



.: www.totalrecallvr.com :.

# Total Recall VR LinX Evolution GUI

*Quick Start Guide*

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**Related Documents:**

- [1] Prolancer Pty Ltd, Total Recall VR web site. Available from:  
<http://www.totalrecallvr.com/>.
- [2] Prolancer Pty Ltd, Prolancer web site. Available from:  
<http://www.prolancer.com.au/>.
- [3] Prolancer Pty Ltd, Total Recall VR Deployment User Guide, 15.0, November 2016
- [4] Prolancer Pty Ltd, Total Recall VR Embedded GUI User Guide, 15.0, November 2016
- [5] Prolancer Pty Ltd, Total Recall VR Remote Manager User Guide, 15.0, November 2016

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## 1. Preface

### 1.1. Conventions

Our guides use several conventions to highlight certain words and phrases and draw attention to specific pieces of information.

#### 1.1.1. Notes & Warnings

We use the following visual styles to draw attention to information that might otherwise be overlooked:



Notes are tips, shortcuts or alternative approaches to the task at hand. Ignoring a note should have no negative consequences, but you might miss out on a trick that makes your life easier.



Important boxes detail things that are easily missed: configuration changes that only apply to the current session, or services that need restarting before an update will apply. Ignoring the information will not cause data loss, but may cause irritation and frustration.



Warnings should not be ignored. Ignoring warnings will most likely cause data loss.

#### 1.1.2. Typographic Conventions

We use typographic conventions to call attention to specific words and phrases. These conventions, and the circumstances they apply to, are as follows.

Example	Meaning
Select <u>Guide</u> to display ...	Locate the link named "Guide" on the screen, position the cursor over the link and then depress the appropriate mouse button to follow the link.
Select <b>Add</b> to create a new ...	Locate the button or menu item named "Add" on the screen, position the cursor over the button or menu item and then depress the appropriate mouse button to initiate an action.

Enter <i>Commission</i> ...	Locate the field named "Commission" on the screen, position the cursor over the field and then depress the appropriate mouse button to select the field. Once the cursor appears in the field, enter a value.
Choose <i>Country</i> ...	Locate the field named "Country" on the screen, position the cursor over the field and then depress the appropriate mouse button to display the available options. Then position the cursor over the desired option and depress the appropriate mouse button to select it.
Tick <i>Active User</i> ...	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to place a visual tick in the box.
Un-tick <i>Active User</i> ...	Locate the check box named "Active User" on the screen, position the cursor over the check box and depress the appropriate mouse button to remove the visual tick in the box.
Enter 3* ...	Enter "3*" using the keys on the numeric keypad.
Enter \$30.95 ...	Enter "\$30.95" using the keys on your keyboard.

### 1.1.3. Procedures

We use numbered sequence of steps to define procedures for performing certain tasks. For example:

#### *Procedure Title*

1. This is the first step of the procedure.
2. This is the second step of the procedure.
  - a. This is the first sub-step of step 2.
  - b. This is the second sub-step of step 2.
3. This is step three.

## 1.2. We Need Feedback

If you find a typographical error in this guide, or if you have thought of a way to make this guide better, we would love to hear from you.

Please submit your feedback using the feedback form on our web site:

<http://www.prolancer.com.au/contact/feedback>.

If you have a suggestion for improving the guide, then try to be as specific as possible when describing your suggestion. Otherwise, if you have found an error, please include the section number and some of the surrounding text so we can find it easily.

## **2. Introduction**

### **2.1. Thank You**

Congratulations on your purchase of a Total Recall VR professional audio logging and call recording system. Thank you.

Total Recall VR is a professional audio logging and call recording system which is self-contained, fully featured and cost-effective. Enterprises and governments worldwide use it to create electronic records of many forms of audio communication including telephone, 2-way radio, broadcast radio, public address, room microphones and much more.

### **2.2. About This Guide**

This guide contains information intended to get you recording with your new Total Recall VR as quickly as possible.

However, to enjoy the maximum benefit from your purchase we recommend that you carefully read the following additional documents:

- Total Recall VR Deployment User Guide
- Total Recall VR Embedded GUI User Guide
- Total Recall VR Remote Manager User Guide

### 3. Pre Installation

#### 3.1. Unpacking

Please use care and assistance when unpacking, lifting and moving Total Recall VR.



**DO NOT DROP** Total Recall VR. It contains sensitive electronic components.

Check the box for damage. A crushed box, holes, or water damage, for example, could indicate that Total Recall VR has been damaged. Open the box and inspect Total Recall VR and associated accessories.



If Total Recall VR appears damaged then contact your supplier, or us, right away. Save all packaging and if possible take photos that clearly show the damage to all packaging and Total Recall VR.

Your Total Recall VR is a modular system comprising of 3 components:

1. Processing unit
2. Colour LCD screen
3. Control keypad



Check that you have received all 3 components. Then, check that you have received the following in the box, in addition to the Total Recall VR:

1. Power cord for the processing unit.
2. Power cord and a power pack for the monitor.
3. SKS cable for the monitor.
4. VGA cable for the monitor.
5. DVI to VGA adapter.



SKS Cable



DVI to VGA adapter



VGA Cable



3.5mm to RCA cable



6. 3.5mm to RCA connector audio cable.
7. Cross over network cable.
8. Two front panel lock keys.
9. Disc that contains Total Recall VR manuals (including this one) as well as Total Recall VR client applications such as Remote Manager.
10. One page quick start guide.



If items are missing then contact your supplier, or us, right away to arrange replacements.



DO NOT misplace the front panel keys. They are unique to your system. Keep one in a safe place while using the other.

### 3.2. Front Panel

The front panel of your Total Recall VR features a lockable cover which prevents unauthorised access to the BluRay disc drive and the hard drives.



In summary:

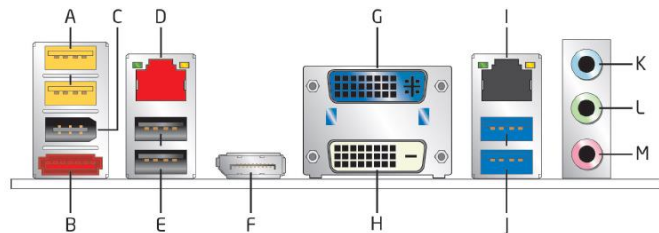
Item	Description	Note
A	Cover lock	Keep the keys in a safe place. They are unique to your system.
B	Power on/off button	A blue light around the power button indicates that the system is on.
C	Easy swap hard disk caddies	Two disks are used in RAID 1 configuration.
D	BluRay disc drive	Archive recordings to DVD and BD discs.
E	Reset button	
F	USB 3.0 ports	Connect a standard USB key to use as a Total Recall VR archive device.
G	Headphones in	Connect headphones to listen to audio during real-time monitoring or re-play.
H	Microphone in	Reserved for future use.

### 3.3. Back Panel

The back panel of your Total Recall VR has a set of standard connectors. In addition, it has 4 expansion slots which are used, when necessary, to fit hardware for recording calls on ISDN links.

#### 3.3.1. Standard Connectors

The following image shows the standard connectors that appear on the back panel of your Total Recall VR.



In summary:

Connector	Description	Note
A	USB 2.0 high current charging ports	Connect the control keypad to one of these ports.
B	eSATA connector	Reserved for future use.
C	IEEE 1394a connector	Reserved for future use.
D	LAN port	Total Recall VR 'LAN 1' port. We recommend you use this port to connect Total Recall VR to your enterprise LAN.
E	USB 2.0 ports	Connect a standard USB key to use as a Total Recall VR archive device.
F	DisplayPort connector	Reserved for future use.
G	DVI-I connector	Connect the colour LCD screen supplied with your system to this port.

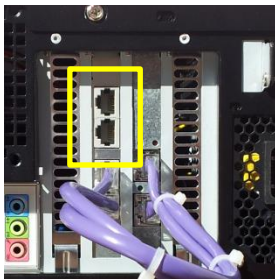
H	DVI-D connector	Reserved for future use.
I	LAN port	Total Recall VR 'LAN 2' port. We recommend you use this port to record VoIP calls and RTP streams.
J	USB 3.0 ports	Connect a USB 3.0 stick or disk drive to use as a Total Recall VR archive device.
K	Audio line in	Reserved for future use.
L	Audio line out	Connect external speakers or the built-in speakers of the colour LCD screen to listen to audio during monitoring and re-play.
M	Mic in	Reserved for future use.

### 3.3.2. Expansion Slots

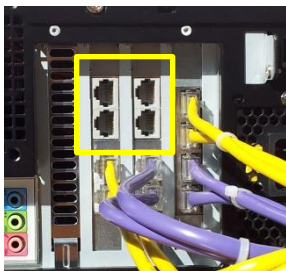
Your system may be fitted with hardware necessary to record calls on ISDN PRI links. The following images show the possible configurations of the expansion slots.



If your Total Recall VR has only VoIP recording channels, then blanking plates are fitted to all expansion slots. Total Recall VR does not need additional hardware to record VoIP calls.



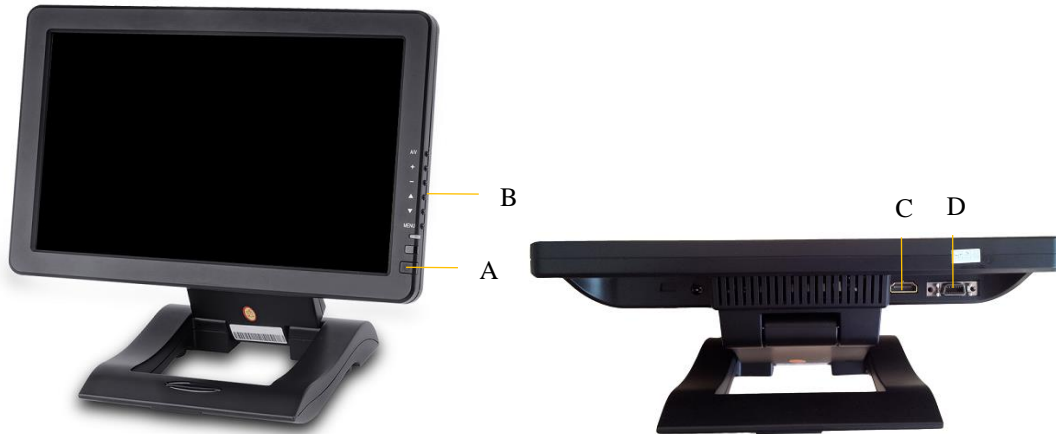
The adjacent image shows the hardware required to record calls on one ISDN PRI E1/T1 link. Use the two RJ45 connectors to connect the ISDN PRI link.



The adjacent image shows the hardware required to record calls on two ISDN PRI E1/T1 link. Use each pair of RJ45 connectors to connect an ISDN PRI link.

### 3.4. Colour LCD Screen

The colour LCD screen is the main display which shows the various screens that are part of the Embedded Graphical User Interface (GUI) [4].



In summary:

Item	Description	Note
A	On/off button	
B	Main controls	See Appendix A: CL1012 Colour LCD Screen Guide for more details.
C	DVI port	Reserved for future use.
D	SKS port	Connect to the processing unit via a combination of SKS and VGA cable.

The screen has a built in mechanism that extends the life of the screen. The screen backlight turns off automatically after 5 minutes of inactivity on the control keypad.



Press any key on the control keypad to turn the screen backlight on at any time.

### 3.5. Control Keypad

Total Recall VR uses a custom control keypad.



The following table has a complete summary of all key functions:

Key	Context	Function
[Menu]	A main screen	Navigates (cycles) between the three main screens: Logging, Search and Options Menu.
	Dialog window	Automatically moves the cursor to either the <b>OK</b> or <b>Cancel</b> button, saving keystrokes.  Note that it does not actually activate the function that is attached to the button. The [Select] key does this.
[Select]	Button	Activates the function attached to the button.
	Check box	Toggles the state of the check box.
	Input field	Cycles through the set of pre-defined values if the input field has a set of pre-defined values.
	Recording on the Logging Screen	Toggles (start/stop) live real-time monitoring of a recording in progress
	Recording on the Search Screen.	Starts replay. Same as pressing the [▶] key.
[▲]	Recording list	Moves the screen cursor to the recording before the current one.
	Dialogs	Moves the screen cursor to the previous GUI control or button.
[▼]	Recording list	Moves the screen cursor to the recording after the current one.
	Dialogs	Moves the screen cursor to the next GUI control or button.
[▶]	Recording on the Search Screen.	Starts re-play.
	Active re-play.	Pauses re-play.
[▶▶]	Active re-play.	Fast forwards.
	Recording on the Search Screen.	Shows the next group of 1000 recordings that are younger (start time) than the group already on the display.
[▶▶▶]	Active re-play.	Double speed fast forward.
[◀◀]	Active re-play.	Rewinds.

	Recording on the Search Screen.	Shows the next group of 1000 recordings that are older (start time) than the group already on the display.
[■]	Active re-play.	Stops re-play.
	A main screen	Locks the user interface and logs out the current user.
[0] to [9]	Entry field	Inputs the digit specified on the key.
[*]	Entry field	Inputs *.
	Recording on the Logging or Search Screen.	Tags or un-tags the recording.
[#]	Input field	Inputs # or clears (deletes) the current value.
	Active re-play.	Activates “sticky play” mode.
	Recording on the Logging or Search Screen.	Locks and un-locks the recording.

## 4. Installation

### 4.1. Safety Information

Always follow basic safety precautions when installing Total Recall VR to reduce the risk of injury from electrical shock and fire.



**WARNING:** Potential shock hazard. Total Recall VR must be installed by qualified person.

Observe the following:

1. Read and understand all instructions in Total Recall VR guides.
2. Observe all warnings and instructions marked on the product.
3. Use only grounded electrical outlet when connecting Total Recall VR to a power source. If you are unsure the outlet is grounded, then have a qualified electrician check it.
4. First connect Total Recall VR to grounded outlet, and only then connect the appropriate interface lines.
5. Do not touch the contacts on the ends of any cables used with Total Recall VR. If any cable becomes damaged, then have it replaced immediately.
6. Shut down and unplug Total Recall VR from telephone jacks, and then from power outlets, prior to moving or cleaning.
7. Do not open Total Recall VR. There are no user serviceable parts inside Total Recall VR. Refer all servicing to qualified personnel.

### 4.2. General

Total Recall VR is computer equipment and in general has the same physical and electrical requirements as desktop PCs. Attention should be paid to their environment to assure long life and reliable operation.

### 4.3. Location

When choosing a location for your Total Recall VR, consider the following:

- **Convenience.** Make the unit accessible to operators and service personnel who need to access the embedded display and control keypad.
- **Security.** User with access to the unit can remove power, disconnect other cables, monitor and play recordings, create archives and possibly compromise the recordings on Total Recall VR in other ways. Logins are no protection against determined attackers with physical access to the unit.

- **Operating environment.** Total Recall VR requires adequate cooling, clean and always on power source, vibration and shock free surface and protection from liquids.



DO NOT place Total Recall VR in an enclosed cupboard, a damp or dusty room or location with direct exposure to sunlight. Doing so will severely reduce the lifetime of your new Total Recall VR and void the warranty.

#### 4.4. AC Power

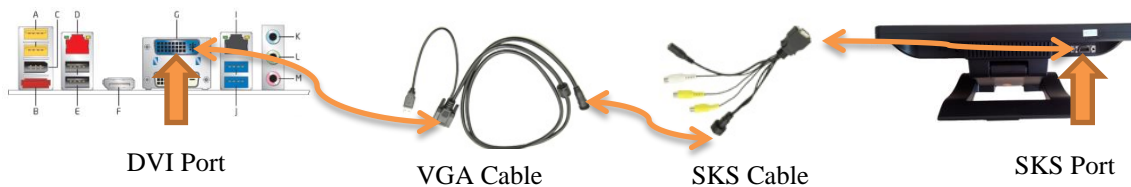
Total Recall VR uses “universal” switching, AC to DC power adapter. This means you can plug the power adapter into any line (mains) voltage from 100 Volts to 240 Volts AC nominal.

However, to prevent unplanned shutdowns caused by power glitches or interruptions, we strongly recommend the use of an Uninterruptible Power Supply (UPS) unit.

Use only grounded electrical outlet when connecting Total Recall VR to a power source. If you are unsure the outlet is grounded, then have a qualified electrician check it.

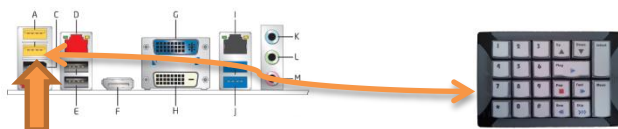
#### 4.5. Colour LCD Screen

Connect the colour LCD screen to the main processing unit by combining the SKS cable and the VGA cable. You must use the VGA to DVI adapter to connect the VGA cable to the processing unit.



#### 4.6. Control Keypad

Connect the control keypad to a USB port of the processing unit. The control keypad has a USB cable attached to it.




USB port for keypad



### 4.7. Speakers or Headphones

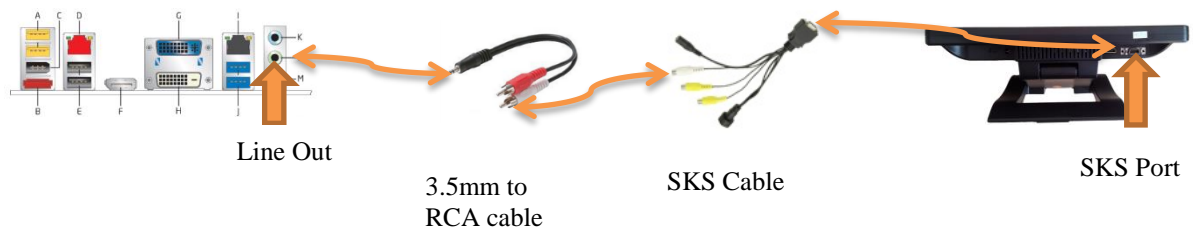
Optionally, connect external speakers or headphones to the Audio Line Out connector on the processing unit. Most speakers and headphones that are suitable for your PC will work with Total Recall VR.



Speakers and/or headphones are not supplied with your Total Recall VR.

As an alternative, you can use the mono speaker that is part of the colour LCD screen. To use this speaker:

1. Connect the supplied '3.5mm to RCA connector audio cable' to the LINE OUT connector on the processing unit.
2. Then connect one of the RCA connectors to the white RCA connector on the SKS cable which is attached to the monitor.



### 4.8. Local Area Network

Connect Total Recall VR to an Ethernet network by attaching a network cable between the RJ45 jack (with label LAN 1 or LAN 2) on the back of Total Recall VR and a network switch. Use a standard CAT5, or equivalent, straight through cable.

Alternatively, use a crossover cable to isolate Total Recall VR from your network and connect it directly to the network connection of a PC (without using a switch). The default configuration of the Total Recall VR network interfaces is:

	<b>LAN 1</b>	<b>LAN 2</b>
<b>IP Address</b>	192.168.1.100	192.168.2.100
<b>Netmask</b>	255.255.255.0	255.255.255.0
<b>VLAN ID</b>	Not set	Not set

## 4.9. VoIP Networks

Total Recall VR uses a software based VoIP packet collector which is capable of detecting, extracting and then processing SIP, H.323 and RTP packets when connected to an Ethernet link.

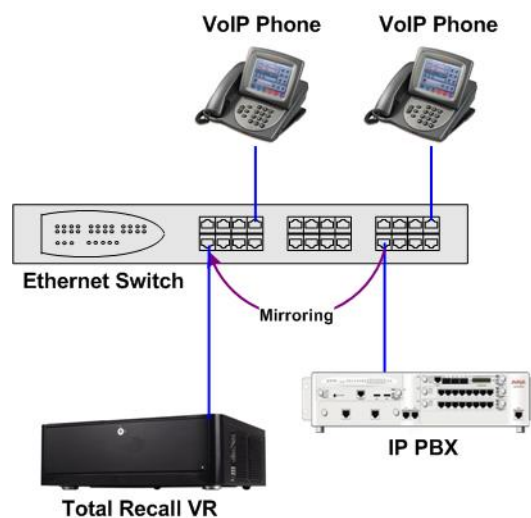
The packet collector does not interact with the packets on the Ethernet link. It does not add, remove or modify packets. It simply detects and takes a copy of each packet for further processing.

Each Total Recall VR is equipped with single VoIP packet collector capable of collecting VoIP packets from a single Ethernet link.



Use the LAN 2 interface for capturing VoIP packets. This leaves the LAN 1 interface to all other network communication.

Ethernet switch SPAN port (or port mirroring as it is otherwise known) is by far the cheapest and easiest way to connect a Total Recall VR to a VoIP network for the purpose of recording. Even if your current Ethernet switch does not support it, myriad other switches, which cost not more than few hundred dollars, do support it.



*Figure 1: SPAN Port for VoIP Call Recording*

SPAN ports may be the cheapest and easiest way to start recording VoIP calls and RTP streams; however in some cases it may be necessary to use other methods in order to record all VoIP calls and RTP streams on the network. The Total Recall VR Deployment Guide [3] explains all techniques in detail.

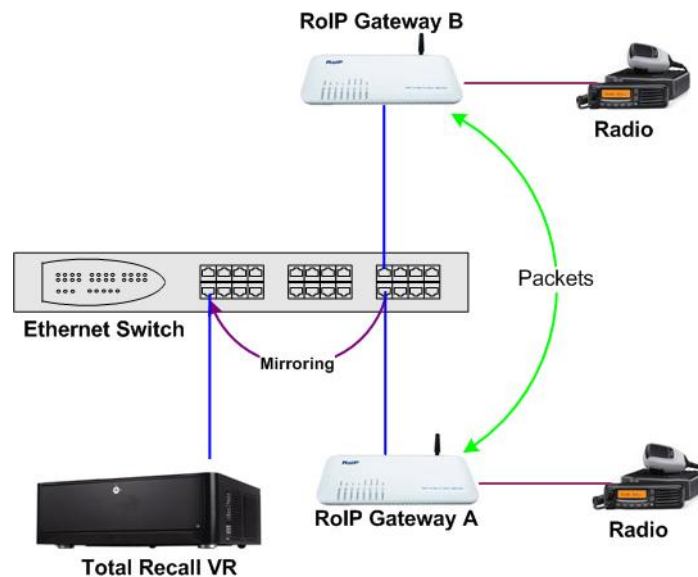
#### 4.10. RoIP Networks

Total Recall VR is capable of recording audio carried in standard RTP and proprietary protocols (such as Tait VRP) that are extensively used by RoIP and AoIP system in passive and active mode.

In passive mode Total Recall VR uses a software based RTP packet collector which is capable of detecting, extracting and then processing RTP packets when connected to an Ethernet link.

The packet collector does not interact with the packets on the Ethernet link in any way. It does not add, remove or modify packets. It simply detects and takes a copy of each packet for further processing.

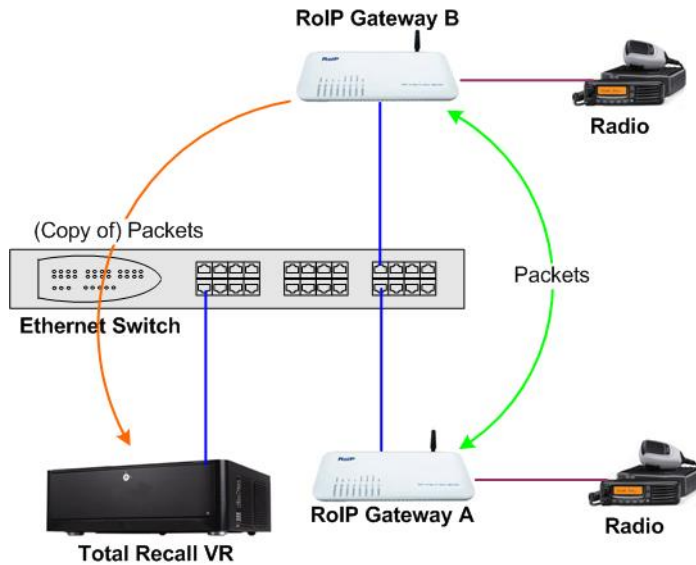
Ethernet switch SPAN port (or port mirroring as it is otherwise known) is by far the cheapest and easiest way to connect a Total Recall VR to a RoIP network for the purpose of recording. Even if your current Ethernet switch does not support it, myriad other switches, which cost few hundred dollars only, do support it.



*Figure 2:SPAN Port for RoIP Recording*

In active mode Total Recall VR accepts RTP and Tait VRP packets on user configurable UDP ports, also known as UDP services. RoIP equipment can send RTP and VRP packets to the UDP services for the purpose of recording.

This interface receives RTP and VRP packets only. It does not send packets to the network.



**Figure 3: UDP Services for RoIP Recording**

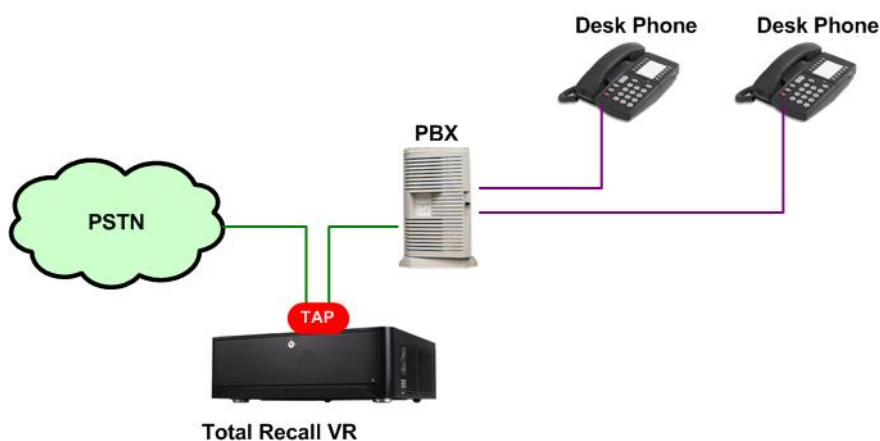
#### 4.11. ISDN Networks

Total Recall VR uses a purpose built, high-impedance, ISDN PRI link (E1 or T1) tapping card to capture signalling and audio on ISDN PRI links. This interface does not interact with the calls and audio on the links in any way.

Total Recall VR may be equipped with one or two tap cards. You can connect only one ISDN PRI link to each tap card. As a result, the number of tap cards determines the number of ISDN PRI links that you can connect to Total Recall VR.



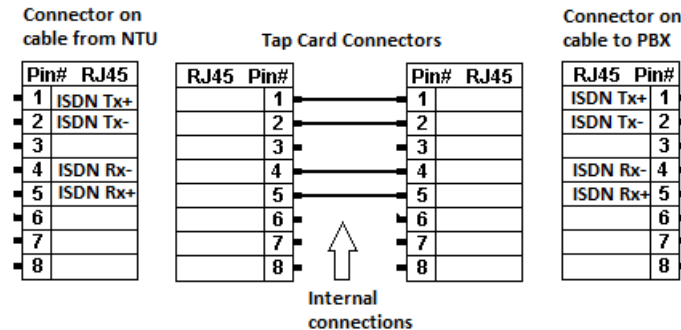
**DO NOT** connect ISDN BRI (2B +D) links to Total Recall VR. Total Recall VR can only record calls on ISDN PRI (E1/T1) links.



**Figure 4: ISDN Call Recording on an ISDN PRI Link**

Tapping cards use two RJ45 (8P8C) connectors to tap an ISDN PRI link. Pins 1, 2, 4 and 5 of each connector are connected directly to each other. This provides a pass-through connection for the ISDN PRI link when connected to a tapping card. As a result, ISDN PRI links remain fully operational when connected to tap cards even when Total Recall VR is not powered.

The following figure shows the internal connections between the two RJ45 connectors on the tapping card. In addition it shows how to wire the connectors of the cables from the NTU and to the PBX that will connect to the RJ45 connectors on the tapping card.



**Figure 5: Tapping Card Connector Pin Allocation**

To connect an ISDN PRI link to a tapping card on a Total Recall VR:

1. Connect the power cable to the Total Recall VR. This ensures that the earthing protection is in place during the rest of the procedure.
2. Disconnect the ISDN cable from the PBX by unplugging the cable from the port that it connects to on the PBX.
  - a. In most cases, and if the Tx pair is connected to pins 1 and 2 and the Rx pair is connected to pins 4 and 5, you can simply connect this cable to a RJ45 connector on the tapping card.
  - b. If the Tx pair is NOT connected to pins 1 and 2 and/or the Rx pair is NOT connected to pins 4 and 5, you must create a custom cable and connect that cable between the NTU and the tapping card.
3. Again, in most cases, and if the Tx pair is connected to pins 1 and 2 and the Rx pair is connected to pins 4 and 5, you can use a straight-through LAN cable, to connect the other RJ45 connector on the same tapping card to the ISDN port of the PBX.
  - a. However, if the ISDN port on the PBX uses different pins for the Tx and Rx pair, then you must create a custom cable and connect that cable between the tapping card and the PBX.



*Figure 6: ISDN Link Connection*

#### 4.12. USB Key

Your Total Recall VR is equipped with a number of USB 2.0 and 3.0 ports. You can connect a USB key to any of the ports and use it to archive recordings.



Total Recall VR can archive to one USB key or disk drive at a time.

If you connect multiple USB keys/disk drives, then Total Recall VR will write archives to the key/drive that you connected LAST.

To write archives to a specific key/drive, first disconnect all USB keys/drives and then connect the one that Total Recall VR should write to.

## 5. Configuration

### 5.1. Default Configuration

Every Total Recall VR leaves the factory with a default configuration which enables it to start recording the minute it is powered up.

In summary the default configuration is:

- The ID of the Total Recall VR is set to 1. If you have multiple Total Recall VRs we recommend that you assign a different ID to every Total Recall VR.
- The time zone is set to Australian Eastern Standard Time. The time and date are set to the current time and date in Sydney, Australia. We recommend that you change the time zone before starting to record.
- The default passwords for the administrator and the standard user are set to '0000'. We recommend that you change both to improve the security of Total Recall VR.
- The LAN 1 interface has an IP address of 192.168.1.100/24.
- The LAN 2 interface has an IP address of 192.168.2.100/24.
- The Remote Manager Interface accepts connections from client applications on IP address 192.168.1.100 and TCP port 10010.
- All recordings will be kept when recorded irrespective of their duration.
- Recordings will not be deleted based on their age, but will be deleted when the occupancy of the disks reaches 95% or more, or the number of recordings in reaches 700,000 or more.
- All SIP calls that are detected on the network that is connected to the LAN 2 interface will be recorded and kept.
- All calls that are detected on ISDN PRI E1 links that are connected to Total Recall VR will be recorded and kept.
- Automatic archiving of recordings is not enabled.

The following list is a summary of the default factory configuration.

#### *General Settings*

Language	English
Time & Date	
Use NTP	No
NTP Address 1	0.0.0.0
NTP Address 2	0.0.0.0

Date	Current date in Sydney, Australia
Time	Current time in Sydney, Australia
Time Zone Area	Australia
Time Zone City	Sydney
User Session	
Enable Timeout	Yes
Idle Timeout	2 minutes
Recent Calls	
Update Period	10 seconds
Records to Show	50
User Password	0000
Administrator Password	0000

***Call Settings***

Disable Compression	No
Min. Call Length	Ignore
Max. Call Length	60 minutes
Max. Call Lifetime	Ignore
VOX Timeout	15 seconds
Recording Period	Not set (always recording)

***Network Settings***

Default Gateway	Not set
Name Server (DNS)	Not set
Host Name	Not set
LAN 1	
IP Address	192.168.1.100
Netmask	255.255.255.0
VLAN ID	Not set
LAN 2	
IP Address	192.168.2.100
Netmask	255.255.255.0
VLAN ID	Not set



***Extension Settings***

Enable Monitoring	Yes
Recording Mode	Record by Default
Enable Phone Keys	No
Start Recording Phone Key	*11
Stop Recording Phone Key	*22

***License Settings***

The parameters in this group are pre-configured with valid licenses.

***Analog Settings***

The analogue configuration does not apply to your system.

***ISDN Settings***

Line Interface	E1
Line Frame	CRC4
Line Code	HDB3
Protocol	EuroISDN E1
D Channel	16
B Channels	30
Dial Plan	National
Local Dial Plan	National
Country Code	Australia

***VoIP Settings***

## Packet Collector

Connection Type	Local
Connector	LAN 2
Port	10020
IP Address	192.168.2.100

## VoIP Calls

Signalling Type	SIP
Trace Signalling	No
RTP Endpoints	None specified
RTP Streams	None specified
RTP Stream Pairs	None specified

**Tait VRP**

Enable	No
IP Address	192.168.2.100
UDP Port	9999
VOX Timeout	15 seconds
Address Type	MPT 1327
Fleets	None specified

**SIP Media Server**

Enable	No
SIP IP Address	192.168.1.100
SIP UDP Port	5060
RTP IP Address	192.168.1.100
RTP Base Port	7000

***Archive Settings***

Reminder	No
Auto Archive Every	No
Archive Device	Disc

***Maintenance*****System Information**

Recorder ID	1
-------------	---

***Remote Manager***

Use Dial-up	No
IP Address	192.168.1.100
Base Port	10010
Hostname	Not set
Maximum Sessions	5
Session Duration	2 hours

**5.2. Pre-Recording Configuration**

Your Total Recall VR will operate with its default configuration.



However, we strongly recommend that at minimum you change the following configuration in order to customise Total Recall VR to your business environment **BEFORE** you start recording.

### ***General Settings***

#### Time & Date

Date	Set it to your current date
Time	Set it to your current time
Time Zone Area	Set it to your time zone area
Time Zone City	Set it to your city
User Password	Change the password to improve security
Administrator Password	Change the password to improve security

### ***Network Settings***

Default Gateway	Set it to the IP address of your gateway
Name Server (DNS)	Set it to the IP address of your DNS
LAN 1	
IP Address	Set it to an IP address for your network
Netmask	Set it to the netmask for your network
VLAN ID	Set it to the VLAN ID for your network
LAN 2	
IP Address	0.0.0.0
Netmask	0.0.0.0
VLAN ID	Not set

### ***ISDN Settings***

Line Interface	Set to the same setting on your PBX for the link
Line Frame	Set to the same setting on your PBX for the link
Line Code	Set to the same setting on your PBX for the link
Protocol	Set to the same setting on your PBX for the link
D Channel	Set to the same setting on your PBX for the link
B Channels	Set to the same setting on your PBX for the link
Dial Plan	Set to the same setting on your PBX for the link

Local Dial Plan                      Set to the same setting on your PBX for the link

Country Code                         Set to the same setting on your PBX for the link

### ***VoIP Settings***

#### VoIP Calls

    Signalling Type                  Set to SIP or H.323

RTP Endpoints                        If required, specify RTP end-points

RTP Streams                         If required, specify RTP streams

RTP Stream Pairs                    If required, specify RTP stream pairs

Tait VRP                              If required, enable it and specify correct settings

SIP Media Server                    If required enable it and specify correct settings

### ***Maintenance***

#### System Information

    Recorder ID                        Set it to a unique ID if you have multiple recorders



We recommend that you restart Total Recall VR after completing the pre-recording configuration.

## 6. Basic Operation

Total Recall VR has an embedded Graphical User Interface (embedded GUI). The Total Recall VR Embedded GUI guide [4] explains this interface in great detail. This section contains a summary.

The GUI has 3 main screens: Logging Screen, Search Screen and Options Menu Screen. Use the [Menu] key to switch from one screen to another as shown on the subsequent figure.

Date	Time	Length	From	To	Ch.
18 Sep 2012	10:29:30	00:01:06	0414222333	2139	>29 C
18 Sep 2012	10:29:27	00:01:09	2001	2006	^ 27 C
18 Sep 2012	10:27:10	00:03:26	2038	0388790000	< 63 C
18 Sep 2012	10:27:04	00:03:40	Emil	2077	? 25 C
18 Sep 2012	10:13:40	00:07:04	95563444	Tanya's Phone	>23 C
18 Sep 2012	09:21:40	00:09:04	CFO	CFO	^ 20 C
17 Sep 2012	23:30:00	00:00:36	2Day FM (cont)		? 1 C
17 Sep 2012	23:30:00	00:00:36	2WS FM (cont)		? 2 C



Date	Time	Length	From	To	Ch.
18 Sep 2012	10:29:30	00:01:06	0414222333	2139	> 29
18 Sep 2012	10:29:27	00:01:09	2001	2006	^ 27
18 Sep 2012	10:27:10	00:03:26	2038	0388790000	< 63
18 Sep 2012	10:27:04	00:03:40	Emil	2077	? 25




This screen appears only if you log in as Administrator.

Figure 7: Embedded GUI Main Screens

Access to the Options Menu Screen is restricted to Administrator users. This screen is NOT shown to standard Users.

Total Recall VR shows the Logging Screen by default. By default, this screen displays recordings in progress, in reverse start time order (latest, or most recent, on top).

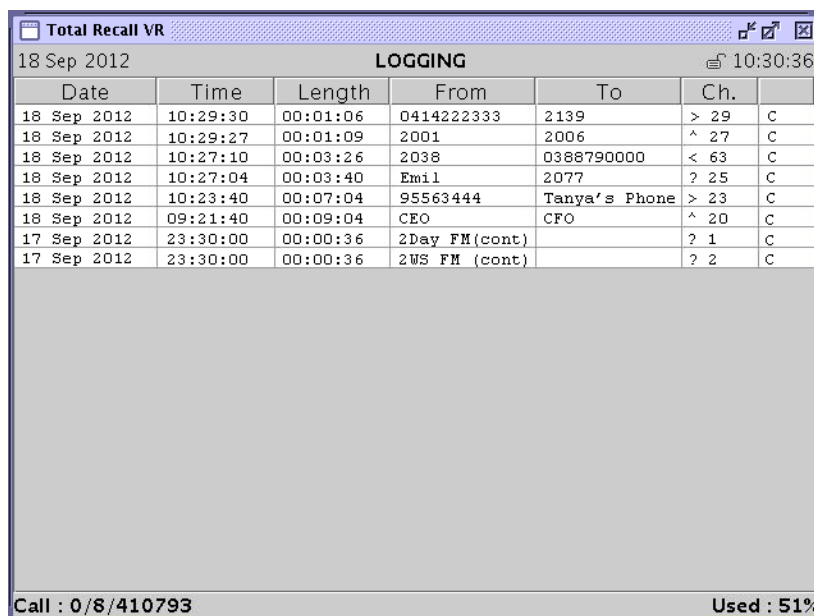
The Search Screen makes provisions for searching, playing and archiving recordings. By default this screen shows the result of the last search, in reverse start time order (latest on top).

The Options Menu Screen makes provisions for system configuration and maintenance. Configuration and maintenance activities are organised in groups, each represented by its own button on this screen.

## 6.1. Recording

You do not need to interact with the embedded GUI in any way to log audio or record calls. Total Recall VR automatically records as instructed by its configuration.

Recordings that are in progress, and while in progress, are shown on the Logging Screen.



The screenshot shows a window titled 'Total Recall VR' with a 'LOGGING' header. The window displays a table of recordings with columns for Date, Time, Length, From, To, and Ch. The table contains 10 rows of data, with the most recent recording at the top. The status bar at the bottom indicates 'Call : 0/8/410793' and 'Used : 51%'.

Date	Time	Length	From	To	Ch.	
18 Sep 2012	10:29:30	00:01:06	0414222333	2139	> 29	C
18 Sep 2012	10:29:27	00:01:09	2001	2006	^ 27	C
18 Sep 2012	10:27:10	00:03:26	2038	0388790000	< 63	C
18 Sep 2012	10:27:04	00:03:40	Emil	2077	? 25	C
18 Sep 2012	10:23:40	00:07:04	95563444	Tanya's Phone	> 23	C
18 Sep 2012	09:21:40	00:09:04	CEO	CFO	^ 20	C
17 Sep 2012	23:30:00	00:00:36	2Day FM (cont)		? 1	C
17 Sep 2012	23:30:00	00:00:36	2WS FM (cont)		? 2	C

*Figure 8: Logging Screen with Recordings in Progress*

## 6.2. Monitoring

To monitor recordings in progress, in real time, first navigate to the Logging Screen with the [Menu] key.

Use the [▲] and [▼] keys to navigate to the row that shows the details of the recording that you wish to listen to.

Press the [Select] key to start monitoring.

The following will happen when you start monitoring:

- The row that shows the details of the recording will move to top of the table from its sort position according to start time and it will remain highlight.

- “[Monitoring]” will appear at the centre bottom of the Logging screen.
- Audio will be heard from the speakers, or head phones if connected to the system.

Press the [Select] key to stop monitoring.

The screenshot shows a window titled 'Total Recall VR' with a 'LOGGING' header. The window displays a table of call logs with columns for Date, Time, Length, From, To, Ch., and a status column. The status column shows 'CM' for the first row and 'C' for others. At the bottom of the window, it displays 'Call : 1/8/410793', '[Monitoring]', and 'Used : 51%'.

Date	Time	Length	From	To	Ch.	
18 Sep 2012	10:29:30	00:01:06	0414222333	2139	> 29	CM
18 Sep 2012	10:29:27	00:01:09	2001	2006	^ 27	C
18 Sep 2012	10:27:10	00:03:26	2038	0388790000	< 63	C
18 Sep 2012	10:27:04	00:03:40	Emil	2077	? 25	C
18 Sep 2012	10:23:40	00:07:04	95563444	Tanya's Phone	> 23	C
18 Sep 2012	09:21:40	00:09:04	CEO	CFO	^ 20	C
17 Sep 2012	23:30:00	00:00:36	2Day FM (cont)		? 1	C
17 Sep 2012	23:30:00	00:00:36	2WS FM (cont)		? 2	C

*Figure 9: Logging Screen with Monitoring in Progress*

Total Recall VR remembers the channel number of the recording channel when you start monitoring, but not stop it while recording is in progress. And if a new recording starts on the same channel, Total Recall VR automatically start monitoring the new recording.

This is not useful for recordings on VoIP and ISDN recording channels as these recording channels are allocated dynamically to calls. However, it may prove very useful for recordings on analogue channels where one-to-one mapping exists between audio sources and recording channels.

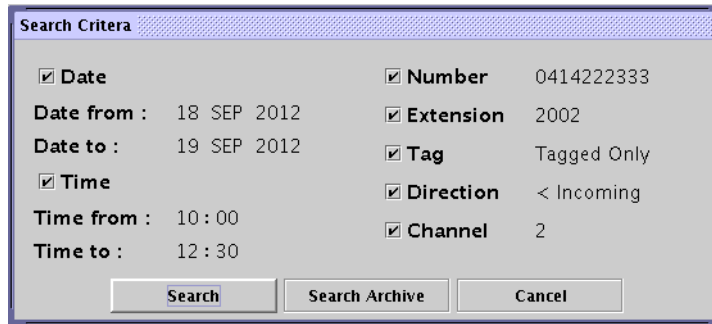
For example, if you start monitoring a recording in progress that is using analogue recording channel 1, and not stop it while it is in progress, then monitoring continues when the next recording starts on analogue recording channel 1.

### 6.3. Searching

The embedded GUI makes provisions for searching for recordings that reside on the system itself, recordings that are stored on archive discs (CD, DVD or BD), recordings that are stored in archives located on a USB key or disk drive, and recordings that are stored in a pre-defined network archive.

To locate recordings that have completed first navigate to the Search Screen with the [Menu] key.

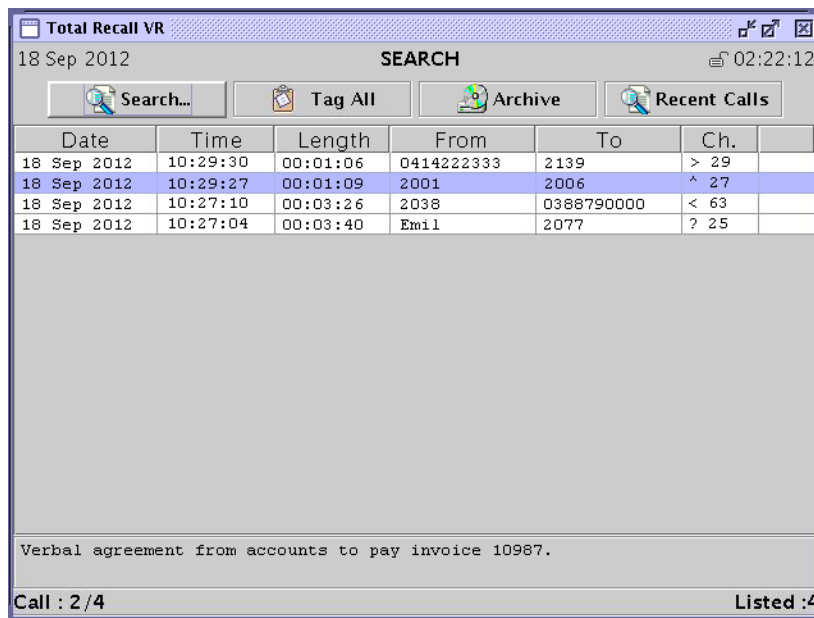
Then, select **Search ...** to display the Search Criterion dialog and define the search criterion by ticking (to include) and entering values for various search parameters.



*Figure 10: Search Criterion Dialog*

Finally, select **Search** to search recordings that reside on the system itself, or select **Search Archive** to search recordings that reside on an archive disc or in a network archive.

The search will identify all recordings that match the search criterion and display them sorted in reverse order of start time, i.e. latest recording on top.



*Figure 11: Search Screen with Search Result*

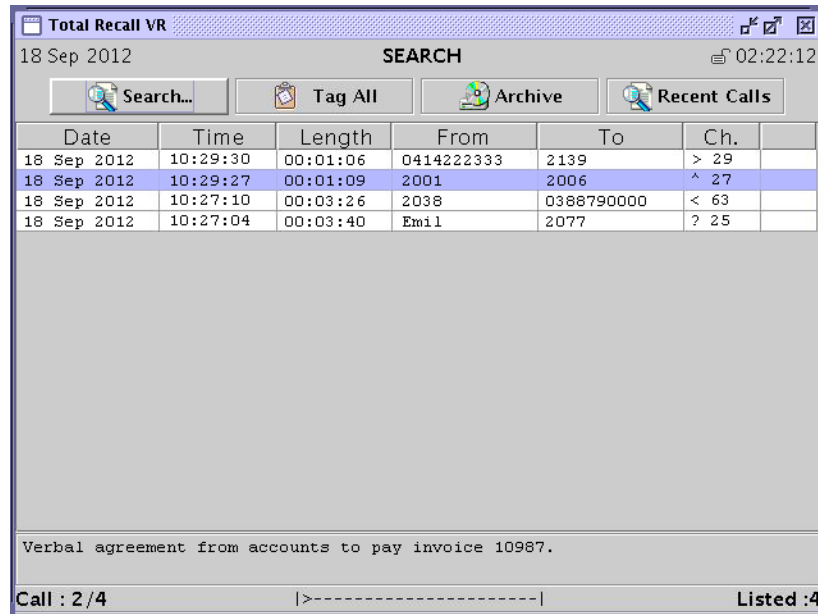
If the search results in 1000 recordings or less, then all recordings will be shown. However, due to screen space limits, only the 25 or so will be visible. Use the [▲] and [▼] keys to view rows that are not visible.

#### 6.4. Playing

To play a recording, first navigate to the Search Screen using the [Menu] key and search for it. Section 6.3 Searching explains searching.



Use the [▲] and [▼] keys to position the screen cursor on the row that shows the details of the recording that you wish to play and then press the [▶], or the [Select], key to start playing.



*Figure 12: Search Screen when Playing a Recording*

While playing is in progress you can use the [▶▶], [▶▶▶] and [◀◀] keys to fast forward, fast forward at double speed and rewind respectively. In additions, while playing is in progress you can use the [▶] key to pause and re-start playing.

Press the [■] key to stop playing.

## 6.5. Archiving

DO NOT use CD discs to archive while the front panel cover is closed.



Total Recall VR needs to open and close the disc tray while archiving to CD media which will not be possible if the front panel cover is closed.

We recommend you only use DVD and DB discs to archive. Total Recall VR does not need to open and close the disc tray when archiving to DVD and BD discs.

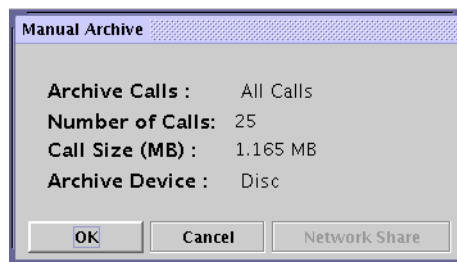
The embedded GUI makes provisions for on-demand and automatic archiving.

### 6.5.1. On-Demand

To archive a user defined set of recordings on-demand, first navigate to the Search Screen using the [Menu] key.

Optionally, perform a search that identifies the recordings that you wish to archive. Section 6.3 Searching explains searching. You can skip this step if you wish to archive all recordings.

Select **Archive** to display the Manual Archive dialog which makes provisions for specifying the set of recordings that you wish to archive as well as the archive device (disc, network share ...).



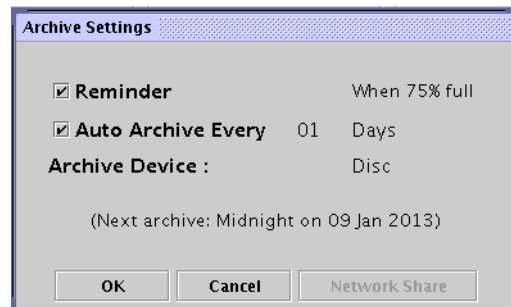
*Figure 13: Manual Archive Dialog*

Finally, start archiving. If you are archiving to disc, then you may have to insert new discs as archiving progresses.

### 6.5.2. Automatic

Unlike on-demand archiving, automatic archiving is a “set and forget” operation. Well mostly – you must make sure to replace discs and make space on network disks as they become full.

To start automatic archiving all you need to do is enable and configure automatic archiving using the *Archiving Settings* on the Options Menu Screen.



*Figure 14: (Automatic) Archive Settings Configuration Dialog*

## **6.6. Configuration**

To configure Total Recall VR, use the buttons provided on the Options Menu Screen. Note that you need to log in with the password for the Administrator user to access the Options Menu Screen.

## 7. Preventative Maintenance

Total Recall VR requires minimal preventive maintenance to ensure maximum performance.

### 7.1. Hard Disks

The hard disks are the hardest working component in Total Recall VR. Information is constantly written to and read from the disks.

The average life expectancy of the hard disks is 5 years. However, as with any electronic and mechanical technology, the disks in your system may last much longer or much less.

We recommend that you replace the disks in your system every 4 years or so. You can purchase suitable disks from us or your local Total Recall VR supplier.

### 7.2. Disk Space

Total Recall VR manages disk space automatically.

Total Recall VR has an in-built auto cleaning function which ensures that it has enough free disk space in it to continue recording endlessly.



A working archiving strategy must be implemented to avoid losing recordings as a result of auto-cleaning.

In general, the auto-cleaning function automatically deletes recordings when the number of recordings reaches more than 700,000, or the disk occupancy reaches 95% whichever occurs first. It removes oldest first recordings until the number of recordings reduces to 600,000 or less and the disk occupancy is below 88%.

### 7.3. Orderly Shutdown

Total Recall VR must be powered down in an orderly fashion to prevent damage to its electronic components and in particular its hard disks.

To shut down Total Recall VR in an orderly fashion first navigate to the Options Menu Screen using the [Select] button. Then select **System Shutdown**.

The system will stop all recording, then stop all applications and then stop its operating system.



DO NOT turn power off Total Recall VR while it is recording. This will result in damage of the hard disks which may result in total information loss.

In addition it may cause damage to other electronic components.

## **8. Troubleshooting**

### **8.1. Limited Product Warranty**

For full details of the limited product warranty for this product please visit our web site: <http://www.totalrecallvr.com/warranty>.

### **8.2. Support Information**

If after using this manual, and other Total Recall VR manuals, you still have questions about the operation of Total Recall VR, or you are experiencing problems with your Total Recall VR, then:

1. Please visit the Resources section on our web site <http://www.totalrecallvr.com>
2. Contact technical support via e-mail: [itsupport@prolancer.com.au](mailto:itsupport@prolancer.com.au)

### **8.3. Forums**

Our online forums, <http://www.totalrecallvr.com/forum>, contain answers to common problems that you may experience when installing and using Total Recall VR.

## 9. Appendix A: CL1012 Colour LCD Screen Guide

Your Total Recall VR comes with a 10.1” colour LCD screen which is the main display that shows various screens that are part of the Embedded GUI [4].

### 9.1. Main Controls



**A/V**: Selects input. Set to **PC** to use with Total Recall VR.

**+**: Volume up.

**-**: Volume down.

**▲** : Adjust brightness to one of 6 levels.

**▼** : Adjust phase automatically.

**MENU**: Activate OSD menu.

### 9.2. Cables

#### 9.2.1. SKS Cable

A 14 pin SKS cable combines: VGA, 2 x A/V inputs, mono audio input and 12VDC power.



Item	Description
1	14 pin SKS connector (monitor end).
2	VGA signal input, 9 pin.
3	Video signal input 1. Not used with Total Recall VR.
4	Video signal input 2. Not used with Total Recall VR.
5	Audio signal input. Optionally, used with Total Recall VR
6	12V DC power input. Not used with Total Recall VR

### 9.2.2. VGA Cable

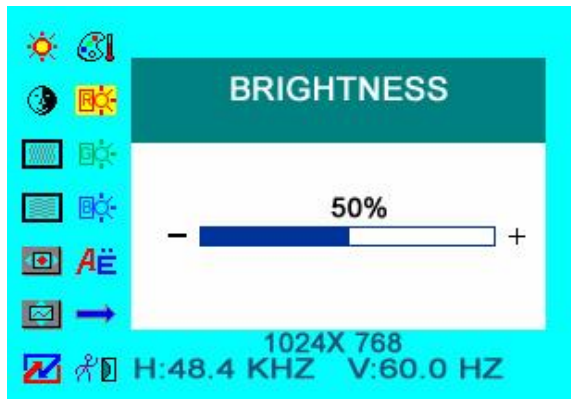
A 9 pin VGA signal input cable allows connection of a VGA source to the monitor via the SKS cable.





Item	Description
1	Connector to the VGA signal input on the SKS cable.
2	USB connector for touch-screen function. Not used with Total recall VR.
3	15-pin VGA signal connector suitable to connect to a VGA port of a computer.


### 9.3. OSD Menu


Press MENU to activate the OSD menu. Then use ▲ and ▼ to navigate and use + and – to set various monitor parameters.





 Select this option to adjust the screen brightness.

 Select this option to adjust the screen contrast.

 Select this option to adjust phase.

 Select this option to adjust the frequency range.

 Select this option to adjust the horizontal position of the image.

 Select this option to adjust the vertical position of the image.



Select this option to reset the unit to its factory settings.



Select this option to adjust the colour temperature of the image.



Select this option to choose the language for the OSD menus.



Select this to show the miscellaneous section and options.

The miscellaneous section has the following options:



Select this option to adjust the horizontal position of the OSD menu.



Select this option to adjust the vertical position of the OSD menu.



Select this option to adjust the OSD menu timeout.



Select this option to automatically adjust colours.



Select this option to select between 4:3 and 16:9 display mode.



Select this option to close the OSD menu.

## 9.4. Specification

Panel	10.1” LED (16:9)
Touch Function	Resistive touch panel
Resolution	1024 x 600
Brightness	250cd/m <sup>2</sup>
Contrast	500:1
Viewing Angle	140°/ 110°(H/V)
Colour System	PAL-4.43,NTSC-3.58
Input Voltage	DC 12V



Input Signal	AV1,AV2,PC(VGA), HDMI, DVI
Power Consumption	≤9W
Audio Output	≤1.2W
Mounting Process	Standard VESA Sockets (75mm)
Dimension(LWD)	253.5 x 162.5 x 35/65.5mm (with bracket)
Weight	1166g

[End of Document]