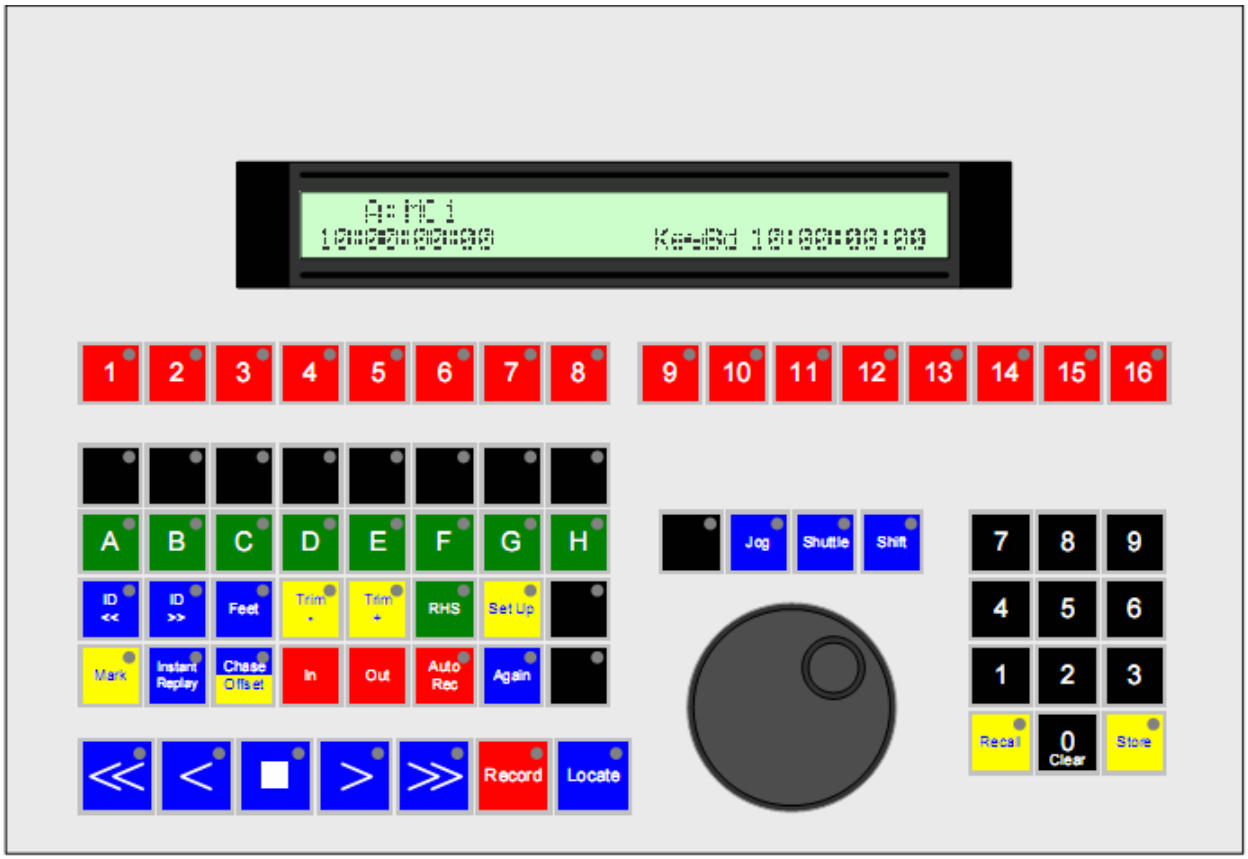
Euphonix
Machine Control Systems

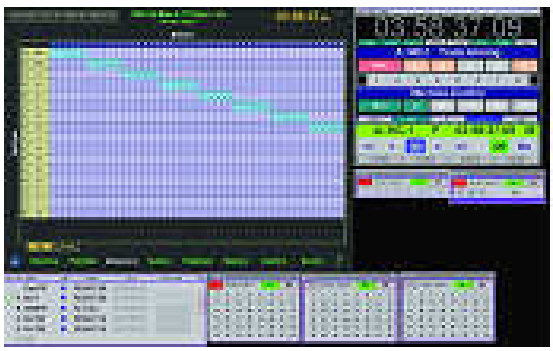
The TT002 interface from Euphonix provides the console with a single RS422 interface. CB Electronics have designed four different systems for use where it in necessary to control more than one machine. These systems may also be used to link consoles in very large systems.

The four basic systems are as follows.

- 4 port system: SR-4 with custom control surface built into console with optional Windows/Mac/linux GUI.
- 5 port system: RM-6HD rack unit with CBServer Windows/Mac/Linux GUI.
- 6 port system: SR-6 with custom remote panel built into console with optional CBServer Windows/Mac/Linux GUI.
- 8 port system: Custom Remote Panel in console, RM-6HD in machine room with optional CBServer Windows/Mac/Linux GUI.

Euphonix Custom Remote Panel

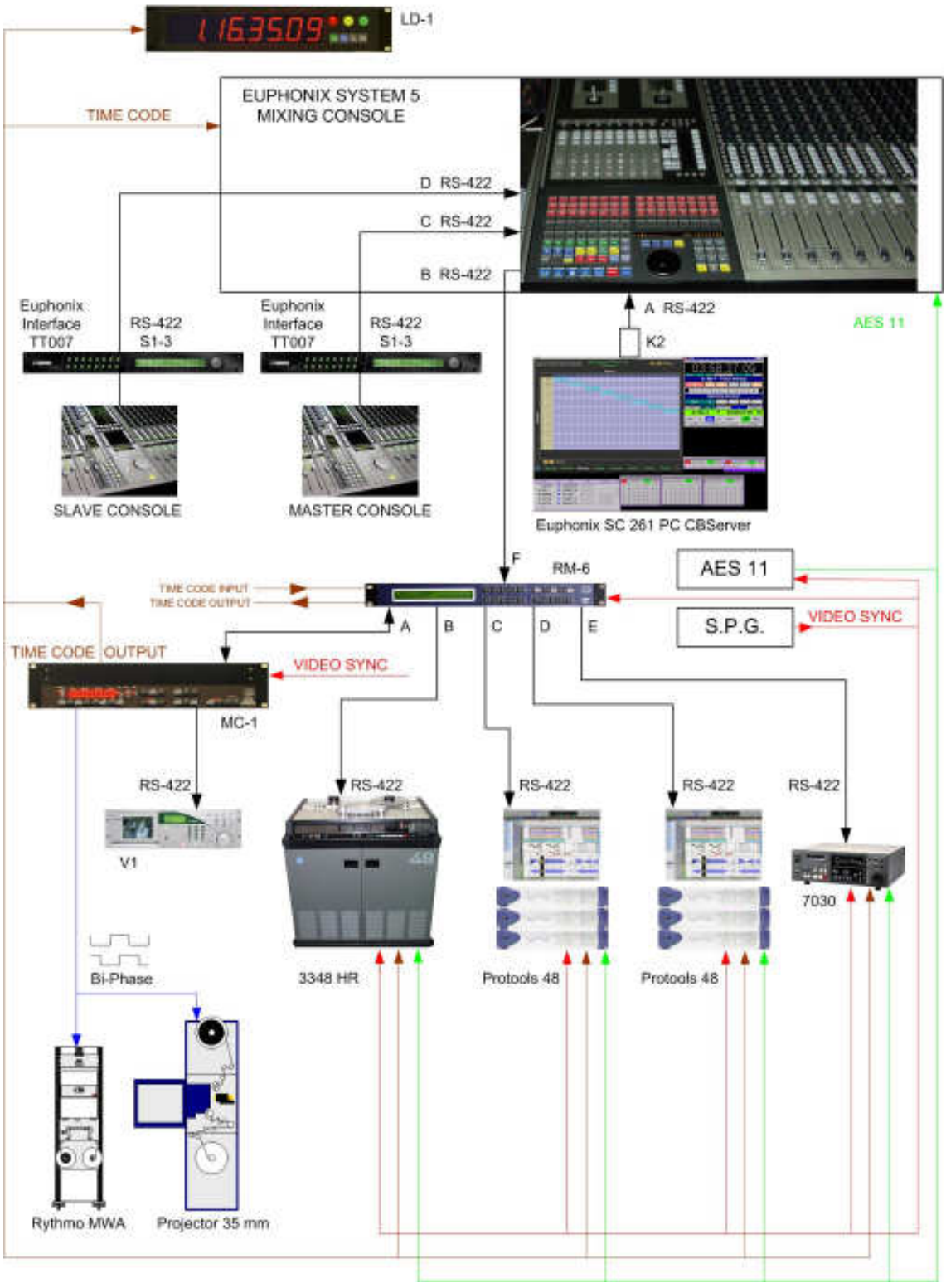




This screen shot shows CBServer installed on the monitor routing screen of a Euphonix Console. CBServer consists of sizable windows allowing it to be placed around the Euphonix window.

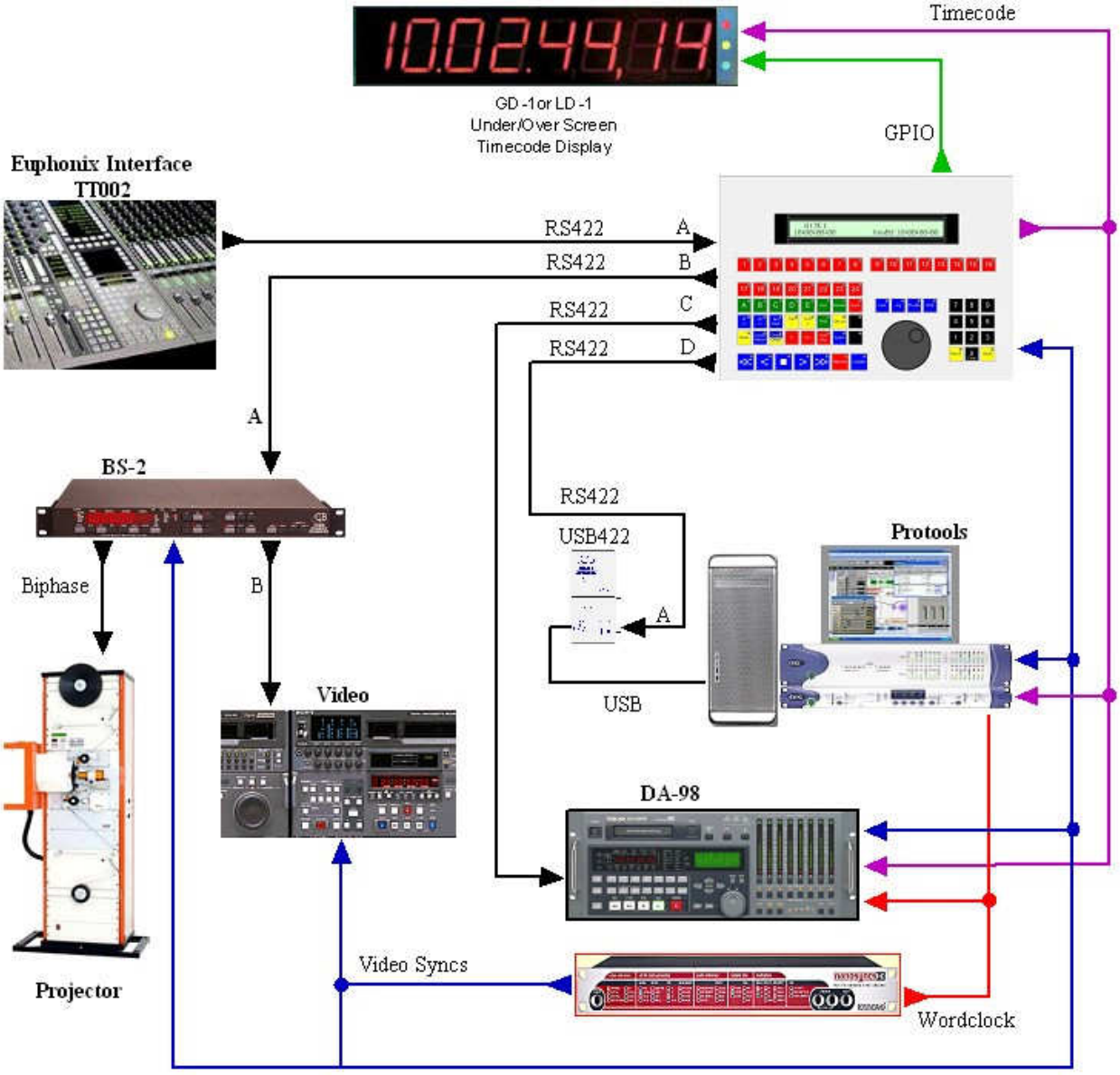
The Block diagram below is of an 8 port system installed in the main studio at Digital Factory, France. This system was supplied for the original TT007 interface and includes a custom 48 track panel. The CB system is used to link the two Euphonix machine control sections within the console. CBServer runs in the Euphonix monitor router screen.

EUPHONIX WITH CUSTOM REMOTE DIGITAL FACTORY



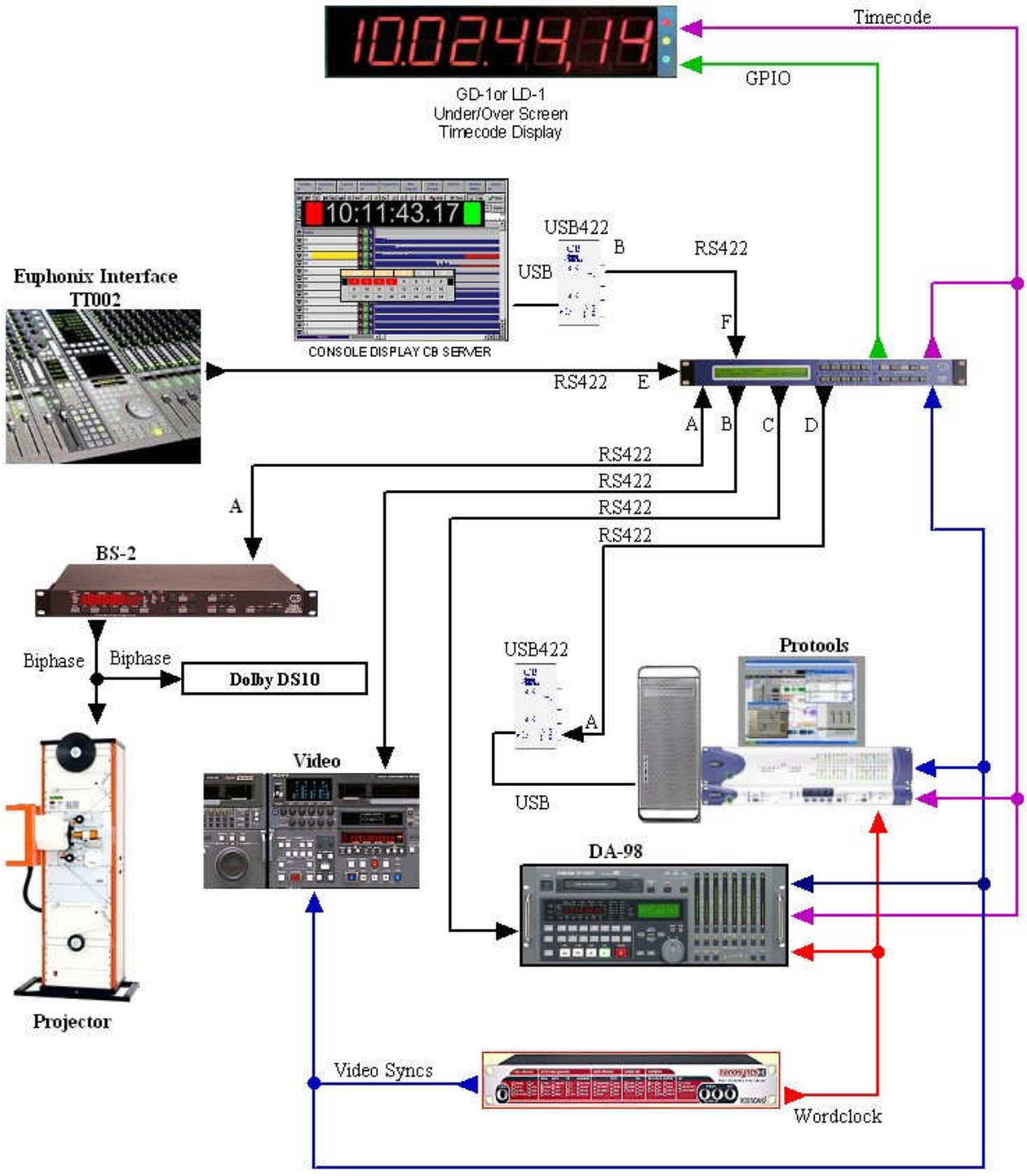
The 4 port System

A SR-4 with custom remote panel is built into the console. Serial, Timecode, Video and GPIO are connected to the remote in the console. Port A is connected to the TT002 interface using a standard 9 pin cable. Ports B, C & D are available for machine control. The GP Outputs are used to drive the Record and Lock indicators in the Giant Display.



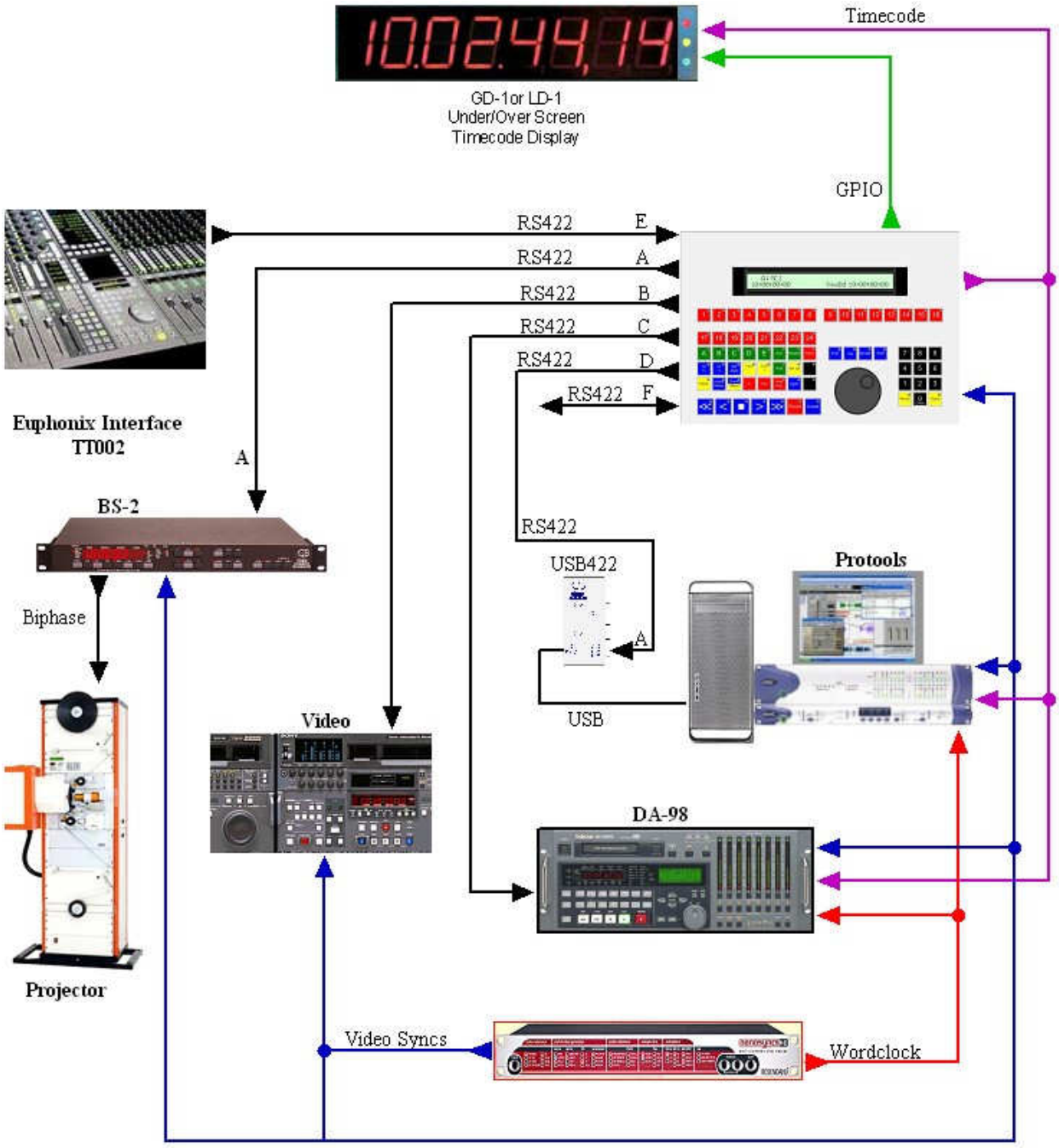
Five Port System

The five port system uses a rack mounted RM-6; the system may be setup from the RM-6 front panel. CB Server software may also be used to setup and control the system.



Six Port System

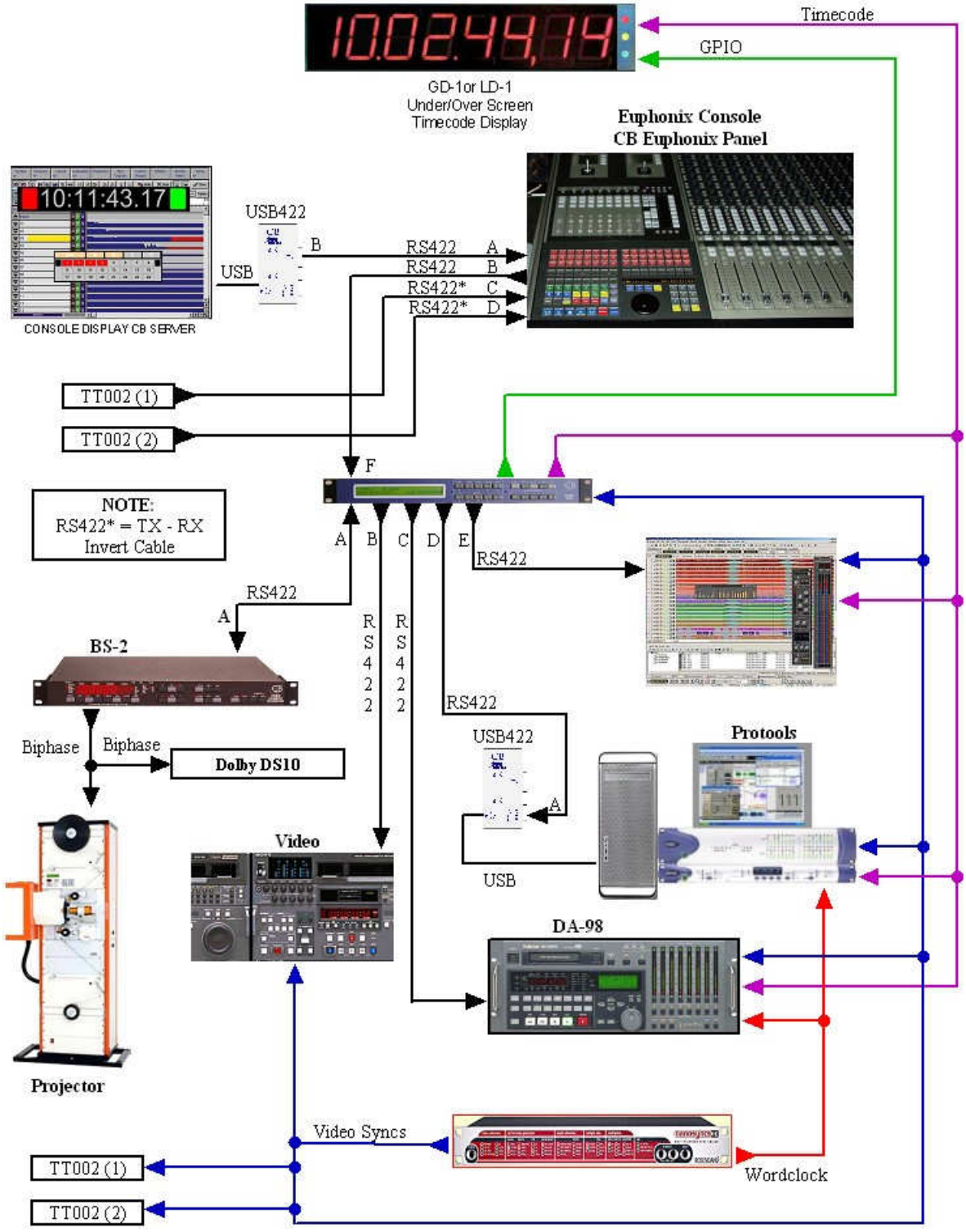
A SR-6 with custom remote panel is built into the console. Serial, Timecode, Video and GPIO are connected to the remote in the console. If CBServer software is used then Port F is connected to CBServer and Port E to the TT002 interface, If CB Server is not used then port F should be connected the the TT002 and Port E may be used as a Machine control output. Ports A, B, C & D are available for machine control. The GP Outputs are used to drive the Record and Lock indicators in the Giant Display.



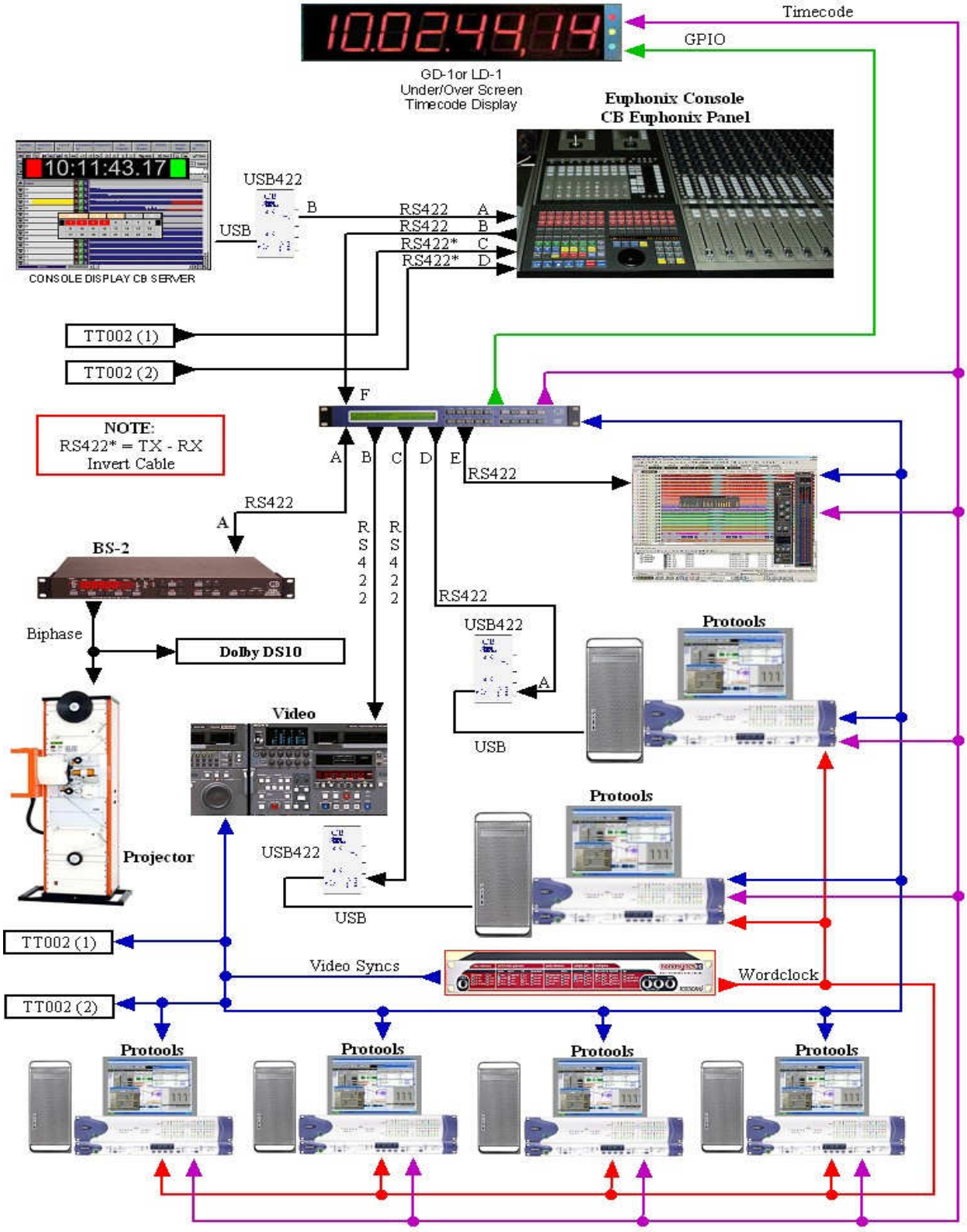
Eight Port System

The desk Remote Control expands the number of ports available; in this diagram 3 input ports and 5 output ports. One input port is used to interface with the Euphonix console via the TT002. A second input port is used to interface with CBServer software; the third input is free and may be used to connect with a DAW or on large systems to link with a second console.

The expansion unit may also be supplied in a rack mount box without the remote.



8 port System for Dual Euphonix Consoles



Using a RJ45 or D9 patch bay to connect machines will make more ports available. Extra Protools playback machines may be connected using timecode chase.

Appendix A - Connections

Euphonics-4:

Input Port: Serial A, pin connections determined by links on PCB behind port A
Output ports: B, C D if used as Input must use tx-rx invert cable

Euphonix -5 (RM-6):

Input Port: Serial F – Connect to CBServer
Input/Output Port: Serial E - Connect to TT002, pin connections determined by links on PCB behind port E.
Output ports: A,B,C,D,E Connect with 1:1 cable to machines (if used as Input must use tx-rx invert cable)

Euphonix 8

Remote control

Input A: pin connections determined by links on PCB behind port A
Output B: connect with 1:1 cable to port F on RM-6
Input C: connect using Tx-Rx Invert cable
Input D: connect using Tx-Rx Invert cable

RM-6

Input F: connect to port B on Remote
Input/Output Port: Serial E, pin connections determined by links on PCB behind port E.
Output ports: A,B,C,D,E Connect with 1:1 cable to machines (if used as Input must use tx-rx invert cable)

Euphonix 8 Dual Console

Remote control

Input A: pin connections determined by links on PCB behind port A
Output B: connect with 1:1 cable to port F on RM-6
Input C: connect using Tx-Rx Invert cable to TT002-1
Input D: connect using Tx-Rx Invert cable to TT002-2

RM-6

Input F: connect to port B on Remote
Input/Output Port: Serial E, pin connections determined by links on PCB behind port E.
Output ports: A,B,C,D,E Connect with 1:1 Cable to machines (if used as Input must use tx-rx invert cable)

Appendix B – Cables

T5.03 RS422 (Sony 9 pin) CABLE Use on SR-4/SR-24 Ports A, B, C, D as outputs SR-24 ports E & F as inputs			
Function SR-4 (Controller)	9 pin 'D' Male on cable (Both Ends)	Cable Colour	Function (Controlled Device)
	1		
Rx-	2	Red	Tx-
Tx+	3	Yellow	Rx+
Ground	4	Screen	Ground
	5		
	6		
Rx+	7	Blue	Tx+
Tx-	8	White	Rx-
	9		

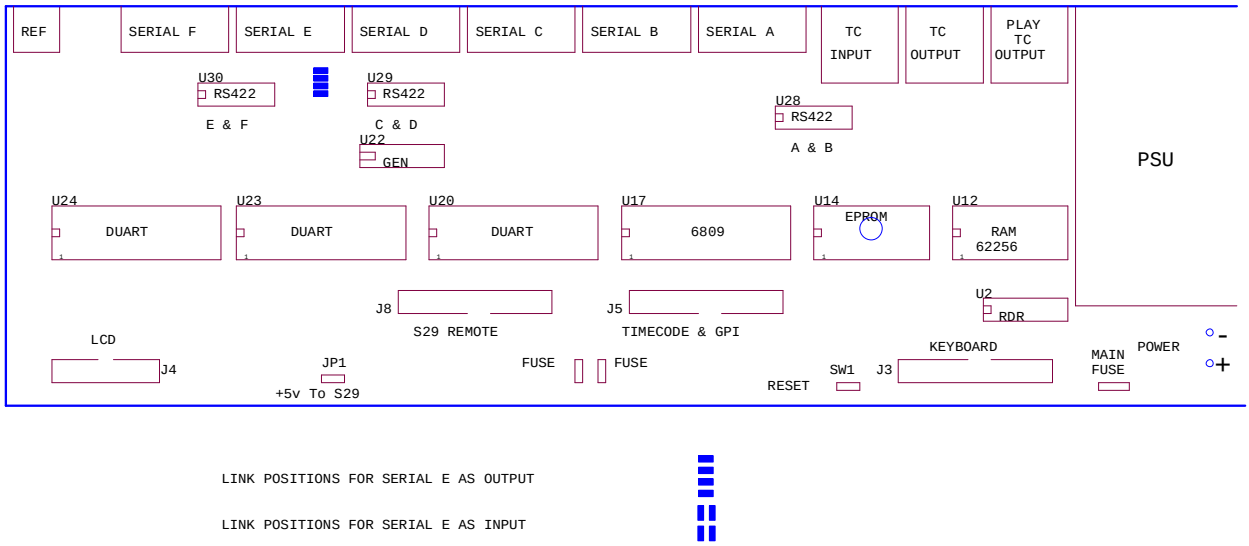
T5.04 Tx-Rx Invert Sony 9 pin CABLE Use On SR-24 port E when connected as an output to a machine,			
Function SR-24 port E	9 pin 'D' Male on Cable	9 pin 'D' Male on cable	Cable Colour
	1	1	
Tx-	2	8	Red
Rx+	3	7	Yellow
Ground	4	4	Screen
	5	5	
	6	6	
Tx+	7	3	Blue
Rx-	8	2	White
	9	9	

Appenix C – Port E configuration

To Configure port E as an input when using the RM-6 only
Setup – Root – Unit – Generic – Store - Menu 32 Input ports
Select 1=E,F

To Exit
Setup - Setup

Appendix D – Port E Connections



Appendix E - How To Open RM-6

To Open the RM-6 for access, Remove the Top front and back screws on one side, Losen the bottom screws on the same side, rotate the side outwards by approx 20 degrees. Remove the screw in the centre of the Lid and lift off the top panel.

Note: when replacing self tapping screws rotate anti-clockwise until a click is felt, then clockwise. In this way the screw uses the same thread.

Appendix F – Software setup for use with the TT002/TT003

Setup/Root/Ext/Menu 97 Remote FWD/RWD Cmds to Video Mcn
Set as required
Setup/Root/Ext/Menu 99 External Machine ID
Set to 1=REC
Setup/Root/Ext/Menu 102 External Track Arming A
Select the record machine for the paddles if Euphonix connected to port A(E)
Setup/Root/Ext/Menu 103 External Track Arming C,D
Select the record machine for the paddles if Euphonix connected to port C or D

CB Electronics
Loddonside, Lands End House, Beggars Hill Road, Charvil, Berkshire, RG10 0UD, UK
Tel +44 (0) 1189 320345 Fax +44 (0) 1189 320346
http://www.colinbroad.com E-mail Support@colinbroad.com