

WB1400 CARRIER RECEIVER

FUNCTION

1. The WB1400 Carrier Receiver is a receiver connected to the Post Telephone circuit or, in the case of Controls, to one of the BT exchange lines. It receives signals and spoken messages which are transmitted at a very high frequency and filtered out of the normal speech traffic before it reaches the LST or the Control telephone system.

2. The signals and messages received are those transmitted by the WB1400 Carrier Equipment installed at the Carrier Control Point in the local major Police station which serves the Carrier Warning District in which the Post or Control is situated.

CONSTRUCTION

At Posts:

3. The equipment at Posts is armoured and waterproofed and is mounted on a board 410mm x 600mm on the wall of the Post above the left-hand end of the Post table.

4. The items mounted on the board are a small black Filter Unit, a large oblong armoured box containing a battery and speech receiving equipment, and a smaller square armoured speaker unit (see Fig P1).

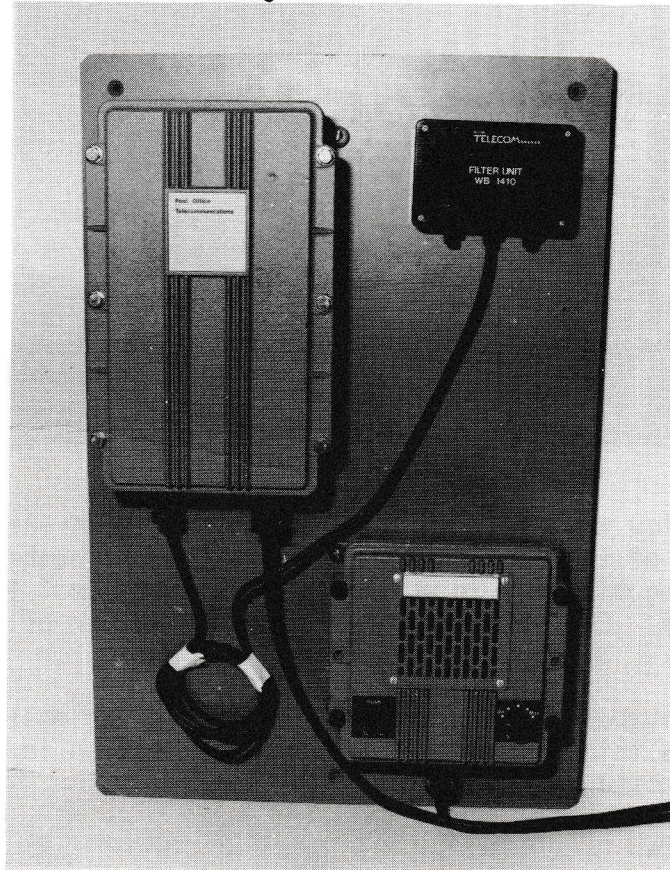


Fig P1

5. There are two operational controls on the speaker unit (see Fig P1). They are:

- a. A Push to Test button at the bottom left used to test the receiver.
- b. A 5-position combined Off/On/Volume switch at the bottom right.

At Controls

6. The filter unit and speech receiving equipment at Controls is located in the BT Frame Room and the speaker unit located in the Group or Sector Operations Room.

7. The speaker unit provided at Controls is of plastic construction with two operational controls (see Fig P2). These controls are:

- a. A 5-position combined Off/On/Volume switch on the top right similar to that on the armoured speaker unit at Posts.
- b. A spring-loaded Press to Test switch at the bottom right used to test the receiver.

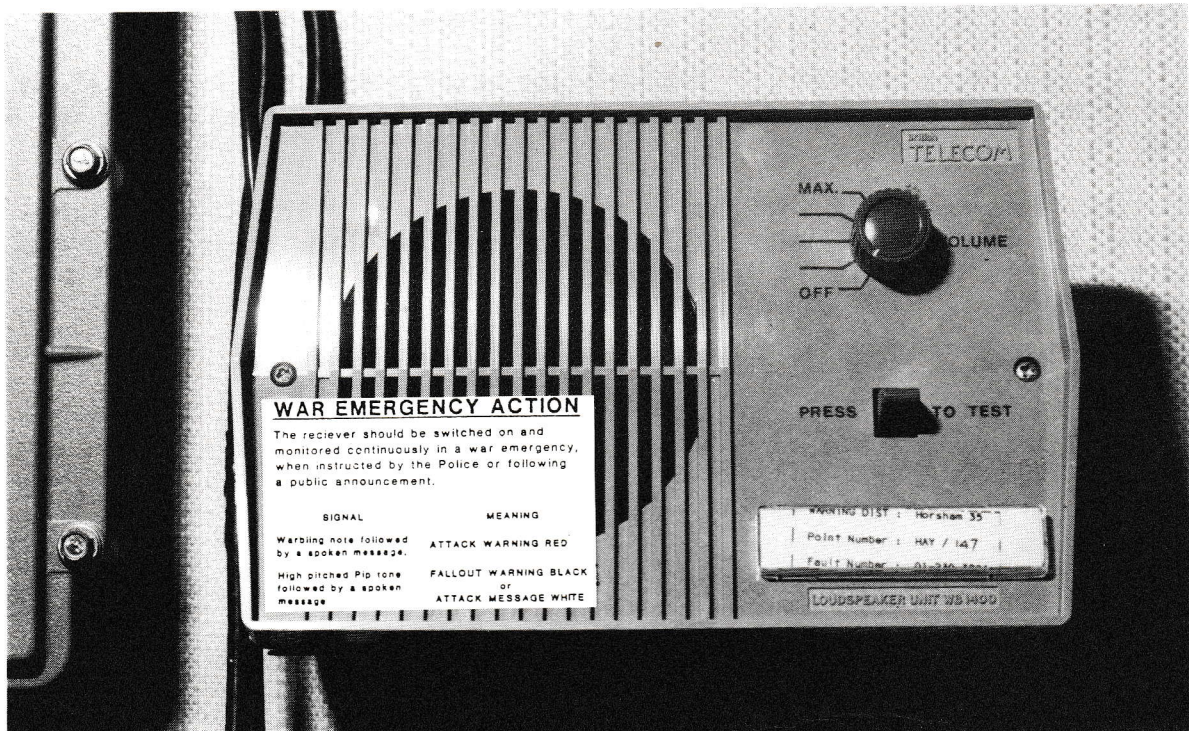


Fig P2

8. The label, below the Press to Test switch, on the front of the speaker unit may show the number of the Carrier Area, the instrument number, and the name and number of the Warning District in which the Post or Control is situated, eg 1295/74/MAIDSTONE 15. Correctly only the name and number of the Warning District should be shown.

9. The name and number of the Warning District is the most important of this information as it is this which determines whether action is to be taken in respect of certain messages.

OPERATING INSTRUCTIONS

10. The Carrier Receiver is to be switched on whenever the Post or Control is manned for exercises and operations. It is to remain on for the entire period of exercises and operations and switched off before the building is vacated.

Switching on and Testing

11. The instrument is switched on by rotating the combined Off/On/Volume control switch one position clockwise.
12. The test button is then depressed and the regular tick signal should be audible. Still keeping the test button depressed, adjust the volume by rotating the volume control clockwise until an acceptable volume is achieved.
13. Release the test button and the tick signal will cease. The instrument is now ready to receive signals and spoken messages and will switch on automatically when the call tone is transmitted by the Carrier Control Point (CCP).
14. The test button is to be depressed for a short period every hour on the hour, to ensure that the receiver is operating correctly.
15. At Controls the procedure is identical to the actions described in paras 10 to 13 above except that 'test switch' is depressed.

Signals Transmitted by Carrier Control Point

16. The WB1400 equipment at the CCP transmits a number of different signals as follows:
 - a. A 'tick' signal at one-second intervals.
 - b. A Call Signal of either 4 or 6 rapid medium pitched tones. All or some of these tones may be heard preceding the Alert Signal or Alarm Signal. They are transmitted by the CCP to switch on either selected (4 tones) or all (6 tones) Carrier Receivers.
 - c. An Alert Signal of 6 seconds duration consisting of a fast high pitched tone.
 - d. An Alarm Signal which is a warbling note lasting for 6 seconds.
 - e. A slower high pitched tone lasting 4 seconds which is the power siren switch-on tone.
 - f. An interrupted very high pitched steady note of the Attack Warning Red power siren activation tone which lasts for 1 minute.
 - g. A very high pitched steady note of the Attack Message White power siren activation tone which lasts for 1 minute.
 - h. Spoken messages.

NOTE 1 The alerting signal in b. above may be heard only partially, completely or, on occasion, not at all.

NOTE 2 The siren tones detailed in e., f. and g. above may not be heard if the Receiver has switched itself into stand-by mode before activation is complete at the CCP. In these circumstances the Receiver will remain silent for approximately 1 1/4 minutes before a repeat of the warning is commenced.

Peacetime Exercise Testing

17. Soon after the Control/CCP circuit tests at the beginning of exercises when CCPs are participating, CCPs will initiate a test broadcast to Posts and Controls over the Carrier Receiver as follows:

- a. An Alert signal of 6 seconds duration.
- b. A spoken message, eg "This is Ravensbourne Carrier Control Point making a test broadcast timed at 0830 hours".
- c. The spoken message repeated.

18. Before the end of the period in which CCPs are participating in the exercise, a further broadcast will be made in the following form:

- a. An Alert signal of 6 seconds duration.
- b. A spoken message, eg "This is Ravensbourne Carrier Control Point, Exercise POSTHORN Two Eighty Eight, Maidstone Twenty, 1100 hours".
- c. The spoken message repeated.

19. These messages are to be recorded with other required detail on the Carrier Receiver Test Report Form as shown in Fig P.3.a and b.

20. The completed Carrier Receiver Test Report Forms are to be returned to Group HQ at the end of the exercise.

Routine Carrier Receiver Tests

21. Tests of Carrier Receivers in a Carrier Area are carried out at 3-monthly intervals by the Chief Constable concerned.

22. Normally Posts and Controls are not involved in such tests which take place at 0900, 1500 and 2000 on the day specified. If, exceptionally, a Post or Control is required to participate, the test will be made in the following form.

- a. An Alert signal of 6 seconds duration.
- b. A spoken message, eg, "This is Ravensbourne Carrier Control Point making a routine test broadcast. You will now hear a short test warning signal".
- c. The Call signal.
- d. An Alarm signal of 6 seconds duration.
- e. A spoken message, eg, "Now please write the Codeword 'Exeter' on your routine test report form, complete the remainder of the details and post the form to Police Force Headquarters. Remember to switch OFF your loudspeaker. Thank you".

23. This broadcast is repeated five times at one-minute intervals.

24. Posts or Controls should return the completed form as directed by Group HQ.

UK WARNING AND MONITORING ORGANISATION

EXERCISE REPORT FORM - WB1400

EXERCISE _____

DATE _____

WARNING POINT NO _____

MONITORING POST NO _____

UKWMO GROUP _____

This exercise is being conducted to practice warning procedures, train personnel and test communications.

All Monitoring Posts manned for the exercise should have their Speech Receivers switched on for the duration of their involvement.

Between _____ hours and _____ hours a test message will be broadcast from the Carrier Control Point to which your Post is linked, followed by one or more simulated fallout warning messages. The test message, and fallout warning message relating to your Warning District should be accurately recorded on the report form overleaf.

At the conclusion of the exercise please return the completed reporting form as soon as possible to your Group Control, to be forwarded on to Police Headquarters. Faults reported in part 1. of the form will be notified by the Police to British Telecom.

Chief Constable

PART 1

TEST MESSAGE

(Enter subsequent messages at part 2)

TIME RECEIVED	TEXT OF MESSAGE

Result of broadcast *delete as applicable

1. (i) Tick signal - * clear/distorted/faint/cannot be heard
- (ii) Calling signal - * clear/distorted/faint/cannot be heard
- (iii) Speech - * clear/distorted/faint/cannot be heard.
2. What is the name and number of the Warning District on the label on your loudspeaker? _____
3. Is the instruction card clipped to your loudspeaker? _____
4. Remarks (do not report faults to British Telecom, give details here).

PART 2

WARNING MESSAGES

(for your Warning District)

TIME RECEIVED	TEXT OF MESSAGE

REMEMBER - SWITCH OFF YOUR RECEIVER AFTER THE EXERCISE/TEST

Form completed by _____

Date _____ Home Telephone No _____

Fig. P.3.b.

War Emergency Pre-attack Action

25. On manning up in a War Emergency, the Carrier Receiver is to be switched on and tested as in paras 11 to 15 above.

26. After the CCP has tested the circuit to the Warning Keyboard at Group Controls, the Operator will initiate a Carrier Receiver Test sequence as follows:

- a. An Alert signal of 6 seconds duration.
- b. The words "Test call, testing" (3 times).
- c. The words "A test of the Attack Warning signal will now follow" (3 times).
- d. The Call signal.
- e. An Alarm signal of 6 seconds duration.
- f. The Call signal.
- g. An Alert signal of 6 seconds duration.
- h. The words "A test of the Attack Warning signal has just been made" (Twice).

NOTE If the Attack Warning Red occurs during this test, it will be abandoned immediately.

War Emergency Public Warning Action - Attack Warning Red

27. The Attack Warning Red may be received by the CCP Operator from one or more of the sources as follows:

- a. From UKRAOC.
- b. From the local UKWMO Control.
- c. By BBC Broadcast.

28. On receipt of the Attack Warning Red, the CCP Operator will carry out the warning sequence as follows:

- a. An Alert signal of 6 seconds duration.
- b. An Alarm signal of 6 seconds duration.
- c. The words "Attack Warning Red" (3 times).
- d. The power siren switch-on tones for 4 seconds.
- e. The siren activation tones lasting for 1 minute.

29. The whole sequence described in para 28 is repeated twice more.

30. On receipt of the Attack Warning Red over the Carrier Receiver, Posts equipped with hand-operated sirens are to sound the Attack Warning Red immediately.

War Emergency Public Warning Action - Fallout Warning Black

31. On receipt of Fallout Warning Black, the CCP Operator will broadcast the warning as follows:

- a. An Alert signal of 6 seconds duration.
- b. A spoken message, eg, "Fallout Warning Black, Maidstone 15" (3 times).

32. On receipt of a warning containing the name and number of the Warning District shown on the Carrier Receiver label, Posts are to fire one set of maroons immediately.

War Emergency Public Warning Action - Attack Message White

33. White Messages may be received by the CCP Operator from the local Group Control in two forms:

- a. A blanket message relating to all Warning Districts.
- b. A message relating only to specified Warning Districts.

34. A White message relating to all Warning Districts will be passed over the Carrier Receiver as follows:

- a. An Alert signal of 6 seconds duration.
- b. The words "Attack Message White" (3 times).
- c. The power siren switch on tones for 4 seconds.
- d. The siren activation tone for 1 minute.

35. The sequence detailed in para 34 is repeated twice more.

36. A message relating only to specified Warning Districts will be passed over the Carrier Receiver as follows:

- a. An Alert signal of 6 seconds duration.
- b. A spoken message, eg, "Attack Message White, Maidstone 15" (3 times).

37. The sequence detailed in para 36 is repeated once more.

38. On receipt of either a blanket White Message or one containing the Warning District in which the Post is situated, Posts equipped with hand-operated sirens are to sound the White Warning immediately.

MAINTENANCE

39. The battery contained in the larger armoured box is trickle charged by line current from the serving BT exchange. No maintenance is permitted by ROC personnel on the Carrier Receiver equipment.