

# TECHNICAL BULLETIN VG4 AutoDome Pressurized CCTV Environmental Housing

Loss of pressure after two to three days

September 1, 2010

## Issue Severity:

- High: Act immediately
- Medium: Bosch Security Systems strongly recommends you take the action(s) described below.
- Low: Advisory

## Products Affected:

- AutoDome Pressurized Environmental Housing
  - VG4-MHSG-NC
  - VG4-MHSG-NT

## 1.0 Issue

The VG4 AutoDome Pressurized Environmental Housing may lose pressure two to three days after the housing is pressurized with nitrogen.

One possible cause of the pressure loss is a mistake in the *VG4 AutoDome Modular Camera System Installation Manual*. This manual mistakenly instructs a user to clean the groove inside the rubber bubble gasket to remove the grease. The grease inside the groove is vital for the pressurized housing to maintain pressure.

## 2.0 Resolution

You must reapply the grease inside the groove of the bubble gasket to ensure a tight seal between the bubble and the housing. Before performing the steps below, you must obtain the following grease or its equivalent:

**Recommended Brand Name:** Novagard G661

**Alternative Brands:**

- **AMEC Region:** Dow Corning 111
- **EMEA and APR Regions:** Dow Corning Molykote 111

**Material Type:** Silicone

**Lower Temperature Range:** -40 Degrees Fahrenheit

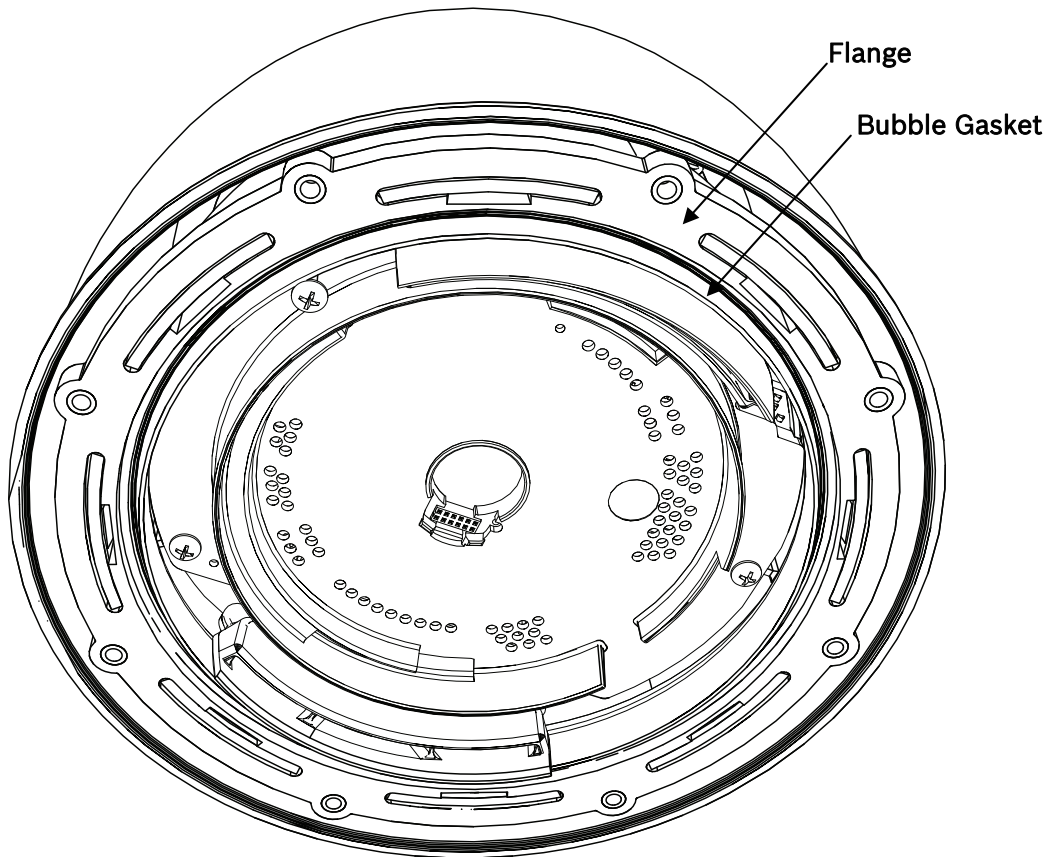
**Upper Temperature Range:** 400 Degrees Fahrenheit

### 2.1 Remove the Bubble

1. Purge the nitrogen from inside the Pressurized Environmental Housing and bubble.
  2. Loosen, but do not fully remove, the eight (8) captive screws using a T25 pin-in Torx driver from the bubble support ring.
  3. Support the bubble with your hand to ensure that it does not fall as you fully remove the captive screws using an alternating pattern.
  4. Remove the bubble and the bubble support ring.
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## 2.2 Apply Grease to the Bubble Gasket

The illustration below shows the location of the rubber bubble gasket. The bubble gasket is the white rubber ring that is inside the hard plastic flange.

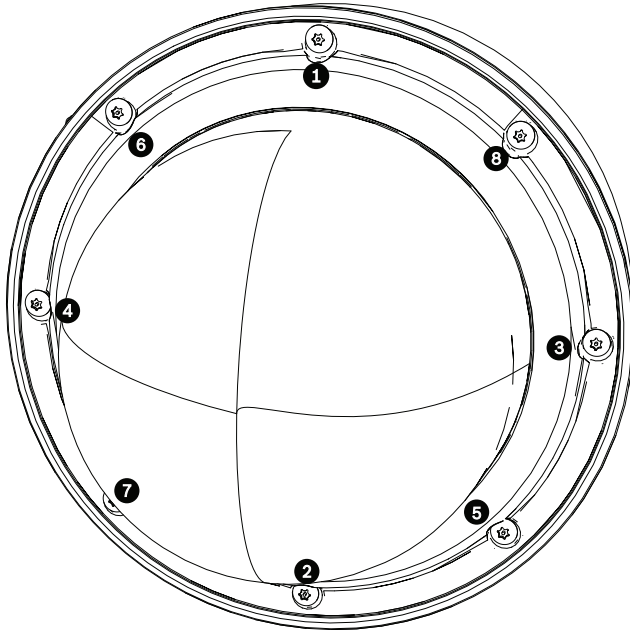


You must apply a thick bead of the grease inside the gasket groove and ensure that grease covers the entire area.

## 2.3 Attach the Bubble to the Housing

1. Insert the sealing edge of the bubble into the groove in the rubber bubble gasket.
2. Place the bubble support ring over the bubble and align the eight (8) captive screws with the threaded inserts on the plastic gasket ring.
3. Loosely tighten the captive screws with the T25 pin-in Torx tool using a diametrically opposed tightening pattern, until the gap between the bubble support ring and the housing closes.
4. Start tightening screw 1, then tighten screw 2. Next, tighten screw 3 and continue to screw 4. Continue tightening the screws in this pattern.

**Note:** Make sure not to overtighten the screws.



5. Tighten the screws again, using the same diametrical pattern, to a torque of 0.90 N-m (8 in.-lbs). Use a dial-indicator torque screwdriver to check the torque.
6. Begin a second round of tightening, using the same diametrical pattern, until the screws reach a torque of 1.58 N-m (14 in.-lbs).
7. Continue tightening the screws, using the same diametrical pattern, to reach a torque of 2.26 N-m (20 in.-lbs).
8. Finish tightening the screws, using the same diametrical pattern, to reach a final torque of 2.71 N-m (24 in.-lbs).
9. Perform a final check, using the same diametrical pattern, of each screw. Adjust any screw that is below 2.71 N-m (24 in.-lbs) of torque.
10. Refer to the *VG4 AutoDome Modular Camera System Installation Manual* for instructions to pressurize the housing.