

# PARTS & SERVICE NEWS

REF NO.	AA97179
DATE	October 21, 1997

Page 1 of 2

**SUBJECT:** ADDING DIODE TO AIR CONDITIONER COMPRESSOR CIRCUIT

**PURPOSE:** To prevent surges or stray voltage from affecting other electrical components.

**APPLICATION:** GD530A Graders Serial Number 200840 thru 203240  
 GD530AW Graders Serial Number 200840 thru 203240  
 GD650A Graders Serial Number 200840 thru 203240  
 GD650AW Graders Serial Number 200840 thru 203240  
 GD670A Graders Serial Number 200840 thru 203240  
 GD670AW Graders Serial Number 200840 thru 203240  
 830 Graders Serial Number 100496 thru 203240  
 850 Graders Serial Number 100477 thru 203240  
 870 Graders Serial Number 100481 thru 203240

**DESCRIPTION:**

**Introduction:**

During normal grading operations with an air conditioner on, the transmission may lose a gear. This condition can happen when the air conditioner clutch disengages. As the electro-magnetic field in the clutch coil decays, it can interfere with the transmission shifter causing the transmission to shift out of gear. Normally the shifter can be shifted into another gear and/or shifted back into the original gear to correct the condition. The diode prevents the operation of the air conditioner clutch from affecting the transmission shifter.

It is also recommended that an engine-to-frame ground wire be added to the grader per **Parts & Service News AA97180**.

This presents the procedure for installing a diode in the air conditioner compressor circuit. Kit 14391111 is available consisting of the following:

Part Number	Qty.	Description
1437616H1	1	Diode Assembly
140601	1	Connector

**NOTE:** This is a product improvement **not** subject to campaign.

## INSTALLING DIODE INTO AIR CONDITIONER COMPRESSOR CIRCUIT

1. Locate 1433081H91 electrical power cable (1, Figure 1) connected to air conditioner compressor.
2. Cut cable approximately 3" from connector (2); strip insulation back 1/4" from cut ends.
3. Clean area around compressor mounting bolt (2, Figure 2) of dirt, rust and paint. Attach ring terminal end of 1437616H1 diode assembly (1) to the mounting bolt (2). Use lubriplate or other electrical grease.

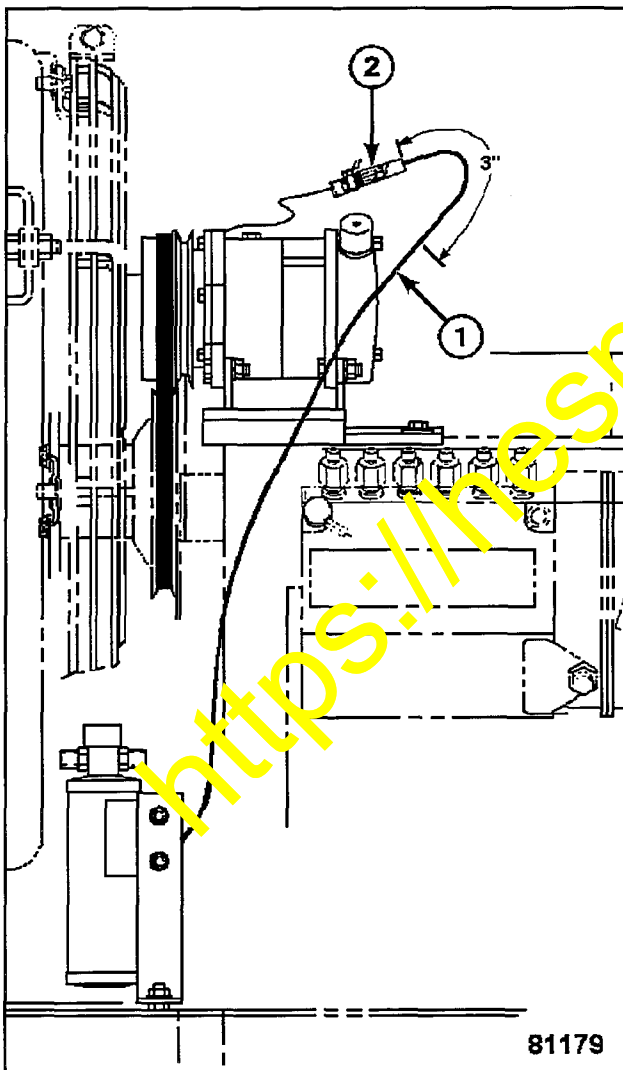


Figure 1

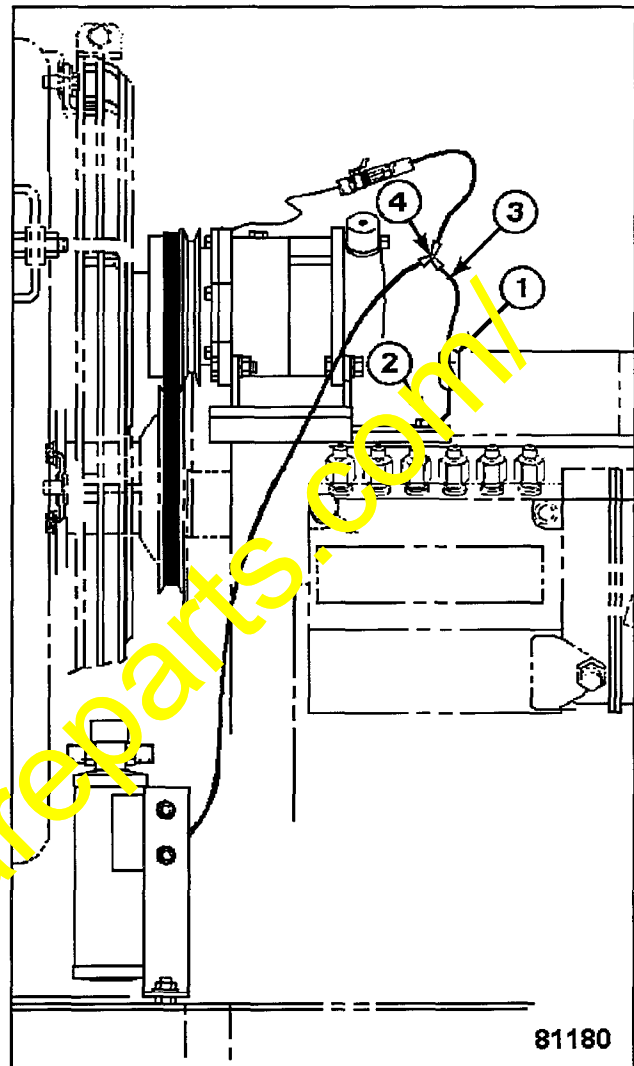


Figure 2

4. Strip insulation back 1/4" from end of wire lead (3) on diode assembly.
5. Assemble three stripped wire ends into 140601 wire connector (4) and crimp.
6. Tightly wrap connector and wire lead together with electrical tape.