X301

INSTRUCTION MANUAL

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List of Abbreviations

Abbreviation	Meaning
DVR	Digital Video Recorder
HDD	Hard Disk Drive
IP	Internet Protocol
LED	Light-Emitting Diode
PTZ	Pan Tilt Zoom (camera controls)

1. About This Manual

This is the manual for Timespace Technology's X301 Reviewer (referred to as "the Reviewer") shown below. The Reviewer is used to program the menu settings on Timespace Digital Video Recorders (DVRs), check camera views, playback footage and list the recorded files on the installed Hard Disk Drive (HDD) cartridge.

The information in this manual relates to the X301 Reviewer pictured below.   If you are using a previous version of the Reviewer, model X101 or X201, please see the [Appendices](#).

Figure 1 X301 Reviewer

2. User Guide

2.1 System Overview

The X301 Reviewer is compatible with Timespace's X100, X200, X300, (X-Series) and V400 and V500 (V-Series) Digital Video Recorders (DVRs).   These models are shown in Figure 1 below.

X100	**X200**	**X300**
V400		**V500**

Figure 2 Compatible Digital Video Recorders.

2.2   Set-up

Connect the data link cable (supplied with the X301 Reviewer) from "Reviewer" socket on the DVR front panel to the socket on the top of the X301 (Figures 3 and 4 below). This connection provides power, video and audio from the DVR to the Reviewer. The cable supplied is a CAT5 network cable with RJ45 connectors and a ferrite for EMC protection. An example of the Reviewer connected to a Timespace V400 DVR is shown in Figure 4 below.

Figure 3 Reviewer socket and headphone connection

Figure 4 X301 Reviewer connected to Timespace V400 DVR

When power is applied to the DVR and fed to the Reviewer, the red "Menu/Exit" LED on the bottom left of the Reviewer front panel is illuminated.   The DVR is set to automatically record on power-up, and therefore the "REC" and camera 1 LEDs will also be illuminated. The DVR display will be shown on the Reviewer monitor screen.

2.2.1   Power supply

The following warnings/limitations must be observed.

WARNING: The 12V power supply from the DVR/Reviewer is not suitable for use with a laptop. Any attempt to plug a laptop in to the Reviewer socket will result in damage to the laptop and/or the DVR and Reviewer.

WARNING: When the Reviewer is connected to an X-series DVR the power supplied to the DVR must be 12V+/-1.2V.

2.3   Controls

The keys on the X301 can be grouped into:

- Menu Navigation
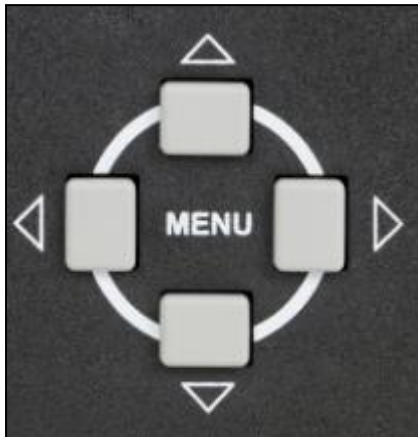- Text & Number Input
- Recording & Playback
- Camera Switcher
- Help & Search
- PTZ Controls

NB: The numbered keys on the Reviewer have a dual purpose; Text & Number Input and Camera Switcher.

Figure 5 X301 Reviewer/programmer controls

2.3.1 Menu Navigation

Press any of the 4 menu buttons to enter the main menu. Once in the menu system, their function is as follows:

△   Move arrow cursor to the previous item.

▽   Move arrow cursor to the next item.

◁   If the arrow cursor is currently at a menu selection pressing the left button will cycle the value backwards

▷   If the arrow cursor is currently at a menu selection pressing the right button will cycle the value forwards

         If the arrow cursor is currently at a sub-menu title, pressing the right button will enter this

         sub-menu.
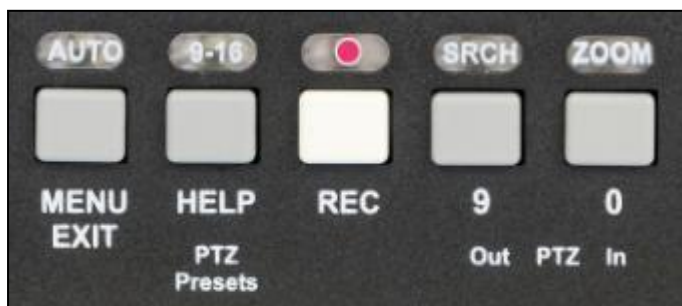
The **MENU EXIT** Key on the Reviewer will exit the current menu and move back up one level in the menu system when pressed. If already at the top level of the MAIN MENU, pressing this key will exit the menu system completely and return to the video switcher.

2.3.2   Text and Number Input

Once in the DVR menu system, the numbered keys on the Reviewer are used for inputting data into fields which require a user entry, e.g. times and dates.

The numbered keys have the following characters attached to them; pressing the key repeatedly will cycle through the available characters. Letters can be entered as both upper case and lower case text.

The last character on each key is a blank space; use this to delete any unwanted characters.

Key	Number/Characters	
1	A B C 1 a b c	(blank)
2	D E F 2 d e f	(blank)
3	G H I 3 g h i	(blank)
4	J K L 4 j k l	(blank)
5	M N O 5 m n o	(blank)
6	P Q R 6 p q r	(blank)
7	S T U 7 s t u	(blank)
8	V W X 8 v w x	(blank)
9	Y Z 9 y z	(blank)
0	0/<>#,.*+@'-_?=	(blank)

Keep pressing keys 0 to 9 until the desired character appears. For example pressing key '1' gives the 'A' character, pressing again, the 'B' character, again the 'C' character, again the '1' character, again 'a', again 'b', again 'c' and finally a blank character. The sequence repeats.

Once a letter/number is chosen, the right arrow must be pressed to move on to the next character input.

2.3.3   Recording and Playback

◁◁   **Rewind** through recorded footage. Repeated presses increase the rewind speed in multiples of 1 second, up to a maximum of 20.

◁   **Reverse-play** through recordings.

☐   **Stop** playback. If playback is already stopped, pressing this button again lights the LED above and the unit is in **Jog** mode, allowing image-by-image playback. Whilst in jog mode, the Rewind and Fast Forward buttons will skip to next/previous file.

▷   **Play** recorded footage.

▷▷   **Fast-forward** through recorded footage. Similarly to rewind, repeated presses of the fast forward enable rapid scan.

○   **Record** start or stop. If not currently recording (red LED off), pressing this button will begin recording from the end of the most recent footage. If the unit is currently recording (red LED on), this button will stop recording.   Recording can also be started/stopped using the Rec button on the front of the DVR unit.

NB: Fast-forward and Rewind functions are not currently available on V-Series DVRS.

2.3.3.1   Playback

Recorded files can be viewed on the Reviewer. Select the required file from the RECORDED FILES menu on the DVR.

On some models of DVR, simultaneous playback is possible, i.e. where the DVR is currently recording, and playback of previously-recorded images is required at the same time.

However, if current recording configuration prevents the required recording/playback resource being made available for simultaneous playback, then simultaneous playback will not be possible. A warning message will appear as below:

FILE CANNOT PLAY

Resource allocation exceeds the limit for simultaneous playback. Check the RESOURCE ALLOCATION menu and try to reduce other functions so playback is possible.

The RESOURCE ALLOCATION menu provides further details of the global IPS total and the resource requirements for the various recording functions and features.   Find this in SETTINGS MENU > SYSTEM SETTINGS > RESOURCE ALLOCATION.

2.3.3.2   Audio

NB: Audio playback is available through the Reviewer when used with an X-Series DVR. Audio playback via the Reviewer is not currently supported for V-Series DVRs.

With V-Series DVRs, a facility exists to test Audio files via the Reviewer. This is accessed via the V400/V500 Menu Settings at AUDIO RECORDING > AUDIO TEST FILES.   No video will be played during this test.

2.3.3.3   Audio playback via Reviewer with X-Series DVRs

With X-Series DVRs, the Reviewer can also be used for audio playback through its built-in speaker.

The audio signal from the DVR is transferred along with the video signal via the Reviewer cable to the Reviewer. No other cabling is required.

The speaker is located on the rear panel of the Reviewer and a headphone output jack is located on the top of the Reviewer unit.

2.3.4   Camera Switcher
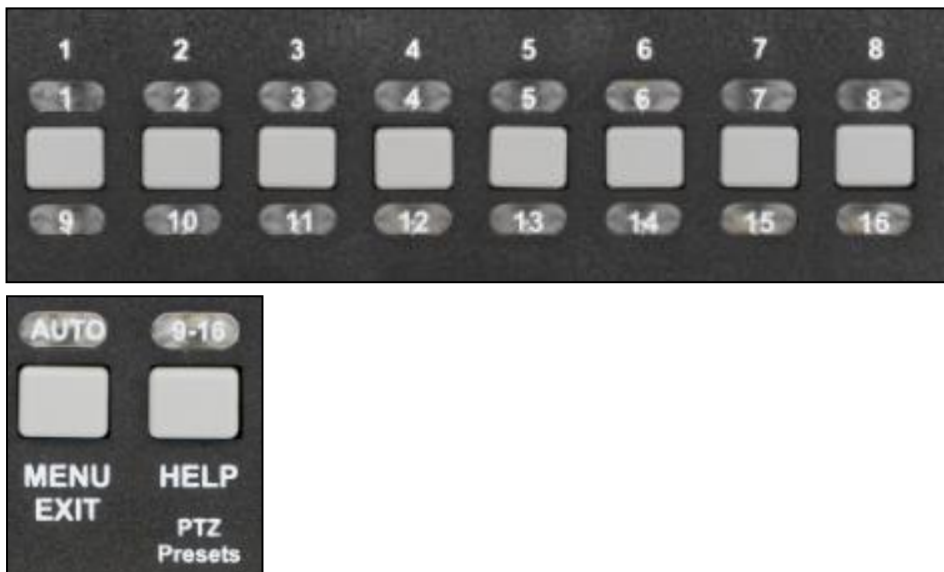
1-8   Switch the view to camera 1 to 8. When playing back recorded footage, pressing buttons 1 to 8 changes playback to that camera. If the AUTO LED is lit, buttons 1 to 8 change the live camera being viewed. This camera is held on the main monitor.

9-16   Press this button before pressing the number buttons 1-8 to access cameras 9-16.

AUTO   Activate the auto switcher mode. In this mode, the monitor will show a live view and the cameras are cycled as specified in the VIDEO OUTPUT menu. Press the AUTO button again to deactivate the auto switcher mode. If any of the buttons numbered 1-8 (or 9-16) are pressed while in auto switcher mode, the camera switching is stopped, and the selected camera view is held on screen. Control of the auto switcher does not affect any recording in progress.

HELP   Double-tap HELP to activate IP Camera selection. When the 9-16 LED starts to flash, select from buttons 1-8 to activate IP Cameras 17-24.

For example, to activate IP Camera 17, double-tap the HELP button then select button 1; to activate IP Camera 19, double-tap the HELP button then select button 3 etc.

NB: IP Cameras cannot be viewed on the Reviewer when Recording is taking place. Stop recording before double-tapping HELP to view IP Cameras.

2.3.5   Help and Search

HELP – Applies when using any menu. Pressing this button will produce a help screen. Continue pressing any key to cycle through help screens until menu returns.

SEARCH – Go to a specific time and date in the recorded footage. Pressing this button will enter the PLAYBACK SEARCH screen. If the footage on a given camera cannot be found (it may not have been recorded), a "NO FOOTAGE FOR SELECTED CAMERA" message will be displayed.

TIME – Use the number keys to enter a time in 24hr format.

DATE – Use the number keys to enter a date in the format DD/MM/YY.

PLAY FROM SET TIME DATE – Plays the footage beginning from the time and date entered. If there is no footage at the time specified, a jump is made to the nearest footage to the time given.

PLAY OLDEST – Plays the oldest available footage on the Hard Disk Cartridge.

PLAY NEWEST – Plays the most recent footage available on the Hard Disk Cartridge.

2.3.6   PTZ Controls

Timespace X300, V400 and V500 DVRs can support PTZ cameras. Full details are found in the PTZ Cameras section of the manuals for each compatible DVR.

The Reviewer keys provide a range of PTZ controls (see next page). In addition, it is possible to set PTZ presets as follows:

Setting presets

1.   Select the camera number.
2.   Press the 9-16 Reviewer key.
3.   Move the camera to position.
4.   Press the STOP key.
5.   Press the numeric key you wish to assign the preset to.

Advanced features include setting up focus behaviour and accessing the cameras' internal menus. These features are only available if the camera supports it - see camera manufacturer user guides for details).

X301 KEY	PTZ FUNCTION	
UP ARROW	TILT UP	
DOWN ARROW	TILT DOWN	
LEFT ARROW	PAN LEFT	
RIGHT ARROW	PAN RIGHT	
0	ZOOM IN	
9	ZOOM OUT	
REWIND	FOCUS FAR	(VISCA ONLY)
REPLAY	FOCUS NEAR	(VISCA ONLY)
STOP	FOCUS MANUAL	(VISCA ONLY)
FAST FORWARD	FOCUS AUTO	(VISCA ONLY)
HELP+0	ENTER CAMERA MENU	(Camera support required).
HELP	SHIFT FUNCTION	

There are 3 shifts states, indicated by the STOP LED;

OFF = shift not enabled
ON = set preset (or enter camera menu with +0)
FLASH = unset preset

Pressing the HELP key will move between the 3 states. e.g. to set preset position 1, move the camera to the desired position, then press the HELP key (STOP LED ON), then number 1. Position now set, if you move to another position, then press number 1, it will return to the preset number 1 position. e.g. to unset preset position 1, press the HELP key <u>twice</u> (STOP LED FLASHING), then press the number 1. The preset will now be unset.

1	PRESET 1
2	PRESET 2
3	PRESET 3
4	PRESET 4
5	PRESET 5
6	PRESET 6
7	PRESET 7
8	PRESET 8

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3. Appendix 1 – X101 Reviewer

Programming

The configuration of the X100 is by the menu system.

Connect Data Link Cable (supplied with X101 Reviewer) from socket marked "Reviewer" on X100 to socket marked "To Recorder" on X101. This connection will provide power and video to X101 from X100.

WARNING: When X101 is connected to X100 the power supplied to X100 must be 12V+/-1.2V. An additional PSU can be connected to "Power In" socket of X101, but to view X100 a BNC cable must be linked from "Out" socket on rear panel of X100 to "Video In" socket on top panel of X101.

To enter Menu System press ▷ menu key.

Help Screens

Throughout the menu system, every item that the cursor points to has a Help screen. Place the cursor on the line requiring explanation and press "Help" key on X101 front panel. Use any key to cycle through the screens for that line. No Help screen is available for Statistics Menu.

Operation

To set up and operate the X100 an X101 Reviewer is required.

Playback & Recording

◁◁   ◁   ☐   ▷   ▷▷   ○

🟢   🟢   🟢   🟢   🟢   🔴

☐   ☐   ☐   ☐   ☐   ☐

◁◁   **Rewind** through recorded footage. The normal wind interval is 1 minute. Pressing the button again increases the wind interval to 5 minutes. Repeated presses increase the interval to 10 / 20 and finally 60 minutes. This rapid scan mode enables fast, flicker-free searching through recorded material. If the LED above the stop button is lit the unit is in jog mode and the rewind button will rewind through recorded footage frame by frame, with intervals of 1 minute.

◁   **Reverse-play** through recordings. If the LED above the stop button is lit (jog mode), the reverse-play button will jog to the previous frame. If the oldest frame has been reached, reverse playback will stop. Note that reverse play only operates on images that have been first played in a forward direction.

☐   **Stop** playback. If playback is already stopped, pressing this button again lights the LED above and the unit is in jog mode, allowing frame-by-frame playback.

▷   **Play** recorded footage. Pressing play for a second time switches to fast play enabling all the footage to be played through at the fastest rate. If the LED above the stop button is lit, the play button will jog to the next frame. If the most recent frame has been reached, playback will stop.

▷▷   **Fast-forward** through recorded footage. If the LED above the stop button is lit the unit is in jog mode and pressing the fast-forward button will jog forward. Similarly to rewind, repeated presses of the fast forward enable rapid scan in 5 / 10 / 20 / 60 minute intervals.

○   **Record** start or stop. If not currently recording (red LED off), pressing this button will begin recording from the end of the most recent footage, using the settings specified in the Normal Recording menu (see page). If the unit is currently recording (red LED on), this button will stop recording.

Camera Switcher

1-8	Switch the view to camera 1 to 8. When playing back recorded footage, pressing buttons 1 to 8 changes playback to that camera. If the AUTO LED is lit, buttons 1 to 8 change the live camera being viewed. This camera is held on the main monitor.
AUTO	Activate the auto switcher mode. In this mode, the monitor will show a live view and the cameras are cycled as specified in the "Video Switcher" menu. Press the AUTO button again to deactivate the auto switcher mode. If any of the buttons numbered 1-8 are pressed while in auto switcher mode, the camera switching is stopped, and the selected camera view is held on screen.
DELETE	When using menus this button is used to delete numbers.

Control of the auto switcher does not affect any recording in progress.

Zoom, Search and Help

SEARCH   MOTION
   9   0
[ ]   [ ]

ZOOM
●
[ ]

HELP
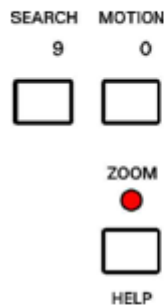
ZOOM   Zoom in on a frame from recorded footage (in black & white). Use the menu
            navigation buttons (see next page) to pan around the enlarged image. Press the
            ZOOM button again to return to original size. When the zoom function is active,
            the ZOOM button will be lit.

HELP   Applies when using any menu. Pressing this button will produce a help screen.
            Continue pressing any key to cycle through help screens until menu returns.

SEARCH   Go to a specific time and date in the recorded footage. Pressing this button will
            enter the "Jump to Time" screen. If the footage on a given camera cannot be
            found (it may not have been recorded), a "NO CURRENT IMAGES ON CAMERA"
            message will be displayed. If there is no footage at the time specified a jump is
            made to the nearest footage to the time given.

            See the next page for further information on Jump to Time.

MOTION   This key is reserved for future use.

Jump to Time

```
     JUMP TO TIME
     ------------
 TIME: >14:45:00
 DATE: >17/08/98

>JUMP TO TIME ABOVE
>JUMP TO OLDEST
>JUMP TO LATEST


  EXIT
```

This is the "Jump to Time" menu, which is displayed after pressing the SEARCH button, and allows instant access to any time (on the minute) and date in recorded footage.

- **TIME** - Type a time using the numbered buttons.

- **DATE** - Type a date using the numbered buttons.

- **JUMP TO TIME ABOVE** - Hit the right arrow menu key to jump to the time entered in the time and date fields.

- **JUMP TO OLDEST** - Jumps to the oldest recordings on disk.

- **JUMP TO LATEST** - Jumps to the newest recordings on disk.

If the footage cannot be found for a particular camera (the camera may not have been recording at that time / date), a NO CURRENT IMAGES ON CAMERA "n" message will be displayed ("n" being the selected camera view).

If there are no recordings available at a current time specified the JUMP TO TIME function will jump to the nearest available footage. A jump can only be made to a full image and the JUMP TO TIME function will jump to the nearest available full image (key frame).

You must use leading zeros for the time and date where necessary, e.g. 09:45 and 04/07/98.

4. Appendix 2 – X201 Reviewer

Function

The X201 Reviewer is used to program the menu settings on the DVRs and to review recordings on the installed Hard Disk Cartridge.

Connect Data Link Cable (supplied with X201 Reviewer) from socket marked "Reviewer" on the DVR to socket marked "Recorder" on X201. This connection provides power, video and audio from the DVR to X201.

When power (12V ±1.2V) is applied to the DVR and fed to the reviewer via the Data Link Cable the red LED on the bottom panel of the reviewer is illuminated.

The DVR display will be shown on the X201 monitor.

Press the buttons on the X201 to control the DVR.

WARNING: When X201 is connected to the DVR the power supplied to the DVR must be 12V+/-1.2V.

The X201 has 5 picture adjustment pots situated at the bottom of the left-hand side of the reviewer; these should not under most circumstances need adjusting from the factory settings. If however an adjustment is necessary then please ensure that an appropriate plastic trimmer tool is used in a gentle manner.

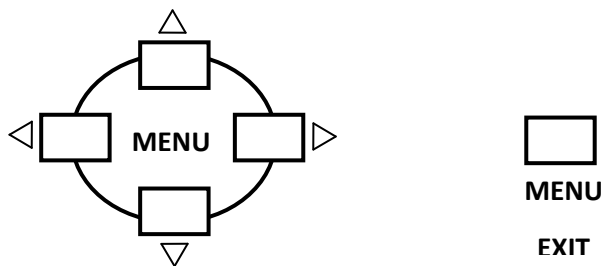These 5 picture adjustment pots are classified as follows.

i)   NTSC Tint (colour balance when using an NTSC feed)

ii)   Colour

iii)   Brightness

iv)   Contrast

v)   Sharpness (image pixel sharpness/smoothness adjustment)
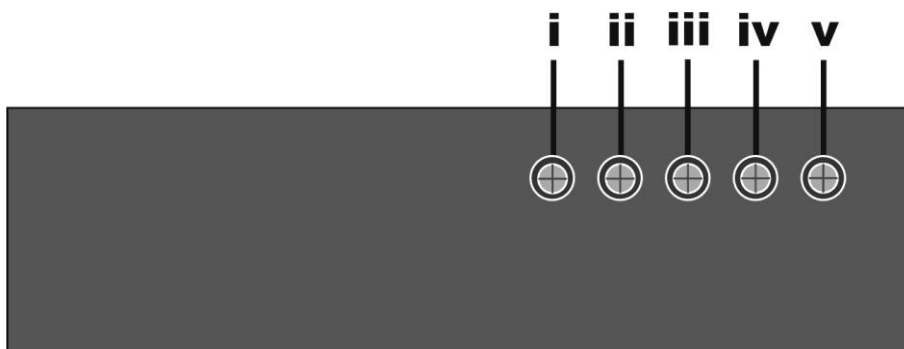
Controls

The keys on the X201 can be grouped into Menu Navigation, Playback & Recording, Camera Switcher and Search & Help.
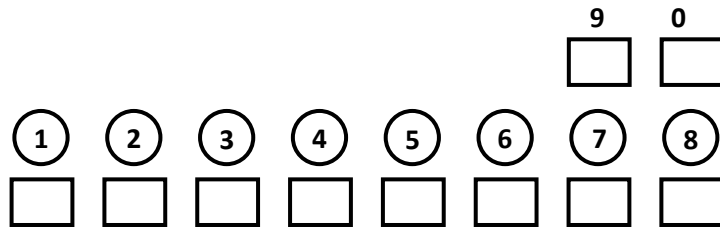
Menu Navigation

Press any of the 4 menu buttons to enter the main menu. Once in the menu system, their function is as follows:
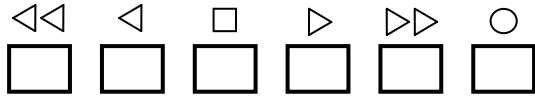
△   Move arrow cursor to the previous item.

▽   Move arrow cursor to the next item.

◁   If the arrow cursor is currently at a menu selection,

            (e.g. **RESOLUTION: > HIGH**),

            pressing the left button will cycle the value backwards,

            (e.g. to **RESOLUTION: > MEDIUM**),

            If the arrow cursor is currently at a menu selection

▷   (e.g. **RESOLUTION: > LOW**),

            pressing the right button will cycle the value forwards,

            (e.g. to **RESOLUTION: > MEDIUM**).

            If the arrow cursor is currently at a sub-menu title

            (e.g. **> OTHER OPTIONS**).

            pressing the right button will enter this sub-menu.

The **MENU EXIT** Key on the X201 reviewer will exit the current menu and move back up 1 level in the menu system when pressed. If already at the top level of the menu pressing this key will exit the menu system completely and return to the video switcher.

Once in the menu system the numbered keys are used for inputting data into fields which require a user entry such as times and dates.

Playback & Recording

◁◁   ◁   □   ▷   ▷▷   ○
☐   ☐   ☐   ☐   ☐   ☐

◁◁   **Rewind** through recorded footage. Repeated presses increase the rewind speed in multiples of 1 second, up to a maximum of 20.

◁   **Reverse-play** through recordings.

□   **Stop** playback. If playback is already stopped, pressing this button again lights the LED above and the unit is in **Jog** mode, allowing image-by-image playback. Whilst in jog mode, the Rewind and Fast Forward buttons will skip to next/previous file.

▷   **Play** recorded footage.

▷▷   **Fast-forward** through recorded footage. Similarly to rewind, repeated presses of the fast forward enable rapid scan.

○   **Record** start or stop. If not currently recording (red LED off), pressing this button will begin recording from the end of the most recent footage. If the unit is currently recording (red LED on), this button will stop recording.

When pressing the control keys above, an **on-screen display** (OSD) will show each action. The OSD times out after 5 seconds. It will also display when switching between files, indicating which mode is being used. Modes displayed are;
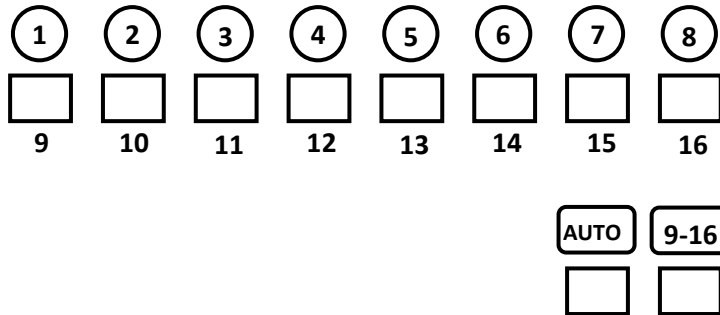
Play – normal play

Replay – play backwards

Stop

Pause

Jog

Rewind

Wind – fast forward

Camera Switcher

①	②	③	④	⑤	⑥	⑦	⑧
☐	☐	☐	☐	☐	☐	☐	☐
9	**10**	**11**	**12**	**13**	**14**	**15**	**16**

AUTO	9-16
☐	☐

1-8   Switch the view to camera 1 to 8. When playing back recorded footage, pressing buttons 1 to 8 changes playback to that camera. If the AUTO LED is lit, buttons 1 to 8 change the live camera being viewed. This camera is held on the main monitor.
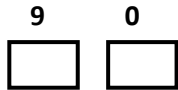
9-16   Press this button before pressing the number buttons 1-8 to access cameras 9-16 on the DVRs with more than 8 cameras.

AUTO   Activate the auto switcher mode. In this mode, the monitor will show a live view and the cameras are cycled as specified in the "Video Switcher" menu. Press the AUTO button again to deactivate the auto switcher mode. If any of the buttons numbered 1-8 (or 9-16) are pressed while in auto switcher mode, the camera switching is stopped, and the selected camera view is held on screen.

Control of the auto switcher does not affect any recording in progress.

Search & Help

SEARCH

```
   9        0
 ┌────┐  ┌────┐
 │    │  │    │
 └────┘  └────┘

        ┌──────┐
        │ 9–16 │
        └──────┘
        ┌──────┐
        │      │
        └──────┘
         HELP
```

HELP   Applies when using any menu. Pressing this button will produce a help screen. Continue pressing any key to cycle through help screens until menu returns.

SEARCH   Go to a specific time and date in the recorded footage. Pressing this button will enter the PLAYBACK SEARCH screen as seen below. If the footage on a given camera cannot be found (it may not have been recorded), a "NO FOOTAGE FOR SELECTED CAMERA" message will be displayed.

PLAYBACK SEARCH

TIME :   **00 : 00**

DATE :   **00 / 00 / 00**

PLAY FROM SET TIME DATE

PLAY OLDEST

PLAY NEWEST

PRESS MENU EXIT TO EXIT MENU

TIME – **Use the number keys to enter a time in 24hr format.**

DATE – **Use the number keys to enter a date in the format DD/MM/YY.**

- **PLAY FROM SET TIME DATE** – Plays the footage beginning from the time and date entered. If there is no footage at the time specified a jump is made to the nearest footage to the time given.

PLAY OLDEST – **Plays the oldest available footage on the Hard Disk Cartridge.**

PLAY NEWEST – **Plays the most recent footage available on the Hard Disk Cartridge.**

Audio

The X201 Reviewer can also be used for audio playback through its built-in speaker. It must be noted that at present playback via the X201 is in mono via channel 1 only.

The audio signal from the DVR is transferred along with the video signal via the reviewer cable to the X201. No other cabling is required.

The speaker is located on the rear panel of the X201 reviewer and a headphone output jack is located on the bottom panel. Volume can be controlled via a trimmer pot located next to the headphone output jack. Very little force and the correct trimmer tool must be used with the volume control to avoid possible damage to the trimmer pot.

NB: Audio playback is available through the X201 when used with an X-Series DVR. Audio playback via the X201 is not currently supported for V-Series DVRs.

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