



US Department
of Transportation
Federal Aviation
Administration

MAJOR REPAIR AND ALTERATION (Airframe, Powerplant, Propeller, or Appliance)

Form Approved
OMB No. 2120-0020

For FAA Use Only

Office Identification

WP-27 MB

INSTRUCTIONS: Print or type all entries. See FAR 43.9, FAR 43 Appendix B, and AC 43.9-1 (or subsequent revision thereof) for instructions and disposition of this form. This report is required by law (49 U.S.C. 1421). Failure to report can result in a civil penalty not to exceed \$1,000 for each such violation (Section 901 Federal Aviation Act of 1958).

1. Aircraft	Make Republic	Model RC-3
	Serial No. 1000	Nationality and Registration Mark N5166B
2. Owner	Name (As shown on registration certificate) Davey Darrell L Davey Deborah A	Address (As shown on registration certificate) 6613 Santa Rosa Rd Camarillo Ca 93012-5672

3. For FAA Use Only

*Ignition Switch &
diode*

The data identified herein complies with the applicable airworthiness requirements and is approved for the above described aircraft, subject to conformity inspection by a person authorized in FAR 43, Section 43.7

8 Sep 99 *Michael G. Behm*
DATE SIGNATURE OAK-FSDO

4. Unit Identification

Unit	Make	Model	Serial No.	5. Type	
				Repair	Alteration
AIRFRAME	<i>~~~~~ (As described in Item 1 above) ~~~~~</i>				<input checked="" type="checkbox"/>
POWERPLANT					
PROPELLER					
APPLIANCE	Type				
	Manufacturer				

6. Conformity Statement

A. Agency's Name and Address Kenneth L. Thompson PO Box 411 Vineburg, Ca. 95487	B. Kind of Agency <input checked="" type="checkbox"/> U.S. Certificated Mechanic <input type="checkbox"/> Foreign Certificated Mechanic <input type="checkbox"/> Certificated Repair Station <input type="checkbox"/> Manufacturer	C. Certificate No. 545767051
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D. I certify that the repair and/or alteration made to the unit(s) identified in item 4 above and described on the reverse or attachments hereto have been made in accordance with the requirements of Part 43 of the U.S. Federal Aviation Regulations and that the information furnished herein is true and correct to the best of my knowledge.

Date 9-8-99	Signature of Authorized Individual <i>Kent Thompson</i>
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7. Approval for Return To Service

Pursuant to the authority given persons specified below, the unit identified in item 4 was inspected in the manner prescribed by the Administrator of the Federal Aviation Administration and is **APPROVED** **REJECTED**

BY	FAA Flt. Standards Inspector	Manufacturer	<input checked="" type="checkbox"/> Inspection Authorization	Other (Specify)
	FAA Designee	Repair Station	Person Approved by Transport Canada Airworthiness Group	
Date of Approval or Rejection 9-8-99		Certificate or Designation No. 552273581	Signature of Authorized Individual <i>Douglas P. Smith</i>	

NOTICE

Weight and balance or operating limitation changes shall be entered in the appropriate aircraft record. An alteration must be compatible with all previous alterations to assure continued conformity with the applicable airworthiness requirements.

8. Description of Work Accomplished

(If more space is required, attach additional sheets. Identify with aircraft nationality and registration mark and date work completed.)

Republic RC-3 N5166B Ser#1000

2. Description: Replaced original ignition switch with ACS ignition switch part# A-510-2 and starter solenoid surge suppressor diode part# 16050-2 in accordance with installation instructions ACS-520, rev. A dated 4-30-93. AD 93-05-06 (ACS ignition switches) applies to this installation.
3. Control, operation information: Reference installation instructions ACS-520, rev. A dated 4-30-93.
4. Servicing information: N/A
5. Maintenance instructions: Must be inspected annually in accordance with FAR 43 appendix D.
6. Trouble shooting information: N/A
7. Removal and replacement information: N/A
8. Diagrams: N/A
9. Special inspection requirements: N/A
10. Application of protective treatments: N/A
11. Data: N/A
12. List of special tools: N/A
13. For commuter category aircraft: N/A
14. Recommended overhaul periods: No additional overhaul time limitations
15. Airworthiness limitation section: No additional airworthiness limitations
16. Revision: A letter will be submitted to the local FSDO with a copy of the revised FAA form 337

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Additional Sheets Are Attached

RC-3

NS16GB

SIN 1000

STARTER SOLENOID SURGE SUPPRESSOR DIODE

INSTALLATION INSTRUCTIONS

ACS Service Bulletin SB92-01 requires that a surge suppressor diode be connected across the solenoid coil of a starter relay when an A-510-2 ignition switch is installed. The instructions in Sections 2 and 3 describe the installation of the diode assembly, P/N 16050-2 in one-terminal and two-terminal solenoid coils of starter relays such as those used in many Cessna type aircraft. Other aircraft may have starter relays which differ in external appearance from those illustrated in Figures 1 and 2, but the general method of installation remains basically the same, i.e., the small ring terminal of the diode assembly (with a red shrink tubing band near the small terminal) is to be attached to the positive (starter switch) terminal of the solenoid coil of the starter relay and the large ring terminal (with black shrink tubing covering the diode lead) is to be attached to ground. "Ground" may be a ground terminal on a two-terminal solenoid coil or the case of the relay for a single-terminal coil.

The length of the diode assembly has been designed to fit the one-terminal and two-terminal coils of Cessna-type starter relays. If your installation requires a different length diode assembly, please contact ACS Products Company. Phone: (602) 855-8613.

1. Preliminary Operations:

Install customer-furnished starter relay & an ACS A-510-2 ignition switch, plus all required wiring to these items, then proceed to Step No. 2 or Step No. 3.

CAUTION! The ignition switch must be in the "Off" position and the leads to the left and right magnetos must be connected to the ignition switch during installation of the diode assembly to prevent the engine from firing if the propeller is moved.

2. Installation of Diode Assembly on Starter Relay with One Solenoid Coil Terminal:

- a. Refer to Figure 1. Remove one mounting bolt and hardware from the starter relay mounting base.
- b. Place the large ring terminal of the diode assembly (this end of the diode assembly has a black shrink tube cover over the diode lead) on the mounting bolt and reinstall mounting bolt through relay mounting base and firewall.
- c. Remove the nut and washer from the starter switch terminal on the starter relay.
- d. Install the small ring terminal of the diode assembly on the starter switch terminal of the relay (this end of the diode assembly has a red shrink tube band near the ring terminal). Reinstall the washer and nut on the terminal.

NOTE: The stepped washer in the diode kit is not used in this installation.

3. Installation of Diode Assembly on Starter Relay with Two Solenoid Coil Terminals:

- a. Refer to Figure 2. Remove the nut and washer from the positive (starter switch) terminal on the starter relay.
- b. Place the small terminal of the diode assembly on the positive terminal (this end of the diode assembly has a red shrink tube band near the ring terminal). Reinstall the washer and nut on the terminal.
- c. Remove the nut and washer from the ground terminal on the starter relay.
- d. Place the stepped washer on the ground terminal, with the flat face of the washer toward the base of the ground terminal stud.
- e. Place the large ring terminal of the diode assembly over the stepped washer (this end of the diode assembly has a black shrink tube cover over the diode lead).
- f. Reinstall the washer and nut on the ground terminal, being careful to have the ring terminal centered on the stepped washer.

FINAL CHECK & LOGBOOK ENTRY

1. Verify that the ignition switch has been lubricated per ACS Service Bulletin SB92-01 (indicated by red lacquer in the heads of the two screws on back of switch).

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RC-3 NS166B SIN 1000

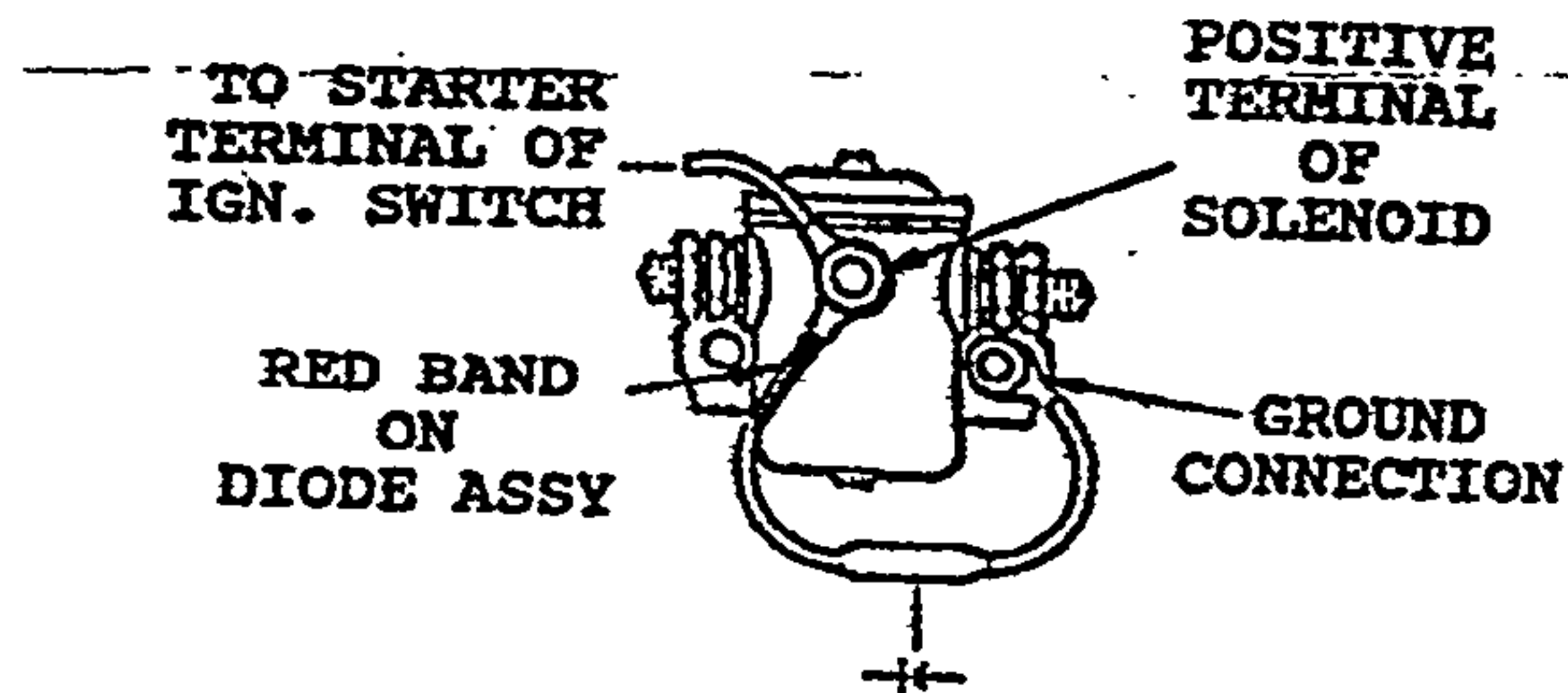


Figure 1. Installation of Diode Assy on Starter Relay with One Solenoid Terminal

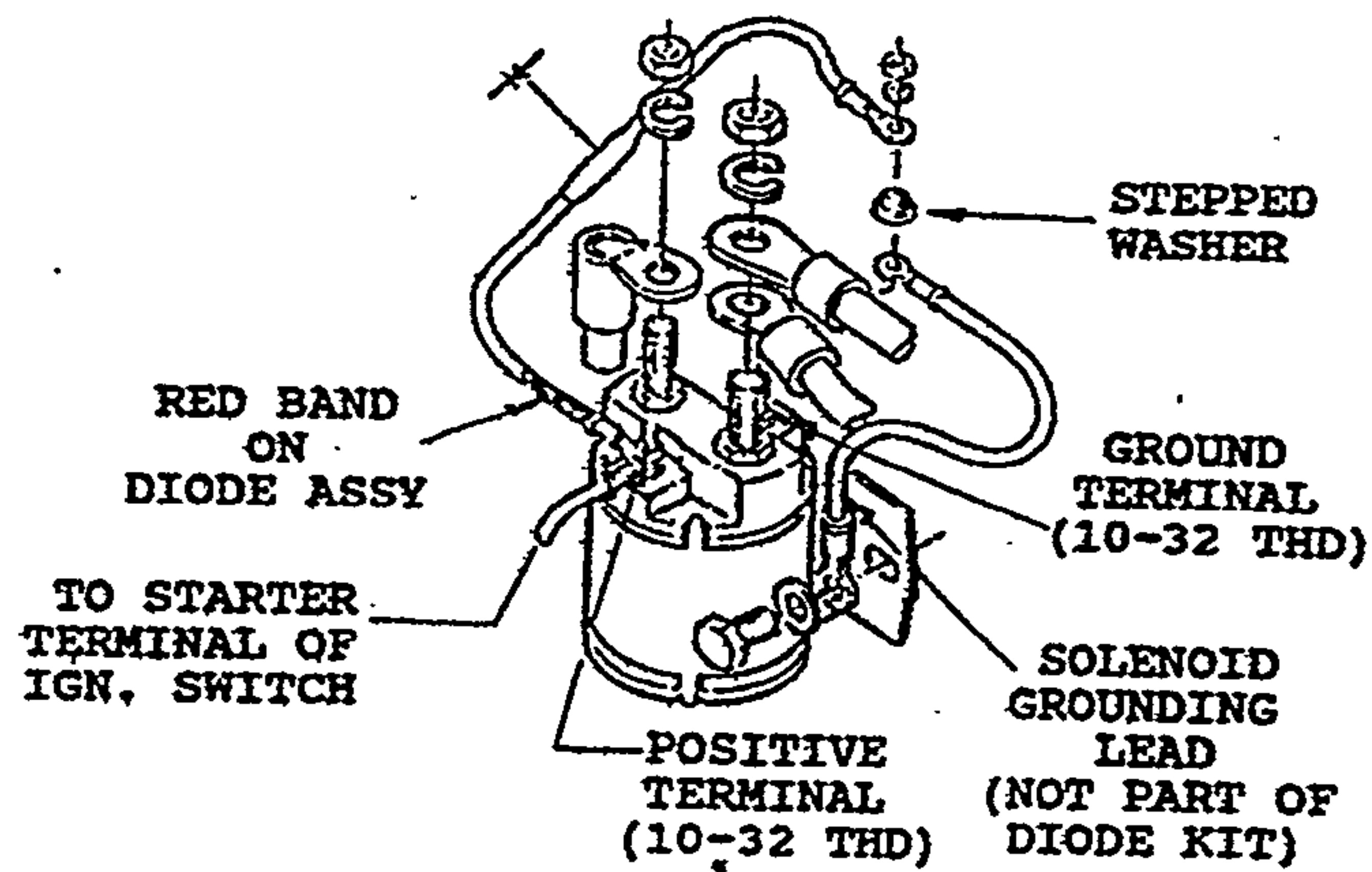


Figure 2. Installation of Diode Assy on Starter Relay with Two Solenoid Terminals

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