

FILM-TECH

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DTS Technical Update

DTS-6 and DTS-6D to Dolby CP650

D715 Logic Interface Board

• DTS D715 operation with DTS-6D (3-drives) and Dolby CP650

Connect D715-J18 to the CP650 "AUTOMATION" connector. A 25-pin cable connects the DTS-6D AUTOMATION to D715 on J1. If using the CP650 remote fader, use the DTS E322 extender to lift D715 away from the rear panel and give clearance to the remote fader connector.

D715 board: W5 and J2 are used only for DTS-6 applications and J6 is a pass-through connection for automation.

When the DTS-6D switches into digital, it sends a format pulse to the CP650 "AUTOMATION" connector on pin 5 (Format 11 "external 6-channel analog" = DTS) which engages button "11" on the front panel.

When the DTS-6D drops out of digital, it will send 1 of 4 (fallback) pulses to the CP650. The D715 logic board has jumpers that "steer" each default pulse to one of several CP650 format keys.

The MONO, A-TYPE ("A"), and SR pulses are sent by the DTS-6D. They are programmed on the DTS movie disc(s) and are used to return the CP650 back to the optical format the movie was recorded in. The NONSYNC ("NS") pulse (from the DTS-6D) will be sent if DTS timecode is lost during the last 60 seconds of the last reel.

SETTING FORMAT JUMPERS

MONO jumper	- place jumper horizontally across SK1 ('01' button)
NS jumper	- place jumper between center pin and SK7 ("NS" button)
SR jumper	- place jumper between center pin and SK3 ("05" button)
"A" jumper	- place jumper between center pin and SK2 ("04" button)

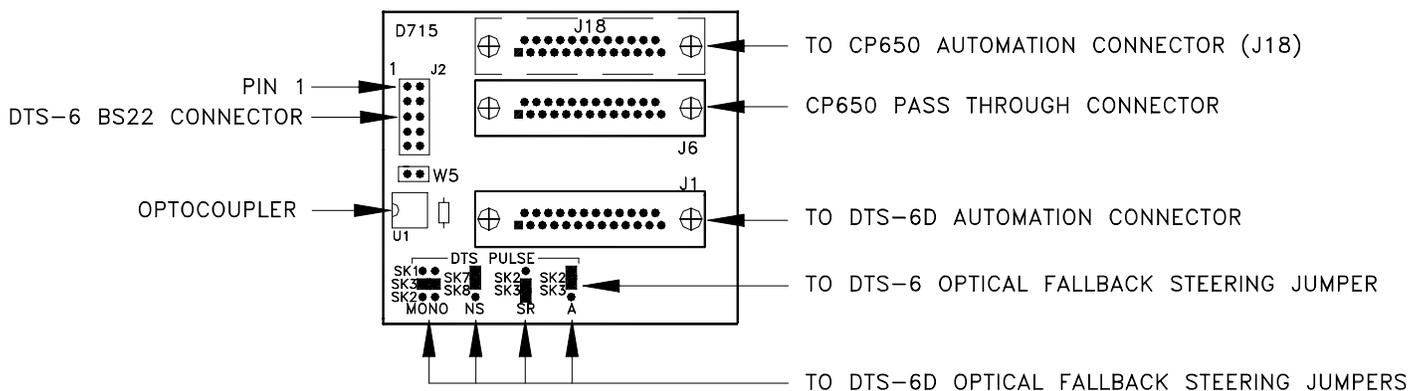
• DTS D715 operation with DTS-6 (2-drives) and Dolby CP650

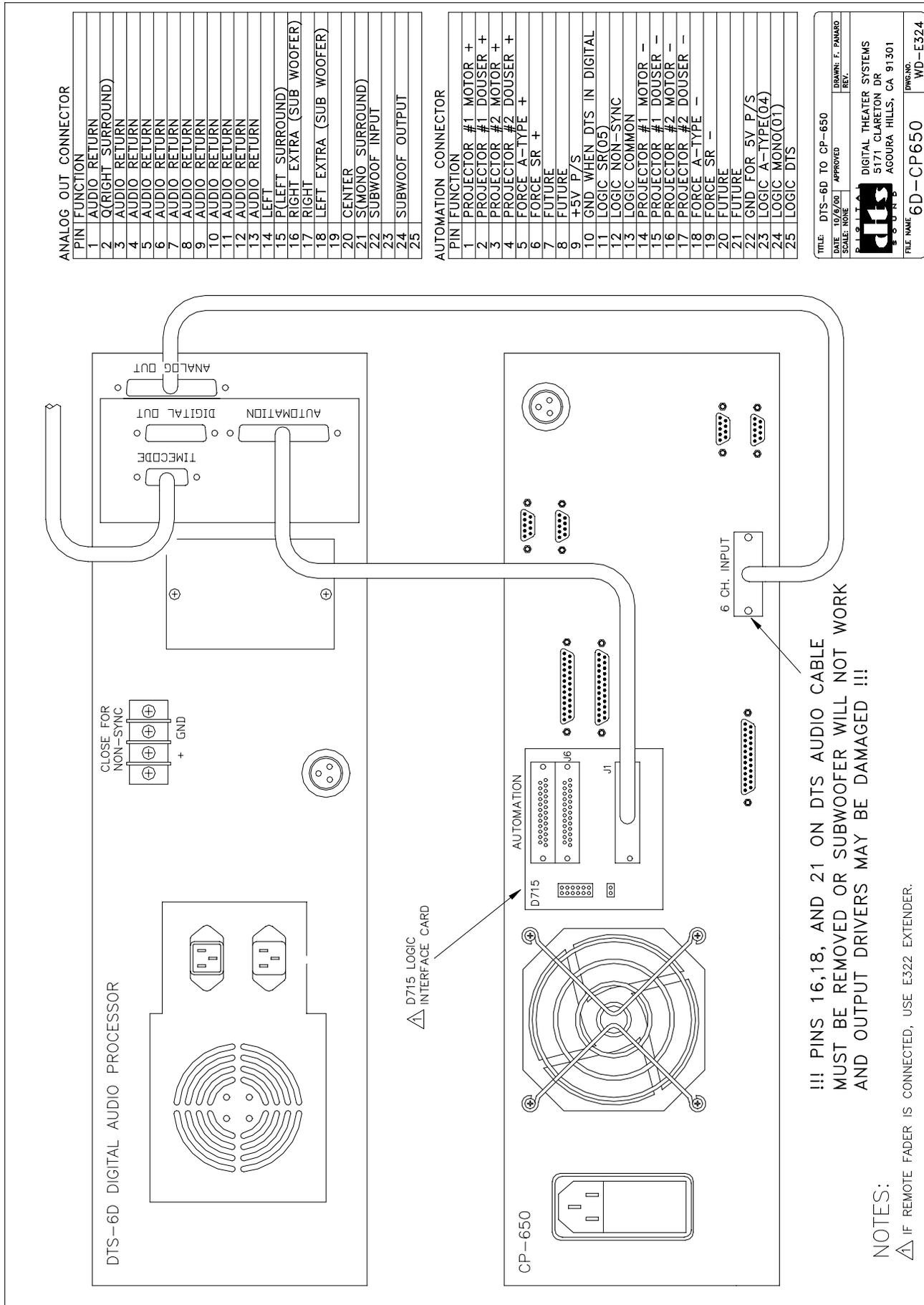
Connect D715-J18 to the CP650 "AUTOMATION" connector. The DTS-6 "BS22" 10-pin connector (on the 50-pin cable) connects the DTS-6 logic to D715 on J2. Note pin 1 for proper orientation. If using the CP650 remote fader, use the DTS E322 extender to lift D715 away from the rear panel and give clearance to the remote fader connector.

D715 board: J1 is normally used only for DTS-6D applications and J6 is a pass-through connection for automation.

When the DTS-6 switches into digital, it sends a format pulse to the CP650 "AUTOMATION" connector on pin 5 (Format 11 "external 6-channel analog" = DTS) which engages button "11" on the front panel.

W5 must be installed for "fallback" operation (use jumper from "SR" or "NS" header) with the DTS-6. When W5 is installed and the DTS-6 drops out of digital, a single "fallback" pulse will be sent to the CP650. The D715 board's "A" 3-pin header "steers" the pulse to either SK2 (A-TYPE = "04" button) or SK3 (SR = "05" button). The user must select which format is desired and selection is made with a jumper from the center pin to the optical sound format the movie was recorded in. In most cases, that will be SR.





ANALOG OUT CONNECTOR

PIN	FUNCTION
1	AUDIO RETURN
2	O(RIGHT SURROUND)
3	AUDIO RETURN
4	AUDIO RETURN
5	AUDIO RETURN
6	AUDIO RETURN
7	AUDIO RETURN
8	AUDIO RETURN
9	AUDIO RETURN
10	AUDIO RETURN
11	AUDIO RETURN
12	AUDIO RETURN
13	AUDIO RETURN
14	LEFT
15	P(LEFT SURROUND)
16	RIGHT EXTRA (SUB WOOFER)
17	RIGHT
18	LEFT EXTRA (SUB WOOFER)
19	
20	CENTER
21	S(MONO SURROUND)
22	SUBWOOF INPUT
23	
24	SUBWOOF OUTPUT
25	

AUTOMATION CONNECTOR

PIN	FUNCTION
1	PROJECTOR #1 MOTOR +
2	PROJECTOR #1 DOUSER +
3	PROJECTOR #2 MOTOR +
4	PROJECTOR #2 DOUSER +
5	FORCE A-TYPE +
6	FORCE SR +
7	FUTURE
8	FUTURE
9	+5V P/S
10	GND WHEN DTS IN DIGITAL
11	LOGIC SR(05)
12	LOGIC NON-SYNC
13	LOGIC COMMON
14	PROJECTOR #1 MOTOR -
15	PROJECTOR #1 DOUSER -
16	PROJECTOR #2 MOTOR -
17	PROJECTOR #2 DOUSER -
18	FORCE A-TYPE -
19	FORCE SR -
20	FUTURE
21	FUTURE
22	GND FOR 5V P/S
23	LOGIC A-TYPE(04)
24	LOGIC MONO(01)
25	LOGIC DTS

!! PINS 16,18, AND 21 ON DTS AUDIO CABLE MUST BE REMOVED OR SUBWOOFER WILL NOT WORK AND OUTPUT DRIVERS MAY BE DAMAGED !!

NOTES:

△ IF REMOTE FADER IS CONNECTED, USE E322 EXTENDER.

TITLE: DTS-6D TO CP-650
 DATE: 10/9/00 APPROVED: DRAWN: F. PANARO
 SCALE: NONE REV:
 DIGITAL THEATER SYSTEMS
 5171 CLARETON DR
 AGOURA HILLS, CA 91301
 FILE NAME: 6D-CP650 DWG NO: WD-E324

DTS-6 DIGITAL AUDIO PROCESSOR

JM11 INPUT, JM21 OUTPUT PINOUTS	
PIN	FUNCTION
1	AUDIO RETURN
2	Q(RIGHT SURROUND)
3	
4	
5	
6	
7	
8	
9	
10	
11	LEFT
12	P(LEFT SURROUND)
13	RIGHT EXTRA
14	RIGHT
15	LEFT EXTRA(DTS SUB-WOOF)
16	
17	CENTER
18	S(MONO SURROUND)
19	
20	

STEREO OUTPUT CABLE		
PIN	FUNCTION	COLOR
1	RIGHT CHANNEL -	BLACK
2	LEFT CHANNEL -	WHITE
3	GROUND	RED
4	SUBWOOF -	GREEN
5	SUBWOOF +	ORANGE
6	+5V @ 2 AMP	BLUE
7	CHANGEVR WIPER WHT/BLK	
8	GROUND	RED/BLK
9	RIGHT CHANNEL +	GRN/BLK
10	LEFT CHANNEL +	ORG/BLK
11	SUBWOOF +	BLU/BLK
12	DTS(S/W ENABLE)	BLK/WHT
13	CHANGEVR N.C.	RED/WHT
14	CHANGEVR N.C.	GRN/WHT
15	CHANGEVR N.O.	BLUE/WHT

NOTE: REMOVE DTS TOP COVER TO SET BOARD SWITCHES.

S1, SWITCH-ON PLAYBACK CARD.		
POSITION	OFF (OPEN)	ON (CLOSED)
1	SUBWOOF OUT D436 CABLE STEREO	SUBWOOF OUT D436 CABLE STEREO ONLY
2	P1 & QD RELAYS PULSE IN STRACK & STEREO	P1 & QD RELAYS PULSE IN STRACK ONLY

PROCESSOR	
S1-1	S1-2
ALL	OFF(OPEN) ON(CLOSED)

S1-ON TRANSFORMER CARD ALL UP ALL DOWN

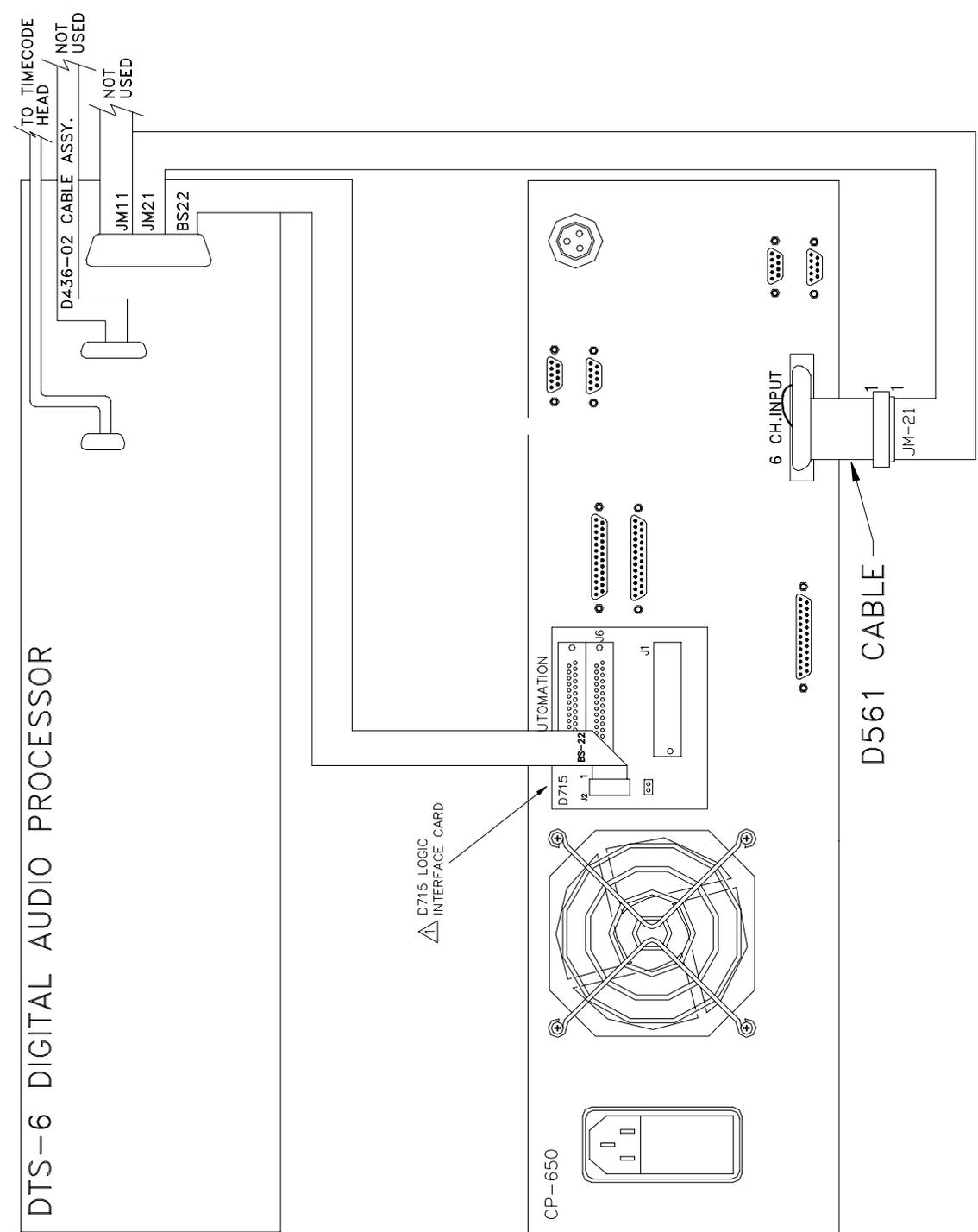
SPLIT SURROUNDS MONO SURROUNDS

TITLE: DTS-6 TO CP-650 CABLING	
DATE: 7/28/01	APPROVED:
SCALE: NONE	DRAWN: F. PANARD



DIGITAL THEATER SYSTEMS
5171 CLARETON DR.
AGOURA HILLS, CA 91301

FILE NAME: WDE354 (6-CP650) DWG.NO.



NOTES

△ IF REMOTE FADER IS CONNECTED, USE E322 EXTENDER.