

AUDIOLINE

45

'HANDS-FREE'
SPEAKERPHONE
WITH 20 DIRECT
MEMORIES



**OPERATING
INSTRUCTIONS**

Important — keep for future reference.

AUDIOLINE



Mercury

The TEL45 is fully approved and compatible with the Mercury Telephone Network. By becoming a Mercury subscriber you can save money on long distance and international calls and obtain the benefits of detailed billing. A letter and order form is enclosed which gives more details of the System.

If you own a Mercury Subscription you will be sent your own personal Authorisation code in two separate parts. This is provided so that Mercury can identify the calls you make for billing purposes.

Entering the Mercury Access Number and Mercury Personal Authorisation Code

Your Mercury Authorisation Code is divided into three sections.

1. The Mercury Access number, usually 131 but may vary depending upon your location.
2. The dialling mode change over, when necessary, and pause insertion. If you normally use LD dialling this is simply achieved by using the LD→MF key. If you are using MF dialling it is not necessary to change the dialling mode but to insert a pause by pressing the pause key once.
3. Your Mercury Personal Authorisation code.

The first step is to ascertain the Mercury access delay time which can vary depending on which part of the country you live. This can be achieved simply by dialling the Mercury access number (e.g. 131), and then immediately with the aid of a watch commence timing, now listen for a high pitched tone (this is the Mercury dial tone), and note the elapsed time.

You should allow a further 2 seconds or so safety margin in addition to this, and then round up the resulting time to the nearest multiple of 4. E.g. for 3 seconds round to 4 seconds, 7 seconds round to 8 seconds etc.

You can now proceed as follows.

Example:

When using L.D. dialling:

1. Pick up the handset or press the ON/OFF button. The dial tone will now be present during the time you are storing the number. (Numbers are not dialled out when programmed into the memory.)
2. When the dial tone is present, press the STORE button once.
3. Using the Keypad enter 131 or the access number that Mercury have advised.

4. Press LD→MF

(The dialling mode change over function automatically inserts a 4 second pause, therefore if your access delay time previously ascertained is 8 seconds you will need to insert a further 4 second pause as follows)

5. Press PAUSE
6. Enter your Mercury Authorisation Code Number. This is usually a 10 digit number.
7. Press MERCURY
8. Replace the Handset or press the ON/OFF button again.

When using M.F. dialling:-

1. Lift handset or press ON/OFF button
2. Press STORE
3. Using the Keypad enter 131 or the access number that Mercury have advised.
4. Press PAUSE
(As in the previous example, a single 'Pause' inserts a 4 second delay, so depending on your access delay time previously ascertained, a further 'Pause' or pauses can be inserted (up to a maximum of two, i.e. 12 seconds)
5. Enter your Mercury Authorisation Code Number. This is usually a 10 digit number.
6. Press MERCURY
7. Replace the Handset or press the ON/OFF button again.

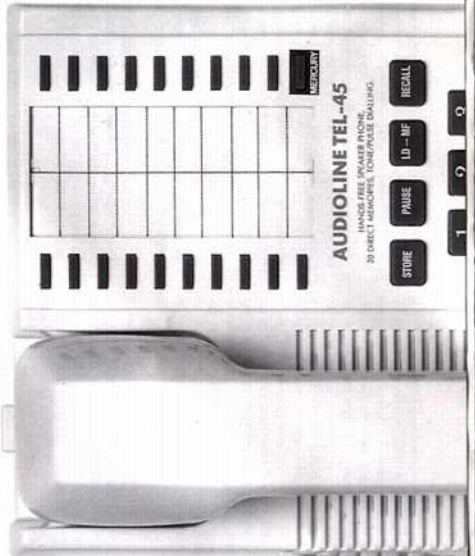
To Dial using the Mercury Network

1. Lift the Handset
 2. Press MERCURY
 3. Enter the telephone number using the Keypad
- OR** Press the appropriate memory button if the number you require is in the phone's memory.
- Note: When dialling through Mercury the user will hear a high pitched tone. This is the Mercury dial tone.

To Erase Numbers Stored into the Mercury Location

1. Pick up the handset, or press the ON/OFF button. The dial tone will now be present during the time you are storing the number. (Numbers are not dialled out when programmed into the memory.)
2. When the dial tone is present, press the STORE button once.
3. Enter the digit "1" using the keypad
4. Press MERCURY
5. Replace the handset or press the ON/OFF button again.

Mercury Customer Assistance
In case of any difficulty experienced using the Mercury service phone 0800 424 193 (24 Hours).



THE B.T. STAR SERVICE is fully compatible for use with B.T. Star Services. This service offers additional facilities, including: Three-way Calling, Call Diversion, Call Waiting, Reminder Calls, Charge Advice, etc.

Access to this service is made using the *, and necessary to set the recall switch located on the rear of the telephone to the T-Time Break position. For further details of this service, contact your local B.T. Sales Office.

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BT STAR SERVICE

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INSTALLATION

Before using the telephone it is advisable to install batteries into the battery compartment which will allow the memory to retain all stored numbers in the event of the telephone being unplugged from the B.T. socket.

The telephone uses 2 x AA batteries or equivalent (not supplied). The battery compartment is located on the bottom of the base.

Warning: Unplug the connection to the B.T. network before opening the battery cover.

To install the batteries:-

- Remove the battery cover retaining screw using a small Philips screwdriver, slide the compartment cover in the direction of the pointer arrow.
- Install the batteries into the compartment taking care to observe the correct polarity.
- Replace the battery compartment cover and replace the retaining screw. Battery replacement is the same procedure as above.

Note: If the Audioline TEL45 is stored or left unused for any period of time, it is strongly advised that the back up batteries are removed from the battery compartment. This will prevent any damage being caused to the telephone in the event of chemicals leaking from the batteries. Always dispose of used batteries safely - do not incinerate.

When depressed is used to switch off the microphone (in either 'Handset' or 'Hands Free' operation) thus preventing speech transmission, but still allowing you to hear your caller. When normal conversation is to be resumed release the mute button.

The Mute Button

When depressed is used to switch off the microphone (in either 'Handset' or 'Hands Free' operation) thus preventing speech transmission, but still allowing you to hear your caller. When normal conversation is to be resumed release the mute button.

Number Storage

First you may find it helpful to write out in priority your list of individuals, companies, etc. and their phone numbers that you are going to store in the memory.

Plan to put your most important and frequently called numbers first. Next list your less frequently called numbers. After preparing your list, print names or other identification in the order you want on the telephone index card. Access to the telephone index card is easily obtained by removal of the clear plastic cover.

the number of press the ON/OFF button and obtain the dial tone. Press the appropriate memory button and this number will then be automatically dialled.

Pause

With some P.B.X. systems, when making an outside call it is necessary to wait for a new dialling tone. This is usually obtained by dialling an access number, normally 9. The PAUSE Button enables a pause of 4 seconds to be inserted between the access number and the telephone number so you do not have to wait for the new dialling tone before dialling your number from the memory.

IT IS IMPORTANT TO USE THE PAUSE FACILITY AS THIS ENABLES FULL USE OF THE RE-DIAL AND MEMORY DIAL CAPABILITIES OF THIS PHONE. Note: To increase the pause time inserted, press and release the PAUSE Button for each additional 4 seconds pause you wish to enter.

Warning: Do not enter more than two pauses following the initial P.S.T.N. access digit (or digits). Failure to comply with the requirements may result in unsatisfactory operation.

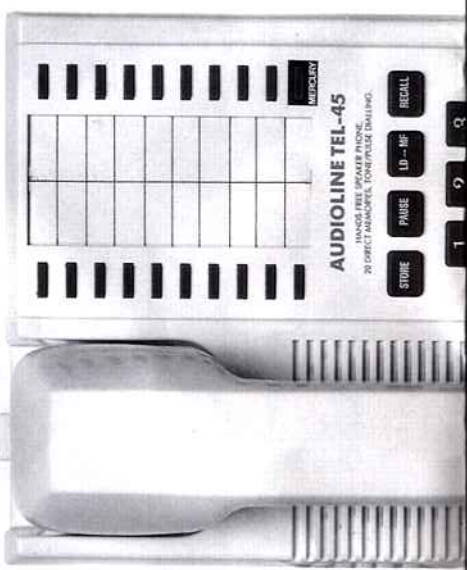
Number Storage Requiring Pause:

- Lift handset or press On/Off switch and obtain dial tone.
- Press STORE button once.
- Press the local access number (e.g. 9).
- Press and release the pause button once.
- Key in required telephone number.
- Press the Selected Memory Location Button.
- Replace the handset or press the On/Off button again.

Memory Dialling

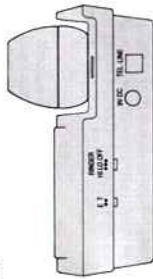
To re-call a number entered in the memory, lift the handset or press the On/Off button and obtain the dial tone. Press the appropriate memory button and this number will then be automatically dialled.

Where a number has been stored into the memory utilizing the pause feature, automatic dialling is carried out in exactly the same procedure as detailed above.



Connection of Telephone Line

The unit should be connected to the telephone line using the plug supplied. If necessary British Telecom will install the required socket which will accept the plug on the telephone. The telephone may be used as the "Prime" instrument or it is equally acceptable to connect the unit on to an extension socket connected to a direct exchange line.



Dialling

Before dialling out it will be necessary to set the M.F.A.D. switch located on the side of the telephone, to the correct position.

The LD.MF. (multi-frequency/loop disconnect), dialling switch, is used to select the dialling system that is required in association with the type of local telephone exchange or P.B.X. switchboard. Local telephone areas throughout the country are now being converted to use the "System X" equipment at the exchange. "System X" can use either tone or pulse dialling.

The prime advantages of tone dialling over pulse dialling are that it allows much faster connection to the called party and greatly reduces the possibilities of a wrong number being dialled due to equipment error.

To determine if your local telephone exchange operates on either the tone (multi-frequency) or pulse (loop disconnect) dialling system, please contact your local Telecom Sales Office who will be able to give you further information. Alternatively, try dialling out with the switch in the TONE position. If this is unsuccessful, switch over to the PULSE position.

Recall Select Switch

When the TEL 45 is used in conjunction with a P.B.X. system it will be necessary to set the Recall Select Switch mounted on the rear of the telephone to the Earth or Timed Break position depending on the type of Recall system the P.B.X. employs.

OPERATION

Dialling Out: Lift the telephone handset, wait for dial tone, then use the key pad to select the appropriate number you are dialling. To terminate the call replace the telephone handset into its cradle.

To make a call using the "Hands Free" dialling facility, with the telephone handset still resting in its cradle, first press the On/Off button, listen for the dial tone then use the key pad to select the appropriate number you are dialling.

When the called party answers, it is possible to hold a conversation in the "Hands Free" mode, simply by speaking clearly, in the direction of the telephone and listening via the built in loudspeaker. To terminate the call, press the On/Off button again and the L.E.D. indicator will extinguish.

The handset may be picked up either at the start of, or during, the conversation, and will automatically cut off the loudspeaker and permit private conversation via the handset. The call can be terminated by replacing the handset in its cradle.

To switch from "Handset" to "Hands Free" operation during the course of a conversation, simply press the "On/Off" button whilst replacing the handset.

Speaker Volume Control

When using the telephones in the "Hands Free" mode the volume level of the speaker may be adjusted by the use of this control.

LD-MF Button

Allows the automatic switching over from Pulse to tone dialling to be stored as a programmed step within a sequence of digits and can be incorporated into a memory location. This facility can only be used when the telephone is already switched to the pulse or L.D. dialling system.

Ringer

The volume of the ringing tone may be adjusted by moving the switch located on the rear of the telephone, to the required high/low position. The ringing tone may be switched off completely by sliding the switch to the left hand position.

REN¹ (Ringer Equivalence Number)

The ringer equivalence number or REN determines how many telephones may be connected to your exchange line. The exchange line has a maximum REN capacity of 4 and a B.T. Telephone has a REN of 1 (unless otherwise stated).

Your Audiotone TEL45 has a REN of 1, thus it is feasible to connect 4 Audiotone telephones to your system, or 3 additional telephones in case you have one B.T. Telephone. Simply add together the REN value of the complete system.

You should not exceed a value of 4 on the complete system, otherwise the volume of the ringer in any phone will decrease and one telephone or more may not ring a all.

Wall Mounting

The Audiotone TEL45 has been designed to be used for either a wall mounting telephone or used in conventional desk top manner. If it is intended to wall mount the telephone it will be necessary to purchase the optional extra wall mount bracket, Part No.221.

The Store button is used to program the telephone to retain up to 20 numbers at up to 16 digits each in its internal memory. Each of the 20 telephone numbers are stored in memory locations corresponding to the memory buttons.

Storing numbers into the memory

To program a new number or change an existing number in the memory follow these steps:

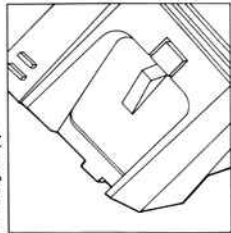
1. Pick up the handset or press the On/Off button. The dial tone will now be present during the time you are storing the number. (Numbers are not dialled out when programmed into the memory.)
2. When the dial tone is present press the Store button once.
3. Enter the full telephone number you wish to store in the memory.
4. Press the memory location button you have selected for the telephone number.
5. Replace the handset or press the On/Off switch again.

Note: On some P.B.X. Switchboards the dial tone will only last for approximately 10 seconds. Even after the dial tone has ceased it is still possible to program the memory.

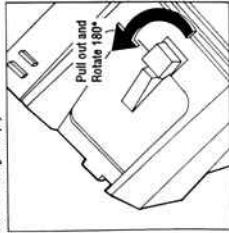
Numbers are stored in the memory as digits and when the automatic dialling feature is used numbers will be dialled out in the tone or pulse mode depending on the position of the switch. Note: During the process of storing telephone numbers into the memory the tone/pulse switch may be in either position.



shown in Diagram (a).



When the telephone is wall mounted the receiver hanger hook must be pulled out and turned round as shown in Diagram (b).



Optional Power supply Adaptor

In very exceptional circumstances the telephone may require more power than the system line is designed to provide. In a similar way operation may be possible initially, but reconnection elsewhere or changes in line conditions may result in the apparatus lacking sufficient power to enable correct operation of the hands free section of the telephones.

It should also be noted that operation in parallel with another telephone may not be possible.

The optional Mains Power Adaptor, Audioline PI 891, may assist in overcoming any problems experienced during Hands Free Operation. This should be plugged into the socket provided at the rear of the telephone.

connected to any other ports on any other apparatus. Failure to comply with this recommendation may produce hazardous conditions on the B.T. network. Advice should be obtained from a competent engineer before such a connection is made.

The optional power adaptor should be available from your supplier or direct from Audioline Limited (address details available on this page). Delivery will not usually be within 14 days.

Power Adaptor Connection

Warning: Connect only an approved Mains Power Adaptor complying with BS 6301 to this point.

Connection of power supply

This apparatus is intended for use when supplied with power from Audioline PI 891 power adaptor. Other usage will invalidate any approval given to this apparatus and, as a result, it ceases to comply with BS 6301. Unsatisfactory operation should be referred to the supplier.

Approved Usage of the TEL4S Telephone

The telephone has been approved for use under the following conditions:

1. For connection to the Public Switched Telephone Network (P.S.T.N.) and Compatible P.B.X.'s (Private Branch Exchange), which use either loop disconnect or multi-frequency signalling. (Please consult your supplier for an up to date list of compatible P.B.X.'s).
2. The telephone may be used on extension sockets connected to a direct exchange line.
3. This apparatus has been approved for use of the following facilities:

- a. Simple telephone facility.
- b. Storage of telephone numbers for retrieval by a predetermined code.
- c. Automatic dialling.
- d. Automatic dialling of last number dialled.
- e. Loudspeaking - telephone.
- f. Pause facility, makes it compatible with P.B.X. systems that return secondary proceed indication and is also compatible with P.B.X. Systems that do not return secondary proceed indication.

apparatus if as a result it then ceases to comply with the standards for which approval was granted.

4. The telephone must not be connected in the following manner:

- a. As an extension to pay phone.
- b. As a party line with shared service.
- c. To 1 + 1 carrier systems.

Note: It cannot be guaranteed that the apparatus will operate correctly under all possible conditions of connections to compatible P.B.X.'s. In case of any difficulty please consult your supplier.

5. The telephone may be used for the purpose of making outgoing calls to the B.T. emergency 999 service.

Care of your Telephone

The telephones should be cleaned by wiping with a damp cloth. Do not use abrasives or spray polish that may enter through holes in the earpiece and mouthpiece and cause damage. Do not place the telephone in direct sunlight or use in extreme humidity.

Fault Finding

In the event of a fault occurring, first determine whether the fault lies with the telephone or the exchange line. Unplug all extension telephones and connect your Audioline telephone direct to the master B.T. socket.

If the fault persists unplug the Audioline telephone and connect a different telephone to the master socket, from the results you should be able to determine where the fault lies.

You may also contact the British Telecom Engineer (usually dial 151) who may be able to give advice and carry out a remote test on your installation.

If you experience problems with the loudspeaker section of the telephone during Hands Free Operation, it may be that your line is not providing sufficient power. The optional Audioline PI 891 Power Adaptor may be required to provide additional power. Read the instructions headed Optional Power Supply Adaptor.

period of twelve months from the date of purchase.

In the unlikely event of a fault, please return it with a copy of the purchase receipt to your supplier who will exchange it.

The guarantee does not extend to damage caused by misuse, negligence, excessive voltage, faults on the telephone line or lightning. This guarantee in no way affects your statutory rights.

Service

For Service outside the guarantee period, please return your phone for an estimate together with a remittance of £2.50 to cover handling and postage to:

Audioline Limited
2 Enfield Industrial Estate,
Redditch, Worcs, B97 6BH
Tel. 0527 584584

An estimate will be sent to you before any work is carried out.

Audioline Helpline

In case of difficulty our engineers will be pleased to assist you. Call the Helpline 0527 585522.

APPROVED for connection to telecommunication systems specified in the instructions for use subject to the conditions set out in them.

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