

- 1—Connector P9
- 2—Connector P8
- 3—Connectors P1 and P2
- 4—Tapped delay line
- 5—RF cable assembly
- 6—Radar modulator
- 7—Magnetron electron tube
- 8—Connector P2
- 9—Connector P3
- 10—Connector P11
- 11—Connector P4
- 12—Connector P5
- 13—Connector P10
- 14—Connector P12
- 15—Connectors P4 and J4
- 16—Connector P7
- 17—Amplifier-decoder
- 18—Connectors J1 and P13

Figure 42. Receiver-transmitter—cable connectors.

**b. Installation.**

- (1) Hold the crystal unit by the ground (large end) and carefully insert the crystal unit into the chuck (17).
- (2) Use the crystal seating plug (1) and seat the rectifying crystal unit in the chuck.
- (3) Insert the chuck, containing the rectifying crystal unit and seating plug, into the RF detector (4).
- (4) Install the cap (2) and tighten firmly.
- (5) Install the simulator test set in the shell (par. 34d).

**38. Replacement of the Radar Modulator**

*Note.* The key numbers shown in parentheses in *a* below refer to figure 41 unless otherwise indicated.

**a. Removal of the Pulse Delay Network.**

- (1) Remove the simulator test set from the shell (par. 34a).
- (2) Disconnect the connectors from J3 and J5 (fig. 40, and 7 and 3) on the delay line driver-detector.
- (3) Remove the two pan-head screws and lockwashers, and disconnect P2 (8, fig. 42) from J6 (4) on the delay line driver-detector.
- (4) Disconnect the connectors from J1 through J6 (1) on the pulse transfer relay.
- (5) Turn the clamp (2) and disconnect P3 from J1 (15, fig. 39) on the pulse delay network (8, fig. 39).
- (6) Remove three pan-head screws (19, fig. 39), lockwashers (20, fig. 39), and flat washers (21, fig. 39) and remove the pulse delay network.

*Note.* The key numbers shown in parentheses in *b* and *c* below refer to figure 44 unless otherwise indicated.

**b. Removal of the Radar Modulator.**

- (1) Release the connector clamp (14) and disconnect P1 (7) on the radar modulator from J1 (9) on the receiver-transmitter.
- (2) Disconnect P2 (3, fig. 42) on the radar modulator from P1 on the tapped delay line (4, fig. 42) and disconnect P4 (15, fig. 42) on the radar modulator from J4 on the magnetron electron tube (7, fig. 42).
- (3) Loosen the captive screw (13) that secures the tapped delay line to the radar modulator. Remove the fillister-head screw (10), lockwasher (11), and flat washer (12) that secure the tapped delay line (8) to the receiver-transmitter; remove the tapped delay line.
- (4) Loosen the captive screws (13) and remove the radar modulator (6).

**c. Installation of the Radar Modulator.**

- (1) Position the radar modulator (6) on the receiver-transmitter and secure with the three captive screws (13).

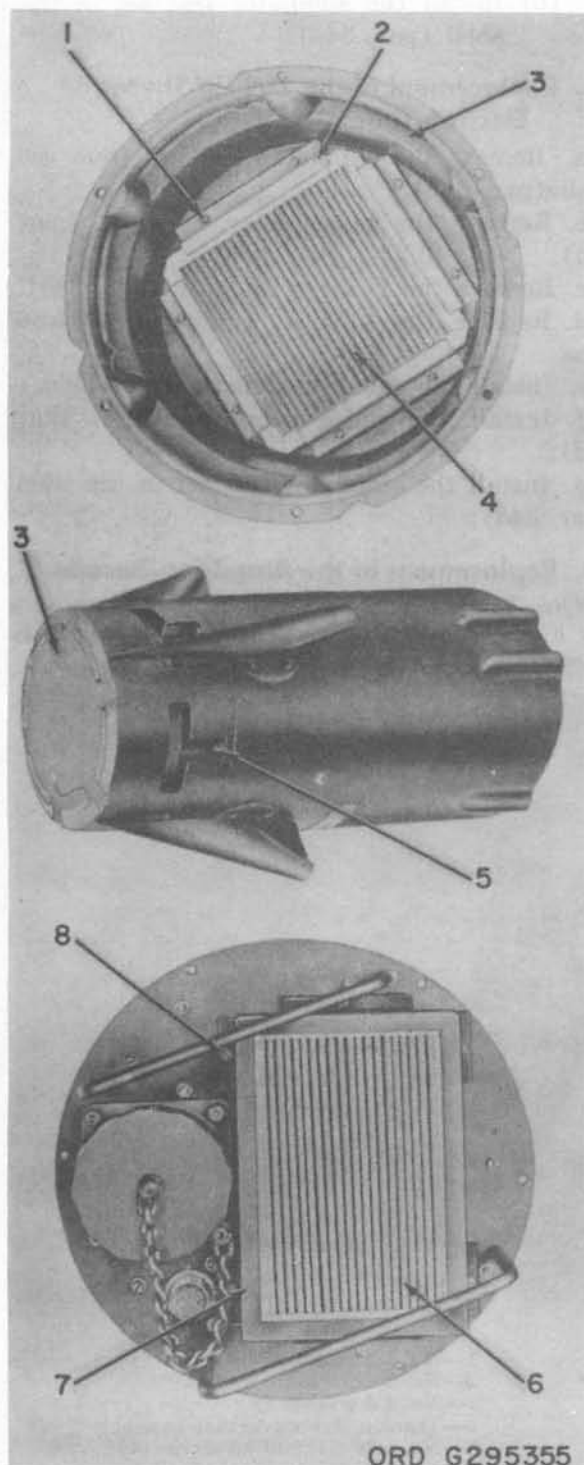


Figure 43. Flight simulator group—replacement of filters.

- (2) Position the tapped delay line (8) on the receiver-transmitter and secure it in position with the fillister-head screw (10), lockwasher (11), and flat washer (12); tighten the captive screw to secure the tapped delay line to the radar modulator.
- (3) Connect P1 (7) from the radar modulator to J1 on the receiver-transmitter; secure with the connector clamp.
- (4) Connect P4 (15, fig. 42) from the radar modulator to J4 on the magnetron electron tube (7, fig. 42).
- (5) Connect P2 (3, fig. 42) from the radar modulator to P1 on the tapped delay line (4, fig. 42).

*Note.* The key numbers shown in parentheses in *d* below refer to figure 39 unless otherwise indicated.

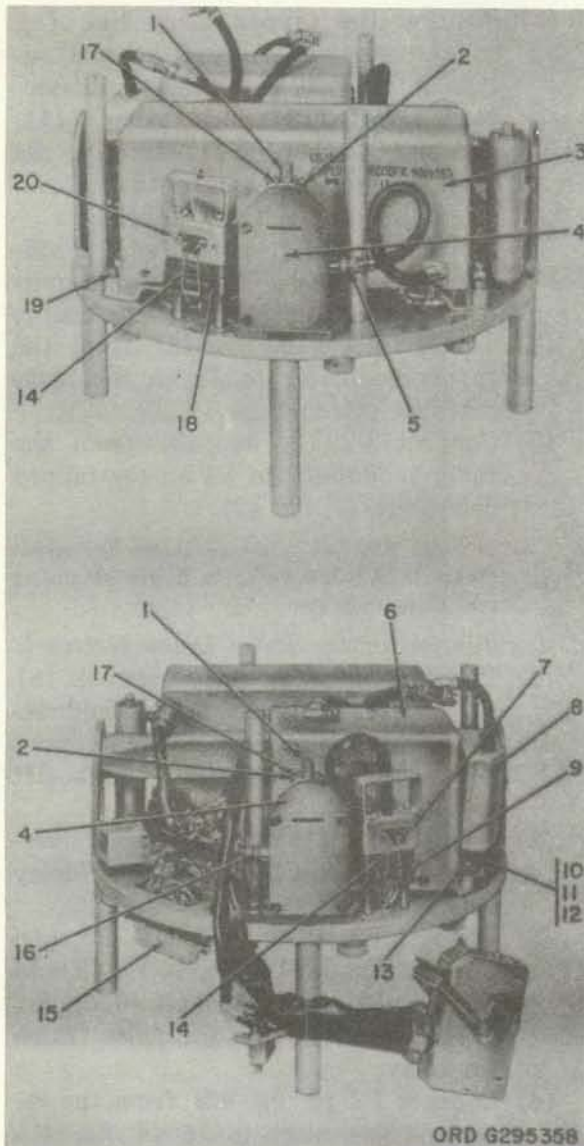
*d. Installation of the Pulse Delay Network.*

- (1) Position the pulse delay network (8) on the receiver-transmitter and secure with the three pan-head screws (19), lockwashers (20), and flat washers (21).
- (2) Connect P3 (15) from the receiver-transmitter to J1 on the pulse delay network.
- (3) Connect P7, P10, P11, P12, P5, and P4 (fig. 40, and 16, 13, 10, 14, 12, and 11, fig. 42) to J1 through J6 (1, fig. 41), respectively, on the pulse transfer relay.
- (4) Connect P2 (8, fig. 42) from the receiver-transmitter to J6 (4, fig. 41) on the delay line driver-detector.
- (5) Connect P8 and P9 (2 and 1, fig. 42) from the HERCULES signal data converter (11) to J3 and J5 respectively, (7 and 3, fig. 41) on the delay line driver-detector (1).

- 
- 1—No. 8-32 x 3/8 fil-hd screw 131963 (8), no. 8 lockwasher 121841 (8)
  - 2—Clamp 8007707 (4)
  - 3—Cap
  - 4—Exhaust air conditioning filter 9003200
  - 5—No. 12-24 x 7/8 fil-hd screw 132203 (6), 1/4-in. fl washer 446179 (6), no. 12 lockwasher 121744 (6)
  - 6—Intake air conditioning filter
  - 7—Filter holder 8511435
  - 8—No. 8-32 x 3/8 fil-hd screw 131963 (6), no. 8 lockwasher 8511435 (6)

Figure 43. Flight simulator group—replacement of filters—legend.





- 1—Crystal seating plug
- 2—Cap
- 3—Amplifier-decoder
- 4—RF detector (2)
- 5—Connectors P2 and J1
- 6—Radar modulator
- 7—Connector P1
- 8—Tapped delay line
- 9—Connector J1
- 10—No. 6-32 x 5/16 fil-hd screw
- 11—No. 6 lockwasher
- 12—No. 6 fl washer
- 13—Captive screw (4)
- 14—Connector clamp
- 15—Connector J2
- 16—Connectors P3 and J2
- 17—Chuck
- 18—Connector J3
- 19—Captive screw (4)
- 20—Connector P1

Figure 44. Receiver-transmitter—side view.

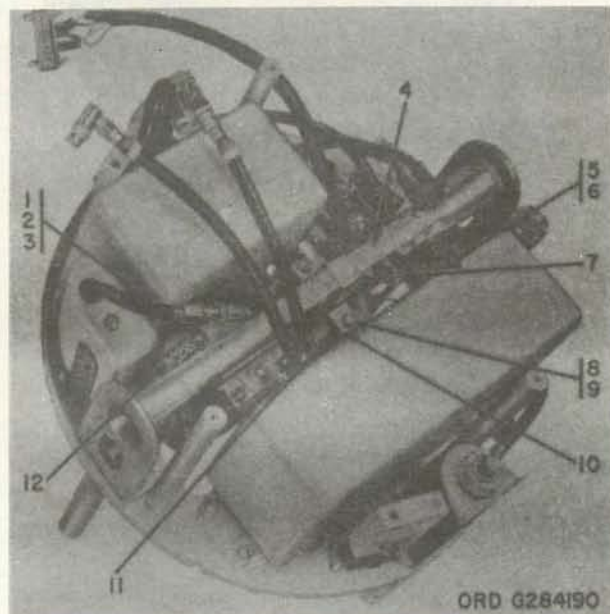
- (6) Install the simulator test set in the shell (par. 34d).

### 39. Replacement of the 2D21W Thyatron Electron Tube

- a. Remove the simulator test set from the shell (par. 34a).
- b. Remove the pulse delay network (par. 38a).
- c. Remove the radar modulator (par. 38b).
- d. Replace the 2D21W thyatron electron tube.
- e. Install the radar modulator (par. 38c).
- f. Install the pulse delay network (par. 38d).
- g. Install the simulator test set in the shell (par. 34d).

### 40. Replacement of the Amplifier-Decoder

*Note.* The key numbers shown in parentheses in *a* and *b* below refer to figure 44 unless otherwise indicated.



- 1—No. 8-32 x 1/2 fil-hd screw (4)
- 2—No. 8 lockwasher (4)
- 3—No. 8 fl washer (2)
- 4—Transmitter waveguide assembly
- 5—No. 8-32 x 1/2 fil-hd screw (4)
- 6—No. 8 lockwasher (4)
- 7—Bracket
- 8—No. 8-32 x 2 fil-hd screw (2)
- 9—No. 8 lockwasher (2)
- 10—Plate
- 11—Sleeve spacer (2)
- 12—Ground strap

Figure 45. Receiver-transmitter—top view.

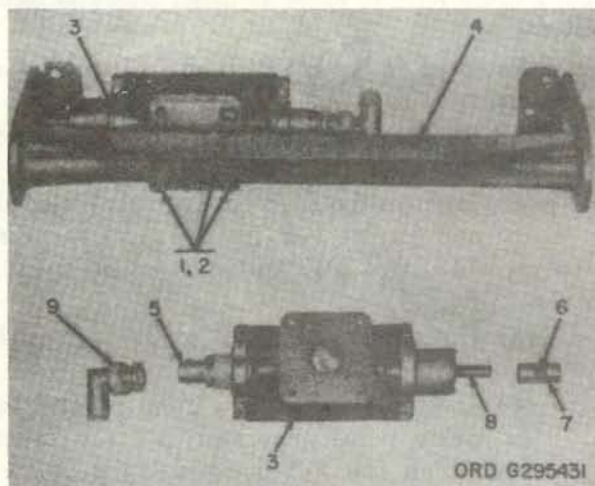


*a. Removal of the Amplifier-Decoder.*

- (1) Remove the simulator test set from the shell (par. 34a).
- (2) Remove the pulse delay network (par. 38a).
- (3) Remove the RF cable assembly (5, fig. 42) from the amplifier-decoder.
- (4) Disconnect P3 and P2 (16 and 5) from J2 and J1 on the RF detectors (4).
- (5) Release the connector clamp (14) and disconnect P1 (20) from J3 (18) on the receiver-transmitter.
- (6) Loosen the four captive screws (19) and remove the amplifier-decoder (3).

*b. Installation of the Amplifier-Decoder.*

- (1) Position the amplifier-decoder (3) on the receiver-transmitter and secure with the four captive screws (19).
- (2) Connect P1 (20) to J3 (18) on the receiver-transmitter and secure with the connector clamp (14).
- (3) Connect P13 (18, fig. 42) on the RF cable assembly (5, fig. 42) to J1 on the amplifier-decoder (17, fig. 42).



- 1—No. 8-32 x 1/2 fil-hd screw
- 2—No. 8 lockwasher
- 3—Magnetron electron tube
- 4—Transmitter waveguide assembly
- 5—Connector
- 6—Hex-socket setscrew
- 7—Sleeve bushing
- 8—Tuning shaft
- 9—Connector J4

Figure 46. Transmitter waveguide assembly and magnetron electron tube.

- (4) Connect P3 and P2 (16 and 5) from the amplifier-decoder to J2 and J1 respectively, on the RF detectors (4).
- (5) Install the pulse delay network (par. 38d).
- (6) Install the simulator test set in the shell (par. 34d).

#### 41. Replacement of the 6229 Magnetron Electron Tube

*a. Removal of the 6229 Magnetron Electron Tube.*

- (1) Remove the simulator test set from the shell (par. 34a).
- (2) Remove the pulse delay network (par. 38a).
- (3) Disconnect P4 (15, fig. 42) from J4 on the magnetron electron tube (7).
- (4) Remove the RF cable assembly (5) from the amplifier-decoder.

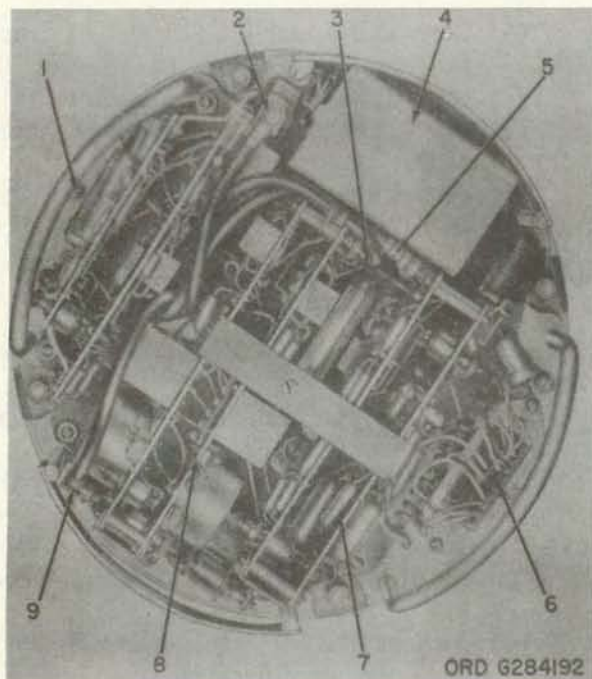
*Note.* The key numbers shown in parentheses in (5) through (7) below refer to figure 45.

- (5) Remove the fillister-head screw (1), lockwasher (2), and flat washer (3) and remove the ground strap (12).
- (6) Remove the two fillister-head screws (8), lockwashers (9), bracket (7), plate (10), and two sleeve spacers (11).
- (7) Remove the four fillister-head screws (5) and lockwashers (6) which secure the ends of the transmitter waveguide assembly (4) to the mounting, and carefully remove the transmitter waveguide assembly.

*Note.* The key numbers shown in parentheses in (8) through (10) and b(1) through (3) below refer to figure 46.

- (8) Remove the three fillister-head screws (1) and lockwashers (2) that secure the magnetron electron tube (3) to the transmitter waveguide assembly (4).
- (9) Remove connector J4 (9) from the connector (5) on the magnetron electron tube (3).
- (10) Loosen the hexagon-socket setscrew (6) and remove the sleeve bushing (7) from the tuning shaft (8) of the magnetron electron tube.





- 1—Captive screw (4)
- 2—Connectors P2 and J1
- 3—Connectors P3 and J2
- 4—P-Y-burst delay network
- 5—Connectors P1 and J1
- 6—Connector P1
- 7—Delay pulse generator
- 8—P and Y pulse demodulator
- 9—Connectors P4 and J1

Figure 47. HERCULES signal data converter—removal and installation.

*b. Installation of the 6229 Magnetron Electron Tube.*

- (1) Attach connector J4 (9) to the magnetron electron tube (3).
- (2) Secure the sleeve bushing (7) to the tuning shaft (8) of the magnetron electron tube with the hexagon socket setscrew (6) aligned with the flat side of the tuning shaft; tighten the set-screw.
- (3) Secure the magnetron electron tube to the transmitter waveguide assembly (4) with the three fillister-head screws (1) and lockwashers (2).

*Note.* The key numbers shown in parentheses in (4) through (6) below refer to figure 45.

- (4) Position the transmitter waveguide assembly (4) on the receiver-trans-

mitter and secure each end to the mounting with the two fillister-head screws (5) and lockwashers (6).

- (5) Secure the transmitter waveguide assembly to the mounting with the bracket (7), plate (10), two sleeve spacers (11), two fillister-head screws (8) and lockwashers (9).
- (6) Position the ground strap (12) and secure with the fillister-head screw (1), lockwasher (2), and flat washer (3).
- (7) Connect P4 (15, fig. 42) from the radar modulator to J4 on the magnetron electron tube (7).
- (8) Install the RF cable assembly (5) by connecting P13 (18) on the cable assembly to J1 on the amplifier-decoder.
- (9) Install the pulse delay network (par. 38d).
- (10) Install the simulator test set in the shell (par. 34d).

## 42. Replacement of the HERCULES Signal Data Converter

*Note.* The key numbers shown in parentheses in *a* and *b* below refer to figure 47 unless otherwise indicated.

*a. Removal of the HERCULES Signal Data Converter.*

- (1) Remove the simulator test set from the shell (par. 34a).
- (2) Remove the four hexagon-socket-head cap screws (12, fig. 39), lockwashers (13, fig. 39), and flat washers (14, fig. 39).
- (3) Disconnect P1 (25, fig. 39) from J1 on the vaneaxial fan.
- (4) Disconnect P1 (5) from J1 on the delay pulse generator, P2 (2) from J1 on the P-Y-burst delay network, and P3 (3) and P4 (9) from J2 and J1 on the P and Y pulse demodulator.
- (5) Loosen the four captive screws (1) and remove the HERCULES signal data converter.

*Note.* On earlier models of the flight simulator group, the HERCULES signal data converter is secured with four captive posts (23, fig. 39) in addition to the four captive screws.

*b. Installation of the HERCULES Signal Data Converter.*

- (1) Insert the four cables through the hole in the chassis of the HERCULES signal data converter, align P1 (6) on the signal data converter with J2 (15, fig. 44) on the receiver-transmitter, and secure the signal data converter to the receiver-transmitter with the four captive screws (1).
- (2) Connect P1 (5) to J1 on the delay pulse generator.
- (3) Connect P2 (2) to J1 on the P-Y-burst delay network (4).

- (4) Connect P3 (3) and P4 (9) to J2 and J1, respectively, on the P and Y pulse demodulator (8).
- (5) Connect P1 (25, fig. 39) from the receiver-transmitter (10, fig. 39) to J1 on the vaneaxial fan (24, fig. 39).
- (6) Position the receiver-transmitter on the vaneaxial fan and secure with the four hexagon-socket-head cap screws (12, fig. 39), lockwashers (13, fig. 39), and flat washers (14, fig. 39).
- (7) Install the simulator test set in the shell (par. 34d).

### Section III. CORRECTIVE MAINTENANCE OF THE LAUNCHING-CONTROL CONSOLE AND POWER DISTRIBUTION BOX

#### 43. General

Corrective maintenance of the launching control console consists of the replacement of parts listed in TM 9-1440-250-12P/2/1 and the related cleaning and inspection functions. This section contains instructions for performing corrective maintenance of those items of the launching-control console and the power distribution box which are of a complex nature.

#### 44. Location and Access Procedures

**Warning:** The launching-control console contains voltages dangerous to life. Set the MAIN POWER SWITCH and CONSOLE POWER SW. switches in the power distribution box to OFF, before starting replacement procedures.

*a.* This paragraph acquaints the organizational maintenance technician with the location and means of gaining access to the assemblies of the launching-control console.

*b.* Access procedures to the components mounted on the left-hand launching-control electrical panel assembly and the right-hand launching control panel of the launching-control console, and assemblies mounted in the interior of the launching control console are given below.

- (1) Release the captive fasteners and open the left-hand launching control electrical panel assembly and the right-hand launching-control panel.
- (2) Engage the retractable stays (1 and 11, fig. 48) in the hold-open guides (3 and 8).

*c.* The assemblies that are located in the interior of the launching control console are listed in (1) through (9) below. Information on the location of these assemblies is further supplemented by the locational diagrams in TM 9-1440-250-20/2.

*Note.* The key numbers shown in parentheses in (1) through (5) below refer to figure 48.

- (1) Composite telephone circuit TA-346/M (2)
- (2) Electrical equipment rack (5)
  - (a) Two-second delay timer (4)
  - (b) Delay timer relay (15)
- (3) Center relay rack (7)
- (4) Upper relay assembly (9)
- (5) Lower relay rack assembly (12)
- (6) Flight simulator control unit (9, fig. 49).
- (7) AJAX signal data converter (15).
- (8) Centrifugal fan (22).
- (9) -28v power supply (20).

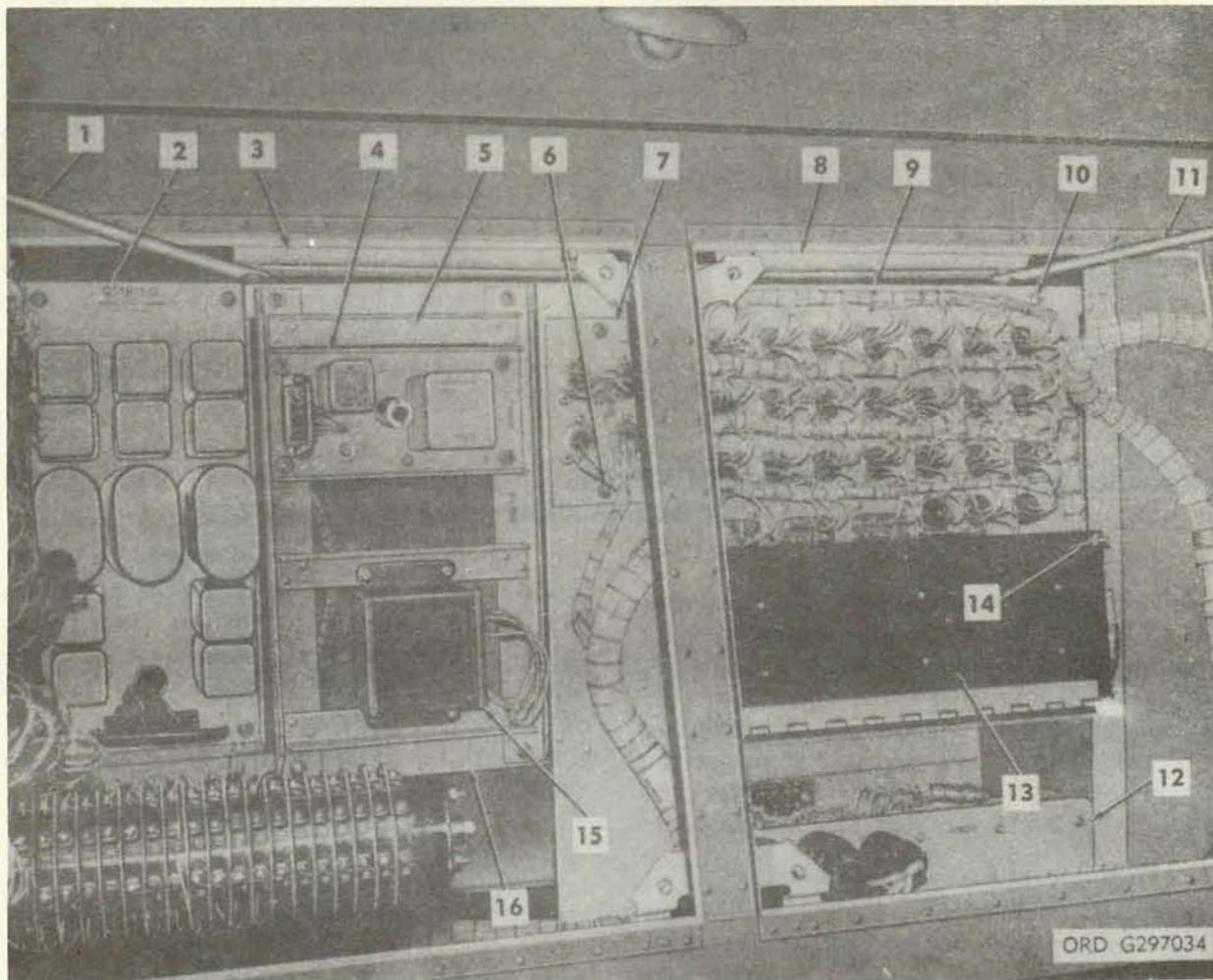
#### 45. Replacement of the Flight Simulator Control Unit and AJAX Signal Data Converter

*Note.* The key numbers shown in parentheses in *a* through *d* below refer to figure 49.

*a. Removal of the Flight Simulator Control Unit.*

**Warning:** The launching control console contains voltages dangerous to life. Set the MAIN POWER SWITCH and CONSOLE POWER SW. switches in the power distribution box to OFF, before starting replacement procedures.





- 1—Retractable stay
- 2—Composite telephone circuit
- 3—Hold-open guide
- 4—Two-second delay timer
- 5—Electrical equipment rack
- 6—Captive fastener (2)
- 7—Center relay rack
- 8—Hold-open guide

- 9—Upper relay assembly
- 10—Captive fastener (2)
- 11—Retractable stay
- 12—Lower relay rack assembly
- 13—Terminal board
- 14—No. 10-32 self-locking hex. nut (2)
- 15—Delay timer relay
- 16—Mounting bracket

Figure 48. Launching control console—interior view.

- (1) Open the rear door of the launching control console.
- (2) Remove the cross-recess truss-head screw (1) and flat washer (2) and slide the flight simulator control unit (9) to the fully extended position.
- (3) Disconnect P93A (3), P94A (4), and P28A (5).
- (4) Remove the cross-recess truss-head screws (6), lockwashers (7), and flat

washers (8) and remove the flight simulator control unit.

*b. Installation of the Flight Simulator Control Unit.*

- (1) Place the flight simulator control unit in position and secure with the cross-recess truss-head screws, lockwashers, and flat washers.
- (2) Connect P93A (3), P94A (4), and P28A (5).



- (3) Slide the flight simulator control unit into the operating position and secure with the cross-recess truss-head screw (1) and flat washer (2).

- (4) Close and secure the rear door of the launching control console.

*c. Removal of the AJAX Signal Data Converter.*

- (1) Remove the flight simulator control unit (9) as prescribed in *a* above.
- (2) Remove the hexagon-head bolts (10), lockwashers (11), flat washers (12) and shield (13).
- (3) Release the externally relieved body screws (14) and remove the AJAX signal data converter (15).

*d. Installation of the AJAX Signal Data Converter.*

- (1) Aline P1 on the AJAX signal data converter with J4 on the flight simulator control unit, install the AJAX signal data converter and secure with the externally relieved body screws (14).
- (2) Install the shield (13) and secure with the flat washers (12), lockwashers (11), and hexagon-head bolts (10).
- (3) Install the flight simulator control unit (9) as prescribed in *b* above.

#### 46. Replacement of the -28v Power Supply

*Note.* The key numbers shown in parentheses in *a* and *b* below refer to figure 49.

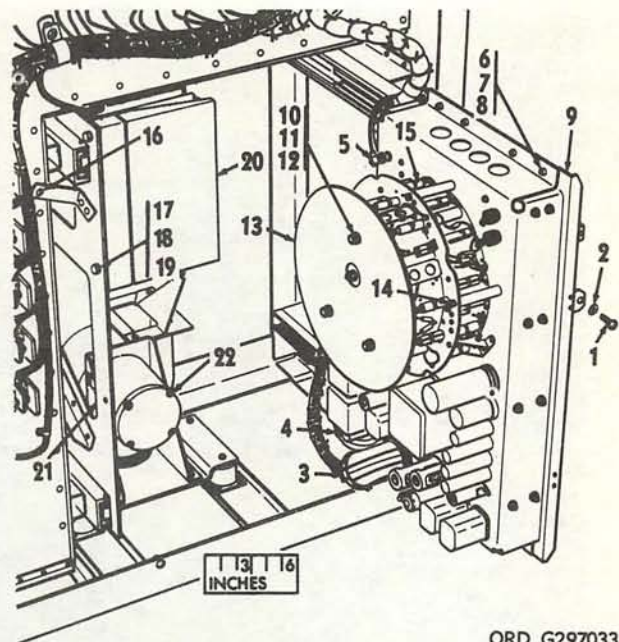
*a. Removal of the -28v Power Supply.*

**Warning:** The launching control console contains voltages dangerous to life. Set the MAIN POWER SWITCH and CONSOLE POWER SW. switches in the power distribution box to OFF, before starting replacement procedures.

- (1) Open the rear door of the launching control console.
- (2) Remove the cross-recess truss-head screw (16), and pull the -28v power supply (20) out on the sliding frame.
- (3) Remove the electrical leads from the terminals on terminal board TB1.
- (4) Remove the -28v power supply.

*b. Installation of the -28v Power Supply.*

- (1) Place the -28v power supply (20) in



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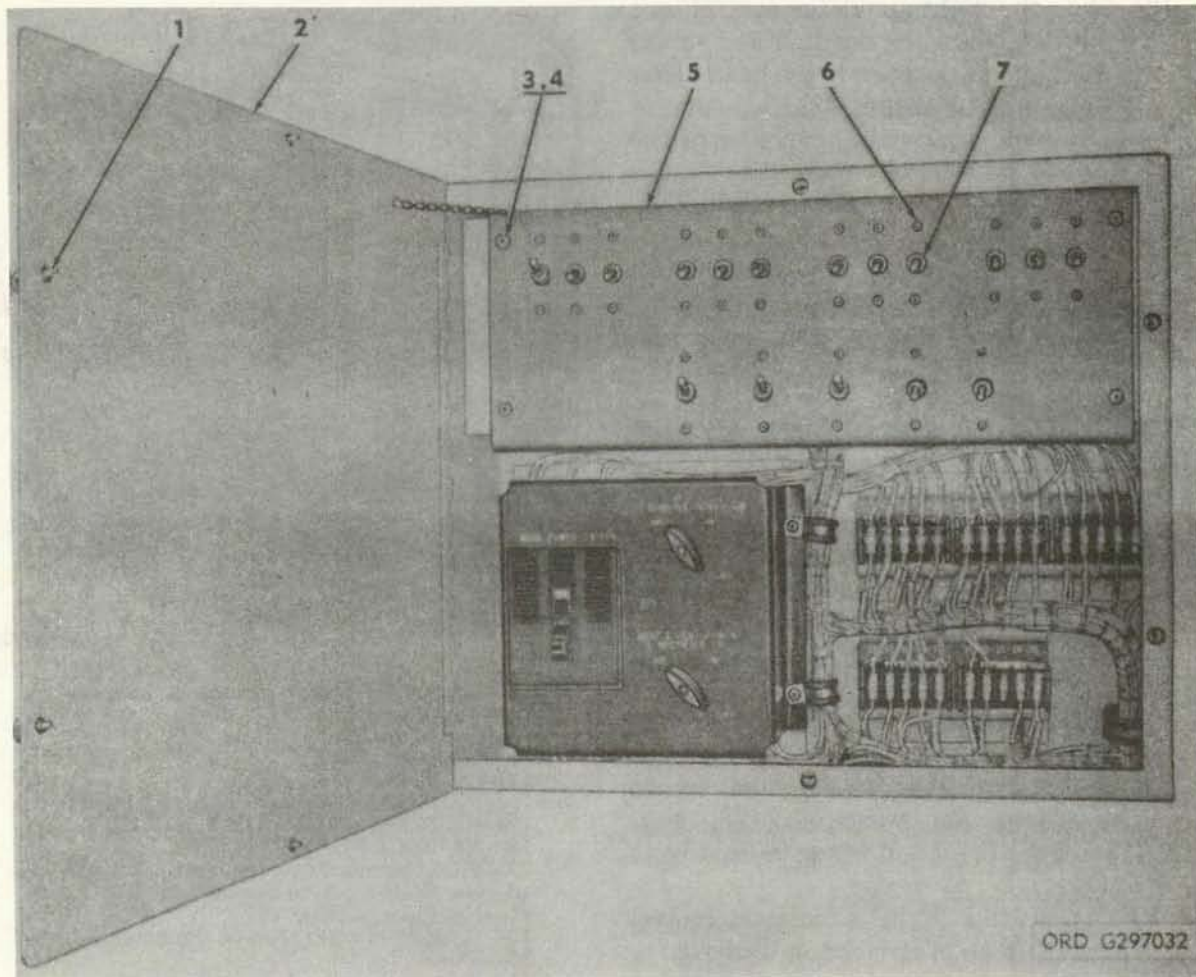
- 1—No. 10-32 x 3/4 cross-recess tr-hd screw
- 2—No. 10 fl washer
- 3—Connector P93A
- 4—Connector P94A
- 5—Connector P28A
- 6—No. 10-32 x 3/4 cross-recess tr-hd screw (8)
- 7—No. 10 lockwasher (8)
- 8—No. 10 fl washer (8)
- 9—Flight simulator control unit
- 10—No. 12-24 x 5-3/16 hex-hd bolt (3)
- 11—No. 12 lockwasher (3)
- 12—15/64-in-id x 17/32-in-od fl washer (5)
- 13—Shield
- 14—Externally relieved body screw (5)
- 15—AJAX signal data converter
- 16—No. 10-32 x 3/4 cross-recess tr-hd screw
- 17—1/4-20 x 21/32 hex-hd bolt (8)
- 18—1/4-in. lockwasher (8)
- 19—1/4-in. fl washer (8)
- 20—-28v power supply
- 21—Electrical equipment rack
- 22—Centrifugal fan

Figure 49. AJAX signal data converter and -28v power supply—removal and installation.

position and secure with the hexagon-head bolts (17), lockwashers (18), and flat washers (19).

- (2) Refer to TM 9-1440-250-20/2 and make the proper wiring connections.
- (3) Push the -28v power supply into operating position and secure with the cross-recess truss-head screw (16).
- (4) Close and secure the rear door of the launching control console.





- |  |                                  |
|--|----------------------------------|
| 1—Captive fastener (4)                         | 5—Circuit breaker panel          |
| 2—Access door                                  | 6—No. 6-32 x 3/8 rd-hd screw (2) |
| 3—No. 10-32 x 1/2 cross-recess rd-hd screw (4) | 7—Circuit breaker (17)           |
| 4—No. 10 fl washer (4)                         |                                  |

Figure 50. Circuit breakers—removal and installation—typical.

#### 47. Replacement of the Circuit Breakers in the Power Distribution Box

**Warning:** The power distribution box contains voltages dangerous to life. Check that the launching control trailer generator or frequency converter is in the shut-down condition before starting replacement procedures.

*Note.* The key numbers shown in parentheses in a and b below refer to figure 50.

##### a. Removal of the Circuit Breaker.

- (1) Release the captive fasteners (1) and open the access door (2).

- (2) Remove the circuit breaker panel (5).

- (3) Remove the circuit breaker (7).

##### b. Installation of the Circuit Breaker.

- (1) Install the circuit breaker (7); secure with the two round-head screws (6).

- (2) Install and secure the circuit breaker panel (5).

- (3) Close and secure the access door (2).



#### Section IV. CORRECTIVE MAINTENANCE OF THE SECTION CONTROL-INDICATOR

Corrective maintenance of the section control-indicator consists of the replacement of parts listed in TM 9-1440-250-15P/3/1 and the related cleaning and inspection functions. The

replacement of these parts is not a complex operation and therefore no coverage is provided in this section.

#### Section V. CORRECTIVE MAINTENANCE OF THE SECTION SIMULATOR GROUP

Corrective maintenance of the section simulator group consists of the replacement of parts listed in TM 9-1440-250-15P/4/1 and the related cleaning and inspection functions. The

replacement of these parts is not a complex operation and therefore no coverage is provided in this section.

#### Section VI. CORRECTIVE MAINTENANCE OF THE LAUNCHER CONTROL-INDICATOR

Corrective maintenance of the launcher control-indicator consists of the replacement of parts listed in TM 9-1440-250-15P/1/1 and the related cleaning and inspection functions. The

replacement of these parts is not a complex operation and therefore no coverage is provided in this section.

#### Section VII. CORRECTIVE MAINTENANCE OF THE LAUNCHER AND ASSOCIATED EQUIPMENT

##### 48. General

Corrective maintenance of the launcher and associated equipment consists of the replacement of parts listed in TM 9-1440-250-15P/1/1 and the related cleaning and inspection functions. This section contains instructions for performing corrective maintenance of those items of the launcher and associated equipment which are of a complex nature.

##### 49. Replacement of the Filter Elements in the Hydraulic Pumping Unit

###### a. Removal of the Filter Elements.

- 1—Filter head (p/o pressure fluid filter assy 8526204)
- 2—0.924 id x 0.116 thk preformed packing
- 3—Filter element 8528995
- 4—Nonmetallic washer
- 5—2.234 id x 0.139 thk preformed packing
- 6—Filter body (p/o pressure fluid filter assy 8526204)
- 7—Filter head (p/o pressure fluid filter assy 8526010)
- 8—Filter element 8528996
- 9—Filter body (p/o pressure fluid filter assy 8526010)
- 10—Lock wire
- 11—Captive fastener (14)
- 12—Right access door
- 13—Left access door

Figure 51. Hydraulic pumping unit filter elements—removal and installation—legend.

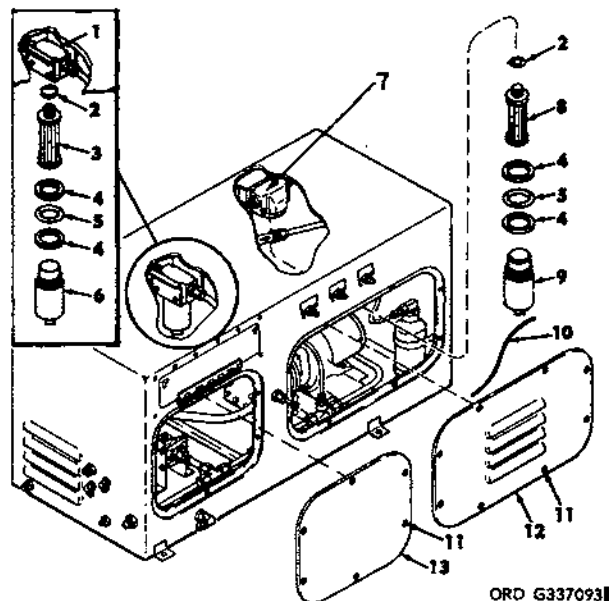


Figure 51. Hydraulic pumping unit filter elements—removal and installation.

**Warning:** Injury to personnel may result if maintenance is performed on the hydraulic system before the hydraulic system pressure has been relieved.



- (1) Open the SYSTEM BYPASS valve.
- (2) Remove the right and left access doors (12 and 13, fig. 51).
- (3) Remove the filter body (6 or 9) from the filter head (1 or 7) and remove the filter element (3 of 8).

*Note.* The filter elements are not interchangeable.

#### b. Installation of the Filter Elements

- (1) Install the new preformed packing (2) on the filter element.

*Note.* Install the filter element only hand tight.

- (2) Install the nonmetallic washers (4) and the new preformed packing (5) into the filter head.

- (3) Install the filter element onto the filter head.

- (4) Install the filter body.

- (5) Install the lock wire (10) on the filter head and the filter body.

*Note.* If the mounting brackets obstruct the hole for the lock wire, an alternate method of securing the wire is to place it around one of the four spacers on the filter head mounting bolts.

- (6) Close the SYSTEM BYPASS valve.

- (7) Install and secure the right and left access doors with the captive fasteners (11).

- (8) Perform the launcher hydraulic system air bleed procedures as prescribed in paragraph 22.

## Section VIII. CORRECTIVE MAINTENANCE OF THE TEST STATION HYDRAULIC PUMPING UNIT (USARAL AND USAREUR)

### 50. General

Corrective maintenance of the test station hydraulic pumping unit consists of the replacement of parts listed in ORD-7 SNL-Y5 and the related cleaning and inspection functions. This section contains instructions for performing corrective maintenance of those items of the test station hydraulic pumping unit which are of a complex nature.

### 51. Replacement of the Filter Element

#### a. Removal of the Filter Element

**Warning:** Injury to personnel may result if maintenance is performed on the hydraulic system before the hydraulic system pressure has been relieved.

- (1) Open the SYSTEM BLEED valve on the test station hydraulic pumping unit (9, fig. 52).
- (2) Open the access door (1).

- (3) Remove the filter body (3).

- (4) Remove the filter element (6).

#### b. Installation of the Filter Element

- (1) Install a new preformed packing (7) in the end of the filter element.

- (2) Insert the filter element into the filter body.

- (3) Install the nonmetallic washers (4) and new preformed packing (5) on the filter body.

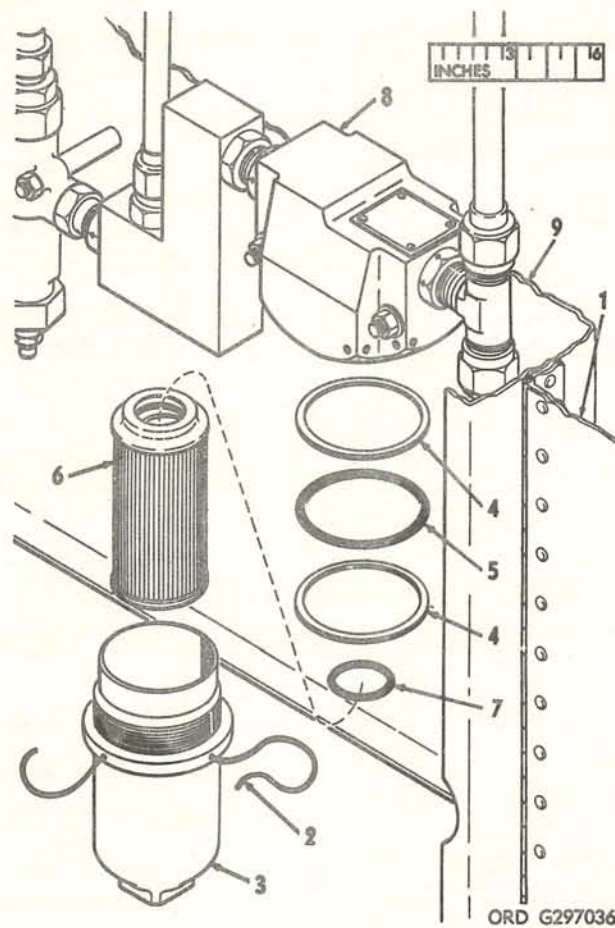
- (4) Install the filter body.

- (5) Install the lock wire (2) on the filter body and the filter head (8).

- (6) Close and secure the access door.

- (7) Air bleed the test station hydraulic system (par. 23b).





- 1—Access door
- 2—Lock wire
- 3—Filter body
- 4—Nonmetallic washer
- 5—Preformed packing AN6280-4
- 6—Filter element
- 7—Preformed packing 501228
- 8—Filter head
- 9—Test station hydraulic pumping unit

Figure 52. Test station hydraulic pumping unit filter element—removal and installation.