## Tuftel 8170 - Handsfree Telephone



- Weatherproof
- Hands-free and central battery operation (Hot-line)
- Pseudo-Full-Duplex communication
- Long telephone line capability
- Extremely rugged construction
- Increased safety
- Highly reliable operation and low cost of ownership


## Key Information

The Tuftel 8170 is an advanced concept hands-free telephone combining superb acoustic reproduction from the latest electronic technology within a heavy-duty vandal resistant enclosure. The Tuftel 8170 enclosure is also sealed to provide water resistance for external use in hostile environments. The Tuftel 8170 external case is manufactured from steel of approximate, providing IP65 minimum protection to the electronics. The enclosure has fixing holes on its rear for secure wall mounting. Brackets can be supplied for 100 mm -post mounting.

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## Input/Output Connection

All connections to the unit are made via optional sealed glands on the bottom of the case.

## Push Button

The mechanical push button is non-latching and is vandal and water jet (IP65) resistant.

## Microphone

A highly reliable IP65 dynamic microphone is used with vandal resistant protection with metallic grille.

## Loudspeaker

A highly reliable IP65 electromagnetic loudspeaker is used with vandal resistant protection by metallic grille. The sound level will be 90 dB , measured at an angle of 90 degrees, at 0.3 m from the centre of the loudspeaker's protective grille.

## Electrical Safety

Included in the unit are the electrical connections to earth, that ensure the safety of the calling party when touching the enclosure, fascia etc.

## Electronic Circuitry \& Components

Every component has been carefully chosen and subsequently evaluated. The telecommunication components mounted on the PCB are the latest technology. To minimise component count and hence increase the reliability of the telephone's integrated circuits, mainly CMOS and bipolar are used. Some standard integrated circuits and some specific telephony integrated circuits are used.

## Extra Features

- Provision for optional FP Unit at factory, if required
- Vandal protected loudspeaker and microphone
- Factory adjustable automatic on-hook timer option
- Wall mounting with M6 holes
- U-Bolt fixing to 100 mm post option
- Custom front label option


## The main features of this unit are as follows

- Handsfree Operation
- Push-button to go off-hook to initiate call
- Frequency Detection to go back on-hook option
- Ring Detection to go off-hook option
- Line Powered with option of Externally Powered selectable boosting output power
- Polarity, Transient and EMI protection in the Line (\& Power) inputs
- The HP telephone option has a voltage-free contact to initiate a video camera.

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## The System or Exchange (PABX) may optionally perform the following functions

- Send an in-band single frequency tone. This will disconnect the Telephone Unit and is the normal procedure to disconnect the unit where, optionally, the push button is electronically latching.
- The PABX will send a ringing signal to the Tuftel 8170 immediately one of the buttons is depressed, and this tone will continue until the appropriate information or emergency operator answers the call. This tone typically consists of a frequency between $400-800 \mathrm{~Hz}$, cadenced at intervals.

It should be noted that when a call is started only the operator can terminate the call.

## Layout

## LAN-Phone 8170 Layout v1

## Front View Side View



