Installation instructions for JM3 - 10 Lb. CO2 Tank / Fire Extinguisher Mount for Toyota FJ Cruiser

It is <u>highly recommended</u> that you use a thread lock compound such as Loctite brand on all threads to keep them from vibrating loose.

Please read these instructions entirely before starting.

This picture shows the components of JM3. Parts will be referred to by the names & numbers shown here. If you are missing anything please email RefinedCycle@gmail.com.



JM3 Components

- 1 Main Bracket
- 2 Hanger Bracket
- 3 Left Bracket
- 4 Right Bracket
- 5 Edge Trim (Qty. 6)
- 6 M10-1.25x40 Socket Head Cap Screw (Qty. 6)
- 7 M6-1.0x30 Hex Head Cap Screw
- 8 M6-1.0x18 Hex Head Cap Screw (Qty. 9)
- 9 3/8" Zinc Washer (Qty. 14)
- 10 SPC036 Alignment Sleeve (Qty. 2)
- 11 M6 Zinc Washer (Qty. 20)
- 12 M6 Nut (Qty. 10)

Optional CB Antenna Mount Components

- 13 CB Antenna Mount
- 14 M6 Nut (Qty. 2)
- 15 M6-1.0x20 Hex Head Cap Screw (Qty. 2)
- 16 M6 Zinc Washer (Qty. 4)



Remove your spare tire, cover and camera if applicable and disconnect the camera wire from the spare mount if there is one connected to it.



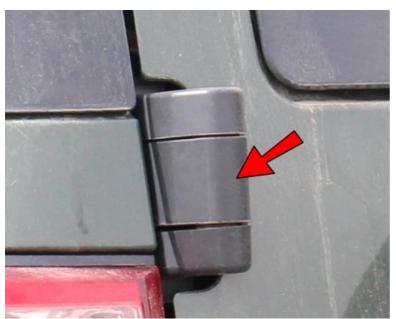
Remove the two bolts and the two nuts holding the spare tire carrier to your door. When you remove the carrier, there will be 4 rubber washers on the bolts or stuck to the paint surface. Carefully peel them off, you will re-use them.



If you are lucky, the studs will come out with the nuts.

If you aren't so lucky the nut will come off and the stud will remain. No worries, there are options. First, put some WD40, PB Blaster or other penetrating spray on the stud and take a lunch break while it soaks in.







Welcome back. Here are a few ways to remove the stud....

If you have access to the star shaped tool for the end of the stud, use that. Your dealership should have one also.

You can lightly hammer on a 9/32 socket. (This works surprisingly well.)

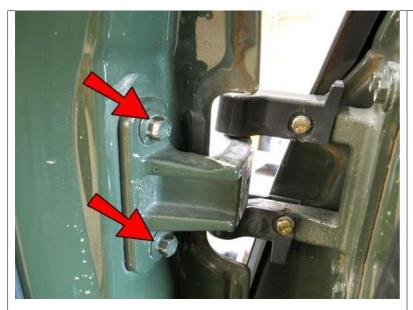
You can try vise grips.

You can grind the end square to get a better grip with vise grips.

You can thread the nut back on a few turns, then weld the nut to the stud in the middle so you don't mess up the hex edges. Then just use a socket to turn the stud out. Don't worry, you won't re-use the studs.

Remove this middle plastic piece....it just snaps off. It's easier to do with the door open.

Support the door. Two people are always great and it will make this installation easier, but it can be done by yourself with a little ingenuity. I used my spare to brace the weight of the door. I don't officially recommend this, I'm just saying it worked really well for me.



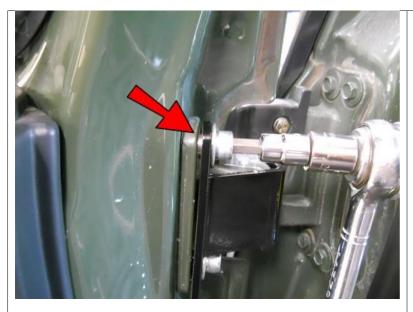
Remove the hinge bolts. (Again, make sure the door is firmly supported, it is heavy!)



Place a 3/8" Zinc Washer and an SPC036 Alignment Sleeve onto 2 of the M10-1.25x40 Socket Head Cap Screws as shown.



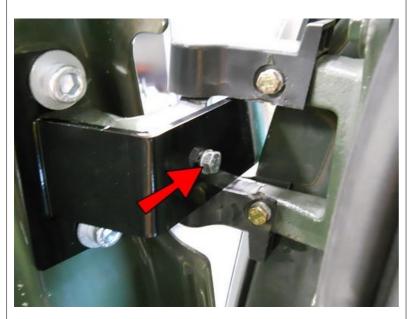
Insert the Left Bracket through the hinge as shown. If you tilt it at the correct angle it will go easily, don't force it, just try another angle if it isn't going.



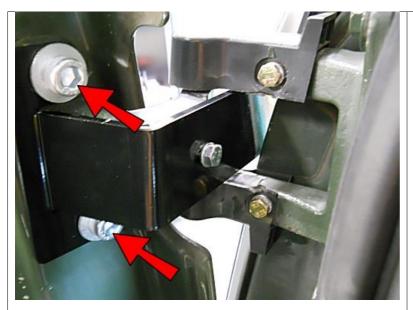
Line up the holes of the Left Bracket to the hinge and use the M10 Screws with Washers and Alignment Sleeves to connect the Bracket. Make sure the Alignment Sleeves go into the alignment holes on the Left Bracket AND the hinge. Do NOT tighten yet.



Place an M6 Washer onto the M6-1.0x30 Hex Head Cap Screw.



Insert it into this hole and make sure it goes all the way into the hole in the hinge. You may need to jiggle the Bracket to get the holes to line up.



Now tighten the M10 Screws.



Place a 3/8" Zinc Washer on the remaining four M10-1.25x40 Socket Head Cap Screws.



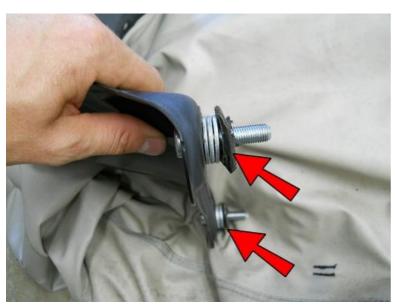
Insert them into the spare carrier.



Place the Right Bracket onto the two Screws on the left side of the carrier.



Place a 3/8" Zinc Washer and one of the rubber washers removed earlier onto the back side of those two M10 Screws. Later models had a thin stick on plastic washer instead of the nice thick rubber ones. If your washers are not reusable you can get the stick on ones from Toyota, Part #51998-35020 or you can wrap some electrical tape around the Zinc Washer to protect the paint.



On the other two M10 Screws on the right side of the spare tire carrier, place THREE 3/8" Zinc Washers and one of the rubber washers removed earlier onto each one.



Being careful not to let the carrier or the Right Bracket touch the paint, thread all 4 Screws into the carrier mounting holes on the door. Thread them most of the way, but leave them loose enough that you can move the Right Bracket up and down.



Place M6 Washers onto all 9 of the M6-1.0x18 Hex Head Cap Screws.



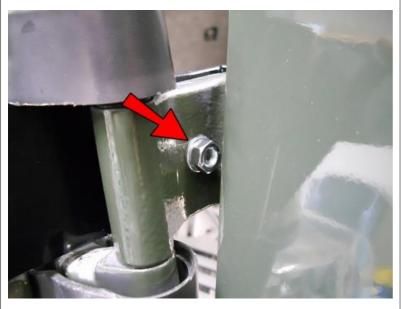
Place the Hanger Bracket between the Left and Right Brackets as shown and insert three M6 Screws and Washers here. (No, you do not see a spare tire already mounted. That is an illusion)



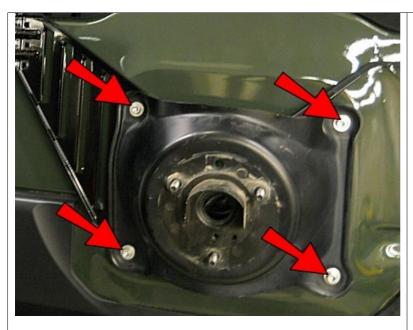
Insert 2 more here. (Still no spare tire, it's all in your head.)



Now secure the Hanger Bracket with M6 Washers and Nuts on all 5 screws and tighten. (OK, yes it's a spare, no yours should NOT be on yet.)



Apply some thread lock to the M6-1.0x30 Screw previously inserted and secure with an M6 Washer and Nut. (This is most easily done with the door open, standing on the bumper and wrenching from above.)



Now, tighten these Screws completely.

Note: Since they are on a rubber washer, they will not feel completely tight, so just get them very snug.

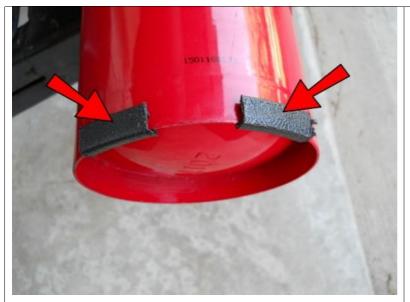
Replace your spare tire and camera, etc, onto the carrier if applicable.



Using the last of the M6 Screws, Washers and nuts attach the Main Bracket to the Hanger and only finger tighten at this time. Unless you have very large tires you should be able to slide it all the way to the right of the adjusting slots in the Hanger.



Place four of the Edge Trim pieces as shown, making sure they are positioned so that whatever type of cylinder you will be mounting, will rest against them.



If your cylinder has a bottom lip such as this extinguisher, place the other Edge Trim pieces as shown, on the edge that will rest on the shelf of the Main Bracket. You can also place them on the outer edge of the Main Bracket shelf, for cylinders that do not have a lip, such as a CO2 tank.



Temporarily mount your cylinder and then SLOWLY open the door to check for clearance. Make sure the cylinder does NOT touch the taillight lens and that the Main Bracket does not touch the black plastic molding under the taillight.



For larger cylinders and/or larger tires, you might need to mount the Main Bracket in a higher position using the other holes. This will create better clearance as well as distribute the weight more evenly top to bottom for increased strength and less vibration.



Once you have checked that your clearance is all ok, remove the cylinder and tighten these screws.



If you are NOT installing the Optional CB Antenna Mount, this hole can be used as a lock-down point to secure your cylinder.



If you are installing the Optional CB Antenna Mount, use the supplied M6-1.0x20 Hex Head Cap Screws, M6 Washers and M6 Nuts to secure as shown.

It is recommended that at this point you double check that ALL connections are tight. That's it!

Enjoy! And remember....Not all who wander are lost!