

IP Control Buddy EB-44 LCDKEY Panel

Controls Blackmagic Design HyperDeck

Goal: Configure Button 1 to control and status PLAY mode
 Configure Button 2 to control and status STOP mode
 Configure Button 3 to control and status RECORD mode

- Configure the EB-44 to communication with HyperDeck
 Click on the Remote Device Assignment web page.
 Enter the information shown for Device #1. Use the IP Address of your HyperDeck.

REMOTE DEVICE LIST									
Device #	Remote Device Label	Device Type	Primary /Backup Pair	Connection Type	Connection Mode	UDP Attempts	IP Address	Port Number	Heartbeat Rate (seconds)
1	Black Magic	Other		TCP/IP	Client Transmit/Receive		192.168.10.203	9993	
2	Remote Device 2	USP					0.0.0.0	161	5
3	Remote Device 3	USP					0.0.0.0	161	5
4	Remote Device 4	USP					0.0.0.0	161	5
5	Remote Device 5	USP					0.0.0.0	161	5
6	Remote Device 6	USP					0.0.0.0	161	5
7	Remote Device 7	USP					0.0.0.0	161	5
8	Remote Device 8	USP					0.0.0.0	161	5

- Create the commands that will be sent to HyperDeck
 Click on the AHSC TX Actions web page.
 Add the line entries 1 – 4 shown below.

AHSC TRANSMIT ACTIONS		
Line#	Action Label	ASCII/HEX Command
1	Play command	play %0A
2	Stop command	stop %0A
3	Record command	record %0A
4	Transport Status Request	transport %20 info %0A
5	AHSC Transmit 5	
6	AHSC Transmit 6	
7	AHSC Transmit 7	

The %0A represents the Line Feed hexadecimal value, 10.

All spaces in the command are ignored when the command is transmitted. Use %20 when a space character must be transmitted.

The Transport Status Request command will be used to continuously request transport status from HyperDeck.

3. Create the responses that the EB-44 will listen for from HyperDeck

Click on the AHSC RX Events web page.

Enter lines 1 – 4 below.

AHSC RECEIVE EVENTS		
Line#	Event Label	
1	Play Status	status: %20 play
2	Stop Status	status: %20 stop
3	Record Status	status: %20 record
4	Preview Status	status: %20 preview
5	AHSC Receive 5	
6	AHSC Receive 6	

The Preview Status is returned by HyperDeck when record is stopped.

4. Create useful tallies from HyperDeck's status responses.

Click on the GPO web page.

GPO CONFIGURATION						
GPO#	GPO Label	User Defined ON State	Operating Mode	Momentary On Time (*10ms)	Group	Currently
1	GPO_1	Relay Closed ▼	Latch ▼	■	RG1 ▼	OFF
2	GPO_2	Relay Closed ▼	Latch ▼	■	RG1 ▼	OFF
3	GPO_3	Relay Closed ▼	Latch ▼	■	RG1 ▼	OFF
4	GPO_4	Relay Closed ▼	Latch ▼	■	RG1 ▼	OFF

Enter lines 1 – 3 as shown below.

The GPO's Radio Group function will be used to convert the HyperDeck status responses into useful tallies. This will be explained shortly.

- Assign key presses to transmit commands to HyperDeck
Click on the Event Action Table web page.
Enter lines 1 and 3 – 9.

EVENT IN -> ACTION OUT TABLE									
Line#	EVENT IN			ON ACTION			OFF ACTION		
	Source	Event Type	Event	Local/ Remote Device	Type	Action Label	Local/ Remote Device	Type	Action Label
1	Local	Cont. Timer-1	1 sec	Black Magic	AHSC Transmit	Transport Status Request			
2	None								
3	Local	Key Press	1	Black Magic	AHSC Transmit	Play command	Local	Do Nothing	
4	Local	Key Press	2	Black Magic	AHSC Transmit	Stop command	Local	Do Nothing	
5	Local	Key Press	3	Black Magic	AHSC Transmit	Record command	Local	Do Nothing	
6	Black Magic	AHSC Receive	Play Status	Local	GPO ON	GPO_1	Local	Do Nothing	
7	Black Magic	AHSC Receive	Stop Status	Local	GPO ON	GPO_2	Local	Do Nothing	
8	Black Magic	AHSC Receive	Record Status	Local	GPO ON	GPO_3	Local	Do Nothing	
9	Black Magic	AHSC Receive	Preview Status	Local	GPO ON	GPO_2	Local	Do Nothing	
10	None								
11	None								

Line #1 will cause the EB-44 to send the Transport Status Request command once every second.

Lines 3, 4, & 5 assign an action to the key press. We don't care about the key release.

Lines 6, 7, 8, & 9 are used for tallying the HyperDeck's current transport state.

When HyperDeck returns Play status, GPO 1 will turn on and all other members of its Radio Group will turn off.

When HyperDeck returns Stop or Preview status, GPO 2 will turn on and all other members of its Radio Group will turn off.

When HyperDeck returns Record status, GPO 3 will turn on and all other members of its Radio Group will turn off.

So, only one GPO will be on at a time and can be used by the Tally Assignment web page to display HyperDeck's transport status.

6. Create the text and colors that will be displayed on the LCD keys.

Click on the Tally Assignment web page.

Enter the configuration shown below for keys 1, 2, & 3

TALLY ASSIGNMENTS									
Key #	Current State	Tally Source	Tally Type	Number	Tally	Tally Color	Text	Font Size	
1	OFF: 0	Local	Follow GPO	1	OFF:	Green	PLAY	Normal	GPO 1
					ON:	Red	PLAY	Normal	
2	OFF: 0	Local	Follow GPO	2	OFF:	Green	STOP	Normal	
					ON:	Red	STOP	Normal	
3	OFF: 0	Local	Follow GPO	3	OFF:	Green	REC	Normal	
					ON:	Red	REC	Normal	
4	OFF: 0	None			OFF:	Dark		Normal	

7. Test the EB-44

The EB-44's LCD keys will flash red until the EB-44 can communicate with HyperDeck. On the Remote Device Assignment web page, in the far right "Status" column, "Connected" in green will be shown when EB-44 successfully communicates with HyperDeck.

Press Play, Stop, and Record keys on HyperDeck. The EB-44 Play key will turn red when HyperDeck is in Play. The EB-44 Stop and Record keys will turn red when HyperDeck is in Stop and Record, respectively.

Put HyperDeck into REMOTE.

Press the EB-44's Play, Stop, and Record keys to control HyperDeck's transport.