



# Installation Instructions

Night Vision Video  
Conditioner NVVC Kit  
Piece No. 801488

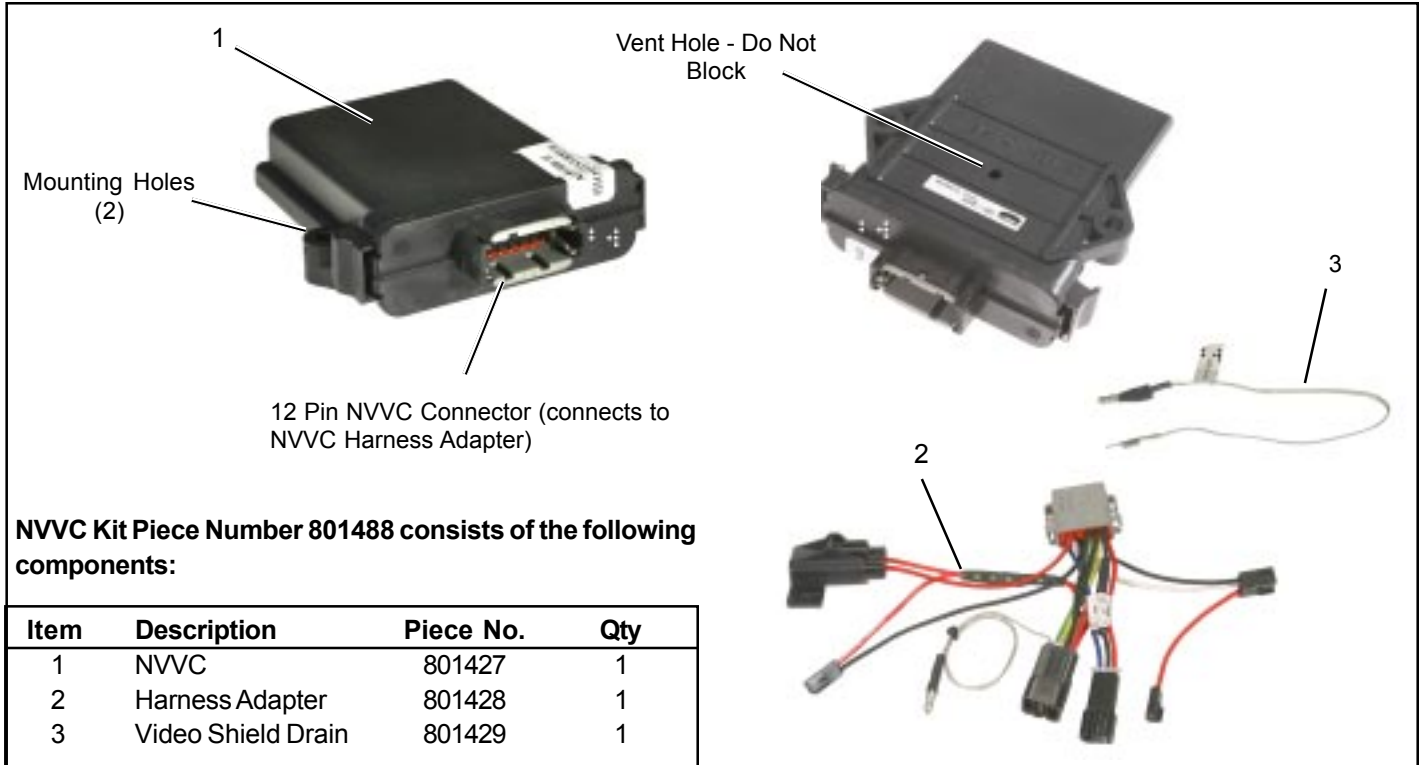


Figure 1 NVVC Kit

## DESCRIPTION

This instruction sheet is used to install the Night Vision Video Conditioner (NVVC) kit piece number 801488. This kit includes the NVVC(1), Harness Adapter (2), and Video Shield Drain (3).

The NVVC is used with a Bendix® XVision® IR Camera and Flat Panel Display to form a Night Vision Enhancement System (NVES). The NVES is operational with the ignition power, headlamps and flat panel display on.

### **IMPORTANT! PLEASE READ AND FOLLOW THESE INSTRUCTIONS TO AVOID PERSONAL INJURY OR DEATH:**

When working on or around a vehicle, the following general precautions should be observed at all times.

1. Park the vehicle on a level surface, apply the parking brakes, and always block the wheels.
2. Stop the engine when working around the vehicle.
3. If the vehicle is equipped with air brakes, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle.
4. Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in manner that removes all electrical power from the vehicle.

5. When working in the engine compartment the engine should be shut off. Where circumstances require that the engine be in operation, **EXTREME CAUTION** should be used to prevent personal injury resulting from contact with moving, rotating, leaking, heated, or electrically charged components.
6. Never connect or disconnect a hose or line containing pressure; it may whip. Never remove a component or plug unless you are certain all system pressure has been depleted.
7. Never exceed recommended pressures and always wear safety glasses.
8. Do not attempt to install, remove, disassemble or assemble a component until you have read and thoroughly understand the recommended procedures. Use only the proper tools and observe all precautions pertaining to use of those tools.
9. Use only genuine Bendix® replacement parts, components, and kits. Replacement hardware, tubing, hose, fittings, etc. should be of equivalent size, type, and strength as original equipment and be designed specifically for such applications and systems.
10. Components with stripped threads or damaged parts should be replaced rather than repaired. Repairs requiring machining or welding should not be attempted unless specifically approved and stated by the vehicle or component manufacturer.

11. Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.

## INSTALLATION

The NVVC mounts inside the cab of the vehicle. It can be bracket mounted or mounted with 3M™ VHB™ Acrylic Foam Tape.

Notes: The Bendix vehicle power harness (piece number 5012134) has an integral 3.0 amp ATO and 7.5 amp ATO fuse. These components should not be removed unless the vehicle provides this protection.

When performing the following procedures be sure to follow standard commercial vehicle wiring practices and protection. If any portion of the system is mounted external to the cab, the wires should be routed along frame rails and secured to frame members when possible. The wires should be secured at locations approximately 12 inches apart throughout their length, preferably with non-metallic clamps or tie wraps. It is recommended that the wire come straight out of the connector for at least 3 inches before allowing the wire to bend.

1. Find a suitable location to install the NVVC. Ensure that the vent hole located on the body is not covered. See Figure 1.
2. Use the NVVC housing as a template to mark the location of the two mounting holes. Drill 2 holes sized to your mounting hardware.
3. Secure the NVVC using 2 screws or tape. A commercial grade double sided tape, such as 3M™ VHB™ Acrylic Foam Tape, can be used if the surfaces allow.

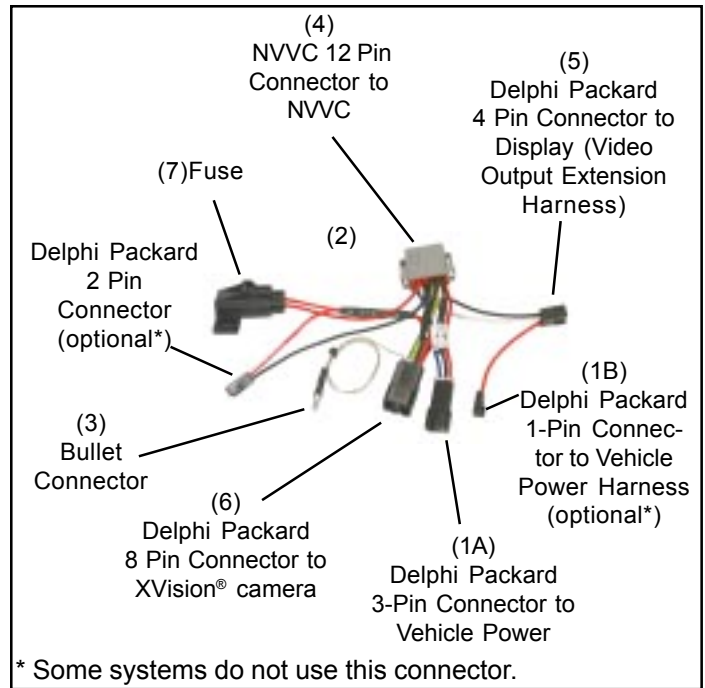


Figure 2 Harness Adapter

4. Connect the 12 pin connector (4) of the harness adapter(2) to the 12 pin connector on the NVVC. Be sure the latches on each side of the connector snap into place. Connect the remaining connectors to their appropriate harnesses as indicated in Figure 2.
5. Connect the video shield drain to the harness adapter(3) and to the chassis ground. Select a suitable chassis ground that provides the ring terminal attachment to unpainted metal. Do not attach the ring terminal to a motor (such as the windshield wiper), an electrical relay mounting or to a CB Radio or antenna mounting screw or stud. These practices may introduce electrical interference noise into the video system.

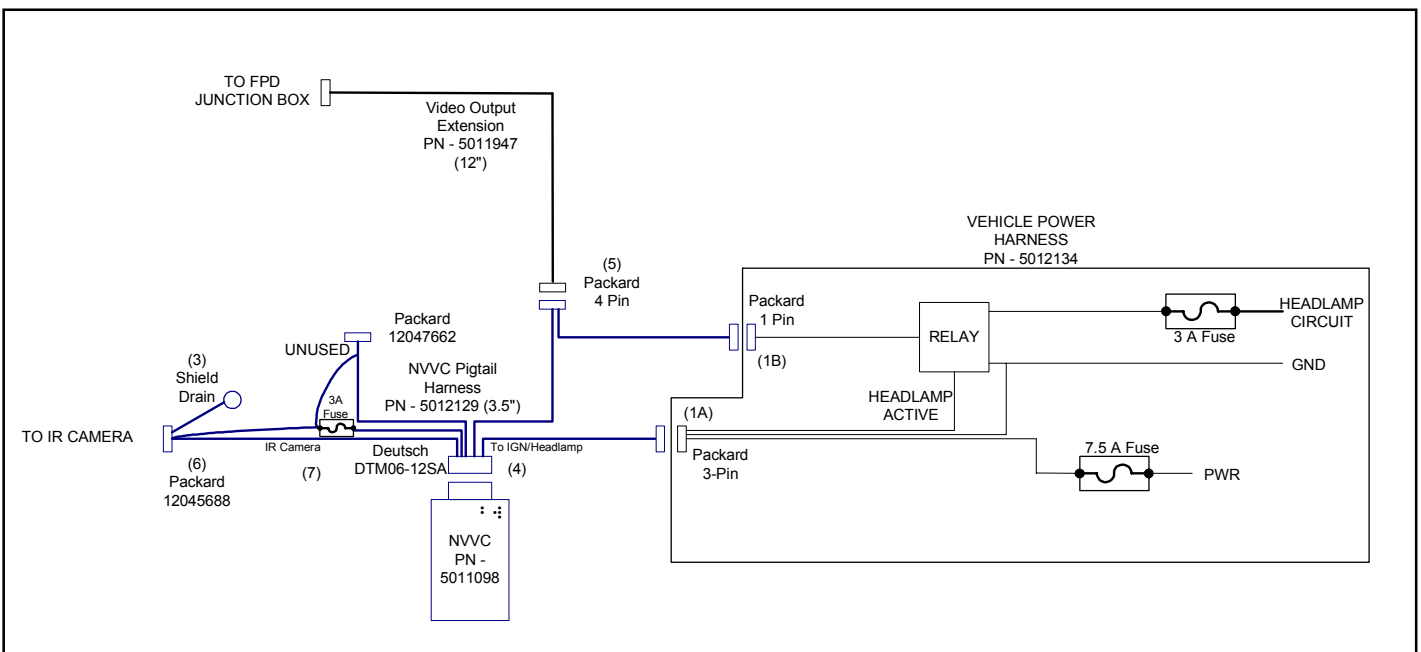


Figure 3 Typical System Schematic

6. Connect vehicle power harness 3-pin and 1-pin. Connect the 3-pin connector (1A) to the mating connector on the vehicle power harness piece number 5012134.
7. Connect to the flat panel display and video extension harness: Connect the 4-pin connector (5) to the mating connector on the video extension harness piece number 5011947.
8. Connect the 8-pin connector (6) to the mating connector on the IR Camera jumper harness 5010441. This harness also provides electrical power to the camera. The fuse protects against short circuits in the wiring and cable from the NVVC to the IR Camera.
9. The NVES system will function with the vehicle power, headlamps and flat panel display on. The on-off button located on the flat panel display controls power to the NVVC and IR camera. If the headlamp switch is not connected, or if it's turned off, the power will not be applied to the IR camera and the flat panel display will go into standby mode. Note, that the IR camera requires about 45 seconds to power up and deliver a video signal to the flat panel display. If the headlamp switch is turned off while the flat panel display is on, the NVVC will hold power to the IR camera for about 15 seconds before the IR camera powers off and the video signal to the flat panel display is lost. This feature allows for the headlamps to be flashed on and off without loss of the video signal.
10. If necessary to replace the fuse contained in the harness adapter replace with a 3 amp ATO fuse.