

**RESTRICTED**

**AP 101B-2303-10**

(Superseding AD 101B-2303-D12,13)

# **JET PROVOST T Mk. 3 and T Mk. 3A AIRCRAFT**

## **SERVICING DIAGRAMS MANUAL**

### **ELECTRICAL/RADIO INSTALLATION AND LOCATION DIAGRAMS**

BY COMMAND OF THE DEFENCE COUNCIL

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Ministry of Defence

Sponsored for use in the

ROYAL AIR FORCE

by D Air Eng (RAF)

Publications authority: DATP/MOD(PE)

Service users should send their comments through  
the channel prescribed for the purpose in:

AP 100B-01 Order 0504 (ARMY and RAF)

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# AMENDMENT RECORD SHEET

To record the incorporation of an Amendment List in this publication, sign against the appropriate A L No. and insert the date of incorporation

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## NOTE TO READERS

The subject matter of this publication may be affected by Defence Council Instructions, by Servicing schedules or 'General Orders and Modifications' leaflets in this A.P., in the associated publications listed overleaf, or even in some others. If possible, Amendment Lists are issued to correct this publication accordingly, but it is not always practicable to do so. When an instruction, Servicing schedule or leaflet contradicts any portion of this publication, the Instructions, Servicing schedule or leaflet is to be taken as the overriding authority.

The inclusion of references to items of equipment does not constitute authority for demanding the items.

Each leaf bears the date of issue and the number of the Amendment List with which it was issued. New or amended technical matter will be indicated by triangles positioned in the text, thus:   
 ◀---▶ to show the extent of amended text, and thus: ▶---◀ to show where text has been deleted.   
 Diagrams re-issued to include an amendment or alteration will bear similar triangles enclosing a notation indicating the reason for re-issue. New diagrams embodying modifications bear a suffix letter (A, B etc) to the diagram sheet number. The publications for this aircraft are issued in three separate covers namely:-

AP 101B-2303-1A containing Sections 1, 2, 3 and 4  
 AP 101B-2303-1B containing Sections 5 and 6  
 AP 101B-2303-10

This SDM is issued in one cover containing a full set of preliminary matter. The contents sheets list all the diagrams within the cover and to assist in the identity of the sheets, each sheet number is prefixed by the following identification Code.

ELA	Electrical/Radio Installation	- Mk.3 aircraft
ELA	Electrical/Radio Location	- Mk.3 aircraft
ELB	Electrical/Radio Installation	- Mk.3A aircraft
ELB	Electrical/Radio Location	- Mk.3A aircraft

The diagrams contained in this publication were originally designed as Air Diagrams and do not conform to the current standards for SDM diagrams. They should be used to supplement information presented in the Aircraft Servicing Manuals.



## LETHAL WARNING

## EJECTION SEATS AND CANOPY JETTISON MECHANISMS

1. Ejection seats and canopy jettison mechanisms are sources of potential danger to personnel and of damage to the aircraft. Serious injury (possibly fatal) may result if any firing mechanisms are inadvertently operated whilst the aircraft is on the ground.
2. The following instructions are to be obeyed:-
  - R.N. Safety precautions contained in A.P.(N) 140-Naval Aircraft Maintenance Manual.
  - R.A.F. ALL PERSONNEL before entering the 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.
3. Full instructions for rendering the firing mechanisms safe are contained in the A.P.4288 and A.P.(N) 1023 series, in Aircraft Servicing Schedules and in the A.D.5037 series.

## METHYL BROMIDE AND CHLOROBROMO-METHANE

4. Methyl bromide and chlorobromo-methane vapours are odourless, non-irritant and highly poisonous. They have delayed action and must not be inhaled.

## HIGH ENERGY IGNITERS

5. The energy stored in the capacitors of high energy igniter units can be of a lethal nature. No servicing should be attempted until at least one minute has elapsed after disconnection of the L.T. supply to the input plug.

## HIGH VOLTAGE ELECTRICAL SYSTEMS

6. Voltages in excess of 35 volts (R.M.S.) a.c. or 50 volts d.c. can in certain circumstances be lethal. When working on such systems requiring the exposure of live terminals, a second tradesman is always to be in attendance.



## LIST OF ASSOCIATED AIR PUBLICATIONS AND AIR DIAGRAMS

	A.P.
Aircraft air-conditioning equipment ... ..	4340 (107 series)
Accessories gearbox and drive - Rotol ... ..	2240A
Aircraft R.A.F. engineering ... ..	1464 series
Aircraft surface finishes and markings ... ..	119A-0600-1
Ejection seats and escape equipment ... ..	109B-0133-1A and 109B-0133-5FA
Electrical manual ... ..	4343 (113 series)
Fire prevention, detection and fire extinguishing equipment in aircraft ... ..	957C and 107E series
Fuel system components - Saunders Co. and S.P.E. Ltd ... ..	4737A
Fuel system components - miscellaneous ... ..	4511
Ground equipment - R.A.F. engineering ... ..	1464G
Ground servicing equipment data book ... ..	4306A
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Instrument manual - oxygen equipment ... ..	1275G (112 series)
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	A.P.
Radar, Rebecca Mk.8, A.R.I.23013 ... ..	114J-0700-1
Radio, U.H.F., (TR5/ARC52) A.R.I.18124/1 ... ..	116D-0105-1
Radio, stand-by U.H.F., A.R.I.23057 ... ..	116D-0110-16
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Wheels, tyres and brakes, aircraft ... ..	2337 (104 series)
	A.D.
Lubrication - general ... ..	101B-2303/4-D1
Flying controls and lubrication ... ..	101B-2303-D2
Hydraulic system ... ..	101B-2303-D3
Fuel system ... ..	6693F
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Emergency equipment and cockpit hood jettison mechanism and lubrication ... ..	6693N
Air conditioning ... ..	6693V
Jet efflux and danger areas ... ..	101B-2305-D6



## LAYOUT OF JET PROVOST T MK.3 AND T MK.3A PUBLICATIONS

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## LIST OF DIAGRAMS FOR MK.3 AIRCRAFT

## Electrical Installation

SHEET	CIRCUITS
E1A-1	DC power supplies, distribution and emergency battery
E1A-2	AC power supplies and distribution
3	Radio supplies, earthing, fuel low pressure warning, oil pressure, tachometer, exhaust gas temperature, oxygen disconnect warning
4	Engine starting and ignition, fuel pump and fuel valve (pre mod 579), fuel gauge
5	Fire detection, fire extinguisher, centralised warning
6	Alighting gear control and alighting gear indication (pre mod 525 and 832) Air brake selector, hydraulic pressure warning, pitot head heating, fatigue meter
7	Turn and slip indicator, flap position indicator, artificial horizon, G Mk.4F compass, Ice warning
8	Trim lamp, wander lamp, emergency lighting, panel lighting Navigation lamps, identification lamp, taxiing lamps

SHEET	CIRCUITS
E1A-9	Alighting gear control and alighting gear indication (post mod 525 and 832). Fuel pump and fuel valve (post mod 579), altimeter vibrators, altimeter Mk.22 J, anti-collision lamps
10	Intercommunications ARI 23057 and ARI 18124/1
11	ARI 23187, ARI 23013

## Electrical/Radio Location

SHEET	
ELA-1	Centralised warning, alighting gear, flying instruments and controls, interior and exterior lighting
2	AC and DC power supplies, engine services



## LIST OF DIAGRAMS FOR MK.3 AIRCRAFT

## Electrical Installation

## CIRCUITS

## SHEET

EIA-1	DC power supplies, distribution and emergency battery
2	AC power supplies and distribution
3	Radio supplies, earthing, fuel low pressure warning, oil pressure, tachometer, exhaust gas temperature, oxygen disconnect warning
4	Engine starting and ignition, fuel pump and fuel valve (pre mod. 579), fuel gauge
5	Fire detection, fire extinguisher, centralised warning
6	Alighting gear control and alighting gear indication (pre mod. 525 and 832). Air brake selector, hydraulic pressure warning, pitot head heating, fatigue meter
7	Turn and slip indicator, flap position indicator, artificial horizon, G.Mk.4F compass, ice warning
8	Trim lamp, wander lamp, emergency lighting, panel lighting. Navigation lamps, identification lamp, taxiing lamps.

## CIRCUITS

## SHEET

EIA-9	Alighting gear control and alighting gear indication (post mod. 525 and 832). Fuel pump and fuel valve (post mod. 579), altimeter vibrators, altimeter Mk.22J, anti-collision lamps.
10	Intercommunications ARI 23057 and ARI 18124/1.
11	ARI 23187, ARI 23013

## Electrical/Radio Location

## SHEET

ELA-1	Centralised warning, alighting gear, flying instruments and controls, interior and exterior lighting
2	AC and DC power supplies, engine services



## LIST OF DIAGRAMS FOR MK.3A AIRCRAFT

## Electrical Installation

SHEET	CIRCUITS
E1B-1	DC power supplies, distribution and emergency battery
E1B-2	AC power supplies and distribution
3	Engine starting and ignition Fuel low pressure warning, oil pressure, tachometer, exhaust gas temperature, oxygen disconnect warning
4	Fuel contents gauge, fuel transfer, fuel pump. Air brake selector, hydraulic pressure warning, pressure head heating, fatigue meter
5	Flap position indicator, attitude indicator, artificial horizon, turn and slip indicator, air speed switch Altimeter vibrator, CL6 compass
6	Emergency lighting, wander lamp, cabin lighting DC cabin lighting AC supply, cabin lighting AC

SHEET	CIRCUITS
E1B-7	Navigation lamps, identification lamp, anti-collision lamps, taxi lamp Fire extinguisher, fire detection, earthing
8	Centralised warning system
9	Alighting gear control and external warning lamp, alighting gear indicator ILS/VOR (ARI 23247)
10	ARI 18124/1, ARI 23057 ultrasonic A/G position indicator modulator and audio warning
11	IFF/SSR (ARI 23187), servo altimeter Mk.22J DME (ARI 23238)
Electrical/Radio Location	
ELB-1	Index-Centralised warning, alighting gear, flying instruments and controls, interior and exterior lighting, radio and radar equipment
2	Index-Wireless Equipment, Earth points, junctions, power supplies, engine services
3	Electrical location



## LIST OF DIAGRAMS FOR MK.3A AIRCRAFT

## Electrical Installation

SHEET	CIRCUITS
EIB-1	DC power supplies, distribution and emergency battery
2	AC power supplies and distribution
3	Engine starting and ignition Fuel low pressure warning, oil pressure, tachometer, exhaust gas temperature, oxygen disconnect warning
4	Fuel contents gauge, fuel transfer, fuel pump. Air brake selector, hydraulic pressure warning, pressure head heating, fatigue meter
5	Flap position indicator, attitude indicator, artificial horizon, turn and slip indicator, air speed switch Altimeter vibrator, CL6 compass
6	Emergency lighting, wander lamp, cabin lighting DC Cabin lighting AC supply, cabin lighting AC

SHEET	CIRCUITS
EIB-7	Navigation lamps, identification lamp, anti-collision lamps, taxi lamp Fire extinguisher, fire detection, earthing
8	Centralised warning system
9	Alighting gear control and external warning lamp, alighting gear indicator, ILS/VOR (ARI 23247)
10	ARI 18124/1, ARI 23057 ultrasonic A/G position indicator modulator and audio warning
11	IFF/SSR (ARI 23187), servo altimeter Mk.22J DME (ARI 23238)

## Electrical/Radio Location

ELB-1	Index-Centralised warning, alighting gear, flying instruments and controls, interior and exterior lighting, radio and radar equipment
2	Index-Wireless Equipment, Earth points, junctions, power supplies, engine services
3	Electrical location
4	Firewire system - Engine bay
4A	Firewire system - Engine bay
5	Firewire system - Jet pipe bay
5A	Firewire system - Jet pipe bay
6	Firewire system - Jet pipe bay