

RESTRICTED

AIR PUBLICATION

4343E

VOLUME 1

BOOK 3

SECT. 13 to 17

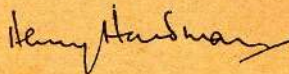
## ELECTRICAL MANUAL

STATIC CONSUMER EQUIPMENT (AIRBORNE)

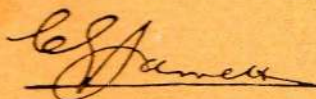
FIRE WARNING, EXTINGUISHING,  
SAFETY AND RESCUE EQUIPMENT

GENERAL AND TECHNICAL INFORMATION

Prepared by direction of  
the Minister of Aviation

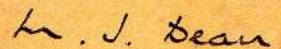


Promulgated  
by Command of  
Their Lordships



ADMIRALTY

Promulgated  
by Command of  
The Air Council



AIR MINISTRY

(A.L190, July, 61)

# THE PATENT 'LOXON' LOOSE-LEAF

## BINDER

Patent Nos. 700547 and 802577

### HOW TO USE THIS BINDER

#### AS A COVER FOR PRINTED MATTER

When reading from the Book, the sheets should be kept firmly bound up, thus avoiding any chance of wear and tear at the holes. If, however, for any reason, leaves are required to be viewed from edge to edge, then the laces should be disengaged from the spring clips and fully slackened off. The Binder and the sheets can then be spread open to lie flat.

#### AS A NOTEBOOK

When writing, so that the leaves shall lie quite flat, disengage the laces from the spring clips and slacken them fully.

#### TO INSERT OR REMOVE LEAVES

(Without the leaves being freed from the control of the laces at any time)

Unhitch the laces from the spiral springs, unthread the laces from the flange and join together the two ends of each lace thus forming two separate loops. Draw the tags through to the required place, disconnect, insert or remove sheets.

REF. S 1716

Hunt & Broadhurst Ltd., Oxford.

## 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.

A.L. No.	AMENDED BY	DATE
1 to 189	Incorporated in A.P.4343E before division into four books.	
190	Abraham	20/3/62
191	Abraham	30/1/62
192	Abraham	27/1/62
193	Abraham	- 9 FEB 1963
194	Abraham	2/4/63
195	Abraham	4 8-63
196		
197		
198	Abraham	20 10 63
199	Abraham	26 2-64
200	Abraham	9 1-64
201	Abraham	- 5 AUG 1964
202	Abraham	16 NOV 1964
203	Abraham	23 DEC 1964
204	Abraham	17 FEB 1965
205		
206		
207		
208	Abraham	13 APR 1965
209	Abraham	23 AUG 1965
210		
211	Abraham	15 AUG 1965
212	Abraham	4/1/66
213	Abraham	4/1/66

A.L. No.	AMENDED BY	DATE
214	Abraham	21-6-67
215	Abraham	21-6-67
216	Abraham	21-6-67
217	Abraham	21-6-67
218	Abraham	27/10/67
219		
220		
221		
222		
223		
224		
225		
226		
227		
228		
229		
230		
231		
232		
233		
234		
235		
236		
237		
238		
239		
240		

(Continued overleaf)

RESTRICTED

A.L. No.	AMENDED BY	DATE
241		
242		
243		
244		
245		
246		
247		
248		
249		
250		
251		
252		
253		
254		
255		
256		
257		
258		
259		
260		
261		
262		
263		
264		
265		
266		
267		
268		
269		
270		
271		

A.L. No.	AMENDED BY	DATE
272		
273		
274		
275		
276		
277		
278		
279		
280		
281		
282		
283		
284		
285		
286		
287		
288		
289		
290		
291		
292		
293		
294		
295		
296		
297		
298		
299*		
300		
301		
302		

\*An Amendment Record Continuation Sheet (R.A.F. Form 2096B) will be required when this page is full. Order it now.

**RESTRICTED**

## **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.

## NOTE TO READERS

The subject matter of this publication may be affected by Admiralty Fleet Orders, or Air Ministry Orders, or by Servicing schedules (Volume 4 and 5), or "General Orders and Modifications" leaflets in this A.P., in the associated publications listed below, 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 Order, Servicing schedule, or leaflet contradicts any portion of this publication, the Order, 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, except the original issue of preliminaries, bears the date of issue and the number of the Amendment List with which it was issued. When this Volume is amended by the insertion of new or replacement leaves in an existing chapter, the new or amended technical information 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. When a Section, or Chapter is issued in a completely revised form, the triangles will not appear.

\* \* \*

## THE A.P.4343 SERIES

	<i>A.P.</i>
<i>Electrical manual—General</i> ... ..	4343
<i>Electrical manual—Generators and batteries (Airborne)</i> ... ..	4343A
<i>Electrical manual—Control and distribution Equipment (Airborne)</i> ... ..	4343B Books 1, 2 and 3
<i>Electrical manual—Switches, cables wiring and accessories (Airborne)</i> ... ..	4343C Books 1, 2 and 3
<i>Electrical manual—Rotary consumer equipment (Airborne)</i> ... ..	4343D Books 1, 2, 3, 4 and 5
<i>Electrical manual—Static consumer equipment (Airborne)</i> ... ..	4343E Books 1, 2 3 and 4
<i>Electrical manual—Equipment in foreign aircraft used by the R.N. and R.A.F.</i> ...	4343F
<i>Electrical manual—Ground equipment</i> ...	4343G
<i>Electrical manual—Abbreviations, symbols and equipment wiring diagrams</i> ...	4343H
<i>Electrical manual—M.T. and marine craft equipment</i> ... ..	4343M
<i>Data book of electrical servicing equipment</i>	4343Q
<i>Electrical manual—Servicing equipment</i> ...	4343S
<i>Electrical manual—Special to aircraft type servicing equipment</i> ... ..	4343V Books 1 and 2
<i>Electrical manual—Armament consumer equipment (Airborne)</i> ... ..	4343X

**RESTRICTED**

**LAYOUT OF A.P.4343E**

**ELECTRICAL MANUAL, STATIC CONSUMER  
EQUIPMENT  
(AIRBORNE)**

*Heavy type indicates the books being issued under this A.P. Number;  
when issued they will be listed in A.P.113*

<b>VOLUME 1, Books 1 to 4</b>	<b>General and technical information</b>
<b>VOLUME 2</b>	<b>General orders</b>
<b>VOLUME 3, Part 1</b>	<b>Schedule of spare parts</b> ( <i>Information if available, included in A.P.1086</i> )
<i>VOLUME 3, Part 2</i>	<i>Inapplicable</i>
<i>VOLUME 3, Parts 3 and 4</i>	<i>Application to be decided later</i>
<b>VOLUME 4</b>	<b>Planned servicing schedules</b>
<i>VOLUME 5</i>	<i>Application to be decided later</i>
<b>VOLUME 6</b>	<b>Repairing and reconditioning instructions</b>

**RESTRICTED**

## PREFACE

Because of the physical limitations imposed by the covers, it has become necessary to divide A.P.4343E, Vol. 1 into four books as under: —

Book 1	Containing Sections 1—8
Book 2	Containing Sections 9—12
Book 3	Containing Sections 13—17
Book 4	Containing Sections 18—22

In order to avoid the extra work and delay involved by re-printing, it has been decided to extract the relevant sections from A.P.4343E, Vol. 1 and insert them in the appropriate new covers. Users should note that chapters so removed will not carry the caption Book 1, Book 2, etc., although all chapters issued subsequently to A.L.190 will do so.

## REVISION AND TRANSFER OF INFORMATION

In order to keep the size and number of books in the A.P.4343 series of publications within reasonable limits, and also to ensure that they are of maximum use to the reader, the following changes are being made in Volumes 1 and 6.

Chapters on particular series of equipments will be transferred from A.P.4343 to the publication bearing the appropriate suffix letter; the former will then contain such chapters as are of general application, and are not tied to any particular series of equipment.

As the transfer proceeds, "parent" chapters giving detailed information on a typical unit in a series will appear in the publication concerned, and information on the individual units in that series will be issued as appendices to the chapter.

An example of the new layout is given below: —

A.P. 4343	General chapter on relays
4343C, Book 2	Relays, Type XXXX series App. 1 Relay, Type XXXX1 App. 2 Relay, Type XXXX2 etc.

It will be seen that the "parent" chapter will be in the same book as its associated appendices, and information on individual items of equipment within a series will not be scattered throughout the section as at present. The Lists of Chapters, some of which are of abnormal length, will thus be reduced, and a List of Appendices will appear on the first page of the "parent" chapter.

The transfer will be completed as soon as is practicable, but no existing information will be deleted until it has been revised and re-issued in its new position.

**RESTRICTED**

## LIST OF SECTIONS AND PRELIMINARY MATTER

### PRELIMINARIES

Amendment Record Sheet  
Lethal warning  
Note to Readers  
The A.P.4343 Series  
Layout of A.P.4343E  
Preface  
Revision and Transfer of information  
List of Lubricants

### SECTIONS

- |        |    |   |
|--------|----|---|
| Book 1 | 1  | Solenoid actuators, 12/28-volt                                  |
|        | 2  | Solenoid actuators, 100/250-volt                                |
|        | 3  |   |
|        | 4  |   |
|        | 5  |   |
| Book 2 | 6  | Braking control equipment                                       |
|        | 7  | Lighting equipment, 12/28-volt                                  |
|        | 8  | Lighting equipment, 100/250-volt                                |
|        | 9  | Engine synchronizing equipment                                  |
|        | 10 | Heating and refrigerating equipment, 12/28-volt                 |
| Book 3 | 11 | Heating and refrigerating equipment, 100/250-volt               |
|        | 12 | Jet pipe temperature control equipment                          |
|        | 13 |   |
| Book 4 | 14 | Fire warning and extinguishing equipment, 12/28-volt            |
|        | 15 | Fire warning and extinguishing equipment, 100/250-volt          |
|        | 16 | Safety and rescue equipment, 12/28-volt and inert cell operated |
| Book 4 | 17 | Safety and rescue equipment, 100/250-volt                       |
|        | 18 | Indicators and warning devices, 12/28-volt                      |
|        | 19 | Indicators and warning devices, 100/250-volt                    |
|        | 20 | De-icing Equipment, 12/28-volt                                  |
|        | 21 | De-icing equipment, 100/250-volt                                |
|        | 22 | Miscellaneous   |

*Note.*—A list of chapters is given at the beginning of each section

**RESTRICTED**

## LIST OF LUBRICANTS

The following is a list of lubricants and associated materials mentioned in the A.P.4343 series of publications. To avoid repetition, common user items are identified in the text of the various books by their Joint-Service designations only. Reference numbers are used for items peculiar to the R.A.F.

Joint-Service designation	Reference No.	N.A.T.O. Code No.
Oil, OC-600	34D/9100536	O-208
Oil, OEP-740	34B/9428567	
Oil, OF-24	34D/9100566	H-544
Oil, OM-13	34D/9100570	O-134
Oil, OM-15	34B/9100572	H-515
Oil, OM-16	34D/9100599	S-756
Oil, OM-33	34D/9423224	H-576
Oil, OM-58	34D/9106165	
Oil, OM-71	34D/9100577	O-138
Oil, OM-170	34B/9100553	O-115
Oil, OM-270	34A/9100554	O-117
Oil, OMD-110	34D/9100581	O-180
Oil, OX-14	34B/9100590	O-147
Oil, OX-23	34B/9423150	O-158
Oil, OX-38	34B/9424819	O-149
Grease, XG-265	34B/9433481	
Grease, XG-271	34B/9100510	G-382
Grease, XG-275	34B/9100512	G-350
Grease, XG-276	34B/9425139	
Grease, XG-277	34B/9100514	G-359
Grease, XG-278	34B/9105058	G-354
Grease, XG-284	34B/9439321	G-366
Grease, XG-285	34B/9100517	G-355
Grease, XG-290	34B/9105057	
Grease, XG-315	34B/9100519	G-394
Grease, MS-4	34C/9424829	S-736
Grease, Aeroshell No. 15	34B/1429	
Protective, PX-7	34B/9100488	S-743

**RESTRICTED**

This file was downloaded  
from the RTFM Library.

Link: [www.scottbouch.com/rtfm](http://www.scottbouch.com/rtfm)

Please see site for usage terms,  
and more aircraft documents.

