REMOTE TRUNKING of ADAM INTERCOM FRAMES

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The following procedure describes the equipment , cabling and all settings required for remote trunking of Adam frames on 2 wire dial up phone lines with Multi-Tech DataTalker Modems and fiber optic link using the Telecast Fiber interface.

2 WIRE DIALUP

Equipment/Materials Required :

1) 2 Multi-Tech "DataTalker Modems with V.34 option installed "
2) 1- Trunk Master FR-9589
3) 1- ICP-97 TMX Breakout panel
4) RS232 data cable, " Data-Talker to ICP-97 TMX **(Y-101)**
5) 2- ADAM-CS Frames "example"

6) 1- RS232 data cable (2)" Data-Talker to remote master controller **(Y-102)**
7) 1- RS485 data cable " local Master Controller to ICP-97 TMX **(Y-103)**
8) 1- 50 pin telco cable 8 ft (male to male, pin-to-pin, connectors) **(Y-104)**
9) 1 - RS232 trunk edit cable **(Y-105)**

DIAL-UP SYSTEM HARDWARE SETUP

Main Site

1) Connect J901 of frame 1 at the main site to J5 of the Trunk Master breakout panel "ICP-97 TMX" with the RS485 data cable (Y-103).
2) Connect the 50 pin telco cable between J5 of the Trunk Master and J1 of the ICP-97 TMX (Y-104).
3) Connect the RS232 Cable (Y-101) to J12 of the ICP-97 TMX the other end goes to the Data Talker modem, Command /Data port. Do not connect it to the DataTalker at this time.
4) Connect one of the RJ11 cables to the phone line and the other end to the 2 wire dial up connector of the DataTalker.
5) Connect to the DataTalker with a PC to set the internal configurations of the modem at the main site per the attached drawing and the following procedure:

   a) Run a PC communications program such as Hyper Terminal found in Windows 95 and 98 under the Accessories folder and possibly under the Communications folder.

   b) Double-click on Hypertrm.EXE and when "New Connection" window comes up, enter a name, select an icon, then click o.k.

   c) Next under "Connect Using" (from the pulldown menu) select "Direct to Com 1", then o.k. Under "Port Settings", change baud rate to 9600, then o.k. (**do not** enter phone number in this screen).

   d) Now connect the DataTalker to the PC (Com 1) and set it in the "Command Mode" for internal configuration. This is done by setting dip switch 3 on the DataTalker in the down position, then cycling the power on the DataTalker.

   e) From the keyboard, select "enter". The DataTalker should now begin communicating with the PC.

   when the "Main Menu" comes up, select "1-Configuration". Next select "Data Port Configuration" and enter the following settings from the table on the left. When finished with the port settings, enter "S" and press enter to save the configuration. Next enter "P" for the previous menu and select option "3-Composite Link Configuration". Enter the settings from the table on the right below.

Data Port Configuration		Composite Link Settings	
Async/Sync:	Async	**Enter AT Commands:** (see note)	
Speed:	38,000	ATDT[*number to dial*]NO <CR>	
Word Length:	8	AT$D1 <CR>	
Stop bit:	1	AT&W <CR>	
Parity:	None	Q <CR>	
Flow Control:	OFF	**On line XMT Rate:** shown when link is up	
Enq/Ack Flow Control:	OFF	**Speed Setting:**	33,600
Echo:	OFF	**Dial/Leased:**	Dial
Pacing:	OFF	**2 or 4 Wire:**	2 wire
EIA Pass Through:	OFF	**Answer/Originate:**	Originate
Pass Xon:	OFF	**Transmit level:**	-10dB
Remote Down Echo:	OFF	**DOD/DOI:**	OFF

Note : AT Commands must be entered for dialing the number of the remote site.

Local Setup Complete

Remove the PC cable from the DataTalker and connect the RS232 Cable (Y-101) from J12 of the ICP-97 TMX panel. Next turn off the DataTalker, return dip switch 3 to the up position and turn the power back on.

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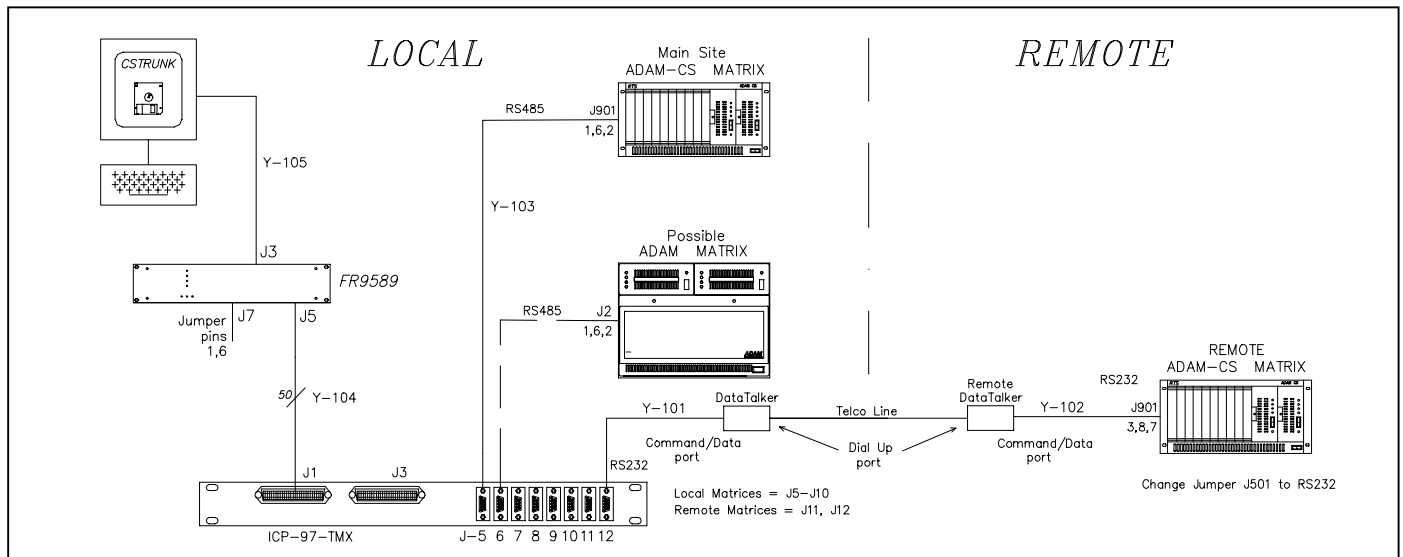## (2 Wire Dialup)
Remote Site Setup

1) Connect J901 of frame 2 at the remote site to the Command/Data port of the DataTalker with the RS232 data cable, (Y-102). Do not connect to the Data talker end at this time .
2) Set the intercom Master Controllers for RS232 trunking data by setting JP501 on both cards to the RS485 setting towards the bottom edge of the card . Note : Silkscreen is BACKWARDS on JP501 (RS485 is actually RS232).
3) Connect one of the RJ11 cable to the phone line and the other end to the 2 wire dial up connector of the DataTalker.
4) Connect the DataTalker with a PC to set the internal configurations of the modem at the remote site, as per step 5 of Main
5) Site – System Hardware Setup (page 1).
6) When the "Main Menu" comes up, select "1-Configuration". Next select "Data Port Configuration" and enter the following settings from the table on the left. When finished with the port settings, enter "S" and press enter to save the configuration. Next enter "P" for the previous menu and select option "3-Composite Link Configuration". Enter the settings from the table on the right below.

Data Port Configuration		Composite Link Settings	
Async/Sync:	Async	Enter AT Commands:	
Speed:	38,000	ATDT[*number to dial*]NO <CR>	
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Stop bit:	1	AT&W <CR>	
Parity:	None	Q <CR>	
Flow Control:	OFF	On line XMT Rate:	shown when link is up
Enq/Ack Flow Control:	OFF	Speed Setting:	33,600
Echo:	OFF	Dial/Leased:	Dial
Pacing:	OFF	2 or 4 Wire:	2 wire
EIA Pass Through:	OFF	Answer/Originate:	Answer
Pass Xon:	OFF	Transmit level:	-10dB
Remote Down Echo:	OFF	DOD/DOI:	OFF

Remote Setup Complete

Remove the PC cable from the DataTalker and connect the RS232 cable (Y-102) from J901 of the remote frame to the Command/Data port of the DataTalker. Turn off the DataTalker, return dip switch 3 to the up position and turn the Data-Talker power back on.

This concludes the connection procedures for the hardware. You will still have to enable the trunking support from both frames either by dip switch or ADAMedit, depending on the version of Master Controller firmware that the frames are using . Refer to ADAMedit help files for further information or the installation guide for the type of frame being used. Second you will have to setup the Trunk Master via CSTrunk Edit ref to CS Trunk Manual for further information.

Remote Trunking Over Phone Lines

Required Cables

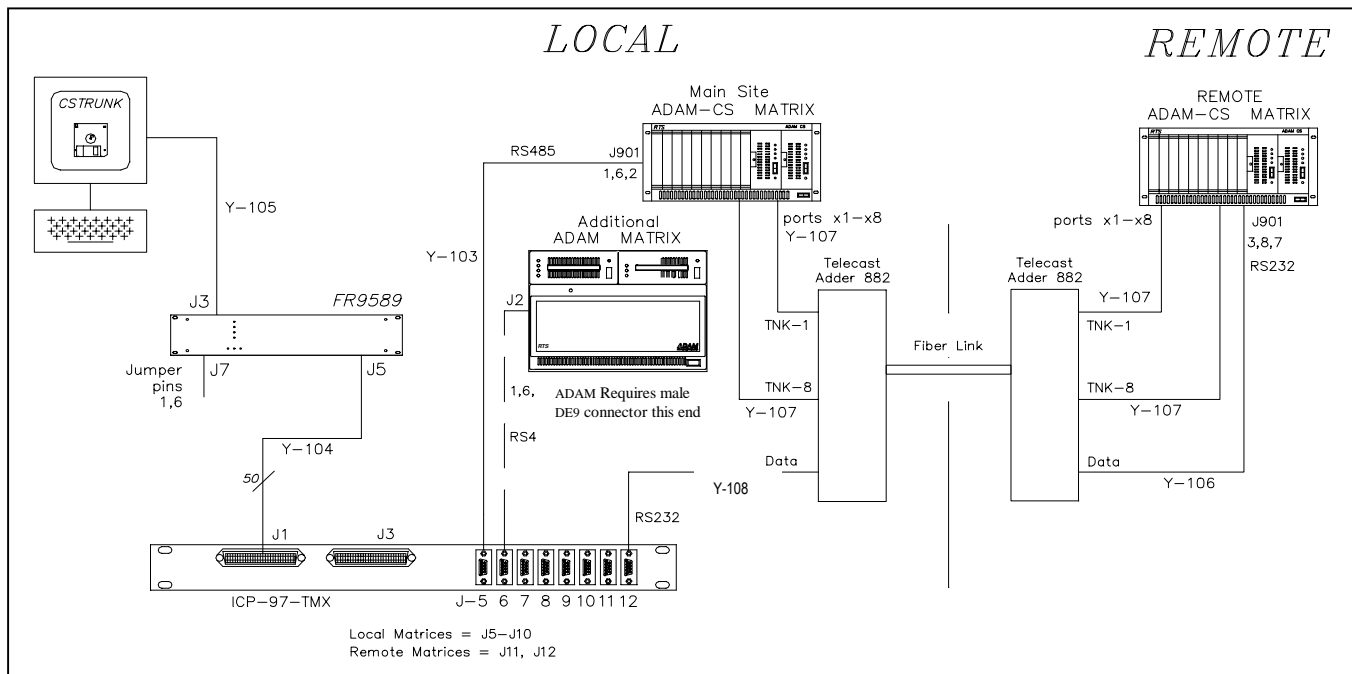| DB25P DataTalker		DE9 ICP-97	DB25 DataTalker		DB9 ADAM-CS	DB9 ADAM-CS		DB9 ICP-97	DB9 CSTrunk		50 Pin Telco FR9589
2	←→	3	2	←<	3	1	>→	1	2	>→	23
3	←→	2	3	←<	8	6	>→	6	3	>→	49
7	←→	5	7	←<	7	2	>→	2	5	>→	48
	RS232 Y-101			RS232 Y-102			RS485 Y-103			CS Trunk Y-105	

REMOTE TRUNKING of ADAM INTERCOM FRAMES

Remote Trunking via Fiber Optic Link
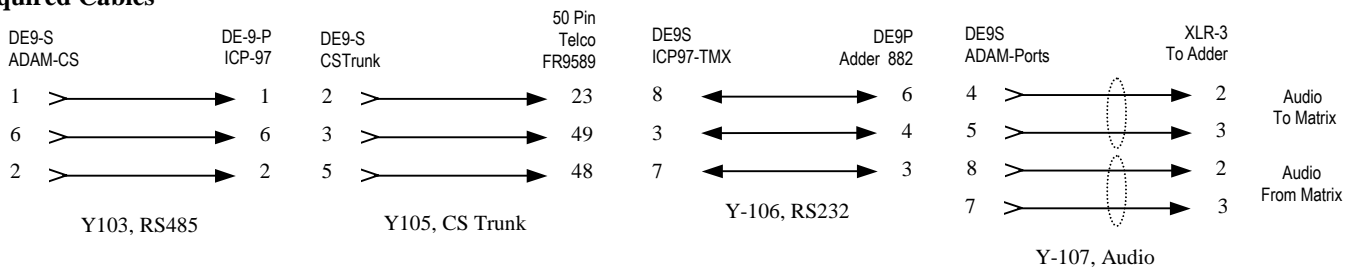
Equipment/Materials Required :

1) 1- Trunk Master FR-9589.
2) 1- ICP-97 TMX Breakout panel.
3) 2- ADAM-CS Frames "example".
4) 2- Telecast Addr 882 Fiber Multiplexer.
5) 2- RS232 data cable for Adders **(Y-106)**.

6) 1- RS485 data cable " local Master Controller. to ICP-97 TMX **(Y-103)**.
7) 1- 50 pin telco cable 8 ft (male to male, pin-to-pin, connectors) **(Y-104)**.
8) 1 - RS232 trunk edit cable **(Y-105)**
9) x – Audio trunk cables, 1 set per trunk, per location **(Y-107)**.

Telecast Adder Model Descriptions

MODEL	AUDIO	DATA	MODE	# FIBER	OP DIST	EST COST/END
ADDR-882-L-2	8 IN/8 OUT	8 RS232/422	MULTI	2	10KM	$ 3,850
ADDR-882-LW-1	8 IN/8 OUT	8 RS232/422	MULTI	1	10KM	$ 4,995
ADDR-882-SW-1	8 IN/8 OUT	8 RS232/422	SINGLE	1	20-30KM	$ 6,950

Required Cables

Y103, RS485

DE9-S ADAM-CS		DE-9-P ICP-97
1	>	1
6	>	6
2	>	2

Y105, CS Trunk

DE9-S CSTrunk		50 Pin Telco FR9589
2	>	23
3	>	49
5	>	48

Y-106, RS232

DE9S ICP97-TMX		DE9P Adder 882
8	← →	6
3	← →	4
7	← →	3

Y-107, Audio

DE9S ADAM-Ports		XLR-3 To Adder	
4	>	2	Audio To Matrix
5	>	3	
8	>	2	Audio From Matrix
7	>	3	

Y104 is pin for pin, straight thru.

Adder DE-9 Pinout

PIN	Function	PIN	Function
1	RS422 in (-)	6	RS232 In / RS422 In (+)
2	Closure Out	7	Closure Out
3	Ground	8	Closure In
4	RS232 Out	9	RS422 Out (+)
5	RS422 out (-)		

Y-108, RS232

DE9P ICP97-TMX		DE9P Adder 882
3	← →	6
2	← →	4
5	← →	3

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