# **Installation Instructions**



### **ECU (ELECTRONIC CONTROL UNIT) BRACKET KIT**

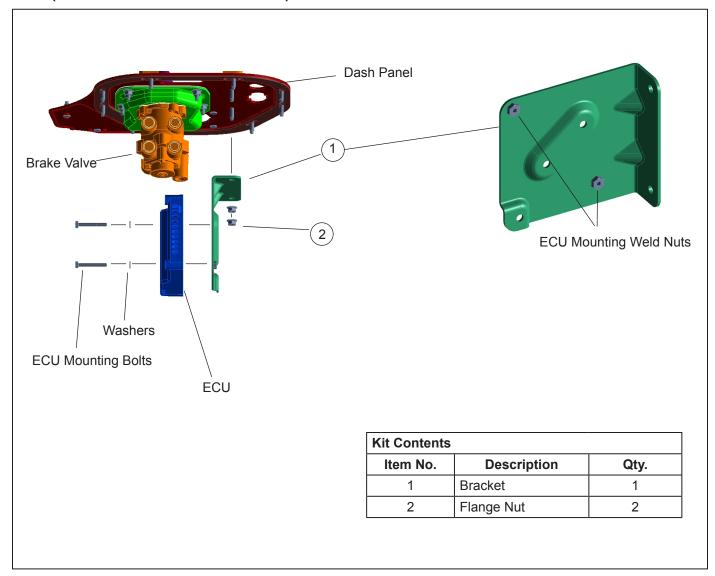


Figure 1 – ECU Bracket Kit - (engine compartment - top view)

#### **DESCRIPTION**

This kit contains all of the necessary components to replace the bracket that supports the Bendix® Antilock ECU Controller on International® NGV vehicles.

## A

### **GENERAL SAFETY GUIDELINES**

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



When working on or around a vehicle, the following guidelines should be observed AT ALL TIMES:

- ▲ Park the vehicle on a level surface, apply the parking brakes and always block the wheels. Always wear personal protection equipment.
- ▲ Stop the engine and remove the ignition key when working under or around the vehicle. When working in the engine compartment, the engine should be shut off and the ignition key should be removed. 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.
- ▲ 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.
- ▲ If the work is being performed on the vehicle's air brake system, or any auxiliary pressurized air systems, make certain to drain the air pressure from all reservoirs before beginning ANY work on the vehicle. If the vehicle is equipped with a Bendix® AD-IS® air dryer system, a Bendix® DRM™ dryer reservoir module, or a Bendix® AD-9si® air dryer, be sure to drain the purge reservoir.
- ▲ Following the vehicle manufacturer's recommended procedures, deactivate the electrical system in a manner that safely removes all electrical power from the vehicle.
- ▲ Never exceed manufacturer's recommended pressures.

- ▲ Never connect or disconnect a hose or line containing pressure; it may whip and/or cause hazardous airborne dust and dirt particles. Wear eye protection. Slowly open connections with care, and verify that no pressure is present. Never remove a component or plug unless you are certain all system pressure has been depleted.
- ▲ Use only genuine Bendix® brand replacement parts, components and kits. Replacement hardware, tubing, hose, fittings, wiring, etc. must be of equivalent size, type and strength as original equipment and be designed specifically for such applications and systems.
- ▲ Components with stripped threads or damaged parts should be replaced rather than repaired. Do not attempt repairs requiring machining or welding unless specifically stated and approved by the vehicle and component manufacturer.
- ▲ Prior to returning the vehicle to service, make certain all components and systems are restored to their proper operating condition.
- ▲ For vehicles with Automatic Traction Control (ATC), the ATC function must be disabled (ATC indicator lamp should be ON) prior to performing any vehicle maintenance where one or more wheels on a drive axle are lifted off the ground and moving.
- The power MUST be temporarily disconnected from the radar sensor whenever any tests USING A DYNAMOMETER are conducted on a vehicle equipped with a Bendix® Wingman® system.

▲ You should consult the vehicle manufacturer's operating and service manuals, and any related literature, in conjunction with the Guidelines above.

#### DISASSEMBLY

Locate the Electronic Control Unit (ECU) mounting bracket (1) on the vehicle and identify the application as one of the following:

Type A - Bracket with an ECU (See Figure 2.)

Type B - Bracket with an ECU and a Bendix<sup>®</sup> DC-4<sup>®</sup> Double Check Valve (See Figure 3.)

Type C - Bracket with an ECU and Bendix® TP-5™ Tractor Protection Valve (See Figure 4.)

#### For configuration Type A, go to step 3

- If a TP-5 tractor protection valve or DC-4 double check valve is mounted on the ECU bracket, opposite the ECU, it must be removed before the bracket can be removed from the dash panel.
- 2. Identify and mark all the mounting holes and the air lines and their connections on the valve (TP-5 tractor protection valve or DC-4 double check valve) for easy reassembly. All of the ports contain push-to-connect fittings. To disconnect, push the fitting toward the valve with one hand and pull the air line out, away from the valve, with the other.
- Remove the mounting hardware that secures the ECU to the mounting bracket (1). The ECU wire harness can be disconnected, but in most cases will not be necessary. If it is necessary to disconnect the wire harness, be sure to disconnect the power source first.

#### For configuration Type A, skip step 4, go to step 5

- Remove and retain the mounting hardware that secures the Bendix<sup>®</sup> TP-5<sup>™</sup> Tractor Protection Valve or DC-4<sup>®</sup> Double Check Valve to the bracket.
- 5. Remove the two flange nuts (2) that secure the ECU mounting bracket (1) to the dash panel. Discard the nuts and mounting bracket.

#### **ASSEMBLY**

See Figures 2-4 as applicable.

1. Align the mounting bracket holes with the mounting studs in the dash panel. Secure with the new flange nuts (2) and tighten to 200-280 in-lbs.

#### For configuration Type A, go to step 4

- 2. If a TP-5 tractor protection valve or DC-4 double check valve was removed, reinstall the valve using the removed hardware. Tighten to 80-120 in-lbs.
- 3. Reconnect the air lines. Push the fitting in, towards the valve and insert the air line. When the air line can't be inserted further, pull back on the fitting to secure.
- 4. Using the ECU mounting bolts, install the ECU on the mounting bracket. Tighten to 77-95 in-lbs (98 in-lbs maximum).
- 5. If the wire harness was disconnected during the disassembly process, reconnect exercising caution to prevent damage to the pins.
- 6. Reconnect the power source if previously disconnected.

#### **TESTING THE VEHICLE**

Build the system pressure to governor cut-out. Inspect for leakage and verify that the ECU and all components that were disconnected during this installation are functioning properly. Refer to the service procedures outlined by International®.

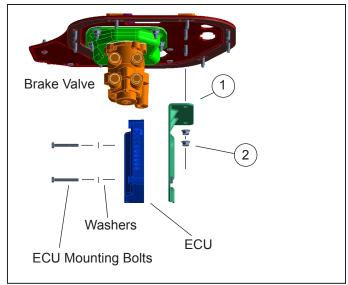


Figure 2 – (Type A) Bracket with ECU

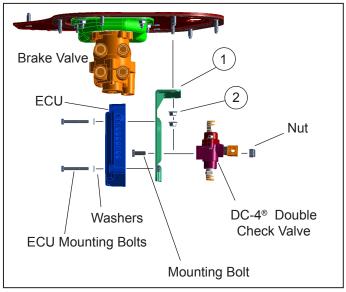


Figure 3 – (Type B) Bracket with ECU and a DC-4 Double Check Valve

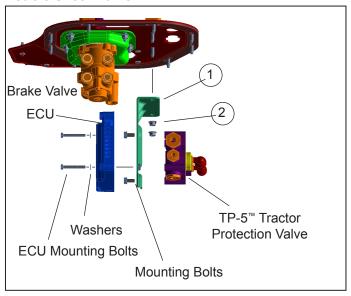


Figure 4 – (Type C) Bracket with ECU and TP-5 Tractor Protection Valve





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