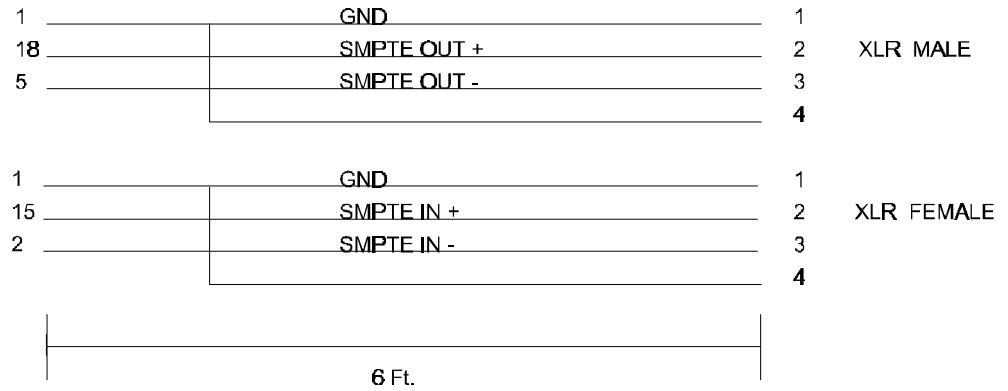
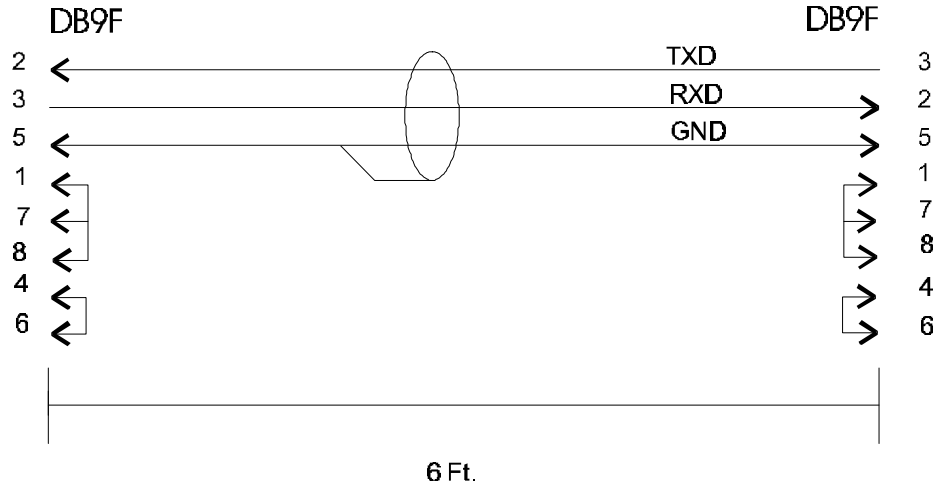


## Appendix A — Cable Diagrams

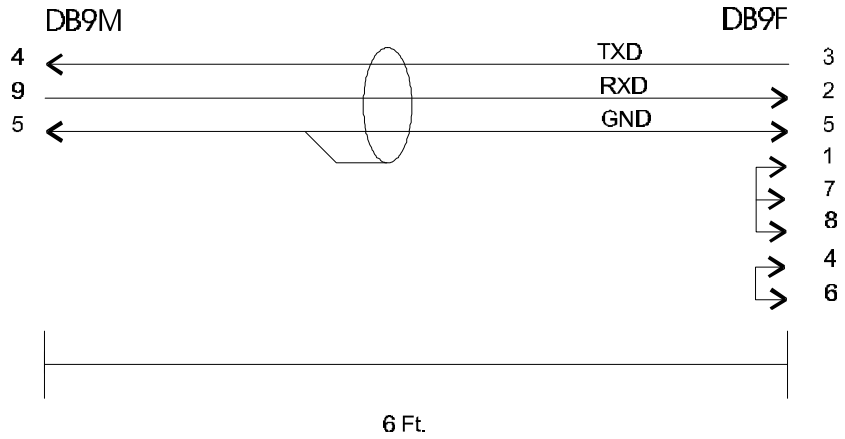
### Cable C1600 — SMPTE Time Code Cable DB25M



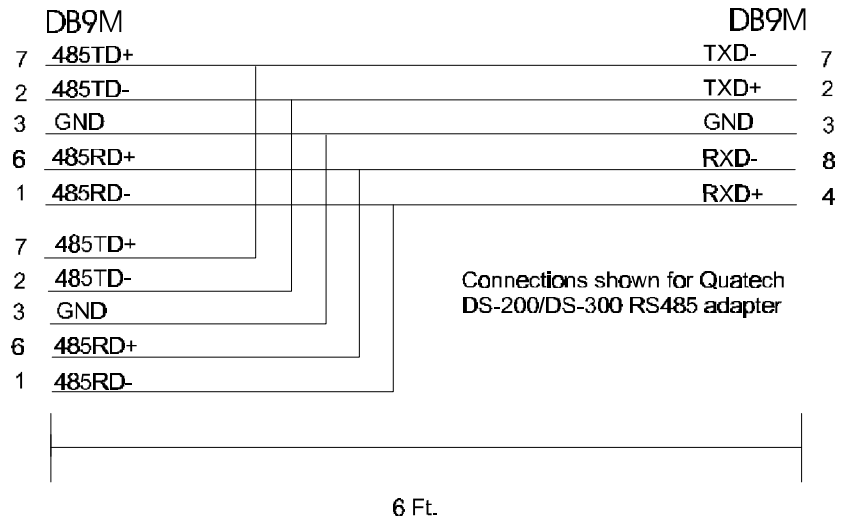
### Cable C1700 — Ancillary Data And RS232 Cable



Cable C1800 — Rear Panel RS232 Remote Control Cable



Cable C1900 — Rear Panel RS485 Remote Control Cable



## Appendix B — Rear Panel Connectors

### Analog Audio Input

Connector: Female XLR

1	Ground
2	+
3	-

### Analog Audio Output

Connector: Male XLR

1	Ground
2	+
3	-

### AES/EBU

#### Digital Audio Input

Connector:  
Female XLR

1	Ground
2	IN+
3	IN -

#### Digital Audio Output

Connector:  
Male XLR

1	Ground -
2	OUT +
3	OUT -

#### Digital Audio Sync Input

Connector:  
Female XLR

1	Ground
2	SYNC IN +
3	SYNC IN -

### RS232/RS485 Remote Control

Connector: AMP 747150-8 (Female DB9)

RS232

4	RD (input)
9	TD (output)
5	Ground

RS485

1	RD- (Input)
6	RD+ (Input)
2	TD- (Output)
7	TD+ (Output)
3	Ground

### Ancillary Data

Connector: AMP 747871-8 (Male DB9)

1	DCD	Input
2	RXD	Input
3	TXD	Output
4	DTR	Output
5	Ground	
6	DSR	Input
7	RTS	Output
8	CTS	Input
9	no	

### Alarm Relay

Connector: AMP 747871-8 (Male DB9)

1	Common 1
2	no connection
3	Normal 2 (power on and no summary)
4	Common 2
5	Alarm 1 (power off or summary)
6	no connection
7	Alarm 2 (power off or summary)
8	no connection
9	Normal 1 (power on and no summary)

### Opto Inputs

Connector AMP 745968-8 (Male DB25)

2	OPA+	19	OPE-
15	OPA-	7	OPF+
3	OPB+	20	OPF-
16	OPB-	8	OPG+
4	OPC+	21	OPG-
17	OPC-	9	OPH+
5	OPD+	22	OPH-
18	OPD-	11,12,23,24	Ground
6	OPE+	1,14	Fused (1ASB) +5

### Relay Outputs

Connector: AMP 745968-8 (Female DB25)

2	OUTA1	19	OUTE2
15	OUTA2	7	OUTF1
3	OUTB1	20	OUTF2
16	OUTB2	8	OUTG1
4	OUTC1	21	OUTG2
17	OUTC2	9	OUTH1
5	OUTD1	22	OUTH2
18	OUTD2	11,12,23,24	Ground
6	OUTE1	1,14	Fused (1ASB) +5

### RS232

Connector: AMP 747871-8 (Male DB9)

1	DCD	Input	3	TXD	Output
2	RXD	Input	4	DTR	Output

5	Ground		8	CTS	Input
6	DSR	Input	9	no	
7	RTS	Output			

SMPTE Time code

Connector AMP 747838-4 (Female DB25)

Input			Output		
15	+		18	+	
2	-		5	-	
1	Ground		1	Ground	

## DIF101, DIF102

### X.21

Connector: DB15F

1	fg	Frame ground
2	t(a)	Transmit data A (output)
3	c(a)	Control element A (output)
4	r(a)	Receive data A (input)
5	i(a)	Indicator element A (input)
6	s(a)	Timing element A (input)
7	b(a)	Byte timing A (input)
8	sg	Signal ground
9	t(b)	Transmit data B (output)
10	c(b)	Control element B (output)
11	r(b)	Receive data B (input)
12	i(b)	Indicator element B (input)
13	s(b)	Timing element B (input)
14	b(a)	Byte timing B (input)
15		N/C

### V.35

Connector: DB15F

1	fg	Frame ground
2	tda	Transmit data A (output)
3	rts	Request to send
4	rda	Receive data A (input)
5		N/C
6	reta	Receive timing A (input)
7	teta	Transmit timing A (output)
8	Sg	Signal ground
9	tdb	Transmit data B (output)
10	dtr	Data terminal ready
11	rdb	Receive data B (input)
12	rlsd	Receive line signal detect (carrier detect)
13	retb	Receive timing B (input)
14	tetb	Transmit timing B (output)
15	cts	Clear to send

## Appendix C — Useful Pull Outs

Entry	Description	Bit rate	Sample rate	Encoder algorithm	Mode	Line format	BW (kHz)	Decoder independent
0	CDQ1000_24K:QS	64	24	CCSN	M	L1	10.2	NO
1	CDQ20002LNS:QS	128	48	MPEGL2	JS	CCSL12	20	NO
2	H221_2LINES:QS	128	48	MPEGL2	JS	H221L12	20	NO
3	H221_4LINES:QS	256	48	MPEGL2	JS	H221L1234	20	NO
4	H221_6LINES:QS	384	48	MPEGL2	JS	H221L123456	20	NO
5	MICRO56:QS	56	16	G.722	M1	L1	7.5	NO
6	G.722_56K:QS	56	16	G.722	M1	L1	7.5	NO
7	G.722_64K:QS	64	16	G.722	M1	L1	7.5	NO
8	MPEGL2/64K:QS	64	48	MPEGL2	M	L1	8.5	NO
9	MPEGL2/56K:QS	56	48	MPEGL2	M	L1	8.5	NO
10	CCSN/64K:QS	64	48	CCSN	M	L1	8.5	NO
11*	CCSTEST64	64	48	MPEGL2	M	L1	8.5	NO
12*	CCSTEST128	128	48	MPEGL2	JS	CCSL12	20	NO
13*	CCSTESTH221	128	48	MPEGL2	JS	H221L12	20	NO
14*	CCSTEST56	56	48	MPEGL2	M	L1	8.5	NO
15*	CCSTEST112	112	56	MPEGL2	JS	CCSL12	20	NO
16	CDQ1000/56K:QS	56	24	CCSN	M	L1	10.2	NO
17	CDQ2000/112:QS	112	48	MPEGL2	JS	CCSL12	20	NO
18	CCSN/56K:QS	56	48	CCSN	M	L1	8.5	NO
19	G.722_H.221:QS	64	16	G.722	M1	H221L1	7.5	NO
20	CCSN/128K:QS	128	48	CCSN	JS	CCSL12	20	NO
21	CCSN/112K:QS	112	48	CCSN	JS	CCSL12	20	NO
22	CDQ2001/128:QS	128	32	MPEGL2	JS	CCSL12	15	NO
23	CDQ2001/112:QS	112	32	MPEGL2	JS	CCSL12	15	NO
24	ZEPHYR/56K:QS	56	48	MPEGL2	M	L1	8.5	YES
25	ZEPHYR/64K:QS	64	48	MPEGL2	M	L1	8.5	YES
26	ZEPHYR/112K:QS	112	48	MPEGL2	JS	CCSL12	20	YES
27	ZEPHYR/128K:QS	128	48	MPEGL2	JS	CCSL12	20	YES
28	LYR3/56K:QS	56	48	MPEGL3	M	L1	15	NO
29	LYR3/64K:QS	64	48	MPEGL3	M	L1	15	NO
30	LYR3IND56:QS	56	48	MPEGL3	M	L1	15	YES
31	LYR3IND64:QS	64	48	MPEGL3	M	L1	15	YES
32	LYR3IND56/32:QS	56	32	MPEGL3	M	L1	15	YES
33	LYR3IND64/32:QS	64	32	MPEGL3	M	L1	15	YES
34	ROADRUN112:QS	112	48	MPEGL2	M	CCSL12	20	NO
35	ROADRUN128:QS	128	48	MPEGL2	M	CCSL12	20	NO
36	ZEPH112MONO:QS	112	48	MPEGL2	M	CCSL12	20	YES
37	ZEPH128MONO:QS	128	48	MPEGL2	M	CCSL12	20	YES

\* — These entries dial numbers, and will not work unless an internal terminal adapter is used and an ISDN line is connected.



## Appendix D — One Year Limited Warranty

MUSICAM USA, formerly known as Corporate Computer Systems (CCS) warrants to the original purchaser that each of its hardware products and all components therein contained will be free from defects in materials and/or workmanship for one (1) year from the date of purchase. Any warranty hereunder is extended only to the original purchaser and is not assignable.

In the event of a malfunction or other indication of failure attributable directly to faulty workmanship and/or material, MUSICAM USA will, at its option, repair or replace said device or components, to whatever extent it shall deem necessary to restore said device to proper operating condition.

Before returning a device for repair, the customer must call MUSICAM USA at (732)739-5600 and obtain a return authorization number. This number should be included with the customer's mailing address and telephone number when the product is returned.

**Products must be returned to:**

**MUSICAM USA**

**670 North Beers St. Building #4**

**Holmdel, NJ 07733**

**U.S.A.**

**Attention: Warranty Repair**

During the first year after the date of purchase, all labor and materials will be provided without charge. There shall be no warranty for either parts or labor after the expiration of 1 year from the date of purchase.

Units must be returned postage pre-paid. It is recommended that the unit be insured and securely packed when shipped. Units returned which are out of warranty will be repaired or replaced (at the option of MUSICAM USA) and the customer will be charged for parts and labor at current rates.

Units will be returned to the customer after repair or replacement has been completed by carrier and method chosen by MUSICAM USA to any destination within the United States of America.

Should a customer desire some other specific form of conveyance, or be located beyond the US borders, then the customer must bear the cost of return shipment.

The customer shall be solely responsible for the failure of any MUSICAM USA hardware computer product, or component thereof, resulting from accident, abuse or misapplication of the product, and MUSICAM USA assumes no liability as a consequence of such events under the terms of this Warranty.

While every effort on the part of MUSICAM USA has been made to provide clear and accurate technical information on the application of its products, MUSICAM USA assumes no liability in any events which may arise from the use of said technical information.

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**NO LIABILITY FOR CONSEQUENTIAL DAMAGES IN NO EVENT SHALL MUSICAM USA OR ANY OF ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF BUSINESS PROFITS, BUSINESS INTERRUPTION, LOSS OF DATA COMMUNICATIONS, LOSS OF BUSINESS INFORMATION, OR OTHER PECUNIARY LOSS) ARISING OUT OF THE USE OF, OR INABILITY TO USE, THIS MUSICAM USA PRODUCT, EVEN IF MUSICAM USA HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. BECAUSE SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATIONS MAY NOT APPLY TO YOU.**