





Uses: Slow motion HD instant replay

- Hard disk based HD instant replay system in a rugged compact package
- Up to six HDSDI channels of excellent quality JPEG2000 video
- Half rack 1 RU per channel up to six channels total 3D capable
- Fast & intuitive operation 1000 cue points
- New "Variable Mark Backtiming" saves time by reducing cue trimming
- Smooth slow motion based on 60/59.94/50 pictures per second
- Picture motion follows control instantly, even changing direction
- Effortless highlights creation and playback
- Single button cue point recall for instant access to spots, intros, & bumpers
- "Bump In/Out" feature sandwiches replays between bumper clips
- Genlock video reference input for timed outputs and frame accuracy
- Large removable hard disk that stores many hours of material
- Eight embedded and two balanced analog audio channels





PERFECT FOR MOBILE OR FIXED REPLAY & SHORT TERM HD RECORDING



INSTALLATION

- 1. Connect HDSDI IN of each channel (recorder) to a feed from a camera, CCU, Aux bus, or router.
- 2. Connect HDSDI OUT to a video switcher input, distribution system (router, DA's, etc.), and/or monitor.
- 3. Connect HD or SD video reference to REF input. (Optional but may be required by production switcher).
- 4. Optionally connect analog audio inputs and outputs (embedded audio on HDSDI is also supported).
- 5. Connect 5 meter RJ45 cable from PANEL on CH-1 recorder to AUX-E on TBar. (Extension system available.)
- 6. Connect a short RJ45 cable from AUX on TBar to RJ45 connector on Sport-EX panel.
- 7. Connect a short RJ45 cable from each channel's NEXT connector to the next channel's PANEL connector.
- 8. Connect the 12VDC, 3A (minimum) power supply to the power input of each recorder and apply mains power.
- 9. Wait 30 seconds for boot, then press SETUP, F1, and enter the number of installed channels on the keypad.
- 10. Press SETUP, REC, UP and DOWN arrows, and set INPUT VIDEO SEL and TV STANDARD SEL as required.
- 11. Double-tap the STOP key to check input video. The REC LED flashes and input video is sent to the outputs.

OPERATION

- 1. To select *a* channel for control, press its F-key (F1 for CH-1, etc.). Double-tap the F-key to select *all* channels. Hold the F-key and tap others to select *some* channels. The red LED lights above channels selected for control, the green LED lights above the *status* channel (the channel shown on the STATUS display).
- 2. Press REC to start recording. A cue point (clip) is automatically created. All channels are automatically selected and begin recording. Always records on free disk space and will not record over existing material.
- 3. To stop recording, press any transport type key like STOP, or CUE, or *reverse scan* (◀◀). If a cue point had been marked, the CUE key will cue playback to that location, otherwise it will cue to the beginning of the recording. The *reverse scan* (◀◀) key scans back at six times normal speed and enters jog when released.
- 4. Press PLAY to playback at normal speed or press F7, F8, or F9 for slow motion at ¼, ½, or ¾ normal. At still, turn the knob to jog, move the TBar down, then up to play at slow motion, all the way up for normal speed playback. Move the TBar back down to still and turn the knob for jog, no button pushes are needed. NOTE: SLOW button LEDs blink when the TBar is not at the current playback speed (speed changed by keystrokes like CUE). To control speed again, move the TBar up if blinking green, or down if blinking red.
- 5. To play in reverse at the current speed, hold SLOW while in play or slo-mo. To change playback direction smoothly, move the TBar down to still, hold or release the SLOW button, then move the TBar back up to the desired speed. Repeat this process as needed to show a segment multiple times in alternating directions.
- 6. To shuttle quickly through material, press the SHTL key and use the TBar. Near the middle is still, and the knob will jog. The FAST JOG key selects fast jog mode which operates like jog but moves faster. Scan keys (◀ ◀ & ▶▶) shuttle at six times play speed when held, still when released. Both pressed together enter clip scan mode. As the TBar is moved, playback continually cues to the point proportional to the TBar position. Any transport function ends the clip scan mode (turn the knob to jog or hit PLAY to play).
- 7. During recording or playback, press MARK to create a new cue point. Hold MARK to backtime the cue point by how long you hold it just think "how long ago did the action start?", and hold it for that long.
- 8. Press CUE to cue playback to the location that MARK was hit, or press PREROLL to cue 2 seconds earlier.
- 9. To select any cue point, BUT NOT cue playback, enter the cue number on the keypad and press ENTER. To select any cue point, AND instantly cue playback, enter the cue number on the keypad and press CUE. The current cue point and its duration is shown on the MENU display. To view its timecode, hold OUT.
- 10. Hold ENTER and hit F2-F6* to store a *quick cue*. Anytime a *quick cue* key is hit, playback is cued to the stored point. (* F-keys that are used for channel selection are not available for other features like *quick cue*).
- 11. To change the current cue's *out* point (end), hold the OUT key and press MARK. Normal or *slo-mo* playback will pause exactly at the *out* point. To resume playback, press PLAY or a *slo-mo* key. Playback will again stop at the end of the recording. To cue to the *out* point, hold OUT and press CUE. Hold OUT and press PREROLL to cue 2 seconds before the *out* point.
- 12. To change the *in* point (beginning) of an existing cue, hold ENTER and press MARK (or hold IN & hit MARK).
- 13. To play one of ten playlists (sequences of cue points played back to back), press PLAYLIST, (0-9), CUE, then PLAY. The RIGHT arrow steps early to the next playlist step. Playback speed can be changed with the TBar.
- 14. Hold ENTER (or 0-9) and press PLAYLIST to add the current cue point to the end of a playlist.

 To edit a playlist, press SETUP, (0-9), PLAYLIST. Playlist steps (cue points or pauses) can be viewed, changed, added, or deleted. Icons on the MENU display help identify key functions. Press HOME when done.
- 15. The STATUS display shows the time remaining before the *out* point. Playback speed is taken into account so the time shown is the actual time it will take to finish playing and is adjusted on the fly as speed changes. During playlist playback, the time remaining in the entire playlist is shown, or until the next pause (STL) if any.