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1 Introduction

The Omneon MediaController™ provides a user-friendly remote control interface for the Omneon Spectrum media server.

The model supports both mark-in and mark-out on the fly in addition to direct timecode entry and slow-motion control.
Main features

• Controls large range of VTRs and Disk systems
• Professional custom jog/shuttle wheel with solenoid operated range control
• High contrast five and a half inch graphic display
• On-Air indicator
• On Screen Display
• Direct entry key-pad and plug-in PC style keyboard
• GPI interface with 8 programmable trigger inputs and outputs
• Clip list, play list and disc catalogue view
• Side wheel for fast scrolling of clips and cues
• Store/recall 2000 clips and 2000 cue in/out points
• Intelligent channel selection keys show clip ID and timecode information
• Flexible channel grouping/multi-server control
• Soft keys for direct access to important functions
• Battery backed memory holds all clip play list and set-up information
• Variable jog, variable and shuttle sensitivity for operator preference

• Optional Scheduled Record
• Optional Playlist Downloader

Accessories supplied:

• 5 x 5m CAT5 cables
**Available options**

<table>
<thead>
<tr>
<th><strong>Schedule recording</strong></th>
<th>Schedule in advance clips to be recorded</th>
</tr>
</thead>
</table>

**HT445 PL** Windows application accepts and translates industry standard play-lists and makes them available for use by the MediaController

The software requires a spare RS232 port and serial cable. Runs on PC with Windows 98/NT/2000/XP and uses one control port on the MediaController

In this manual MediaControllers are referred to as ‘controller’. The Spectrum media server, VTR, DDR, server and video disk recorders may also be referred to as ‘VDR’ or ‘device’.

The MediaController will control the Spectrum media server as well as VTRs and other servers.

The factory default settings for the Spectrum media server are VDCP (Harris).

For installation details refer to the Technical manual.
### Terms used in this manual

The following terms are used in this operational manual.

<table>
<thead>
<tr>
<th>Term</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>VDR</td>
<td>Any Spectrum media server, disk recorder, server or VTR connected to the controller.</td>
</tr>
<tr>
<td>Media</td>
<td>Clip on a Spectrum media server, other VDR or tape in a VTR.</td>
</tr>
<tr>
<td>Clip item</td>
<td>An individual item of video (and audio) on a Spectrum media server. There is no equivalent to this on a VTR.</td>
</tr>
<tr>
<td>Cue item</td>
<td>A particular point on the media. In the controller there are usually two points on the media, the start and end points. These points are usually stored as timecode values. In the case of a disk recorder, they could be frame positions.</td>
</tr>
<tr>
<td>Tape item</td>
<td>A label or name given to a VTR tape.</td>
</tr>
<tr>
<td>OSD</td>
<td>On screen display.</td>
</tr>
<tr>
<td>Pop-up</td>
<td>An action or warning box that requires input from the keyboard or keypad.</td>
</tr>
</tbody>
</table>

**Example of an action pop-up**

**Example of a warning pop-up**

**Keys**

“[ ]” indicates a key e.g. [PLAY] means press the PLAY key. [SHIFT] + [DELETE] mean press and hold the SHIFT key and then the [DELETE] key.
Using the MediaController

An overlay OSD data display provides heads-up confidence monitoring and on-screen status.
Video reference provided for schedule record use.

**Clip modes**

The controller supports four clip modes:

*The MediaController clip modes*
Clip Modes in MediaController

Create, edit and browse clips, remove and add clips to the PLAY LIST and SHOT LIST.

Program sequences of events to play out at specific times.

Clips on the server can be catalogued, deleted and added to the CLIP LIST.
2 Getting started

2.1 Initial configuration

The minimum configuration needed to use the controller requires certain Disk, Channel and System settings to be selected within the Setup menu. The settings depend on the server protocol in use. The MediaController has been preset for a VDCP (Harris / Louth) recipe that is compliant with the Spectrum media server. Details of this recipe can be found in paragraph 4.3 of the Media Controller Installation and Technical manual.

The default server protocol is VDCP, for other server protocols refer to the Server Protocols chapter in the Installation and Technical manual.

Entering the Setup menu

Turn on the controller. Enter the Setup Menu by pressing [SHIFT] + [ENTER] from any mode.

[Key A] + [Key B] means press and hold Key A then press Key B.
The Setup Menu

The Setup Menu is used for altering the factory default settings. All settings are stored in battery backed RAM.

The Setup Menu consists of four separate setup pages: - CHANNEL, VTR, DISK and SYSTEM Setup Menus, selected using the soft keys [S1] to [S4].

Each page has a list of settings, which can be changed with a combination of the scroll wheel, [SELECT] key and keypad.

A short explanation of each setting is displayed at the top of the setup page on the display.

If a mistake is made while changing a setting press [ESC] to exit from that setting without saving.
Disk Setup Menu (page 1)

- Rotate the scroll wheel to find items on the second page
- Press the scroll wheel in or press the [SELECT] soft key to choose a parameter
- Rotate the scroll wheel again to change the assigned value
- Press the [SELECT] key again to save the setting
- Continue to apply the required configuration for the remaining settings.
Required settings typically involve the following parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Menu page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disk Protocol</td>
<td>Disk</td>
</tr>
<tr>
<td>Timecode</td>
<td>Disk</td>
</tr>
<tr>
<td>Variable ID (VDCP only)</td>
<td>Disk</td>
</tr>
<tr>
<td>Device Type</td>
<td>Chan</td>
</tr>
<tr>
<td>Clip Length</td>
<td>Chan</td>
</tr>
<tr>
<td>Video Port No (VDCP only)</td>
<td>Chan</td>
</tr>
<tr>
<td>Video Standard</td>
<td>System</td>
</tr>
</tbody>
</table>

Press [EXIT], soft key S5, to leave the Setup Menu.
2.2 Starting the MediaController

Turn on the disk recorder and controller.

Channel selection key(s) display NO COMMS.

Selection key(s) displays LOCAL.

Press a channel selection key to open a port.

Selection key displays NO CLIP.

The controller and Spectrum media server are now ready for use.
3 Operation

The controller is designed to allow device control in addition to the creation and storage of clip management files in its memory along with accompanying timecode information.

The clip management file consists of two parts, a CLIP NAME part and a CUE NAME part. The CLIP NAME is used to identify the clip and the CUE NAME is used to store start and end timecodes for any cues created.

There is always one CLIP NAME for each clip and usually many CUE NAMES, each with associated start and end timecodes.

BEFORE OPERATING THE CONTROLLER FOR THE FIRST TIME, IT MAY BE NECESSARY TO MAKE CHANGES TO THE SET-UP MENU.

To change the default settings refer to the Servers protocols chapter in the Technical manual.
3.1 The channel status display

The channel status display shows information, such as the timecode and names of clips, tapes and cues.

*The MediaController channel status display*

**Key to status display illustration:**

1. Running timecode of selected VDR channel
2. Symbols used before clip, cue or tape name in clip list:
   - + = The item contains cues that are hidden
   - - = The item contains cues that are visible
   - — = The item does not contain cues
   - ▲ = This item is a cue
3. Start or in-timecode point of clip or cue
4 Symbols used to denote trimmed clip in clip list:

\[\text{\(\leftarrow\)}\] = Denotes trimmed clip in
\[\text{\(\rightarrow\)}\] = Denotes trimmed clip out

5 End or out-timecode point of clip or cue

6 Function or soft keys labelled S1 to S5

7 Denotes [SHIFT] must be pressed and held first, OR if [SHIFT] is pressed and held secondary options are available.

**Audio tally**

The controller is fitted with an internal bleeper.

The following tallies are supported if the Beeper is enabled in the System page of the Setup menu:

One short ‘beep’ signifies that an action has been accepted.

Two short ‘beeps’ signifies that an action has not been accepted.

Please refer to the Configuration chapter in the Technical manual for details of the Menu system.
3.2 Using MediaController functions

Controls are grouped according to function:

Channel selection

The channel selection keys, labelled A to E are used to select connected VDR channels. To take control of a Spectrum media server or VDR press a CHANNEL SELECTION key.

The keys are intelligent and display information on four lines of 10 characters. They also change colour dependent on the condition of the channel.

**Green:** the channel is in playback mode (this could be play and jog/shuttle).

**Blue:** the channel is in stop mode.

**Red:** the channel is in record mode.

**No Colour:** the channel is not connected to a VDR channel, or the VDR channel is in local control.

NO COMMS is displayed when a channel has no VDR connected or is not communicating properly.
It is not possible to select a channel displaying NO COMMS.

**Channel select button text**

The channel select button text displayed is as follows:

![Channel select button text](image)

**Channel select button display format**

<table>
<thead>
<tr>
<th><strong>CLIP_NAME/ LABEL</strong></th>
<th>The name of the clip or cue that has been selected or the label used to identify the channel if no clip is selected</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt; CHAN_A &lt;</td>
<td>▶ ▶ small arrows before and after the channel name indicates that the channel has control</td>
</tr>
<tr>
<td><strong>CHANNEL NAME</strong></td>
<td>Name of the channel the clip/tape is loaded on</td>
</tr>
<tr>
<td><strong>TIMECODE</strong></td>
<td>When valid timecode is being read from the VDR channel then the minutes and seconds part are displayed in the format MM:SS: e.g. 12:34:</td>
</tr>
<tr>
<td></td>
<td>When a clip or cue has been selected then the time remaining to the end of the clip or cue is displayed in the format MMm SSs e.g. 02m 54s</td>
</tr>
<tr>
<td><strong>TIME LINE</strong></td>
<td>Time Line to show how long to end of clip in relation to the total length</td>
</tr>
</tbody>
</table>
Device Selection

Any channel can select any available clip displayed in the CLIP LIST, PLAY LIST or DISK CATALOGUE.

Finding a selected Clip

Double press the channel selection key to jump to the selected clip.

ON-AIR mode.

The text ‘ON-AIR’ can be flashed on the channel selection keys from the GPIs or the play-back state of the channel (set in the channel setup menu).

Grouping channels

To control 2 or more channels simultaneously, select the master channel in the group, then press and hold the [GROUP] key and then the other channel selection keys.

To control 2 or more channels simultaneously, select the master channel in the group, then press and hold the [GROUP] key and then the other channel selection keys.

Once this is done, any time a channel is selected in a group the whole group is controlled.
Selecting a second master channel (not part of the first group) and grouping channels as described above can create a second group.

**Transport functions**

The transport functions are similar in function to most VTR controls. For example, to exit a transport mode press any other transport key.

All the basic transport functions e.g. PLAY, STILL, REC, STOP can be selected by pressing the appropriate transport key.

The internal keycaps illuminate to indicate the true status of the VDR channel controlled.

If the VDR channel is controlled locally from its own control panel then the controller does not function and the LEDs do not light.

Both JOG and SHTL LEDs illuminate to show that variable mode has been selected.

Select wheel is used to scroll through and select the menu settings and also the clips in all the clip modes.
The 1, 4, 7 and 3, 6, 9 keys are used for Fast Forward and Rewind at different speeds.
(Speeds below)

1 = x2 Rewind
4 = x4 Rewind
7 = x8 Rewind

3 = x2 Fast Forward
6 = x4 Fast Forward
9 = x8 Fast Forward

**Record key.**

To put a VDR channel into Record, from the Clip List mode create a clip, press the [RECORD] key. The Record mode is dependent on the VDR channel controlled as configured in the Set-up Menu. To stop the recording press [SHIFT] + [STOP].

To prevent the accidental interruption of a recording set ‘Inhibit select during play’ in the Menu system.

**Play key.**

To play a clip, select it and press the [PLAY] key.
**Jog & shuttle keys.**

The STILL key selects the Jog and Shuttle modes, alternating between the two every time the key is pressed. Rotate the wheel to move the media backward and forward. The wheel sensitivity for jog and shuttle can be changed for operator preference. (see installation guide).

**Variable mode.**

Press and hold the [STILL] key for more than 1 second to select variable speed playback. Both LEDs illuminate to show that variable mode has been selected. Variable can be selected from any previous mode. This mode allows the media to be played slower than normal, faster than normal, and, on most VDRs, in reverse by rotating the wheel.

The variable range can be changed for operator preference (see the Configuration chapter in the Technical manual).

**Using the Select Wheel**

The scroll wheel is used to navigate up and down a list of items (clips, cues, tapes or menu parameters).

Chevron characters at the edges of the display indicate which item is currently being pointed to and its line number is shown at the top left-hand side of the display.
If the BEEPER is enabled, an audible bleep sounds as the pointer passes an item.

Information about each item pointed to is displayed in the top right hand corner of the display.

An item can be selected by using the [LOAD] key or pressing the SELECT WHEEL. A selected item has highlighted characters. The item is loaded into the keycap of the channel selection keys. The [LOAD] LED illuminates when the selected item is pointed to.

Only one item can be selected at a time on a channel, so selecting one item deselects any other item that was selected.

To deselect (or eject) an item without selecting another item, point to the item and press the [LOAD] key again.

Selecting an item loads it onto the channel (A to E) currently selected. If the item is a cue then the VDR channel cues to the start timecode position. If the item is a clip then the clip is loaded at the beginning.

If the [LOAD] key is held down while the scroll wheel is turned then the next item is selected. If the items were clips then the first frame of each clip would be loaded and displayed.

The scroll speed accelerates the faster the wheel is turned to aid moving through long lists.
Using soft keys

Soft keys are software programmable. Their functions are dependent on the mode the controller is in.

If a keyboard has been connected, the function keys F1 to F5 have the same functions as S1 to S5.

If a cue or clip is selected, it is in use and therefore some functions are inhibited. This also applies to cues or clips that might be selected by other channels.

The On-Air tally LED

The LED (light emitting diodes) is illuminated when the controller is put On-Air.

Use the system Set-up Menu to configure when the On-Air display illuminates.

3.3 Operational modes

There are three operational modes, which are entered by pressing the appropriate Clip Mode button:

MediaController

This is the default mode where most of the control is carried out. Clips can be created, removed and added to the PLAY LIST.
This is where a list of events can be programmed to play out or record at specific times.

The Disk catalogue displays clips that are on a server. Individual clips can be deleted, or added to the CLIP LIST.

The items referenced by the controller remain stored on the server or VTR, only clip start/end times, cues and marks are stored on the MediaController.

The clip list is the master list of all items referenced by the controller, which may be cues, clips or trimmed clips.

Items stored in the clip list can be transferred to the play list. Any changes made to items stored in the clip list will be reflected in the play list.

A maximum of 2000 clips or cues can be stored in total across both the CLIP LIST and DISK CAT, and a maximum of 250 clips or cues can be stored in each of the 10 PLAYLISTs.

**Sorting clips.**

Normally clips are displayed on the controller in the order they were created on the server. To display the clips alphabetically double-press the [CLIP LIST] or [DISK CAT] key.
Any clip on the server can be viewed or catalogued whether created by the controller or another controller.

The Disk Catalogue is not available for media stored on VTRs.

**Clip list mode**

![Clip List Mode Diagram]

**The Clip List commands**

- **CUE ID/TC** Changes the cueing mode, between searching for cue id's or timecodes.
- **PLIST +** Adds the cue or clip to the play list.
- **EXPAND** Displays or hides cues or sub clips of a clip - operates only on the clip pointed to.
- **[SHIFT] + EXPAND** Displays or hides all cues.
- **REMOVE** Removes the cue or clip from the clip list display.
  Press [SHIFT] + soft key [REMOVE] to open interactive pop up box - does not actually remove the clip from the server, only its reference from the CLIP LIST display.
A warning will be given if the item is in use by another channel.

**NEXT/BACK**
Takes you to the next page of soft keys.

**RENAME**
Renames cues or clips. Overtype the existing name in the pop-up box and press [ENTER] to accept the entry or [ESC] to ignore the entry.

**FORMAT**
Changes the display to show longer clip names.

**OSD**
Turns the on overlay status screen display on and off on the OSD output.
Play list mode

The first screen shown when entering the PLAY LIST MODE is a directory of any available play lists. If there are no play lists, they will need to be created.

The Play list directory

**RENAME**  
Rename the selected play list. A keyboard is recommended to create a meaningful name.

**EMPTY**  
Empty the selected play list.
MODE
Normal or Loop Play List.

RECORD
Recording is dealt with in detail in section 3.8, Schedule recording.

The DUR (duration) shown is the total duration of all items in the play list.

The RMNG time is the time remaining to the completion of the current play list.

Selecting and using play lists is dealt with in detail in section 3.7, Play list management.
Disk catalogue mode

The Disk Catalogue commands

**SHIFT + RENAME**
Overtype the existing name in the pop-up box and press [ENTER] to rename a clip - accept the entry or [ESC] to ignore the entry. (not available on all servers)

**CLIST+**
Adds the clip to the CLIP LIST. Press [SHIFT] + [CLIST+] to add all clips to the CLIP LIST.

**UPLOAD**
This is part of the Advanced Disk Search and enables the user to Load the complete or partial list of clips from the Spectrum media server into the controller.

- **From** Enter first clip name to accept from upload/update
- **To** Enter last clip name to accept from upload/update
- **Update** Adds new clips to existing list
**Upload**  Uploads all clips from server. Clears existing list before upload

**CATALOGUE UPLOAD**

[UPDATE]  Adds new clips to existing list

[UPLOAD]  *** CLEARS EXISTING LIST***

*** BEFORE UPLOAD ***

[ FROM ]  Enter first/last clip names

[ TO ]  to accept from upload/update

[SHIFT-FROM/TO] - clears filter

FILTER FROM:  <no filter>

TO:  <no filter>

**SHIFT + DELETE**  Deletes the clip when confirmed – ESC to cancel

**PLIST+**  Adds the clip to the PLAY LIST. Press [SHIFT] + [PLIST+] to add all clips to the PLAY LIST.

Deleted clips are PERMANENTLY removed.
3.4 Using the OSD display

The OSD output overlays some information regarding the status of the controller. Use the [OSD ON] soft key to turn the display on and off.

<table>
<thead>
<tr>
<th>Display data</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HH:MM:SS:FF</td>
<td>Timecode output of selected VDR. Display shows ‘<strong>:</strong>:<strong>:</strong>’ if timecode is invalid.</td>
</tr>
<tr>
<td>PLAY</td>
<td>The mode the selected VDR is currently in: PLAY, STOP, JOG, SHUTTLE, VAR, CUED, REC.</td>
</tr>
<tr>
<td>CHAN A</td>
<td>The label of the selected CHANNEL, as defined in the CHANNEL SETUP Menu.</td>
</tr>
<tr>
<td>LIVE</td>
<td>* LIVE * is displayed when the controlled VDR is in the live mode, i.e. the incoming video to the VDR is displayed rather than its output.</td>
</tr>
<tr>
<td>00:00:05:21</td>
<td>The time left before reaching the end of the selected cue or clip.</td>
</tr>
<tr>
<td>CLIP____001</td>
<td>The name of the selected cue or clip.</td>
</tr>
</tbody>
</table>
3.5 Using the keyboard

The controller will accept any English layout PC type keyboard fitted with a 6 pin PS/2 mini din connector. Suitable adapters are available if the keyboard is fitted with a larger din connector.

Keyboard keys

F1 to F6
The function keys F1 to F6 mimic the soft keys S1 to S5 and the SELECT wheel on the control panel.

A to Z
Enter text into the pop up text box from the keyboard. Some special characters have been disabled from the keyboard, to prevent illegal characters from being used to name clips.

ENTER
Accepts the keyboard input and closes the pop up text entry box.

ESC
Closes the pop up text entry box without making any changes.

<- ->
Moves the cursor to the previous or next character.

DELETE
Deletes the character at the cursor.

BACK
Moves the cursor to the previous character and deletes it.

Caps Lock
Upper case letters may be entered after pressing Caps Lock.

The Caps Lock LED does not illuminate.
3.6 Clip management

The clip management file consists of two parts, a CLIP NAME or TAPE NAME part and a CUE NAME part.

The CLIP/TAPE NAME is used to identify the clip or tape and the CUE NAME is used to store start and end timecodes for any cues created.

There is always one CLIP NAME for each clip (or TAPE NAME for each tape) and usually many CUE NAMES, each with associated start and end timecodes.

<table>
<thead>
<tr>
<th>1</th>
<th>CLIP LIST</th>
<th>START</th>
<th>END</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>CLIP/TAPE NAME</td>
<td>00:00:00:00</td>
<td>00:05:30:24</td>
</tr>
<tr>
<td>°</td>
<td>CLIP_001</td>
<td>00:01:00:00</td>
<td>00:01:19:12</td>
</tr>
<tr>
<td>°</td>
<td>CLIP_002</td>
<td>00:02:00:00</td>
<td>00:02:29:16</td>
</tr>
<tr>
<td>°</td>
<td>CLIP_003</td>
<td>00:03:00:00</td>
<td>00:03:12:10</td>
</tr>
</tbody>
</table>

`Cue names`
Hard and Soft Marks

Cue marks are referred to as having soft marks since it is normally possible to jog or shuttle beyond the cue in and out marks. Trimmed clips are however referred to as hard marks, since it is not normally possible to jog or shuttle beyond their limits. However cues added to shots are always stored with hard marks.

VDR clip management

Creating new clips on a server

To create a VDR clip proceed as follows:

• Enter the CLIP LIST mode
• Press the [RECORD] key
• Accept or change (using the keyboard) the default CLIP name

A warning will be given if the name is not unique.

• The created clip appears in the CLIP LIST and in the CHANNEL SELECTION key

The CHANNEL will turn red and the new clip is now ready to be recorded.
• Press [RECORD] + [PLAY]
• Press [SHIFT] + [STOP] to stop the recording if a shorter clip length is required

When the VDR channel goes into RECORD, the record start timecode will be added to the START column of the STATUS DISPLAY and the END column will display the current recorded timecode position.

Creating cues

Pressing the [MARK IN] key causes a new cue to be created for the selected clip. The timecode value at the moment the key is pressed is loaded into the START position of the status display. The [MARK OUT] key will flash to prompt for an out point.

Depending on the MARK IN MODE parameter set in the Set-up Menu, subsequent presses of the [MARK IN] key before the [MARK OUT] key is pressed updates the START timecode without creating a new cue.

Marking cues
After the [MARK OUT] key has been pressed the cue or sub clip is finished.

To edit a selected cue, find the desired new in/out point and press [SHIFT] + [MARK IN] or [MARK OUT].

It is not possible to create a cue without a START time.

If a reaction time offset has been set in the Set-up Menu, a fixed amount of time can be added to the start and/or end of a cue.
Locating cues

In CLIP LIST MODE, cue keys are used to store and recall mark points on the media. The [GOTO] key is used in conjunction with the numeric keypad to locate any part of the media.

Keypad and cue commands

To edit the GOTO time code entry process as follows:

- Set mode to [CUE ID]
- Enter time code numbers using the keypad
- Press the [SHIFT] + [0] key to clear the entry
- Press the [-] and [+] keys to move back and forward in the entry
**Locating last and next Cue**

Set mode to [CUE ID]. Press [+] / [-] keys to select next / previous cue. Press [SHIFT]+[+] keys to select first cue [SHIFT]+[-] for last cue.

**Locating start and end of a clip or cue.**

Set mode to [CUE TC]. Press [SHIFT] + [+] / [-] keys to cue to start and end of clip.

**Locate TC position within a clip or cue.**

Set mode to [CUE TC]. Press the [GOTO KEY'D] key. Enter the time code value from the keypad. Press [ENTER] to cue. Press [ESC] to cancel.

Locating functions only work in CLIP LIST mode.
Jumping a set time within a clip

Set mode to [CUE TC]. Press the [GOTO KEY'D] key. Enter the length of time you want the media to jump.

This is displayed in the GOTO time code memory position near the top of the status display. Deselect [GOTO KEY'D].

- Press the [+] keys to jump forward
- Press the [-] keys to jump backward

Trimming clips

Select the clip to be trimmed. Jog/shuttle to the new in-point. Press [SHIFT]+[MARK IN] to make a new in-point. Similarly, the out-point can be trimmed. Small triangular marks appear next to the TC points to indicate a trimmed clip.

```
<table>
<thead>
<tr>
<th>CLIP LIST</th>
<th>START</th>
<th>END</th>
</tr>
</thead>
<tbody>
<tr>
<td>CLIP_001</td>
<td>00:00:00:00</td>
<td>00:00:29:24</td>
</tr>
<tr>
<td>CLIP_002</td>
<td>00:00:00:00</td>
<td>00:00:12:17</td>
</tr>
<tr>
<td>CLIP_003</td>
<td>00:00:00:00</td>
<td>00:00:16:10</td>
</tr>
</tbody>
</table>

Trimmed clip in
Trimmed clip in & out
Trimmed clip out
```

To restore the clip press [SHIFT]+[0].

Material beyond any mark is never lost or discarded.
Removing clips or cues

To remove a clip or cue proceed as follows:

- Enter the CLIP LIST mode
- Select the VDR CHANNEL
- Point to the clip or cue to be removed with the scroll wheel
- Press the [REMOVE] soft key
- The cue and/or clip file is now removed from the controller

A clip removed from CLIP LIST still exists on the server, to permanently delete a clip use the [DELETE] key in the DISK CAT mode.

A cue or clip cannot be removed if it has been selected (a selected item is one that is highlighted), as it may be in use by another VDR CHANNEL.

Hiding and revealing cue names

To hide or reveal cue names on the status display proceed as follows:

- Enter the CLIP LIST mode if not already selected
- Select the VDR CHANNEL
- Use the scroll wheel to point to the clip name with cues to hide or reveal
- Press the [EXPAND] soft key
- The status display hides or reveals the cue information for that clip
- Press the [SHIFT] + [EXPAND] to hide or reveal cue information for all clips
**Unloading clips**

To unload a clip proceed as follows:

- Enter the CLIP LIST mode
- Select the VDR CHANNEL
- Use the scroll wheel to point to the clip
- De-selecting the clip with the SELECT key unloads the clip from the VDR

**Playing beyond the mark out point**

To play beyond the mark out point of a cue proceed as follows:

- Enter the CLIP LIST mode
- Select the CHANNEL the VDR is connected to
- Use the scroll wheel to point to the cue
- Play the cue normally but just before the end point press and hold the [PLAY] key

**VTR clip management**

The following section describes elements of clip and cue management that relate specifically to tape.

**Defining a tape**

- Enter the CLIP LIST mode
- Press the [CREATE] soft key
- Accept or change (using the keyboard) the default TAPE name
- Accept or change the default CUE name
The created tape name will appear in the CLIP LIST and in the CHANNEL SELECTION key.

At this point the controller knows nothing about video that might be already recorded on the tape, START and END timecode positions in the STATUS DISPLAY will remain blank for the TAPE NAME.

**Recording a new tape**

- Enter the CLIP LIST mode
- Select the CHANNEL the VTR is connected to
- Press the [LOAD] key of the CREATED TAPE, the TAPE NAME will be highlighted
- Press [RECORD] + [PLAY]

The CHANNEL key will turn red and the VTR will go into RECORD. The record start timecode will be added to the START column of the STATUS DISPLAY.

**Marking in and out points**

- Enter the CLIP LIST mode
- Select the CHANNEL the VTR is connected to
- Select the CREATED TAPE NAME
- Press the [MARK IN] key

This causes a CUE to be created (the name used is dependant on the settings made when creating a TAPE).

The timecode value at the moment the key was pressed is loaded into the START position of the
STATUS DISPLAY. The MARK OUT key flashes to prompt for an out point.

Depending on the MARK IN MODE parameter set in the Set-up Menu subsequent presses of the MARK IN key before the MARK OUT key is pressed updates the START timecode without creating a new cue. After the MARK OUT key has been pressed the END timecode is stored.

• Further presses of the [MARK IN] and [MARK OUT] keys create more CUES

**Renaming a tape or cue name**

• Enter the CLIP LIST mode
• Select the CHANNEL the VTR is connected to
• Use the scroll wheel to point to the tape or cue to be renamed
• Press the [RENAME] soft key
• Use the keyboard to enter a new name for the tape or cue, press [ENTER] to accept the change or [ESC] to exit without accepting the rename
Removing a tape or cue name

- Enter the CLIP LIST mode
- Select the CHANNEL the VTR is connected to
- Use the scroll wheel to point to the tape or cue to be removed
- Press the [REMOVE] soft key
- The cue and/or tape file is now removed from the controller

A cue or tape cannot be renamed or removed if it has been selected (a selected item is one that is highlighted), note it may be in use by another CHANNEL.

Hiding and revealing cue names on the display

The status display can be made to hide or reveal the cue information for a selected tape.

- Enter the CLIP LIST mode if not already selected
- Select the CHANNEL the VTR is connected to, if not already selected
- Use the scroll wheel to point to the tape name with cues to hide or reveal
- Press the [EXPAND] soft key

Cueing to the start and end of a tape or cue

- Enter the CLIP LIST mode
- Select the CHANNEL the VTR is connected to
- Use the scroll wheel to point to the tape or cue
- Press the [SHIFT]+[+] keys to cue to the end
- Press the [SHIFT]+[-] keys to cue to the start
Playing beyond the mark out point of a cue

- Enter the CLIP LIST mode
- Select the CHANNEL the VTR is connected to
- Use the scroll wheel to point to the cue
- Play the cue normally but just before the end point press and hold the [PLAY] key

Tape digitising / dubbing

The tape dubbing function allows for dubbing onto multiple disk channels. The VTR must be connected to channel E. On this channel create a tape in the MediaControllers clip list, and then make a cue of the desired media to be dubbed. To record this as a clip to a single VDR channel, select the record channel by pressing a [channel] selection key (large colour buttons on the left hand side). Now press and hold the [GROUP] button (top left of the keypad) while at the same time press the [RECORD] button. You will then be prompted to enter a clip ID, and then a start timecode (default T/C taken from the start T/C of the tape cue).

To make sure that the dub retains the correct time code marks the FRAME OFFSET may need to be changed. This can be checked by dubbing a short clip, and comparing the IN/OUT points to make sure that the pictures match up.
To record to multiple channels group the record channels together. To do this, select one channel, press and hold the [GROUP] button whilst at the same time pressing the other channel keys that you wish to be grouped. After this is done the grouped channels should both be illuminated signalling that they are grouped. As before press GROUP and then RECORD to initiate the dubbing. The clip id will be given an identity letter at the start of the name to distinguish which channel the clip was recorded on.

**Tape digitising monitor on LCD**

Frame offset less than optimum - video missing at start and recorded clip shorter
Frame offset more than optimum - additional video at start and recorded clip longer

**Frame offset**

If the clip is not recorded correctly, check the frame offset setting (see menu Set-up in installation guide). Recording accuracy is +/- 1 field.
3.7 Play list management

Selecting a play list

To select a play list, highlight it with the scroll wheel and either press the wheel or press the [LOAD] key.

Once selected the screen will change to play list contents view:

![Play list commands](image)

*The Play list commands*
| **REMOVE** | Use the REMOVE soft key to remove a clip at the pointers > <. |
| **TRIM** | Select a clip to trim its start and end points. Use the jog wheel to find the new in point and press the [IN] soft key. Find the new out point and press the [OUT] soft key. Press [DONE] when finished trimming the clip. |
| **MODE** | Normal Play |
| | Pause and for 2 seconds and then load and Play next clip |
| | Loop clip |
| | Stop |
| **SDP** | Change the default playback speed for individual clips. Press and hold [SPEED] while turning the jog/shuttle wheel. |
| **MOVE** | Press and hold the MOVE soft key while turning the scroll wheel to move the clip at the pointers > < up and down the list. |
Creating a play list

- Select a VDR channel for the play list
- Press the [PLAY LIST] key
- Use the scroll wheel to select one of the unused (empty) play lists from the ten available

To rename a play list, use the RENAME soft key first.

- To add an item to the selected play list, press the CLIP LIST key, use the scroll wheel to find the clip add press the PLIST+ soft key.

The item has now been added to the play list.

It is not necessary to SELECT the clip in the CLIP LIST before pressing PLIST +.
Checking the playlist transition points.

Set mode to [CUE TC]. Press [SHIFT] + [+ / [-] keys to cue to start and end (less 6 seconds) of clip.

This function works in a similar way when used in the CLIP LIST MODE except that when used in PLAY LIST MODE, the end point is set 6 seconds back from the end of the item.

Play list timing

Each item in a play list is normally loaded in advance of its start time to ensure seamless playout. The timing is determined by the setting of the PLAYLIST LOAD parameter in the Setup menu.
Refer to the Configuration chapter in the Technical manual for details of the Menu system.

During the preload time when the next event is being staged, both items will be highlighted in the play list.

![Playlist Example](image)

*Play list item changeover*

It is not possible to jog/shuttle backwards through a playlist.
3.8 Optional Schedule recording

The Record list commands

**ADD**
Enter a clip name, start timecode and duration into the pop-up dialogue box. Up-to 19 items can be added to the list.

**REMOVE**
Removes the item from the record list. Other items in the list move up.

**EDIT**
Edit the clip name, start timecode and duration.

**MOVE**
Press and hold the MOVE soft key while turning the scroll wheel to move the clip at the pointers > < up and down the list.

**SET TC**
Set the internal record clock. If a reference video is connected the internal clock will be locked to reference.
Running a record list

- Select a VDR channel for the record list
- Press the [LOAD] key on the first clip to be recorded (the clip will be highlighted). The control panel is now locked against accidental key presses, but the scroll wheel is still active.
  - Clips are pre-loaded 10 seconds before the start record time.
  - Recording starts at the start time.
  - Recording ends after the record duration has elapsed.
  - The next clip to be recorded is automatically selected.
- Press the [LOAD] key again to stop the recording and unlock the control panel.
- To add an item to the record list, press the ADD key.
3.9 Advanced Disk Search Capability

This is described in detail in the Disk Catalog section of this manual. However it is important to note the following for disk searching, clip creation etc.:

**Naming conventions**

Names can be up to 32 characters long. In the case of imported clip names, these may be truncated.

To auto-generate usable names a numeric component is used. The user can specify a prefix part, to which the controller adds a suffix number whenever a new clip/cue/tape name is generated. The length is restricted depending on the protocol being used.

E.g. If the default tape name is TAPE. Tape creation sequence will then be:

```
TAPE____0001
TAPE____0002
TAPE____0003 etc
```

The user can change the default prefix, for example to GOLF99:

```
GOLF99___0001
GOLF99___0002
```
Cue names work similarly so, for each tape there is:

CUE______001
CUE______002

**Creating Clip IDs**

When the user creates a TAPE or CLIP, the controller generates an ID based on the appropriate NAME and NUMBER. It conducts an exhaustive search of existing TAPES and CLIPS to see if the ID is already in use. If there is no conflict, creation proceeds automatically and the new entry appears on the display ready for use. The NUMBER is incremented by the controller, ready for next NAME.

If the ID is already in use then the user is informed, and given the option to abandon the operation, or to re-programme the system NAME/NUMBER and try again.

Once a TAPE/CLIP has been created, the user may at any time use the RENAME facility to alter the NAME. The maximum length criteria are automatically enforced, but the user may now enter any characters up to the total ID length permitted in the current mode (TAPE or VDCP). Thus the numeric part of the ID may be overwritten, giving a purely text name.

This user-entered name is checked for uniqueness by the system, and the user is prompted to abort/try again if not acceptable.
Creating Cue IDs

CUE IDs are generated automatically and comprise of a NAME and NUMBER (as for TAPES/CLIPS). The distinction is in the generation process - CUE IDs are just stored as 12 characters).

CUES are only held internal to the system, so the format is the same for any protocol.

The NAME and NUMBER are globally administered in the format:

CUE: up to 12 character names, including 4 digits.

Default: CUE_____001

As for TAPES, the system holds a global name and initial number for creation of cues.

When a TAPE is first created the system initial default CUE NUMBER is adopted by the individual VDR (e.g. CUE______001). Thus every TAPE could start with the same CUE ID – uniqueness is not required on CUES between TAPES.

In fact it is not even essential within a TAPE, but probably desirable to avoid operator confusion.

The system prompts the user to choose a different CUE NAME every time a TAPE is created. This CUE NAME can be up to 12 characters long, but after the first cue has been created for a given TAPE subsequent CUES take the CUE NAME and append a number at the last position of the CUE NAME.
Each VDR then administers its own CUE number for that TAPE, incrementing it every time a CUE is created.

Example 1, using the default CUE names.

<table>
<thead>
<tr>
<th>Marking</th>
<th>CUE created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st MARK IN/OUT</td>
<td>CUE____001</td>
</tr>
<tr>
<td>2nd MARK IN/OUT</td>
<td>CUE____002</td>
</tr>
<tr>
<td>3rd MARK IN/OUT</td>
<td>CUE____003</td>
</tr>
<tr>
<td>4th MARK IN/OUT</td>
<td>CUE____004</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>2000th MARK IN/OUT</td>
<td>CUE____2000</td>
</tr>
</tbody>
</table>

CUE names can only be 12 characters in length. If the CUE name is too long the last characters are overwritten by the naming system.

Example 2, using only the first 11 characters. CUE name is GOAL A SIDE.

<table>
<thead>
<tr>
<th>Marking</th>
<th>CUE created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st MARK IN/OUT</td>
<td>GOAL A SIDE</td>
</tr>
<tr>
<td>2nd MARK IN/OUT</td>
<td>GOAL A SIDE1</td>
</tr>
<tr>
<td>3rd MARK IN/OUT</td>
<td>GOAL A SIDE2</td>
</tr>
<tr>
<td>4th MARK IN/OUT</td>
<td>GOAL A SIDE3</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>2000th MARK IN/OUT</td>
<td>GOAL A S2000</td>
</tr>
</tbody>
</table>

It can be seen this cue name was acceptable to start with (but after the 9th CUE the last characters are overwritten).
Example 3, using all 12 characters. CUE name is BACK OF GOAL

<table>
<thead>
<tr>
<th>Marking</th>
<th>CUE created</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st MARK IN/OUT</td>
<td>BACK OF GOAL</td>
</tr>
<tr>
<td>2nd MARK IN/OUT</td>
<td>BACK OF GOA1</td>
</tr>
<tr>
<td>3rd MARK IN/OUT</td>
<td>BACK OF GOA2</td>
</tr>
<tr>
<td>4th MARK IN/OUT</td>
<td>BACK OF GOA3</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>2000th MARK IN/OUT</td>
<td>BACK OF 2000</td>
</tr>
</tbody>
</table>

Again the cue name was acceptable at first but subsequent cues have the last characters overwritten.

It can be seen from the last 2 examples that the naming convention has to be chosen carefully, if complete names are to be stored.

At any time, the operator may RENAME a CUE NAME. This user-entered name is checked by the system for uniqueness within the current TAPE only, and the user will be prompted to abort/try again if not acceptable.
4 Troubleshooting

The following table lists commonly asked questions and their solution:

**Why do the select buttons show NO COMMS?**

- Check the RS422 communications to the server or VTR.
- Check that the appropriate protocol has been selected for any connected server and that it is powered and not in LOCAL mode.
- Check that the server is running the correct protocol application.
- If changes have been made last time the controller was used, try restarting the protocol application on the server and using RESET in the channel setup menu.
- Check that the correct RS422 connections have been made to the server - on large server installations there may be many serial connectors not all RS422.

**Why can I not play a selected clip?**

- Check that the clip is not cued to its end point.
- Check that the Clip List reflects the current contents of the connected server.
- If a different server is connected, enter the Disk Catalogue mode and upload the new clip data.
How do you change settings in the Setup Menu?

To enter the Setup Menu press [SHIFT] + [ENTER] from any mode.

Which disk servers are supported?

Those supporting VDCP and Odetics protocol.

Which VTRs are supported?

VTRs that support the Sony RS422 9 pin protocol.

Why is the OSD output not working?

Check that a valid analogue signal is connected to the OSD input(s) and that a working PAL or NTSC analogue monitor is connected to the OSD output.

Why is the timecode not displayed on a selected clip?

If a channel has a loaded clip displayed and the keycap is back-lit green, but the timecode is not displayed in the keycap or the LCD screen, server communications may have been interrupted. Pressing the play button should return the timecode display.

Why are clip-locate functions not working?

Locating functions only work in CLIP LIST mode.
Why does the end point timecode of a clip keep increasing even if I am not making a recording?

Another process or person has access to the same server and is making a recording. This process will not be able to modify the clip whilst the clip is selected on your controller.

Why can’t I remove or rename a selected clip?

Check that the clip has not been highlighted and that it is not in use by another channel.

Why is the CUE name entered truncated?

CUE names can only be 32 characters in length. If the CUE name is too long the last characters are overwritten by the naming system.

How does the controller store video clips?

The controller only stores clip management files. The video assets themselves remain on the original tape or disk media.

How do you check the hardware using built-in diagnostics?

MediaController – enter the play list mode then press ALT + F4 on the keyboard
### Hardware Diagnostics

- **WHEEL1**: -89, 0
- **WHEEL2**: -19, 0
- **TBAR**: 0
- **SBWHEEL**: 0, 0
- **Phase**: 0
- **Period**: 0
- **TMR2CMP**: 50000
- **ERROR**: 0
- **FSCount**: 0
- **FSSState**: 0
- **CPU**: 41

**Hardware Diagnostics**

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*Omneon Video Networks*
5 Addendum

5.1 Outline dimensions

The MediaController has the following outline dimensions: