halo®

TIRE INFLATOR

FIRST GENERATION HALO HA-4 MODEL USER MANUAL

IN-202UM

Keep this manual in the vehicle for future reference.

Failure to follow the instructions and safety precautions in this manual may result in the product detaching from the vehicle, tire blowouts, and/or loss of vehicle control, which may result in serious injury or death.

SAFETY WORDS AND SYMBOLS

Please pay attention to special symbols used through this manual to convey important information. Hazard signal words such as WARNING, CAUTION, or NOTICE are used throughout this manual. Information accented by these words indicates a point of emphasis and importance. The following definitions comply with ANSI Z535.6 and indicate the use of signal words as they appear within this manual.

	This is the safety alert symbol. It is used to alert you to potential physical injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
⚠ **WARNING**	WARNING indicates a hazardous situation that, if not avoided, could result in serious injury or death.
⚠ **CAUTION**	CAUTION indicates a hazardous situation that, if not avoided, could result in minor or moderate injuries.
NOTICE	NOTICE is used to address practices which could result in damage to equipment or property.

OTHER HELPFUL WORDS AND SYMBOLS

The following symbols are used throughout the manual to help guide you in your work with the Halo Tire Inflator.

 **SOUND CHECK**	A sound check symbol describes a critical noise that should be heard and and accompanying instructions that should be followed.
 **VISUAL CHECK**	A visual check symbol describes a critical observation that the user should see and accompanying instructions that should be followed.

IMPORTANT SAFETY INFORMATION

The Halo and its components should be installed and maintained in accordance with the instructions in this manual. Proper installation and maintenance of the Halo is critical to ensure safe use of the device. Failure to do so may result in injury or death, tire damage or failure, and/or damage to other equipment or property. Carefully read, understand and follow all safety related information within this manual.

⚠ WARNING:

Regular tire pressure checks required.

The Halo is not intended to replace regular pressure-checks and tire maintenance practices as specified by the FMCSA in their Compliance, Safety, Accountability (CSA) Program. Aperia encourages users to take care of their tires and Halos, both of which are important to their safety.

DO NOT modify parts without authorization

DO NOT modify or rework parts without written authorization from Aperia. Use ONLY Aperia authorized replacement parts. Use of substitute, modified or replacement parts not authorized by Aperia may not meet Aperia's specifications and may result in failure of the part and possibly injury or death. Obtain authorized replacements by contacting customer support.

Use PPE and follow all safety regulations

To prevent injury, always use personal protective equipment (PPE) and follow all federal, state, local and employer safety regulations, as appropriate, when installing or maintaining the Halo. PPE includes proper footwear, eye protection, and gloves.

ROADSIDE CALL INSTRUCTIONS

If a roadside call occurs, please present the technician with this user manual. Refer the technician to the Important Safety Information and Halo Uninstallation sections. If additional assistance is required, please contact Customer Support or visit aperiatech.com/literature.

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INTRODUCTION

Tire under-inflation is a well-known problem in the trucking industry. Research from the Federal Motor Carrier Safety Administration (FMCSA) shows that fewer than 55% of all truck tires are within 5 PSI of their target tire pressure. This means billions of dollars are lost each year due to increased fuel consumption, tread wear, tire blowouts and other operational issues. According to a field test conducted by the U.S. Department of Transportation, optimal tire inflation can save a fleet over $2,200 annually per tractor-trailer while saving time and improving safety.

THE HALO TIRE INFLATOR

Aperia Technologies is proud to offer the Halo Tire Inflator as the leading retrofit, auto-inflation solution for both tractors and trailers. The Halo is a completely mechanical, rotational pump, compatible with dual or wide-base tires and is the first standalone tire inflation technology for medium- and heavy-duty vehicles. As an easy-to-install, bolt-on device, it can be mounted in 5-10 minutes per wheel-end and does not require connection to an onboard air compressor.

HALO BENEFITS:

- Increases Fuel Efficiency
- Reduces Tread Wear
- Fewer Blowouts
- Fleet Profitability
- Prevents Accidents
- Maximizes Up-Time
- Extends Casing Life
- Simplified Maintenance
- Reduces Emissions

INTRODUCTION

ABOUT THIS MANUAL

This user manual is provided to support the installation and maintenance of the Halo Tire Inflator on new or in-service tractors and trailers.

The descriptions and specifications provided in this manual are current at time of publication.

ONLINE PRODUCT LITERATURE

The most up-to-date version of the Halo User Manual and additional product literature covering the installation, maintenance, and service of accessories and add-on items can be found online at:

www.aperiatech.com/literature 

CONTACT APERIA

Contact Aperia Customer Support via phone or email for technical or sales assistance.

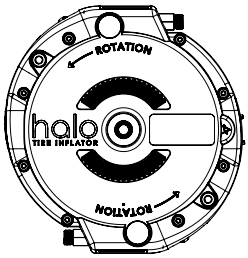
Phone	+1 (844) RUN-HALO
Website	www.aperiatech.com
Sales	sales@aperiatech.com
Support	support@aperiatech.com

INTRODUCTION

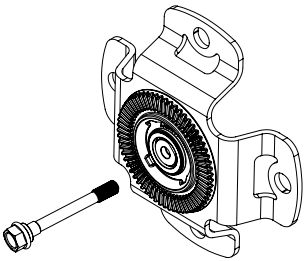
GETTING STARTED
SYSTEM COMPONENTS:

One component or kit from each category is required for a complete wheel-end installation.

HALO

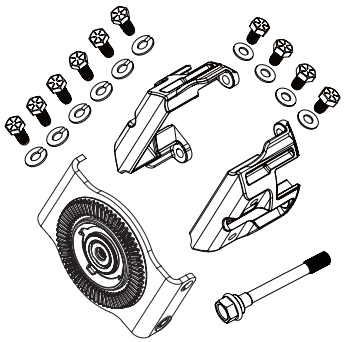


BRACKET KIT



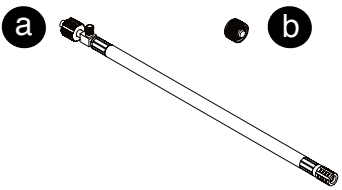
Tractor Bracket Kit

OR



Trailer Bracket Kit

HOSE KIT



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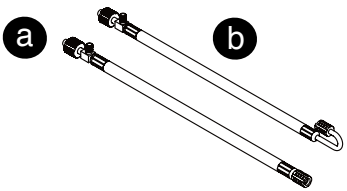


a Wide-base Hose
b Conversion Cap

a Inner Dual Hose
b Outer Dual Hose

START

INSTALLATION TOOLS

REQUIRED

- Impact driver and socket for hub nuts (Drive axle installs)
- Torque wrench (capable of measuring 15 to 50 ft-lb)
- Torque wrench (capable of measuring 100-250 ft-lb)
- Socket wrench
- Socket extension
- 5/8" socket (Halos with hex head center screw)
- 5/16" hex bit socket (Halos with socket head cap screw center screw)
- T50 Security Torx bit socket (Halos with tamper-resistant center screw)
- 1/2” deep socket (Trailer style hubcap installs)
- 5/8” fixed wrench
- Channellock pliers
- Soapy water mixture in a spray bottle

RECOMMENDED

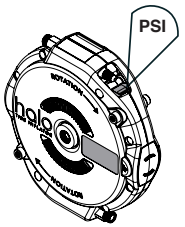
- Permanent marker/paint pen

START

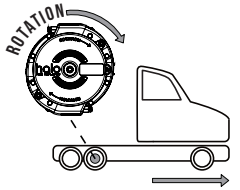
INSTALLATION OVERVIEW

A general overview of the installation steps for the Halo Tire Inflator are shown below. Do not install without referring to the "Install" section for complete details.

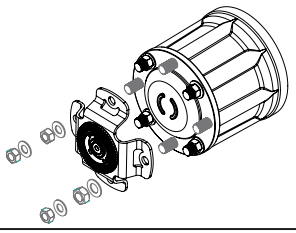
1a. VERIFY PRESSURE



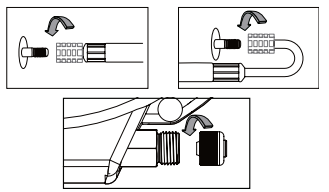
1b. ORIENT HALO (LEFT/RIGHT)



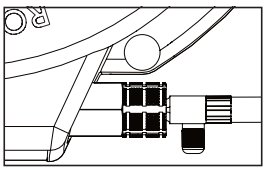
2. INSTALL BRACKET



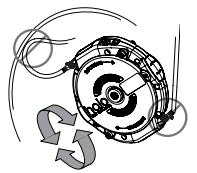
3. ATTACH HOSE(S) TO TIRE VALVE STEM



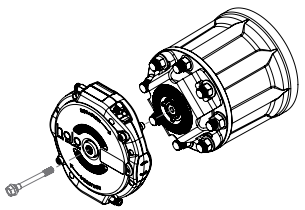
4. ATTACH HOSE(S) TO HALO



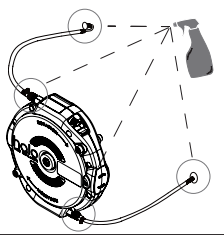
5. ORIENT HALO ON BRACKET



6. TIGHTEN CENTER BOLT



7. FINAL CHECK

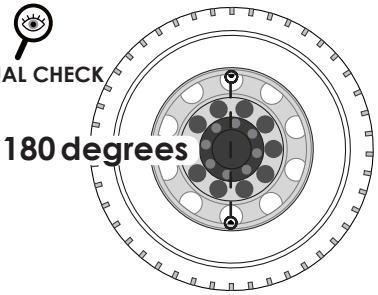


INSTALL OVERVIEW

HALO INSTALLATION

1. PREPARE THE VEHICLE

VISUAL CHECK



1. If you are installing on dual tires, ensure the valve stems 180 degrees apart. If using wheels with 5 hand holes use the following formula to orient the valve stems optimally:

Left side of truck: Inner valve stem must be two hand holes away in the clockwise direction, starting at the outer valve stem.
Right side of truck: Inner valve stem must be two hand holes away in the counterclockwise direction, starting at the outer valve stem.

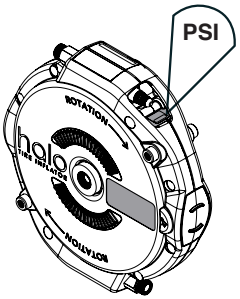
2. Inspect the tires to ensure they are in good condition.

VISUAL CHECK

> ⚠ **WARNING:** A contaminated, corroded, or damaged valve stem may cause a poor seal between the hose and valve stem resulting in a tire leak. A tire in poor condition or with punctures may lead to a blowout.

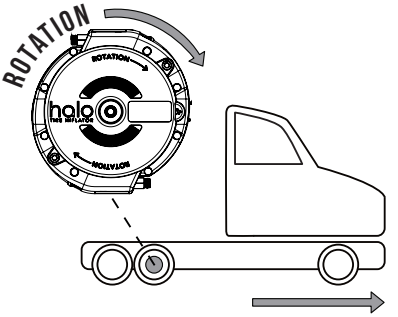
2. VERIFY PRESSURE AND ORIENT HALO

Check the labels on the Halo to confirm that the **Halo pressure setpoint** matches the recommended pressure of the tire, as defined by the fleet's tire maintenance program.



> ⚠ **WARNING:** Installing a Halo that does not match the specified pressure may cause over-inflated or under-inflated tires and may result in a blow-out. If the pressure setting is not visible, do not install and contact Customer Support.

The Halo is designed and engineered to inflate a tire while a vehicle is moving forward. **This forward rotational direction is indicated by the arrows on the Halo cover.**



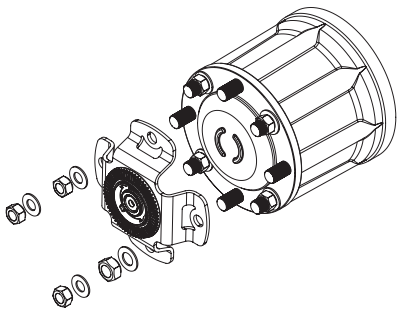
NOTICE: Installing a Halo with the rotational arrows pointing in the backward rolling direction will not inflate the tire and may damage the Halo.

3A. INSTALL BRACKET - TRACTOR

TRACTOR AXLE (R TYPE)

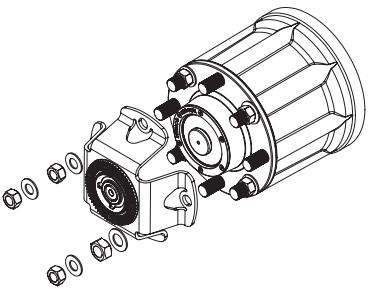
Remove **four hub nuts and washers**, slide the bracket over the studs, and tighten the hub nuts to the manufacturers recommended torque. **Any washers should be installed on top of the bracket.**

DRIVE AXLE (R TYPE)



Torque: Manufacturer recommended

TAG or PUSHER AXLE (R TYPE HUB)

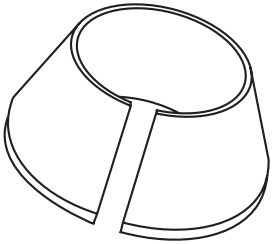


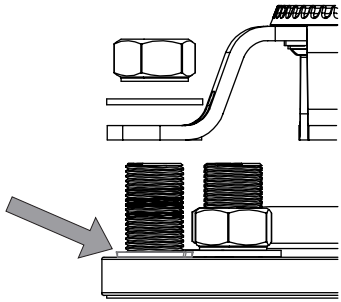
Minimum Torque: 50 ft-lb

3A. INSTALL BRACKET- TRACTOR (CONT'D)

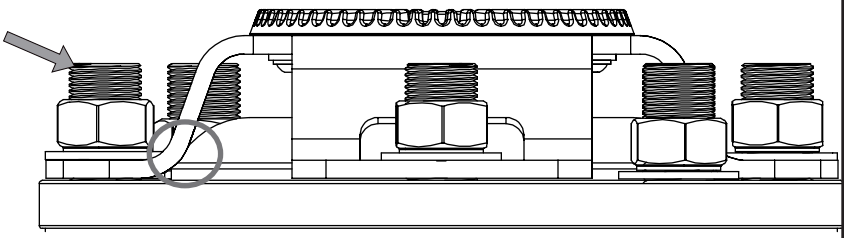
TRACTOR AXLE (R TYPE)

⚠ **WARNING:** If the vehicle has tapered dowels they must not be removed and the bracket must be installed on top of the tapered dowel. Removing the tapered dowel may cause unsafe driving conditions.





⚠ **WARNING:** Ensure at least **one full hub stud thread is visible** after the bracket is installed. Insufficient thread engagement may cause the bracket and Halo to detach from vehicle during driving and a rapid loss of tire pressure.



⚠ **WARNING:** Ensure that the bracket is not in contact with the raised center of the hub. Contact with the raised center may cause the bracket break and detach from vehicle during driving.

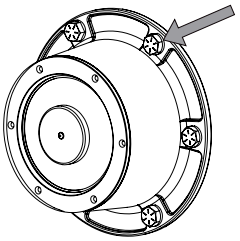
3B. INSTALL BRACKET - TRAILER

TRAILER/LIFT AXLE (N AND P TYPE)

Aperia makes trailer/lift axle brackets for the following bolt patterns:

Part Number	Description	Hub Stud/ Bolt Dia.	Stud/Bolt Circle Dia.	# of Studs/ Bolts
BR-DNB	N-type Spindle	5/16 in.	5 1/2 in.	6
BR-DPB	P-type Spindle	5/16 in.	6 3/4 in.	6

Hub Cap Bolt Torque Spec Check



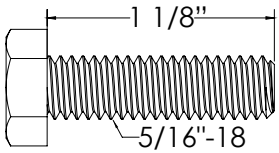
Before installing the brackets, confirm that your hub cap manufacturer's bolt torque specification is at or above **16 ft-lb**.

DO NOT install the Halo on a hub cap with a torque rating below 16 ft-lb

⚠ **WARNING:** Overtightening hub cap bolts past mfg. recommended torque may cause damage to the hub cap, hub cap seal, or Halo bracket resulting in loss of axle lubricant and bearing failure or the Halo falling off during driving.

Aperia-Issued Replacement Hub Cap Screws

The existing screws may be too short to allow sufficient thread engagement once the brackets are installed. When installing the brackets, only use the longer, Aperia-issued screws and washers included with the brackets.

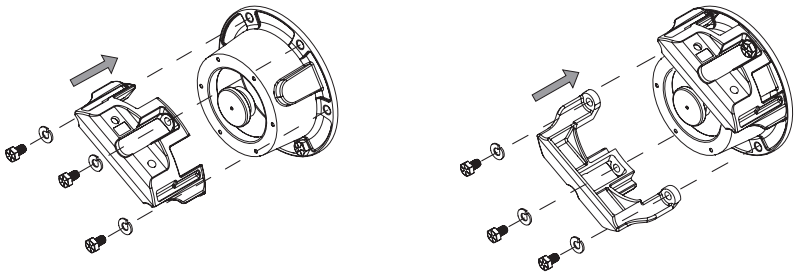


⚠ **WARNING:** Failing to replace the existing hub cap screws with the longer Aperia issued screws may lead to the Halo detaching from the vehicle during driving. Ensure that at least six threads engage with the hub when installed.

3B. INSTALL BRACKET - TRAILER (CONT'D)

TRAILER/LIFT AXLE (N AND P TYPE)

Remove three of the original hubcap screws and washers. Install one bracket over the hubcap using the Aperia-issued screws and washers, and tighten to 16 ft-lb. Repeat for the other side.



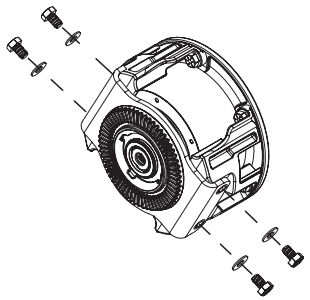
Torque: 16 ft-lb (22 N m)

IMPORTANT: After all six screws have been tightened once, **re-tighten all six screws to 16 ft-lb.**

NOTICE: Only remove screws for one half of the hub cap at a time. Removing all screws at once may cause the hub cap to fall off. Some hub caps may interfere with the Aperia Hub Brackets. If you detect interference do not tighten the mounting screws. Doing so will damage the hub cap or the brackets.

Attach the Trailer Adaptor Plate to the Hub Brackets using the four bolts and washers included with the bracket.

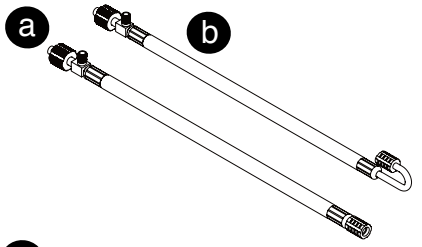
Torque: 20 ft-lb
(27 N m)



⚠ **WARNING:** Use a torque wrench to tighten trailer hub cap and Adaptor Plate bolts. Under or over-tightening may lead to the Halo detaching from vehicle during driving and a sudden loss of tire pressure.

4. ATTACH HOSE(S) TO TIRE VALVE STEM

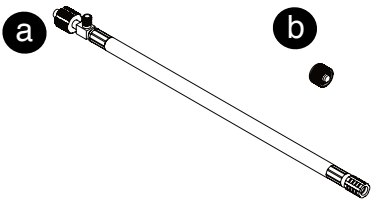
DUAL HOSE KIT



a Inner Dual Hose

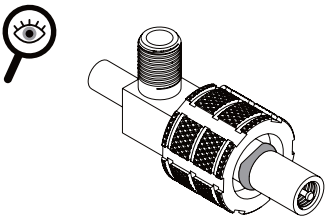
b Outer Dual Hose

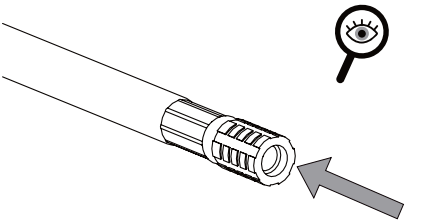
WIDE-BASE HOSE KIT



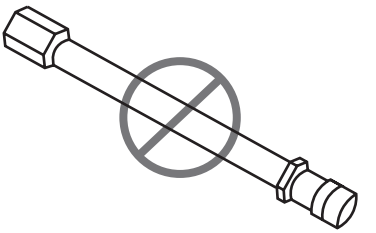
a Straight Hose

b Conversion Cap





⚠ WARNING: Before installing the hoses, check both hose-ends for debris or damaged o-ring or gasket. A damaged or contaminated hose o-ring or gasket may cause a tire leak.

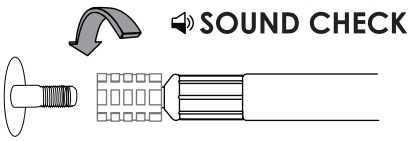


⚠ WARNING: Do not use pass-through valve stem caps or valve stem extenders as these greatly increase the risk of a tire leak.

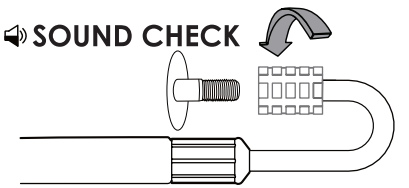
4. ATTACH HOSE(S) TO TIRE VALVE STEM

DUAL HOSE KIT

Attach the **inner dual hose** to the **inner tire's valve stem.**

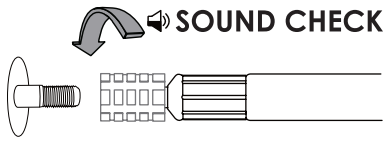


Attach the **outer dual hose** to the **outer tire's valve stem.**

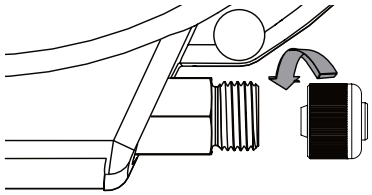


WIDE-BASE HOSE KIT

Attach the **hose** to the **tire's valve stem.**



Attach the **conversion cap** to the **hose connector**.

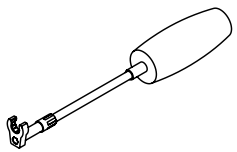


HOW TO PROPERLY TIGHTEN HOSES ONTO VALVE STEM

SOUND CHECK: While tightening the hose listen for the brief release of air to stop, indicating the gasket is contacting the valve stem, then continue to turn 3/4 turn.

Aperia recommends using our Hose Install Tool to more easily access the hose swivel. Order directly from Aperia's e-commerce page by visiting:

shop.aperiatech.com/ collections/service-parts

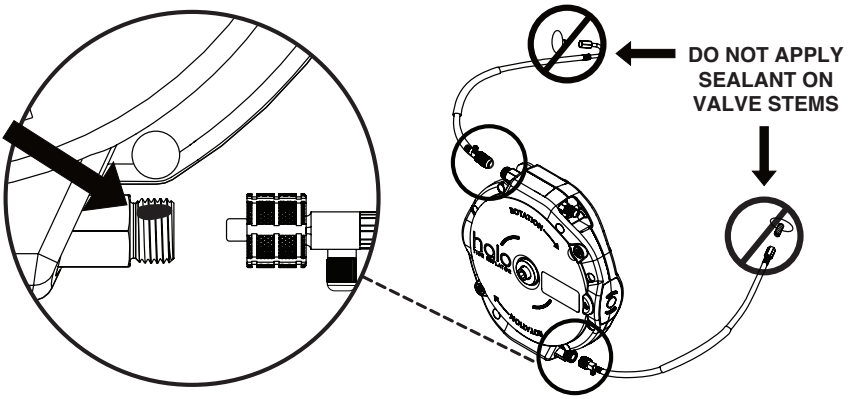


⚠ WARNING: A contaminated, corroded, or damaged valve stem may cause a poor seal between the hose and valve stem resulting in a tire leak.

Use only the swivel for tightening. Twisting of the hose to tighten the connection may damage the seal and cause a tire leak.

5. ATTACH HOSE(S) TO HALO

Apply one small strip of Loctite 567 or equivalent thread sealant along hose connector threads and hand tighten hoses onto Halo.



NOTICE: Only apply roughly a pea sized amount of thread sealant. The thread sealant is used to prevent loosening due to vibration and doesn't need to seal the threads. Excessive application of thread sealant will make it difficult to remove the hoses.

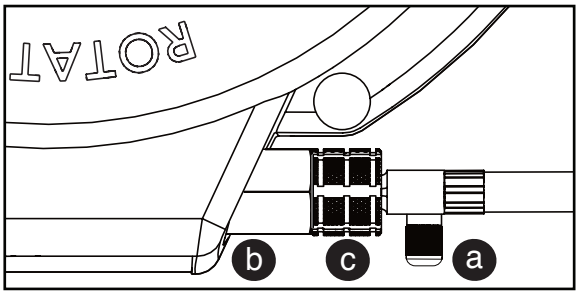
⚠ **WARNING:** Only apply thread sealant to the hose connector threads as shown above. Adding thread sealant to valve stems side of the hose or inside of hose connector on Halo may lead to a tire leak and/or block the flow of air from the Halo into the tire.

5. ATTACH HOSE(S) TO HALO (CONT'D)

a Ensure that the T-stem is facing outward from the Halo.

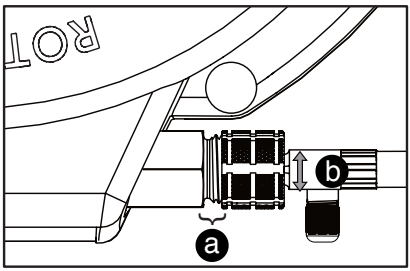
b Use the 5/8" fixed wrench to hold the hose connector on the Halo to prevent it from rotating during tightening.

c Use channellock pliers to tighten the hose swivel onto the Halo.



NOTICE: The maximum recommended torque setting is 8 ft-lb. Exceeding this will damage the threads on the Halo.

IMPROPER ATTACHMENT



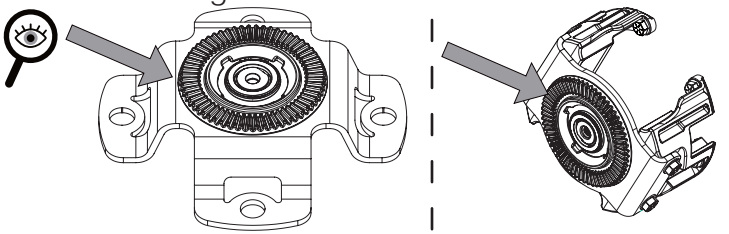
a There should be no threads visible when fully tightened.

b There should be no play at the connection when properly installed.

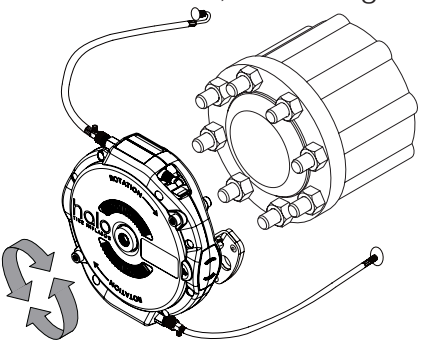
6. ORIENT HALO ON BRACKET

TRACTOR **TRAILER**

The Halo and bracket have a ring of teeth to allow the Halo to be oriented on the bracket to make sure the hoses fit properly. Prior to installation inspect the teeth to ensure there is no debris or damage.

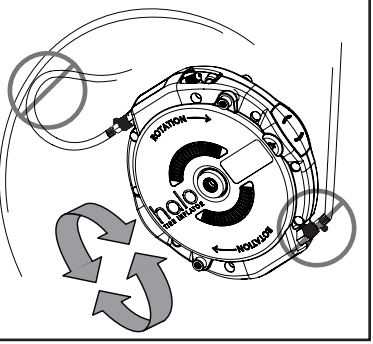


Prior to tightening the Center Mounting Screw, select the rotational orientation of the Halo on the bracket that prevents the hoses from excessive stretch, or rubbing on the wheel.



⚠ **WARNING:** A hose that is rubbing will cause wear to the hose or rim. A hose that rubs through the outer casing will cause a rapid loss of tire pressure.

A hose that is "stretched" or installed with too much tension may lead to a rapid tire leak.

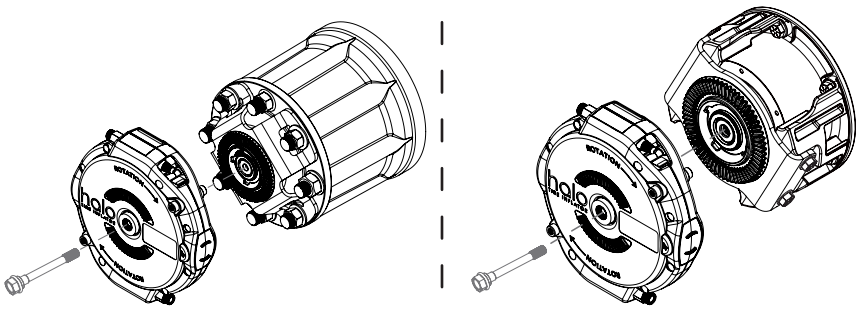


7. TIGHTEN CENTER MOUNTING SCREW

TRACTOR **TRAILER**

Using **ONLY the Aperia-issued Center Mounting Screw provided** with the bracket kit, attach the Halo to the bracket.

Torque: 35 ft-lb
(48 N m)



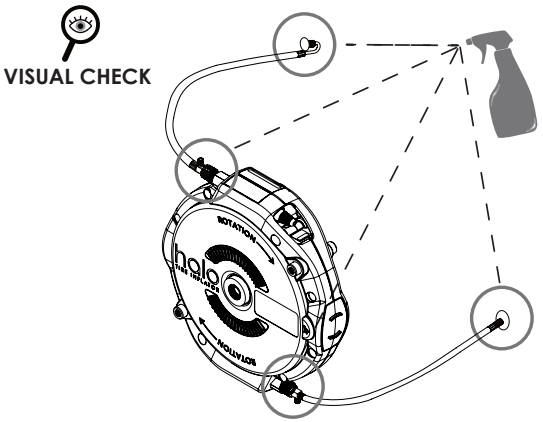
To prevent cross threading, install bolts by hand prior to tightening with a tool.

⚠ **WARNING:** Tightening to a higher or lower torque could cause the Halo to detach while the vehicle is moving which may lead to a rapid loss in tire pressure.

⚠ **WARNING:** Use ONLY Aperia authorized replacement parts. Use of substitute, modified or replacement parts not authorized by Aperia may not meet Aperia's specifications and may result in failure of the part, loss of vehicle control and possibly injury or death. To obtain authorized replacement parts contact customer support.

8. FINAL CHECK

- [x] Verify that all bolts, nuts, screws and washers are fully attached and match the values in the Torque Specification Table on pg 33.
- [x] Check the rotation arrows on the Halo match the forward rotating direction of the tires.
- [x] Spray the soapy water mixture over each connection point of the hoses and look for new bubble generation that could indicate a leak (see below):
- [x] While spraying, lightly pull and wiggle on the hoses to ensure air is not escaping from the tire valve stem or hose crimps.



Your Halo installation is now complete.

Please review the Maintenance section (pg 26) for information on how to properly maintain the Halo system.

HALO UNINSTALLATION

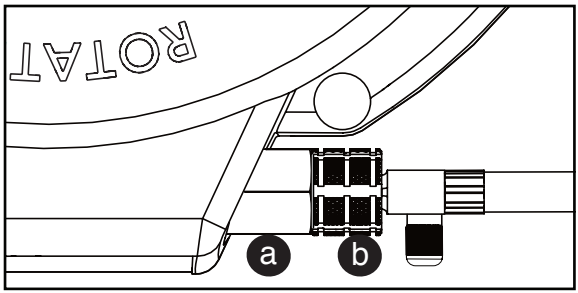
⚠ WARNING: Use ONLY Aperia authorized replacement parts. Use of substitute, modified or replacement parts not authorized by Aperia may not meet Aperia's specifications and may result in failure of the part, loss of vehicle control and possibly injury or death.

1. DETACH HOSE(S)

a Use the 5/8" fixed wrench to hold the hose connector on the Halo to prevent it from rotating during loosening.

b Use channellock pliers to turn the hose swivel and remove the hose(s) from the Halo.

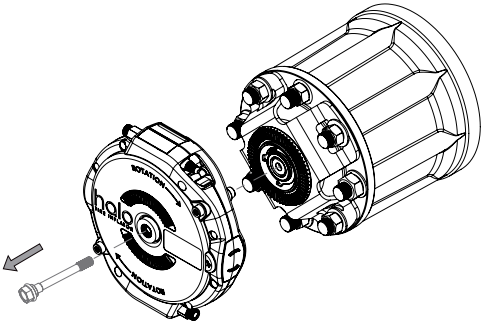
Remove hose(s) from tire valve stem.



NOTICE: When removing the hose(s) from the Halo, ensure that the hose connector (a in picture) does not rotate. This may damage the Halo.

2. DETACH HALO

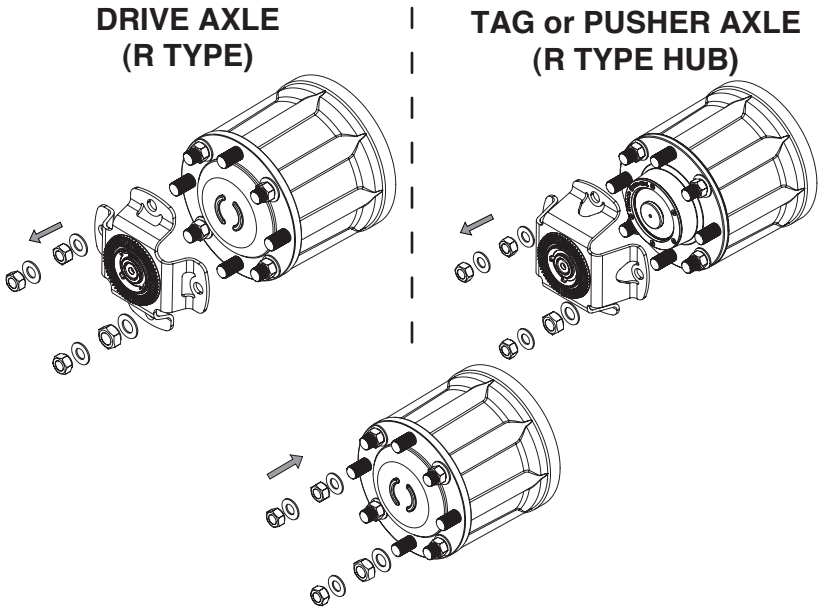
Unscrew the Halo Center Mounting Screw and **keep it in a safe spot for for re-installation.**



3. DETACH BRACKET

TRACTOR AXLE (R TYPE)

Remove **four hub nuts and washers**, slide the bracket off of the studs, and reinstall the washers and hub nuts to the manufacturers recommended torque.

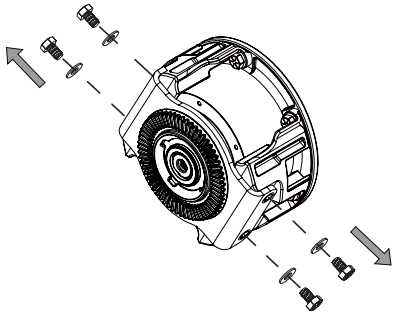


Torque: Manufacturer recommended

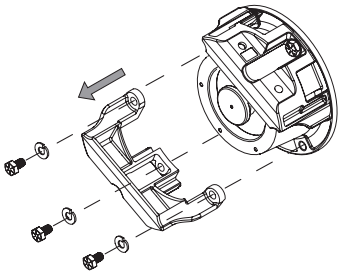
UNINSTALL

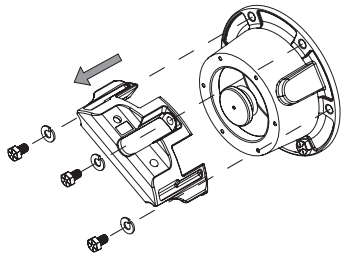
TRAILER/LIFT AXLE (N AND P TYPE)

Remove the four screws and washers using a 1/2" deep socket to detach the Trailer Adaptor Plate from the hub brackets.



Remove one hub bracket at a time by removing the **three screws and washers** using a 1/2" deep socket.





NOTICE: Only remove screws for one half of the hub flange at a time. Removing all screws may cause the hub cap to fall off.

NOTICE: The screws used to install the bracket may be too long and bottom out in the hub if installed without the braket. If reinstalling the screws without a bracket carefully tighten to avoid bottoming and potentially destroying the internal hub threads.

UNINSTALL

MAINTENANCE

The Halo is a robust device that can withstand a variety of harsh environmental conditions; however, it requires maintenance to ensure safe, effective performance for the full lifetime of the product. The Maintenance Table indicates the tasks that must be completed at specified intervals to properly maintain the Halo system.

If you are experiencing an issue not covered in this section, please contact Technical Support.

MAINTENANCE TABLE

	MAINTENANCE INTERVALS		
MAINTENANCE ACTIONS	**PRE-TRIP**	**AT PM**	**AT EACH TIRE SERVICE OR UP TO 120,000 MILES**
A. General Inspection	X	X	X
B. Leak Test		X	X
C. Hardware Torque Check		X	X
D. Inspection of Servicable Items			X

MAINTENANCE ACTIONS

A. General Inspection

Some events (e.g. hard, solid objects flying up from the road) could cause damage to the Halo Tire Inflation system.

i. Visually inspect the Halo and components for damage. This includes cracked, bent, melted, corroded, or shattered system components. If there is a damaged system component, the equipment on that wheel-end should be removed by following the steps in the Halo Uninstallation section.

ii. Check that all screws, washers, bolts, and nuts are present. Replace the missing hardware with Aperia-issued hardware and tighten according to the Torque Specification Table on pg 33. Obtain replacement hardware by contacting customer support.

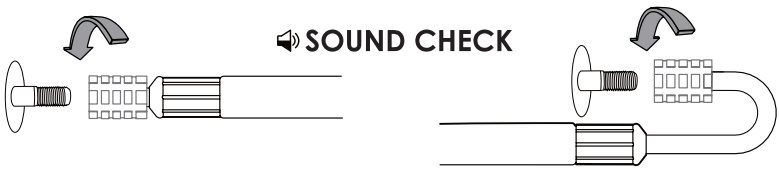
A. General Inspection (cont'd)

⚠ **WARNING:** Do not operate the vehicle with damaged system components or missing hardware. Operating the vehicle with a damaged or missing components may result in the Halo detaching during operation.

⚠ **WARNING:** Use ONLY Aperia authorized replacement parts. Use of substitute, modified or replacement parts not authorized by Aperia may not meet Aperia's specifications and may result in failure of the part, loss of vehicle control and possibly injury or death.

iii. Check that the hose(s) are fully tightened down at both ends.

Hose - Valve Stem Interface

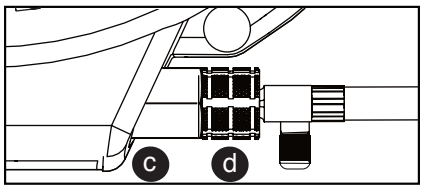


HOW TO PROPERLY TIGHTEN HOSES ONTO VALVE STEM

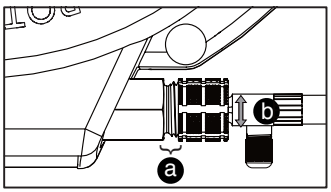
SOUND CHECK: While tightening hose listen for the brief release of air to stop, indicating the gasket is contacting the valve stem, then continue to turn 3/4 turn.

Hose - Halo Interface

Tighten the hose by using a 5/8" fixed wrench to hold the hose connnector (c in the image) and channellock pliers to turn the hose swivel (d in the image).



IMPROPER ATTACHMENT

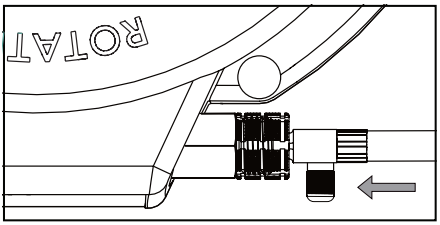


a There should be no threads visible when fully tightened.

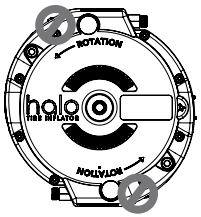
b There should be no play at the connection when properly installed.

A. General Inspection (cont'd)

iv. Check tire pressure using the T-stem valve on the hose.

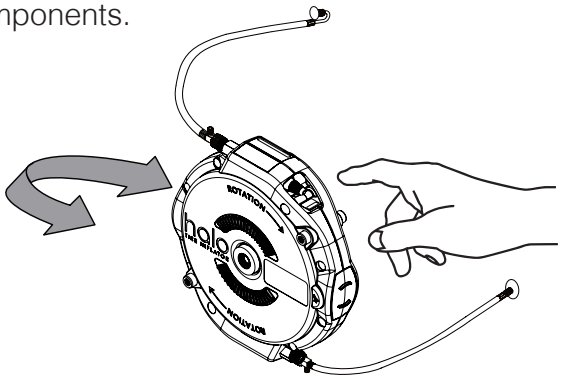


> ⚠ **WARNING:** Do not use the Aperia service port on the Halo to inflate a tire. This could lead to severe leaks.



v. Check that the Halo is securely attached to the bracket on the hub.

A Halo that moves on the bracket must be serviced immediately as this may indicate that the Center Mounting Screw is not tightened or, if the Center Mounting Screw is properly tightened, that there are damaged system components.



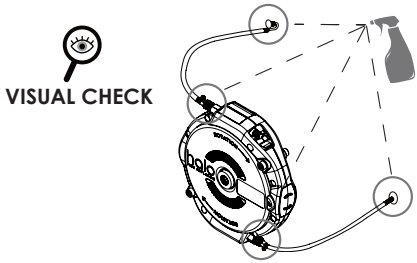
> ⚠ **WARNING:** A Halo that is not securly attached to the bracket may detach from the vehicle during driving and must be removed or serviced prior to the start of driving.

MAINTENANCE

B. Leak Test

i. Measure the tire pressure as specified in the Maintenance Action A. If the tire is low, fill it to the recommended pressure and take note of which tire was inflated. If the tire is low at two consecutive PMs, contact Aperia Customer Support.

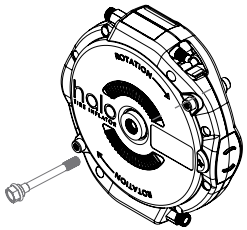
ii. Spray a soapy water mixture over each connection point of the hose(s) and look for bubbles that could indicate a leak. While spraying, lightly pull and wiggle on the hoses to ensure air is not escaping from the tire valve stem. If bubbles form, tighten hoses and repeat. If leak persists, complete Maintenance Action D3.



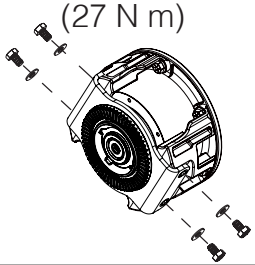
C. Hardware Torque Check

i. Using a torque wrench, verify the center screw and trailer adaptor plate screws are present and tightened to the recommended values by turning screws in the tightening direction.

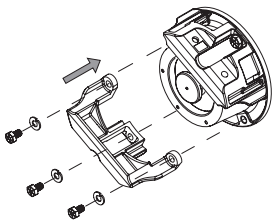
Center Mounting Screw Torque:
35 ft-lb
(48 N m)



Trailer Adaptor Plate Screw Torque:
20 ft-lb
(27 N m)



Trailer hub screw torques:
16 ft-lb
(22 N m)



⚠ WARNING: Tightening the fasteners to a higher or lower torque may cause the Halo to detach while the vehicle is moving.

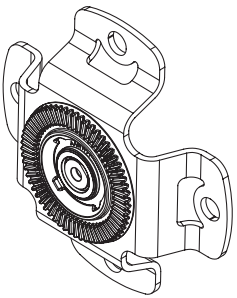
D. Inspection of Serviceable Items

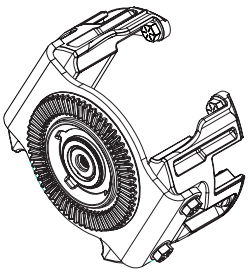
The hoses, brackets and Trailer Adaptor Plates, discussed in this section, are servicable items that require periodic inspection to ensure safe use of the Halo Tire Inflator. If damage is noticed please remove the Halo from service and contact Aperia for replacement parts.

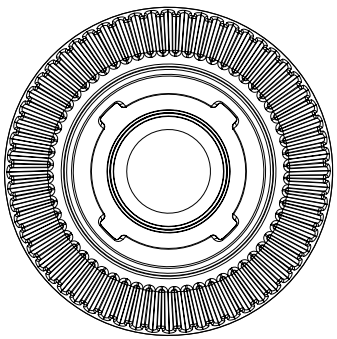
Remove the Halo and hub bracket from the vehicle following instructions in UNINSTALL section of the User Manual and wipe clean. Then closely inspect each of the following serviceable items:

D1. Adaptor Ring Inspection

Remove the Halo and inspect the adaptor ring for damage or contamination. If cracks exist or teeth are missing, do not reinstall Halo and contact Aperia for a replacement bracket. Make sure parts are clear of debris before reinstalling the Halo.







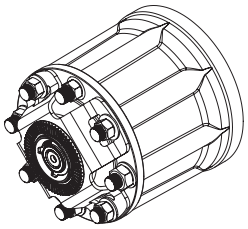
Inspect the adaptor ring for:
a. Fully or partially missing teeth
b. Cracks
c. Debris between teeth
d. Missing screws on the back side
e. Secure attachment to metal bracket
f. Any other damage or contamination

D2. Hub Bracket Inspection

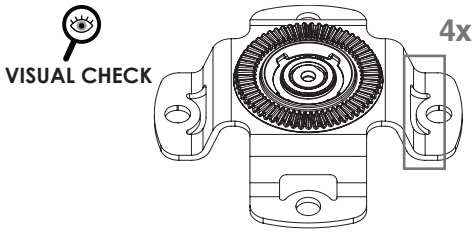
Closely inspect the hub bracket on your vehicle for cracks or other serious damage. Cracks may be very small. Ensure the parts are cleaned and look closely. If cracks exist, do not reinstall Halo and contact Aperia for a replacement bracket.

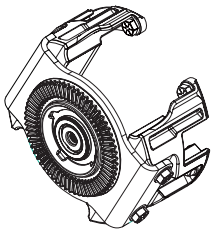
SAFETY CRITICAL INSPECTIONS

AREAS TO INSPECT FOR CRACKS

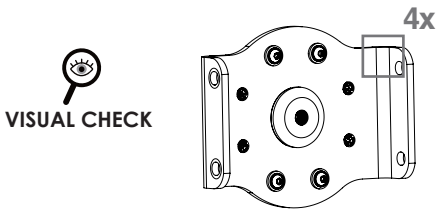


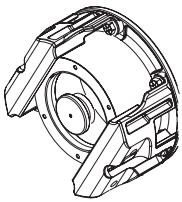
Tractor Hub Bracket



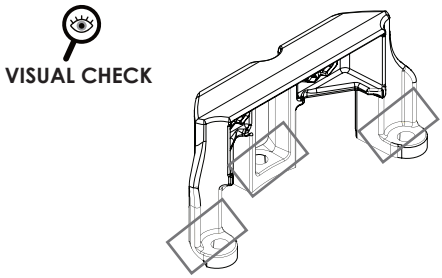


Trailer Adaptor Plate





Trailer Hub Bracket

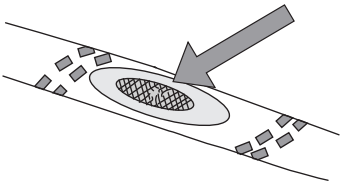


⚠ **WARNING:** Cracks may be very small. Be sure to clean the parts if dirty and inspect closely and thoroughly. Operating the vehicle with a damaged bracket may result in the Halo detaching during operation.

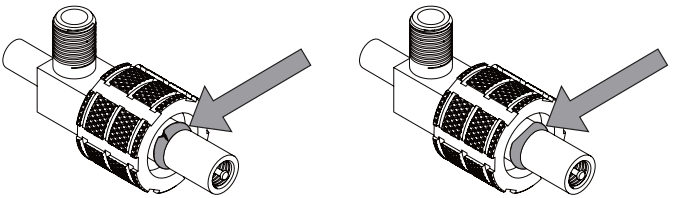
D3. Hose(s)

Inspect the Schrader valves, hose crimps, hose swivels, and the hose itself for visible damage. In the case of a damaged part, replace the hose or seal with an Aperia-issued part.

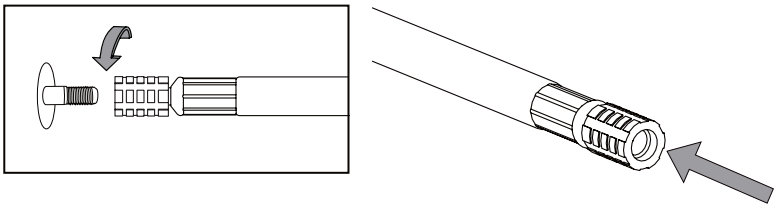
i. Inspect hose body for signs of severe wear. Replace hose if steel braids are exposed.



ii. Inspect hose o-ring at the Halo connection for visible cracks, cuts, tears or any visible damage. Replace hose or o-ring if o-ring show evidence of damage or contamination.



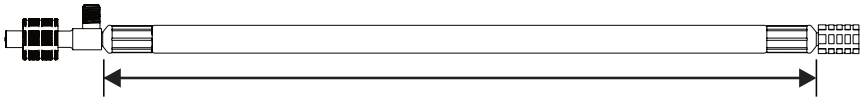
iii. Inspect all hose gaskets at valve stem for cracks, tears or any visible damage. Replace hose or gasket if gasket shows evidence of damage or contamination.



Replacement Hose(s)

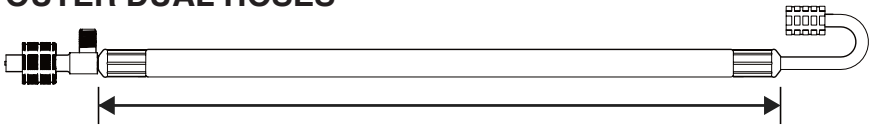
When ordering replacement hoses please specify the length and if the hose is for a wide-base, inner dual or outer dual tire.

INNER DUAL/WIDE-BASE HOSES



LENGTH

OUTER DUAL HOSES



LENGTH

TORQUE SPECIFICATION TABLE

FASTENER	QUANTITY PER HALO	TORQUE
Center Mounting Screw	1	35 ft-lb (48 N m)
Trailer Adaptor Plate	4	20 ft-lb (27 N m)
Tractor Drive Hub Nuts	4	Mfg. Spec. Minimum 50 ft-lb (68 N m)
6x2 Undriven Axle Hub Nuts	4	Minimum 50 ft-lb (68 N m)
Trailer/Lift Axle Hubcap Screws	6	16 ft-lb (23 N m)
Hose to Valve Stem	1 or 2	3/4 turn after gasket contacts valve stem (release of air stops)
Hose to Halo	1 or 2	Tighten with Tools Max 8 ft-lb

Aperia TECHNOLOGIES

QTY: 1

Part Number:
IN-202UM

Description:
User Manual, Halo Tire Inflator

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Aperia TECHNOLOGIES

IN-202UM
91-00007209 Rev. D
August 2023

Printed in United States of America