

TeamFAST M-10/M-20 UNIVERSAL MOUNT KIT-IV

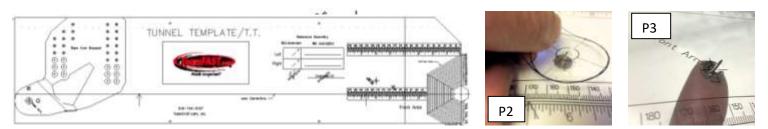
WEBSITE: TeamFAST.COM SALES: 218-744-2107 TECH EMAIL: <u>rider@teamfast.com</u>

Tools provided: 1- Tunnel Template, 1- Caliper

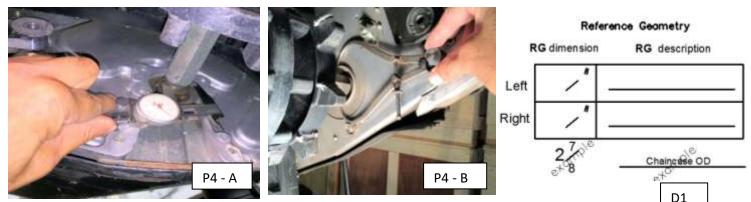
Special Tools needed: Scribe, Square, Drill bits – 1/16", 3/16", 7/16", Scissors, Razor Knife, Disk Grinder, Marker, Hi-liter, Caliper Abbreviations: Tunnel Template = **T. T.** Reference Geometry = **RG** Front Arm Bracket Template = **FABT** Front Arm Bracket = **FAB** Diameter = **DIA** Rear Arm Bracket = **RAB**

- Check the parts received in your kit against the Mount Kit Parts List included. Read through the <u>Brand Notes Section</u> before starting installation.
- 2. Turn fuel off and securely support rear of sled approx. 4-5 feet in the air and remove suspension. Photo 1.
- 3. Familiarize yourself with the above abbreviations, the Tunnel Template or **T. T.** and the Front Arm Bracket Template or **FABT.**

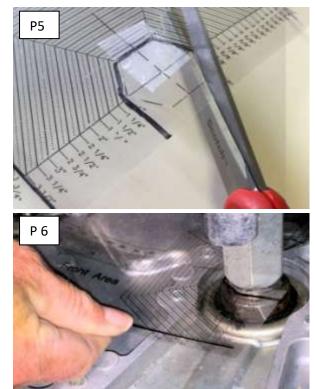




- 4. On the T.T. locate the Front Arm center mark and from the back side accurately push the thumb tack through it. Tape the tack head to the back of T.T. Locate the Front Arm Bracket Template or FABT and pierce its center mark with the thumb tack points. For safety, push the cork over the tack point then lightly tape the FABT to the T.T. See Photos 2-3 temporary
- 5. View the left inside of the tunnel and select an <u>axle centered</u> feature that's easily measured with a caliper to use as your Reference Geometry or **RG**. Choose an axle diameter, or the distance across its hex flats, the outer diameter of the bearing mount or chain case.
 - Use a Caliper to measure the **DIA** of your chosen left side **RG**. Observe this dimension to the nearest 1/8" inch and mark it in on the Left **RG** box below. See Photo 4-A, P4-B & Diagram 1.

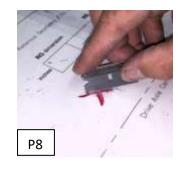


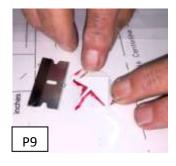
- 6. On the **T. T.** find the Half Hex lines/dimensions that matches closest with your Left **RG** dimension from Step 4, be it round, hexagon or otherwise.
 - Mark those lines and accurately trim the T. T. on those lines. <u>NOTE</u>: Save trimmed sections. See Photo 5.
- If shaft flats are used for RG, rotate and lock the shaft in a position where a flat is perpendicular with the tunnel roof then set brake lock. Be sure to check for the axle flat to tunnel perpendicularity.
- Slide the trimmed T. T. between the left side of tunnel and track then slide it forward and over its matching RG. Position it so the Half Hex cut out fits snuggly up against the RG whether it's hex or round in shape. T.T. See Photo 6.
- Position the Axle Centerline so it is approx. parallel to the roof of the tunnel and mark any larger obstacle to a reasonably flat fit of the T.T. against the tunnel. Next, cut slits or trim around these obstacles. You can slide cardboard under T.T. to support your



cutter. Trim only in areas of non-critical info then fold/crease lips back. See Photo 7-9.







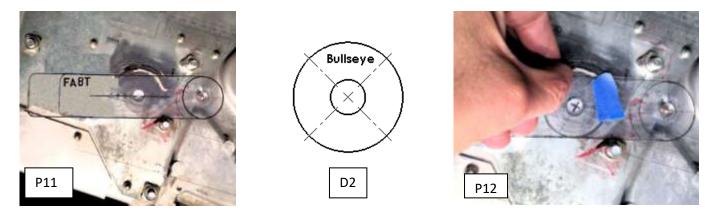
- 10. With the snug Half Hex fit to the RG, use a ruler to accurately align the T.T. so that the Axle Centerline is parallel to the tunnel roof (Nytro installs see appendix). They are parallel when the Axle Centerline to tunnel roof measurement is the same at the front as the rear. Use ample masking tape to securely mount T.T. in this position. See Photo 10.
- Premount Suspension Installation Inspection Using the T.T's pictured Rear Bracket see if the rear arm bolt clears the bottom corner of the chassis at assembly. Circle YES or NO directly below. <u>CHECK BRAND NOTES.</u>

YES – Proceed to Step 12.

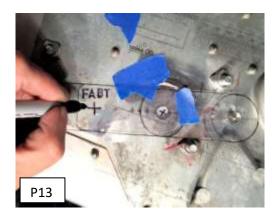
NO – Go to Brand Notes Section regarding **RAB** bolt up to Rear Arm.

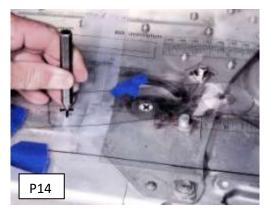


12. Rotate **FABT** around the Front Arm Center Mark, so **FABT** center line is centered over the stock front arm hole and tape_it in position. You may need to partially peel back front of the **T.T**. to grind off obstacles to flush mounting. Example: This sled needed to have the corners ground off the weld-nuts, a half moon guide rib and rivets. Next, position and securely tape the provided Bulls-eye on the **FABT** so it's centered exactly over the stock front arm hole. See Photo 11-12 & Diagram 2.

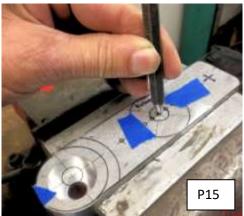


13. Select and mark a Second Bolt Location on the FABT that is separate by at least 1-3/4" on either side of the stock front arm hole. Remember more separation is better than less and if you do choose a location forward of the stock front arm location that a 3/8 locknut and washer must clear the M-10/M-20 front arm inside the tunnel. Firmly center-punch this location through the FABT into the tunnel. Now with the Second Bolt Hole center-punched and Bulls-eye securely taped to the FABT peel the FABT off the T.T then circle the center punch mark on the T.T. See Photos 13-14.



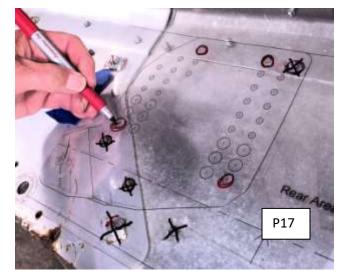


14. Now align the FABT on the actual aluminum Front Arm Bracket and tape it in position. Center punch the Bulls-eye and Second Bolt Hole location into the actual Front Arm Bracket. Remove FABT and drill 3/16" pilot holes then follow up with 3/8" drill bit. See Photos 15-16.





- 15. At the rear observe and mark with an X obstacles that need to (later) be ground off for flat mounting the RAB to the T.T.
- 16. Circle a 3/16" circle from each the forward and rearward set of small circles that clear all obstacles. For the 3/16" mounting screws it's better to be higher than lower.
- Carefully select and circle two 3/8" circles from the lower groups that provide the furthest apart and lowest mounting positions. They must clear tunnel bends and be totally <u>clear of</u> <u>any coolant passages</u>. See Photo 17.
 - Use a center punch to firmly punch the four circle centers into the tunnel. Now partially peel back the **T.T.** and circle the four rear and single front center punch marks. Also mark X's on the actual obstacles needing to be ground off the tunnel.

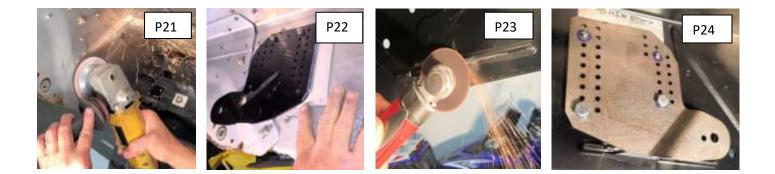


WARNING – Before drilling ANY hole recheck to BE CERTAIN it clears any coolant passages!

18. Now remove the T.T. and use a 3/16" bit to accurately drill the four rear and one front center punched locations in the tunnel. Next drill the Second Bolt Location for the actual FAB and the bottom two rear holes to 3/8". Lastly, circle the four matching holes in the actual RAB then drill the lower two 3/8" holes in the actual RAB. See Photos 18-20.



19. Now, grind the obstacles marked with X's earlier in step 14 to provide flush mounting of the **RAB**. Occasionally existing reinforcing ribs need to be ground down and or shim stock is needed to provide for a flush/secure mount. Using bolts provided, temporarily position Rear Brackets in tunnel to identify flushness and bolt fits. See Photos 21-24.



21. Repeat all Steps to duplicate on the RH side of sled, you likely will need to choose a newly sized RG which will require trimming the hex area of the **T.T.** again.

22. <u>NOTE</u>: The Front & Rear mount location holes in the Tunnel Template (T.T.) from the LH side, will be used on the RH side of the Tunnel / Sled.

U-KIT IV COMPONENTS:

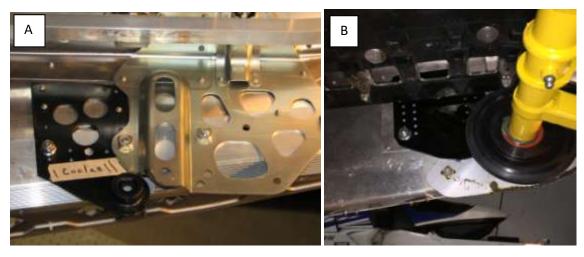
- 1 RH REAR ARM BRACKET (RAB)
- 1 LH REAR ARM BRACKET (RAB)
- 1 TUNNEL TEMPLATE (**T.T.**)
- 1 INSTRUCTIONS
- 2 BRACKET FRONT ARM (FAB)
- 1 FRONT CROSS SHAFT
- 2 FRONT CROSS SHAFT SPACERS
- 1 REAR CROSS SHAFT
- 2 REAR CROSS SHAFT SPACERS
- 4 SHIM PLATES (2 SIZES)
- 4 10-32 X ¾" BOLTS
- 4 10-32 X 1/2" BOLTS (ALTERNATE LENGTH IF NEEDED)
- 4 10-32 NYLOCK NUTS
- 8-3/8" FLAT WASHERS
- 2 3/8"-16 X 1" BOLTS (TO MOUNT THE FRONT OF THE RAB)
- 2 3/8"-16 X ¾" BOLTS (TO MOUNT THE BACK OF THE RAB)
- 4 3/8"-16 NYLOCK NUTS
- 4 3/8"-16 X 1-3/4" BOLTS
- 4 3/8"-16 FLANGED NYLOCK NUT
- 2 7/16"-14 X 2 SOCKET HEAD BOLTS
- 4 7/16" LOCK WASHERS
- 2-7/16" FLAT WASHERS
- 2 7/16"-14 X 1-3/4" BOLTS

<u>M-20 KIT ONLY</u>

- 1 LOCK BRACKET
- 1 ¼"-20 X ½" BOLT
- $1 \frac{1}{2}$ -20 STAR WASHER

Brand Notes Section:

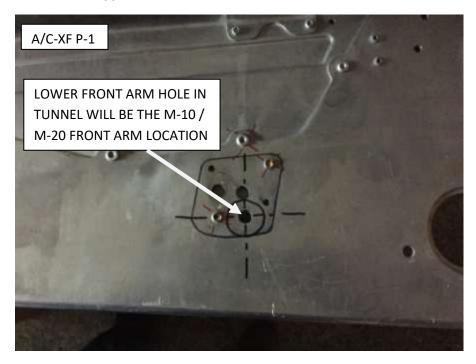
- For applications with larger chain case features like PHAZERs and some Polaris chassis see appendix notes.
- FRONT ARM / FAB: Install the two torque arm brackets and spacers on the front torque arm. Install the 7/16 X 2 bolts, 7/16" lock washer, so they are concealed (recessed) in the brackets. Note: The torque arm brackets must be parallel to each other. This can be accomplished by swinging the front arm forward to the floor and then tighten the bolts in the torque brackets while holding the brackets flat to the floor. Use red Loctite #271 on the bolt threads and torque to 70 ft.lbs.
- FROM STEP #11. When the No is circled and the rear mount bolt will not clear the bottom edge of the running board, the rear mount plates must be bolted to the rear arm before installing into the tunnel. Parallel the mount plates on a level surface and recheck after torquing. This is important so that they line up with the holes drilled in the tunnel. This can be be tricky as the actual RABs can creep as they are torqued. The rear mount bolts should have a heavy dose of Red Loctite #271 applied to them upon installation and then torqued to 70 Ft Lbs. Once the rear mount plates are properly attached to the arm, the rear arm of the suspension is ready for installation. Photo A & B are examples of a rear mount plate that did not clear below the tunnel / runniung board. Retun to Step #12.



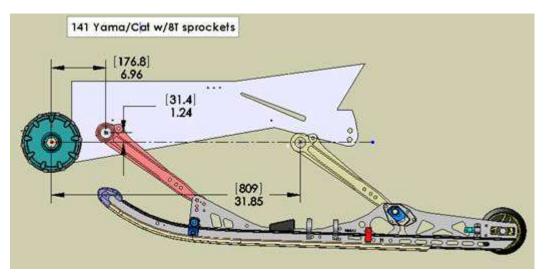
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- For tunnels that are painted black inside it is neccesary to have strong back lighting to help distinguish T.T.
 lines on the tunnel. Also consider spraying a light mist of grey primer on the tunnel just in the working areas (remember this is inside the tunnel).

2011-2017 ARCTIC CAT XF-SERIES

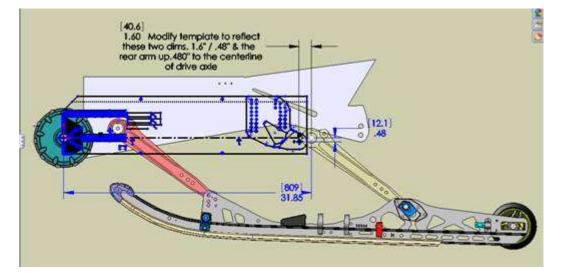
1. Follow the UK-IV Mount Kit Instructions. The A/C XF-Series will use a modified **T.T.** that reflects using the lower stock front arm hole. See P-1. **Before proceeding you must verify these dimensions are correct on your sled.** See D-1 and D-2. This installation will not use front torque arm brackests. **2**. At the rear, on the inside of the tunnel you will need to grind down a section of rib on the factory rear support. See P-2. **3**. Remove the rivet in the lower section of the tunnel and drill for a 3/8" bolt. See P-2. **4**. Swing the **RAB** back to align with the outline on the **T.T.** Temporarily secure the **RAB** in this position. Center mark the 3/8" hole drilled in tunnel to the **RAB**. Remove **RAB** from tunnel and drill center mark for a 3/8" bolt. See P-3. **5**. Remove **T.T.** Align the Two holes in back of the **RAB** with the two holes drilled in tunnel. Place shim stock between tunnel and **RAB**.Secure in place. From inside the tunnel drill one more ¼" bolt hole and one more 3/8" bolt hole through the **RAB** and tunnel. Secure **RAB** to tunnel with fasteners provided. The rearward 3/8" hole will use a button head bolt. **The head of the bolt must be on the inside of the tunnel.** *NOTE:* **Coupler Block P/N's for this application are 121-8225-00 and 121-8226-00.**

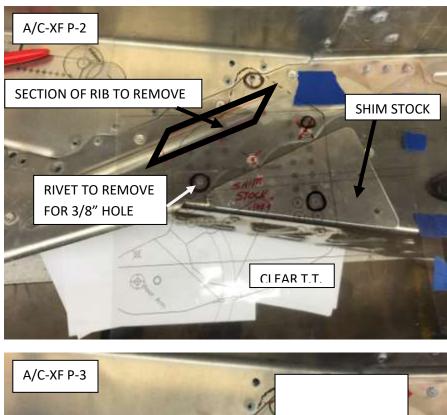


A/C-XF DIAGRAM-1



A/C-XF DIAGRAM-2







2003-2006 ARCTIC CAT F-SERIES SLEDS

1. Follow the UK-IV instructions accordingly. The 2003-2006 A/C F-Series use a different **RAB** and ha a **T.T.** that reflects this style of **RAB** used with these sleds. See Photos below to reference these changes with the **RAB**.

2. **IMPORTANT:** The spacers for the rear upper arm shaft must be placed on the shaft between the upper carrier wheel and the upper rear arm tube. **Inside of the wheel, not on the outside**.

