

MERIVAARA Q-FLOW SURGICAL LIGHT REPAIR GUIDANCE

Rev 2 / 24.04.2026

Manufacturer:

Merivaara Corporation (SRN: FI-MF-000001175)

The product covered by the notice:

**Q-FLOW SOLO, Q-FLOW DUO, Q-FLOW TRIO, Q-FLOW QUAD,
Q-FLOW MOBILE**

This repair guidance relates to the Field Safety Notice (FSN reference 698414) for Merivaara Q-Flow surgical lights. Read the Field Safety Notice before following this guide.

In the Figure below, arrows indicate which joints are covered by this repair guidance. This applies to both double yoke and single yoke models. The repair involves inspecting joints screws tightness and if necessary, replacing the screws used in the support yoke assembly.

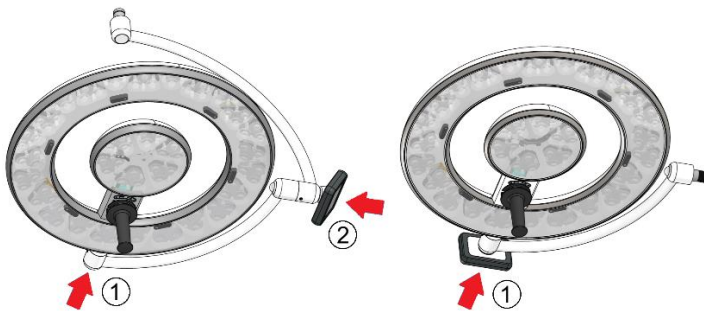


Figure 1. Double yoke and single yoke model

During the next annual maintenance, the organization responsible for servicing the device shall inspect and repair these joints as described below:

Note! Following spare parts must be present during the inspection (order from manufacturer):

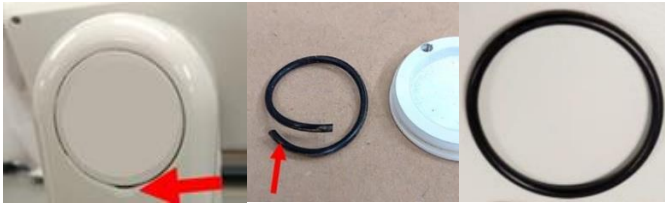
- Suitable amount of replacement screws: A43333100 ISO 14581 M3X10 8.8 ZN TORX
- O-ring seals for protective plugs/rocker switches (only for double yoke models, 2 pcs per luminaire): A43329500 (Vision / I-models) or A43811300 (Fluent model)

Double yoke model

Double yoke model has two joints with similar inner construction with small differences. Perform inspection per joint as instructed below in sections a) and b):

a) Joint ①: Lighthouse axle

1. Disconnect the system from the power mains.
2. Remove the protective plug at the end of the joint with a small flat-head screwdriver (note the position of the arrow in the Figure below) and be careful not to damage the wires, seal or the paint finish of the luminaire under the plug. A broken seal must be replaced with new seal A43329500 (Vision & I) / A43811300 (Fluent)



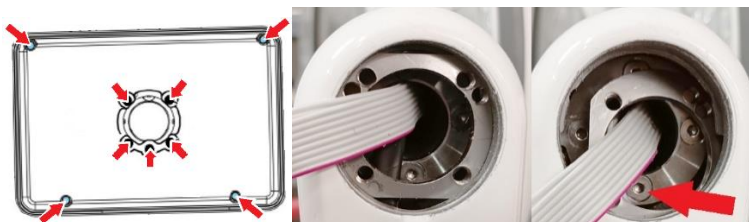
3. When the plug has been removed, the fixing screws are visible. Use a torque wrench (H2.0) with **1Nm** settings and turn the screw counterclockwise to verify tightness of one of the M3x10 screws (2 – 4 pcs). For any screw that starts turning before the torque limit (1Nm) is activated must be removed and replaced by following the steps 4 – 6.



4. Add Loctite 243 threadlocker to the tip of the screw as shown above. Check that the threadlocker is good for use (expiry date). The standard for the threadlocker is ISO 10964:1993. In case spare parts are needed, please contact Merivaara Service (service@merivaara.com). Following screws must be used: A43333100 ISO 14581 M3X10 8.8 ZN TORX
5. Tighten the screw to **2 Nm** using a torque wrench (TX10).
6. Repeat steps 4 – 5 for the remaining screws when necessary.
7. Carefully install the plug and seal in place. When installing, ensure that the wires are neatly tucked under the protective plug and seal. If other joints have already been inspected and serviced, perform steps 8 – 10. Otherwise, skip remaining steps and continue with other joints inspection / service.
8. Connect power to the system and test the operation of the luminaire and the joints for clearance.
9. Record the inspection or repair work carried out in the maintenance history of the device, using reference FSN 698414.
10. After repair work the device must be cleaned before use.

b) Joint ②: Middle axle (control panel attached)

1. Disconnect the system from the power mains.
2. Remove the four M2x16 T6 screws holding the control panel front section in place. Detach all cables from the panel and remove the one H2.5 / four H3 screws holding the control panel base parts in place. Rotate the metal attachment ring inside the yoke joint 90-degrees to loosen it and to gain access to the inspected M3 screws. The inner yoke can also be rotated to better access the screws. Be careful not to damage the wires or the paint finish of the luminaire under the panel.



- When the control panel and panel base are removed, the fixing screws are visible. Use a torque wrench (H2.0) with **1Nm** settings and turn the screw counterclockwise to verify tightness of one of the M3x10 screws (2 – 4 pcs). For any screw that starts turning before the torque limit (1Nm) is activated must be removed and replaced by following the steps 4 – 6.



- Add Loctite 243 threadlocker to the tip of the screw as shown above. Check that the threadlocker is good for use (expiry date). The standard for the threadlocker is ISO 10964:1993. In case spare parts are needed, please contact Merivaara Service (service@merivaara.com). Following screws must be used: A43333100 ISO 14581 M3X10 8.8 ZN TORX.
- Tighten the screw to **2 Nm** using a torque wrench (TX10).
- Repeat steps 4 – 5 for the remaining screws when necessary.
- Carefully install the metal ring and panel in place. When installing, ensure that the wires are neatly routed and check the ring is in correct position/angle.
- Install the control panel by attaching the cable connector and four M2x16 T6 screws.
- At the end of the joint the rocker switch needs to be removed with a flat-head screwdriver (note the position of the arrow in the Figure below). Be careful not to damage the wires, seal or the paint finish of the luminaire under the rocker switch. A broken seal must be replaced.



- When the rocker switch is removed, the fixing screws are visible. Use a torque wrench (AV3 / TX25) with **5 Nm** setting and turn the screw counterclockwise to verify tightness of one of the M5x12 screws (4 pcs). For any screw that starts turning before the torque limit (5 Nm) is activated must be reinstalled by following the steps 11 – 12.
- Check that the fixing threads appear intact. **Add Loctite 243 screw lock to the tip of the screw to be fixed as shown below** or replace the fixing screws with screws containing screw lock. Check that the screw lock is good for use (expiry date) before using use. The standard for the screw lock is ISO 10964:1993. Note: If a defect is found in the fastening threads, the component in which the threads are located should be replaced. In this case, please contact Merivaara Service for a spare part (service@merivaara.com). Screws to be used: M5X12 A2 DIN 34805-1 (TX25) or M5X12 A2 ISO 7380 (AV3).
- Tighten the screw to **5 Nm** using a torque wrench.



13. If other joints have already been inspected and serviced, perform steps 14 – 16.
Otherwise, skip remaining steps and continue with other joints inspection / service.
14. Connect power to the system and test the operation of the luminaire and the joints for clearance.
15. Record the inspection or repair work carried out in the maintenance history of the device, using reference FSN 698414.
16. After repair work the device must be cleaned before use.

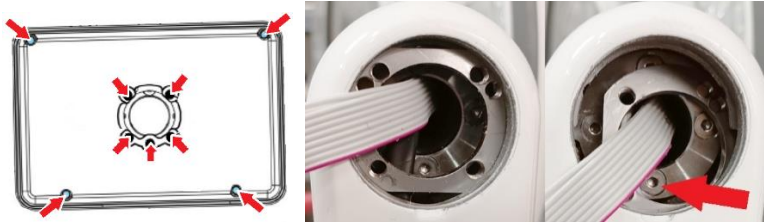
Required tools and parts:

- Hex keys 2mm (H2.0), 2.5mm (H2.5) and 3mm (H3.0)
- Torx keys T25, T6 and T10
- Torque wrench (dual-way)
- Small flat-head screwdriver
- O-ring seals (for plug/rocker switch): Use only manufacturer spare parts A43329500 (Vision / I-models) or A43811300 (Fluent model)
- Loctite 243 threadlocker
- Support yoke assembly screws A43333100 ISO 14581 M3X10 8.8 ZN TORX

Single yoke (LCH) model

Joint ①: Lighthouse axle (control panel attached)

1. Disconnect the system from the power mains.
2. Remove the four M2x16 T6 screws holding the control panel front section in place. Detach all cables from the panel and remove the one H2.5 screw and four H3.0 screws holding the control panel base parts in place. Rotate the metal attachment ring inside the yoke joint 90-degrees to loosen it and to gain access to the inspected M3 screws. Be careful not to damage the wires or the paint finish of the luminaire under the panel.



3. When the control panel and panel base have been removed, the fixing screws are visible. Use a torque wrench (H2.0) with **1Nm** settings and turn the screw counterclockwise to verify tightness of one of the M3x10 screws (2 – 4 pcs). For any screw that starts turning before the torque limit (1Nm) is activated must be removed and replaced by following the steps 4 – 6.



4. Add Loctite 243 threadlocker to the tip of the screw as shown above. Check that the threadlocker is good for use (expiry date). The standard for the threadlocker is ISO 10964:1993. In case spare parts are needed, please contact Merivaara Service (service@merivaara.com). Following screws must be used: A43333100 ISO 14581 M3X10 8.8 ZN TORX.
5. Tighten the screw to **2 Nm** using a torque wrench (TX10).
6. Repeat steps 4 – 5 for the remaining screws when necessary.
7. Carefully install the metal ring and panel base in place. When installing, ensure that the wires are neatly routed and check the ring is in correct position/angle.
8. Install control panel by attaching the cable connector and four M2x16 T6 screws.
9. Connect power to the system and test the operation of the luminaire and the joints for clearance.
10. Record the inspection or repair work carried out in the maintenance history of the device, using reference FSN 698414.
11. After repair work the device must be cleaned before use.

Required tools and parts:

- Hex keys 2mm (H2.0), 2.5mm (H2.5) and 3mm (H3.0)
- Torx keys T6 and T10
- Torque wrench (dual-way)
- Loctite 243 threadlocker
- Support yoke assembly screws A43333100 ISO 14581 M3X10 8.8 ZN TORX