

2. DESCRIPTION (See Figure 95-001)

A. Cirrus Airplane Parachute System (CAPS)

Two separate and deliberate pilot actions are required to deploy the parachute. The first action requires the pilot to remove the access cover from the activation handle enclosure. The second action requires the pilot to pull the activation handle out, and down several inches.

Upon pulling the activation handle, the activation cable compresses the igniter's steel spring, cocks the plunger and the following sequence is initiated:

*Serials 22-0002 thru 22-0820 before SB2X-95-17,
Serials 22-0821 & subs w/o Perspective before SB2X-95-18,
Serials 22-3026 thru 22-3914,*

Serials 22T-0001 thru 22T-0441: When one half-inch of plunger travel is reached, captured ball-bearings are released allowing the plunger to strike the firing pins. The firing pins strike two primers which ignite the primary booster.

*Serials 22-0002 thru 22-0820 after SB2X-95-17,
Serials 22-0821 & subs w/o Perspective after SB2X-95-18,
Serials 22-3915 & subs, 22T-0442 & subs:* When one half-inch of plunger travel is reached, captured ball-bearings are released allowing the plunger to close the electrical contacts. The closed electrical circuit ignites the primary booster.

The primary booster ignites a secondary booster initiating ignition of the larger rocket motor. Once ignited, the rocket propellant's hot gases are exhausted through the nozzle and the rocket impacts and disbonds the parachute compartment cover pulling the deployment bag from the enclosure. The deployment bag then stages the suspension line deployment and inflation of the parachute.

As the parachute inflates, the forward harness assembly grows taut, pulls free of the fuselage skin, and stops at the forward attach fitting which supports the forward portion of the airplane.

The aft harness is pulled taut, the line cutters are activated, and approximately eight seconds later "fire" and sever the nylon cord. The three-link release mechanism then opens allowing the aft harness to fully extend. The airplane then assumes its touchdown attitude; approximately ten degrees nose down, to optimize occupant protection.