CANCELLED

ACCESSORY Kit

AK177-69D
AUGUST 10, 1976

Title GROUND SERVICE RECEPTACLE INSTALLATION

Cessna

MODELS AFFECTED	SERIALS AFFECTED
177	17700001 thru 17702522

NOTES

The following additional parts are required for completion of this kit for the effective serial blocks shown below and may be ordered from the Cessna Service Parts Center.

Aircraft serials 17700001 thru 17701164 order the following:

QTY	PART NUMBER	NOMENCLATURE
1	1770010-1	Bus Bar Assembly
1	1713134-1	Stiffener
1	1770001PA5	Cable Assy

Aircraft serials 17701165 thru 17702522 order the following:

QTY	PART NUMBER	NOMENCLATURE
1	1770010-3	Bus Bar Assembly
1	1713134-2	Stiffener

Aircraft serials 17700001 thru 17701355 order the following:

QTY	PART NUMBER	NOMENCLATURE
1	0553005-1	Bracket

Aircraft serials 17701356 thru 17702522 order the following:

QTY	PART NUMBER	NOMENCLATURE
1	0553005-2	Bracket

PARTS LIST:

QUANTITY	PART NUMBER	NOMENCLATURE
1	MS3506-1	Receptacle
4	AN3-3A	Bolt
2	AN341-10	Nut
2	AN510-10R14	Screw
2	AN935-10L	Washer
2	MS20365-1032	Nut
1	MS25171-1S	Nipple
1	MS25171-3S	Nipple
2	NAS697A3K	Nutplate
1	S1367-1-10	Terminal
2	S1367-1-13	Terminal
3	S1493-1	Terminal
10 ft	S1460-18-9	Wire
2 ft	S1460-18-4	Wire (YEL)
2 ft	S1460-18-5	Wire (GRN)
1	S1660-1	Contactor
2	S1693-2	Sta-Strap
2	S1807-1	Cover
1	0312155-10	Ground Strap
1	0712031-3	Fuse and Diode Assembly
1	0752610-1	Doubler Assembly
1	0752611-1	Door Assembly
1	1205024-1	Placard

PART LIST (CONT.):

QUANTITY	PART NUMBER	NOMENCLATURE
1	1570043-3	Diode Board Assembly
1	1770001-PC1	Cable Assembly
1	1770001-PA4	Cable Assembly
1		Installation Instructions

CHANGE IN WEIGHT AND BALANCE:

WEIGHT INCREASE	2.5 pounds	(NET CHANGE)
ARM	66.0 inches	
RESULTANT MOMENT	165.0 inch-pounds	
INDEX	0.165	

1. DESCRIPTION OF INSTALLTION.

a. (Refer to figure 1.) Installation of this kit consists of:

(1) Installing stiffener and bracket on firewall.

(2) Installing receptacle and diode board.

(3) Installing doubler assembly and access door on lower cowl.

(4) Installing receptacle contactor on firewall.

(5) Installing fuse and diode assembly on battery box.

(6) Fabricating and installing the necessary wiring.

2. INSTALLATION INSTRUCTIONS.

a. (Refer to figure 2, sheet 2.) Stiffener and Bracket Installation.

CAUTION

Before beginning installation of this kit disconnect and remove battery from aircraft.

(1) Remove engine cowl.

(2) Remove necessary floor covering by pilot's rudder pedals to gain access to firewall and any other items that could be damaged by drilling operations.

(3) (Refer to figure 3.) In accordance with dimensions shown and illustration, remove existing rivets (1) and (4).

(4) (Refer to figure 2, sheet 2.) Align stiffener (12) with holes (1) and (4), Figure 3.

(5) Using stiffener (12) as a guide, drill remaining #30 (.128) holes in firewall.

(6) Install stiffener (12) on aft side of firewall (15) using rivets (14). (Refer to figure 3 for two open holes).

(7) In accordance with dimensions shown locate bracket (21) and drill four #30 (.128) holes.

(8) Using rivets (17) secure bracket to firewall as shown.

b. (Refer to figure 2, sheet 2.) Receptacle and Diode Board Installation.

(1) Remove and retain washers and nuts (23) from base of receptacle (22).

(2) Position receptacle (22) in bracket (21) with small post down, and install screws (16) and nuts (6).

(3) Position ground strap (13) under upper nut (6) and over upper large receptacle stud as shown. Secure nuts (6).

(4) Install nipple (25) on cable (26) and cable on middle stud as shown. Secure ground strap (13) and cable (26) with washers and nuts (23). Slide nipple over cable, terminal nut and stud.

(5) Install diode board (20) on small stud and secure.

NOTE

Be sure all electrical contacts are clean bare metal surfaces to ensure good connections

c. (Refer to figure 2, sheet 2.) Contactor Installation.

(1) In accordance with dimensions shown locate and drill holes (10)

(2) Align and install nutplates (11).

(3) Secure contactor (5) to firewall (15) using bolts (9).

(4) Install bus bar (27) to contactor (5) and (24) as shown. Secure with washer and nut (28), cover (8) and sta-strap (7).

(5) Connect cable (26) to contactor (5) as shown.

(6) Install nipple (5A) after fabricating wire from contactor (5) to diode board (20) as shown.

d. (Refer to figure 2, sheets 1 and 2.) Doubler and Access Door Installation.

(1) In accordance with dimensions shown locate and mark cutout on inside of cowl (1). Reinstall cowl and check alignment of receptacle and marked cutout. Make any adjustments necessary for proper alignment.

(2) Remove cowl and cut out marked area.

(3) Position doubler (4) so hole in doubler is concentric with cutout in cowl. Using doubler as guide drill ten #40 (.098) holes and secure doubler to cowl with rivets (18).

e. (Refer to figure 4.) Fuse and Diode Installation.

(1) In accordance with illustration locate existing holes in battery box and install fuse and diode bracket using bolts, washers and nuts (5).

NOTE

If aircraft is equipped with an electric clock, remove and discard existing clock fuse and assembly.

f. (Refer to figure 4.) Wiring Installation.

(1) Fabricate and install wiring as shown in accordance with wiring diagram.

3. OPERATIONAL CHECKOUT.

a. Check operation of ground service plug installation as follows:

CAUTION

- Because this aircraft incorporates a negative battery-to-ground electrical system, care should be taken that external power source incorporates the same polarity.

- Ensure that everything and everyone is clear of propeller during operational checkout.

(1) Connect a rectifier-power supply to the receptacle so that "+" is connected to large center pin and to the small short pin in the receptacle. Negative lead connects to the large pin inside the receptacle.

(2) Turn off the ship's master switch. Turn off all electrical and electronic equipment that have power switches.

(3) Slowly increase voltage output of rectifier-power supply from "0" to rated system voltage, 12 volts. Listen for possible chattering of starter contactor due to miswired and/or shorted diode located near split bus bar relay.

(4) Other evidence of incorrect circuit will be high current output from rectifier-power supply due to starter contactor closing.

(5) Start engine to determine power source is functioning correctly.

(6) If engine starts function of power supply is correct. Stop engine.

(7) Reinstall all previously removed items and equipment.

(8) (Refer to figure 2.) Apply placard (3) to inside of door (2) and install door on cowl.

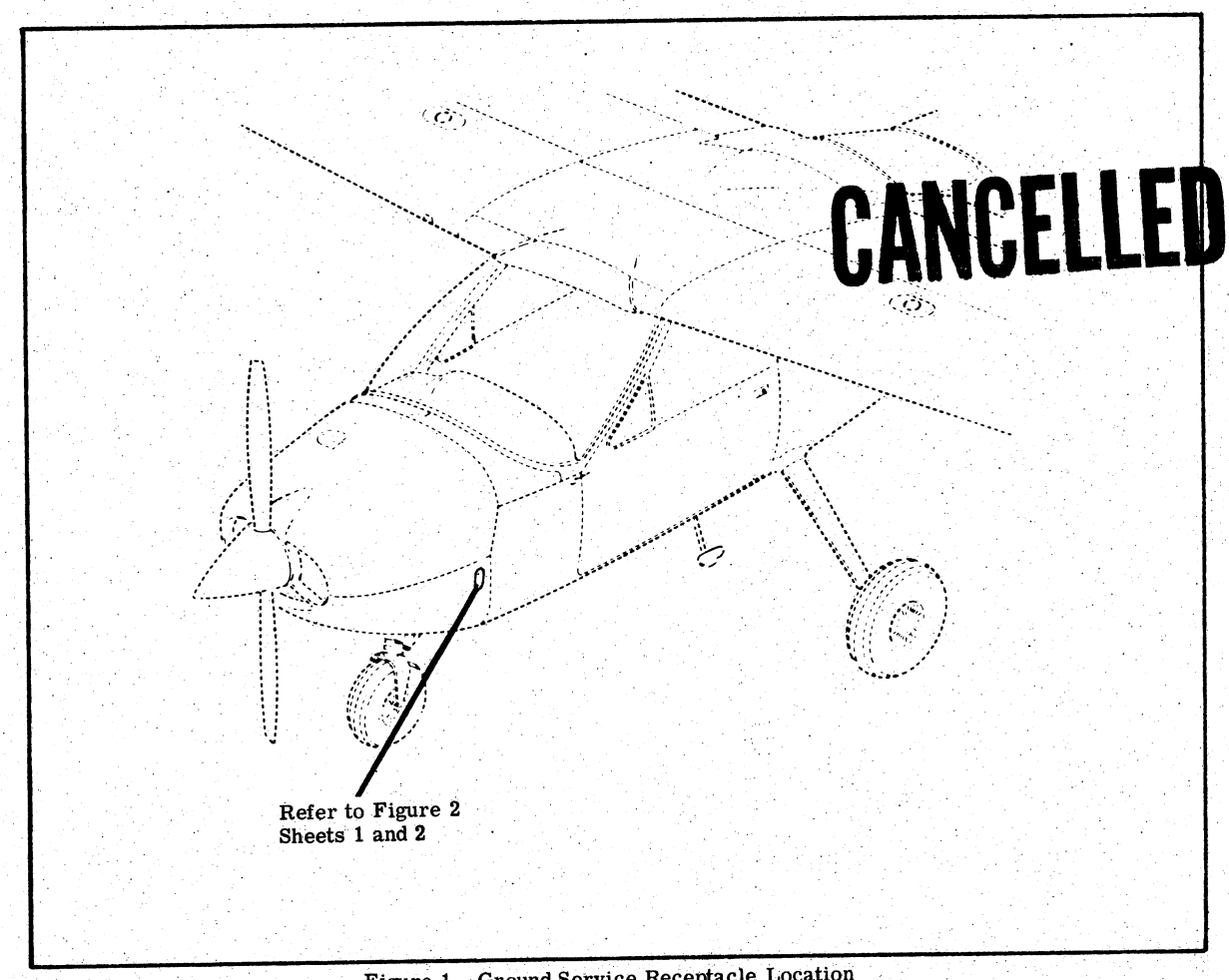


Figure 1. Ground Service Receptacle Location

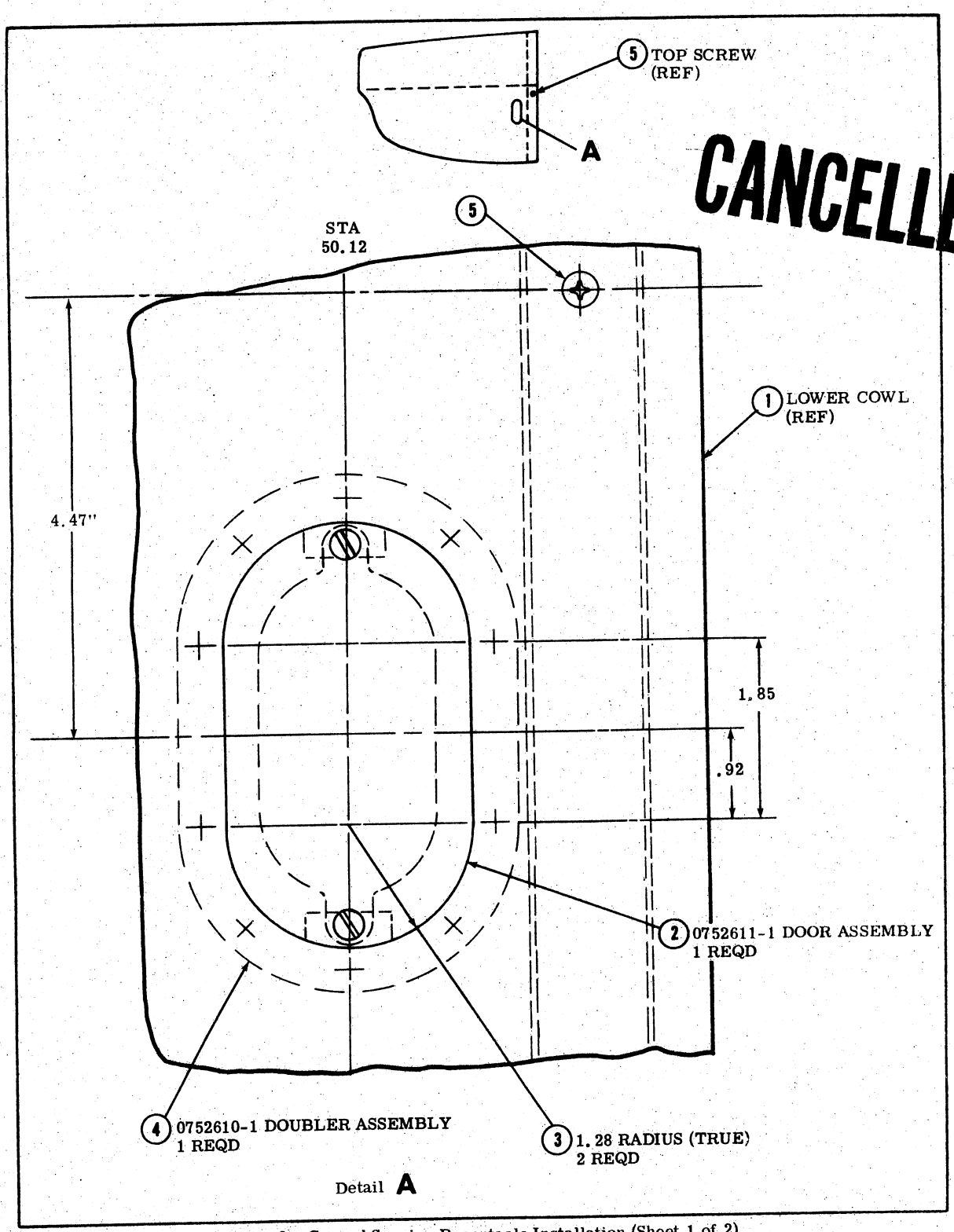


Figure 2. Ground Service Receptacle Installation (Sheet 1 of 2)

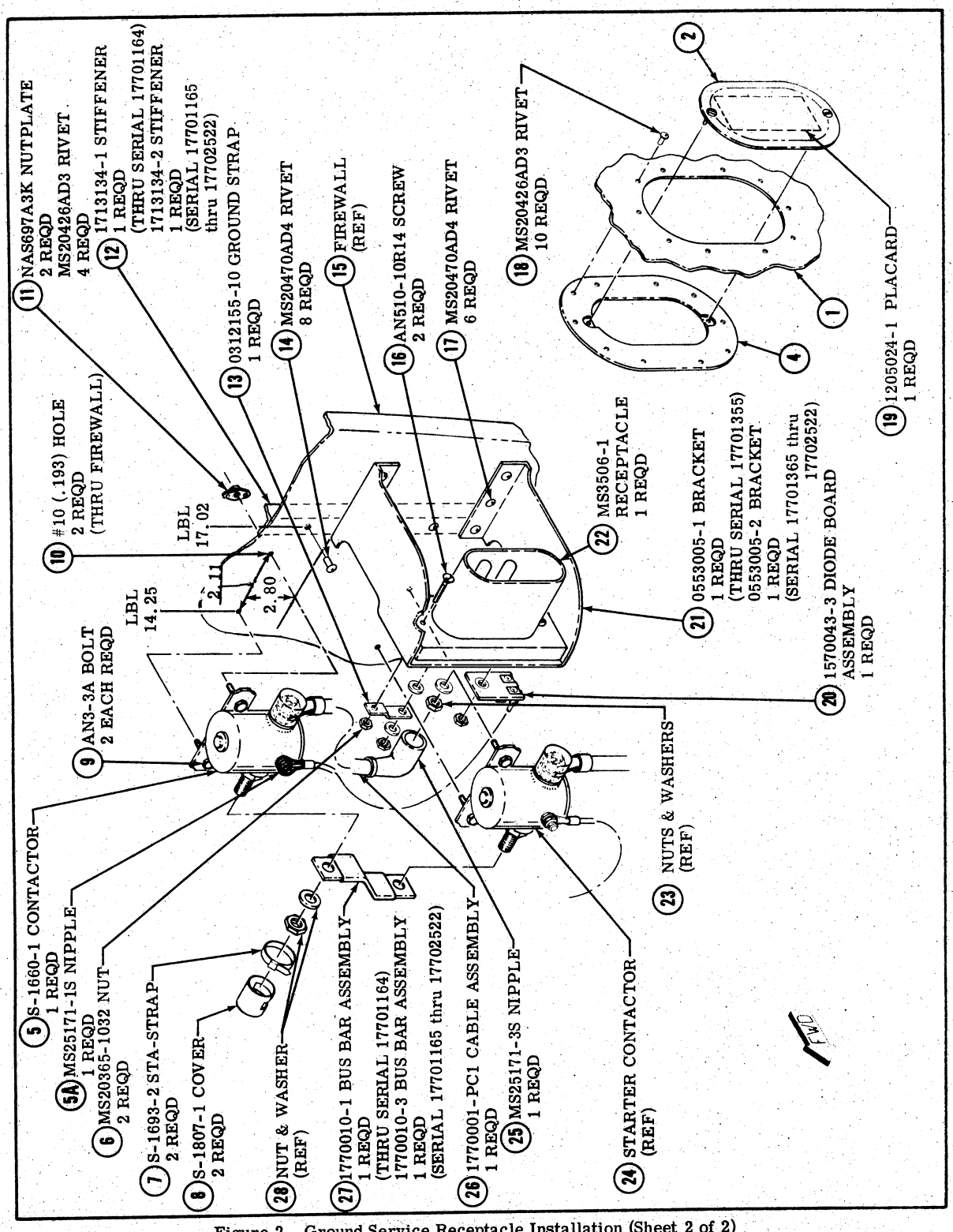


Figure 2. Ground Service Receptacle Installation (Sheet 2 of 2)

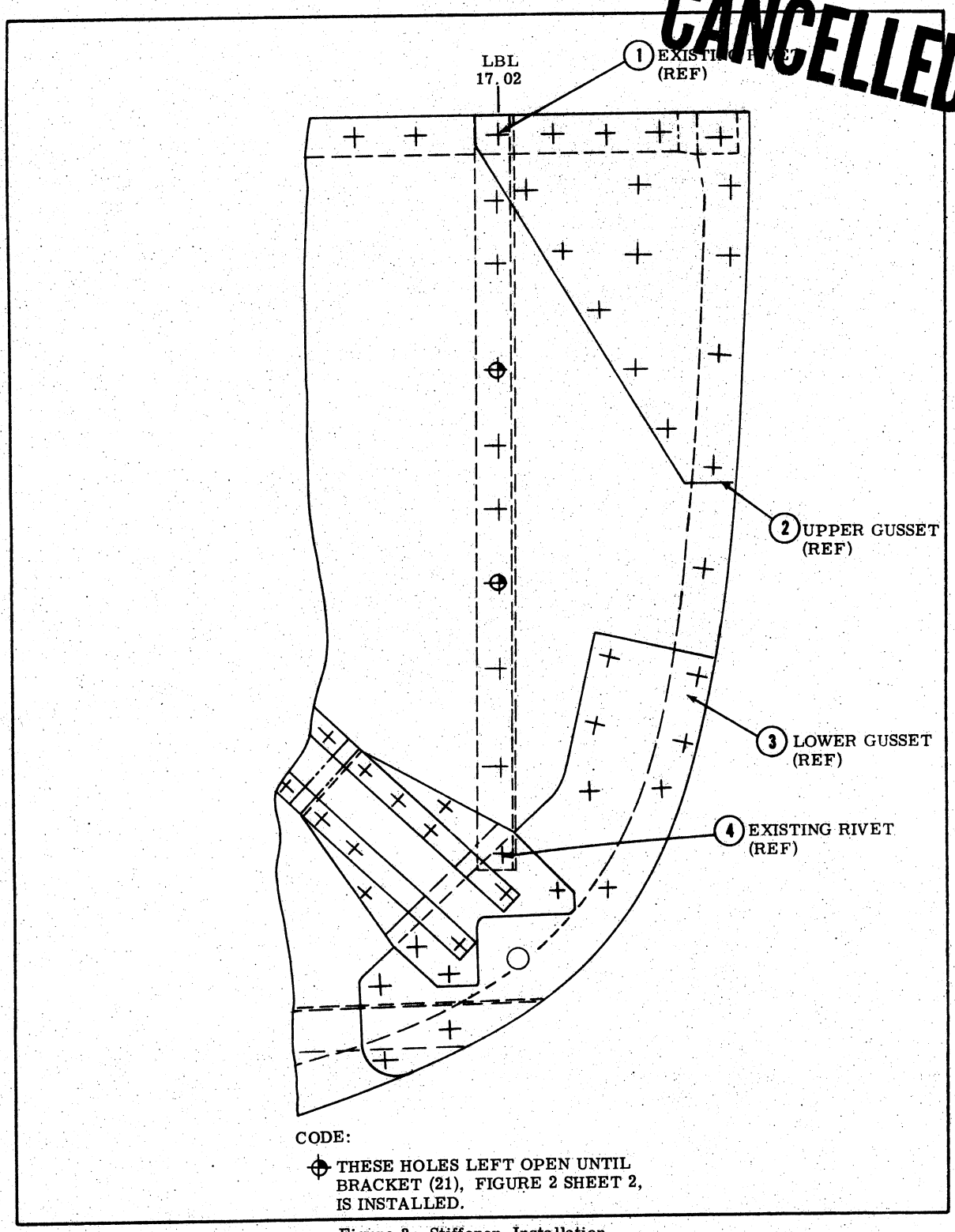


Figure 3. Stiffener Installation

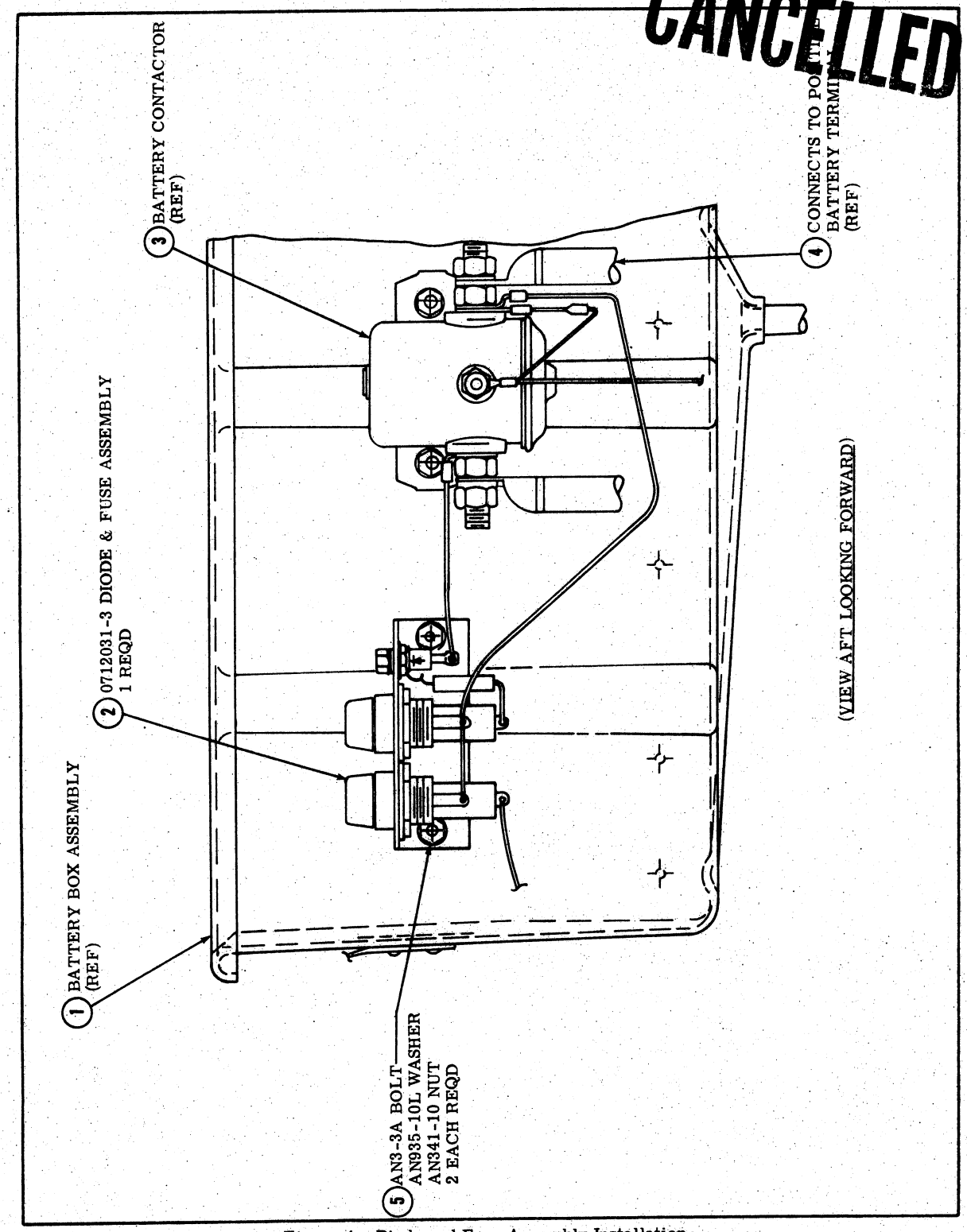
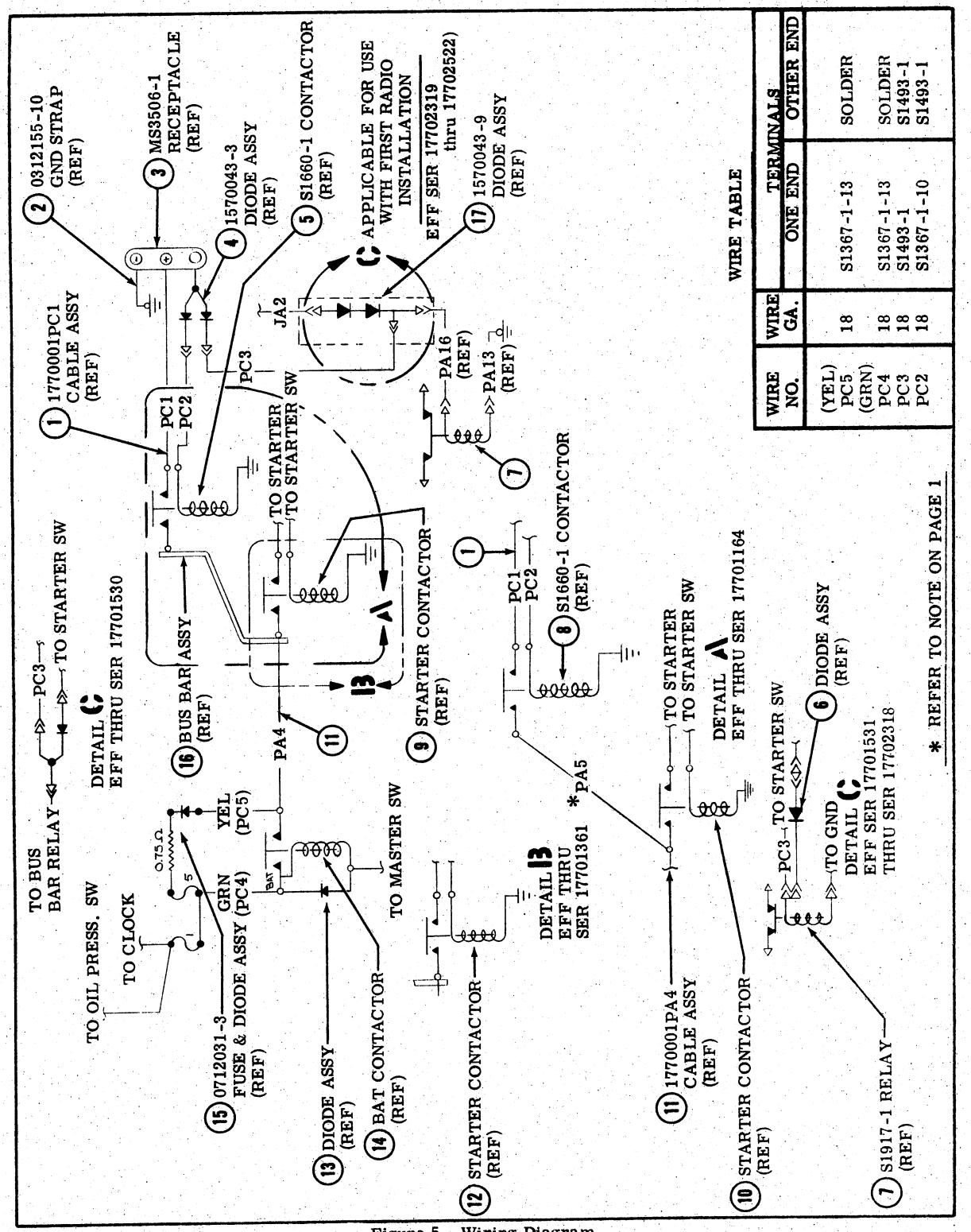


Figure 4. Diode and Fuse Assembly Installation



WIRE TABLE

WIRE NO.	WIRE GA.	TERMINALS ONE END	TERMINALS OTHER END
(YEL) PC5	18	S1367-1-13	SOLDER
(GRN) PC4	18	S1367-1-13	SOLDER
PC3	18	S1493-1	S1493-1
PC2	18	S1367-1-10	S1493-1

Figure 5. Wiring Diagram