

## VTA-2001 Adapter Pin Information

RJ45 connector pins count from left looking into female connector with pins on top.

DE09 (also called DB09) female pin order looking into mating end of connector, holding like a “D”:

upper left is pin 1 counting down to pin 5, then upper right is pin 6 counting down to pin 9.

Power connector used on the VTA-2001: Side with flat outside is (-), side with round outside is (+).

RS-422 below is with respect to controlled device (VTR/server), for controller, reverse TX's and RX's.

RJ45-7 to DE09-2 (VTR RS-422 TX-)

RJ45-8 to DE09-7 (VTR RS-422 TX+)

RJ45-1 to DE09-8 (VTR RS-422 RX-)

RJ45-2 to DE09-3 (VTR RS-422 RX+)

RJ45-6 to DE09-4 (GND) and Power Supply GND

RJ45-3 to Power Supply +12VDC @ 500mA (or 1000mA for some products)

RJ45-4 to Modified RS-485 TX/RX+ (not used)

RJ45-5 to Modified RS-485 TX/RX- (not used)

VTA-2001-RS adapter converts the RS-485 to RS-232 on DE09 CONTROLLER connector.


Pinout is DCE to plug pin-for-pin to a computer (DTE) DE09 connector.

Only Ground, TX, and RX are used, no control signals are used. Pins 3-4-5 are connected together.

Connection from the VTA-2001 to BUF control panels are via a telephone style RJ45 cable which has the conductor order reversed from one end to the other. Pinouts shown here for the RJ45 connector are for the adapter, reverse the pin order for the control panel side.

CAT5 cables do not reverse order so cannot be used without VTA-2001 modification or external adaptation.

CAT5 “crossover” cables do not change the pin order the same way and will not work.

 858-451-1350	BUF TECHNOLOGY
	PROJECT: VTA-2001 PINOUT
	DATE: 110628
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

## BNA-1001 Adapter Pin Information

RJ45 connector pins count from left looking into female connector with pins on top.

DE09 (also called DB09) female pin order looking into mating end of connector, holding like a "D":

upper left is pin 1 counting down to pin 5, then upper right is pin 6 counting down to pin 9.

Power connector used on the BNA-1001: Side with flat outside is (-), side with round outside is (+).

RJ45-7 to DE09-2 (VTC-4000 COMPUTER PORT RS-422 RX-)\*

RJ45-8 to DE09-7 (VTC-4000 COMPUTER PORT RS-422 RX+)\*

RJ45-1 to DE09-8 (VTC-4000 COMPUTER PORT RS-422 TX-)\*

RJ45-2 to DE09-3 (VTC-4000 COMPUTER PORT RS-422 TX+)\*

RJ45-6 to DE09-4 (GND), Power Supply GND, and (both) XLR-3 pin 1 (GND)

RJ45-3 to Power Supply +12VDC @ 500mA (or 1000mA for some products)

RJ45-4 to (both) XLR-3 pin 2 (modified RS-485 BUFNET +)

RJ45-5 to (both) XLR-3 pin 3 (modified RS-485 BUFNET -)

\*TX and RX lines can be reversed by changing (4) internal jumpers

BNA-1001-RS adapter converts the RS-422 to RS-232 on DE09 connector.


Pinout is DCE to plug pin-for-pin to a computer (DTE) DE09 connector.

Only Ground, TX, and RX are used, no control signals are used. Pins 3-4-5 are connected together.

Connection from the BNA-1001 to BUF control panels are via a telephone style RJ45 cable which has the conductor order reversed from one end to the other. Pinouts shown here for the RJ45 connector are for the adapter, reverse the pin order for the control panel side.

CAT5 cables do not reverse order so cannot be used without VTA-2001 modification or external adaptation.


CAT5 "crossover" cables do not change the pin order the same way and will not work.

 858-451-1350	BUF TECHNOLOGY
	PROJECT: VTA-2001 PINOUT
	DATE: 110628
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

**CABLE FABRICATION INFORMATION  
FOR CONNECTION TO XLR-3 CONNECTORS ON:  
VTC-4000'S BNA-1001, RM-4000, IFD-422  
USING CAT5 CABLE**

**XLR-3 CONNECTORS CARRY SIGNAL AFFECTIONATLY CALLED "BUFNET"  
WHICH IS A ROBUST AND COMPATIBLE MODIFICATION OF RS-485**

<b>RJ45 ON BNA-4000 AND RM-4000R (PANEL)</b>	<b>RJ45 ON VTC-4000 AND RM-4000R (SLIDE)</b>	<b>BNA-1001 AND RM-4000 XLR-3 (BOTH M &amp; F)</b>	<b>RS-485 (MODIFIED) SIGNAL</b>	<b>SUGGESTED CAT5 OR CAT6 CONNECTION</b>
6	3	1	GROUND	3
4	5	2	TX/RX+	5
5	4	3	TX/RX-	4

 <b>BUF</b> TECHNOLOGY 858-451-1350	BUF TECHNOLOGY
	PROJECT: BUFNET to CAT5
	DATE: 110628
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

**PART NUMBERS: CADB9M-F-RS AND CADB9F-M-RS**


**CABLE FABRICATION INFORMATION  
FOR CONNECTION FROM:  
RS-422 VTR CONTROL PORT TO RS-232 COMPUTER PORT  
AND FROM RS-422 VTR PORT TO RS-232 COMPUTER PORT**

**CUT ONE CONNECTOR OFF THE PREFAB CADB9M-M  
AND TERMINATE DE9F TO OTHER END DEPENDING ON RS-422 DIRECTION NEEDED  
(SHIELD WIRE IS CONNECTED TO DEB9M SHELL)**

<b>CADB9F-M-RS RS-232 9-PIN FEMALE 'D' FOR VTR I/F</b>	<b>CADB9M-F-RS RS-232 9-PIN FEMALE 'D' FOR CTRLR I/F</b>	<b>CADB9M-M 9-PIN MALE 'D' (PREFAB WIRE)</b>	<b>RS-232 9-PIN FEMALE 'D' (VTR CONTROL)</b>	<b>PREFAB WIRE COLOR</b>
—	—	1	SHIELD	BROWN
2	3	2	VTR TX-	RED
5	—	3	VTR RX+	ORANGE
5	5	4	VTR RX GND	YELLOW
—	—	5	N/U	GREEN
—	—	6	VTR TX GND	BLUE
—	5	7	VTR TX+	VIOLET
3	2	8	VTR RX-	GRAY
—	—	9	SHIELD	BLACK

CONNECT

CONNECT

 <b>BUF</b> TECHNOLOGY 858-451-1350	BUF TECHNOLOGY
	PROJECT: RS-422 to RS-232 Cable
	DATE: 010830
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

**PART NUMBER: CADB9M-M-RSR**

**CABLE FABRICATION INFORMATION  
FOR CONNECTION FROM:  
RM-4000 AUX-A RS-422 PORT TO  
TCW (HORITA SCT-P SPECIAL) VIDEO TEXT INSERTER**

**CUT ONE CONNECTOR OFF THE PREFAB CADB9M-M  
AND TERMINATE DE9M TO OTHER END  
(SHIELD WIRE IS CONNECTED TO DE9M SHELL)**

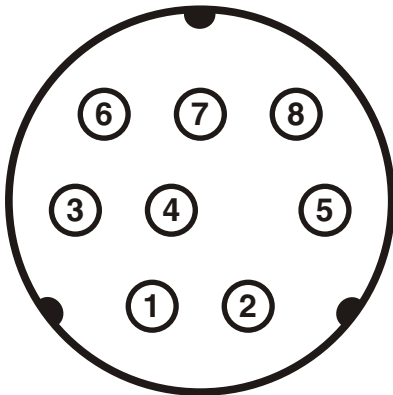
<b>RS-232 9-PIN MALE 'D' FOR TCW</b>	<b>CADB9M-M 9-PIN MALE 'D' (PREFAB WIRE)</b>	<b>RS-232 9-PIN FEMALE 'D' (RM-4000 CTRL)</b>	<b>PREFAB WIRE COLOR</b>
—	1	N/U	BROWN
2	2	RM RX-	RED
—	3	RM TX+	ORANGE
5	4	RM GND	YELLOW
—	5	N/U	GREEN
—	6	N/U	BLUE
5	7	RM RX+	VIOLET
3	8	RM TX-	GRAY
—	9	N/U	BLACK

CONNECT

<b>BUF</b> TECHNOLOGY 858-451-1350	BUF TECHNOLOGY
	PROJECT: TCW Cable
	DATE: 011210
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

**CABLE FABRICATION INFORMATION  
FOR CONNECTION FROM:  
MAC TO BUFROUTE IFD-422-RS INTERFACE (RS-232)  
MAC TO ELO TOUCHSCREEN (RS-232)  
MAC TO BUFROUTE IFD-422 INTERFACE (RS-422)  
MAC TO IR-422 INFRARED REMOTE (RS-422)**

ONE END	MAC 8-PIN MALE MINI-DIN	OTHER END	RS-232 9-PIN MALE 'D'	RS-422 9-PIN MALE 'D'	SIGNAL NAME
RED	1	BRN	---	---	SHIELD
BRN	2	RED	---	---	N/U
GRN	3	OR	3	2	MAC TX-
YEL	4	YEL	5	4	SIG GROUND
OR	5	GRN	2	8	MAC RX-
BLK	6	BLU	---	7	MAC TX+
PUR	7	PUR	---	---	N/U
BLU	8	BLK	---	3	MAC RX+
	SHIELD		---	---	SHIELD

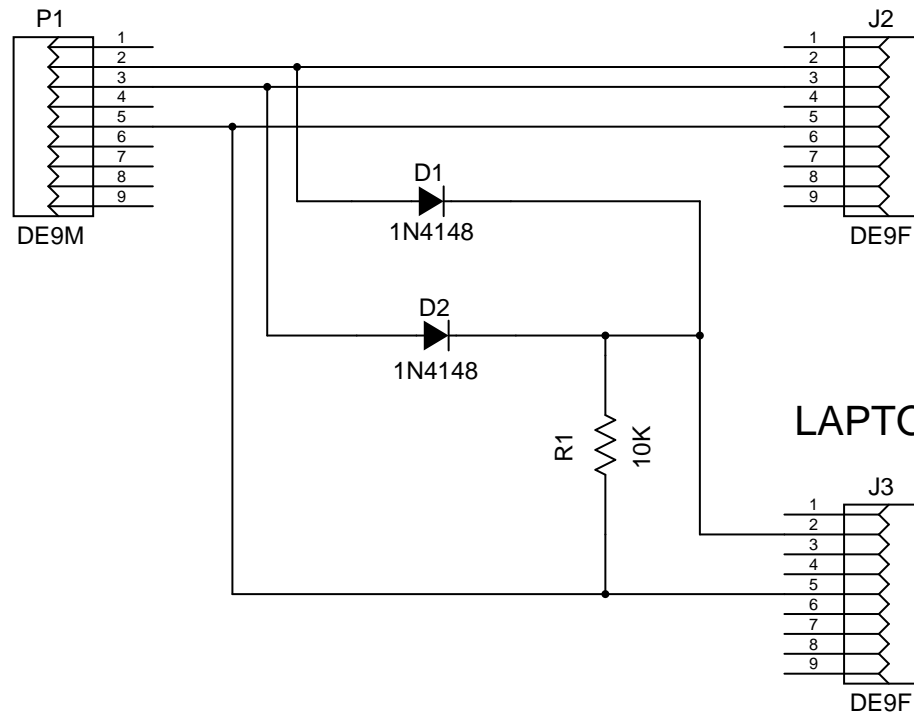


**PIN ASSIGNMENTS OF  
MAC MODEM & PRINTER PORTS  
(LOOKING INTO END OF MALE  
8-PIN MINI-DIN CABLE CONNECTOR)**

<b>BUF</b> TECHNOLOGY 858-451-1350	BUF TECHNOLOGY
	PROJECT: MAC CABLE FAB INFO
	DATE: 990831
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128

IFD-422

ROUTER



RS-232 MONITOR CABLE

<b>BUF</b> TECHNOLOGY 858-451-1350	BUF TECHNOLOGY
	PROJECT: RS-232 MONITOR CABLE
	DATE: 060629
	BY: BRUCE BREDON
	12335 World Trade Drive, #11 San Diego, CA 92128