

[REDACTED]

IV. TEST SYSTEMS DESCRIPTION

d. Dim Control

The Dim Control does not affect the Warning Light, but it does control the T-249 panel illumination. This feature uses aircraft power and will function with the power switch ON or OFF.

e. Locking Device

A mechanical obstruction mounted on the panel must be removed before the Option Selector Switch can be moved from the SAFE position. The device is red and bears a DANGER label. It is held in place by a pin through the knob of the Option Selector Switch and has provisions for safety wiring and sealing.

6. DCU-9A Inflight Control and Monitor

The DCU-9A controls and monitors the forward bomb bay. The forward bomb bay will be used for all Test Vehicles. The DCU-9/A contains a Rotary Selector Switch having the positions SAFE, GND, AIR and OFF, a Control Arm having the positions OS and SGA, a red Warning Light, a Test Switch, a Dim Control, and a Holding Relay. The DCU-9/A is located at the navigator's station in the production aircraft. In the B-52B and D aircraft used in these tests, the DCU-9/A is located at the weaponeer's station (EWO's station) because of test mission requirements. The DCU-9/A and its associated circuits are not affected by the special instrumentation installed in the aircraft for these test drops.

a. Rotary Selector Switch

In the OFF position, aircraft power is not available to

~~SECRET~~

IV. TEST SYSTEMS DESCRIPTION

the Test Vehicle circuits. In the SAFE position, Test Vehicle safing power is applied. In either the GND or AIR positions, prearming power is applied to the Test Vehicle.

b. Control Arm

The Control Arm has OS and SGA positions. When the Control Arm is in the OS position, the Rotary Selector Switch can be operated from OFF to SAFE and back to OFF, but cannot be rotated beyond the SAFE position. When the Control Arm is in the SGA position, the Rotary Selector Switch can be operated from SAFE to GND or AIR and back to SAFE, but cannot be returned to the OFF position.

c. Warning Light

The Warning Light serves to indicate a malfunction and comes on at any time the Test Vehicle configuration does not agree with the configuration indicated on the Rotary Selector Switch. The light also comes on as a press-to-test indication that the pullout cables are properly connected and that AMAC circuits (and the unit circuits) have proper continuity.

d. Test Switch

The Test Switch is used to verify that the Warning Light bulb is not faulty. The Rotary Selector Switch must be in either the SAFE, GND, or AIR position for the Test Switch circuit to operate.

e. Dim Control

The Dim Control does not affect the Warning Light, but it does control the DCU-9/A panel illumination. This feature uses aircraft

~~SECRET~~

IV. TEST SYSTEMS DESCRIPTION

power and will function regardless of Rotary Selector Switch position.

f. Holding Relay

The DCU-9/A contains a Holding Relay which insures that Test Vehicle safing and monitoring power remains available even if the Rotary Selector Switch is returned from GND or AIR to OFF faster than the Test Vehicle safing cycle can be completed.

7. DCU-47/A Weapon Prearming Control (Readiness Switches)

This control, located at the pilot's station, is a group of four toggle switches covered by a transparent cover. These switches provide the aircraft commander with a means to permit or to prevent Test Vehicle prearming. When in the SAFE position, these switches prevent the DCU-9/A from making any fuzing option selection other than SAFE, and will override the DCU-9/A to place the Test Vehicle fuzing option component in the SAFE position. When in the READY position, these switches permit the DCU-9/A to provide a GND or AIR prearming signal. After the Test Vehicle has been prearmed by operation of the Readiness Switch to the READY position and the DCU-9/A to the GND or AIR position, the return of either the Readiness Switch to the SAFE position or the DCU-9/A to the SAFE position will cause the Test Vehicle fuzing component to reset to its SAFE position. These switches require that two aircrew members perform independent functions to provide the Test Vehicle with the one signal required for prearming. The cover may be safetied and sealed closed if the switches are in the