

Aqua Lung America

TECHNICAL BULLETIN

Sept 01, 2016
No. 46

SUBJECT: Powerline Inflator Inspection

PRODUCTS AFFECTED: Aqua Lung BCD's and Apeks Black Ice BCD purchased since Jan 1, 2015 with the specific date code beginning with the letter "H".



Dear Aqua Lung Dealer,

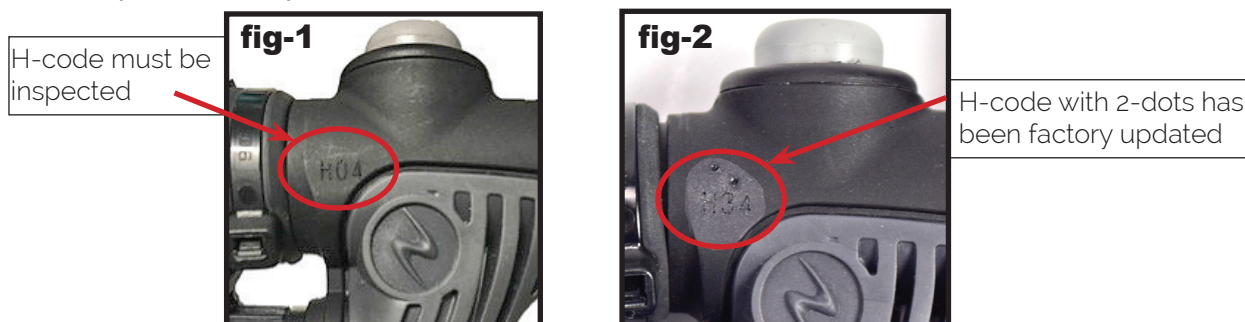
We have seen a small number of the Powerline inflators continuing to inflate after the button is released during a dive. After thorough investigation and testing, we have identified the cause and made the necessary modifications to correct the issue.

In an effort to reach every BCD owner who may have an affected Powerline inflator, we are taking these steps:

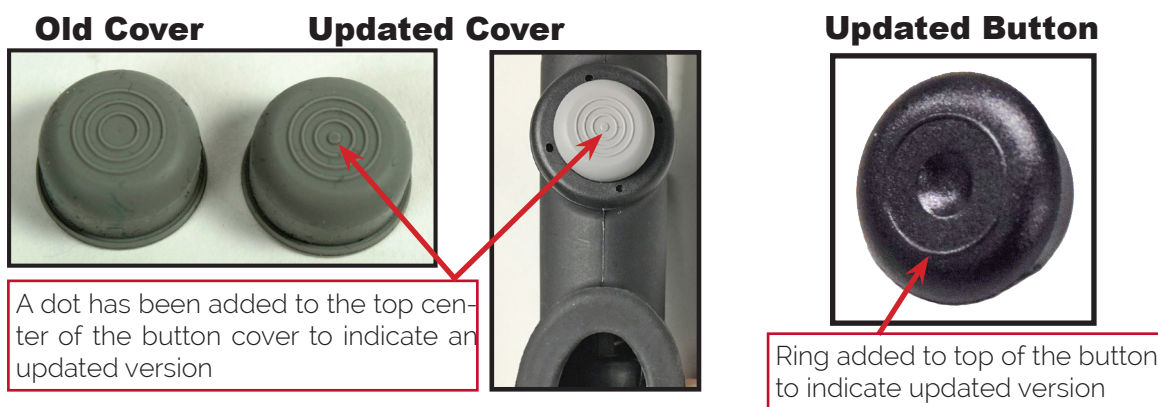
- 1.** Aqua Lung will be communicating directly to the dive community via email, dive industry resources and social media with instructions on how to have their inflators inspected and updated as necessary.
- 2.** We are asking our dealers to contact customers who have purchased an Aqua Lung BCD or Apeks Black Ice BCD since January 1, 2015 to arrange an inspection of the BCD. Please also include public safety, SAR, fire, police or other BCD users outside the recreational diver.
- 3.** Additionally, we ask that you inspect all Aqua Lung BCD's and any Apeks Black Ice BCD's inventory in your rental department and any spare Powerline inflators in your stock.
- 4.** Also, please quarantine any existing stock of button covers (p/n 15100) & buttons (p/n 15747) to prevent them from being used. The next page includes pictures that will aid you in identifying the updated version of these parts.

Contact Aqua Lung with the quantities requiring replacement and for disposition instructions of the quarantined parts. For your convenience Aqua Lung has created a Powerline inflator button kit (p/n 42654 - 10pack of buttons & button covers) that is available at "no-charge."

INSPECTION: Any Powerline inflator body marked with a date code beginning with the letter "H" (fig-1) will need to be inspected and/or updated as described below. Any Powerline inflator body with a date code of "H and 2-dots" (fig-2) has been updated by the factory and is OK to use.



Aqua Lung has updated the inflator button (p/n 15747) to prevent the Powerline inflator from potentially auto inflating. The button cover (p/n 15100) was also updated as a **visual indicator** that the Powerline inflator has already been updated.



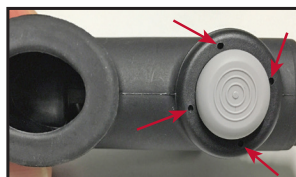
All Powerline inflators you find with the "H" date code without the updated button cover or the two dots will need to be updated using the steps below.

CORRECTIVE ACTION

1. Using the large end of the T-tool (p/n 42314) or any commercially available circlip style pliers or open faced spanner.



2. Insert the tool pins into the two opposing holes in the inflator bezel (p/n 15746). While holding the tool securely engaged, turn the bezel counter-clockwise until it is loose, then remove the bezel and button cover (p/n 15100).



3. Remove and replace the button (p/n 15747). The updated version of the button has a ring on the top.



4. Fit the new button cover (p/n 15100) over the new inflator button (p/n 15747) so that it seats flush against the shoulder of the push rod housing.



5. Fit the inflator bezel (p/n 15746) over the button cover (p/n 15100) and press down while rotating the bezel counter-clockwise until a click is felt. Then, turn the bezel clockwise to engage the threads and continue tightening by hand until finger snug. Be careful to avoid cross-threading.



CAUTION: It is important to rotate the bezel counter-clockwise in order to properly seat the threads before tightening into the body. Failure to correctly follow this step may cause permanent damage to the bezel and the body due to cross-threading. This could result in a leak if both parts are not replaced.

6. Using the large end of the T-tool or other commercially available tool, insert the pins into the two opposing holes in the inflator bezel (p/n 15746). While holding the tool securely engaged, turn the bezel clockwise until it is flush with the surface of the body. **"DO NOT"** overtighten! Closely inspect the button cover (p/n 15100) to ensure that it is seated evenly on all sides and does not appear to be crimped or partially unseated.



POST ASSEMBLY TESTING: Verify that the first stage regulator which the Powerline inflator will be used with has been recently serviced and adjusted to a stable MP of 130-145 psi (9-10 bar). Attach the first stage to a cylinder filled to 3000 psi (206 bar). Connect the Powerline inflator to the first stage via the quick disconnect MP hose. Slowly open the valve of the supply cylinder to pressurize the regulator.



CAUTION: Before pressurizing the first stage, it is important to have a properly adjusted second stage attached to the first stage. This will provide a safety relief valve if the MP exceeds 145 psi (10 bar). Failure to relieve increasing MP may result in damage to the MP hose.

Depress the inflator button of the Powerline inflator several times to ensure that airflow is unobstructed. After releasing the button, listen carefully to ensure that the airflow has completely stopped. If internal leakage can be heard, refer to Troubleshooting Guide below and correct the problem as needed.



SYMPTOM	POSSIBLE CAUSE	TREATMENT
Restricted airflow or BC inflates slowly (with full tank, stable MP)	1. MP hose is obstructed	1. Clean or replace hose
	2. Filter is clogged or obstructed	2. Replace filter
	3. Valve core is clogged or corroded	3. Replace valve core
	4. Dirt/salt deposits are present within the inflator assembly	4. Flush with warm fresh water
External air leakage from inflator	1. O-rings are damaged	1. Replace faulty o-ring
	2. Inflator button cover is damaged or incorrectly installed	2. Disassemble and correct as needed
	3. Push rod is damaged	3. Replace push rod
	4. Inflator body is damaged	4. Replace body
Internal leakage from inflator	1. Valve core corroded or damaged	1. Replace valve core
	2. O-ring damaged or worn	2. Replace o-ring
	3. Valve core retainer damaged or worn	3. Replace valve core retainer
	4. Inflator body is damaged	4. Replace body

Should you have any questions regarding this issue,
please contact our customer service department at:
(877) 253-DIVE