

UNIT AUTOMATIC EXCHANGES, USING "UNITS, AUTO., No. 13"

Labelling and Marking of Units and Equipment

1. **Scope of Instruction.**—This Instruction details the labelling and marking to be provided at exchanges of the U.A.X. No. 13 type, to enable the maintenance officers to trace calls quickly.

2. The labelling and marking of a U.A.X. No. 13 is intended to follow as far as practicable the standard principles that have been adopted in large automatic exchanges. If, at certain exchanges, the existing labelling and marking does not follow in detail the particulars given in this Instruction, but the discrepancies only amount to slight variations in the size of signwriting or engraving, it is not essential to alter the existing marking provided that the information denoted by the marking conforms closely with that detailed in this Instruction.

3. The units are supplied by the contractor for erection by the Dept. and practically the whole of the signwriting and part of the apparatus labelling and engraving is provided by the contractor before the units are issued. The contractor, however, will not be in possession of the necessary information to complete the labelling and marking, and the omissions—such as signwriting of unit numbers, etc., and engraving on apparatus labels—should be carried out by the Dept. when the units are being erected on site. It should also be noted that certain equipment items are not supplied with the units but are requisitioned separately by the Dept.; the labels for this apparatus should be supplied and engraved by the Dept. during the pre-transfer stage.

SIGNWRITING

4. **Colour.**—The colour of the signwriting on a brown or black background should be white, and black on all other surfaces.

5. **Unit marking.**—The serial numbers of the units should be signwritten in $\frac{3}{8}$ -in. black characters on the outside of the top member at the front of the cabinet at the right-hand side of the "Label No. 164" and should be done by the Dept., the units being numbered consecutively in each suite from the

non-growing end. The type letter is signwritten on the left-hand side of the label by the contractor (see Fig. 1).

The complete markings for the three types of unit used in U.A.X.s No. 13 are shown in the following table.

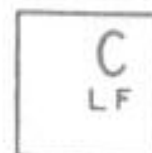
Unit	Signwriting
Line units	A1, A2, A3, A4
Junction units	B1, B2, etc.
M.D.F., I.D.F., etc. ...	C

6. **Shelf marking.**—Shelf labels are provided in the A units and should be signwritten with the shelf letter and suitable designation to indicate the contents of the shelf. This marking, which is done by the contractor in most cases, should be in $\frac{1}{4}$ -in. black characters for the shelf letter and $\frac{1}{8}$ -in. black characters for the designation denoting the type of apparatus fitted on the shelf. Typical signwriting of shelf labels is as follows:—

Calling equipment



Line-finders



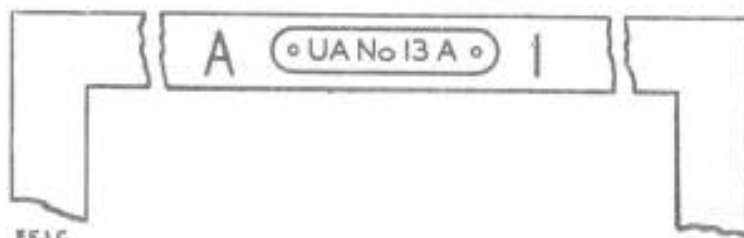
Group selectors



Final selectors



The "hundreds" number should be signwritten on the final-selector shelf labels during the pre-transfer stage.



EFJC

FIG. 1

7. **Marking for subscribers' and overflow meters.**—The meter numbers, level numbers and black segregating lines should be signwritten on the rear of the meter mounting plate, using $\frac{1}{8}$ -in. black characters and $\frac{1}{8}$ -in. thick black lines for the segregation.

8. **Marking for covers of strip-mounted sets.**—The covers are signwritten by

the contractor in 1/4-in. black characters to indicate the type of circuit as follows:—

B/W, I/C, O/G, RD, or RR

9. Where an outgoing and an incoming set are associated to form a bothway junction the characters [BW] with square brackets as shown should be sign-written locally to follow the designations O/G and I/C respectively.

10. To differentiate between different junctions, the covers of the strip-mounted sets should be sign-written locally with the following designations, using the abbreviations as shown:—

- P—Parent-exchange junction strip-mounted set
- D—Dependent exchange junction strip-mounted set
- DT—Dependent exchange junction strip-mounted set (outgoing traffic terminal only)
- ND—Non-dependent exchange junction strip-mounted set
- MAN—Manual exchange junction strip-mounted set (non-parent exchange).

11. The complete designations should occupy a central position on the covers and, when two or more horizontal covers are required per junction equipment, the designation should appear on the bottom cover.

12. If more than two vertical covers are required, the designation should appear on the relay cover in the middle of the junction strip-mounted set, and a broken black line 1/4-in. thick should be painted across the remaining covers and any associated apparatus in the form of a bracket.

13. Typical complete designations are shown in Figs. 2-8.

14. **Marking on M.D.F.**—This equipment is provided in the C unit and the "Labels No. 153 and 198," the "Fuse-mountings No. 4001," and the covers of "Fuse-mountings No. 4028, complete," should be sign-written locally in accordance with General, B 3010. The M.D.F. verticals (line side) should be sign-written from left to right.

15. **Marking on I.D.F.**—The connexion strips on the I.D.F. are sign-written by the contractor in accordance with Drawing TP 519, Sheets 1 and 2 and the multiple and local sides should be sign-written in 1-in. black characters (Drawing TP 510, Fig. 1 refers). "Labels No. 221" fitted on the first and last verticals of the I.D.F. (multiple and local sides) should be sign-written 1 and 5, respectively, in 1-in. black characters; this should be done locally.

16. **Marking for line-relay covers, battery jacks, test jacks and miscellaneous equipment.**—The sign-writing for these items should conform to the particulars shown on the relative TP Drawing.

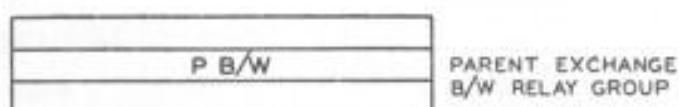


FIG. 2

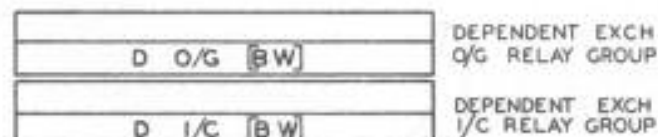


FIG. 3

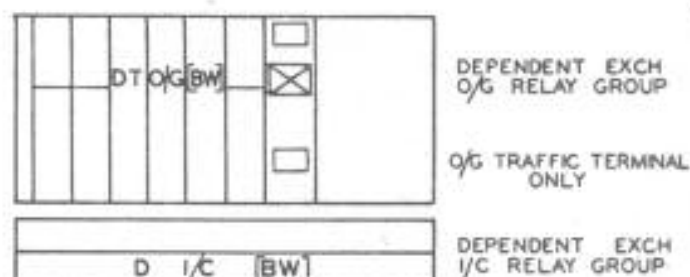


FIG. 4

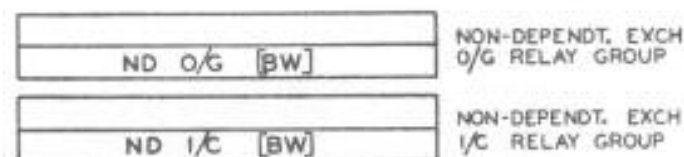


FIG. 5

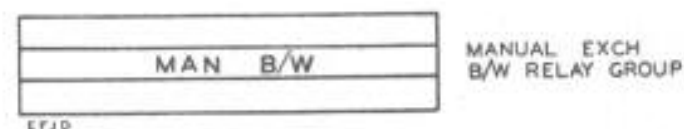


FIG. 6

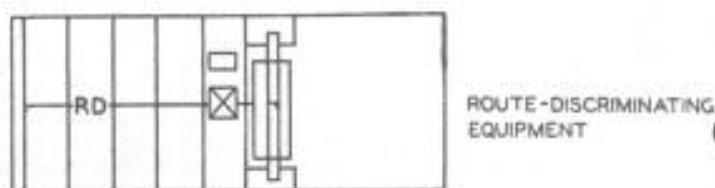


FIG. 7



FIG. 8

LABELLING AND ENGRAVING

17. **General.**—Full details of label engraving are shown in Drawing 10063 and Specification D 259. A code is used to indicate the size and type of the characters, e.g. 11A denotes that the engraving required is size 11, type A.

18. **Colour of filling.**

(a) *Black filling* should be used for engraving which denotes the switch or circuit number, and also for engraving (when provided) which gives particulars of the associated apparatus in a forward direction along the route.

(b) *Red filling* should be used for engraving which denotes the associated apparatus in a backward direction.

19. **Unit labels.**—A brass label (No. 164), using engraving 12A filled in white, is fitted on the top members at the front of the cabinet. This label denotes the type number of the exchange and the designation letter of the unit, e.g.

UA No 13A

LABEL NO. 164,
ENGRAVING 12A

20. **Switching equipment labels.**—The type of label, together with the associated apparatus on which they are used is shown below :—

"Label No...."	Apparatus
88	Uniselectors
235	Strip-mounted relay-sets
236	Test jacks on jack-mounted relay-sets and selectors
237 238	Jack-mounted relay-sets and selectors (covers)

21. **Typical labelling.**—Table 1 shows typical labelling and engraving for use in exchanges of the U.A.X. No. 13 type.

TABLE 1. TYPICAL LABELLING OF EQUIPMENT

Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
Line-finders (AT 3721)	237 White	11A Black	3	Line-finder No. 3 in unit (see Note 1)
	237 "	12C "	GRP SEL 3	Associated group selector No. 3 in unit
	238 "	13C "	ALTR OUTLETS 5 13 21	Allotter outlets (see Note 2)
	236 "	12B "	3	Line-finder No. 3 in unit
Line-finder allotter (AT 3721)	88 "	12B "	ALTR 1	Allotter No. 1 in unit
Control relay-sets (AT 3721)...	237 "	11A "	CTL 1	Control relay-set No. 1 in unit
	238 "			
	237 "			
	236 "	12B "	1	Control relay-set No. 1 in unit

TABLE 1 (contd.)

Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
Group selectors (AT 3722) ...	237 White	11A Black	3	Selector No. 3 in unit (see Note 3)
	237 "	11C Red	LF 3	Associated line-finder No. 3 in unit
	238 "			
	236 "	12B Black	3	Group selector No. 3 in unit
Final selectors— Unit A1	237 "	11A "	3	Final selector No. 3 in unit (see Note 4)
	238 "	13C Red	GRP SELRS LEV 2 OUTLET 3	Routed from outlet 3 on level 2 of group selectors in all A units
	237 "			
	236 "	12B Black	3	Final selector No. 3 in unit
Unit A2	237 "	11A "	3	Final selector No. 3 in unit (see Note 4)
	238 "	13C Red	GRP SELRS LEV 2 OUTLET 8	Routed from outlet 8 on level 2 of group selectors in all A units
	237 "			
	236 "	12B Black	3	Final selector No. 3 in unit
Unit A3	237 "	11A "	3	Final selector No. 3 in unit (see Note 4)
	238 "	13C Red	GRP SELRS LEV 3 OUTLET 3	Routed from outlet 3 on level 3 of group selectors in all A units
	237 "			
	236 "	12B Black	3	Final selector No. 3 in unit
Unit A4	237 "	11A "	3	Final selector No. 3 in unit (see Note 4)
	238 "	13C Red	GRP SELRS LEV 3 OUTLET 8	Routed from outlet 8 on level 3 of group selectors in all A units
	237 "			
	236 "	12B Black	3	Final selector No. 3 in unit

TABLE 1 (contd.)

Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
Unit B—				
<i>Parent exchange strip-mounted set (AT 3943)</i>				
Incoming side (top test-jack)	235 White	12B Red		Exchange code and junction number
		12B Black 12B "		Routed to contact No. 1 on junction levels of linefinders in unit A2
Outgoing side (lower test-jack)	235 "	13C Red		Routed from levels 9 and 0 of group selectors in all A units
		13C " 13C "		via outlets No. 1 on group selector shelves E and outlets No. 2 on group-selector shelves F
Outgoing side (available from a pair of units only)	235 "	13C "		Routed from levels 9 and 0 of group selectors in units A1 and A2
		13C " 13C "		via outlets No. 1 on group selector shelves E and outlets No. 2 on group selector shelves F
<i>Dependent exchange strip-mounted set. Incoming set (AT 3945)</i>	235 "	12B "		Exchange code and junction number
		12B Black 12B "		Routed to contact No. 4 on junction levels of linefinders in unit A2

TABLE 1 (contd.)









Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
<i>Junction hunter (associated with I/C strip-mounted set (AT 3945) Outgoing strip-mounted set (AT 3947)</i>	88 White	12B Red		Exchange code and junction number (incoming)
	235 ..	12B Black	 or 	Exchange code and junction number
		12B Red		Routed from outlet 4 on level 8 of group selectors in all A units
	235 ..	12B Black		Exchange code and junction number
<i>Dependent exchange (terminal traffic) strip-mounted set Incoming set (AT 3945)</i>	235 ..	12B ..		Exchange code and junction number
		12B Black 12B ..		Routed to contact No. 6 on junction levels of line-finders in unit A3
<i>Junction hunter (associated with I/C strip-mounted set (AT 3945) Outgoing set (AT 3948)</i>	88 ..	12B Red		Exchange code and junction number (incoming)
	235 ..	12B Red		Routed from outlet No. 6 on level 7 of group selectors in all A units
		12B Black		Exchange code and junction number

TABLE 1 (contd.)

Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
<i>Non-dependent exchange strip-mounted set Incoming set (AT 3946)</i>	235 White	12B Red	S J O 2	Exchange code and junction number
		12B Black 12B ..	A4 5	Routed to contact No. 5 on junction levels of linefinders in unit A4
<i>Outgoing set (AT 3949)</i>	235 ..	12B ..	S J O 2	Exchange code and junction number
		12B Red	L E V 6/5	Routed from outlet 5 on level 6 of group selectors in all A units
		12B ..		
<i>Tone and time-pulse relay-set (AT 3924)</i>	238 ..	11C Black	TONE & TIME PULSE	Relay-set designation
	236 ..	12B ..	2	Position on shelf
<i>Ringling and meter-pulse relay-set (AT 3784)</i>	238 ..	11C ..	RINGING & METER PULSE	
	236 ..	12B ..	1	Position on shelf
<i>Auxiliary route-discriminating equipment (AT 3950)</i>	235 ..	13C Red	B1	Unit on which common route-discriminating equipment is located
		13C ..	B1	Unit on which associated junction equipment is located
		13C ..	S W X 1	Exchange code and junction number served

TABLE 1 (contd.)

Type of equipment	Rate-Book description of label	Engraving code and colour	Associated typical label	Explanation of label engraving
Auxiliary route - restricting equipment (AT 3951)	235 White	12B Red	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">B 2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">WIN 4</div>	Unit on which associated junction equipment is located
		13C "		Exchange code and junction number
Auxiliary common route-discriminating equipment (AT 3944)	237 "	11A Black	<div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">3</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">SW X</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">B 1 B 2</div> <div style="border: 1px solid black; padding: 2px; display: inline-block; text-align: center;">3</div>	Relay-set No. 3 on shelf
	237 "	12B Red		Associated with junctions serving exchange whose code is SWX
	238 "	12B "		Units on which associated junction equipments are mounted
	236 "	12B Black		Position on shelf

NOTE 1.—Line-finders to be numbered in sequence from left to right in each unit, commencing on shelf B and continuing on shelf C (Drg. TP 511, Fig. 1 refers).

NOTE 2.—For connexion of allotter outlets to line-finders and group selectors, see G 1531.

NOTE 3.—Each selector to be numbered in sequence from left to right, commencing on shelf E and continuing on shelf F.

NOTE 4.—Each selector to be numbered in sequence from left to right in each unit (Drg. TP 511, Fig. 1 refers).

22. **Subscribers' and traffic meters.**—The subscribers' and overflow meters should be provided with "Labels No. 191," on which should be printed in $\frac{1}{4}$ -in. characters the subscriber's number or the number of the level or the type of apparatus on which overflow is being measured, respectively.

23. **Provision of charts for junction hunters.**—To enable the trunking from junction hunters to parent exchange junctions to be traced quickly, a chart (Type No. 21) should be provided.

The blank chart TE 728, should be written in

Indian ink with printed characters, showing the particulars of the junction numbers concerned with the hunter outlets, as well as the outgoing junction code (see Fig. 9).

24. The chart (Type No. 21) should be placed in a "Frame, Notice, No. 20," which should be mounted on the B unit on which the junction hunters are fitted. Details of the "Bracket BX" supplied for this purpose, and the method of fixing, are shown on Drg. TP. 512. The item should be requisitioned from the Stores Dept.

TE 728																									
JUNCTION HUNTER BANKS TO PARENT EXCHANGE JUNCTIONS																									
CONTACT	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
JH Nos																									
ODD	1	2	3	4																					
EVEN	2	1	3	4																					
O/G TO SWX																									

EGHX

TE 728

References :—G 1531
(Tpl) General, B 3010

END