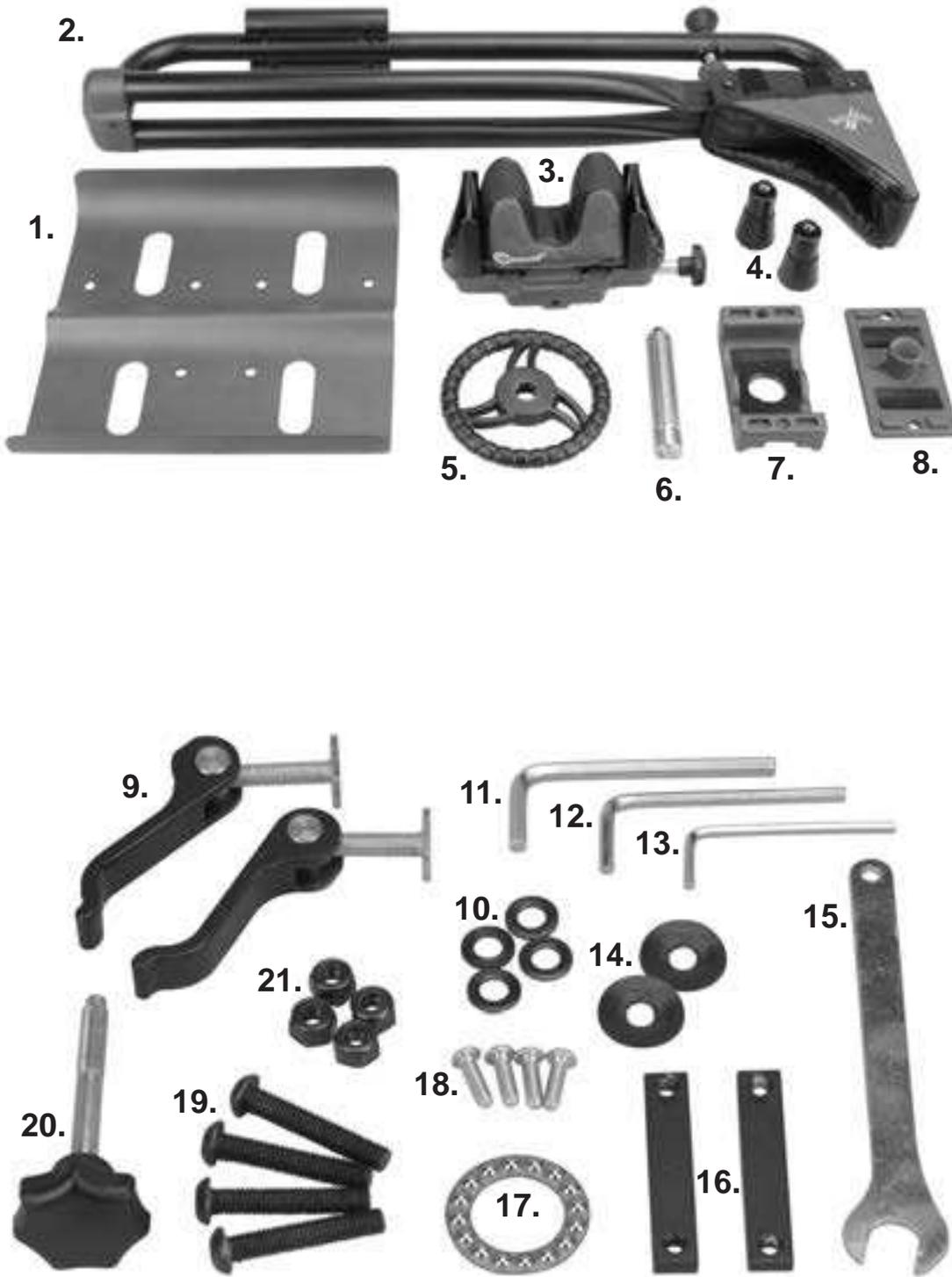
**NOT WARRANTED AGAINST MISUSE, ABUSE, OR COMMERCIAL USE.**

### Limited Warranty

Every Caldwell product is warranted to be free of defects in materials and workmanship for a period of one (1) year from the date of original purchase. Caldwell will, at its option, repair or replace without charge, except for transportation costs, parts that fail under normal use and service when operated and maintained in accordance with our Instructions. This warranty does not apply to normal wear or to items whose life is dependent upon their use and care. This warranty is in lieu of all other warranties, expressed or implied and releases Caldwell, its affiliates, and its vendors from all other obligations and liabilities.

# ASSEMBLY INSTRUCTIONS:

Please take a moment to locate all of the parts shown in this photo. Since we are always trying to improve our products, some components may vary slightly in appearance.



1. 850354 -- weight tray
2. frame with fine elevation assembly and slip cover
3. windage cradle sub-assembly
4. 1007004, 597586, 1005164 -- (2) front leg with rubber foot and M8 screw
5. 1003296 -- Elevation Wheel
6. 1006395, 1002587 -- Ram with M6 Screw
7. 975310 -- Lower Slide Plate
8. 1003428 -- Upper Slide Plate
9. (2) Cam Lever Assembly
10. 1005157 -- (4) 8mm Washer
11. 1005169 -- 5mm Hex Key
12. 1001136 -- 4mm Hex Key
13. 1007079 -- 3mm Hex Key
14. 845321 -- (2) Cam Washer
15. 1005170 -- 13mm Stamped Wrench
16. 106759 -- (2) Front Bag Strap
17. 628620 -- Bearing
18. 1007070 -- (4) M5 Screw
19. 1001843 -- (4) M8x50mm Button Head Screw
20. 1004424 -- Ram Lock Assembly
21. 1003323 -- (4) M8 Nylon Lock Nut

## Tray and Foot Assembly

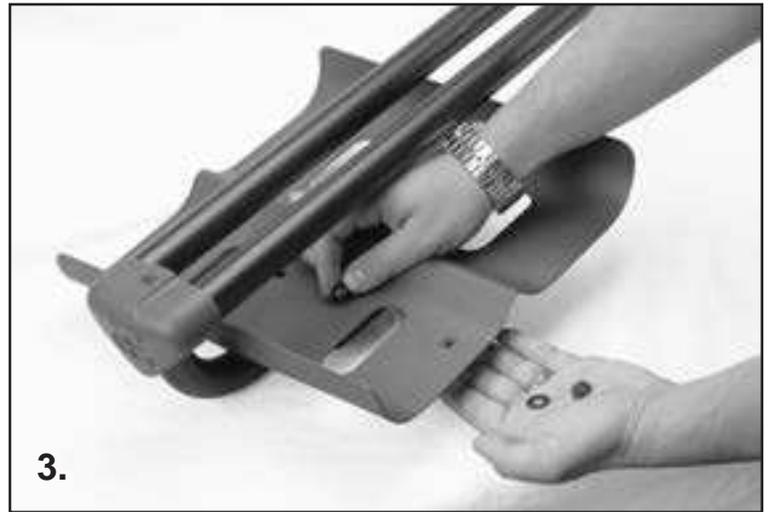
Assemble the Weight Tray to the frame. To assemble, first slide the tray between the frame tubes, making sure that the foot mounting holes are oriented towards the front of the rest (**See Photo 3**). There are four mounting holes that will line up the tray and frame. Push the long bolts through these holes and place a washer and lock nut on the bottom of the frame. Use the 5mm Hex Key and Wrench (13mm) to tighten securely.

Next attach the Front Legs with Rubber Feet to the Weight Tray. The legs attach using two button head cap screws and the 5mm hex key. (The screws may come already installed in the legs.) Once you have the legs securely attached, slip the rubber feet onto them. **See Photo 4.**

## Front Cradle Assembly

The Lead Sled DFT has a sliding cradle that accommodates a variety of different firearm lengths. To assemble this, you need the Upper Slide Plate, Lower Slide Plate, Cam Washers and Cam Subassemblies. First, separate the T-Bolt, Bushing and Cam in the subassembly. Then place the Lower Slide Plate around the Frame Tubes. Slide the two T-Bolts up through the Lower Slide Plate and place the Upper Slide Plate over them (Note that the threaded hole in the upper slide plate should face left, as the shooter looks down range). **See Photo 5.** Now place the Cam Washers over the bolts, slide the brass bushing back into the cam and thread the bushing onto the bolt.

**Note:** The cradle does not need to be clamped down with significant force. With a little experimentation, you will be able to find a level of clamp force that prohibits motion along the tubes, but also allows the cam levers to locate towards the outside of the sliding cradle assembly. Find this position by raising the two cam levers, turning them one full revolution at a time, lowering them and checking for position and tension.



## Front Cradle and Elevation System

To assemble the front cradle and elevation system you need the Ram, M6 Screw, Elevation Wheel, Bearing, Ram Lock and Windage Cradle Subassembly. First, thread on the elevation wheel about halfway down the ram. Now separate the front bag from the Windage Cradle, and place the Cradle on top of the ram.

Use the M6 screw and the 4mm hex key to fasten the parts together securely. Now place the bearing into the recess on the upper slide plate and slide the ram through it. Finally, thread the Ram Lock into the Upper Slide Plate. Lightly tighten the Ram Lock to hold the Ram in place. **(See Usage Instructions) See Photo 6.**

**Note: There is a key in the slide plate that will mate with the keyway in the ram. The key is pre-installed inside the slide plate from the manufacturer. Verify that the key is properly aligned with the key way slot in the ram during installation.**

**See Photo 7a & 7b**

## Windage Cradle Assembly

The Windage Cradle comes almost completely assembled, all that is needed is to attach the front bag. The bag should be pre-installed to an adapter plate. If not, use the hook and loop straps on the bag to secure it to the adapter plate, with the tabs offset to the bottom. Now use the Front Bag Straps (1006759), four M5 screws and the 3mm hex key to fasten the adapter plate to the cradle.

**Note: These screws do not need to be excessively tight. Do not over-tighten.**

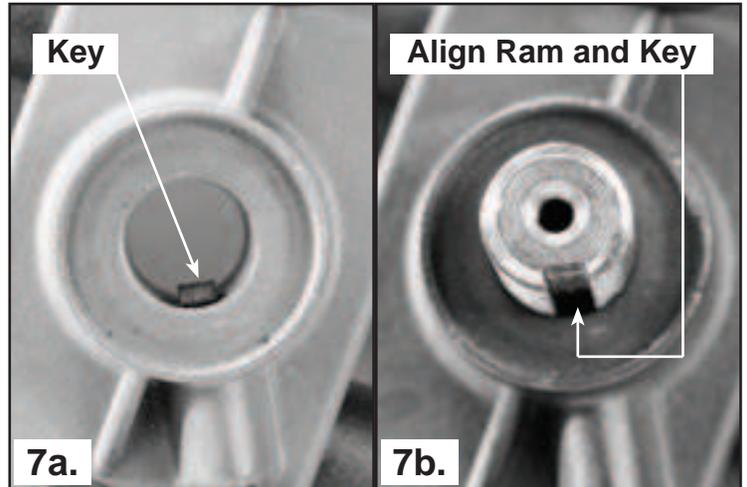
Once the bag is in place, you can slide the adjustable ears in and out to customize the shape of the front bag to fit your exact firearm. For information on how to fine-tune the Windage Cradle, see the adjustment procedure in the Usage Instructions. **See Photo 8.**

# Your Lead Sled DFT is now assembled.

**Read the usage instructions before using  
this product**



6.



7a.

7b.



8.

**CAUTION** Always practice safe firearm handling.

**CAUTION** Do not transport the rest with a firearm on it.

**CAUTION** Always hold the forend of the firearm when shooting off of the rest.

**WARNING** Before using, make sure firearm is unloaded and pointed in a safe direction; there is a safe effective backstop behind target to stop all bullets; and no one is down range before picking up your firearm. Failure to do so could result in the injury or even death of yourself or someone else.

# CARE INSTRUCTIONS:

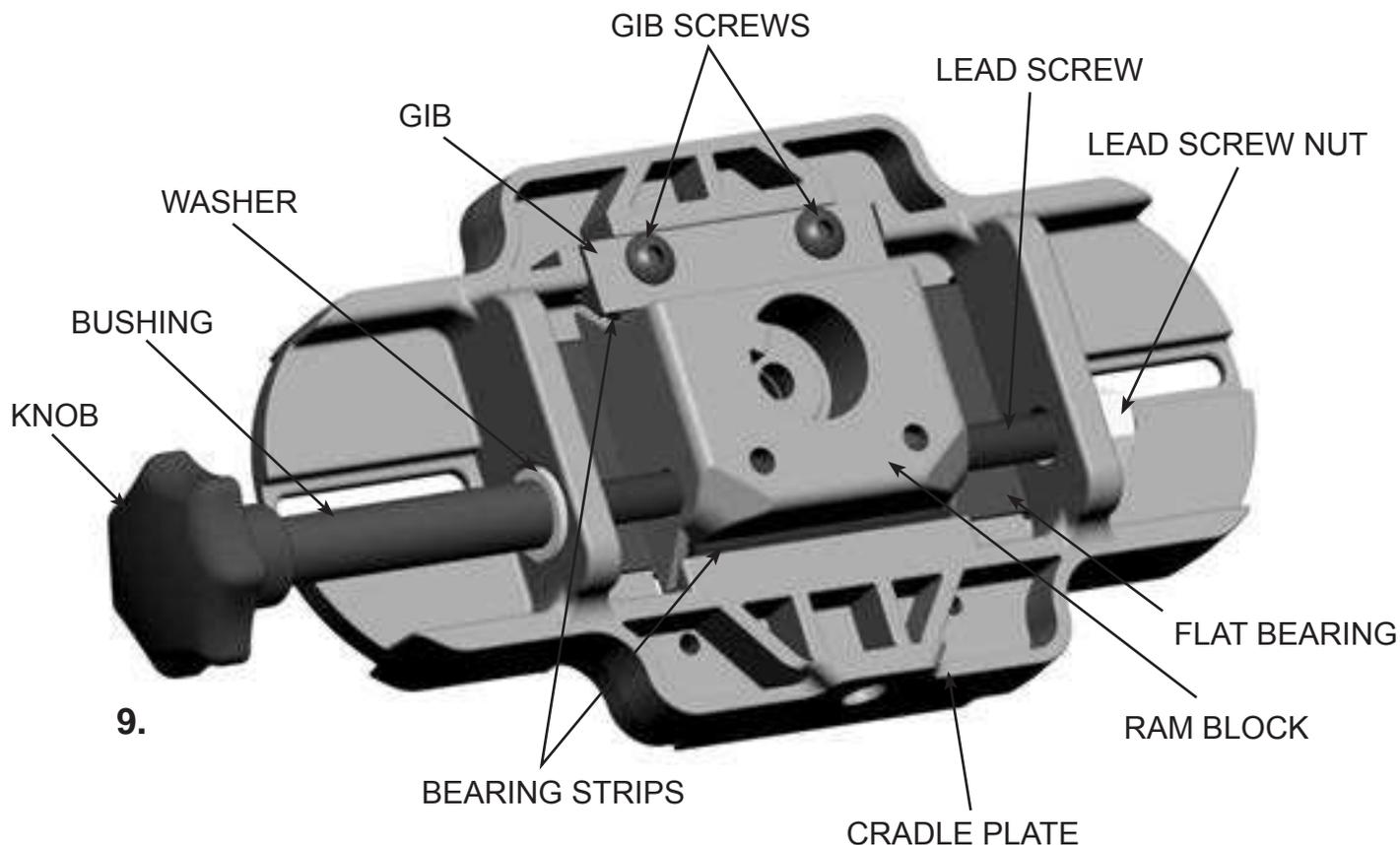
For best results store The Lead Sled® DFT in a clean and dry environment. Periodically lubricate the threads on the elevation wheel, ram and rear foot to prevent corrosion.

## USAGE INSTRUCTIONS:

1. Position the assembled Lead Sled DFT on your shooting bench with the rest in the direction of the target. (Can be used with either a sitting or stand-up bench.) Make sure the surface is flat and free of debris.
2. Place the unloaded rifle or shotgun to be fired onto the Lead Sled DFT, resting the forend on the front bag and the butt in the specially designed rear rest. The toe of the stock may extend through the square hole in the rear rest.
3. Remove the firearm in order to load weight into the Lead Sled DFT. This rest is specially designed to accommodate two Caldwell Standard Lead Sled Weight Bags (Not Included). These are most commonly filled with 25lb bags of lead shot, but can also be filled with sand or other media. (Our testing has shown that lead shot provides the most recoil reduction per pound)
4. Use the elevation and windage adjustments to perfectly align the sights with the target.
  - a. Adjust or reposition the rest laterally to align the firearm with the target.
  - b. Adjust the height of the front cradle until the correct elevation is achieved. Elevation adjustments are easily made with the Elevation Wheel by slightly loosening the Ram Lock and rotating the wheel to change the height of the front cradle. Re-tighten the Ram Lock when the correct elevation is attained.

(The Ram Lock only needs to be tightened enough to keep the front support from moving. The Elevation Wheel will keep the front support in place and only a small amount of tension is necessary to lock it. There is no need to tighten the Ram Lock any further.)

- c. Use the Adjustable Rear Foot to make fine changes to elevation.
  - d. Turn the Windage Knob to make fine changes for left/right alignment.
5. Position your firing shoulder solidly behind the rear rest and grasp the forend just as you would when using any shooting rest. Pull the firearm rearward to make certain the butt is securely seated against the rear rest.



## WINDAGE CRADLE ADJUSTMENTS:

The torque required to turn the knob for the windage system has been adjusted at the factory, but the assembly is designed to be adjustable to meet your specific preference. Before adjusting, please refer to the picture below and familiarize yourself with the components that make up the Windage Cradle Assembly.

## Lead Screw Tension Adjustment:

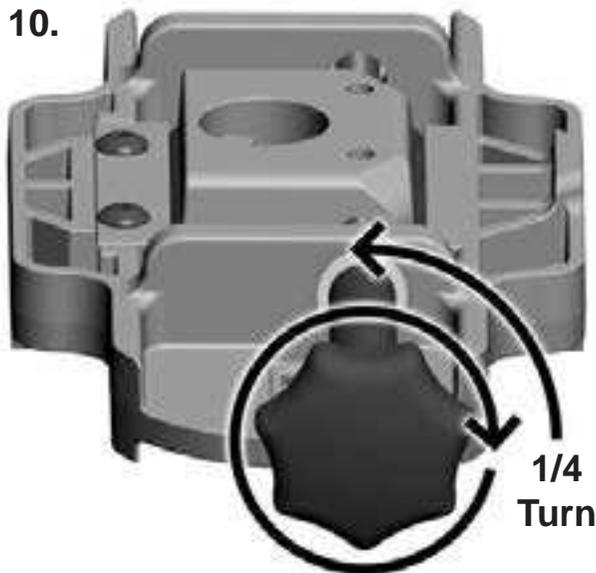
The Lead Screw, which moves the Cradle Plate left and right, should be adjusted to eliminate either excess backlash or unnecessary tension. Turn the Knob two full revolutions in one direction. Then turn the Knob in the opposite direction one revolution.

- If the Knob felt like it loosened up when you turned it in the opposite direction, the Lead Screw might have excess backlash
- If the Knob did NOT feel like it loosened at all when you turned it in the opposite direction, the Lead Screw might have unnecessary tension

## To Remove Excess Backlash:

Hold the Lead Screw Lock Nut with a 13 mm wrench, (not included, but an adjustable wrench or pair of pliers will work as well) and turn the Knob clockwise like you are tightening it. Once you feel it get snug, loosen it one fourth of a turn.

**See Photo 10** (below). Remove the wrench and try turning the Knob back and forth to see if it still feels like it has a loose spot (backlash). If the Knob feels loose for more than one fourth of a revolution, tighten the Knob a little more while holding the Nut with a wrench or pliers. If it feels like it has less than  $\frac{1}{4}$  turn of backlash, you're done!



## To Remove Unnecessary Tension:

Hold the Lead Screw Lock Nut with a 13 mm wrench, (an adjustable wrench or pair of pliers will work as well). Turn the Knob counter-clockwise like you are loosening it one fourth of a revolution. Remove the wrench and try turning the Knob back and forth to see if it still feels tight when you change directions. If it still feels tight, loosen the Knob a little more while holding the Nut with a wrench or pliers. If it feels like it has a little bit of a loose spot before getting tight again (backlash), you're done!

**NOTE: Due to manufacturing tolerances, it might not be possible to completely eliminate backlash. Up to  $\frac{1}{2}$  of a revolution of backlash is considered acceptable.**

## Ram Block Resistance Adjustment:

The resistance or tension felt when turning the Knob for windage adjustments can be adjusted to suit your specific preference.

**NOTE: The Lead Screw tension MUST be set according to the instructions before adjusting the Ram Block tension.**

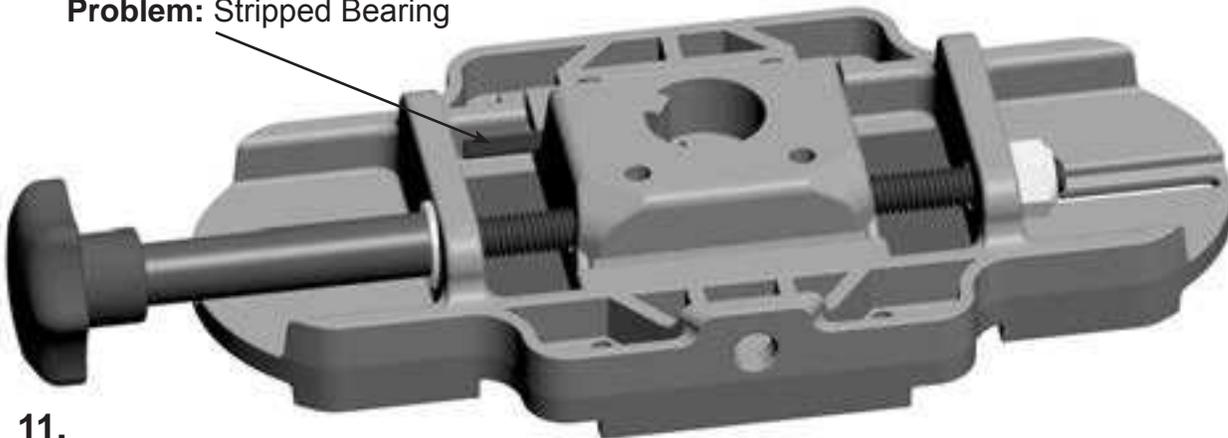
Turn the Knob until the Ram Block is centered in the Cradle Plate. Using the supplied 3 mm hex key, loosen both of the Gib Screws several turns and then retighten them until they feel snug. Try your best to tighten both the Gib Screws with the same amount of torque. Do not over-tighten the Gib Screws or you may permanently deform the Bearing Strips or the Gib. Turn the Knob to test the resistance. If the resistance isn't tight enough, tighten the Gib Screws a little more and re-test. If it feels too tight, loosen the Gib Screws a little, and re-test. Once you are happy with the resistance felt when turning the Knob, you're done!

## Troubleshooting:

If the Windage Cradle does not move smoothly through the full range of motion or binds up during use, do not use excessive force to overcome any unusual resistance felt. Check to make sure the Bearing Strips are installed correctly and are seated flat in their slot in the Ram Block. If the Bearing Strips are installed incorrectly or have slipped out of position – disassembly of the Windage Cradle may be required to correct the problem. **See Photo 11 and 12.**

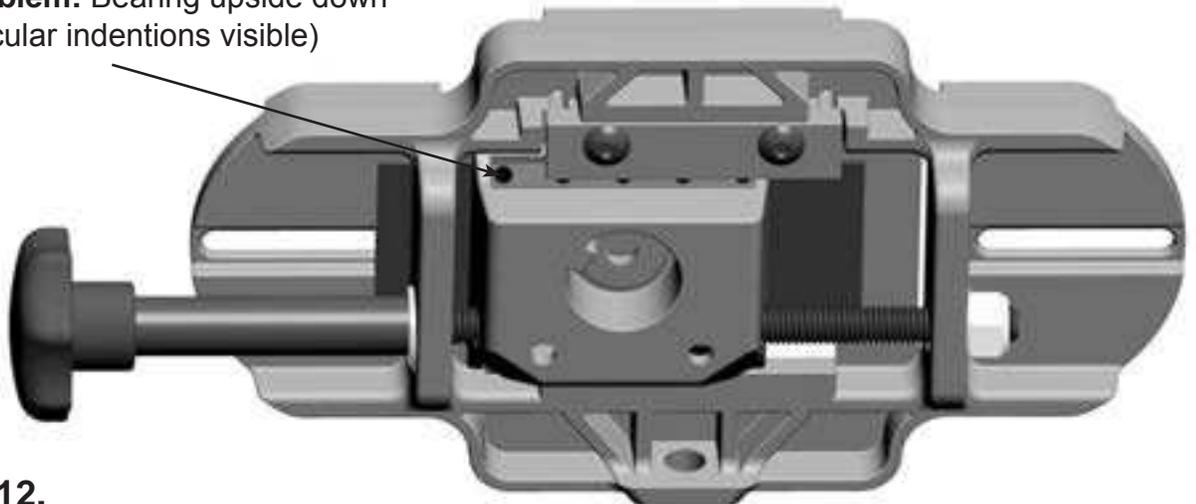
1. Remove the Lead Screw Lock Nut and back the Lead Screw all of the way out of the Ram Block. **See Photo 13 (on page 8).**
2. Remove the Gib Screws and the Gib (Don't lose the Gib Screw Lock Nuts sitting in the Cradle Plate). **See Photo 14 (on page 8).**
3. Lift and slide the Ram Block out of the Cradle Plate (the Lead Screw Thread Block and Shim Washer may fall out of the Ram Block – don't lose them!). **See Photo 15 (on page 8).**
4. Reposition or reinstall the Bearing Strips correctly (circular indentions on the bottom of the Bearing Strips **MUST** sit flat against the bottom of the slots in the Ram Block). **See Photo 16 (on page 8).**
5. Wipe all of the parts down with a clean rag. A very light coating of oil can be applied to the Lead Screw if desired. Do not apply oil to the bearing surfaces – just wipe them clean. Reinstall everything in the reverse order.
6. Re-adjust the Lead Screw tension and Ram Block resistance according to the instructions when you are finished with the assembly.

**Problem:** Stripped Bearing



11.

**Problem:** Bearing upside down  
(circular indentions visible)

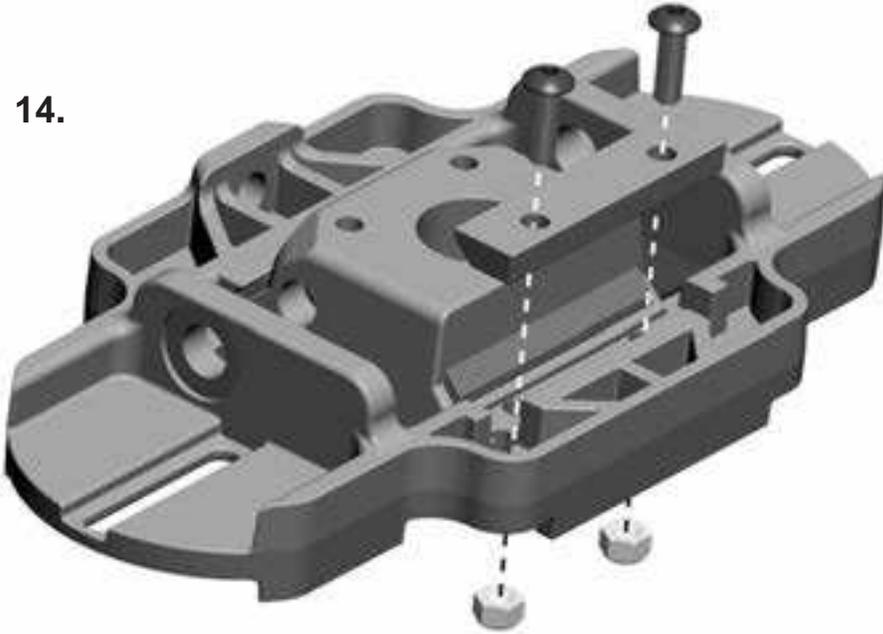


12.

13.



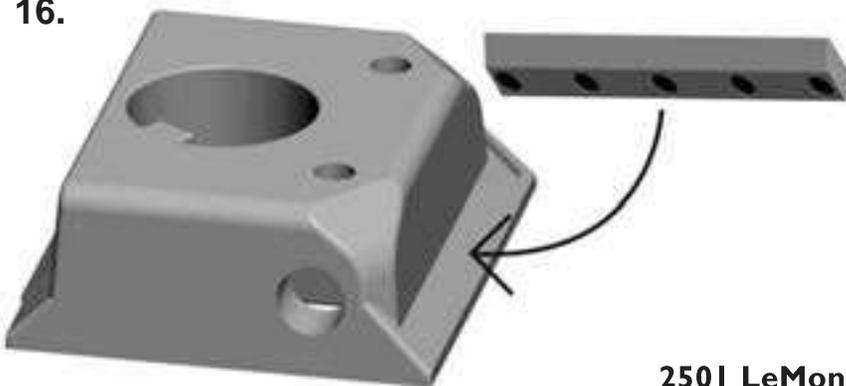
14.



15.



16.



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