



# **QUICK INSTALL GUIDE**

**TRI-PORT  
DIFFERENTIAL  
BREATHER KIT**

**TSK-U016  
M4 EDITION**

## Tri-Port Differential Breather Kit

Introducing the next evolution in differential and transfer case breather technology: our meticulously engineered Tri-Port Differential Breather Kit.

Designed for enthusiasts who demand the best in performance and aesthetics, this kit provides superior protection against water, mud, dust, and other contaminants that can compromise your differential's longevity and performance.

At the heart of this system lies a unique 3-hole design with a distinct triangular feature. This innovative configuration not only creates a visually appealing exterior but also strategically positions the tubing for optimal organization. Each of the three ports features an individual internal channel, ensuring absolutely no cross-contamination between the breather lines.

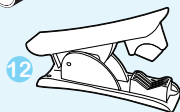
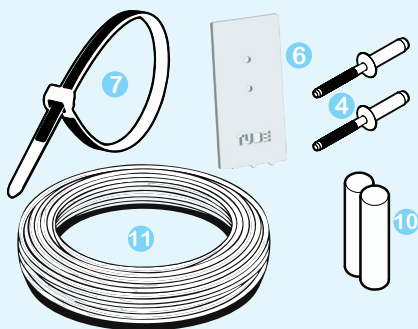
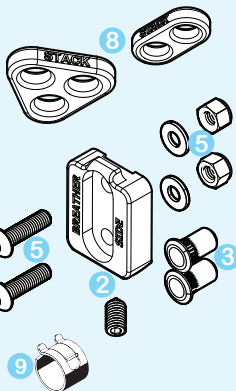
### **Premium Materials and Construction:**

- \* **Robust Body:** Machined from high-grade 6061 aluminum for exceptional strength and durability. The body is then anodized black for a sleek, corrosion-resistant finish.
- \* **Advanced Filtration:** Equipped with flush-mounted sintered brass filters within each vent, providing excellent filtration while maintaining a low profile and clean aesthetic.
- \* **Effortless Connections:** Utilizes flush-mount push-to-connect fittings for quick, secure, and low-profile tubing connections.
- \* **Durable Tubing:** Includes a generous 33 feet of high-quality Nylon 11 tubing with a 3/8" outer diameter and 1/4" inner diameter.
- \* **Organized Installation:** custom 3D printed tube controllers are included to neatly manage and secure the breather tubes, preventing them from snagging or interfering with other components.

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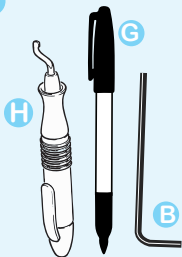
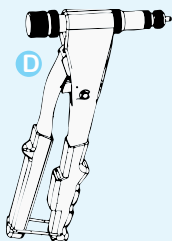
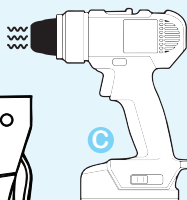
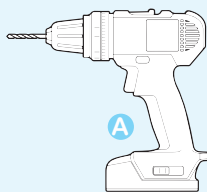
## KIT CONTENTS:

- (1) Tri-Port Differential Breather **1**
- (1) Wedge mount w/ set screw **2**
- (2) M4 Rivnuts **3**
- (2) 1/8" Pop rivets **4**
- (2) M4 Through hardware **5**
- (1) Drilling template **6**
- (10) 6" Zip-ties **7**
- (4) Tube controllers **8**
- (3) 3/8" Tubing clamps **9**
- (2) 2-3/8" (3/8") Port blanks **10**
- (33 ft) Nylon 11 black tubing **11**
- (1) Tube cutter **12**



## TOOLS NEEDED:

- Drill and 1/8, 1/4 & 5/32" drill bits **A**
- Small 2.5mm Allen **B**
- Heat gun **C**
- Rivnut installer tool (optional) **D** or
- Pop rivet installer tool (optional) **E**
- Sharpie **G**
- De-burr tool **H**

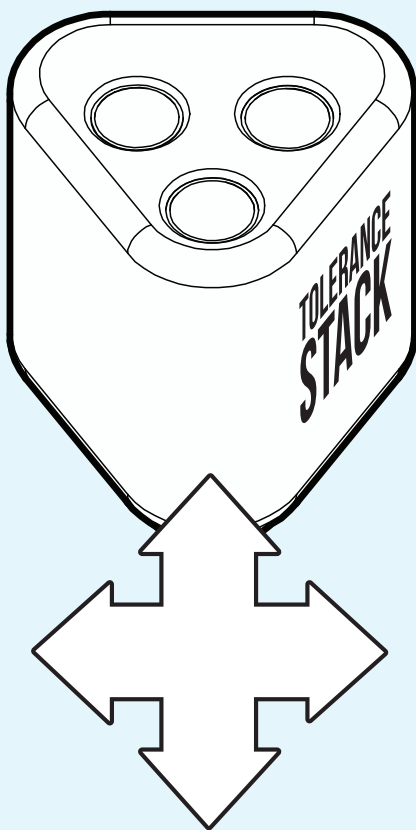


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1

BREATHER CAN BE MOUNTED IN ANY DIRECTION AND ON ANY FLAT SURFACE, BUT GIVE ENOUGH ROOM ABOVE THE FILTERS AND BELOW THE TUBE FITTINGS FOR TUBE ROUTING.



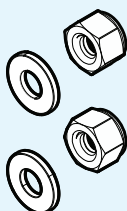
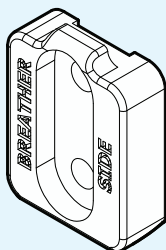
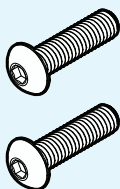
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# QUICK INSTALL GUIDE

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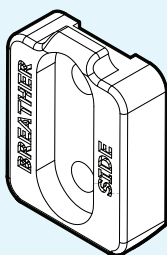
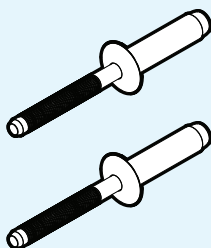
DECIDE MOUNTING HARDWARE; BOLT & NUT, POP RIVE, OR RIVNUT.

5/32" DRILL BIT



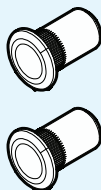
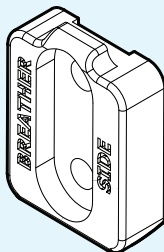
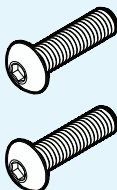
OR (OPTIONAL)

1/8" DRILL BIT



OR (OPTIONAL)

1/4" DRILL BIT

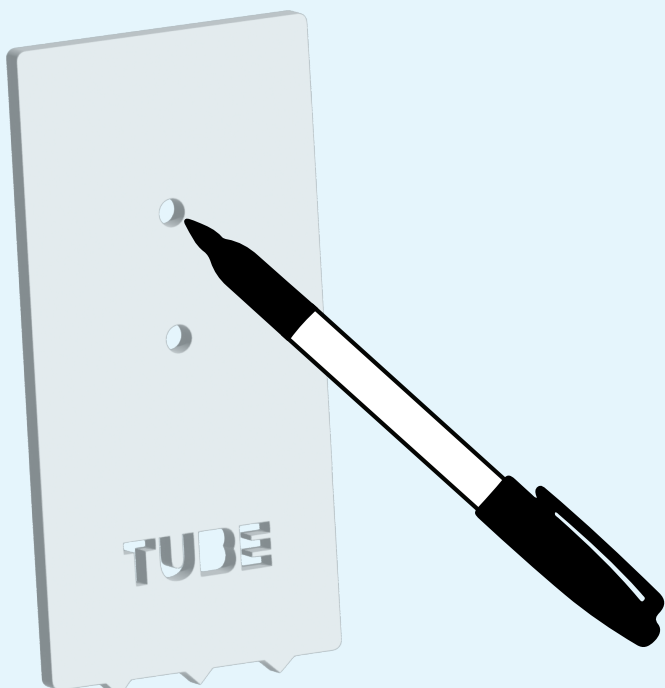


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**3**

USE TEMPLATE TO MARK DRILL POINTS TO  
SECURE THE WEDGE MOUNT.

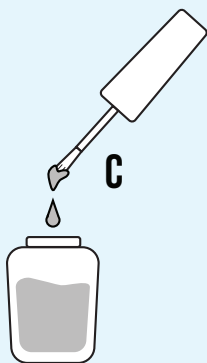
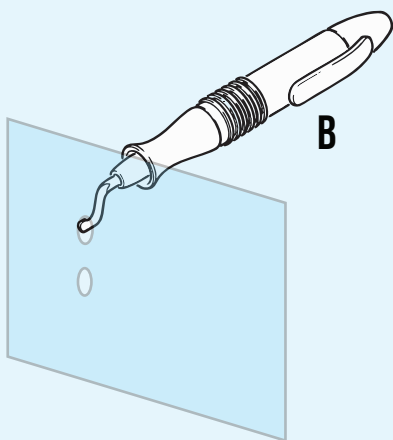
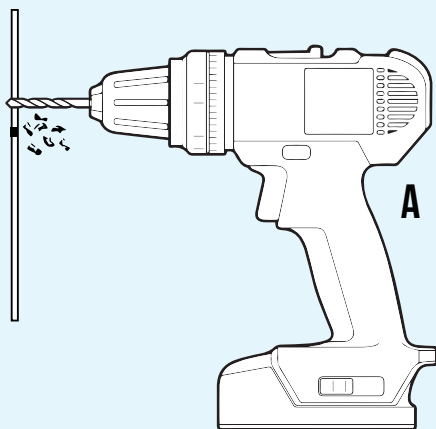


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4

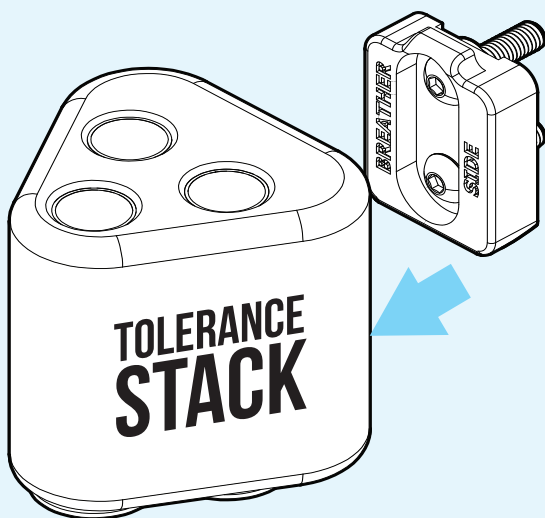
DRILL (A), DE-BURR (B), THEN PAINT (C) HOLES, TO PREVENT RUST.



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5

REGARDLESS OF HARDWARE CHOICE, MAKE SURE THE WORDS “BREATHER SIDE” IS FACING THE BREATHER.

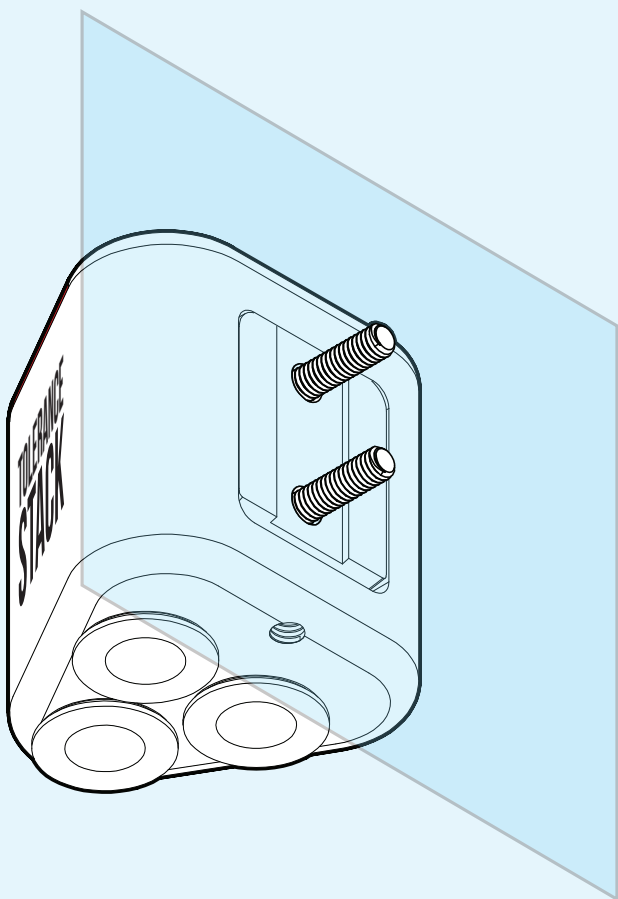


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**6**

**PLACE REAR OF BREATHER OVER THE WEDGE MOUNT.**



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7

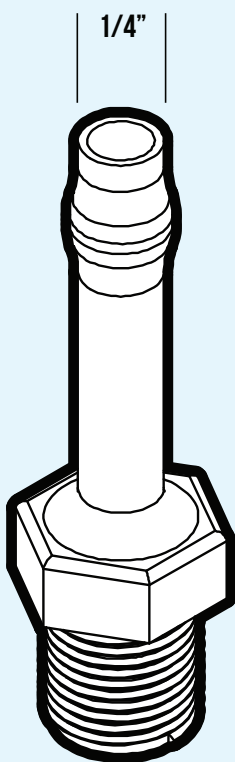
USE 2.5MM ALLEN TOOL TO TIGHTEN SET SCREW AGAINST THE WEDGE MOUNT, VERIFY THE BREATHER IS TIGHT AND SECURE.



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8

THE NYLON 11 TUBING WILL NEED TO SLIP ONTO A 1/4" NIPPLE LOCATED ON YOUR DIFFERENTIAL, TRANSMISSION OR TRANSFER CASE. IF YOUR VEHICLE DOESN'T HAVE A 1/4" NIPPLE, YOU WILL NEED TO RESEARCH THE THREAD SIZE NEEDED.



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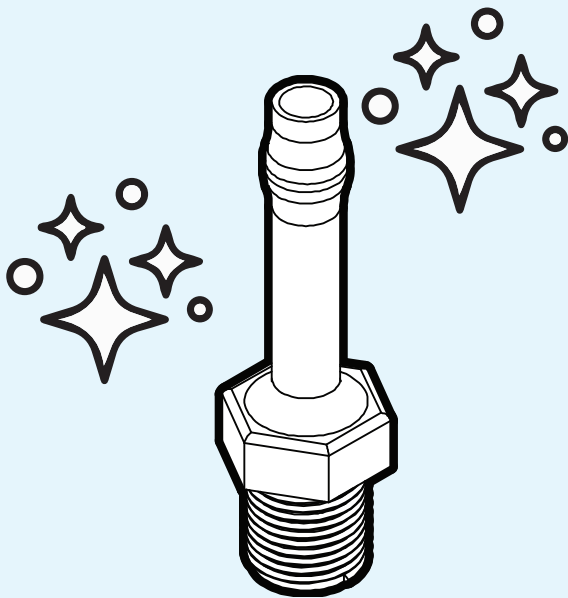
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9

REMOVE ANY EXISTING EXTENSION HOSE, OR  
BREATHER CAP, AND CLEAN NIPPLE.

MOST TOYOTAS USE THE MALE 1/8" BRITISH  
STANDARD PIPE THREAD TO MALE 1/4" NIPPLE,  
ON THE AXLE HOUSING. IF THE BREATHER NEEDS  
TO BE REPLACED USE TOYOTA PART:  
90404-51052

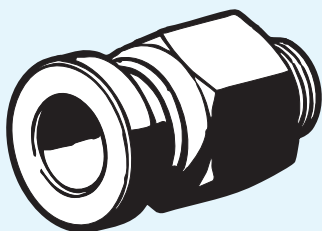
TO PURCHASE



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**10**

IF YOU NEED TO REPLACE YOUR DIFFERENTIAL'S FITTING AND YOU PREFER TO KEEP THE SAME STYLE TO MATCH THE BREATHER, YOU CAN USE THIS 1/8" BRITISH PIPE THREAD TO 3/8" O.D. TUBE FITTING FOR A CLEANER LOOK. ONLY DIFFERENCE IS THE TUBE GOES INSIDE THIS FITTING INSTEAD OF OVER THE NIPPLE.



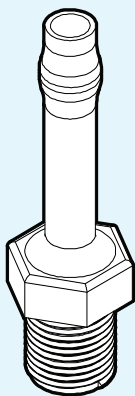
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**11**

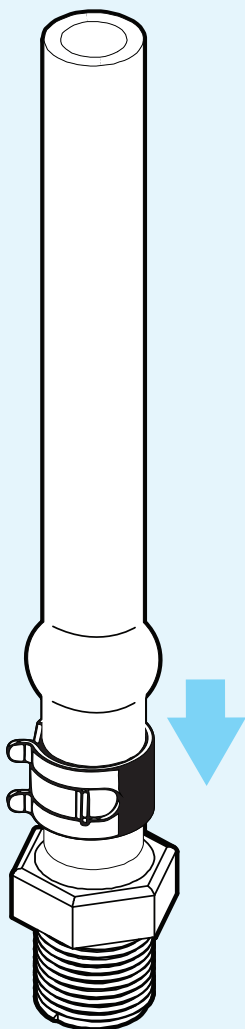
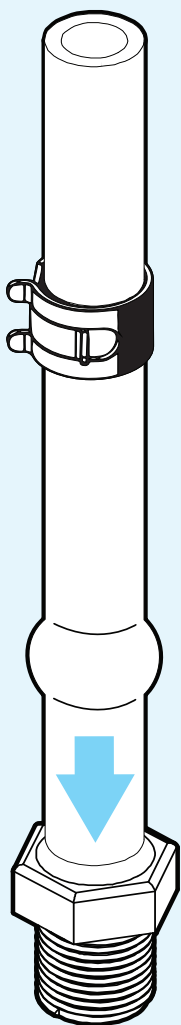
**RUN ONE TUBING END FROM THE GENERAL BREATHER LOCATION DOWN TO THE REAR DIFFERENTIAL FIRST. MAKE SURE EVERYTHING IS LOOSE AS YOU WILL BE GOING BACK TO ZIP-TIE EVERYTHING AT A LATER STAGE, NO CUTS TO THE TUBING SHOULD HAPPEN YET. STAY CLEAR OF MOVING COMPONENTS AND ANYTHING HOT SUCH AS EXHAUST AND FLUIDS.**



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**12**

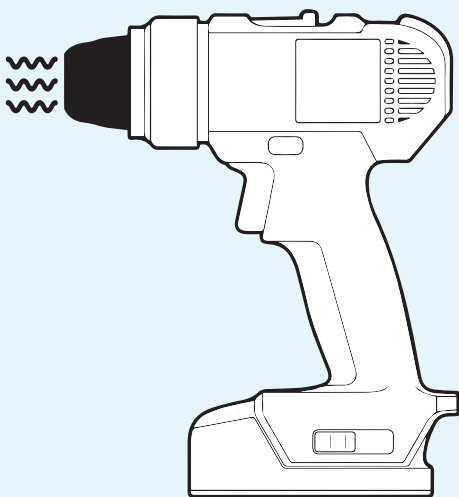
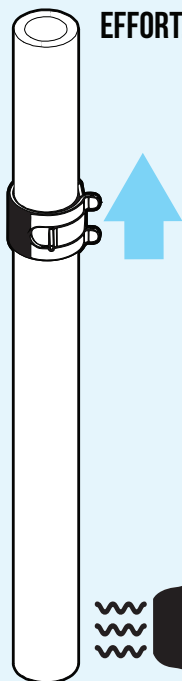
ONCE TUBE IS OVER THE NIPPLE BULGE, SLIDE THE TUBE CLAMP OVER THE BULGE AND CLAMP TO THE END OF THE TUBE, BOTTOMING OUT NEAR THE END OF THE NIPPLE.



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**NOTE** IF YOU ARE HAVING DIFFICULTY GETTING THE TUBE OVER THE NIPPLE USE A HEAT GUN, DO NOT USE FIRE. WARM UP ONE END OF THE TUBING NEAR THE DIFFERENTIAL'S VENT TUBE NIPPLE. ONLY WARM IT ENOUGH SO THAT THE TUBE WILL SLIDE OVER THE NIPPLE WITH SOME EFFORT.

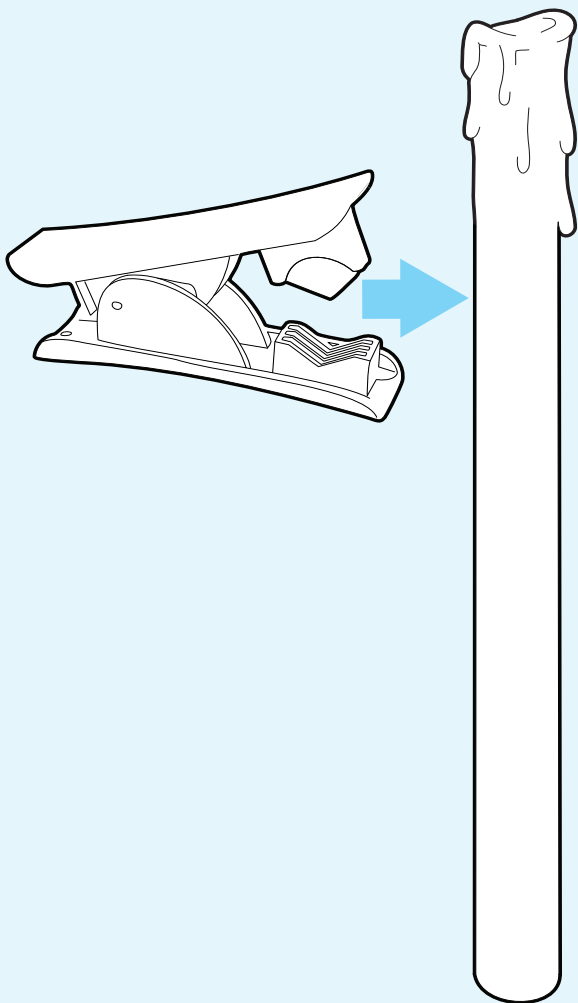


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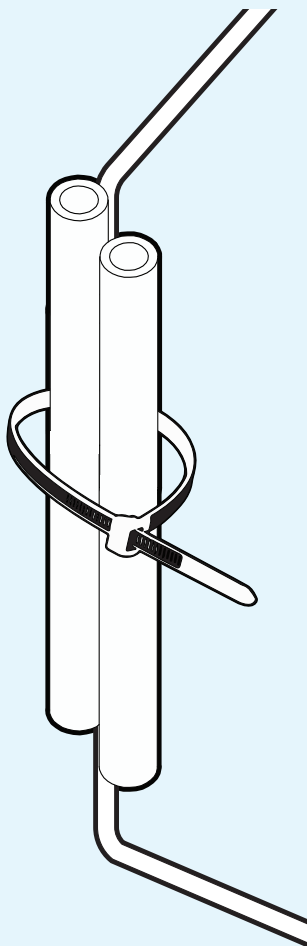
**NOTE** DO NOT OVER HEAT TO THE POINT TO WHERE IT  
MELTS. IF IT DOES, CUT OFF THAT SECTION OF  
TUBE AND START AGAIN.



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**13**

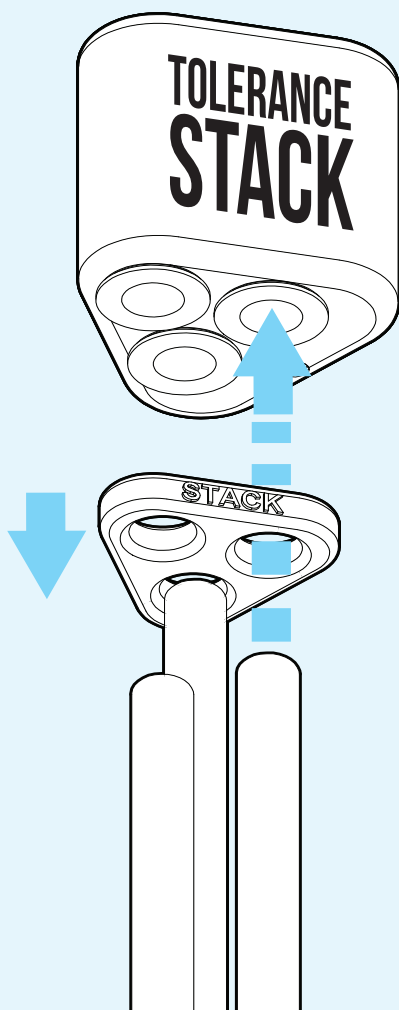
**SECURE THE TUBING, WITH ZIP-TIES, AGAINST BODY PANELS. IT'S FAIRLY SAFE TO FOLLOW ALONG BRAKE TUBING AS THOSE ARE ALSO DESIGNED TO STEER CLEAR OF ARTICULATION SUSPENSION. STAY CLEAR OF ANYTHING HOT SUCH AS EXHAUST AND FLUIDS. NOTE: ON REAR DIFFERENTIAL LEAVE ENOUGH ROOM FOR AXLE ARTICULATION WITHOUT PULLING ON TUBES.**



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14

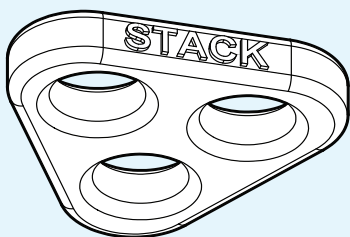
ONCE YOU SECURE TUBING LEADING UP TO THE BREATHER, SLIDE THE “TUBE CONTROLLER” OVER THE TUBES BEFORE SELECTING THE BREATHER PORT YOU WILL BE USING.



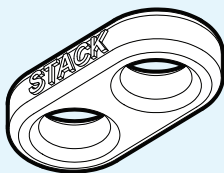
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15

IF YOU HAVE THE RESOURCES TO 3D PRINT THEN WE HAVE QR CODES FOR THE DOWNLOAD OF THE TUBE CONTROLLERS AS AN .STL SO THAT YOU CAN CREATE YOUR OWN AND MODIFY AS NEEDED.



.STL DOWNLOAD



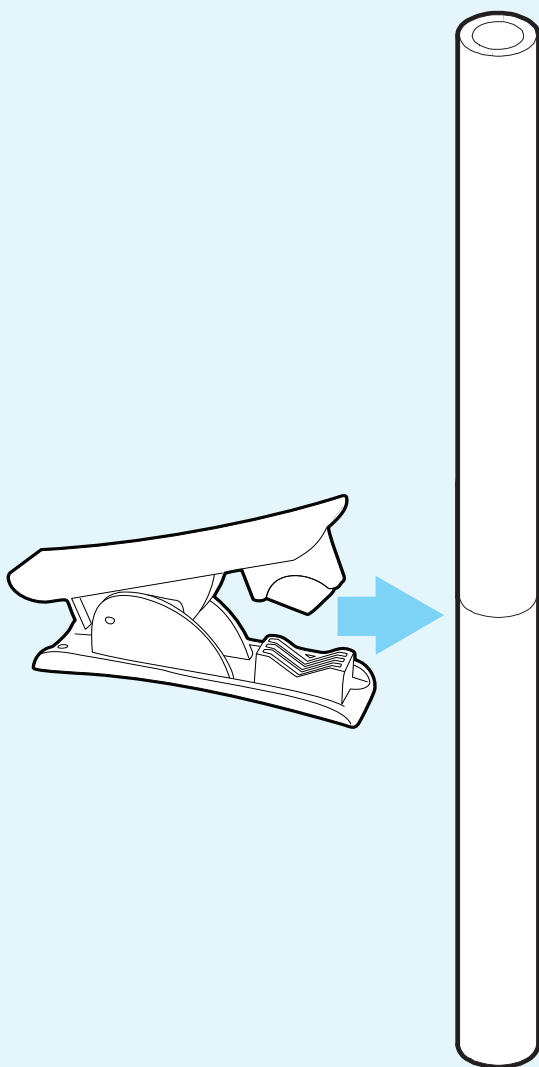
.STL DOWNLOAD



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**16**

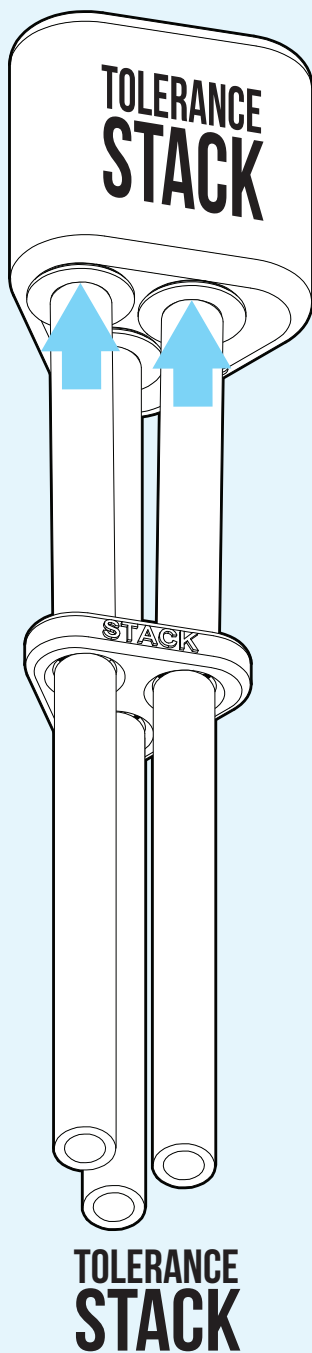
**BEFORE INSERTING ANY TUBE INTO THE DIFFERENTIAL BREATHER PORTS, CUT TUBING TO LENGTH AND AS SQUARE AS POSSIBLE USING A PLASTIC TUBING CUTTER.**



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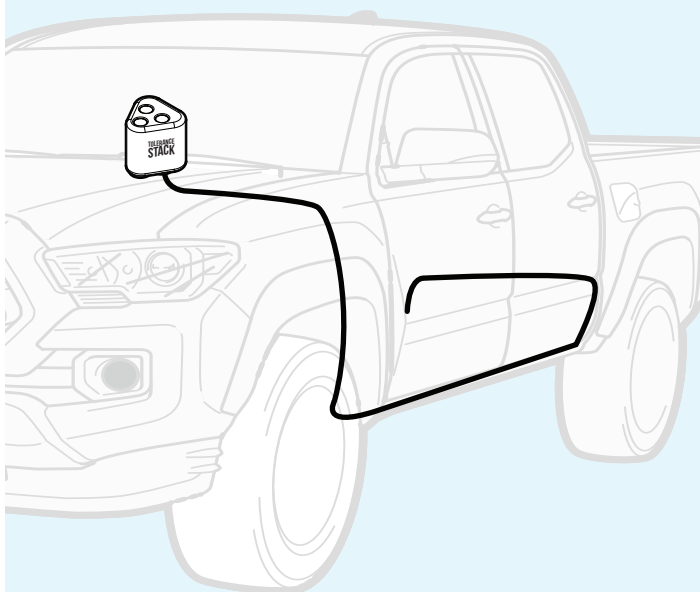
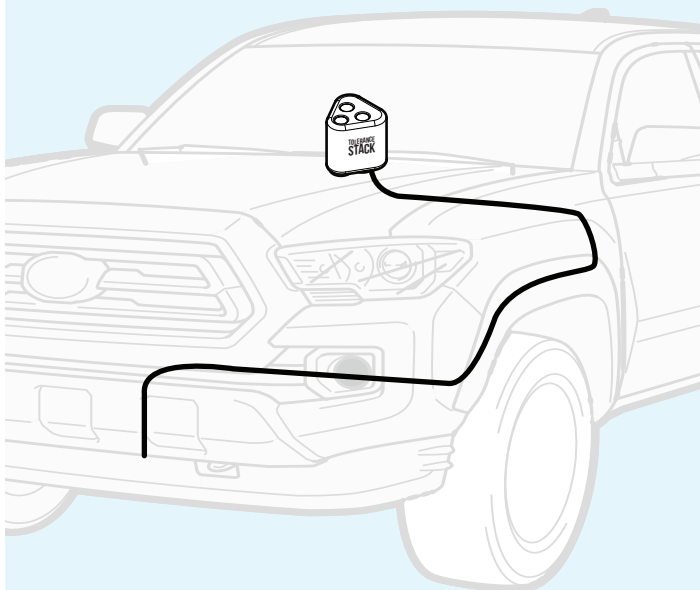
**17**

**PUSH THE CUT TUBE ENDS INTO BREATHER.  
TUBES SHOULD BOTTOM OUT AROUND 1-3/8".**



**18**

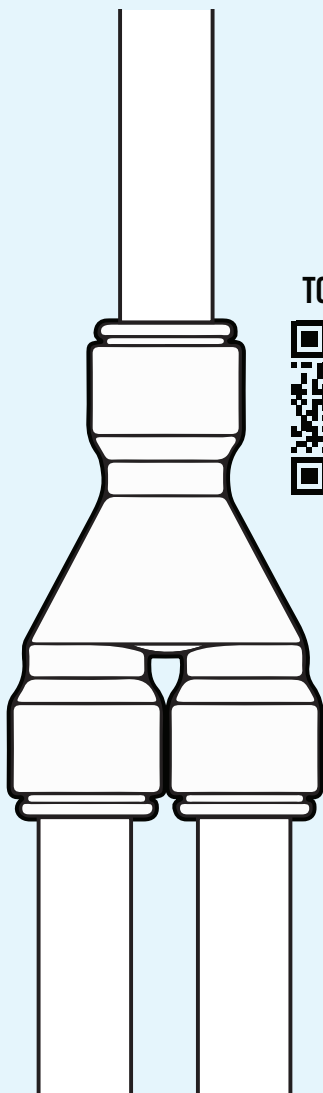
**REPEAT FOR FRONT DIFFERENTIAL AND  
TRANSFER CASE AND/OR TRANSMISSION.**



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**19**

IF YOU FIND THAT YOU NEED A FOURTH TUBE OPTION WE OFFER A WYE FITTING TUBING CONNECTOR TO CONNECT TWO BREATHER TUBES INTO ONE BEFORE GOING TO THE BREATHER.



TO PURCHASE

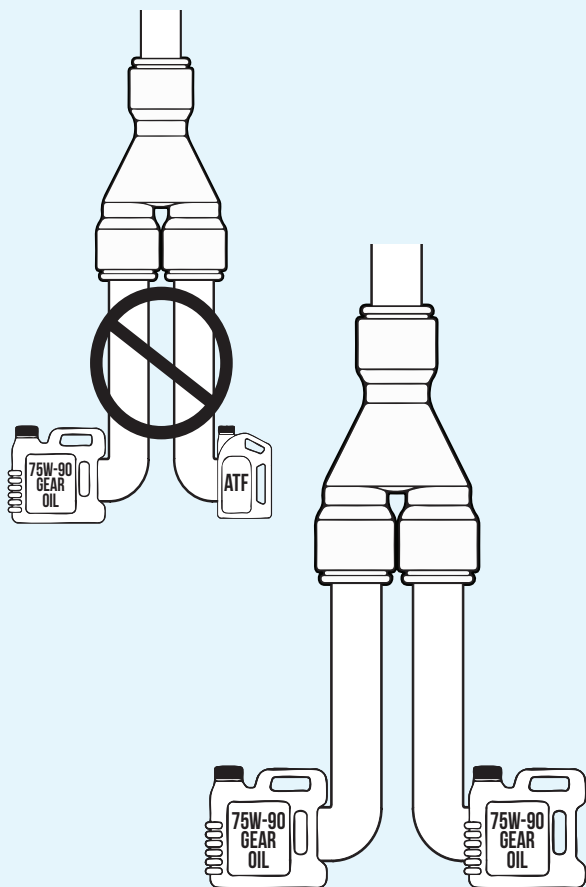


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20

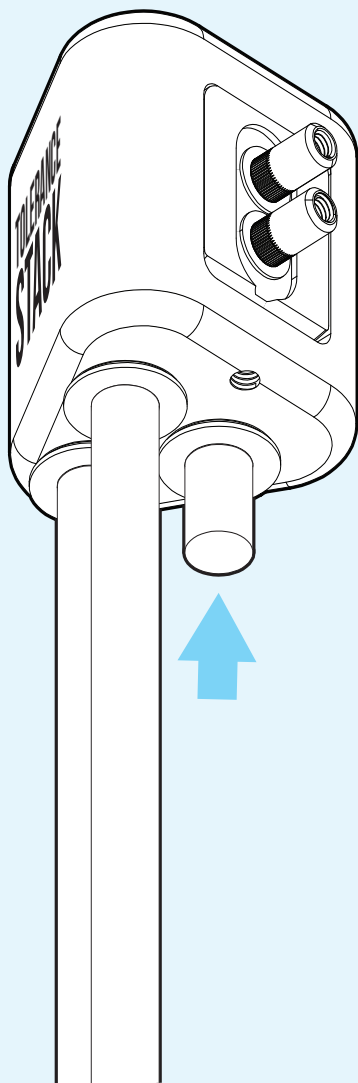
IF A WYE IS USED, MOUNT AS CLOSE TO THE BREATHER AS POSSIBLE, AND BE VERY CAREFUL TO RESEARCH THE TYPES OF FLUIDS BEING USED TO PREVENT CROSS CONTAMINATION. ALTHOUGH RARE, ROLLOVERS COULD ALLOW MIXING. BE SURE TO ONLY TIE-IN LIKE FLUIDS, NEVER TIE-IN TWO DIFFERENT FLUID TYPES.



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**21**

IF YOU DON'T PLAN ON USING ALL OF THE PORTS, PLUG THE UNUSED PORTS WITH THE SUPPLIED PLUGS. THIS IS TO PREVENT CONTAMINANTS FROM ENTERING. PUSH UNTIL THE PLUG BOTTOMS OUT, ABOUT 1-3/8" IN.



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## Product Liability Waiver and Warranty Information

**Assumption of Risk:** By purchasing, installing, or using the Tolerance Stack Tri-Port Differential Breather, the user acknowledges and agrees that off-road driving and vehicle modifications carry inherent risks, including but not limited to property damage, personal injury, economic loss, or death. The user voluntarily assumes all risks associated with the installation and use of the Tri-Port Differential Breather, whether installed by the user or a third party.

**Limited Manufacturing Warranty:** Tolerance Stack warrants that the machined parts of the Tri-Port Differential Breather will be free from defects in manufacturing, under normal use and service, for a period of ten (10) years from the date of purchase. Other components of the Tri-Port Differential Breather, such as tubing, are warranted against manufacturing defects for a period of thirty (30) days from the date of purchase. This warranty is limited to the repair or replacement or refund of the purchase price, at Tolerance Stack's sole discretion of the defective Tri-Port Differential Breather or component at Tolerance Stack's discretion. This limited warranty is the sole and exclusive warranty provided by Tolerance Stack regarding the Tri-Port Differential Breather.

**Disclaimer of Other Warranties:** EXCEPT FOR THE LIMITED MANUFACTURING WARRANTY EXPRESSLY STATED ABOVE, THE TRI-PORT Differential BREATHER IS PROVIDED "AS IS" WITHOUT ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING but not limited to IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT. Tolerance Stack does not warrant that the Tri-Port Differential Breather will meet the user's requirements or that its operation will be uninterrupted or error-free.

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**Limitation of Liability:** In no event shall Tolerance Stack, its affiliates, directors, officers, employees, or agents be liable for any direct, indirect, incidental, special, consequential, or punitive damages arising out of or in connection with the purchase, installation, or use of the Tri-Port Differential Breather, even if Tolerance Stack has been advised of the possibility of such damages. This limitation of liability applies regardless of the form of action, whether in contract, tort (including negligence), strict liability, or otherwise.

**Indemnification:** The user agrees to indemnify, defend, and hold harmless Tolerance Stack, its affiliates, directors, officers, employees, and agents from and against any and all claims, liabilities, damages, losses, costs, expenses, or fees (including reasonable attorneys' fees) arising from the user's installation or use of the Tri-Port Differential Breather or violation of this clause or breach of any of these terms.

**Proper Installation and Maintenance:** The user is solely responsible for the proper installation, maintenance, and use of the Tri-Port Differential Breather in accordance with any provided instructions and generally accepted automotive practices. This responsibility remains with the user even if the user performs the installation themselves. Improper installation or use may result in damage to the vehicle or the Tri-Port Differential Breather and may void the limited manufacturing warranty and may also void any express or implied warranties..

**Consult a Professional:** While installation by the end user is possible, and this kit was developed for the end user in mind, it is recommended that installation of the Tri-Port Differential Breather be performed by a qualified professional.

**Governing Law:** This clause shall be governed by and construed in accordance with the laws of Oregon, USA, without regard to its conflict of laws principles.

By purchasing, installing, or using this Tri-Port Differential Breather, you signify your acceptance of the terms of this General Liability and Disclaimer.

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