



Total Recall Voice Logger

1 INTRODUCTION TO TOTAL RECALL:

Total Recall is a compact, cost-effective and self-contained Voice Logging unit. It provides secure recording, storage and playback of telephone calls (or any audio signal), enabling up to 1600 hours of recordings to be stored on an internal database for instant retrieval and playback.

The purpose of recording is to ensure that an accurate and easily retrievable copy of a call is always available, should the need arise to confirm or verify the contents of a prior discussion.

Available as a 4 or 8-channel unit, **Total Recall** will record the telephone numbers of incoming* and outgoing calls, and store this information in a database, together with a time/date stamp, the duration of the call and reference to the specific channel number. All these 'fields' can be used to search and retrieve calls from the database.

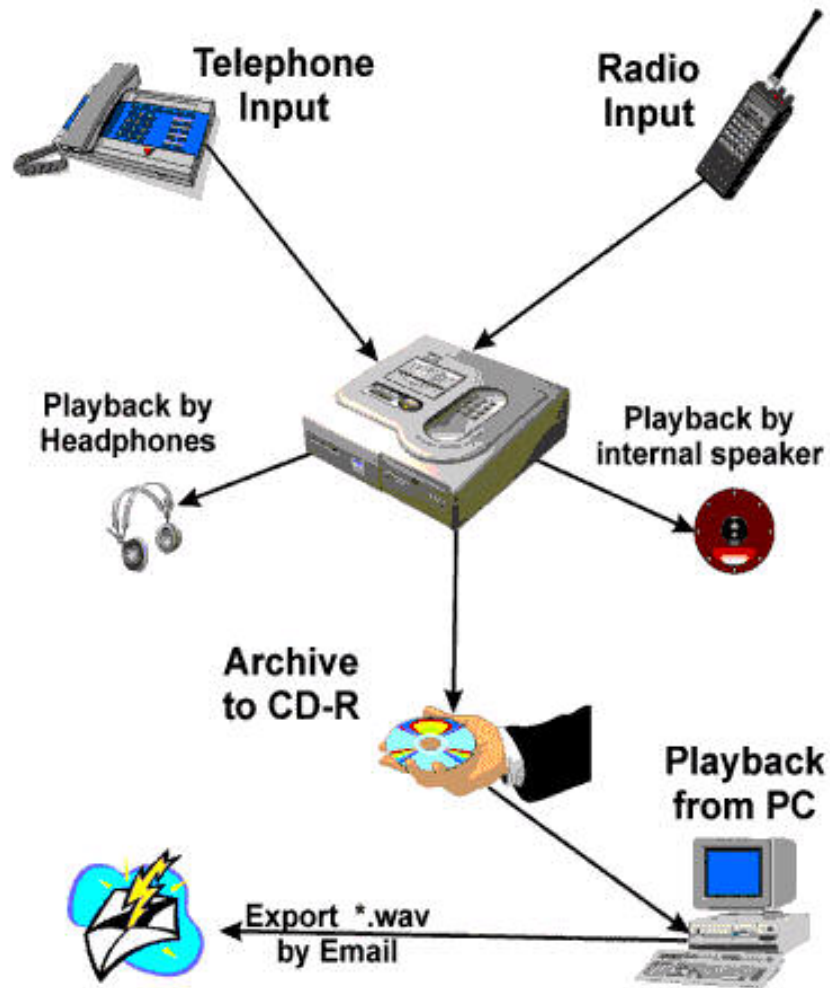
Recordings can also be archived to an internal Archive (CD-R) drive at preset intervals. Should you need to record more than 8 physical connections (telephone/radio), multiple **Total Recall** units can be installed.

Once a call has been located and retrieved from the **Total Recall** database, the call can be replayed via an internal or external speaker, or for privacy, via a headphone port. A 'Live Monitoring' function enables the real-time monitoring of calls on selected channels.

'**Remote Recall**' is a Windows module that enables calls to be replayed on a PC, using the Archive CD-R from the TOTAL RECALL logger. Calls can also be selected from the Archive (CD-R) and transmitted via e-mail for replay on a multimedia PC at a remote location.

TOTAL RECALL - VOICE LOGGER

*Note: Functions only if Caller Line Identification (CLI) is available at the connection point.



Audio Input/Playback/Archive to CD/Export to PC

2 USER INTERFACE OVERVIEW:

Total Recall is easy to configure and operate, using an intuitive method for navigation through the 4 user menus, and a contact keypad for selecting or confirming an instruction.

2.1 There are four user selectable menus:

- 2.1.1 **LOGGING** - current call activity and enabling Live Monitoring.
- 2.1.2 **PLAYBACK** – call search and playback via internal/external speaker.
- 2.1.3 **ARCHIVE** – tag calls and Archive to CD-R.
- 2.1.4 **CONFIGURATION** – Control of system parameters like passwords, VOX sensitivity, beep tone and selection of Live Monitoring channels.

2.2 There are four navigation keys:

- 2.2.1 **MENU** – this key is used to step through the four menus.
- 2.2.2 **SELECT** – once the highlight bar has been placed over an area, this key either toggles through pre-selected values or it enables a value to be entered via the numeric keypad.
- 2.2.3 **UP /DOWN ARROW** – these 2 keys move the cursor or highlight bar up or down the selected menu.

2.3 Password Protection:

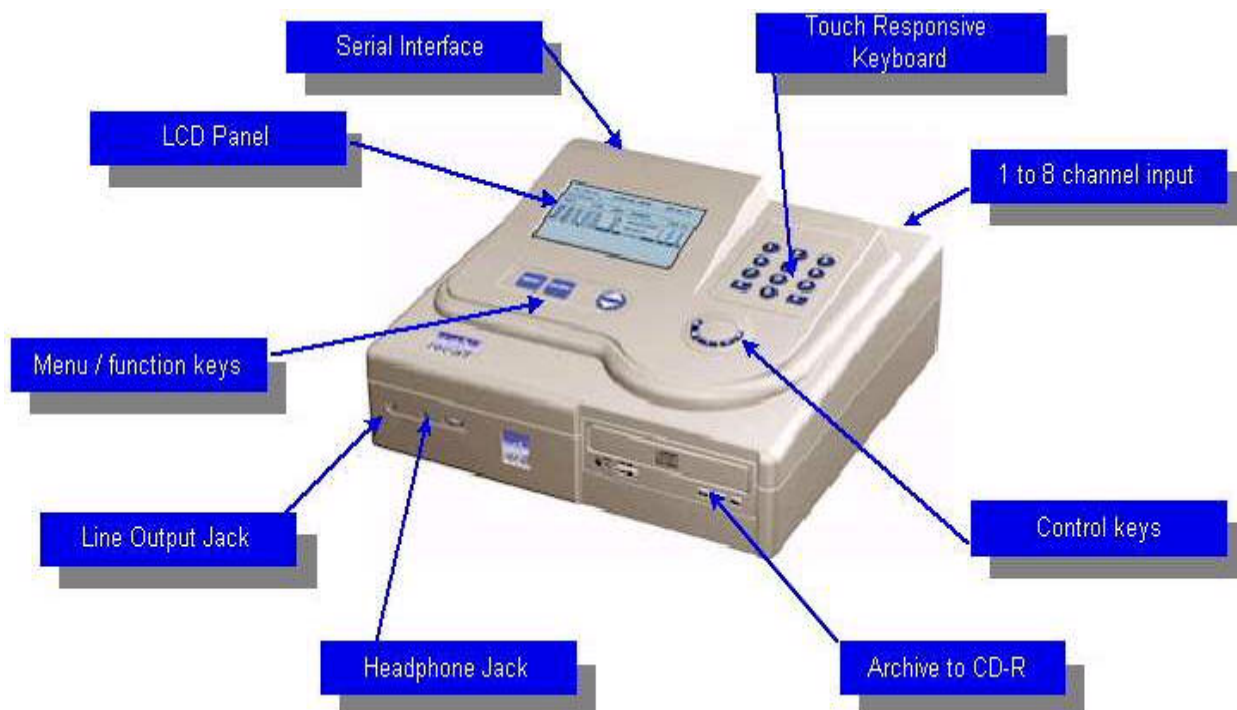
Password protection is required to activate all 4 user menu's. The numeric password (up to 8 digits in length) is set and changed in the **Configuration Menu**.

2.4 System Alarms:

To assist the **Total Recall** user, a number of audible (beep) and visual alarms are featured. The visual alarm is a red flashing LED on the numeric keypad. A description of the active alarm is displayed in the status line at the bottom of the Logging Menu.

Alarms include

- Change or insert CD-R
- Hard disc is full (near full)
- Temperature alarm



Top view, showing function keys and peripheral connections

3 LOGGING MENU:

The **Logging Menu** displays a log of the incoming and outgoing calls that have been captured on the internal database. The **Logging Menu** is the default menu and after 1 minute of keyboard inactivity, the system defaults to this menu.

The highlight bar on the LCD screen can be moved using the "up" or "down" arrow keys, and is used to identify selected calls. In the example below, a recording has been tagged for archive. (shown as **(*)** in the ST column).

The ST (status) column displays status attributes that indicate the function being performed, or the status of a call.

- (*) Indicates a call that is tagged, waiting for archive.
- (A) Indicates a call safely archived to CD-R.
- (C) Indicates a channel with a 'current call' in progress.
- (M) Indicates a channel enabled for Live Monitoring
- (P) Indicates the selected call is being played

The "**Live Monitoring**" feature enables the user to listen in 'real-time' to calls in progress. Live Monitoring is channel specific, and channels to be monitored can be selected in the **Configuration Menu**.



DATE	TIME	LEN.	NUMBER	CH#	ST.
82-83-99	15:32	18	3216654987 >	2	A
82-83-99	15:33	11	>	1	A
82-83-99	15:33	22	3214567 >	2	A
82-83-99	15:34	26	>	1	A
82-83-99	16:01	7	1234567 >	2	A*

Figure 1: Logging Menu

The **Logging Menu** entries contain the following information:

- Date:** – when the call commenced
- Time:** – of day when the call commenced
- Length:** – of the call
- Number:** – of the inbound or outbound call. Outbound call numbers are captured if the DTMF tone can be detected. Inbound numbers are captured if CLI is available on the line.
- Direction:** – the call is denoted by "<" inbound or ">" outbound
- Channel:** – that the call appeared on
- Status:** – of the call (see descriptions above)

4 PLAYBACK MENU:

To playback a recorded conversation, the password protected **Playback Menu** is used. Once the password has been entered and verified, the "up" and "down" arrow buttons can be used to navigate through the **Playback Menu**.

Search parameters, including ("Date", "Time", "Phone Number" and "Channel Number") related to one or multiple calls can be entered to narrow the search. The search results appear in the window near the bottom of the **Playback Menu**, and the "up" and "down" arrow buttons are used to move the highlight bar to a particular call for playback.


Pressing the 'Select' button will playback a call. Pressing the 'Select' button again will stop the playback.

During playback, the 'Forward' (>>), 'Rewind' (<<) , 'Play' (>) and 'Stop' (■) functions can be activated by pressing the relevant control buttons.

Playback can be via the internal speakers, through externally connected speakers, or through a headphone set.

When a selected call is being played back, a (P) symbol will appear in the status column.

A 'Source' key will indicate if calls are to be played back from the database, or from the Archive CD-R. A 'Select ALL' function is available to tag all calls for archive.



The screenshot shows a monochrome LCD display with the following content:

21:57:12 PLAYBACK MENU 02-03-99

Password: *
Date: 02 03 99 to 02 03 99
Time: 00 00 00 to 23 59 59
Phone Number:
Channel: All
Source: Data Base Search *-All

DATE	TIME	LEN.	NUMBER	DIR	CHN	
02-03-99	15:32	18	3216654987	>	2	A
02-03-99	15:33	11		>	1	A
02-03-99	15:33	22	3214567	>	2	A
02-03-99	15:34	26		>	1	A
02-03-99	16:01		1234567	>	2	A

Figure 2: Playback Menu

The search parameters are user selectable, and not all parameters need be entered. If a parameter range is not entered then all possible values are assumed for that parameter. For example if a "time range" has not been entered then all times of the day are considered for the search.

The Play Monitor function on the LCD Status Line indicates the progress of a call during playback.

5 ARCHIVE MENU:

The Archive Menu is used to permanently store calls to the built-in CD-R drive. The options are to 'Archive All Files', or 'Archive All Tagged Files'. Calls can be tagged for archive using the Logging and/or Playback Menu's. The **Archive Menu** is then used to transfer the tagged calls to the Archive (CD-R) drive. There is a visual notification on the **Archive Menu** when the database memory is almost full.

Total Recall is able to archive and record calls simultaneously.



Figure 3: Archive Menu

Archiving Files - There are two options with this command. The user can toggle between the options using the [SELECT] key.

Archive All Tagged Files - is used to select files that have been previously tagged (in the Logging or Playback menus)

Archive All Files - this command will select all files that have not previously been archived.

Archive Now - This command is used to transfer files to the Archive (CD-R). The files to be archived will have been selected from one of the two previous options. Once the transfer to the Archive (CD-R) is complete, the files are marked as archived under the current session (**A**).

If the Archive (CD-R) is full, the user is prompted to insert a new blank disc.

Archive Reminder - By using the [SELECT] key, it is possible to pre-set the archive reminder to activate when storage reaches 50%, 75% or 90% of capacity. The Archive reminder will sound as an alarm 'beep', and also display as a red flashing LED on the numeric keypad. The status line at the bottom of the **Archive Menu** will display the alarm condition. As files are copied to the CD-R they are verified, and when the database reaches 90% capacity, the oldest archived files are automatically deleted from the database.

Initiate System Upgrade - Software upgrades are achieved by using the Archive (CD-R). A system upgrade typically takes a few minutes.

6 CONFIGURATION MENU:

The **Configuration Menu** enables users to customise various aspects of the **Total Recall** voice logger. It contains system parameters that are not normally changed on a daily basis. The **Configuration Menu** is presented in a matrix format, identifying settings for each individual channel.



Figure 4: Configuration Menu

The **Configuration Menu** entries contain the following information:

Password: - is required to navigate this Menu. This is also the location for setting and changing the system password.

Date & Time: - can be changed using the numeric keypad. Time is in standard Gregorian 24 hour mode.

Country/Language: - Selects language display and configuration variables.

Trigger: – Selects the voice activated call trigger sensitivity by VOX or Off-Hook. Settings for VOX are (Hi, Mid, Lo).

Monitor: – Selects via ON or OFF, the channels enabled for Live Monitoring.

Beep: – Selects the beep tone level. The beep tone warns other parties that they are being recorded. The level is selected using the scroll and [SELECT] keys. The selectable values are: (-18dBm, -24dBm, -30dBm, Off).

VOX Timeout: - Is the selectable amount of quiet time (selectable up to 15 seconds) that will terminate a recording session. If a conversation then continues, a new record is created.

Max Length: - is the maximum allowable length of a recording. The "Max Length" can be set as 'seconds', 'minutes', or 'hours' by the user, up to a maximum of 4 hours. This avoids the possibility of recording hours of background noise if a phone is left off the hook in noisy environments such as trading floors etc. The alternate setting is 'unlimited', in which case, there is no cut-off point to a lengthy conversation.

7 REMOTE RECALL

Remote Recall is a client software module supplied with **Total Recall**.

Calls that have been recorded on **Total Recall** can be replayed on a local or remote multimedia PC, after installing the **Remote Recall** software module on the PC. Archived calls on CD-R are transferred across to the local PC, and then as regular .wave files, can be emailed to any remote location for replay. It is also possible to access the **Total Recall** text file database from a PC via a serial (RS-232) link. The link is activated from the PC, and the test file data is downloaded to the **Remote Recall** database where it can be stored, or used for call accounting purposes.

The **Remote Recall** software is loaded from the CD-R supplied with **Total Recall**, and is supported under Windows 95/NT4.0+ on the client PC.

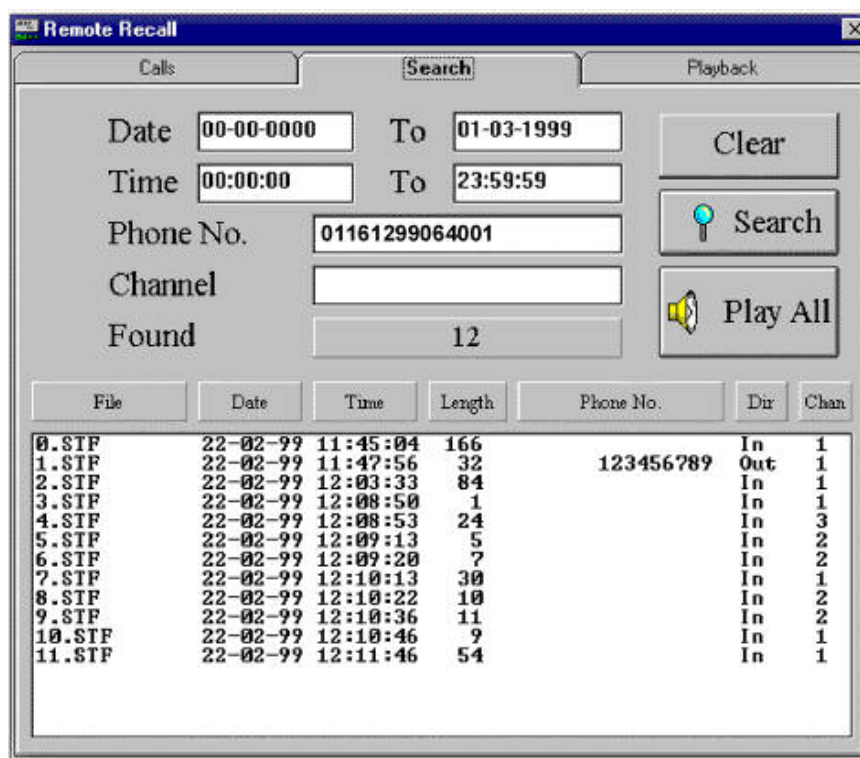


Figure 5: Remote Recall

Once a search has been activated, the results are shown in the window (above), and calls can then be tagged for replay via the multimedia PC speakers. The calls can be selected and played individually, or the "Play All" button can be activated to play all calls sequentially.

If a call needs to be sent to a remote site, the process requires the selected call(s) to be copied (via Drag & Drop) to the 'desktop' or attached to an email document, and transmitted as a normal (.wav) file attachment.

The Drag & Drop process will only transfer uncompressed (.wav) files, so the user may need to compress the files as email attachments before sending across the Internet.