TULMAR

GALEO™

Galeo Tactical Personal Flotation Device (PFD) 67020-Series

User Manual

Tulmar Safety Systems

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Tulmar Safety Systems Inc. – 2026

Revision History

This revision history serves as a record of the changes made to this manual. The record includes the revision letter, the date of the revision, the page(s) affected, and a brief description of the change.

Rev. #	Date	Written/Revised By	Pages Affected	Description Summary
A	2023-04-2020	Vicky-Eve Lovvorn / Benoit Corbeil	All	Initial Release
B	2024-04-19	Vicky-Eve Lovvorn / Benoit Corbeil	4,5,6,7,9,19,27	Added Harness Information, general image update for the revised cover, added information for users changing to manual mode caps
C	2026-07-22	Vicky-Eve Lovvorn / Benoit Corbeil	Layout (All) Content: 7,8,10,12,14,17, 18, 27, 29, 30	Layout change (All) Add details for buddy line attachments, refine cold weather application and maintenance details, additional warnings and precautions
D	2026-09-17	Vicky-Eve Lovvorn / Benoit Corbeil	6, 10	Added information for cylinder selection – caution against the use of non-approved cylinders
E	2026-10-20	Vicky-Eve Lovvorn / Benoit Corbeil	16	Added sternum strap adjustment and attachment instructions.

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1.0 Product Overview

1.1 Galeo Tactical Personal Flotation Device (PFD)

This manual provides instructions and guidelines for safely using and maintaining the Galeo Tactical Personal Flotation Device (PFD). The Galeo was developed from over 15 plus years' experience in the design and development of tactical flotation systems for maritime special operations forces and tactical law enforcement agencies.

Streamlined low profile shooters cut allows unimpeded weapons handling, climbing, rappelling, fast roping, and confined space movement. The Galeo is lightweight and highly compact, yet durable; built to withstand the rigors of tactical training and operational environment use. The PFD provides up to 40 lbs. of self-righting buoyancy and easily attaches and integrates with most MOLLE/PALS tactical armor systems.

The Galeo can be re-armed and re-packed in less than 5 minutes under maritime operational conditions with no tools required.

This user manual is applicable to the 67020 series of the Galeo Tactical PFD, including standard and high visibility bladders; manual and alpha inflators. The flotation collar is a full system when joined with the Galeo harness. Each configuration is further detailed within this user manual.

Note: In this manual, the term plate carrier will be used, but refers as well to body armour and chest rig systems.

1.2 Product Overview

The Galeo Tactical PFD is a durable lifesaving equipment that has been designed to meet the needs of the defense industry, law enforcement and rescue services. It provides a non-bulky solution for maritime special operations and tactical law enforcement, allowing high levels of freedom of movement. The Galeo has the buoyancy needed to assist in missions including a water landing, with self-righting features and is easily integrated to a standard issue body armor with MOLLE on front & back of the tactical vest or as a standalone PFD system (harness). The Galeo offers the lowest cost of ownership with innovations for repacking and rearming.

Technical Data

Size	Universal	Bladder	210 Denier Nylon, PU coated
Weight	1.25 lbs. / 0.57 kg (without the cylinder)	Cover Fabric	500 Denier Cordura Nylon, PU coated
Inflation System	Manual & Alpha (automatic) CO_2	Inflation Time	5 seconds
CO_2 Cylinder	38 g or 45g	Optimal Pressure	2.1 PSI with 38g cylinder 4.5 PSI with 45g cylinder
Buoyancy	Up to 40 lbs. / 180 N		

Table 1 - Technical Data

***Inflation Time and Optimal Pressure in the above table is set at ambient temperature (21°C ± 2 / 68°F ± 3.6), Atmospheric pressure (28 to 32 inches of mercury), Relative humidity shall be 80% or less*

Configurations (by color)

BLACK MODELS

Part Number	Description
67020-001	STD Bladder, Manual inflator
67020-002	STD Bladder, Alpha inflator
67020-004	High Visibility Bladder, Manual inflator
67020-005	High Visibility Bladder, Alpha inflator

RANGER GREEN MODELS

Part Number	Description
67020-007	STD Bladder, Manual inflator
67020-008	STD Bladder, Alpha inflator
67020-010	High Visibility Bladder, Manual inflator
67020-011	High Visibility Bladder, Alpha inflator

MULTICAM MODELS

Part Number	Description
67020-013	STD Bladder, Manual inflator
67020-014	STD Bladder, Alpha inflator
67020-016	High Visibility Bladder, Manual inflator
67020-017	High Visibility Bladder, Alpha inflator

COYOTE BROWN MODELS

Part Number	Description
67020-019	STD Bladder, Manual inflator
67020-020	STD Bladder, Alpha inflator
67020-022	High Visibility Bladder, Manual inflator
67020-023	High Visibility Bladder, Alpha inflator

Table 2 - Configurations by colour

**The Black model uses the Black Harness (67324-001), the Multicam and Coyote Brown models use the Coyote Brown Harness (67324-002) and the Ranger Green model can be paired with either harness colour.*

1.3 Video Resources

Complementary video instructions and details can also be reviewed at your leisure. Scan the code below to review the Galeo 101 video feature.

Visual Overview – Flotation Collar

Front (Packed) Back (Packed) Inflated (Standard & High Visibility)

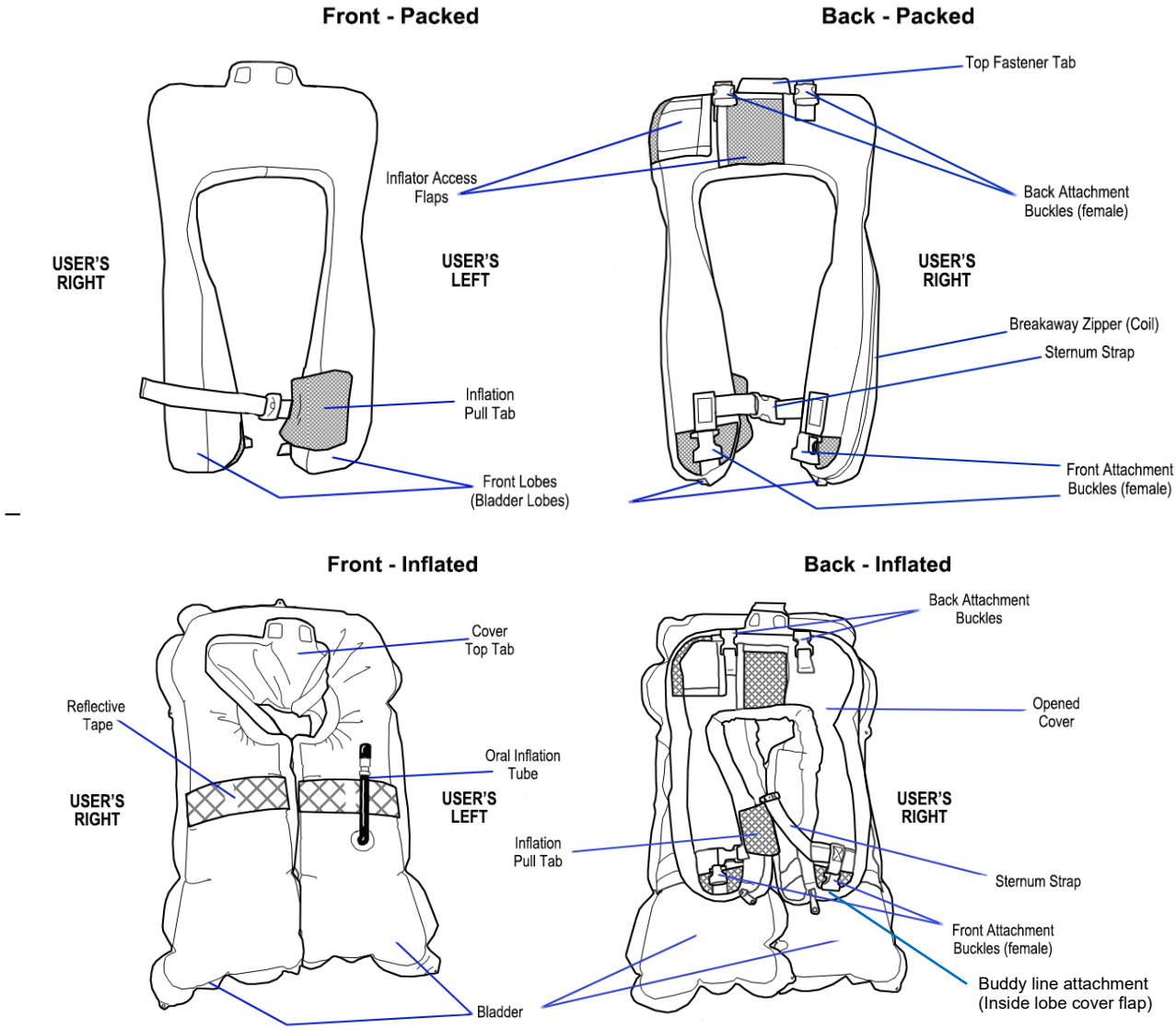


Figure 1 - Visual Overview: Flotation Collar

Visual Overview – PFD System

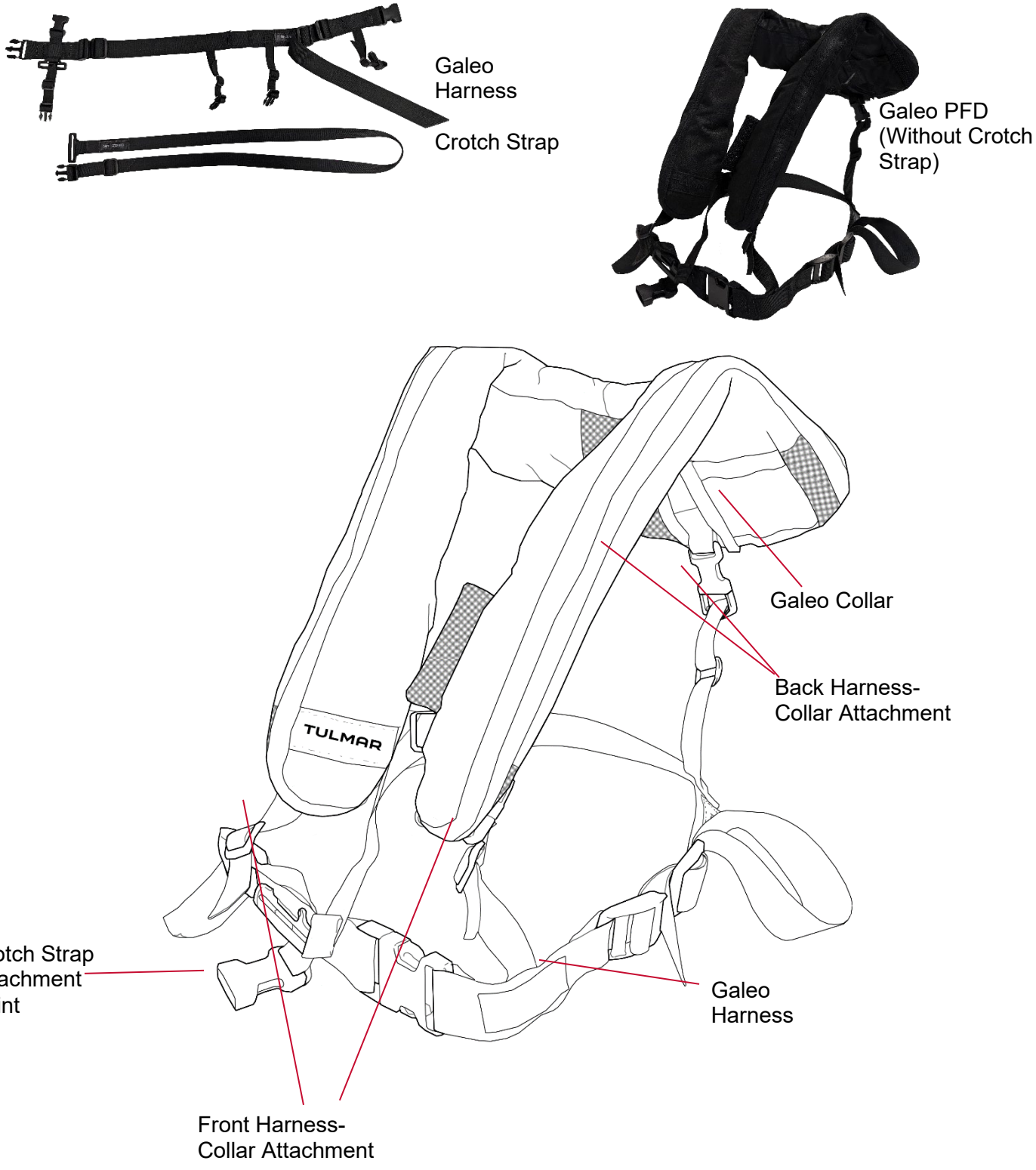


Figure 2 – Visual Overview: PFD System with Harness

1.4 Warnings and Precautions

- It is recommended to complete a visual inspection prior to each use (see Appendix A for a checklist to assist in this task).
- The Galeo should be void of all obstacles to inflation, including elements representation a potential hindrance to the expansion of the bladder during inflation, such as but not limited to:
    - Wearing clothing or articles directly over the Galeo;
    - Compaction, constraint and/or restraining of the bladder areas;
    - Inflation in confined spaces;
    - Usage of the Galeo with non-compatible equipment and / or harnesses (contact your Tulmar sales representative if you are unsure of compatibility).
- Certain environmental factors, such as extreme cold, could prevent the Galeo's CO_2 inflation from not fully expanding the bladders which results in longer Inflation time and less pressure inside bladders: use cold weather rearming kit, top-up using oral inflation and do not rely on automatic inflation for weather below -15°C. Periodic maintenance should be doubled in number, halved in time (i.e. every 10 inflations, twice a year) for units regularly used in extreme cold. Tulmar recommends that every PFD inflated while in use in extreme cold be sent for maintenance before re-using.
- For optimal flotation, the Galeo must be secured to the user's plate carrier. Verify all attachment points prior to usage. Verify MOLLE / PALS' webbing/laser cut channels' integrity and straps set.
- **DO NOT** attach the Galeo too tightly to the plate carrier (i.e. the plate carrier should not be lifted by the T-Bar or Mobius straps). The attachment should be taught but not strained. Tulmar recommends validating the setup by inflating the PFD while worn once prior to usage.
- **DO NOT** use the Galeo to pull or lift the wearer out of the water, as the PFD is not designed for this function and risks detachment.
- **DO NOT** use non-validated cylinders on Galeo PFDs. Use Tulmar supplied cylinders or UL 1191 certified CO_2 cylinders. If in doubt, contact a Tulmar representative. The make of the cap of some low-cost cylinders differs and can result in accidental inflation or misfiring of the cylinder.
- The Galeo PFD's self-righting performance may be affected by the tactical gear configuration when worn with a tactical vest. A heavy, front bias weight distribution must be avoided.
- It is recommended that the Galeo be inflated and tested with operational equipment in a controlled environment prior to operational use (i.e. its first usage post purchase), in order to ensure compatibility and adequate inflation to provide self-righting buoyancy. For optimal assurance, it should be inflated after its initial fitting, to ensure the unit's integrity AND correct fit.
- After each inflation, the Galeo must be inspected, deflated and rearmed as per instructions herein. When repacking, take care not to damage the bladder film when fastening zippers or inserting the cylinder.
- To avoid accidental inflation (Alpha inflator models only), avoid moisture to the inflator (bobbin). Do not submerge. Avoid long ultraviolet exposure, exposure to acids and harsh chemicals.
- Pressurized CO_2 cylinders: Do not expose them to extreme heat source. Risks tied to inhalation or frostbite on chemical contact. Consult the Galeo's SDS for more details.

2.0 Operations

2.1 Personal Flotation Device System Setup (Harness)

To wear the Galeo Tactical Personal Flotation Device, you must first adjust the harness to the user. Place the harness around the user's chest, over the sternum (will vary slightly based on the height of the user) with the 4 straps ending with the male end of the buckle pointed up, as per the image below. Fasten the large release buckle to the front (chest) of the user.

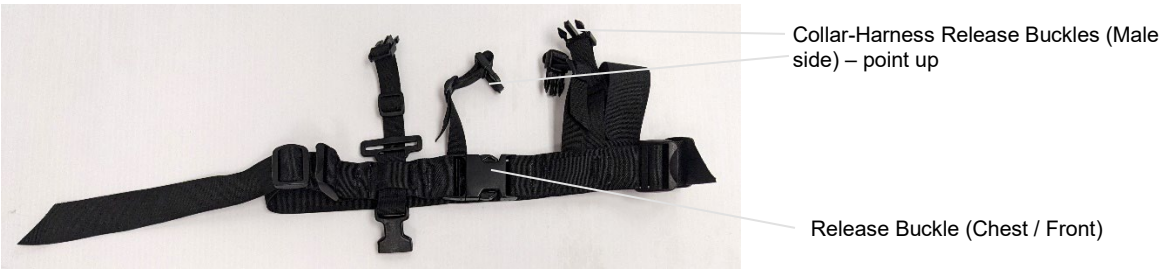


Figure 3 - Standalone harness - Waist belt

Place the collar around the neck, on top of the shoulders with the lobes facing forward. Buckle the sternum buckle and slide the male end of the harness's release buckled in the female side of the collar's release buckles (one (1) at each lobe and two (2) on the back).

Adjust the harness by sliding the webbing into the slip lock until the harness is snug and cannot slip or lower easily. The end result should look like the image below:

Figure 4 - Galeo setup with harness

2.1.1 Crotch Strap Setup

To maximize the efficiency of the harness, Tulmar recommends that it be used with the crotch strap. This part ensures that the harness doesn't lift when inflated, in the water.

To install, first, slip the strap in the back MOLLE / PAL slit at the back of the harness, buckle end first and pull until the reducer is pressed to the MOLLE / PAL. Pass the buckle end between the legs and fasten the male end of the strap, in the female end of the harness's release buckle.

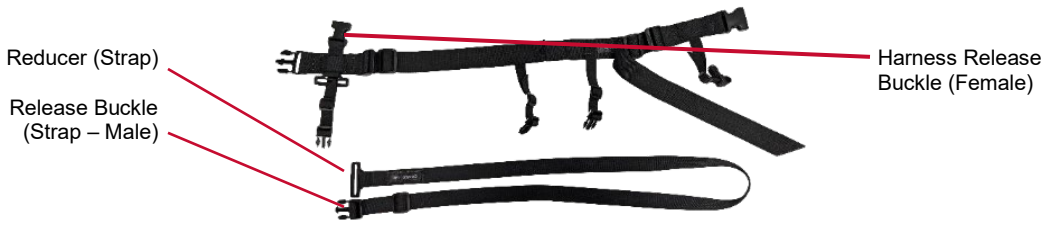


Figure 5 - Harness diagram for buckles locations

Adjust by pulling the excess webbing, locking with the slip lock until tight but comfortable. The fit shouldn't impede movement.

2.2 Plate carrier Integration

To ensure the efficiency of the Galeo Flotation Collar, follow all guidelines below for proper placement and securing of all attachment points on the plate carrier (MOLLE). Please note that the guide below is for initial integration / fitting. Once fitted, the straps can remain on the plate carrier. The user can then simply don the Galeo by slipping the PFD over his / her head (with the Velcro tab towards the back, and both lobes to the front) and snap all five buckles.

Pre-usage inspection: We recommend doing a pre-usage inspection as per Appendix A.

2.2.1 Galeo T-bar Straps Installation

Figure 6 - T-Bar Straps Installation preparations: Have your plate carrier, 4 T-Bar straps and Galeo PFD

1. Place the plate carrier on a flat, unencumbered surface, with the interior of the plate carrier facing down.

Figure 7 - Place carrier set face down

2. Have your T-bar strap set (you will need four (4)) with you as you attach the Galeo. All straps should be unbuckled. All tri-glides and male buckles should be unfastened.

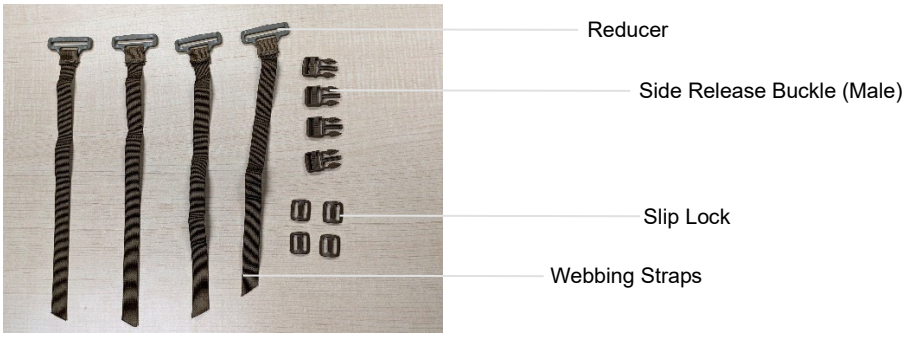


Figure 8 - Disassembled T-Bar Straps (Set of 4)

3. There are two (2) ways to set up the T-bar straps to the plate carrier:

   a. Internal T-bar Placement
   Can be used for laser cut MOLLE / PALS platforms whereby the T-bar is inserted inside the vest / carrier and the strap is run from the inside to the exterior. This allows a clean / slick appearance with minimal exterior interference.

   Unfasten the bottom of the plate carrier to slip in the strap. On each side, with the furthermost outer slit, slide the webbing from the inside out. Pull the strap until the sewn fold is pulled to secure placement.

Figure 9 - Setup of the T-Bar Strap on laser cut rig with internal placement

   b. External T-bar Placement
   Can be used for conventional webbing MOLLE / PALS platforms as well as laser cut. The T-bar is anchored via the bar tacks on the webbing or the channel edges on laser cut surfaces.

   Weave the T-bar strap in the outermost slits on each side of the body armor. Slip the tip of the webbing from the bottom in, then back out the slit immediately above. Pull on the webbing until the fold above the T-bar has slipped in, and the strap is firmly inserted.

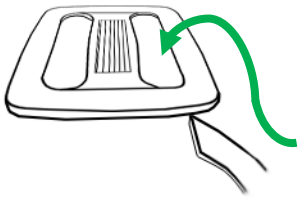
Figure 10 - External placement of a T-Bar strap on a MOLLE Plate carrier

Figure 11 - Comparison – Type a. (left) vs. Type b. (right)

Both methods are equally effective. Type a. makes it so the reducer of the T-Bar strap is not an obstacle to equipment worn or affixed to the plate carrier. Please note that for the remainder of this section, Type b. weaving will be showcased in the guidelines, but all subsequent steps are the same regardless of whether type a. or type b. was used for the initial weaving of the straps.

4. Weave in the tri-glide, by passing under once, over the central bar, then back in and under. Slide the tri-glide toward the plate carrier, until firmly in place.

Figure 12 - Showcase of weaving through the slip lok



5. Weave the male buckle to each strap. Insert in the space closer to the buckle's teeth first, then back down. Pull the strap to tighten.

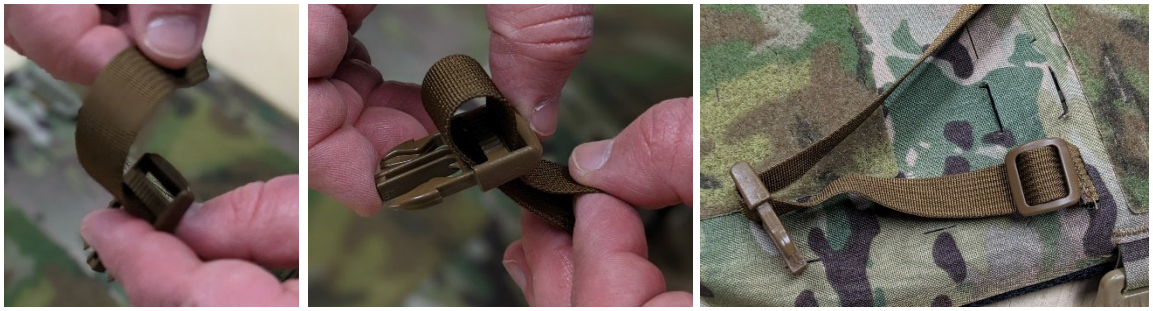


Figure 13 - Steps to weave the male buckle back on the strap

6. Repeat steps 3 through 5 for the back of the plate carrier.

Figure 14 - Example of setup T-Bar Straps

Use the slits at the top, on the outermost spaces on each side. You are now done installing the straps and are ready for fitting and adjustments.

2.2.2 Initial Fitting & Adjustments

Don the plate carrier according to your standards and practices. Ensure the body armor is well fitted and tightened on the sides prior to initial fitting and adjustments. Two (2) persons are recommended to ensure optimal initial fitting.

1. Set the Galeo Flotation Collar on the user's shoulders, with the lobes pointed at the front.
2. Buckle both male buckles into the female side on the front, then repeat with the buckles on the back.
3. Buckle the sternum strap between the two lobes. Failure to buckle the sternum strap negatively impact self-righting and free board.
4. While holding the buckle, pull on the webbing lip to adjust and tighten. The front should secure in place, and the back pulled to remove any loose or slack in the strap. Make sure to avoid over-tension. The unit should rest evenly on the shoulders and form an arch. The tension between the left and right should feel about the same. If you feel a pressure to the back of the neck, loosen the front buckles and tighten to the back.
5. Adjust the sternum strap in a similar fashion, using the excess webbing tab and slip lock buckle. The lobes in the front should be held close but not touch or interfere with worn accessories or access to the pull handle.

Figure 15 - Four (4) buckles location for attaching the Galeo, and sternum strap

6. Secure into place by re-weaving the webbing lip into the tri-glide. Follow the diagram below for weaving instructions.

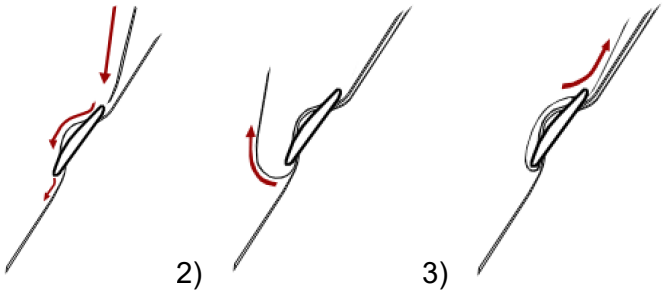


Figure 16 - Diagram and photo demo of the webbing steps to adjust the straps to each user

Tuck in any excess webbing. These steps only need repeating when straps are replaced or need to be removed. Once the straps are set to their desired length, no further adjustment is required and the vest may simply be buckled back on during donning.

The final fit should look as such:

Figure 17 - Examples of fitted and attached Galeo via T-bar straps

Ensure the Galeo PFD is not installed too tightly to the plate carrier. The adjusted straps should not cause the carrier or rig to lift when in a resting stance. If too tight, the cover could be compressed and hinder deployment. Tulmar recommends an inflation test be performed post initial fitting.

2.2.3 Non-MOLLE/PALS Rigs and Mobius Straps

You can opt to obtain a set of Mobius Straps (Part 67322-00X – X is according to colour) to replace the T-Bar straps (sold separately). These should be used for laser cut rigs with narrow openings or Non-MOLLE / PALS carrier. They can also be used on MOLLE / PALS at your discretion and will yield the same performance results.

Setup is very similar to the T-Bar strap, weaving the webbing loop from the top down in the plate carrier, then weave the male buckle end into the webbing loop and pull to secure. Repeat with two (2) straps in the front and two (2) in the back. Fitting and adjustment is as section 2.2.2.

2.2.4 Detaching the Galeo from the Plate carrier

1. To detach the Galeo only from the plate carrier, unbuckle both buckles at the front (tip of each lobe) and the two (2) buckles at the back.
2. Unbuckle sternum strap.
3. Lift the Galeo over the user's head, parting the lobes apart and put Galeo aside.
4. **OPTIONAL**: To fully remove the Galeo from the plate carrier, once the Galeo set aside, pull the slider part to unlock the T-bar straps.
5. Slip each T-bar straps out of the plate carrier and set aside.

Note: The Galeo can be removed this way while inflated and/or still packed. If inflated, please deflate before putting the Galeo away (see section C.2 of this manual for more details).

2.3 Inflation and Deflation

2.3.1 Inflation

Ensure to locate and know the type of inflator equipped on the unit. The part number can indicate this.

Manual Inflator Models	Alpha Inflator Models
67020-001	67020-002
67020-004	67020-005
67020-007	67020-008
67020-010	67020-011
67020-013	67020-014
67020-016	67020-017
67020-019	67020-020
67020-022	67020-023

2.3.1.1 Manual Only Inflator

1. Unclasp the pull cord fastened to the front of the cover.
2. Firmly pull downward (jerk motion) then immediately release.
3. The bladder should inflate within 5 seconds.

Figure 18 - Manual Pull Handle

2.3.1.2 Alpha Inflator

Inflation of the Galeo will occur automatically upon immersion of the Personal Flotation Device in water. Activation of the inflator mechanism should occur within 5 seconds of exposure and full inflation should occur within 5 seconds of activation. Please note that cold (sub-zero) temperatures will increase inflation time and if low enough, could decrease air pressure in the bladder, resulting in lower flotation performance.

2.3.1.3 Oral Tube Inflator

Oral inflation is not recommended prior to firing the CO_2 cylinder. Oral inflation can be used during testing on an un-armed unit, or to top up an inflated PFD. Top-up may be necessary during prolonged usage and during inflation in low temperature environment (especially below freezing temperature of water or air).

1. The oral inflation tube is located to top of the inflated bladder.
2. The oral inflation valve is located to the outmost tip of the oral inflation tube.
3. Unscrew clockwise (from the user's perspective) the locking mechanism (metal ring).
4. Press down on the valve and blow into the tube until the bladder is firm.
5. Release the valve and lock by twisting counterclockwise (from the user's perspective).

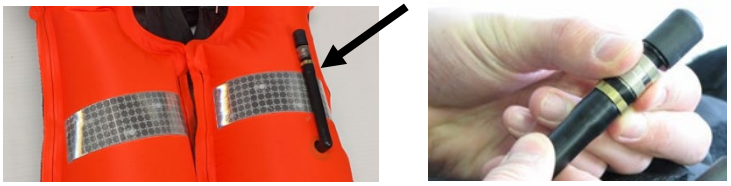


Figure 19 - Oral Tube Location (image 1) & Oral tube valve locking (image 2)

2.3.2 Deflation

To deflate the bladder of the Galeo, follow the instructions below. Ensure deflation is complete prior to the re-arming.

1. Hold the oral valve (on the oral tube) open to allow air flow, by pushing down.
2. Apply pressure to the bladder to remove excess air.
3. To remove the remaining air, roll the bladder side opposite the oral tube, while holding the valve down. Continue rolling until both sides are tight and void of noticeable air.
4. Let go of the oral valve to reset to its closed position.

Figure 20 - Example of rolling the PFD to deflate with oral tube access

2.4 Re-arming

1. Place the Galeo Tactical Personal Flotation Device on a flat surface.
2. If packed, unzip the cover on the top to access the inflator.
3. Ensure the inflator is easily accessible.

Figure 21 - Inflation system location

4. Unscrew the used CO_2 cylinder (Tulmar P/N 3188) and discard safely.

Figure 22 - Pierced / Used cylinder

5. Ensure the red inflator lever is properly closed and seated in the inflator body and the piercing pin is not protruding into the cylinder cavity.

Figure 23 - Closed red inflator lever

2.4.1 Manual Inflator (models 67020-001/-004/-007/-010/-013/-016/-019/-022)

1. Verify that the Manual Mode Cap (Tulmar P/N 3219-001) is well installed onto the inflator (Tulmar P/N 3251-001).

Figure 24 - Inflation system in Manual Mode

2.4.2 E.2 Automatic Inflator (models 67020-002/-005/-008/-011/-014/-017/-020/-023)

To ensure consistent service from your manual/automatic inflator, the bobbin should be changed at regular Halkey-Roberts recommended intervals or replaced more frequently in extreme conditions (e.g., high temperature and high humidity). If the PFD was worn in high humidity environment or exposed to moisture, replace the bobbin prior to storage to prevent any inadvertent inflation.

1. Remove the automatic inflator cap by un-threading.
2. Remove and discard the used, yellow bobbin.
3. Verify that the bobbin's expiry date has at least 1 year of shelf life remaining (see diagram below). Install a new bobbin (Tulmar P/N 3220) at the end of the automatic inflator cap, white side facing away from the inflator.

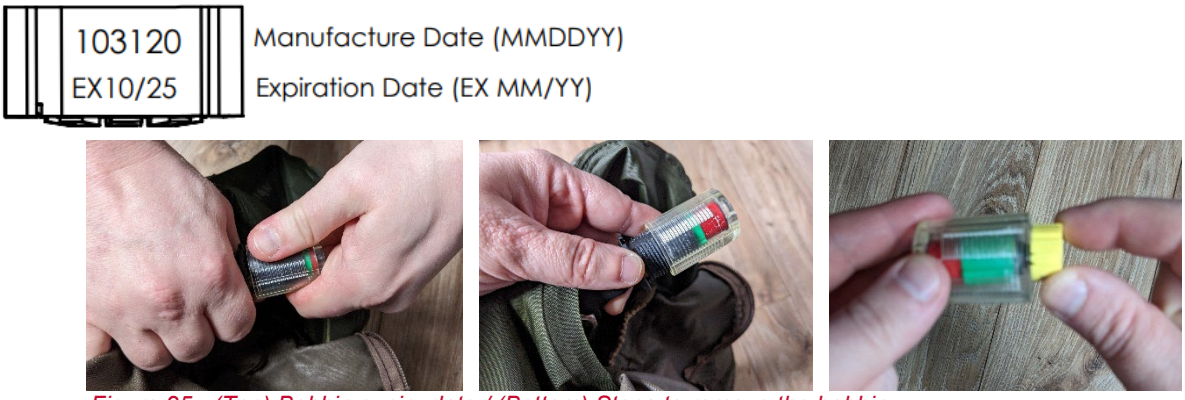


Figure 25 - (Top) Bobbin expiry date / (Bottom) Steps to remove the bobbin

4. Bobbin should not be in use for more than one (1) year postdates of installation. Replace it if exposed to oil or fuel.
5. Re-install the automatic inflator cap by aligning the notches on the bobbins to that on the inflator's opening, then threading clockwise. The tip should show green when properly armed.

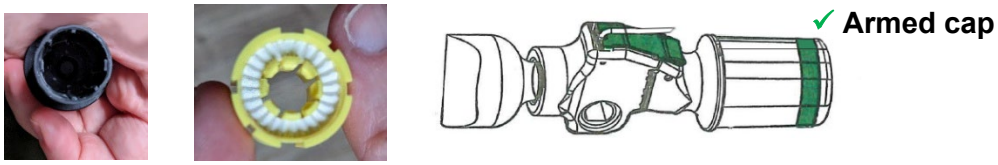


Figure 26 - (Image 1) - Opening for the bobbin on the inflator / (Image 2) Salt Tab Bobbin / (Image 3) Armed inflator in automatic mode

2.4.3 All Models

1. Install a new cylinder by screwing in clockwise. You should feel resistance in the last quarter turn of the cylinder. Be careful not to cross-thread the cylinder to the inflator. If resistance is felt as early as the last 2 turns of the cylinder, or no resistance is felt at all, there could be an issue with the cylinder gasket. Contact Tulmar Safety Systems Inc. for assistance at galeo@tulmar.com.

It is recommended to use Tulmar supplied cylinders. If using an alternate source for cylinder, ensure to use a UL 1191 approved cylinder or purchased based on the cylinder's NSN. Other sources risk being ill-fitted and coud result in inadvertent inflation of the PFD or impact the inflation performance.

2. Install the green replacement arming status indicator clip (Tulmar P/N 3251-100).

Figure 27 - Installing the green indicator clip

3. For any reason, if inflator is removed from manifold by unfastening the hex nut. Two (2) Manifold O-rings of inflator need to replace with new ones.

2.5 Alpha (Automatic) to Manual Mode Conversion

To convert any of the Alpha (Automatic) model of the Galeo, obtain one (1) Manual Mode Cap (P/N 3219-001) per Galeo unit being converted.

1. Remove the automatic inflator cap by un-threading and set aside / stow.
2. Remove and discard the used, yellow bobbin.
3. Clean any salt debris from the inflator's threading.
4. Install the Manual Mode cap by threading clockwise until you feel resistance.

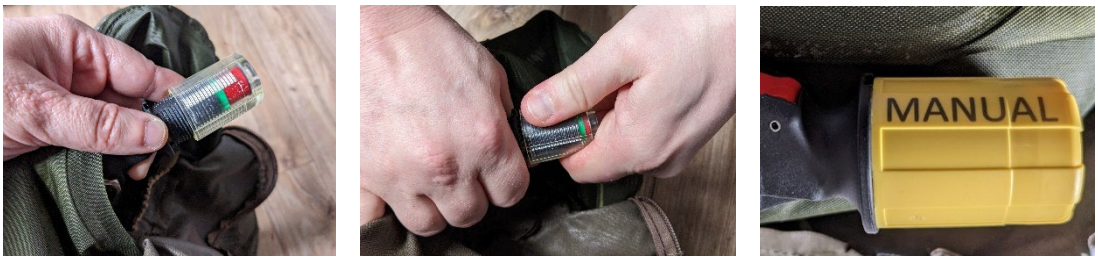


Figure 28 - Manual mode conversion - Steps to change the inflator cap

5. IF the green clip is no longer on the inflator (it would appear red), replace it with a new green clip (P/N 3251-100).

2.6 Repacking - Collar

Ensure that the Galeo is rearmed, inspected and fully deflated prior to packing. The packing process must be performed on a clean surface to avoid foreign objects and debris from getting packed with the PFD.

Figure 29 - Start and finish status of repacking the collar

1. Lay the Galeo on a flat surface, with the bladder facing up. **Note:** For assemblies equipped with a green bladder, ensure the reflective patches are firmly attached to the bladder.
2. Locate the pull cord for manual activation. Pull on the cord without exerting tension on the side of the inflator. Stop pulling when the mesh pull-handle at the other end of the black cord is stopped by the cover.

Figure 30 - Lay flat and inner collar pull cord location

3. Ensure again the mesh pull handle is fastened to the loop fastener on the cover. There shouldn't be any black cord loose near the mesh handle. No loose cord should sit outside the cover.

Figure 31 - Fasten the mesh pull hand

The following instructions are to ensure the cord does not get tangled around the inflator. If tangling occurs, the device CANNOT be manually activated by pulling the mesh pull handle. Therefore, following the instructions below are extremely important.

4. Place the cord in the small hook/loop fastener tab at the top of the neckline. Ensure the double fisherman's knot is completely outside of the hook/loop fastener patch and is on the right side of it when the cover is facing down (same side as the pull cord). Handle the cord carefully to avoid activation of the inflator.
5. Pull the cord gently towards the rip cord tube where the cord gets pulled during manual activation. The cord must be as free as possible. It shall not be twisted on itself or have any additional knots. Do not place the loose cord around the inflator or on the part of the cover that will get folded on top of the bladder. Recommended test: Ensure there is not enough loose to the cord to get around the cylinder.

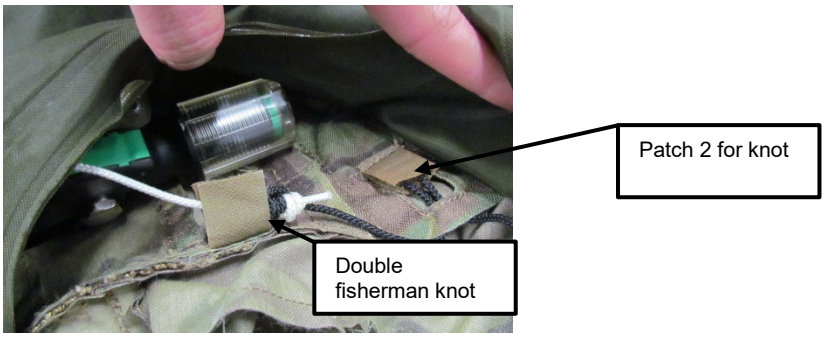


Figure 32 - Inflator cord on the right side of the hook and loop tab (when facing the PFD)

6. There are two hook and loop patches inside of cover. After securing double fisherman's knot at 1. hook and loop patch, take excess cord and feed through small pocket.
7. Place cord inside of 2. hook and loop patch as shown in the figure. While performing above steps, make sure there is no twist or tangle in cord.
8. Fold the side opposite from the oral inflation tube. The fold should involve the bladder material only (i.e., fold where the cover ends).
9. Fold in the outer portion of the cover. The fold line is to be near the zipper.

Figure 33 - Folding the left lobe steps

10. Fold in the inner portion of the cover. This portion will go over the previous fold. Ensure the bladder material is inside the cover.
11. Fold any excess bladder material towards the inside of the cover.

Figure 34 - Folding the left lobe steps (continued)

12. Push in the material at the bottom of the cover to start pulling up the zipper slider. Pushing the inside of the cover like illustrated in the picture helps to start pulling the slider up.
13. Pull the slider all the way to the top, right after the curve, while ensuring no material gets caught in the slider. Pushing down on the cover helps keep the folds intact. **Note:** The zipper should not close during this step.

Figure 35 - Closing the first lobe via the zipper

14. Attach the hook and loop fastener flaps at the top of the cover.
15. Finish sliding the zipper and stop the slider against the webbing set as a stopper. The zipper is never to be closed in between the hook and loop fastener flaps. This open area allows the cover to open during activation.
16. Make sure to keep the folds made in the previous steps while bringing the slider all the way down to the bottom of the cover. The zipper must close during this step.

Figure 36 - Fastening the zipper tab

17. Follow the same fold pattern as before to fold the lobe with the oral inflation tube. **Note:** If there is air left in the bladder, use the oral inflation tube to remove it.
18. Fold in the outer portion of the cover. The fold line should be near the zipper.
19. Fold in the inner portion of the cover. This portion will go over the previous fold.
20. Ensure the bladder material is inside the cover. Fold any excess bladder material towards the inside of the cover.

Figure 37 - Closing the second lobe via the zipper

21. Push in the material at the bottom of the cover to start pulling up the zipper slider. Pushing the inside of the cover helps to start pulling the slider.
22. Pull the slider all the way to the top while ensuring no material gets caught in the slider. Pushing down on the cover helps keep the folds intact. **Note:** The zipper should not close during this step.

Figure 38 - Moving the zipper slider to the zipper tab

23. Stop the slider against the webbing stopper.

Figure 39 - Keeping the bladder material and folds in when moving the zipper slider

24. Make sure to keep the folds made in the previous steps while bringing the slider all the way down to the bottom of the cover. The zipper must close during this step.
25. Ensure the slider on each side is tucked in at the bottom of the lobe. See second image below.
26. The PFD is now packed.

Figure 40 - (Left) Closing the zipper by bring the slider down (Right) Tuck in the zipper slider.

3.0 Maintenance and Storage

Before each use, do an overview inspection of the Galeo, following the pre-usage checklist in Appendix A of this manual.

After each use, deflate, clean as needed, re-arm and repack the Galeo for next usage or storage. If the Galeo PFD is noted to be damp or wet, ensure to visually inspect the unit and air dry fully prior to the next usage. If in automatic mode when noted damp / wet, replace the bobbin prior to re-using.

3.1 Serviceability Inspection

A serviceability inspection shall be conducted at least once a year, or whenever the integrity of the PFD is in question. This inspection shall be conducted every 10 inflations, twice a year for each unit regularly used in extreme cold. Record and keep the details of each inspection.

1. Visually inspect all components for:
    a. Dirt and/or grime
    b. Signs of moisture
    c. Signs of rust or corrosion
    d. Contamination
    e. Excessive abrasion
    f. Tears or punctures
    g. Damages, stripping or similar of the inflator
    h. Warped / damaged straps, buckles or other hardware.

    Components to be inspected are as follows:
    a. Zipper coil and zipper slider
    b. Cover fabric, webbing stitched to cover, hook & loop
    c. Bladder fabric & sewing to cover, oral tube and oral valve, hook & loop
    d. The inflator system, including the cylinder gasket, Manifold O-ring.
    e. Inflator's pull cord, knot, hook-loop tabs.
2. Perform an Air Retention and Leak Test
3. Conduct an Inflator Performance Test
4. Test the oral inflation valve through inflating with the oral tube
5. Ensure all expiry dates are still valid (Bobbins -> Alpha Inflator)
    a. Replace the bobbin if the PFD was used in humid environment, if the PFD was damp or wet of if there are any signs of the salt in the bobbin being compromised.

For the most up to date technical information and requirements about the Galeo's inflation system (Manual / Automatic (Alpha)), please visit the inflator's technical page at Halkey Roberts®:
https://www.halkeyroberts.com/Products/Alpha-inflator%C2%AE-manual%2Fautomatic

3.2 Air Retention and Leak Test

Ensure that the following tests are performed at least once a year or more frequently if exposed to harsh conditions, such as usage in extreme temperatures, exposure to debris, dragging, contact to chemicals, etc. The test should be performed in conditions where the temperature is 21°C ± 2°C and with a relative humidity of 80% or less and Atmospheric pressure between 94.8 to 108.4 kPa (28 to 32 inches of mercury).

1. Inflate the Galeo PFD until the bladder is firm to the touch and matches the operating pressure of 2.1 psi. Wait 10 minutes for a stabilizing period and readjust to 2.1 psi.

2. Hang and leave for six (6) hours. Do not handle during this period. The bladder should remain firm to the touch and be no lower than 1.75 psi.
3. While fully inflated, submerge the unarmed PFD (submerging an armed Alpha inflator could activate it and overinflate). Ensure no stream of bubbles is coming from the PFD, including the oral inflation valve.

If the PFD does not retain firmness, or bubbles are showing, contact Tulmar's sales representative at galeo@tulmar.com.

Life Cycle
Tulmar requires that each Galeo Personal Flotation Device be sent to an approved repair station for inspection after it has been in service for five (5) years or 25 inflations, whichever comes first. Standard wear and tears after this period could impede optimal efficiency during usage.

Note: For PFDs regularly used in extreme cold, the PFD should be sent to approved repair station each year or after 10 inflations, whichever comes first.

3.3 Inflator Performance Test

It is recommended that all Galeo PFD be validated performance tested at least once prior to be put into service, and once a year (recommended to do alongside Air Retention and Leak Test). It is recommended to test with the intended user's anticipated equipment configuration. To do the test:

1. Don the Galeo Tactical PFD and enter the water.

Manual Inflator (models 67020-001/-004/-007/-010/-013/-016/-019/-022)
2. Unclasp the pull cord fastened to the front of the cover.
3. Firmly pull (jerk motion) until inflation begins.

Automatic Inflator (models 67020-002/-005/-008/-011/-014/-017/-020/-023)
6. Submerge the Galeo under at least 4 inches of water.

All models
4. The Galeo Tactical Personal Flotation Device should inflate within five (5) seconds.
5. Ensure the Galeo keeps the user's head and mouth above water. When keeping the body limp, if leaning forward, the unit should self-right the wearer with no effort from the part of the wearer or other assistance.
6. Exit the water, remove the Galeo PFD and perform maintenance and storage as per section F. of this manual.

If performance is not to satisfaction or produces results that are different than those described above, contact Tulmar Safety Systems Inc. at galeo@tulmar.com.

3.4 Cleaning

1. Disarm the inflation system before performing any cleaning procedure by removing the bobbin and keep an empty cylinder screwed in the inflator to avoid water entering the inflator & bladder.
2. Hand wash or use a sponge to clean the PFD with a mixture of warm water and mild detergent.
3. Rinse the PFD and the inflator with clean water, using a clean cloth.
4. Hang the unit to air dry (while unpacked). Ensure there is distance between each unit to allow air flow.

Do not dry clean or machine wash the Galeo Tactical Personal Flotation Device. Do not use bleach.

Disinfection during usage

1. For events such as training or similar situations where more than one user would be handling the same unit; disinfect the oral tube between uses by gently wiping with an alcohol (70% isopropyl or less) wipe.
2. Use a clean, unused dry cloth to wipe any leftover alcohol before using.

3.5 Storage

Always store each unit of the Galeo (any and all configurations) in a temperature-controlled environment, away from moisture and heat source(s), direct sunlight and any contaminants (chemical fumes, spray, mold, debris, etc.). Follow safety guidelines for pressurized cylinders. If noted wet or damp, remove the bobbin prior to storage.

Soluble Super Bobbin recommended storage conditions are 65°F / 19°C to 85°F / 29°C with a maximum of 60% RH. Storage outside these conditions may affect Super Bobbin performance.

For more details on safe storage of the Galeo's inflation cylinder, please consult the Tulmar Life Vests Safety Data Sheet (SDS), available in the Technical Library of our Website at www.tulmar.com.

4.0 I. Component Parts List

The following table lists components available for all available configurations of the Galeo Tactical PFD. If you are looking to replace a part that is not listed below, please contact Tulmar Safety Systems Inc.

Part's Description	Part Number
T-bar straps (set of 4) – Black	67320-001
T-bar straps (set of 4) – Ranger Green	67320-003
T-bar straps (set of 4) – Coyote Brown / Multicam	67320-002
Re-arm kit (Alpha inflator) – 38g Cylinder, Clips and Bobbins	67321-001
Re-arm kit (Alpha inflator) – 45g Cylinder, Clips and Bobbins	67321-003
Mobius Strap (Set of 4) – Black	67322-001
Mobius Strap (Set of 4) – Ranger Green	67322-002
Mobius Strap (Set of 4) – Coyote Brown / Multicam	67322-003
Replacement reflective strips (sets of 2)	67323-001
Galeo Harness – Black (with crotch strap)	67324-001
Galeo Harness – Black (with crotch strap)	67324-002
Replacement Crotch Strap - Black	67324-003
Replacement Crotch Strap – Coyote Brown	67324-004
Alpha Inflator V90000	3251-001
Manual Mode Cap	3219-001
Bobbins	3220
CO_2 Cylinders, 38 g	3188
CO_2 Cylinders, 45 g	3185-001
Arming Status Indicator Clip	3251-100
Inflator Cap, Automatic	3251-102
User Manual (Printed or Digital)	53076-001

Please note that most of the listed parts are also available via our online store at www.tulmarstore.com. For bulk orders, pricing, and availability, contact Tulmar Safety Systems Inc.

- +1 (613) 632-1282
- galeo@tulmar.com

Appendix A

Visual Inspection Checklist

To ensure that safety is optimized with each use of the Galeo Tactical Personal Flotation Device, please perform the following inspection prior to each use.

- ❑ Verify that there are no visible holes or tears.
- ❑ Ensure the device is clean, dry and free of any debris and excessive.
- ❑ Confirm cover material's integrity (no excessive wear / thinning). Pay special attention to webbing attachments (chest straps & strap set) and ensure all buckles are present and in good condition.
- ❑ Ensure there is minimal residual air within the bladder. If excess is present, drain.
- ❑ Ensure pull cord integrity and verify that the knot is positioned correctly in two (2) hook & loop tabs.
- ❑ Ensure the manual pull handle is fastened.
- ❑ Verify the inflator status and ensure its readiness. Ensure the hex nut is not cross threaded.
- ❑ Verify the bobbin's expiry date (Automatic mode only). Visually inspect the bobbin to ensure integrity of the salt tab. Replace it if needed.
- ❑ Verify the CO2 cylinder to ensure there are no signs of corrosion and integrity & visually inspect the cylinder gasket. Ensure there are no signs of abrasion.
- ❑ Visually inspect cylinder gasket, ensure there are no signs of abrasion.
- ❑ Ensure that the zipper is in good condition, without any broken, missing, or damaged section or coil. Ensure the zipper does not show signs of debris that could impact the smooth operation of the zipper for proper deployment of the PFD.
- ❑ Ensure all hook & loop tabs are fastened and are in good condition. Ensure fastening remains effective by pulling apart and fastening back each section.
- ❑ Ensure the zippers are closed all around and that sliders are tucked at the bottom of the lobes. Ensure that all zippers opens and closes effectively.
- ❑ Ensure the PFD is free of any twisted lobe (when packed) and that material at the collar does not show visible folds or pleats in the neck area.
- ❑ When integrated on the plate carrier, ensure all MOLLE / PALS attachment points are in good condition, and that the carrier is in overall good condition.
- ❑ When integrated to a tactical vest or plate carrier, ensure all MOLLE/PALS attachment points are in good condition, and that the vest is in overall good condition.

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