

DSTS5 DUAL STANDARD (DTMF/PULSE) TEST TELEPHONE



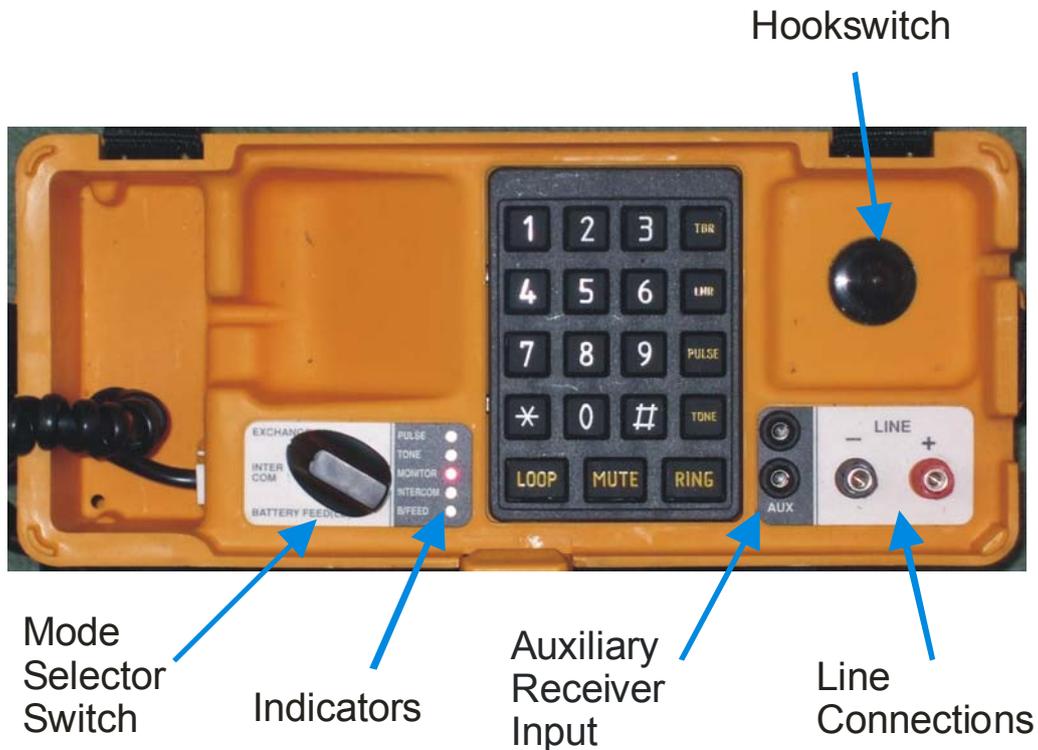
OPERATORS HANDBOOK

CONTENTS

| | |
|---------------------------------------|---|
| GENERAL..... | 3 |
| FEATURES | 3 |
| OPERATION..... | 4 |
| CONNECTING TO LINE | 4 |
| AUTOMATIC MONITOR | 4 |
| LOOP/ ANSWER KEY OPERATION | 4 |
| EXCHANGE (C.O.) CALLS (CB MODE)..... | 4 |
| DIALLING MODE SELECTION..... | 4 |
| LAST NUMBER REDIAL..... | 4 |
| TIMED BREAK RECALL | 4 |
| MUTE | 4 |
| LOCAL BATTERY - INTERCOM..... | 5 |
| LOCAL BATTERY – BATTERY FEEDING | 5 |
| ANSWERING A CALL..... | 5 |
| INDICATORS | 5 |
| HANDSET ‘PARK’ FEATURE | 5 |
| BATTERIES | 5 |
| BATTERY FAILURE..... | 5 |
| BATTERY REPLACEMENT | 5 |
| SPECIFICATION | 6 |
| WARRANTY | 7 |
| Acknowledgements | 7 |

GENERAL

The Chesilvale Electronics DSTS 5 is designed for use by all telecommunication engineers and has been especially ruggedised for use in the harshest external environment. It is equally as useful at the top of a telephone pole or the bottom of a manhole. Particular attention has been given to impact and water resistance and a long battery life.



FEATURES

- Central or Local Battery.
- Loop Disconnect (PULSE) dialling.
- DTMF(Tone) dialling.
- Tactile keypad.
- High impedance automatic monitor.
- Last Number Redial, Tone and Pulse.
- Battery backed memory.
- Timed Break Recall.
- Two tone sounder.
- Auxiliary receiver input.
- Binding post line connection.
- Intercom.
- Battery Feeding- constant current.
- Ringing generator.
- Five Indicator LEDs.
- Mute-handset and keypad.
- Handset 'park' position.
- Optional use with TX/RX headsets.
- Super high impact case.
- Highly water resistant.
- Limit of operation > 1500 Ohms.

OPERATION

CONNECTING TO LINE

The connection to line is made using the two binding posts. Connect the telephone while on-hook. The instrument is not polarity sensitive.

AUTOMATIC MONITOR

With each hookswitch operation the telephone switches automatically into the monitor mode to prevent unwarranted customer disturbance. Before attempting to use the line always check that the line is free by listening in Monitor mode.

LOOP/ ANSWER KEY OPERATION

To escape from Monitor press the LOOP key on the keypad. When answering a call it will also be necessary to press LOOP - lifting the handset alone will not trip ringing.

EXCHANGE (C.O.) CALLS (CB MODE)

If it is intended to work on operational exchange (C.O.) lines set the rotary control knob to EXCHANGE (CB), lift handset, listen in Monitor to ensure the line is free, then press LOOP. If the line is operable dial tone will be returned and it is then possible to dial as if using a normal telephone (see Dialling mode selection).

DIALLING MODE SELECTION

After lifting the handset and pressing the Loop key the telephone automatically sets to Loop Disconnect (Pulse) dialling. If it is necessary to dial in DTMF (Tone) dialling press the TONE key on the keypad at any time during the call to change modes. The mode will reset to Loop Disconnect either by replacing the handset or by depressing the PULSE key.

LAST NUMBER REDIAL

To redial the number previously dialled go: on-hook, off-hook, press LOOP then on return of dial tone press LNR.

To redial a number in "Tone", go: on-hook, off-hook, press LOOP, press TONE then on return of dial tone press LNR.

TIMED BREAK RECALL

This feature is used on modern exchanges (C.O.s) and PABXs. It is used to activate special features such as call transfer etc. The LNR memory is reset each time TBR is used.

MUTE

At anytime during any type of call it is possible to cut-off transmission by pressing the MUTE key on the keypad or the button on the side of the handset.

Apart from offering privacy this feature is most useful when working in high noise areas. To operate the mute button, press to listen and release to talk. This will make a dramatic improvement to reception. The MUTE button on the keypad is used in conjunction with a headset.

LOCAL BATTERY - INTERCOM

When a communication path is required between two points using a pair of wires not connected to the exchange (C.O.), use INTERCOM mode. This method of operation is suitable for operation between two local battery telephones.

LOCAL BATTERY – BATTERY FEEDING

This mode is used on wires disconnected from the exchange (C.O.) when inter-working with Central Battery (CB) type telephones. It works by feeding battery from an internal source to power the distant telephone. Do not use this mode when intercom will do. This mode used unnecessarily will shorten battery life. Never use two DSTS 5's together in Battery Feeding (LB) mode - this will produce a fault condition and will drain the batteries.

ANSWERING A CALL

Lift handset (ringing continues), press LOOP to answer.

INDICATORS

An indicator light is provided for each of the following:

- Monitor - with each off-hook
- Pulse-CB mode, Pulse dialling.
- Tone-CB mode, Tone dialling
- Intercom- LB mode, no DC output.
- Battery Feed-LB mode, Intercom with DC output.

HANDSET 'PARK' FEATURE

When there is nowhere to put down the handset, for instance, in a muddy manhole or at the top of a pole it is possible to put the handset in the "Park" position without going on-hook. Place the handset down in the reversed position with the receiver end into the transmitter cavity.

BATTERIES

6 LR 20 Alkaline Manganese (D) cells are required. Zinc Carbon cells may be used but are not recommended due to their relatively poor performance, short shelf life and their tendency to leak.

BATTERY FAILURE

When the batteries are nearing the end of their life DSTS 5 will "fail safe" by reverting to Monitor mode. It may still be possible to use the instrument in lower current modes for a short while without a problem. When the batteries are very weak the instrument will not release from the Monitor mode. If the batteries are completely dead or absent none of the indicators will light.

BATTERY REPLACEMENT

Open the battery compartment sliding lid on the underside of the instrument (the lid cannot be removed). Stand the instrument upright, then bang it down sharply on a firm flat surface to eject the batteries.

Stand the instrument on its lid with the lid shut and insert the batteries being careful to observe the correct polarity. Remove the batteries if storing for several weeks to avoid damage by leakage.

SPECIFICATION

MONITOR Impedance: > 100 k Ω 0-30kHz

Level: approx equal to receive level

EXCHANGE (C.O.) MODE

Maximum line length (Exchange (C.O.) Mode) > 1500 ohms

Loop disconnect pulse dialling

Rate 10pps \pm 0.2pps IDP 800 msecs

DTMF Tone Dialling

Frequency deviation < \pm 1% Level (both tones) - 9 \pm 2dBm

Impedance Matching (complex) Return loss

Ring generator output to 2.2 μ F + 25 kOhms: 70 VRMS \pm 5V

DC Output:

- Intercom, no output
- Battery feeding output 55V \pm 5V
output current (up to 1500 ohms) 21 \pm 3 mA
red terminal = +ve

Two Tone approximately 1200 + 2300 x 10 Hz Output level 75 dB at 1m

Impact resistant

Water resistant

Weight with/without batteries: 1.2 kg, 1.95 kg

Dimensions (maximum) 140 x 278 x 120 mm

BATTERY LIFE

CB > 900 hours

LB Intercom > 450 hours

(Worst case) LB Battery Feed > 50 hours

Typical use cycles 140 - 270 hours

Alkaline Manganese. Zinc Carbon offer about 3/10 of the performance figures shown.

APPROVALS

BS 6305 Line Connection Approval.

BS 6317 Telephony.

BS 2011 Environmental durability.

WARRANTY

Chesilvale Electronics Limited (The Company) warrants this product and each part thereof against all defects in material or workmanship for a period of one year from the date of delivery to the user. The Company agrees to remedy any such defect free of charge provided that:

- 1 The product is returned carriage prepaid to the Company or the Agent/ Distributor from which the product was originally purchased.
- 2 The product is returned in adequate packaging to prevent transit damage together with the return address, full details of the defect and an official repair order. A no charge invoice will be raised by the Company for warranty repairs.
- 3 All parts must be returned except where a prior agreement has been reached with the Company or its Agent/ Distributor. Any missing parts will be charged for.
- 4 The product has not been subject to neglect, accident or improper use (as defined by the Company).
- 5 The product has not been altered or modified in any way other than by the Company or its authorised agents.
- 6 Warranty seals (if fitted) are unbroken. The Company's complete standard terms and conditions for warranty, which are published on the reverse of each sales invoice, shall apply.

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Sam Hallas, May 2010



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