

Number: SE-38, Revision: 02

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Brooks Compact Prover - Optical Conversion Kit Instruction Sheet

The following installation procedure is for the Brooks Compact Prover plugged optical assembly conversion kit.

Disassembly:

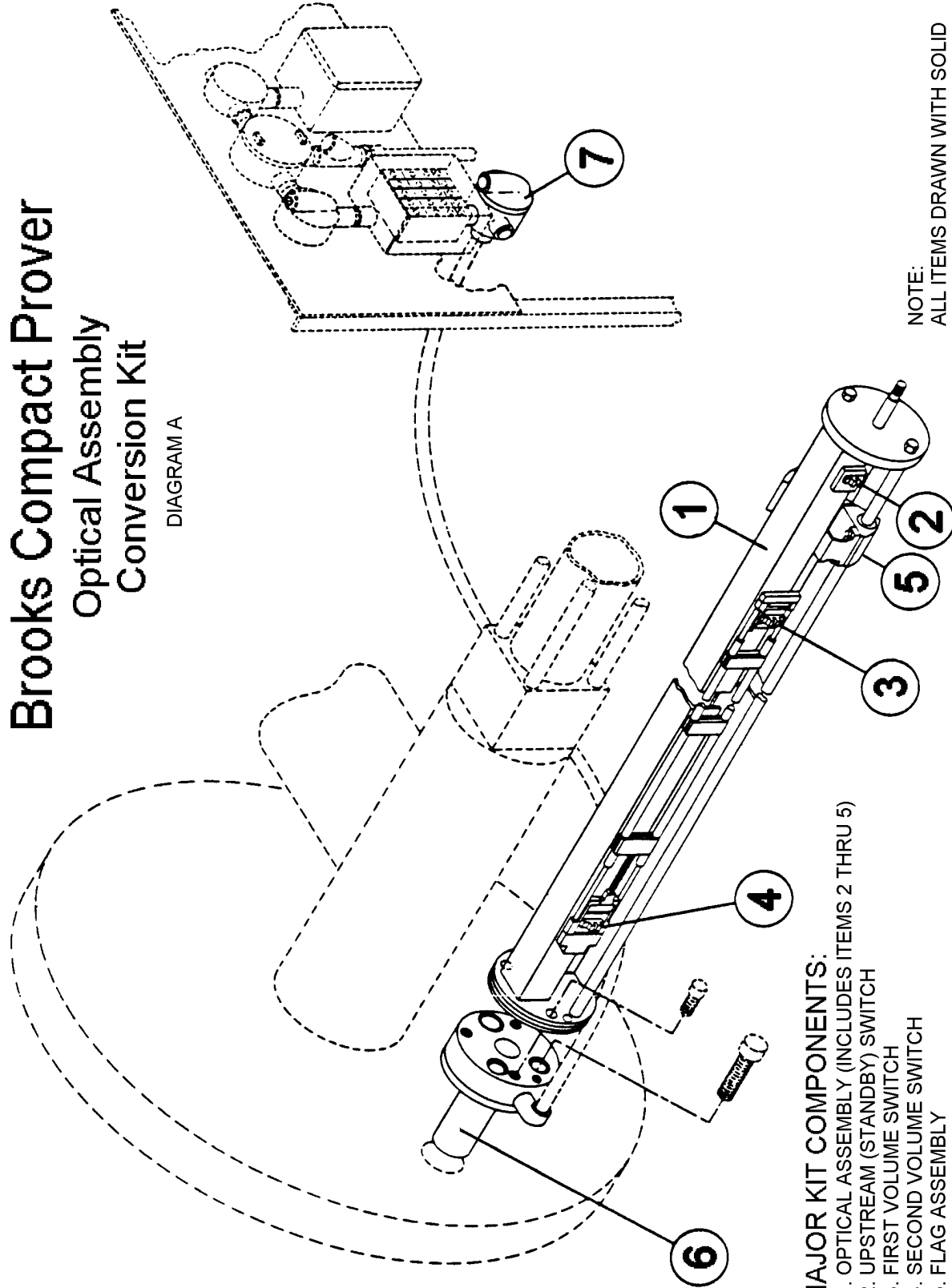
1. Remove prover from service and disconnect electrical power.
2. Drain product from the prover flow tube.
3. Remove cover from intrinsic barrier enclosure and disconnect wiring from intrinsic barriers at lower side.
4. Remove support bracket at outboard end of detector shaft dust cover.
5. Remove dust cover.
6. Remove detector switch assembly flange by removing four nuts.
7. Disconnect switch wiring at connector near seal gland.
8. Remove flag and linear bearing assembly.
9. Remove original switch assembly complete.
10. Remove optical shaft seal gland.
11. Carefully disconnect flexible conduit from seal at intrinsic barrier end.
12. Remove the wires from the flexible conduit.
13. Remove old seal/conduit box, if it has been poured, from the intrinsic barrier enclosure and discard with old wires attached.

Reassembly: (See DWG-94440-E)

1. Install the new preassembled optical shaft seal gland using two cap screws (item 6), and modified cap screw (item 7). Tighten the screws evenly.
2. Install the new detector switch assembly with the new linear bearing while carefully routing the new switch wiring harness through the optical seal gland (item 5) and elbow (item 18).
3. Fasten the new optical assembly to the seal gland using items 8 (quantity 1) and 19 (quantity 3). Tighten screws evenly.
4. Install the new seal/conduit box at the intrinsic barrier enclosure if necessary.
5. Install the original flexible conduit. Carefully pull the wiring through from the new optical switch assembly and attach at the intrinsic barrier end. Follow the same wire color code when installing the new assembly to the barriers as on the previous instrument package.
6. Verify flag clearance through all replaced switches by sliding the flag assembly along the optical shaft. Once the retaining screws are loosened, it may be necessary to pry the bearing housing free from the optical shaft by using a small screwdriver in the rear slot. Adjust switch position if necessary; see Appendix A on service bulletin SE-39 for adjustment screw location. Be sure flag assembly is anchored in the upstream (standby) position when finished.
7. Recertify the prover base volume by performing the waterdraw.
8. Replace all covers and support brackets.
9. If necessary, pour electrical conduit seal between the flexible conduit and the intrinsic barrier housing using an approved sealing compound.

Brooks Compact Prover
Optical Assembly
Conversion Kit

DIAGRAM A



NOTE:
ALL ITEMS DRAWN WITH SOLID
LINES ARE INCLUDED IN THE
OPTICAL ASSEMBLY.

- MAJOR KIT COMPONENTS:**
- 1. OPTICAL ASSEMBLY (INCLUDES ITEMS 2 THRU 5)
 - 2. UPSTREAM (STANDBY) SWITCH
 - 3. FIRST VOLUME SWITCH
 - 4. SECOND VOLUME SWITCH
 - 5. FLAG ASSEMBLY
 - 6. SEAL GLAND ASSEMBLY
 - 7. CONDUIT SEAL