

Item No.	Item	Operation
2	Airframe canopy	Request the Airframe tradesman to remove.
3	Firing cables	Disconnect the main firing cable from the sear of the primary firing unit.
4	Emergency oxygen manual release system	Disconnect the manual release cable from the spring anchor hook. Note . . . <i>The anchor section operating cable is to be left in position in the anchor socket.</i>
5	Safety equipment	(1) Separate the two ends of the parachute withdrawal line. (2) Disconnect the emergency oxygen hose from the anchor socket and unscrew the male and female knurled nuts on the release cables. (3) Disconnect the dinghy pack quick-release connectors. (4) Remove the safety equipment and dinghy pack from the seat. (5) Transport to the Armament Bay for storage. Note . . . <i>As the cartridges are removed in Items 6 and 7 they are to be placed in a suitably fitted container marked with the aircraft serial number and cartridge expiring date.</i>
6	Primary firing unit	(1) Break the locking wire, remove the safety pin and unscrew the primary firing unit using the spanner (<i>Ref. No. 27L/936</i>). (2) Remove the cartridge and spring.
7	Drogue gun	(1) Ensure the safety lock pin is fitted. (2) Remove the static rod quick-release pin. (3) Disconnect the drogue shackle from the piston by withdrawing the quick-release pin. (4) Release the top drogue gun clamp. (5) Break the locking wire and, using a $\frac{1}{2}$ in. Whit. spanner, unscrew the barrel from the firing unit body. Note . . . <i>The firing unit body is not to be removed from the seat structure.</i> (6) Remove the cartridge. (7) Attach a "Free from explosives" notice to the drogue gun. (8) Seal the barrel housing with masking tape to exclude dirt and moisture. (9) Label the barrel with the aircraft serial number and transport to the Bay for storage until required.
8	(a) Barostatic time-release unit static rod	Disconnect from the anchorage bracket.
	(b) Leg restraint cords	Disconnect from the anchorage brackets and stow in the seat pan.
9	(a) Mic/tel lead	Disconnect from the socket.
10	Low-pressure flexible tubing	Disconnect from the aircraft supply.

Item No.	Item	Operation
11	Ejection seat (Pre-Mod. ES/655)	(1) Ensure that the seat pan is raised to its highest position. (2) Ensure that the primary firing unit is not fitted to the ejection gun. (3) Attach the lifting sling to the scissor shackle. (4) Withdraw the top latch. Carefully raise the seat on the guide rail and remove from the aircraft. Note . . . <i>When lifting always ensure that the correct angle is maintained.</i>
12	Ejection seat (Post Mod. ES/655)	(1) Ensure that the seat pan is raised to its highest position. (2) Ensure that the primary firing unit is not fitted to the ejection gun. (3) Attach the lifting sling to the scissor shackle. (4) Remove the top latch safety pin. (5) Withdraw the top latch using the tool release, latch plunger (Ref. No. 27L/1395), carefully raise the seat up the guide rail and remove from the aircraft. Note . . . <i>When lifting always ensure that the correct angle is maintained.</i>
13	Ejection gun	Remove from the aircraft.
14	Mic/tel socket	Remove the two 2 B.A. bolts and remove the socket from the guide rail bracket.
15	Guide rail	Remove the top and bottom quick-release pins and remove from the aircraft.
16	Cartridge container	Place in the explosive Storehouse
17	(a) Seat Structure (b) Guide rail (c) Ejection gun (d) Primary firing unit (e) Drogue gun barrel	(1) Label with the aircraft serial number. (2) Transport to the Armament Bay for servicing or storage as necessary.
18	Form 700	Endorse that the ejection seat and cartridges have been removed.

Appendix B
OPERATIONS WHEN REPLACING THE EJECTION SEAT
AND THE EJECTION SEAT CARTRIDGES

Safety precautions

1. All personnel are warned of the extreme danger of interfering with cartridge and detonator-operated jettison equipment. In no circumstances are tradesmen to work on items containing cartridge-operated ejection equipment without first ascertaining from the Armament tradesman that it is safe to do so.
2. All types of ejection seat cartridges and detonators are to be removed and fitted by an Armament tradesman only. Ejection seat primary and drogue gun cartridges and canopy cartridges are to be removed before the ejection seat is raised on the guide rails.
3. ALL PERSONNEL, before entering a cockpit or cabin of an aircraft fitted with an ejection seat, are to report to the N.C.O. immediately in charge of Airframe servicing who is to ensure that all safety pins (or other safety devices) are correctly positioned to render the seat and canopy jettison firing mechanisms safe. On completion of servicing, tradesmen are to report to the N.C.O.

Item No.	Item	Operation
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ARMAMENT

Servicing notes

- (1) Cartridges are to be renewed every six (6) months.
- (2) When the ejection seat is to remain installed in the aircraft without cartridges fitted, the firing unit is to be replaced in the ejection gun to exclude dirt and moisture.
- (3) The oxygen equipment and all tools associated with its servicing are to be kept free from grease and oil.
- (4) Any faults found whilst inspecting the parachute, dinghy assembly and safety harness are to be rectified by a Safety Equipment Worker.
- (5) If the low-pressure oxygen hose is disconnected from the manifold for any reason, or should it be necessary to change it owing to damage or deterioration, the Instrument tradesman is to be notified.
 - 1 (a) Guide rail
(b) Seat structure
(c) Ejection gun
(d) Primary firing unit
(e) Drogue gun barrel } Obtain the serviced items from the Armament Bay.
 - 2 (a) Primary cartridge
(b) Drogue gun cartridge } Obtain the appropriate cartridges from the Explosives Storehouse.
- 3 **Note . . .**
 - (1) *If the ejection gun has been removed during seat removal, Operations (1) and (3) are to be checked by an Armament N.C.O.*
 - (2) *If the ejection gun has not been removed during seat removal, Operation (3) is to be checked by an Armament N.C.O.*

Ejection gun

- (1) Ensure that the piston is locked to the cylinder by grasping the piston and attempting to extend the gun.
- (2) Fit to the guide rail.
- (3) Examine the locking of the ejection gun to the guide rail by grasping the piston and attempting to withdraw the gun from the guide rail.

Item No.	Item	Operation
4	(a) Guide rail (b) Ejection gun	} Fit to the aircraft and secure with the top and bottom quick-release pins.
5	Mic/tel socket	

6 Note . . .

Operations (1), (2), (6) and (7) of this Item are to be checked by the Armament N.C.O.

Ejection seat
(Pre-Mod. ES/655)



- (1) Ensure that the seat pan is raised to its highest position.
- (2) Ensure that the barostatic time-release unit is correctly cocked.
- (3) Attach the lifting sling to the scissor shackle.
- (4) Raise the seat and position over the guide rail.
- (5) Holding out the top latch, lower the seat on to the guide rail, engaging the bottom and top rollers with the flanges.
- (6) Place own weight on the seat and ensure that the top latch is correctly engaged, and that the RED mark is not showing.
- (7) Check that the seat is positively locked by attempting to raise the seat on the guide rail.
- (8) Remove the sling.

7 Note . . .

Operations (1), (2), (6), (7) and (8) of this item are to be checked by an Armament N.C.O.

Ejection seat
(Post Mod. ES/655)

- (1) Ensure that the seat pan is raised to its highest position.
- (2) Ensure that the barostatic time-release unit is correctly cocked.
- (3) Attach the lifting sling to the scissor shackle.
- (4) Raise the seat and position over the guide rail.
- (5) Holding out the top latch using the tool, release latch plunger (Ref. No. 27L/1395) carefully lower the seat down the guide rail engaging the rollers with the flanges.
- (6) Place own weight on the seat and ensure that the top latch is correctly engaged.
- (7) Refit the top latch safety pin and ensure that it is fully home.
- (8) Check that the seat is positively locked by attempting to raise the seat on the guide rail.
- (9) Remove the sling.

- 8 (a) Barostatic time-release unit static rod
(b) Leg restraint cords
(c) Mic/tel lead

Connect to anchorage bracket.
Connect to floor anchorage brackets.
Connect to the socket.

9 Low-pressure flexible tubing

- (1) Examine for chafing and deterioration.
- (2) Ensure that the sealing washer (Ref. No. 6D/1494) is serviceable and in position. Connect to the quick-release connection at the side of the seat pan.
- (3) Examine the flexible tubing for correct length and positioning.
- (4) Ensure that, with the seat pan adjusted to its highest position, there is no tension on the tubing likely to break the quick-release connections.
- (5) Ensure that the free end of the tubing is correctly stowed.

Item No.	Item	Operation
10	Primary firing unit	<ol style="list-style-type: none">(1) Clean out the breech housing and insert the cartridge and cartridge removal spring.(2) Ensure that the firing pin is not protruding and that the sear is correctly fitted. Screw the primary firing unit fully home using spanner (Ref. No. 27L/936).(3) Fit the safety pin into the sear.(4) Lock the primary firing unit to the breech with 22 S.W.G. nickel chrome wire (Ref. No. 30A/3055). Seal with a lead seal, using the sealing press.
11	Drogue gun	<ol style="list-style-type: none">(1) Obtain the drogue gun barrel from the bay.(2) Ensure that the safety lock pin is fitted.(3) Remove the cartridge from the container and insert into the barrel.(4) Ensure that the firing pin is not protruding and that the sear is correctly engaged.(5) Screw the barrel firmly into the firing unit body using a $\frac{1}{2}$ in. Whit. spanner. <p>Note . . .</p> <p><i>Ensure that the top edge of the gun body coincides with the scribed line on the gun barrel.</i></p> <ol style="list-style-type: none">(6) Refasten the top drogue gun clamp.(7) Lock with 22 S.W.G. nickel chrome wire (Ref. No. 30A/3055). Seal with a lead seal using the sealing press.(8) Connect the drogue withdrawal line to the lug on the piston, ensuring that the drogue withdrawal line is lying over the top of the black P.V.C. lifting line.(9) Connect the static rod by replacing the quick-release pin.(10) Remove the "Free from Explosives" notice.
12	Firing cables	Connect the main firing cable to the sear of the primary firing unit.
13	Safety equipment	Refit to the seat as detailed in A.P.1182, Vol. 1, Sect. 3, Chap. 1A. (Equipping the seat)
14	Aircraft canopy	Request the Airframe tradesman to replace.
15	Emergency oxygen set	Remove and retain the safety pin from the cylinder operating head.
16	Drogue gun	Remove the safety lock pin.
17	Aircraft oxygen system	Inform the Instrument tradesman that the seat has been replaced.
18	Safety pins	Leave the pins in position in the sear of the primary firing unit, and report to the N.C.O. immediately in charge of Airframe servicing that it is so positioned.
19	Form 700	<ol style="list-style-type: none">(1) Annotate "Safety Lock Pin removed".(2) Ensure that the date of the next cartridge renewal is entered in the "Out of Phase Servicing Table".(3) Sign for replacing the seat and cartridges.

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