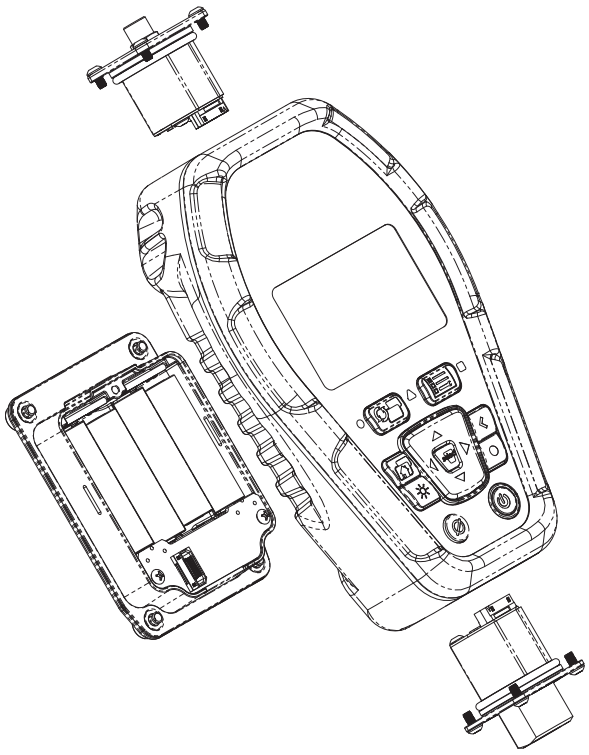
CRYSTAL
engineering corporation

Module Installation Instructions



The nVision is designed to have field-changeable modules for each of the two available module bays for issues such as calibration, changing test requirements, or servicing. All module changes should be completed in a dry, clean environment (out of the outdoor elements). Proper electrostatic discharge (ESD) grounding techniques should be taken into account prior to the module change over. If you desire to remove a module without installing a replacement, a module blank plate (P/N: BNKPLT) must be installed to ensure your IP67 rating and to protect the product.

CAUTION: Do not proceed unless you have a suitable replacement module or blank plate for the module bay in question.

1 Before removing or replacing any modules, ensure that all recorded data has been archived properly through the use of the **Export to .xls** feature in **CrystalControl**.

2 Place nVision on clean stable work surface. Clean exterior of the product, if necessary, to ensure no moisture or foreign matter will enter the enclosure when disassembled. Use of proper ESD grounding techniques is highly encouraged to prevent damage to the exposed module.

3 Turn off nVision with button. Remove 4AA battery pack from rear of product, and any USB power connection (for at least 15 seconds) from nVision chassis during module installation.

WARNING: Failure to disconnect nVision from 4AA or USB power before module removal or installation may cause damage.

4 Using a Torx T10 wrench, loosen the four screws retaining the module face plate and carefully pull the module out. Avoid twisting the module when removing from the nVision.

Note: Some modules may be difficult to remove due to the physical form and the IP67 sealing strategy employed. It may be necessary to connect a fitting or RTD cable to the appropriate module in order to gain better gripping power for removal. Never force the separation of a module from an nVision chassis.

5 Note the correct orientation of module connector on rear of module (located up or closest toward the display) in relation to the nVision chassis during removal. Place the removed nVision module in the ESD bag for safe protection.

6 Install new module in similar orientation as one removed in step 4 (rear module connector facing up to keypad of nVision). If improperly oriented the tri-lobe design of the module will not allow proper installation. Do not force installation of the module as permanent damage may occur. Ensure light lubrication of the module four lobe o-ring (P/N: 4110) with Dow 111 silicon lubricant or equivalent in order to ensure an IP67 tight seal.

Note: If installing blank plate, instead of module, ensure part is oriented flat and evenly within the module bay for proper sealing.

7 Tighten face plate or blank plate screws to **50 in-oz** (0.35 newton meter (N-m)) torque (T10 Torx).

8 Replace 4AA power module and tighten adequately to ensure IP67 seal. When power is first applied by the battery pack, the unit will automatically turn on. Ensure that nVision recognizes the new module by confirming in **CrystalControl** or the **Summary** screens.

9 Before using the nVision to record, **Erase All Data** using **setup** button **Recording/Erase All Data** menu items.

10 nVision is now ready to use. If you have any problems during this process, check the Troubleshooting section for relevant information or contact Crystal Engineering at www.crystalengineering.net or (805) 595-5477.

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