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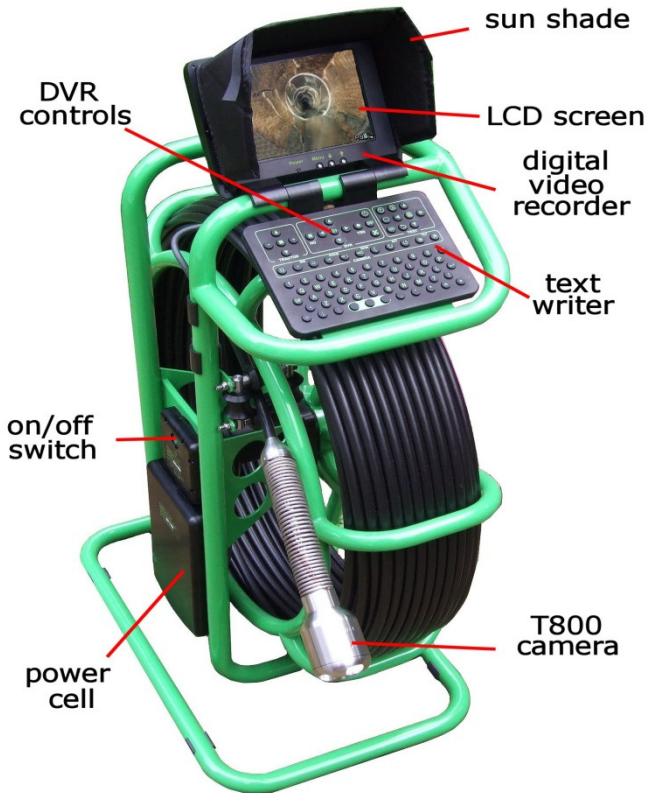Email info@troglotech.com

T804 DIGITAL VIDEO RECORDER – OPERATING INSTRUCTIONS

Your new T804 Digital Video Recorder (DVR)

The T804 DVR combines the reliability of digital recording with the simplicity of 'VCR style' controls. Instead of dealing with files and folders, the T804 DVR employs simple '**one-touch recording'**, '**one-touch playback'** and a simple 'time remaining' display. However, although the controls are as simple as those on a VCR, the T804 DVR never needs rewinding and there is no possibility of recording over an important survey. There is no tape, hard disk or delicate DVD to get damaged; all recordings are made on the Industry-standard Compact Flash Card (CF). The T804 DVR is fully integrated into the T804 system and was designed specifically for this application.

This Operating Manual contains a 'Quick Start Guide' to get you working quickly and has separate sections for the most-used functions. Please read the manual fully before operating your Digital Video Recorder.
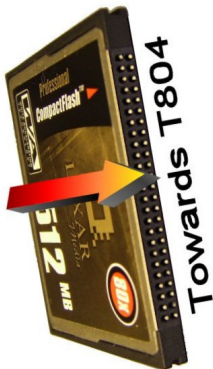
QUICK START GUIDE

The T804 CF card can be fitted
when the unit is switched OFF or
when the 'DVR status' LED is
GREEN.

Lay the T804 Control Unit flat on the
frame. Remove the CF Card cover
by lifting the central catch with the
hawser and then pulling away from
the Control Unit:

Fully remove the CF card cover

Fit the CF card as shown, the holes
go towards the T804, there is
always a small arrow on the card
that shows which end should be
inserted. Do not force the card into
position, it only fits one way and
should smoothly locate.

Refit the cover making sure it clicks
into place.

Allow the T804 to initialize so that the DVR status indicator seen on the T804 display shows the ☐ 'READY' symbol and the Status LED is GREEN.

You can record voice messages while recording, by default the microphone is switched OFF. To switch the microphone ON press the 'C' button on the Textwriter (in VIEW mode, no curson on screen). To switch it OFF, press the 'C' button again. When the 'C' button is pressed the status line will

show the OFF symbol

Or the ON symbol
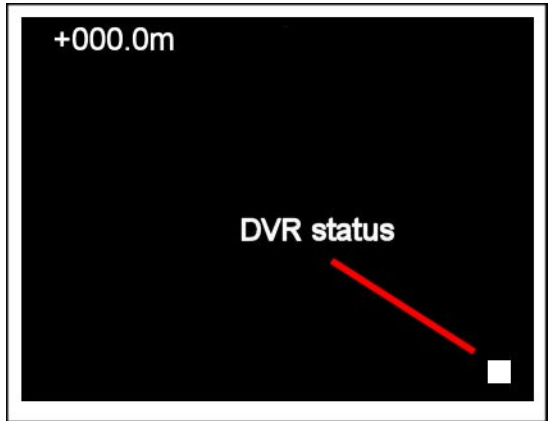
Use the 'Display Time Left' button to check that there is sufficient space left on the CF card for your survey

Press 'Record' to start the recording. When you have finished recording, **press 'Stop' to stop recording**. Ensure that the Status LED is flashing RED. If the LED does not flash RED then the CF card is incompatible OR the CF card is full.
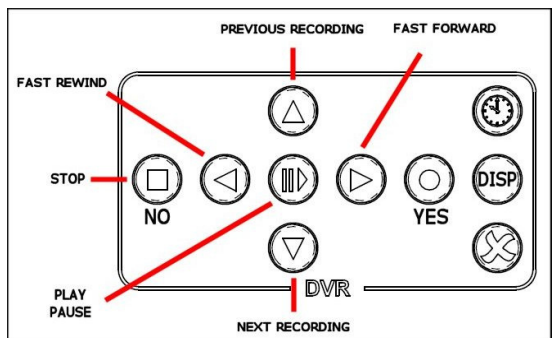
ENSURE DVR IS READY
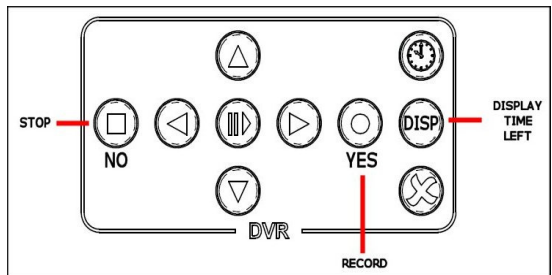
RECORD

Press 'Play' to playback the last recording. Use the 'Fast Forward' and 'Fast Rewind' buttons if required.

Whilst playing you can use the 'Previous Recording' and 'Next Recording' buttons to play any other recordings that are already on the CF card. **Press 'Stop' to stop playing**

PLAY

THE T804 DVR STATUS DISPLAY

The T804 DVR alerts the user of the current operation being performed by displaying a status symbol in the corner of the LCD screen.

There are five different status symbols as shown here.

When the DVR is **ready** the ▢ symbol will be shown.

When the DVR is **playing** the ▶ symbol will be momentarily shown

During **recording** the ⇥ symbol will be momentarily shown

When the DVR is **busy** the ⌛ symbol will be shown

During **formatting** or **erasing** the ? symbol will be momentarily shown

The Control unit also has a Status LED. The LED has three states:

GREEN = DVR ready. CF card can be removed or replaced, ready for operation.
OFF = DVR Busy. DVR is busy, do NOT remove CF card.
FLASHING RED = Recording. The LED will only flash if recording successfully, if the LED does not flash the CF card is full, missing or faulty.

DVR STATUS DISPLAY

Ready   Play   Record   Busy   Erase?

+000.0m
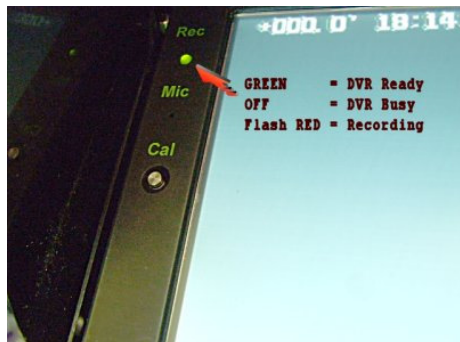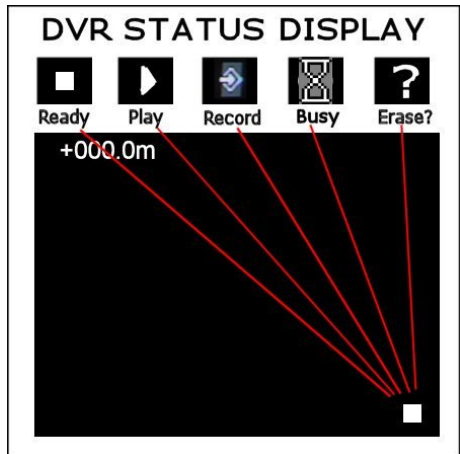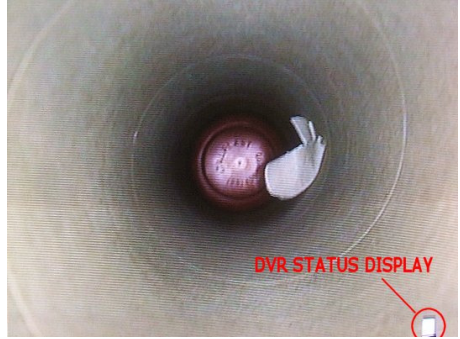
PLAYING AND SELECTING RECORDINGS

Playing recordings on the T804 DVR is extremely simple:

Ensure that the T804 DVR is 'Ready' as shown by the ■ symbol in the 'DVR status display' and the Status LED is GREEN.

Press the ⟲ **'Play' button**. After a short delay **the T804 will play the last recording that was made**. This is usefull for ensuring the last recording was acceptable.

The ▷ 'Fast Forward' and ◁ 'Fast Rewind' buttons can be used to quickly scan through the recording. When the end of the recording is reached the first recording on the CF card will be played.

When any of the above buttons are pressed the display will show the DVR MODE:
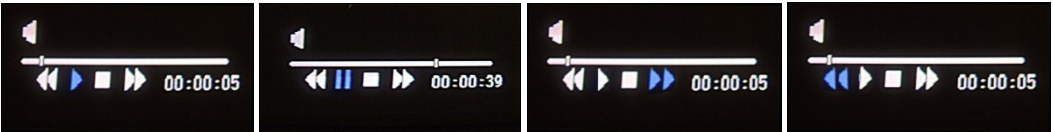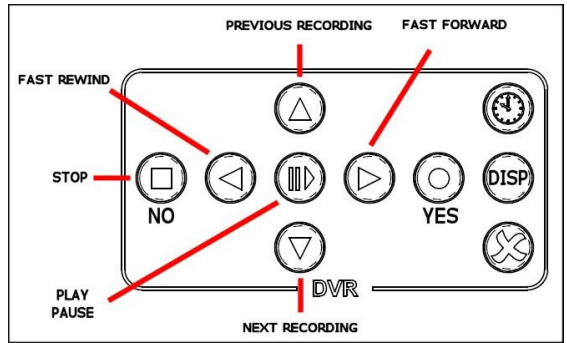
PAUSE   FAST FORWARD   FAST REWIND   PLAY

You can play the previous recording by pressing the ▽ 'Previous Recording' button

You can play the next recording by pressing the ▽ 'Next Recording' button

You can pause the recording by pressing the ⟲ 'Play' button, press again to Play

Press ▢ **'STOP' to return to the live picture.**

When first pressing PLAY

If there are no recordings on the CF card

you will get this display. Press ⬜ 'STOP'
to return to the live picture.

If the CF card is damaged or missing you

will get this display. Press ⬜ 'STOP' to

return to the live picture, wait for the ◼
'Ready' symbol to be shown on the screen
and then check the CF card is inserted
correctly. If this screen continues to be
shown when playing recordings then the
CF card is damaged and will need
replacing.

Pressing the (DISP) 'Display' button during
playback will show the information pictured
here. It will show the name of the recording
being played and the play mode.

The Time and Date shown is the current
Time and Date and not the recording Time
and Date.
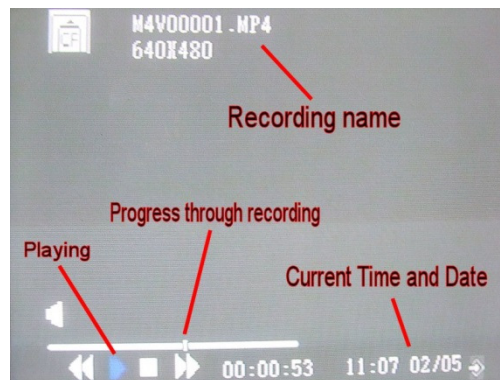
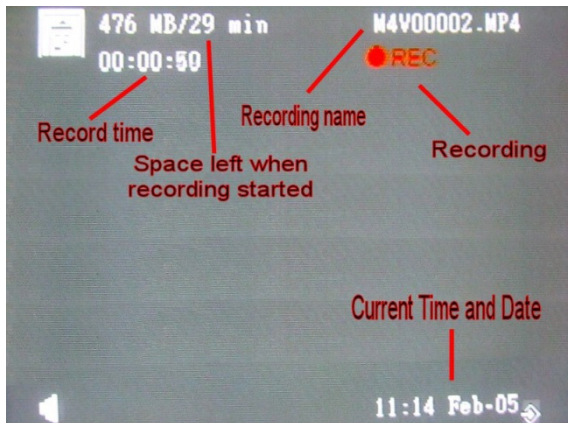## RECORDING – CHECKING SPACE LEFT ON THE CARD

Recording using the T804 DVR is very simple.

Ensure that the T804 DVR is 'Ready' as shown by the ⬛ symbol in the 'DVR status display' and the Status LED is GREEN.
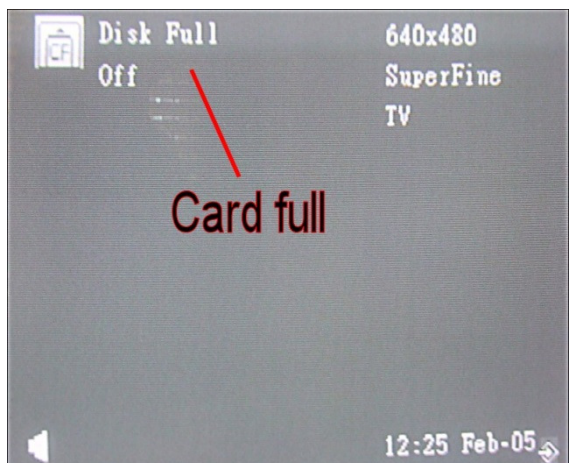
Press the ◎ 'Record' button to start recording.

The DVR status will show 🔷 'Record mode' momentarily followed by the 🗒 'Busy' symbol. The DVR will now check CF card space and will momentarily display the screen shown here. After a few seconds the live picture will return, the record symbol, page number and battery-level meter will dissapear and will not be recorded unless the Power Cell requires recharging. In this situation a flashing 'B' will appear in the picture. The Status LED will start FLASHING RED

If there was no space left on the CF card the screen will show this display momentarily. Replace the CF card with a new card. If the recordings on the CF card are not required and have been copied to DVD, CD or onto a computer then you can FORMAT the CF card as described in the next section.

You can record voice messages while recording by speaking close to the T804 monitor. There is a microphone built into the housing and this will record any voice messages that are announced close to the monitor. The voice messages will be recorded with the video picture.

## CF CARD – SPACE – DELETING AND FORMATTING

Before starting a recording it is good practice to check how much space is left on the CF card. When the 'DVR status' shows

'Ready', press the 'DISP' button. The 'DVR status' will show 'Busy' for a time and then the display as shown here will be displayed. The example shown indicates that there is 4 minutes of recording time left on the CF card (84MB).

After 3 seconds the DVR will return to the 'Ready' state
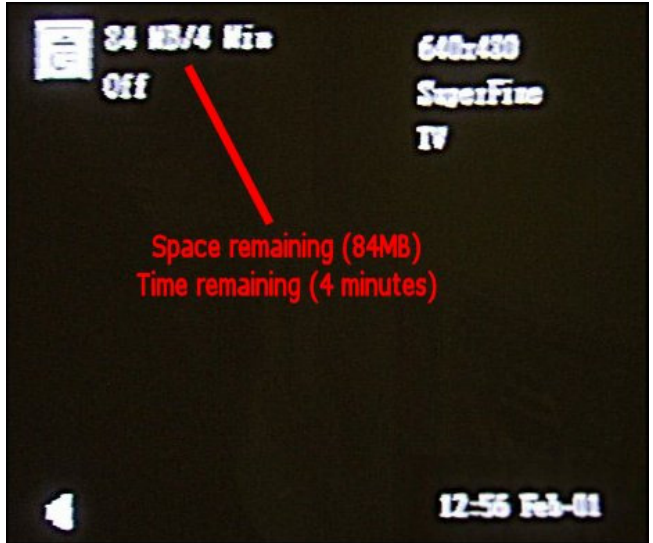
CF cards are readily available in various storage sizes.

The recording time that can fit on a single card is dependent on its storage size.

A 16GB card will store 16 hours of recordings

An 8GB card will store 8 hours of recordings

A 4GB card will store 4 hours of recordings

Troglotech reccommends using 8GB cards from the Lexar Professional Range. Cards with a speed rating less than 80x will not allow recordings to be made. Do not use cards with a capacity greater than 32GB as these are generally too slow to operate correctly.

Please note that Windows 98 machines will accept a maximum of 2GB. If your PC runs Win98 please use 2GB cards.

CF cards can be reused almost indefinately. Once the recordings have been transferred to a DVD or to a computer the CF card can be entirely erased (formatted).

If required, single recordings can be erased from the CF card.

To erase a complete CF card (better known as formatting) follow this procedure:

Ensure that the T804 DVR is 'Ready' as shown by the ◼ symbol in the 'DVR status display'.

Press the ✖ button. After a short while the T804 screen will show the picture pictured here.

Press the ◁ 'Left' button to highlight the 'YES' box and then press the ◉ 'YES' button. After Formatting the DVR will return to 'Ready', this may take up to a minute depending on the size and speed of the CF card.

If you pressed the ✖ 'Format CF card' button by mistake and you **do not want to Format the card** then, press the ▢ 'NO' button. This will return the DVR to the 'Ready' state without Formatting the CF card.

Once the CF card is Formatted it will be completely empty and you can record as though this was a brand new CF card. The card will not be damaged in any way by Formatting and this can be performed as many times as required.
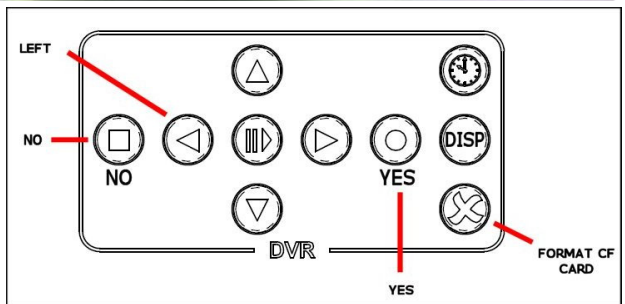
If you just want to delete a single recording rather than the complete CF card then this can be performed simply.

To erase a single recording select the recording you want to erase by first playing the recording:

Ensure that the T804 DVR is 'Ready' as shown by the ■ symbol in the 'DVR status display'.

Press the �🔘 'Play' button to start playing a recording.

Use the △ 'Previous recording' and ▽ 'Next recording' buttons to select the recording you want to erase.

Once the recording you want to delete is being played, press the ✖ 'Erase' button. The screen will change to that shown here.

To erase the recording, press the ◁ 'Left' button to highlight the 'YES' box shown on the screen and then press

the ◯ 'YES' button. The recording will now be erased and the DVR will begin playing the previous recording. You can now press the ▢ 'Stop' button to return to the 'Ready' state or you can erase further recordings with the ✖ 'Erase' button.
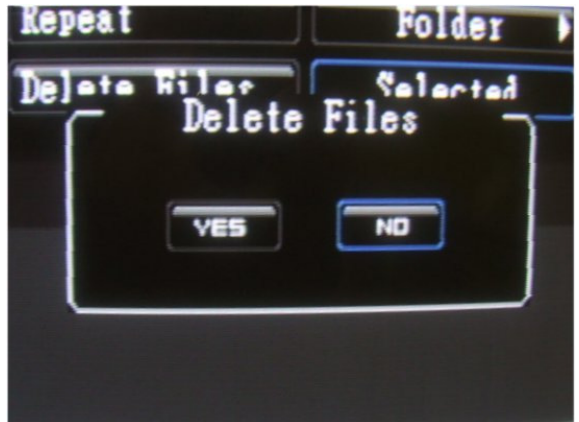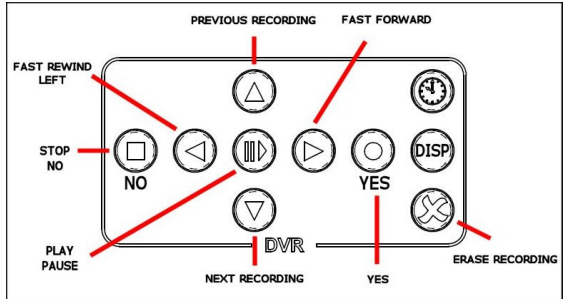
SETTING THE TIME AND DATE

The Time and Date are automatically updated and in normal use should not need changing, the clock-calendar system is aware of Leap Years and will adjust the date accordingly. However, some Countries employ Daylight Saving, in which case the Time will need to be changed and as the T804 is shipped worldwide, the date may need changing as well. The DVR clock is used to 'Time Stamp' the recordings so that it is a simple case of matching recordings with the time and date that the survey was made.

Ensure that the T804 DVR is 'Ready' as shown by the ⬛ symbol in the 'DVR status display' and the Status LED is GREEN.

To set the Time and Date press the 🕐 'Time' button. The screen will show the display as pictured here.

The MONTHS display will now be highlighted in yellow, use the ▽ △ buttons to increase or decrease the month's value.

Once the MONTHS are correct press the ▷ button, this locks the new value. The DAYS display will now be highlighted in yellow. Use the same procedure for DAYS and YEARS.

When you are happy that the DATE is set correctly, press the ◎ button, this will now highlight the HOURS figure in the box below. Set the TIME using the same routine as that used for the DATE.

When you are happy that the TIME is set correctly, press the ◎ button. This will return the DVR to the 'Ready' state
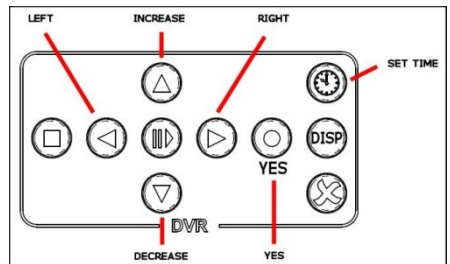
PLAYING VIDEO ON A COMPUTER

The video files created by the T804 are in the latest MPEG4 format. This type of video gives excellent picture quality with small file sizes. ***All modern computers can play MPEG4 files without the need to download any updates.*** For older computers: For both Windows and Mac users the best video-player to use is 'Quick Time Player' by Apple. This player supports the modern MPEG4 files without the need to download any extra Codec's. The Quick Time Player for Windows can be downloaded for free from:

http://www.apple.com/quicktime/win.html

All Mac computers are delivered with the Quick Time Player already installed. If you need to update your Mac computer go to:

http://www.apple.com/quicktime
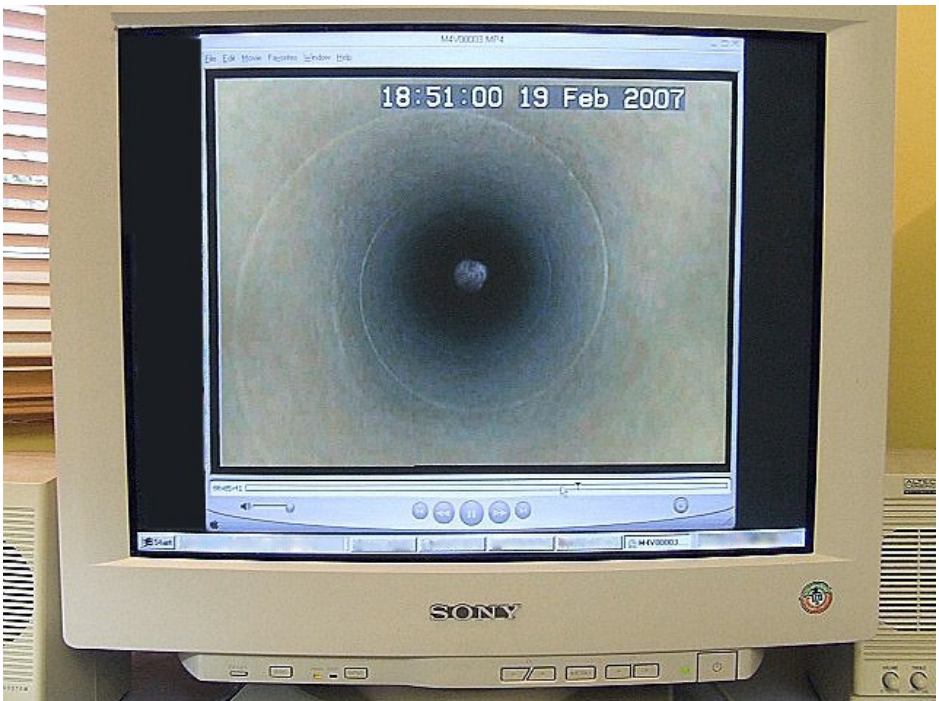
MOVING FILES FROM THE CF CARD TO YOUR PC

There are a number of ways to get the Video Files from your CF card to your PC. You can also copy your Video Files straight to DVD or CD if required.

Many Laptop computers are supplied with a CF card-slot. In this situation the CF card can be simply copied to a new folder on your machine. The card is usually seen as a removable drive and will contain a number of folders.

The Video Files are contained in the folder:

'Drive:\MP_ROOT\TV' where 'Drive:' is the letter allocated to the CF card by your computer.

The Video Files all have the extension '.MP4', the other files in the folder with the extension '.THM' do not need to be copied and are used by the T804 DVR only to track the Video Files.

The picture to the right here shows Windows Explorer on a PC with a CF card slot that has been allocated the Drive letter 'G:' The CF card has three Video Files present.

If your PC or Laptop does not have a CF card slot then a Card Reader will be required that connects to the USB port. This works in a similar way to the internal CF-card slot as described above. The external card reader will be seen as an additional removable drive and the files can be moved using the routine described above.

Troglotech recommends that the Video Files be copied into a new folder on your PC that has a Folder Name that reflects the date on which the survey was made. This will make finding your Video Files extremely simple and fast. See the example on the next page.
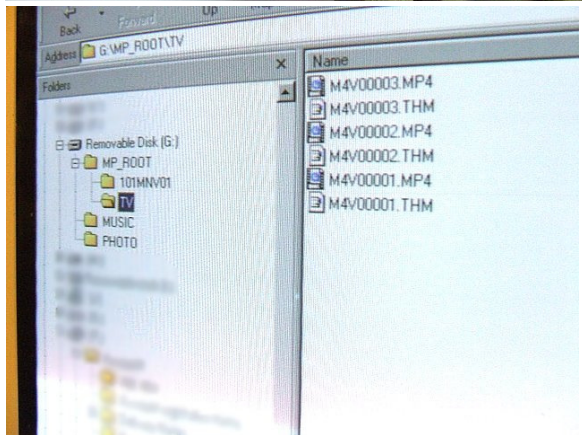
The example shown here shows that we copied four video files from the CF card to a folder called 'C:\T804 Surveys\17-Feb-2007' Each file is automatically dated b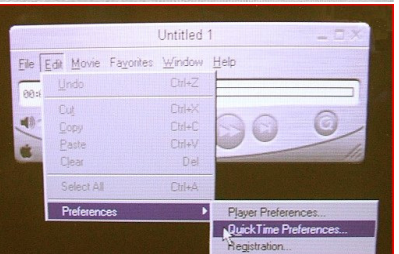y the T804 DVR when the Video Files are produced, the example here shows that they were made during a survey on 17th February 2007.
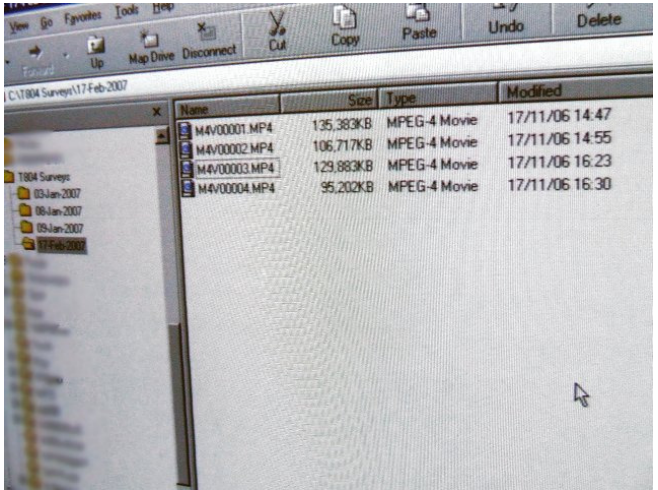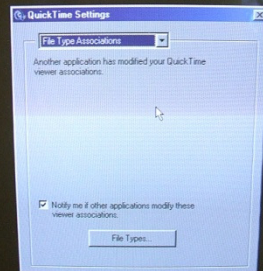
To ensure that the Video Files are automatically run on the Quick Time video player the File Associations have to be set as shown here:

Start Quick Time Player and select Edit, Preferences, Quick Time Preferences.

From the drop-down list select 'File Type Associations'.

Make sure that the 'MPEG-4 media file' box is ticked.

Once this box has been ticked press 'Apply' and then 'OK' and close down all Quick Time windows. All the '.MP4' files that the T804 produces will now be opened with Quick Time Player automatically.

Note: Modern computers will play the MPEG4 files without the need to change file associations.
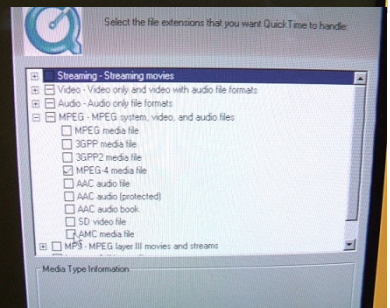
OTHER METHODS OF STORING VIDEO FILES

If storing the Video Files on a PC is not required then the Video Files can be stored on DVD or CD.

There are a number of CD and DVD burners that your Distributor can supply that are stand-alone and will copy the Video Files directly to CD or DVD. The picture to the right shows a CD burner (a DVD burner is available in the same range).

The burner shown here is simple to use. Just fit the CF card to the burner, insert a CD, press 'REC only' and the unit will copy the files directly from the CF card to the CD.

Troglotech recommends using a one-touch DVD burner, these will allow a 4GB CF card to be copied to a single DVD and has the capacity to store 4 hours of survey video.

Many modern DVD players can play MPEG4 video, however, the Video Files produced by the T804 DVR are designed to be viewed on a PC or Mac computer and we cannot guarantee that a customer's domestic DVD player will play these files.

If it is necessary that the files be played on a domestic DVD player than we would suggest that a video converter program is used to convert the MPEG4 video to a type suitable for these players. These needs can be discussed with your Distributor.

sun shade

DVR controls

LCD screen

digital video recorder

text writer

on/off switch

power cell

T800 camera