

**SECTION I**

**CONTROLS AND EXITS**

**LIST OF CHAPTERS**

*Note.*—A list of contents appears at the beginning of each chapter

- 1 Pilots' controls and equipment
- 2 Controls and equipment at crew stations
- 3 Emergency controls, equipment and exits—method of operation

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**Chapter 1 PILOT'S CONTROLS AND EQUIPMENT**  
(Completely revised)

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**WARNING**

The relevant safety precautions detailed on the **LETHAL WARNING** marker card must always be observed before entering the cabin or performing any operations on the aircraft.

**Introduction**

1. This chapter is intended to serve as a guide to the location of all the controls, equipment, and instruments at the pilot's station, together with the method of operating the controls where this is not obvious.

To simplify reference to any particular control according to its purpose, four separate illustrations of the station are given for both the B and B (I) Mk.6 aircraft.

**Entry to cabin**

2. The only means of entry to the cabin is through the door in the starboard side of the fuselage aft of the nose fairing; it is hinged at its upper edge. To open the door from either inside or out, press the red-painted knob adjacent to the latching handle and turn the handle in an anti-clockwise

direction from the outside, clockwise from inside; it is supported in the open position by a hinged strut which is attached to the door and locates in a socket in the door aperture framing.

**Pilot's seat**

3. A Martin Baker Mk.2CA.1 ejection seat with single lever ejection facilities is installed on B Mk.6 and B(I) Mk.6 aircraft post Mod.4051 and 3518 respectively; the seat is fully described in A.P.4288B, Vol.1. For leg reach, the rudder pedals can be

adjusted by rotation of a starwheel in the centre of the rudder bar.

#### Instrument panels

4. The pilot's instrument panel is divided into 3 sections; the instrument flying panel, with the engine starting panel at its base, the engine instrument panel and the miscellaneous instrument panel. A take-off panel, the switches on which must be UP prior to flight, is located on the port wall. A controls console is fitted on the port side and forward of this is the throttle box and a sloping panel which carries the controls for operating the alighting gear and flaps. On the front face of the electrical control panel (*E.C.P.*) situated to starboard and to the rear of the pilot's seat; are the fuel cock and pump circuit breakers and the

emergency oxygen control.

#### Sun blind and curtain

5. A sun blind is positioned above the pilot's seat and a curtain fitted to the canopy coaming cross-tube, when lowered, blacks-out and divides the pilot's station from the crew station.

#### Lighting

6. Dimmer switches located on the coaming above the instrument panels and on the port side of the cabin, control the red and U/V lamps which provide illumination for all the instruments and controls. Two emergency lamps are provided to illuminate the instrument panels should the main lighting fail; the control switch is on the coam-

ing. Two anti-dazzle lamps, their control switch being adjacent to the emergency lamps switch on the coaming, are fitted below the coaming.

#### Stowages

7. The flap switch locking pin is stowed in a small bag attached to the side of the pilot's floor structure facing the entrance door. The bomb door control switch locking pin is stowed in a bag which is secured on the front face of the *E.C.P.* A divided container situated on the forward end of the console on the inboard side provides stowage for the pilot's notes and maps. The detachable handle for the hydraulic handpump is stowed on the starboard wall of the cabin aft of the entrance door.

### KEY TO FIG.1 (FLYING CONTROLS AND INSTRUMENTS - B(I) MK.6 AIRCRAFT)

1	AILERON TRIM CONTROL SWITCH	11	TAIL PLANE CONTROL FINE TRIM SWITCH	21	RATE OF CLIMB INDICATOR
2	RUDDER TRIM SWITCHES	12	TAIL TRIM INDICATOR	22	HORIZONTAL GYRO UNIT
3	TAIL PLANE TRIM-FINE (INOPERATIVE)	13	I.L.S. INDICATOR	23	RADIO ALTIMETER (A.Y.F.) LIMIT SWITCH
4	FLAP POSITION INDICATOR	14	I.L.S. AUDIO VOLUME CONTROL	24	TURN-AND-SLIP INDICATOR
5	RADIO ALTIMETER (A.Y.F.) INDICATOR LAMPS	15	MACHMETER	25	ACCELEROMETER
6	FLAPS CONTROL SWITCH	16	ZERO READER COMBINED HEADING SELECTOR AND CONTROL PANEL	26	RADIO ALTIMETER (A.Y.F.) INDICATOR
7	AILERON TRIM INDICATOR	17	ZERO READER INDICATOR	27	AIR SPEED INDICATOR
8	RUDDER TRIM INDICATOR	18	I.L.S. MARKER LAMP	28	ALTIMETER
9	AIR BRAKES SWITCH	19	G.M.4B COMPASS	29	CONTROL COLUMN
10	TAIL PLANE CONTROL CUT-IN SWITCH	20	I.L.S. CONTROL SWITCH	30	RUDDER PEDALS

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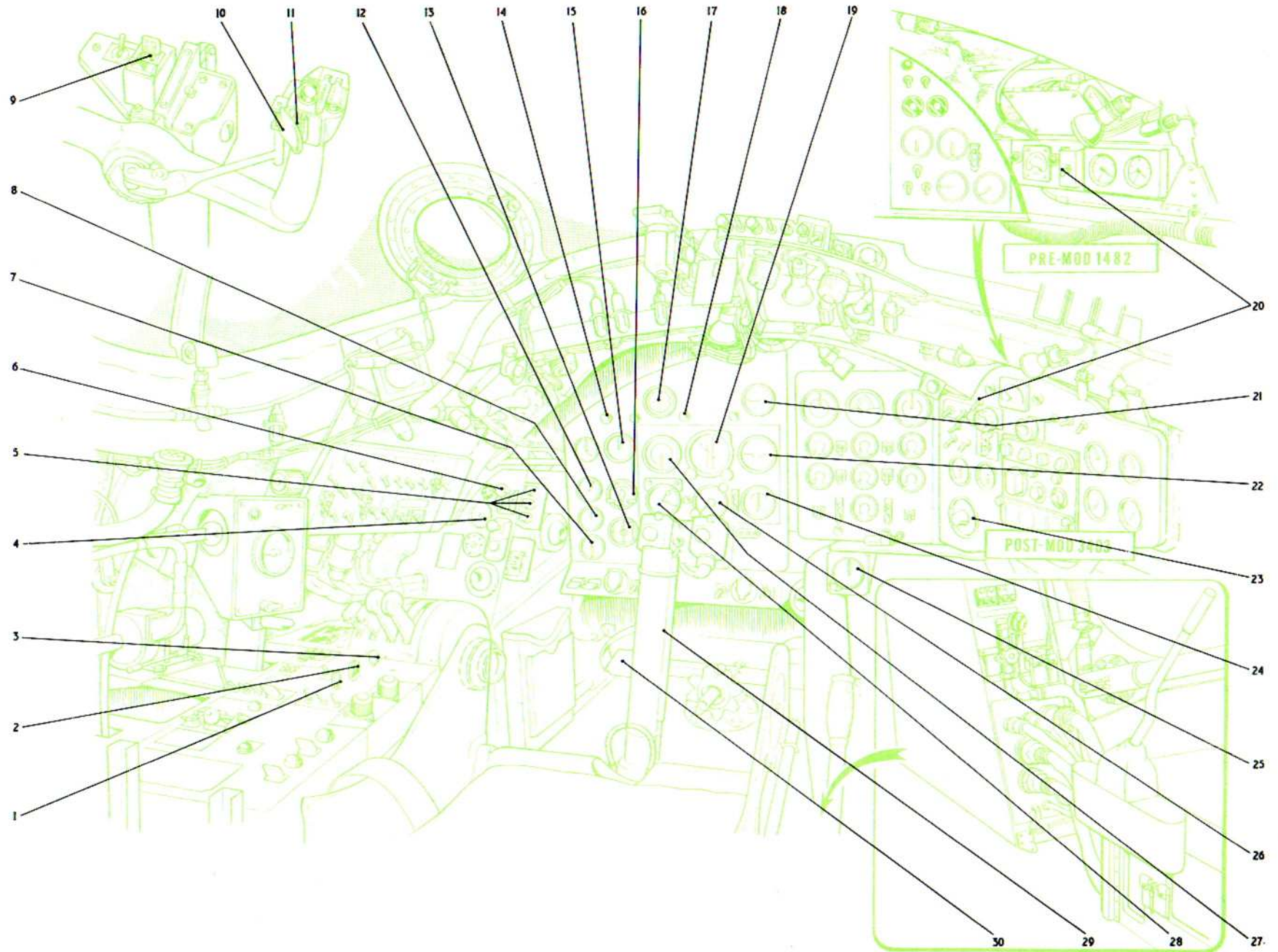


Fig.1. Flying controls and instruments (B(I) Mk.6 aircraft)

◀ (Mod. 4329 embodied) ▶

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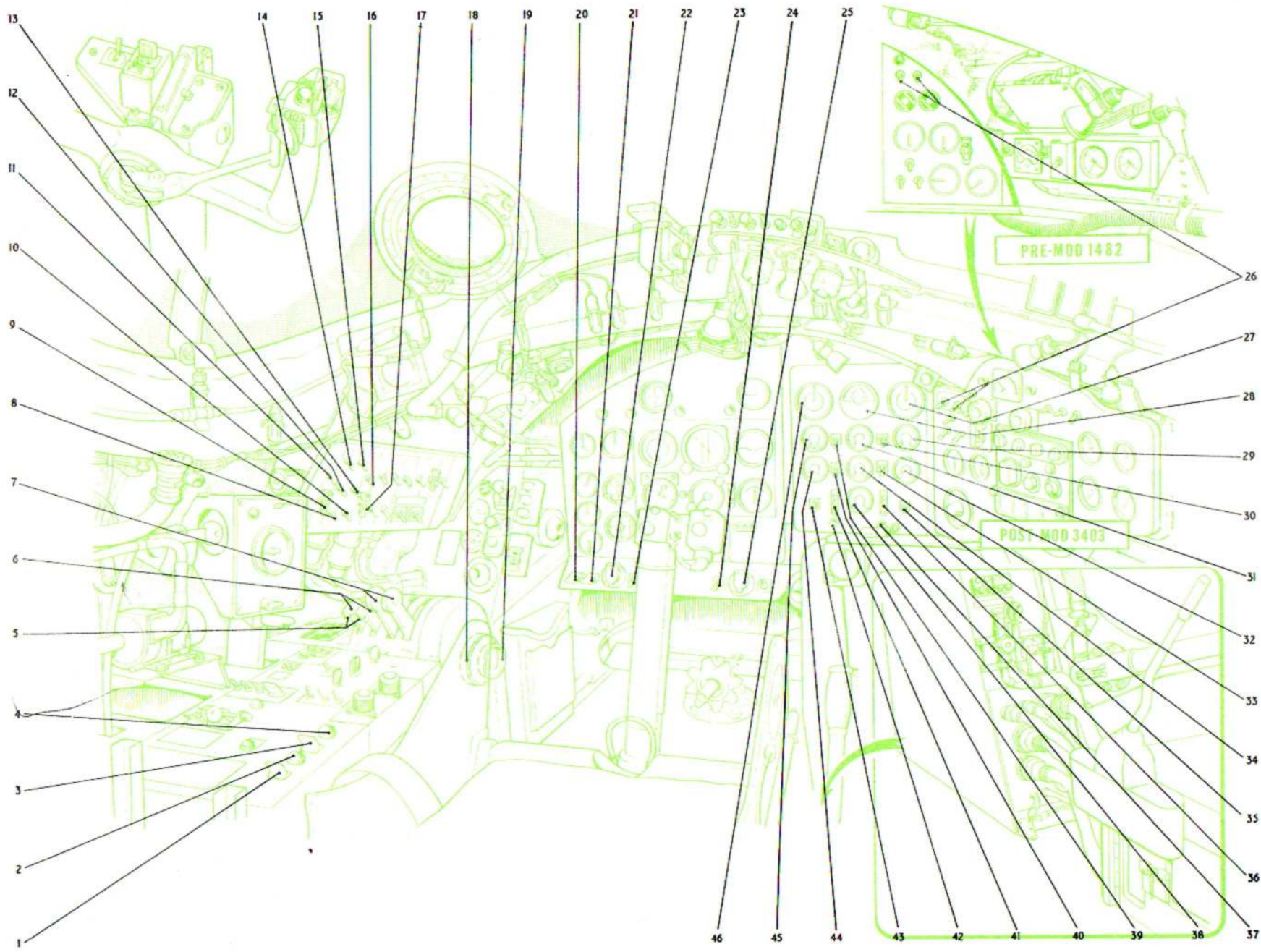


Fig.2. Engine controls and instruments (B(I) Mk.6 aircraft)

◀ (Mod. 4329 embodied) ▶

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## KEY TO FIG.2 (ENGINE CONTROLS AND INSTRUMENTS - B(I) MK.6 AIRCRAFT)

1	STARBOARD ENGINE ANTI-ICING SWITCH	24	STARBOARD ENGINE IGNITION SWITCH
2	STARBOARD ENGINE ANTI-ICING INDICATOR	25	STARBOARD ENGINE CARTRIDGE FIRING SELECTOR SWITCH
3	PORT ENGINE ANTI-ICING SWITCH	26	OVERLOAD FUEL TANK PUMPS AND COCKS SWITCHES
4	PORT ENGINE ANTI-ICING INDICATOR	27	STARBOARD ENGINE TACHOMETER
5	ENGINE RELIGHT SWITCHES	28	ENGINE EXHAUST GAS THERMOMETER INDICATOR
6	HIGH-PRESSURE FUEL SHUT-OFF COCK LEVERS	29	STARBOARD ENGINE OIL PRESSURE GAUGE
7	ENGINE THROTTLE CONTROL LEVERS	30	No.1 TANK STARBOARD FUEL PUMP SWITCH
8	No.3 TANK PORT FUEL COCK SWITCH	31	No.1 TANK FUEL CONTENTS GAUGE
9	PORT WING INTEGRAL TANK TO No.3 TANK FUEL TRANSFER COCK SWITCH	32	STARBOARD WING INTEGRAL TANK FUEL CONTENTS GAUGE
10	No.3 TANK STARBOARD FUEL COCK SWITCH	33	No.2 TANK STARBOARD FUEL PUMP SWITCH
11	PORT WING INTEGRAL TANK FUEL COCK SWITCH	34	No.2 TANK FUEL CONTENTS GAUGE
12	No.2 TANK PORT FUEL COCK SWITCH	35	STARBOARD WING INTEGRAL TANK FUEL PUMP SWITCH
13	No.2 TANK STARBOARD FUEL COCK SWITCH	36	No.3 TANK STARBOARD FUEL PUMP SWITCH
14	No.1 TANK PORT FUEL COCK SWITCH	37	STARBOARD ENGINE FUEL PRESSURE WARNING LAMP
15	No.1 TANK STARBOARD FUEL COCK SWITCH	38	No.3 TANK FUEL CONTENTS GAUGE
16	STARBOARD WING INTEGRAL TANK FUEL COCK SWITCH	39	No.1 TANK PORT FUEL PUMP SWITCH
17	STARBOARD WING INTEGRAL TANK TO No.3 TANK FUEL TRANSFER COCK SWITCH	40	No.2 TANK PORT FUEL PUMP SWITCH
18	THROTTLE CONTROLS FRICTION DAMPER	41	No.3 TANK PORT FUEL PUMP SWITCH
19	HIGH PRESSURE FUEL SHUT-OFF COCK LEVERS FRICTION DAMPER	42	PORT ENGINE FUEL PRESSURE WARNING LAMP
20	PORT ENGINE MASTER STARTING SWITCH	43	PORT WING INTEGRAL TANK PUMP SWITCH
21	STARBOARD ENGINE MASTER STARTING SWITCH	44	PORT WING INTEGRAL TANK FUEL CONTENTS GAUGE
22	PORT ENGINE CARTRIDGE FIRING SELECTOR SWITCH	45	PORT ENGINE OIL PRESSURE GAUGE
23	PORT ENGINE IGNITION SWITCH	46	PORT ENGINE TACHOMETER

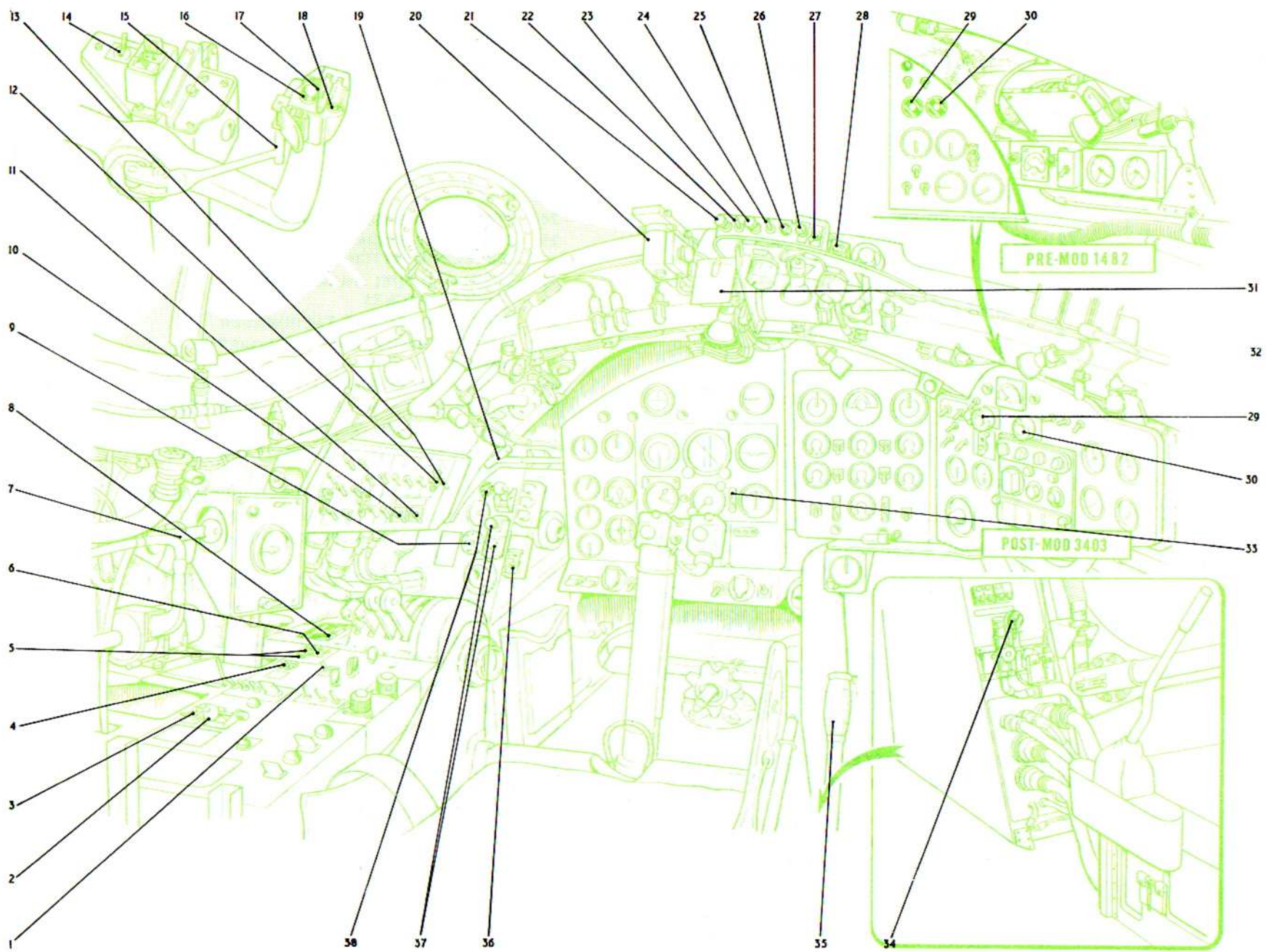


Fig.3. Operational equipment (B(I) Mk.6 aircraft)

◀ (Mod. 4329 embodied) ▶

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**KEY TO FIG.3 (OPERATIONAL EQUIPMENT – B(I) MK.6 AIRCRAFT)**

- |      |  |    |  |                   |
|------|--|----|--|-------------------|
| 1    | GUNSIGHT MASTER SWITCH                                     | 20 | GUNSIGHT   |                   |
| 2    | BOMB/FLARE DOORS CONTROL SWITCH                            | 21 | GUNSIGHT WARNING LAMP (L.A.B.S.)                       | } ◀ INOPERATIVE ▶ |
| ◀ 3  | PILOTS EMERGENCY JETTISON SWITCH ▶                         | 22 | Y/R ON/OFF SWITCH (L.A.B.S.)                           |                   |
| 4    | EMERGENCY WING STORES JETTISON SWITCH                      | 23 | T145 WARNING LAMP (L.A.B.S.)                           |                   |
| 5    | BOMB RELEASE SAFETY LOCK WARNING LAMPS                     | 24 | NORMAL/ALTERNATE SWITCH (L.A.B.S.)                     |                   |
| 6    | BOMB RELEASE SAFETY LOCK SWITCH                            | 25 | Y/R GYRO CAGING TEST SWITCH (L.A.B.S.)                 |                   |
| 7    | BOMB/FLARE DOORS EMERGENCY RELEASE                         | 26 | ANTI-DAZZLE LAMPS SWITCH                               |                   |
| 8    | CANOPY JETTISON SWITCH                                     | 27 | EMERGENCY LAMPS SWITCH                                 |                   |
| 9    | ALIGHTING GEAR POSITION INDICATOR                          | 28 | FLARES RELEASE SWITCH                                  |                   |
| 10   | GENERATOR OFF-LINE SWITCH – PORT                           | 29 | PORT ENGINE FIRE EXTINGUISHER SWITCH/INDICATOR         |                   |
| 11   | GENERATOR OFF-LINE SWITCH – STARBOARD                      | 30 | STARBOARD ENGINE FIRE EXTINGUISHER SWITCH/INDICATOR    |                   |
| 12   | CANOPY, ELEVATOR CONTROL AND HATCH MASTER DETONATOR SWITCH | 31 | E2A COMPASS  |                   |
| 13   | BATTERY ISOLATION SWITCH                                   | 32 | ▶◀   |                   |
| 14   | F95 CAMERA CONTROL SWITCH                                  | 33 | TURN-AND-SLIP INDICATOR NORMAL/EMERGENCY SUPPLY SWITCH |                   |
| 15   | WHEEL BRAKES CONTROL LEVER                                 | 34 | EMERGENCY OXYGEN CONTROL                               |                   |
| ◀ 16 | G90 CAMERA CONTROL SWITCH                                  | 35 | HYDRAULIC HAND PUMP OPERATING HANDLE                   |                   |
| 17   | GUNS/S.W.S. FIRING SWITCH AND SAFETY FLAP ▶                | 36 | ALIGHTING GEAR MASTER SWITCH                           |                   |
| 18   | BOMBS/R.P. FIRING SWITCH                                   | 37 | ALIGHTING GEAR SELECTOR SWITCH                         |                   |
| 19   | ALIGHTING GEAR EMERGENCY LOWERING CONTROL                  | 38 | WING-TIP FUEL TANK JETTISON SWITCH                     |                   |

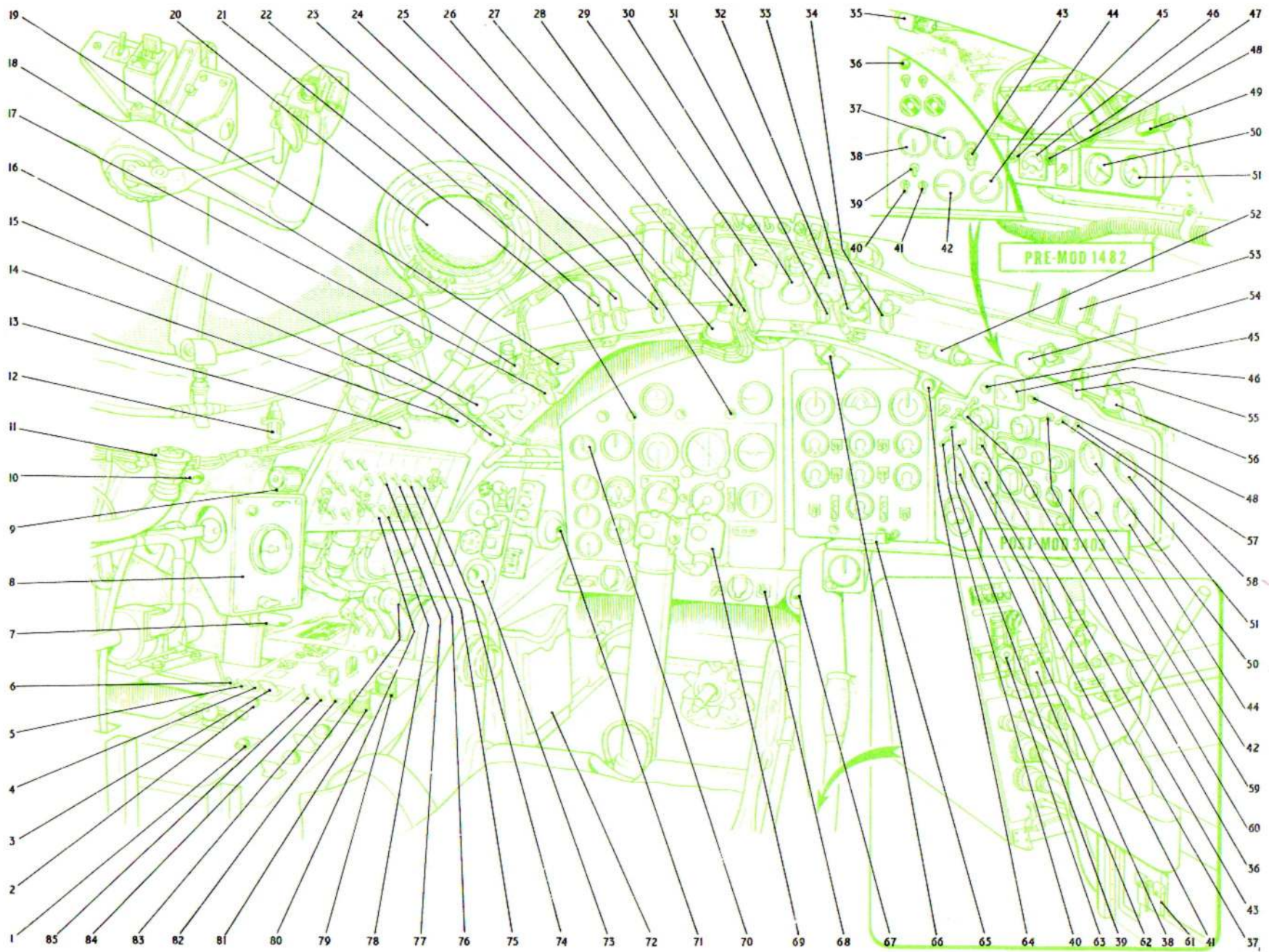


Fig.4. Miscellaneous equipment (B(I) Mk.6 aircraft)

◀ (Mod. 4329 embodied) ▶

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## KEY TO FIG.4 (MISCELLANEOUS EQUIPMENT - B (I) MK.6 AIRCRAFT)

1 ANTI-COLLISION LAMPS FUSE No.200	31 RED LAMP	59 U.H.F. CONTROL UNIT
2 BOMB/FLARE DOORS POSITION INDICATOR	32 STARBOARD COCKPIT U/V LAMPS DIMMER SWITCH	60 U.H.F. MUTING SWITCH
3 LANDING LAMPS SWITCH	33 ANTI-DAZZLE LAMPS	61 FLAP SELECTOR LOCKING PIN STOWAGE
4 TAXYING LAMPS SWITCH	34 EMERGENCY LAMP	62 BOMB/FLARE DOOR SELECTOR SWITCH LOCKING PIN STOWAGE
5 NAVIGATION LAMPS SWITCH	35 RED LAMP	63 PILOT'S AIR VENTILATED SUIT SHUT-OFF COCK
6 ANTI-COLLISION LAMPS SWITCH	36 ENGINE FIRE INDICATOR TEST SWITCH	64 AIR BOMBER'S REMOTE OXYGEN INDICATOR
7 RED LAMP	37 CABIN ALTIMETER	65 RED LAMP
8 OXYGEN REGULATOR	38 MIXING VALVE POSITION INDICATOR	66 U/V LAMP
9 CONSOLE PANEL RED LAMPS DIMMER SWITCH	39 CABIN HEATING CONTROL SWITCH	67 AIR CONDITIONING PUNKAH LOUVRE
10 RED LAMP	40 PORT ENGINE CABIN AIR CONTROL SWITCH	68 G.M.4B COMPASS CHANGE-OVER SWITCH - COMPASS/D - GYRO
11 AIR CONDITIONING DIFFUSER	41 STARBOARD ENGINE CABIN AIR CONTROL SWITCH	69 V.H.F. CONTROL PANEL
12 RED LAMP	42 WHEEL BRAKES HYDRAULIC PRESSURE GAUGE	70 CLOCK
13 RED LAMP	43 CABIN PRESSURE WARNING HORN OVERRIDE SWITCH	71 COLD AIR PUNKAH LOUVRE
14 CANOPY INNER SURFACE DE-MISTER CONTROL	44 MAIN SYSTEM HYDRAULIC PRESSURE GAUGE	72 MAPS AND PILOT'S NOTES STOWAGES
15 RED LAMP	45 PORT GENERATOR FAILURE WARNING LAMP	73 AIR CONDITIONING PUNKAH LOUVRE
16 U/V LAMP	46 BUS BAR VOLTMETER	74 INTERCOMM. ON/OFF SWITCH
17 RED LAMP	47 U/V LAMP	75 INTERCOMM. NORMAL/EMERGENCY CHANGE-OVER SWITCH
18 ANTI-COLLISION LAMP	48 STARBOARD GENERATOR FAILURE WARNING LAMP	76 D.V. WINDOW HEATER CONTROL SWITCH
19 TAKE-OFF PANEL RED LAMPS DIMMER SWITCH	49 RED LAMP	77 PRESSURE HEAD HEATER CONTROL SWITCH
20 D.V. WINDOW	50 OXYGEN PRESSURE GAUGE	78 WING INTEGRAL FUEL TANKS VENT VALVE HEATERS CONTROL SWITCH
21 PILOT'S OXYGEN INDICATOR	51 OXYGEN PRESSURE GAUGE	79 PORT COCKPIT RED LAMPS DIMMER SWITCH
22 RED LAMP	52 RED LAMP	80 CANOPY DE-MISTER CONTROL SWITCH
23 EMERGENCY LAMP	53 V.H.F./U.H.F. CARD HOLDERS	81 PORT COCKPIT U/V LAMPS DIMMER SWITCH
24 RED LAMP	54 U/V LAMP	82 V.H.F./U.H.F. PRESS-TO-TRANSMIT SWITCH
25 FLIGHT INSTRUMENTS NORMAL/STANDBY INDICATOR	55 RED LAMP	83 EXTERNAL LAMPS MASTER SWITCH
26 U/V LAMP	56 U/V LAMP	84 DOWNWARD IDENTIFICATION LAMP STEADY SWITCH
27 E2A COMPASS LAMP	57 U.H.F./V.H.F. CHANGEOVER SWITCH	85 DOWNWARD IDENTIFICATION LAMP MORSE SWITCH
28 RED LAMP	58 U.H.F. TONE CONTROL SWITCH	
29 STARBOARD COCKPIT RED LAMPS DIMMER SWITCH		
30 U/V LAMP		

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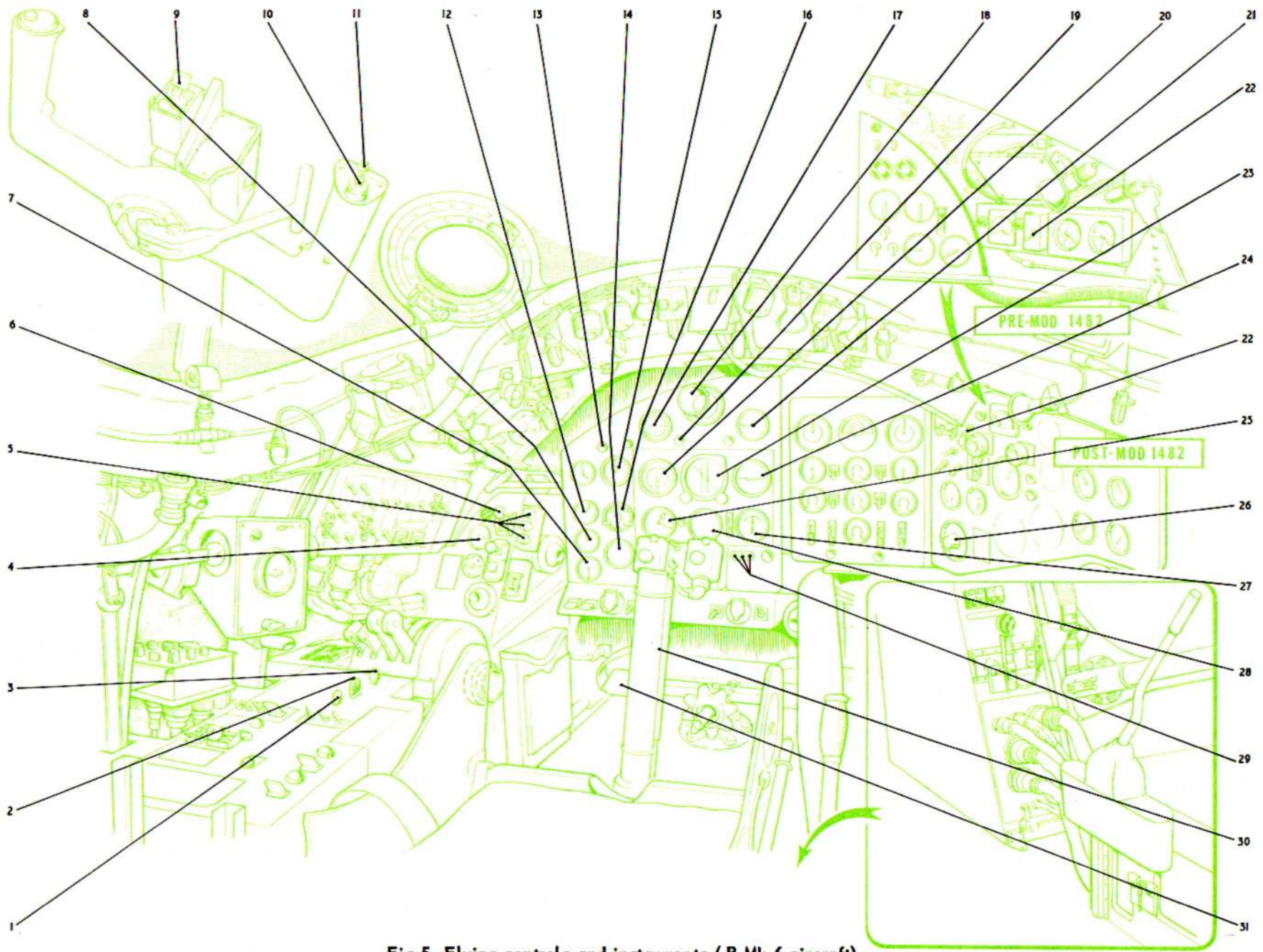


Fig.5 Flying controls and instruments ( B Mk.6 aircraft)

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**KEY TO FIG.5 (FLYING CONTROLS AND INSTRUMENTS – BMK.6 AIRCRAFT)**

- |    |   |    |   |
|----|---|----|---|
| 1  | AILERON TRIM CONTROL SWITCH   | 17 | ZERO READER INDICATOR   |
| 2  | RUDDER TRIM SWITCHES  | 18 | REAR WARNING INDICATOR  |
| 3  | TAIL PLANE TRIM-FINE (INOPERATIVE)  | 19 | I.L.S. MARKER LAMP  |
| 4  | FLAP POSITION INDICATOR   | 20 | AIR SPEED INDICATOR   |
| 5  | RADIO ALTIMETER (A.Y.F.) INDICATOR LAMPS  | 21 | RATE OF CLIMB INDICATOR   |
| 6  | FLAPS CONTROL SWITCH  | 22 | I.L.S. CONTROL SWITCH   |
| 7  | AILERON TRIM INDICATOR  | 23 | G.M.4B COMPASS  |
| 8  | RUDDER TRIM INDICATOR   | 24 | HORIZONTAL GYRO UNIT  |
| 9  | AIR BRAKES SWITCH   | 25 | ALTIMETER   |
| 10 | TAIL PLANE CONTROL CUT-IN SWITCH  | 26 | RADIO ALTIMETER (A.Y.F.) LIMIT SWITCH   |
| 11 | TAIL PLANE CONTROL FINE TRIM SWITCH   | 27 | TURN-AND-SLIP INDICATOR   |
| 12 | TAIL TRIM INDICATOR   | 28 | RADIO ALTIMETER (A.Y.F.) LIMIT SWITCH<br>(PRE MOD.1482) OR A.Y.F. INDICATOR<br>(POST MOD.2659) OR ZERO READER<br>COURSE SELECTOR (PRE MOD.2659) |
| 13 | I.L.S. AUDIO VOLUME CONTROL   | 29 | GEE-H INDICATOR LAMPS   |
| 14 | I.L.S. INDICATOR  | 30 | CONTROL COLUMN  |
| 15 | MACHMETER   | 31 | RUDDER PEDALS   |
| 16 | ZERO READER COMBINED HEADING<br>SELECTOR AND CONTROL PANEL (POST<br>MOD.2659) OR RADIO ALTIMETER (A.Y.F.)<br>INDICATOR (PRE MOD.2659) |    |   |

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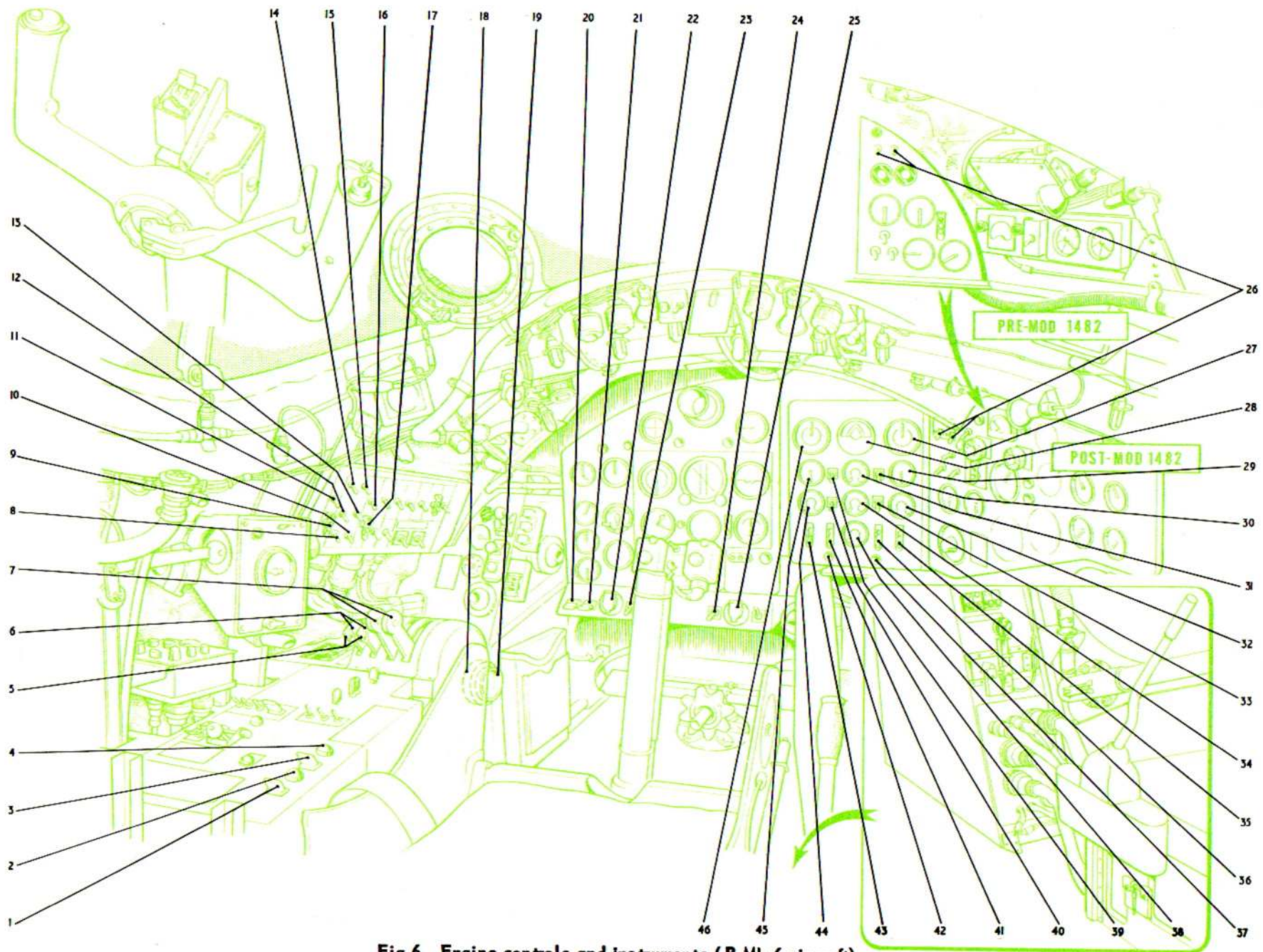


Fig.6. Engine controls and instruments ( B Mk.6 aircraft)

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## KEY TO FIG.6 (ENGINE CONTROLS AND INSTRUMENTS – B MK.6 AIRCRAFT)

1	STARBOARD ENGINE ANTI-ICING SWITCH	26	OVERLOAD FUEL TANK PUMPS AND COCKS SWITCHES
2	STARBOARD ENGINE ANTI-ICING INDICATOR	27	STARBOARD ENGINE TACHOMETER
3	PORT ENGINE ANTI-ICING SWITCH	28	ENGINE EXHAUST GAS THERMOMETER INDICATOR
4	PORT ENGINE ANTI-ICING INDICATOR	29	STARBOARD ENGINE OIL PRESSURE GAUGE
5	ENGINE RELIGHT SWITCHES	30	No.1 TANK STARBOARD FUEL PUMP SWITCH
6	HIGH-PRESSURE FUEL SHUT-OFF COCK LEVERS	31	No.1 TANK FUEL CONTENTS GAUGE
7	ENGINE THROTTLE CONTROL LEVERS	32	STARBOARD WING INTEGRAL TANK FUEL CONTENTS GAUGE
8	No.3 TANK PORT FUEL COCK SWITCH	33	No.2 TANK STARBOARD FUEL PUMP SWITCH
9	PORT WING INTEGRAL TANK TO No.3 TANK FUEL TRANSFER COCK SWITCH	34	No.2 TANK FUEL CONTENTS GAUGE
10	No.3 TANK STARBOARD FUEL COCK SWITCH	35	STARBOARD WING INTEGRAL TANK FUEL PUMP SWITCH
11	PORT WING INTEGRAL TANK FUEL COCK SWITCH	36	No.3 TANK STARBOARD FUEL PUMP SWITCH
12	No.2 TANK PORT FUEL COCK SWITCH	37	STARBOARD ENGINE FUEL PRESSURE WARNING LAMP
13	No.2 TANK STARBOARD FUEL COCK SWITCH	38	No.3 TANK FUEL CONTENTS GAUGE
14	No.1 TANK PORT FUEL COCK SWITCH	39	No.1 TANK PORT FUEL PUMP SWITCH
15	No.1 TANK STARBOARD FUEL COCK SWITCH	40	No.2 TANK PORT FUEL PUMP SWITCH
16	STARBOARD WING INTEGRAL TANK FUEL COCK SWITCH	41	No.3 TANK PORT FUEL PUMP SWITCH
17	STARBOARD WING INTEGRAL TANK TO No.3 TANK FUEL TRANSFER COCK SWITCH	42	PORT ENGINE FUEL PRESSURE WARNING LAMP
18	THROTTLE CONTROLS FRICTION DAMPER	43	PORT WING INTEGRAL TANK PUMP SWITCH
19	HIGH PRESSURE FUEL SHUT-OFF COCK LEVERS FRICTION DAMPER	44	PORT WING INTEGRAL TANK FUEL CONTENTS GAUGE
20	PORT ENGINE MASTER STARTING SWITCH	45	PORT ENGINE OIL PRESSURE GAUGE
21	STARBOARD ENGINE MASTER STARTING SWITCH	46	PORT ENGINE TACHOMETER
22	PORT ENGINE CARTRIDGE FIRING SELECTOR SWITCH		
23	PORT ENGINE IGNITION SWITCH		
24	STARBOARD ENGINE IGNITION SWITCH		
25	STARBOARD ENGINE CARTRIDGE FIRING SELECTOR SWITCH		



Fig.7 Operational equipment ( B Mk.6 aircraft)

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**KEY TO FIG.7 (OPERATIONAL EQUIPMENT – B MK.6 AIRCRAFT)**

- 1 BOMB DOORS CONTROL SWITCH
- 2 EMERGENCY BOMBS JETTISON SWITCH
- 3 CANOPY JETTISON SWITCH
- 4 ALIGHTING GEAR POSITION INDICATOR
- 5 BOMB DOORS EMERGENCY RELEASE
- 6 GENERATOR OFF-LINE SWITCH – PORT
- 7 GENERATOR OFF-LINE SWITCH – STARBOARD
- 8 WHEEL BRAKES CONTROL LEVER
- 9 CANOPY, ELEVATOR CONTROL AND HATCH  
MASTER DETONATOR SWITCH
- 10 BATTERY ISOLATION SWITCH
- 11 ALIGHTING GEAR SELECTOR SWITCH
- 12 ALIGHTING GEAR EMERGENCY LOWERING  
CONTROL
- 13 WING-TIP FUEL TANK JETTISON SWITCH
- 14 ANTI-DAZZLE LAMPS SWITCH
- 15 ALIGHTING GEAR MASTER SWITCH
- 16 PORT ENGINE FIRE EXTINGUISHER  
SWITCH/INDICATOR
- 17 STARBOARD ENGINE FIRE EXTINGUISHER  
SWITCH/INDICATOR
- 18 E2A COMPASS
- 19 TURN-AND-SLIP INDICATOR NORMAL/EMERGENCY  
SUPPLY SWITCH
- 20 EMERGENCY OXYGEN CONTROL
- 21 HYDRAULIC HAND PUMP OPERATING HANDLE

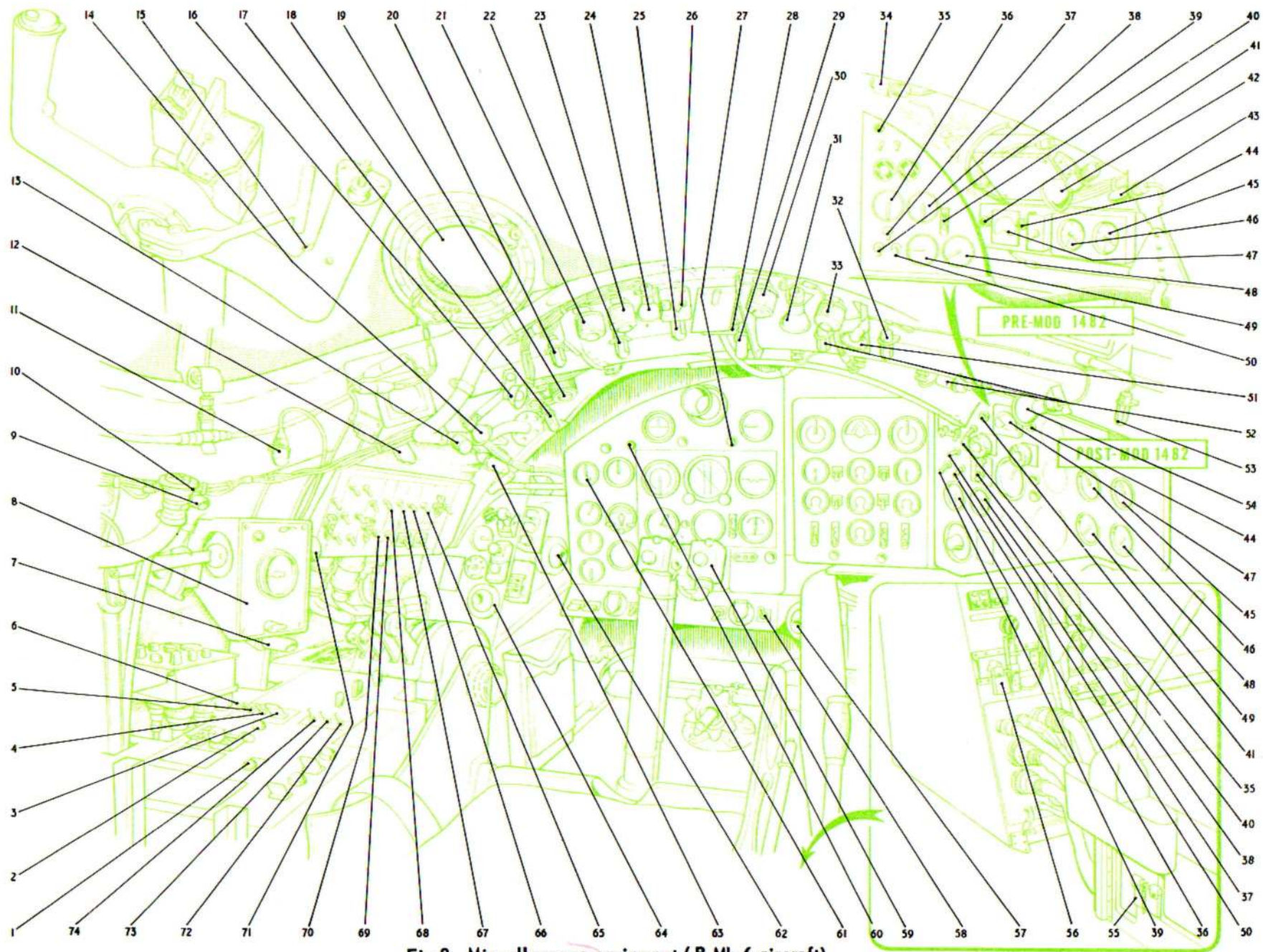


Fig.8. Miscellaneous equipment ( B Mk.6 aircraft)

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## KEY TO FIG.8 (MISCELLANEOUS EQUIPMENT – B MK.6 AIRCRAFT)

1 ANTI-COLLISION LAMPS FUSE No.200	28 E2A COMPASS LAMP	51 ANTI-DAZZLE LAMP
2 BOMB DOORS POSITION INDICATOR	29 RED LAMP	52 RED LAMP
3 LANDING LAMP SWITCH	30 STARBOARD COCKPIT U/V LAMPS DIMMER SWITCH	53 RED LAMP
4 TAXYING LAMPS SWITCH	31 U/V LAMP	54 U/V LAMP
5 NAVIGATION LAMPS SWITCH	32 EMERGENCY LAMP	55 FLAP SELECTOR LOCKING PIN STOWAGE
6 ANTI-COLLISION LAMPS SWITCH	33 STARBOARD COCKPIT RED LAMPS DIMMER SWITCH	56 BOMB DOOR SELECTOR SWITCH LOCKING PIN STOWAGES
7 RED LAMP	34 RED LAMP	57 AIR CONDITIONING PUNKAH LOUVRE
8 OXYGEN REGULATOR	35 ENGINE FIRE INDICATOR TEST SWITCH	58 G.M.4B COMPASS CHANGE-OVER SWITCH – COMPASS/D - GYRO
9 RED LAMP	36 MIXING VALVE POSITION INDICATOR	59 V.H.F. CONTROL PANEL
10 AIR CONDITIONING DIFFUSER	37 CABIN HEAT CONTROL SWITCH	60 PILOT'S OXYGEN INDICATOR
11 RED LAMP	38 CABIN ALTIMETER	61 CLOCK
12 RED LAMP	39 PORT ENGINE CABIN AIR CONTROL SWITCH	62 COLD-AIR PUNKAH LOUVRE
13 CANOPY INNER SURFACE DE-MISTER CONTROL	40 CABIN PRESSURE WARNING HORN OVERRIDE SWITCH	63 RED LAMP
14 U/V LAMP	41 PORT GENERATOR FAILURE WARNING LAMP	64 AIR CONDITIONING PUNKAH LOUVRE
15 V.H.F. PRESS-TO-TRANSMIT SWITCH	42 U/V LAMP	65 INTERCOMM. ON/OFF SWITCH
16 ANTI-DAZZLE LAMP	43 RED LAMP	66 INTERCOMM. NORMAL/EMERGENCY CHANGE-OVER SWITCH
17 RED LAMP	44 STARBOARD GENERATOR FAILURE WARNING LAMP	67 D.V. WINDOW HEATER CONTROL SWITCH
18 D.V. WINDOW	45 OXYGEN PRESSURE GAUGE	68 PRESSURE HEAD HEATER CONTROL SWITCH
19 TAKE-OFF PANEL RED LAMPS DIMMER SWITCH	46 OXYGEN PRESSURE GAUGE	69 WING INTEGRAL FUEL TANKS VENT VALVES HEATER SWITCH
20 RED LAMP	47 BUS BAR VOLTMETER	70 CANOPY DE-MISTING CONTROL SWITCH
21 PORT COCKPIT U/V LAMPS DIMMER SWITCH	48 MAIN SYSTEM HYDRAULIC PRESSURE GAUGE	71 CONSOLE PANEL RED LAMPS DIMMER SWITCH
22 EMERGENCY LAMP	49 WHEEL BRAKES HYDRAULIC PRESSURE GAUGE	72 EXTERNAL LIGHTS MASTER SWITCH
23 PORT COCKPIT RED LAMPS DIMMER SWITCH	50 STARBOARD ENGINE CABIN AIR CONTROL SWITCH	73 DOWNWARD IDENTIFICATION LAMP STEADY SWITCH
24 U/V LAMP		74 DOWNWARD IDENTIFICATION LAMP MORSE SWITCH
25 RED LAMP		
26 EMERGENCY LAMPS SWITCH		
27 FLIGHT INSTRUMENTS NORMAL/STANDBY INDICATOR		

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## Chapter 2

## CONTROLS AND EQUIPMENT AT CREW STATIONS

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<i>Air bomber's rear station (B (I) Mk.6 aircraft)</i> ... ..	2	<i>Air bomber's rear station (B Mk.6 aircraft)</i> ..	5
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**WARNING**

The relevant safety precautions detailed on the **LETHAL WARNING** marker card must always be observed before entering the cabin or performing any operations on the aircraft.

**Introduction**

1. This chapter provides information regarding the disposition, function and operation of controls and equipment at the crew stations on both B and B(I) Mk.6 aircraft. The general equipment is illustrated in fig.1 to 6.

**Entrance to stations**

2. Entrance to the stations is through the

doorway in the starboard side of the fuselage, aft of the nose fairing (*Chap.1*).

**Seating**

3. Two Martin Baker Type 2 CA2 Mk.2 ejection seats, with single-lever ejection facilities are installed. The seats are described in detail in A.P.109B-0101-1. A folding seat for occasional use, hinged to the cabin wall at the pilot's station can be folded upwards against the cabin wall when not in use. ►

**Navigator's station (fig.1 and 4)**

4. The navigator's seat is at the rear of the cabin on the port side. The hinged chart

table is fixed to the port side of the fuselage structure, and equipment is fitted above and below the table and to the fuselage on the port side. Situated at the starboard side of the chart table is the electrical control panel (E.C.P.) (*para.7*).

**Air bomber's stations (fig.2, 3, 5 and 6)**

5. The air bomber's seat is at the rear of the cabin on the starboard side. A panel on the starboard side of the cabin carries the ◀ S.W.S. equipment (*B (I) Mk.6 aircraft*), camera ▶ controls, bomb distributor control, oxygen regulator, etc. The air bomber's bombing position is in the transparent plastic nose of the aircraft; here the sighting head and bombsight computer with their associated

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controls and switches are fitted. On B(1) Mk.6 aircraft, a Decca roller map may be fitted and for S.W.S. role an F95 camera is fitted in lieu of the bomb sighting head.

### Lighting

6. Two Mk.1A dome lamps, incorporating switches in the lamp bases, are mounted in the cabin roof to provide general lighting. The instrument panels are illuminated by independent lamps with dimmer switches. Two angle-type lamps (*one only on B(1)Mk.6 aircraft*) are provided for the use of the crew members at the rear stations and an inspection lamp, with a flexible lead, is carried in

a stowage on the starboard wall immediately aft of the entrance door; the lamp may be plugged into any of the two-pin sockets in the bases of the Mk.1A dome lamps.

### Electrical control panel (*E.C.P.*)

7. The electrical control panel at the starboard side of the navigator's table, carries on its rear face various switches and circuit breakers for certain aircraft services.

### Armament safety break (*B(1)Mk.6 aircraft*)

8. As a safety precaution to prevent the guns or rockets being fired or any loaded store being released while the aircraft is on the ground, provision is made to disconnect

the armament circuit power supply cable NA1 by breaking the plug and socket coupling on the armament fuse and relay panel mounted aft of the cabin entrance door. A red pennant, bearing the words ARMAMENT SAFE, is attached to the cable NA1 and when the cable is disconnected the pennant is clearly visible at the entrance door.

### Armament test switch (*B(1)Mk.6 aircraft*)

9. An armament test switch, also located on the armament fuse and relay panel (*para. 8*), is provided for ground testing the armament circuits. The armament safety break (*para. 8*) must be connected before the test switch can become operative (*Sect. 5, Chap. 1, Group A & B, Part 1*).

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KEY TO FIG.1 (NAVIGATOR'S STATION - B (I) MK.6 AIRCRAFT)

1	DECCA ROLLER MAP COUPLING UNIT	24	NAVIGATOR'S CONTROL SWITCH FOR PILOT'S ANTI-DAZZLE LAMPS	45	DECCA MK.1 CONTROL UNIT
2	A.P.I. REPEATER UNIT	25	MIDGET PANEL LAMPS DIMMERS SWITCH	46	BLACK-OUT CURTAIN
3	AIR CONDITIONING PUNKAH LOUVRE	26	MIDGET PANEL LAMPS DIMMER SWITCH	47	MIDGET PANEL LAMP
4	V.H.F./U.H.F. PRESS-TO-TRANSMIT SWITCH	27	BLUE SILK INVERTER SWITCH	48	E.C.P.
5	AIR POSITION INDICATOR	28	HATCH DETONATOR RESISTOR BOX	49	PILOT'S SERVICES CIRCUIT BREAKER
6	I.L.S. CONTROL UNIT	29	BLUE SILK ELECTRICAL INDICATOR, TYPE T4355	50	ARMAMENT SUPPLY CIRCUIT BREAKER
7	OXYGEN STOP VALVE	30	MIDGET PANEL LAMPS	51	BLUE SILK AND DECCA D.C. FUSE BOX
8	HATCH JETTISON SWITCH	31	AIR MILEAGE INDICATOR	52	NO.5 INVERTER STOP SWITCH
9	REAR WARNING FALSE WARNING SUPPRESSOR	32	MIDGET PANEL LAMPS	53	NO.5 INVERTER START SWITCH
10	I.F.F. MK.10 I.P. SWITCH	33	G.M.4B COMPASS INDICATOR	54	NO.1 INVERTER GROUND TEST SWITCH
11	HATCH DETONATOR RESISTOR BOX	34	BLUE SILK START SWITCH	55	REAR WARNING CONTROL SWITCH
12	I.F.F. MK.10 CODER CONTROL UNIT	35	MIDGET PANEL LAMP	◀ 56	L.A.B.S. NO.6 INVERTER (NORMAL) INDICATOR (INOPERATIVE)
13	I.F.F./MK.10 CONTROL UNIT, TYPE 927	36	REAR WARNING INDICATOR, TYPE 27	57	L.A.B.S. NO.7 INVERTER (STANDBY) INDICATOR (INOPERATIVE)
14	I.F.F. MK.10 CONTROL SWITCH	37	BLUE SILK ELECTRICAL INDICATOR, TYPE T4403	58	L.A.B.S. 400 C/S A.C. SUPPLY SWITCH (NO.6 AND 7 INVERTER (INOPERATIVE)
15	HATCH EXPLOSIVE BOLTS	38	MIDGET PANEL LAMP	59	L.A.B.S. 1600 C/S SUPPLY SWITCH (INOPERATIVE) ▶
16	OXYGEN REGULATOR	39	REAR WARNING CONTROL UNIT, TYPE 611	60	I.L.S. CIRCUIT BREAKER
17	RED LAMP	40	MIDGET PANEL LAMP	61	1600 C/S SUPPLY CIRCUIT BREAKER
18	A.M.U. CONTROL PANEL	41	DECCA ROLLER MAP (ALTERNATIVE POSITION TO NOSE STATION)	62	NO.2 INVERTER CIRCUIT BREAKER
19	G.P.I. MK.4A	42	DECCA MK 1 DECOMETERS	63	DECCA RECEIVER 'B' UNIT
20	EXTERNAL AIR TEMPERATURE INDICATOR	43	DECCA MK.1 LANE IDENTIFICATION METER	64	AIR SPEED INDICATOR
21	RED LAMP DIMMER SWITCH	44	MIDGET PANEL LAMPS	65	ALTIMETER
22	MIDGET PANEL LAMPS			66	DECCA RECEIVER 'A' UNIT
23	CABIN LAMP			67	DECCA FREQUENCY SELECTOR
				68	DECCA POWER UNIT

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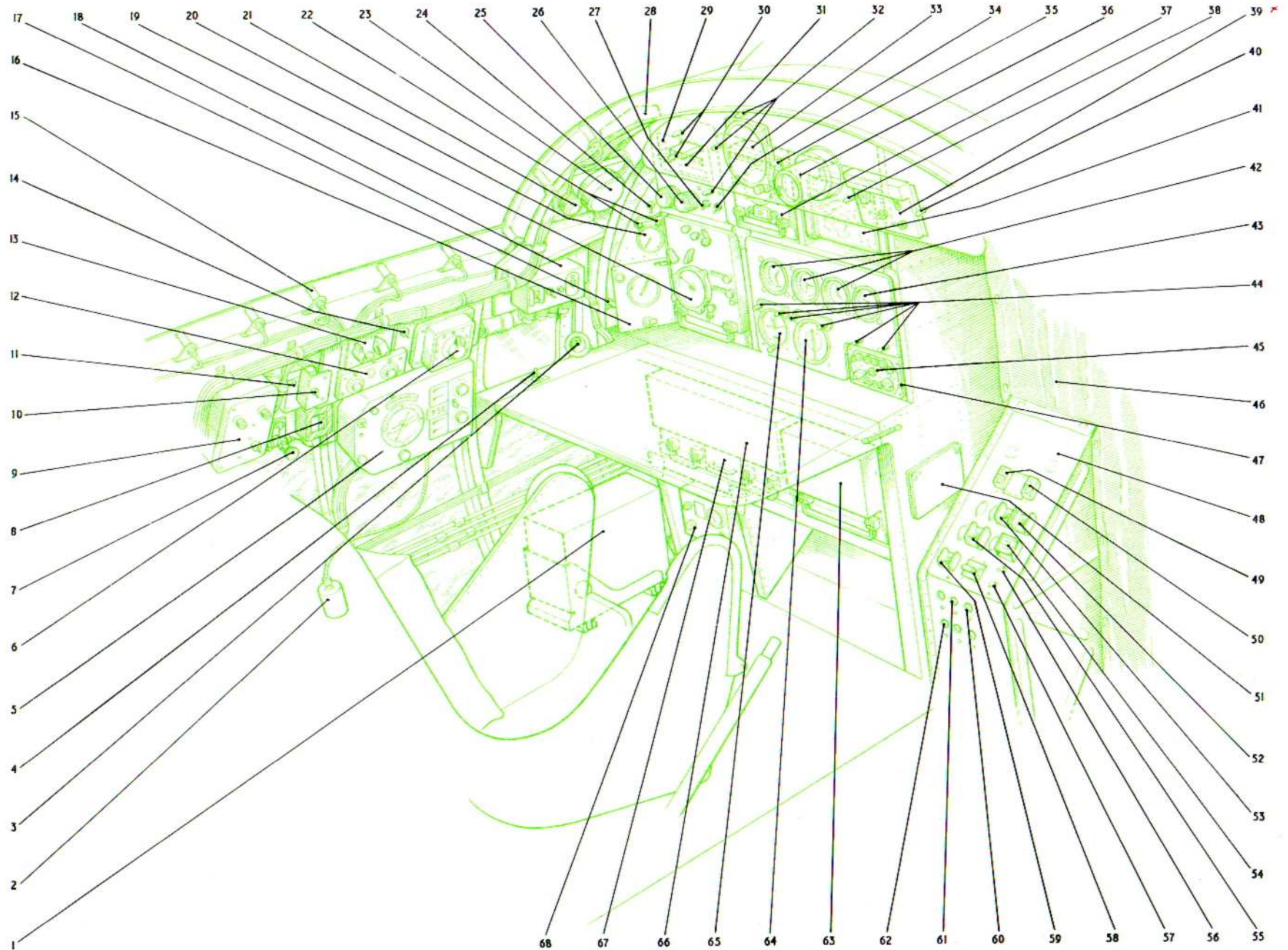


Fig.1. Navigator's station (B(I) Mk.6 aircraft)

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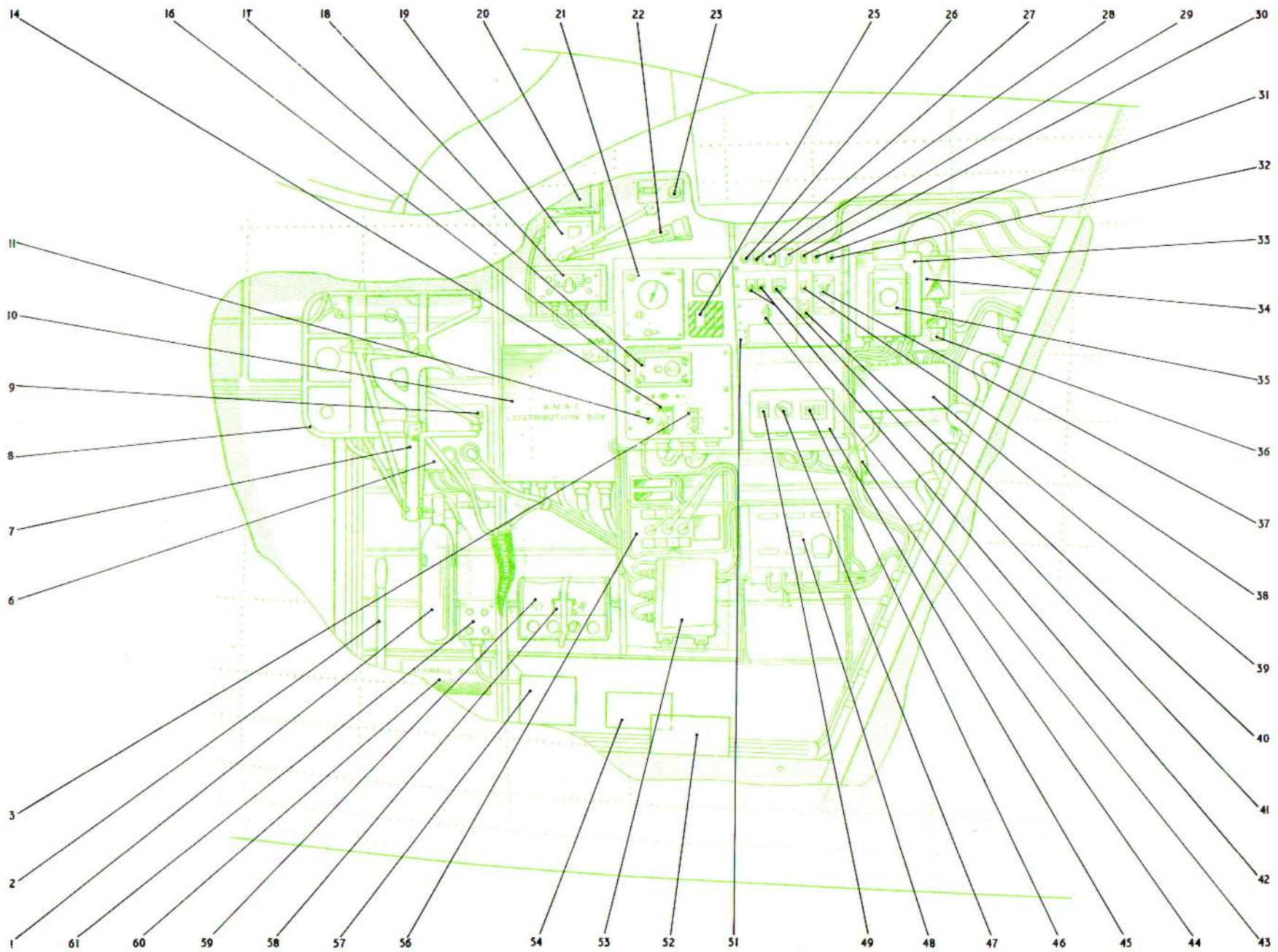


Fig.2. Air bomber's rear station (B(I) Mk.6 aircraft)

◀ (Mod. 4329 embodied) ▶

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## KEY TO FIG.2 (AIR BOMBER'S REAR STATION - B (I) MK.6 AIRCRAFT)

- |      |  |      |   |
|------|--|------|---|
| ◀ 1  | FIRE EXTINGUISHER  | 33   | 400 C/S FUSE BOX  |
| 2    | HYDRAULIC HANDPUMP HANDLE<br>STOWAGE                                       | 34   | SUPPRESSOR TYPE P (G.M.4B COMPASS<br>AND BOMBSIGHT)                   |
| 3    | SECONDARY RELEASE SWITCH   | 35   | WEDGE PLATE MOUNTING FOR F24<br>CAMERA CONTROLLER                     |
| 4    |  | 36   | BOMBS/F24 CAMERA TYPE Q RELAY   |
| 5    |  | 37   | BOMBS FUZING SELECTOR SWITCH  |
| 6    | ARMAMENT FUSE AND RELAY PANEL  | 38   | BOMBS/R.P. MASTER SELECTOR SWITCH                                     |
| 7    | CRASH AXE STOWAGE  | 39   | J.B.14  |
| 8    | MAP READING SEAT   | 40   | BOMBS/R.P. CIRCUIT BREAKER  |
| 9    | ARMAMENT TEST SWITCH   | 41   | WING BOMBS FUZING SWITCH  |
| 10   | A.M.A.C. DISTRIBUTION BOX  | 42   | WINGS BOMBS SELECTOR SWITCHES   |
| 11   | BOMB ON STATION INDICATOR LAMP   | 43   | ROCKET BATTERY SELECTOR SWITCH<br>(INOPERATIVE)                       |
| 12   |  | 44   | CABIN AIR WARNING HORN  |
| 13   |  | 45   | PRACTICE BOMB FACILITY PANEL<br>(ALTERNATIVE TO BOMB CONTROL<br>UNIT) |
| 14   | BOMB SELECTOR SWITCH   | ◀ 46 | PRACTICE BOMB SLIP INDICATOR  |
| 15   |  | 47   | BOMB DOORS MICROSWITCHES SHORTED<br>OUT INDICATOR LAMP ▶              |
| 16   | S.W.S. CONTROL PANEL<br>(ALTERNATIVE FIT TO 12/24 WAY<br>BOMB DISTRIBUTOR) | 48   | G.M.4B COMPASS AMPLIFIER  |
| 17   | D.C.U./9A CONTROL UNIT ▶   | 49   | PRACTICE BOMB ▶ ◀ MASTER<br>SWITCH                                    |
| 18   | G.M.4B COMPASS CONTROL PANEL   | 50   | ▶ ◀   |
| 19   | REAR WARNING RELAY UNIT, TYPE<br>4827                                      | 51   | CABIN AIR WARNING HORN RELAY  |
| 20   | CANOPY DETONATOR RESISTOR BOX  | 52   | BLUE SILK J.B. TYPE 4832  |
| 21   | OXYGEN REGULATOR   | 53   | I.C. AMPLIFIER, TYPE A1961  |
| 22   | WANDER LAMP  | 54   | G.P.I. AMPLIFIER  |
| 23   | WANDER LAMP DIMMER SWITCH  | 55   | ▶ ◀   |
| 24   | ▶ ◀  | 56   | I.C. RELAY PANEL  |
| 25   | HATCH JETTISON SWITCH  | 57   | U.H.F./V.H.F. RELAY BOX   |
| 26   | BOMB/FLARE DOORS INDICATOR   | 58   | ASBESTOS GLOVES STOWAGE   |
| 27   | FLARES MASTER SWITCH   | 59   | FIRST AID PACK STOWAGE  |
| 28   | FLARES RELEASE SWITCH  | 60   | INSPECTION LAMP STOWAGE   |
| 29   | FLARES GONE COUNTER  | 61   | REAR WARNING AUXILIARY CONTROL<br>UNIT, TYPE 912                      |
| ◀ 30 | G.90 CAMERA MASTER SWITCH  |      |   |
| 31   | G.90 CAMERA SUNNY/CLOUDY SWITCH ▶  |      |   |
| 32   | F.24 CAMERA MASTER SWITCH  |      |   |

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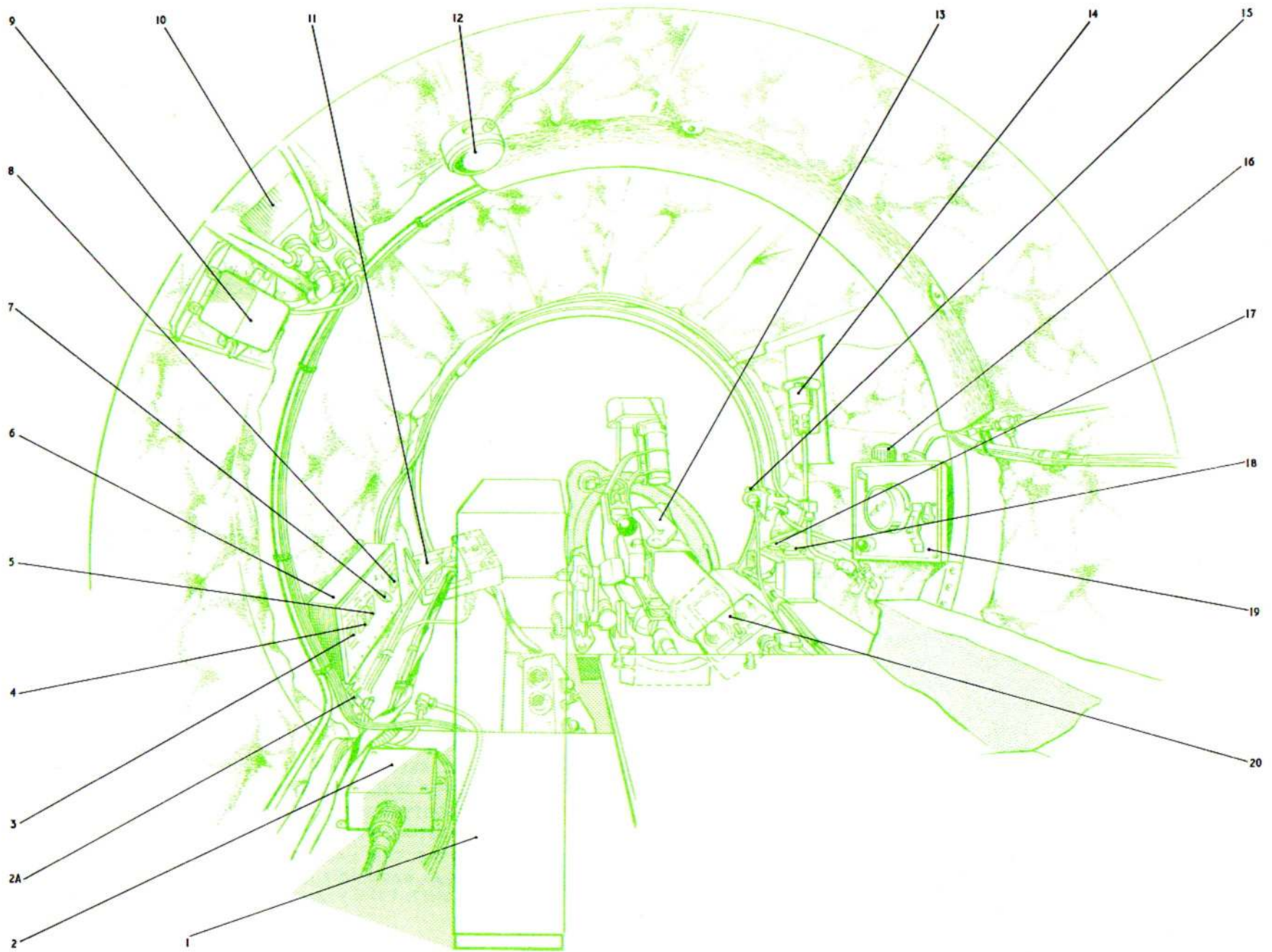


Fig.3. Air bomber's forward station (B(I) Mk.6 aircraft)

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**KEY TO FIG.3 (AIR BOMBER'S FORWARD STATION – B (I) MK.6 AIRCRAFT**

- 1 T.2 BOMBSIGHT COMPUTOR
- 2 T.2 BOMBSIGHT J.B.
- ◀ 2A F24 CAMERA REMOTE PUSHBUTTON SWITCH ▶
- 3 F.95 CAMERA MASTER SWITCH
- 4 F.95 CAMERA IRIS HEATER SWITCH
- 5 F.95 CAMERA SPEED SELECTOR SWITCH
- 6 F.95 CAMERA CONTROL BOX
- 7 F.95 CAMERA IRIS SELECTOR SWITCH
- 8 F.95 CAMERA FILM INDICATOR
- 9 PILOT'S MK.22D ALTIMETER AMPLIFIER
- 10 I.L.S. J.B., TYPE 164
- 11 DECCA ROLLER MAP
- 12 CABIN LAMP
- 13 T.2 BOMBSIGHT (ALTERNATIVE FIT TO F.95 CAMERA)
- 14 BOMB RELEASE SWITCH
- 15 WANDER LAMP
- 16 WANDER LAMP DIMMER SWITCH
- 17 BOMBS LIVE JETTISON SWITCH
- 18 BOMBS SAFE JETTISON SWITCH
- 19 OXYGEN REGULATOR
- 20 T.2 BOMBSIGHT CONTROL PANEL

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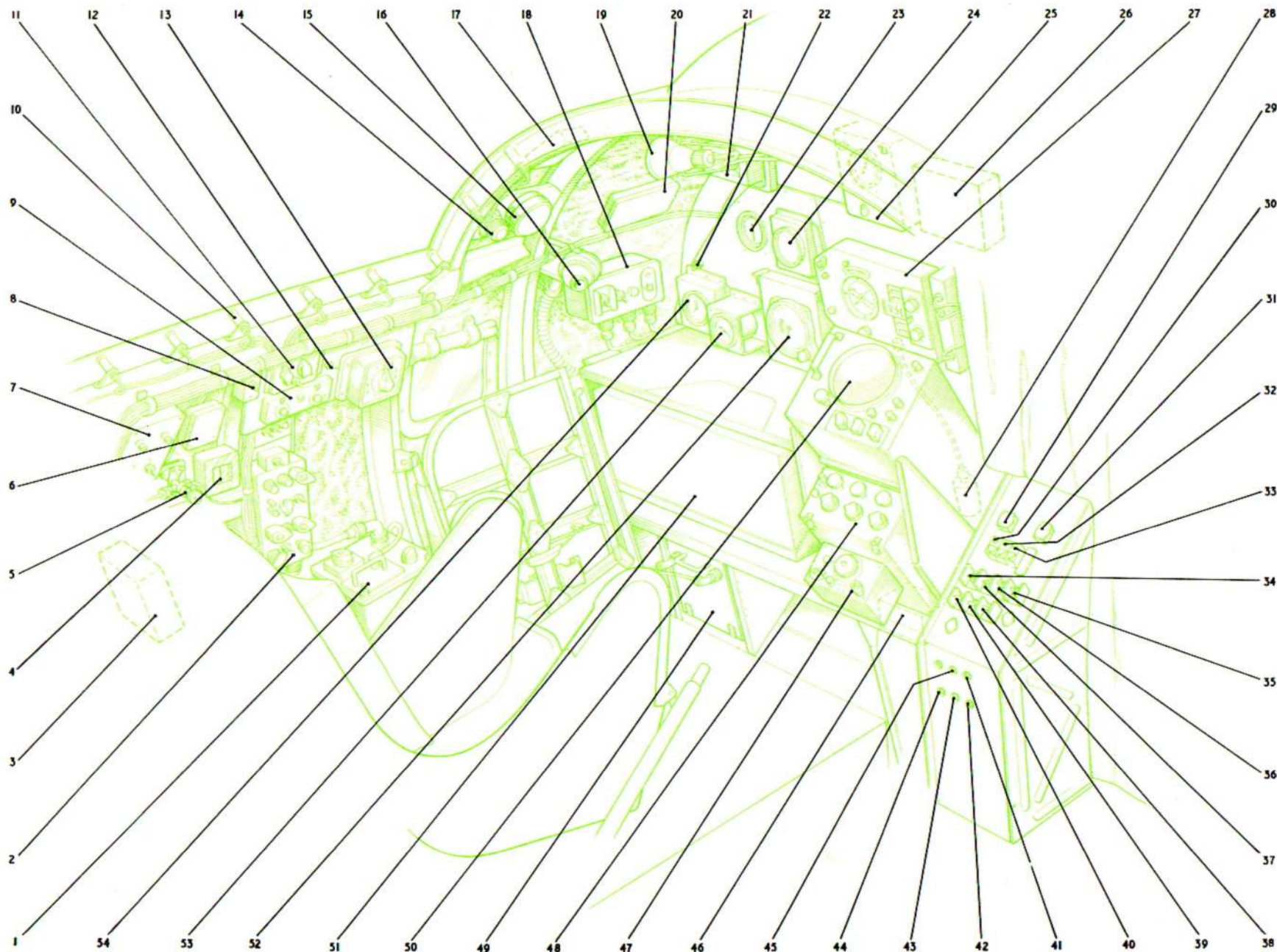


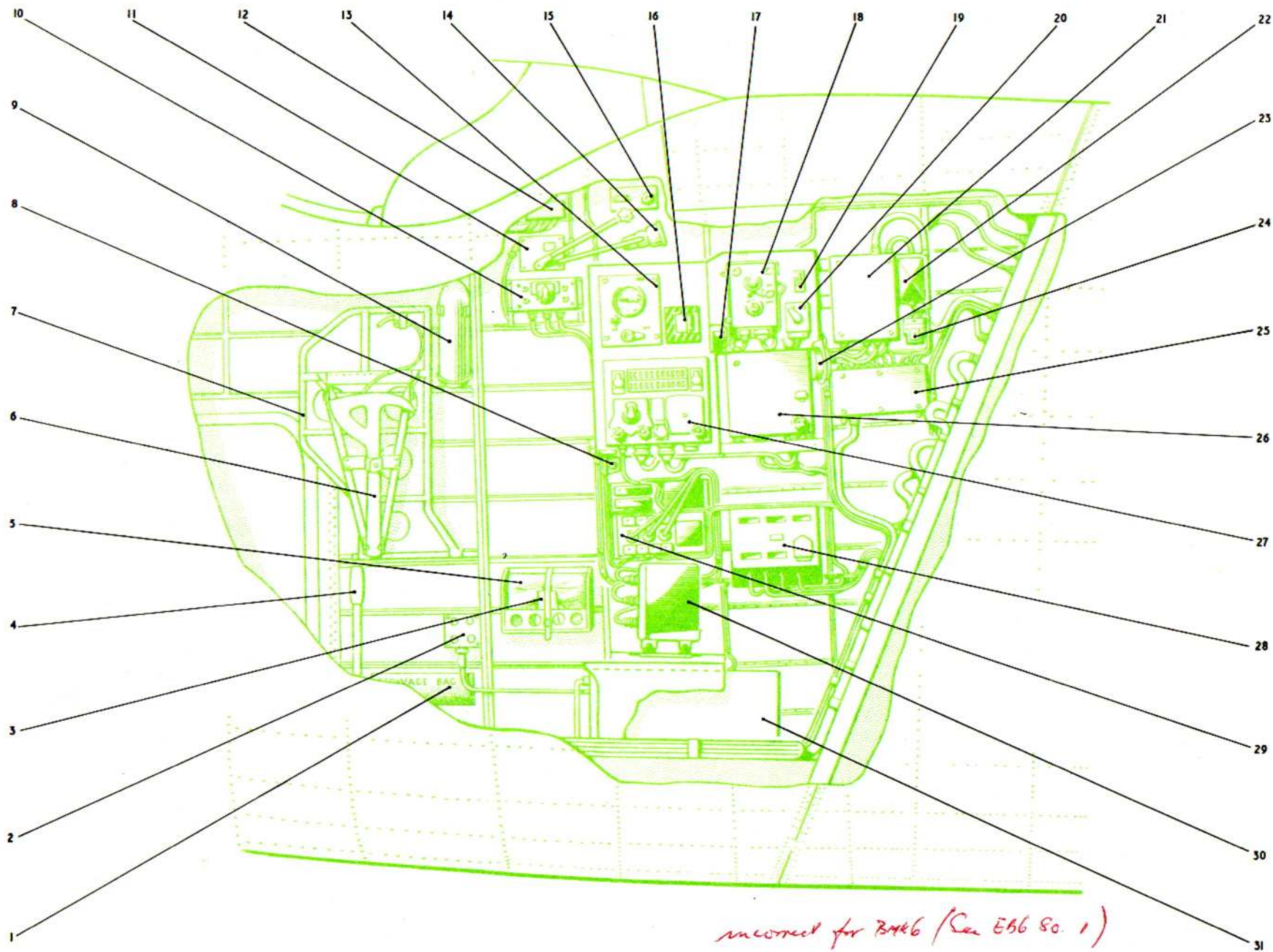
Fig.4. Navigator's station (B Mk.6 aircraft)

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## KEY TO FIG.4 (NAVIGATOR'S STATION - B MK.6 AIRCRAFT)

- |    |   |    |  |
|----|---|----|--|
| 1  | GEE-H RECEIVER, TYPE 3582A                                  | 30 | PILOT'S SERVICES CIRCUIT BREAKER                       |
| 2  | REBECCA CONTROL UNIT  | 31 | NO.2 GENERATOR SWITCH<br>(PRE.MOD.2393)                |
| 3  | GEE-H R.F. UNIT   | 32 | NO.2 GENERATOR FIELD CIRCUIT<br>BREAKER (PRE.MOD.2393) |
| 4  | HATCH JETTISON SWITCH                                       | 33 | NO.2 GENERATOR FIELD CIRCUIT<br>BREAKER (PRE.MOD.2393) |
| 5  | OXYGEN STOP VALVE   | 34 | NO.4 INVERTER CONTROL SWITCH                           |
| 6  | HATCH DETONATOR RESISTOR BOX                                | 35 | NO.5 INVERTER STOP SWITCH                              |
| 7  | REAR WARNING FALSE WARNING<br>SUPPRESSOR                    | 36 | NO.5 INVERTER START SWITCH                             |
| 8  | I.F.F. MK.10 I.P. SWITCH                                    | 37 | NO.4/NO.5 INVERTER CHANGE-OVER<br>SWITCH               |
| 9  | I.F.F. MK.10 CODER CONTROL UNIT                             | 38 | GEE-H CONTROL SWITCH                                   |
| 10 | HATCH EXPLOSIVE BOLTS                                       | 39 | REAR WARNING CONTROL SWITCH                            |
| 11 | I.F.F. MK.10 CONTROL UNIT, TYPE 927                         | 40 | REBECCA CONTROL SWITCH                                 |
| 12 | I.F.F. MK.10 CONTROL SWITCH                                 | 41 | I.L.S. CIRCUIT BREAKER                                 |
| 13 | I.L.S. CONTROL UNIT   | 42 | NO.4 INVERTER CIRCUIT BREAKER                          |
| 14 | ANGLE POISE LAMP DIMMER SWITCH                              | 43 | NO.3 INVERTER CIRCUIT BREAKER                          |
| 15 | CABIN LAMP  | 44 | NO.2 INVERTER CIRCUIT BREAKER                          |
| 16 | AIR CONDITIONING PUNKAH LOUVRE                              | 45 | 1600 C/S SUPPLY CIRCUIT BREAKER                        |
| 17 | HATCH DETONATOR RESISTOR BOX                                | 46 | GEE-H JUNCTION BOX, TYPE X4816                         |
| 18 | A.M.U. CONTROL PANEL  | 47 | GEE-H CONTROL UNIT, TYPE X4817                         |
| 19 | ANGLE POISE LAMP  | 48 | GEE-H CONTROL UNIT, TYPE 426A                          |
| 20 | CANOPY DETONATOR RESISTOR BOX                               | 49 | GEE-H DRIVE UNIT, TYPE 114                             |
| 21 | AIR MILEAGE INDICATOR                                       | 50 | GEE-H INDICATOR, TYPE 166A                             |
| 22 | NAVIGATOR'S CONTROL SWITCH FOR<br>PILOT'S ANTI-DAZZLE LAMPS | 51 | GEE-H TRANSMITTER, TYPE T1629A                         |
| 23 | AIR SPEED INDICATOR   | 52 | G.M.4B COMPASS MASTER INDICATOR                        |
| 24 | REBECCA INDICATOR, TYPE 208                                 | 53 | EXTERNAL AIR TEMPERATURE<br>INDICATOR                  |
| 25 | OXYGEN REGULATOR  | 54 | ALTIMETER  |
| 26 | GEE-H CONTROL UNIT, TYPE 522                                |    |  |
| 27 | AIR POSITION INDICATOR (A.P.I)                              |    |  |
| 28 | A.P.I. REPEATER UNIT  |    |  |
| 29 | NO.1 GENERATOR SWITCH<br>(PRE.MOD.2393)                     |    |  |

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*incorrect for BMk6 (See EBB 80. 1)*

**Fig.5. Air bomber's rear station (BMk.6 aircraft)**

*(emb no 2197)*

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**KEY TO FIG.5 (AIR BOMBER'S REAR STATION - B MK.6 AIRCRAFT)**

- |    |   |    |   |
|----|---|----|---|
| 1  | INSPECTION LAMP STOWAGE BAG                   | 16 | HATCH JETTISON SWITCH                                     |
| 2  | REAR WARNING AUXILIARY CONTROL UNIT, TYPE 912 | 17 | CABIN AIR WARNING HORN RELAY                              |
| 3  | ASBESTOS GLOVES STOWAGE                       | 18 | F.24 CAMERA CONTROLLER                                    |
| 4  | HYDRAULIC HAND PUMP HANDLE STOWAGE            | 19 | F.24 CAMERA MASTER SWITCH                                 |
| 5  | FIRST AID PACK STOWAGE                        | 20 | BOMB FUZING SELECTOR SWITCH                               |
| 6  | CRASH AXE STOWAGE                             | 21 | 400 C/S FUSE BOX  |
| 7  | MAP READING SEAT                              | 22 | SUPPRESSOR TYPE P (G.M.4B COMPASS AND BOMBSIGHT COMPUTOR) |
| 8  | OXYGEN WARNING INDICATOR                      | 23 | CABIN AIR WARNING HORN                                    |
| 9  | FIRE EXTINGUISHER                             | 24 | BOMBS F.24 CAMERA, TYPE Q RELAY                           |
| 10 | G.M.4B COMPASS CONTROL PANEL                  | 25 | J.B.14  |
| 11 | REAR WARNING RELAY UNIT, TYPE 4827            | 26 | BOMB CONTROL UNIT   |
| 12 | CANOPY DETONATOR RESISTOR BOX                 | 27 | 12/24 WAY BOMB DISTRIBUTOR                                |
| 13 | OXYGEN REGULATOR                              | 28 | G.M.4B COMPASS AMPLIFIER                                  |
| 14 | ANGLE POISE LAMP                              | 29 | I/C RELAY PANEL   |
| 15 | ANGLE POISE LAMP DIMMER SWITCH                | 30 | I/C AMPLIFIER, TYPE A1961                                 |
|    |   | 31 | GEE-H STROBE UNIT, TYPE 61A                               |

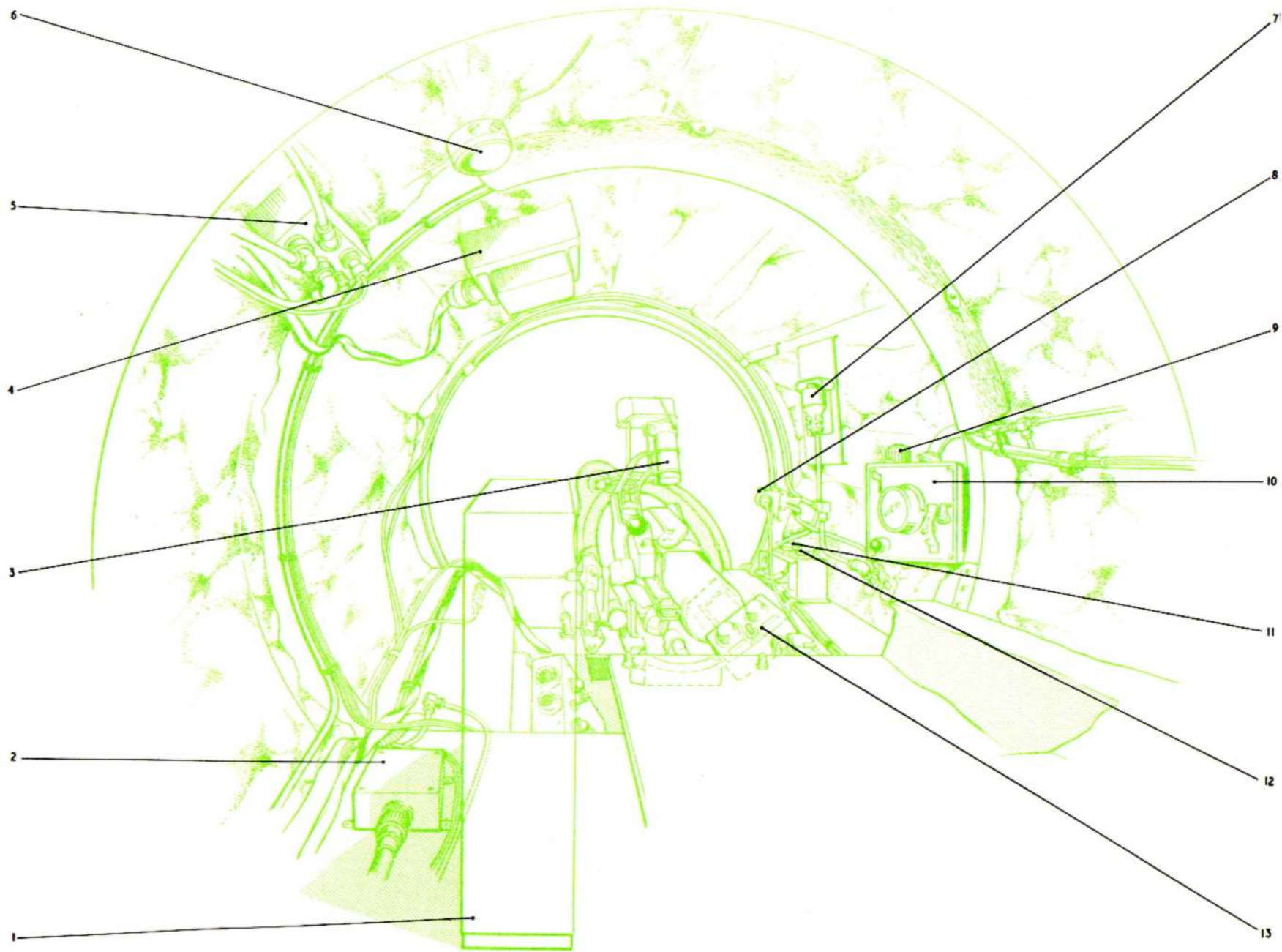


Fig.6. Air bomber's forward station (BMk.6 aircraft)

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**KEY TO FIG.6 (AIR BOMBER'S FORWARD STATION – B MK.6 AIRCRAFT)**

- 1 T2 BOMBSIGHT COMPUTOR
- 2 T2 BOMBSIGHT J.B.
- 3 T2 BOMBSIGHT
- 4 GENERATOR TEST PANEL (POST.MOD.  
2393 AND PRE.MOD.3357)
- 5 I.L.S. J.B. TYPE 164
- 6 CABIN LAMP
- 7 BOMB RELEASE SWITCH
- 8 WANDER LAMP
- 9 WANDER LAMP DIMMER SWITCH
- 10 OXYGEN REGULATOR
- 11 BOMBS LIVE JETTISON SWITCH
- 12 BOMBS SAFE JETTISON SWITCH
- 13 T.2 BOMBSIGHT CONTROL PANEL

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**Chapter 3 EMERGENCY CONTROLS, EQUIPMENT AND EXITS – METHOD OF OPERATION**

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**ILLUSTRATION**

*Fig.*  
*Emergency controls, equipment and exits* ... 1

**WARNING**

The relevant safety precautions detailed on the **LETHAL WARNING** marker card must always be observed before entering the cabin or performing any operations upon the aircraft.

**Introduction**

1. The purpose of this chapter is to describe the location of the emergency controls, equipment and exits, and to indicate methods

of operation where this is not obvious. A description of the emergency equipment, and the servicing procedure, is given in Sect. 3, Chap. 11.

**EMERGENCY CONTROLS**

**Alighting-gear**

*Lowering*

2. A mechanical selector for lowering the alighting-gear in an emergency is situated on the control panel forward of the throttle

quadrant. It is normally secured in the un-operated position by a sealed aluminium wire loop. The T-shaped handle is painted in black-and-yellow stripes and marked U/C EMERGENCY. To operate the handle it

should be pulled to its full extent; it is retained in that position by a spring-loaded lock incorporated in the handle. This control is used should an electrical fault render the normal alighting-gear control inoperative,

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and its functions irrespective of the position of the normal alighting gear control.

### *Raising*

3. An override switch permits the alighting-gear to be raised in an emergency during take off while the weight of the aircraft is still on the wheels. To operate the override, a knobbed collar around the UP button is turned through clockwise as far as possible and the button is depressed in the normal manner.

### *Master safety switch*

4. A master safety switch, marked LIVE-SAFE, is situated on the alighting-gear panel. The switch prevents inadvertent retraction of the alighting-gear on the ground by isolating the circuits to the actuators. On the ground the switch must be at SAFE at all times except when retraction tests are being made with the aircraft jacked.

### *Bomb/flare doors*

5. A control for opening the bomb/flare doors in an emergency is situated on the

port wall of the cockpit above the console, and is sealed in the normal position by a wire loop. The control lever, painted black-and-yellow and marked BOMB DOOR EMERGENCY CONTROL, is moved down to operate, and is retained in the down position by a spring-loaded lock. This control is used should an electrical fault render the normal control inoperative, and it operates irrespective of the position of the normal control.

### *Stores jettisoning*

#### *Bomb bay stores*

6. A stores jettisoning switch labelled PILOTS EMERGENCY JETTISON is situated on the console and is covered by a spring-loaded guard painted black-and-yellow. When set to ON, the bomb/flare doors are opened and all stores, with the exception of 25 lb practice bombs on light series carriers are jettisoned. After jettisoning is completed, the bomb/flare doors will close when the switch is reset to its normal OFF position.

### *Wing pylon stores (B1)MK.6 aircraft)*

7. A switch, labelled EMERGENCY WING STORES JETTISON and covered with a hinged flap painted black-and-yellow, is situated on the console. Operation of this switch will jettison stores carried on the wing pylons.

### *Wing-tip tanks jettisoning*

8. The wing-tip tanks may be jettisoned by pressing a pushbutton situated on the top of the alighting-gear sloping panel. The switch is covered by a hinged cover which is painted black-and-yellow and marked WING TANK JETTISON. This action detonates the charges in the three explosives bolts, by which each tank is attached to the wing, and severs the bolts. ►

### *Emergency lighting*

9. Two emergency lamps, one for the blind-flying panel and one for the engine-instrument panel are fitted at the pilot's station; these are controlled by a single luminous toggle switch located on the coaming above the instrument panels.

## EMERGENCY EQUIPMENT

### *Ejection seats*

10. Martin Baker ejection seats are installed at the pilot's and crew's stations (*Chap. 1 & 2*), the Type and Mark numbers of which are related to the aircraft modification standard. The seats are described in detail in A.P.109B-0101-1. Servicing of the seats is detailed in A.P.109B-0101-5. ►

### *Leg-restraining straps*

11. To prevent leg injury to crew members

during ejection, leg-restraining straps are provided on each seat. These are anchored to brackets on the cabin floor, the straps then pass through snubbing units on the front of the seat pan and are connected to the safety harness straps. During ejection, the restraining straps are pulled through the snubbing units to move the occupant's legs close to the seat pan. At a predetermined force the rivets anchoring the straps to the cabin floor brackets shear, freeing the straps

from the brackets.

### *Hydraulic system hand pump*

12. This is situated on the starboard side of the pilot's seat; its detachable handle being stowed on the starboard side of the fuselage aft of the entrance door. In the event of a failure of the engine-driven pumps or of the associated circuit, the hand pump may be used to operate the alighting-gear, wheel brakes, or bomb/flare door cir-

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cuits after the appropriate selection has been made. Before resorting to the use of the hand pump for lowering the alighting-gear or opening the bomb/flare doors, the associated emergency control should be operated; if the fault is electrical this will operate the system and render use of the hand pump unnecessary.

#### **Fire warning and extinguishers**

##### *Engine fire warning lamps and extinguishers*

13. Warning of engine fire is given by two red lamps (*one for each engine*) which are incorporated in the fire extinguisher buttons located near the top of the starboard instrument panel. Illumination of either warning lamp indicates a fire in the associated engine nacelle, and depression of the push-button will initiate fire-extinguishing action. Before pressing the button the pilot must ensure that the associated cabin air gate-valve switch is set to OFF. Inertia crash switches (*para. 21*) automatically discharge the fire extinguishers in the event of a crash landing.

##### *Fuel bay extinguisher*

14. A fire extinguisher is mounted on frame 27A and will discharge its contents into the fuel bay of the fuselage when the inertia crash switches (*para. 21*) are tripped. There is no manual control of the fire extinguisher and no indication of conditions in the fuel bay.

##### *Hand fire extinguisher*

15. This is stowed in a housing on the

starboard side of the fuselage, aft of the entrance door.

#### **Crash axe**

16. This is stowed in clips on the bottom of the occasional seat.

#### **First-aid kit and asbestos gloves**

17. A first-aid kit and a pair of asbestos gloves are stowed in a fire-resistant stowage on the starboard side of the fuselage, aft of the entrance door.

#### **Emergency compass**

18. A Type E2A emergency compass is fitted above the instrument-flying panel.

#### **Survival packs**

19. Survival packs, one for each crew member, are located in stowage crates secured to the roof in the rear fuselage, between frames 31 and 36. The position of the stowage is suitably marked on the outer surface of the fuselage.

#### **Aircraft destructor**

20. Provision is made to carry an aircraft destructor unit on the inside face of the starboard equipment compartment entrance hatch.

#### **Inertia crash switches**

21. During a crash landing, the inertia crash switches, situated one in each of the port and starboard equipment compartments, are automatically operated. This results in the automatic operation of the engine and

fuel bay fire extinguishers, and the isolation of the power supplies to all electrical services except the bomb/flare jettison and the detonator circuits of the canopy, elevator control, and navigator/air bomber's hatch.

#### **Emergency batteries**

22. Two 12-volt batteries, connected in series, are situated in a tray below the pilot's console and provide emergency power for the detonator circuits, of the canopy, elevator control, and navigator/air bomber's hatch, and also the turn-and-slip indicator.

#### **Turn-and-slip indicator emergency**

23. A switch is positioned to port of the turn-and-slip indicator and marked TURN AND SLIP SUPPLY. This switch, when set to EMERGENCY, will direct a supply from the emergency batteries to the turn-and-slip indicator.

#### **Emergency oxygen**

24. Each member of the crew has an emergency supply of oxygen, for use when abandoning the aircraft in flight by the ejection seats. The cylinders are on the starboard side of the Type 2CA.1 and 2CA.2 ejection seats and are connected to the main oxygen supply tubes by quick-release fittings and are operated, on ejection by cables attached to the aircraft structure. The emergency supply may be made available to the crew member, in the event of a failure of the main oxygen supply, by pulling up on the emergency control at the starboard side of the seat pan.

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## EMERGENCY EXITS

### WARNING

The relevant safety precautions detailed on the **LETHAL WARNING** marker card must be observed before attempting to carry out any operation or inspection on the control column release and canopy and hatch jettison controls.

### Entrance door jettisoning

25. The entrance door may be jettisoned by turning the cranked handle, situated in the coaming above the entrance door, in a clockwise direction as far as possible and striking the top of the door. The handle, which is marked **DOOR EMERGENCY RELEASE**, is normally secured against inadvertent operation by a strap. It is not necessary to operate the normal door-locking mechanism when preparing to jettison the door.

### Canopy jettisoning

26. To abandon the aircraft when ditching or during a crash landing the canopy is freed by the fracturing of 32 attachment bolts which contain explosive detonators. The system is controlled by a master **CANOPY SAFETY** switch, on the pilot's take-off panel, and a **CANOPY JETTISON** switch which is enclosed by a hinged flap, identified by black-and-yellow stripes, on the pilot's console.

27. The master **CANOPY SAFETY** switch is switched on before the commencement of

flight. This in addition to completing the electrical circuit to the **CANOPY JETTISON** switch, also completes the circuit to the control column release (*para. 28*)

### Pilot's single lever ejection

28. To abandon the aircraft during flight using single-lever ejection the pilot ejects through the canopy by pulling the face-screen firing handle or, alternatively, the seat-pan firing handle on his ejection seat. This results in the release of a gas pressure from a time-release and breech unit, fitted to the top of the ejection seat guide rail, operating a switch which fractures the elevator control tube by firing an explosive charge clamped to the tube, whereupon the control column is pulled forward and held against the instrument panel clear of the pilot's knees by a snatch unit mounted on the port side of the cabin (*Sect. 3, Chap. 11*). Approximately one second later the main ejection gun is fired to eject the pilot in his seat through the canopy.

### ◀ Crew escape hatch

29. The hatch is secured to the fuselage in a manner similar to that of the pilot's canopy. The hatch detonator circuit is controlled, at each rear crew station, by a **SAFETY** switch, a **JETTISON** switch, and a hatch jettisoning mechanism (*Sect. 3, Chap. 11*) which operates in conjunction with the ejection system. The **SAFETY**, and the **JETTISON**, switches are mounted on a panel

on the cabin wall at each crew station; the panels are identified by black-and-yellow stripes. To prevent accidental operation, each **SAFETY** switch is secured by a guard and each **JETTISON** switch is covered by a hinged guard. The hatch jettisoning **SAFETY** switches must be **ON** to render the **JETTISON** switches, and the ejection system, operative.

### Hatch jettisoning

30. The hatch is automatically jettisoned when either rear crew member operates the, face-screen firing handle or, seat-pan firing handle, of his ejection seat. A safety-catch, positioned in the restrictor of the breech type time-delayed firing unit of the ejection gun, ensures that seat ejection is delayed until the hatch has been jettisoned (*Sect. 3, Chap. 11*). The hatch jettisoning **SAFETY** switch must be **ON** to render the **JETTISON** switch operative for jettisoning the hatch without ejecting the seat, e.g. in ditching or in a crash landing.

### Cocking lever and safety pins stowage

31. Situated on the centre-line on the front of the pressure bulkhead is a stowage for the cocking levers. These tools are used to cock the hatch jettisoning mechanisms. A stowage is also provided in the cabin for the ejection seat safety pins together with their integral tallies. ▶

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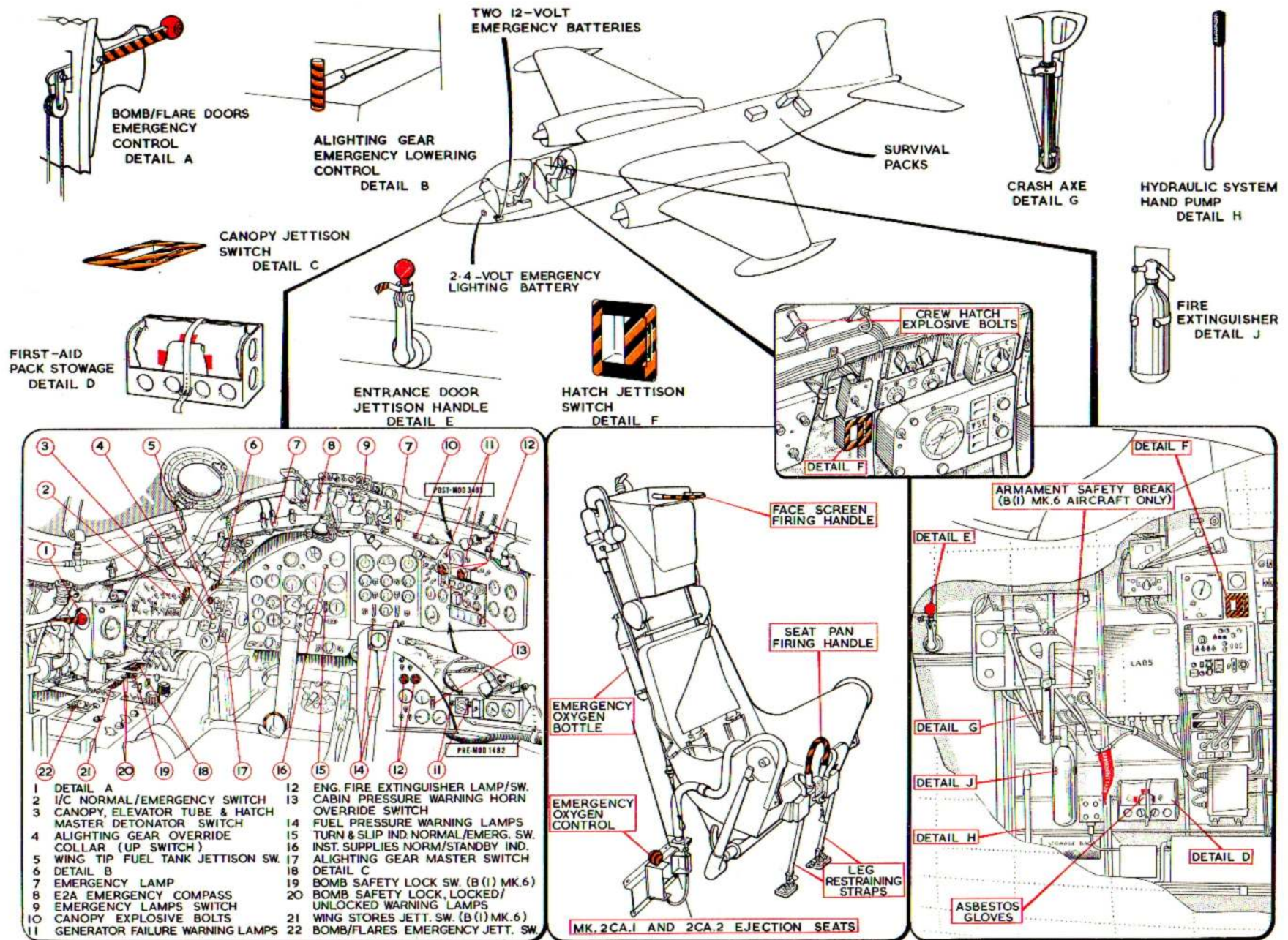


Fig. 1. Emergency controls, equipment and exits

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