GROUP F 4

NOSE LAMP INSTALLATION (CODE HL)

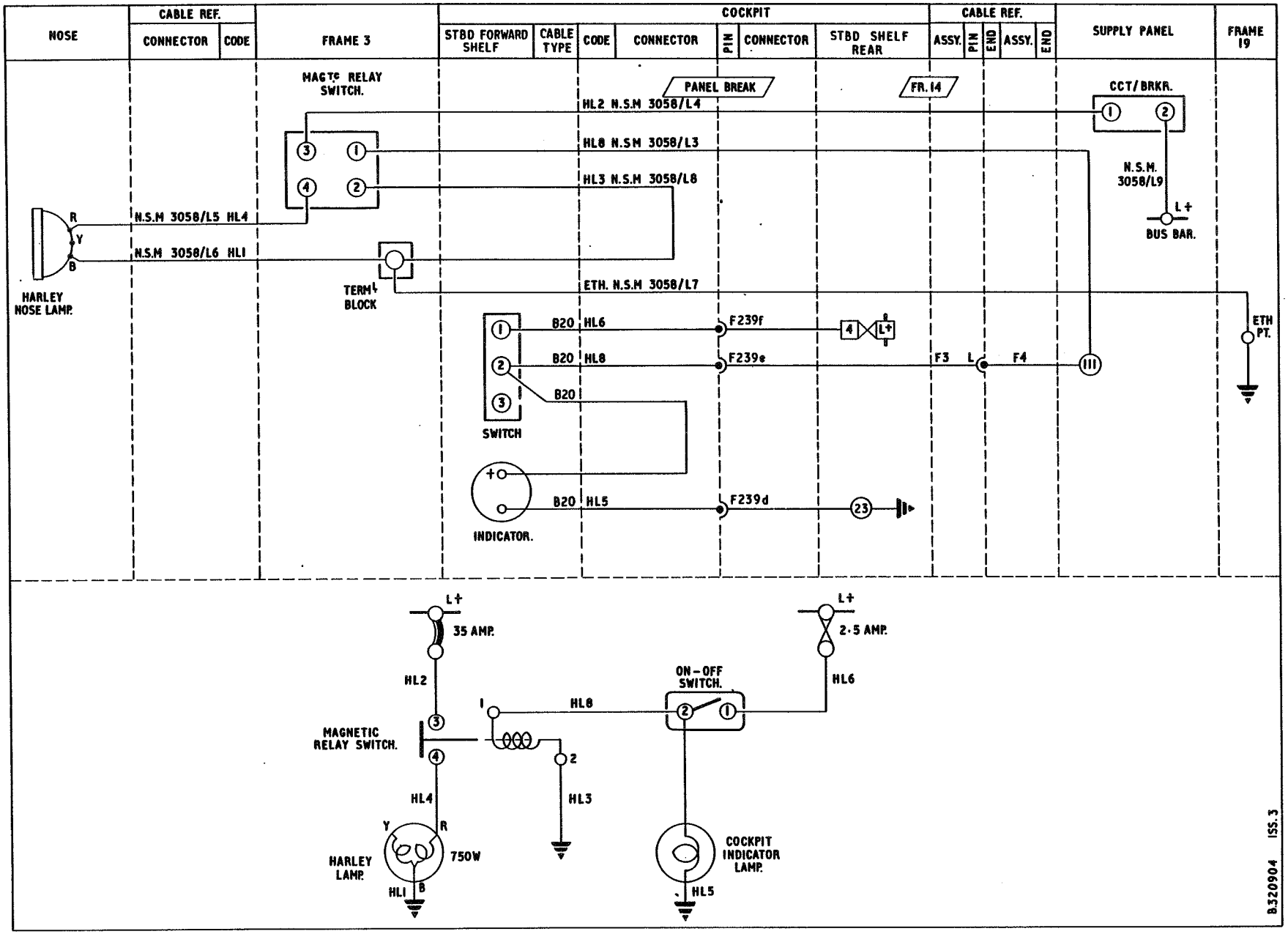
CONTENTS

Introduction

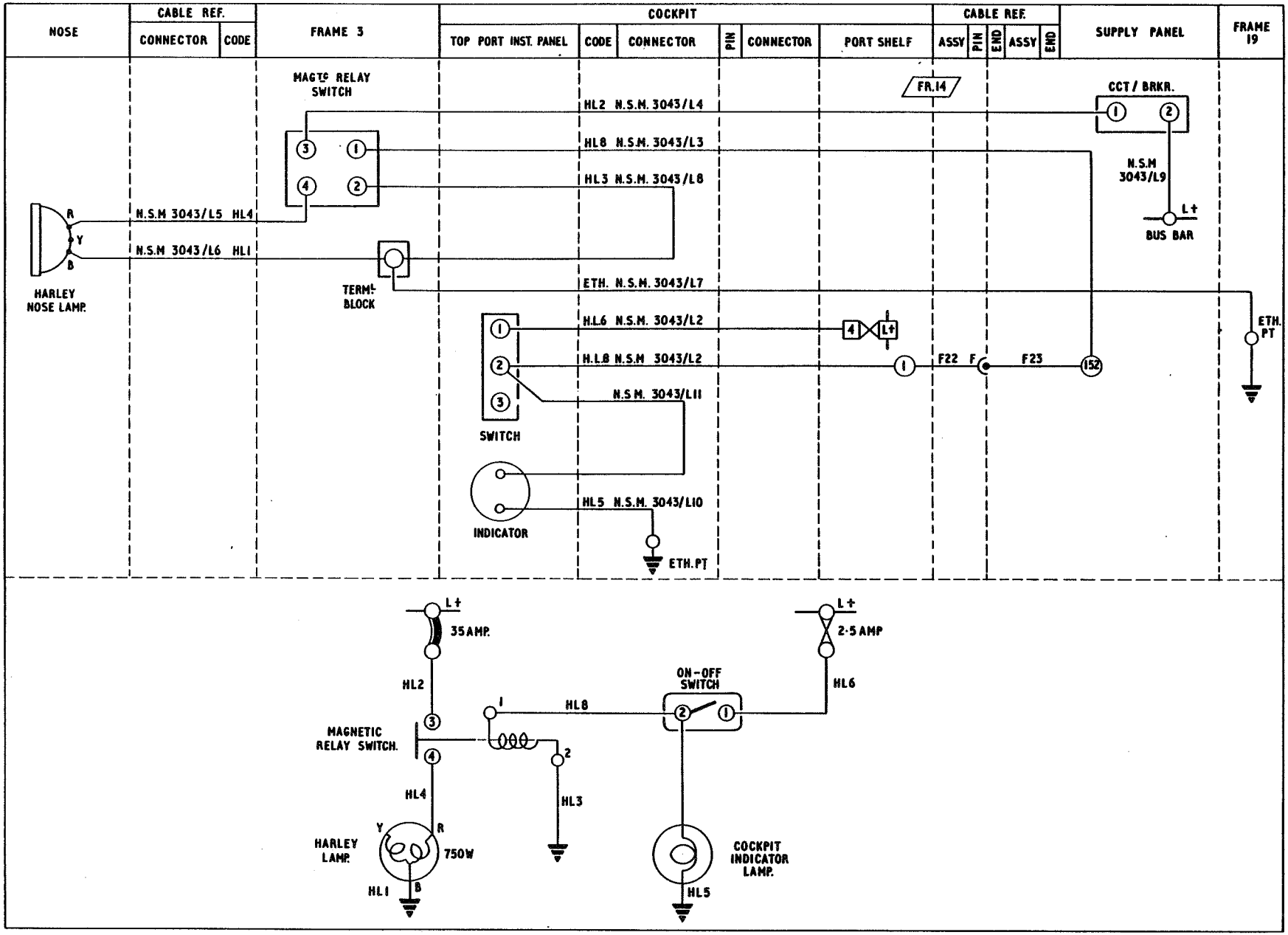
1. This Group describes and illustrates the electrical circuits of the nose lamp installations, incorporated in the GA Mk.11 both pre and post Mod 228 aircraft. The installations are covered by Hunter Modification 1391, which consists of fitting a fixed forward facing Harley lamp in the nose of the aircraft fuselage. The main components in the electrical circuits are listed in Table 1 together with the Air Publications to which reference should be made for detailed descriptions and information of the servicing required to maintain the components in serviceable conditions. Group A 1 of this publication contains details on general servicing of the aircraft electrical system and Group A 3 includes the location of the components in the nose lamp installation.

Note . . .

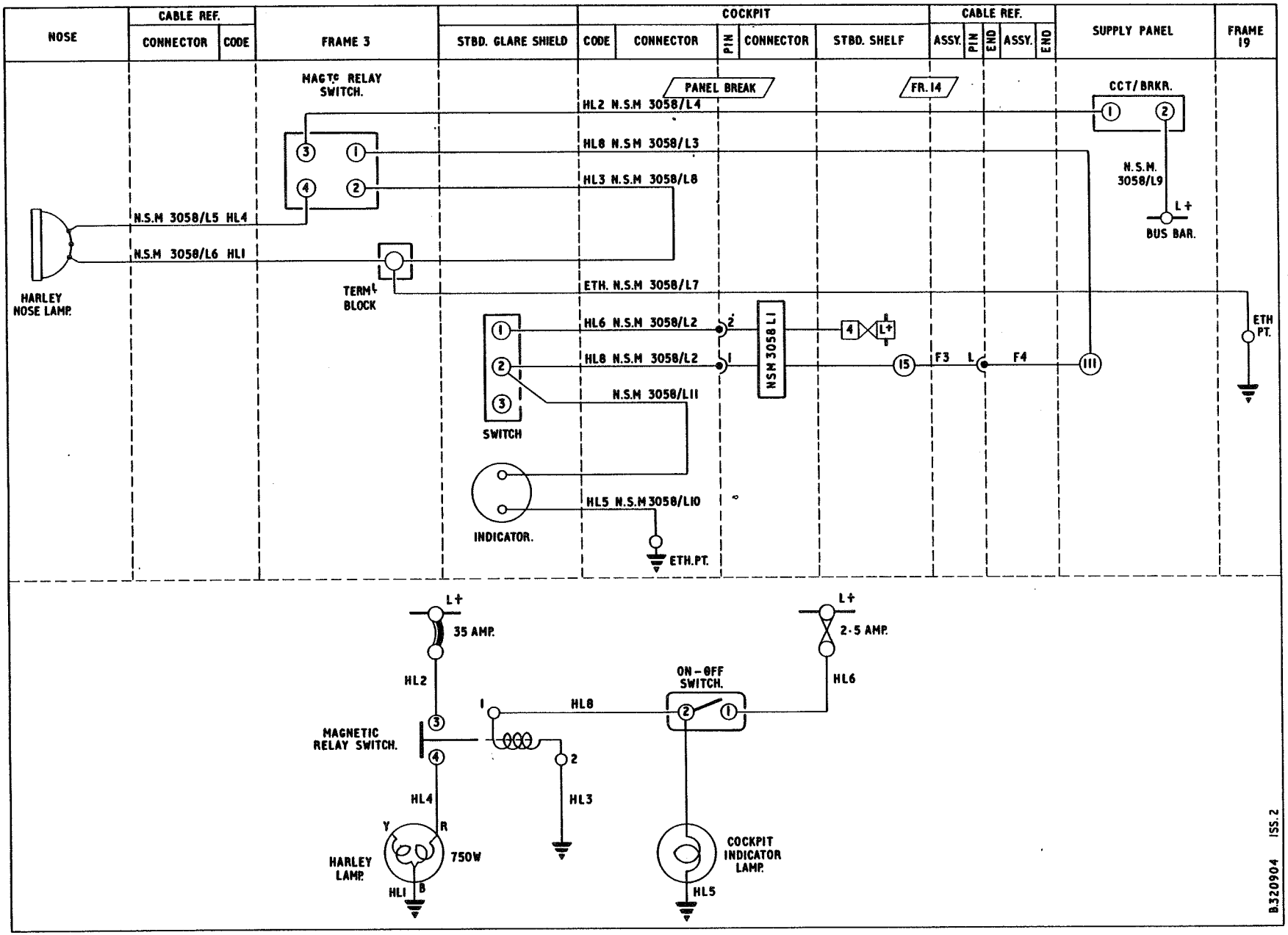
Incorporation of this modification necessitates the removal of the camera Type G45B from GA Mk.11 aircraft.



▶ Fig.1 Nose lamp installation (routeing and theoretical, post-Mod 1429) ◀



▶ Fig.2 Nose lamp installation (routeing and theoretical, pre-Mod 228) – pre-Mod 1429 ◀



▶ Fig.3 Nose lamp installation (routeing and theoretical, post-Mod 228) – pre-Mod 1429 ◀

General

2. Figures 1, 2, 2A and 3 illustrate the routeing and theory of the electrical circuits dependent on aircraft modification state. The Harley lamp is situated on the centre line of the aircraft, between frames 1 and 2 in the nose compartment, and is provided with blast cooling by means of a tube from the skin orifice previously used by the G45B camera gun (ref.G 1). Only one filament of the Harley lamp is used, to which an electrical supply is provided from the L+ bus-bar, through a circuit breaker. The circuit breaker is identified HARLEY LAMP, and is situated below the aircraft supply panel. A magnetic relay is mounted on the aft face of frame 3. The supply to close the magnetic relay, and so illuminate the lamp, is controlled by an ON/OFF switch in the aircraft cabin, which is supplied from a fuse in either the port or starboard shelf (ref. fig.1, 2, 2A or 3). The positive supply from the ON/OFF switch to the magnetic relay coil is shown in the relevant routeing diagram. A warning lamp, to indicate the setting of the ON/OFF switch, is situated adjacent to the switch and is illuminated with the switch selected to ON. The Harley lamp, and magnetic relay earth connection terminal block, is situated at frame 3, adjacent to the magnetic relay. The earthing points for the installation are shown on the relevant routeing diagram.

Operation

3. Selecting the HARLEY LIGHT ON/OFF switch to ON will complete a circuit from the cabin shelf fuse to the coil of the magnetic relay, closing the relay contacts to provide a circuit for the Harley lamp filament supply from the L+ bus-bar through the Harley lamp circuit breaker. The earth return circuit for the magnetic relay coil and Harley lamp filament is completed by the installation TB, to frame 19 earth. When the ON/OFF switch is selected to ON, a circuit is also completed from the cabin shelf fuse to illuminate the HARLEY LIGHT warning lamp in the cabin. The earth return from this lamp is to the cabin shelf earth point.

TABLE 1

Equipment Type and Air Publication reference

Equipment Type	Air Publication
Harley lamp, Part No. 672/109	A P 113F–0200 Series
Warning lamp, Rotax Type H2801, with Smith dimmer 44/CFP ...	A P 113F–0200 Series
Magnetic relay, Type T1	A P 113D–1300 Series
Switch, tumbler, CWC Type XD779	A P 113D–1100 Series

SERVICING

General

4. For general servicing of the electrical system, refer to Group A 1 which contains a table giving details of the lamps,fuse and circuit breaker used in the Harley nose lamp installation. Components should be kept clean and subjected to routine security and serviceability tests.

CAUTION . . . .

Do not switch on the Harley nose lamp for longer than the absolute minimum required to prove the serviceability of the circuit, when the aircraft is stationary, otherwise over-heating of the lamp, and subsequent damage, may result.

REMOVAL AND ASSEMBLY

General

5. Before removing any component, ensure the aircraft electrical system is rendered safe (ref. Group A 1, para.39). Location and means of access to all components is indicated in Group A 3. For removal and assembly of components refer to NSM 3043 or 3058, as applicable.