User's Manual

V-COM2000 Series

VC-2RMX User's Manual

Redundant Statistical Serial Multiplexer Product Series

VEESTA WORLD

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Chapter 1 - Introduction

1.1 General Information

This is user's manual of VC-2RMX product from V-COM2000 Product Series, the Redundant Statistical Multiplexer with 4/8 channel ports from Veesta World Company. This document helps you to find about how VC-2RMX works and designed for your purpose.

1.2 Veesta World Co

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Figure 1-1: Veesta World Co Logo and sign

Chapter 2 - System Overview

2.1 Overview

VC-2RMX is designed to send / receive channel's data on two lease lines (COM1 and COM2) in the same time.

Four or Eight Channel ports data are sent by these two lease lines. According to COM port status (Baud rate, busy or idle) microprocess will dispatch channel port's data to either COM1 or COM2 port.

VC-2RMX multiplexers provide you a smart asynchronous device which uses fully speed to transmit / receive data.

For example:

When set COM1 to baud rate = 19200,
COM2 to baud rate = 9600,
Channel A has 150 bytes need to be sent,

VC-2RMX will fragment these 150 bytes to 100 bytes and 50 bytes, and send 100 bytes through COM1, 50 bytes by COM2.

The remote VC-2RMX will reassemble them back to 150 bytes and bypass to Channel A.

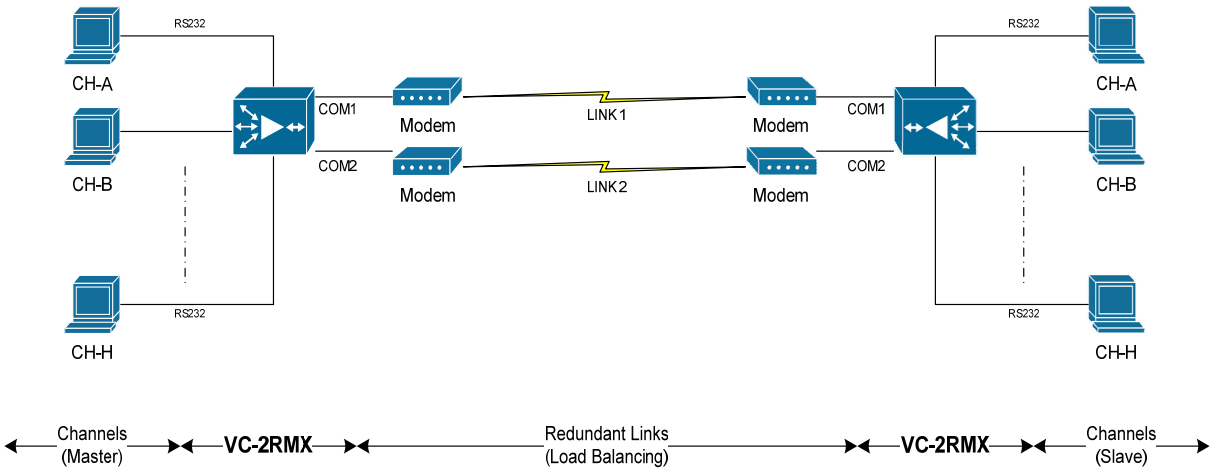


Figure 2-1: VC-2RMX System View in action

2.2 VC-2RMX Product Series types

Table 2-1: VC-2RMX Series Cards & Modules

No.	VEESTA Model	Name	Specification
1	VC-2RMX-4	1U 19” Rack	4 Channel Ports version
2	VC-2RMX-8	1U 19” Rack	8 Cahnnel Ports version
3	VC-2RMX-4-V.35	1U 19” Rack	V.35 COM port type, 4 Channel ports version
4	VC-2RMX-8-V.35	1U 19” Rack	V.35 COM port type, 8 Channel ports version

2.3 Features

- VC-2RMX uses two composite ports (COM1 and COM2) to connect to another VC-2RMX.
- Two leased lines to connect.
- Easy to maintain and save your money.
- 4 or 8 channel ports (A-H) on VC-2RMX.
- LED Indicators to show the activity.
- Built-in NVRAM to store system parameters.
- COM port baud rate can be up to 115200 bps ASYNC.
- COM port hardware flow control (RTS/CTS) can be enabled or disabled.
- Parameters of each COM port can be configured independently.
- Channel port acts as DCE (MODEM).
- Parameters of each channel port can be configured independently.
- Channel port baud rate can be up to 57600bps and a user define baud rate for special baud rate.
- Channel port flow control can be set to none, Xon/Xoff software handshake, Xon/Xany software handshake, Xon/Xoff transparent mode software handshake and RTS/CTS hardware handshake.

2.4 Specification

The specificaton of VC-2RMX listed as bellow:

1. **COM 1 Port** : a) DB25 Male Connector
   b) RS232 Compatible interface.
   c) Data rate up to 115200bps ASYNC
   d) V.35 interface is option by order

2. **COM 2 Port** : a) DB25 Male Connector
   b) RS232 Compatible interface.
   c) Data rate up to 115200bps ASYNC

3. **Channel Ports** : a) DB25 Male Connector
   b) RS232 Compatible interface.
   c) Data rate up to 115200bps ASYNC
   d) 4 channels version name (A ~ D)
   e) 8 channels version name (A ~ H)

4. **CPU** : a) 80182
   b) 32MHz system clock

5. **Memory** : a) CMOS Flash Memory: 1 Mbit
   b) Static RAM: 256 Kbit

6. **Power Supply** : a) AC Version: 85VAC ~ 265VAC input.
   b) DC Version: 40VDC ~ 60VDC input.

7. **Dimension** : a) 1U, 19 Inch, subrack mountable

8. **Environment** : a) Operating Temprature: 5°C to 40°C
   b) Operating Humidity: 10% ~ 90% RH
   c) Storage Tempratue: 0°C to 65°C
   d) Storage Humidity: 5% ~ 90% RH

2.5 LED Indicator

There are 14 indicators in the front panel to show the activities of VC-2RMX. Please view bellow picture:

Figure 2-2: VC-2RMX Front Panel

2.5.1 COM Port Status

Five indicators are used for COM port status.

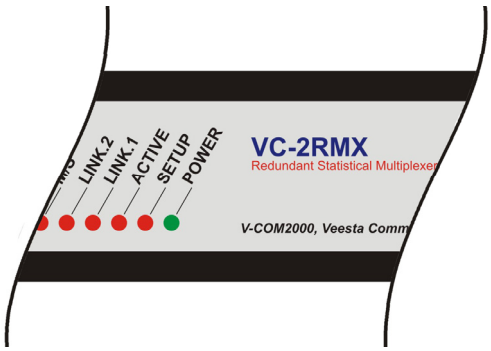


Figure 2-3: COM Port status LEDs

- **POWER:** lighted to indicate Power is on.
- **SETUP:** lighted to indicate RMX600 in setup mode.
- **ACTIVE:** Flashed on and off per second means unit is alive.
- **LINK1:** The link on COM1 is up.
- **LINK2:** The link on COM2 is up.

LINK1 or LINK2 LED will be on to indicate the link between VC-2RMX is up. But in link procedure LINK1 or LINK2 LED will be flashed on/off.

Two VC-2RMX'es will try to link in master port after power on procedure. When the connection in master port is broken, two VC-2RMX'es will try to relink in slave port. VC-2RMX will try to link in master port anytime. When we link in slave port and master port is avaialable. VC-2RMX will switch to master port automatically.

2.5.2 COM Ports Mode Status

Five indicators are used for COM port mode setting and data transmission.

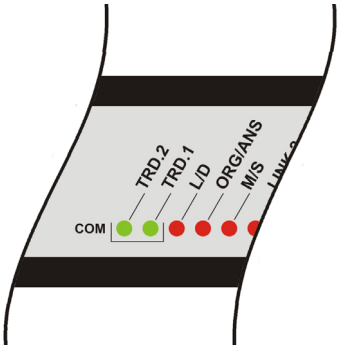


Figure 2-4: COM Port mode status LEDs

- **M/S:** Reserve
- **ORG/ANS:** Lighted to indicate VC-2RMX in Answer mode
  Off to indicate RMX600R in Original mode.
- **L/D:** Reserve.
- **TRD.1:** COM1 port transmits and receive data indicator.
- **TRD.2:** COM2 port transmits and receive data indicator.

2.5.3 Channel Ports Status

Four indicators are used for Channel port data transmission.

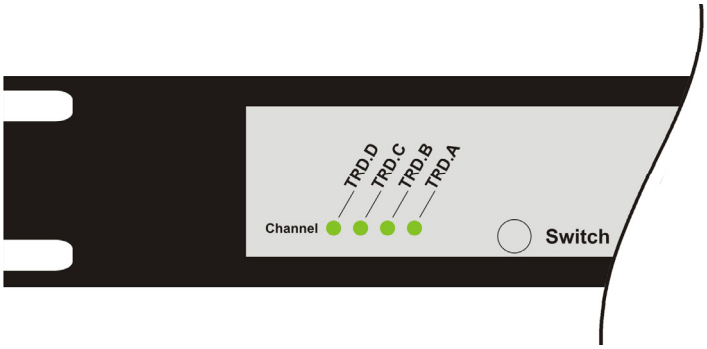


Figure 2-5: Channel Port status LEDs

- **TRD.A:** Channel port A transmit data and receive data indicator.
- **TRD.B:** Channel port B transmits data and receive data indicator.
- **TRD.C:** Channel port C transmits data and receive data indicator.
- **TRD.D:** Channel port D transmits data and receive data indicator.

Chapter 3 - Setup Procedure

3.1 General

Before using VC-2RMX, you may want to modify the system parameters to meet your environment's requirement. Generally, each VC-2RMX may have one set of default system parameters to be stored in NVRAM. After booting up the VC-2RMX, these parameters will be used to set the corresponding controller and software process.

You should reboot your VC-2RMX to enter SETUP procedure. Upon booting, VC-2RMX will check the condition of push button switch in front panel.

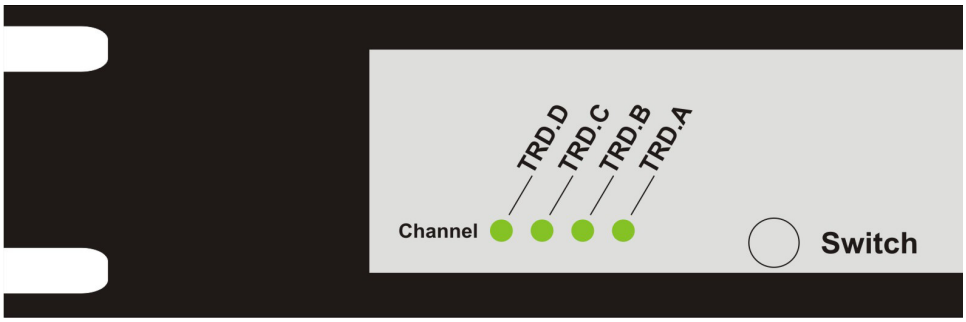


Figure 3-1: Switch Setup in Front Panel

If this switch is pushed on, then VC-2RMX will confirm this condition by buzzer on. Then you can release push button and buzzer off. After VC-2RMX box finish the power on self-test procedure, VC-2RMX will enter setup procedure.

If the VC-2RMX is in SETUP procedure, the 'SETUP' indicator will be lighted up, channel A is used to be a console port. You should connect one terminal to channel A for following interactively SETUP procedure.

In SETUP procedure, the default parameters for console port are 9600 baud, no parity check, 8 data bits and 1 stop bit. User must set the console terminal to meet this requirement.

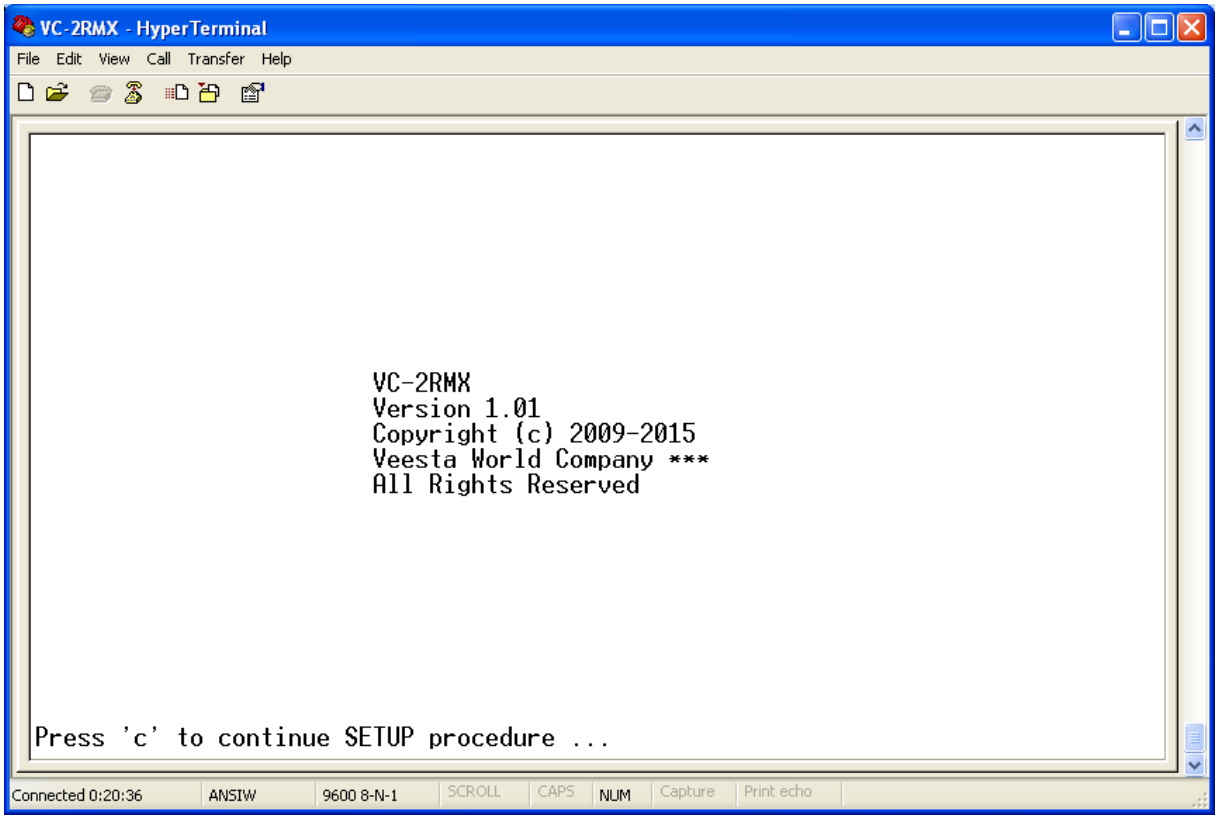


Figure 3-2: VC-2RMX Setup Mode Screen

3.2 How to change system parameters?

When VC-2RMX is in SETUP procedure and a terminal is attached to channel A, some copyright message will be shown in the terminal. We may need to type '**c**' character from keyboard to start SETUP procedure. Then VC-2RMX box will ask user to enetr Password. The Password for the first time user is "*VEESTA*" or "*12345*". You must input capital character here. It is capital sensitive.

This Password value will be modified in setup by user. Next time you may need to use your own Password to enter setup procedure.

Now, you have one '*Main Setup Menu*' to be displayed in terminal, and prompt you to make a selection:

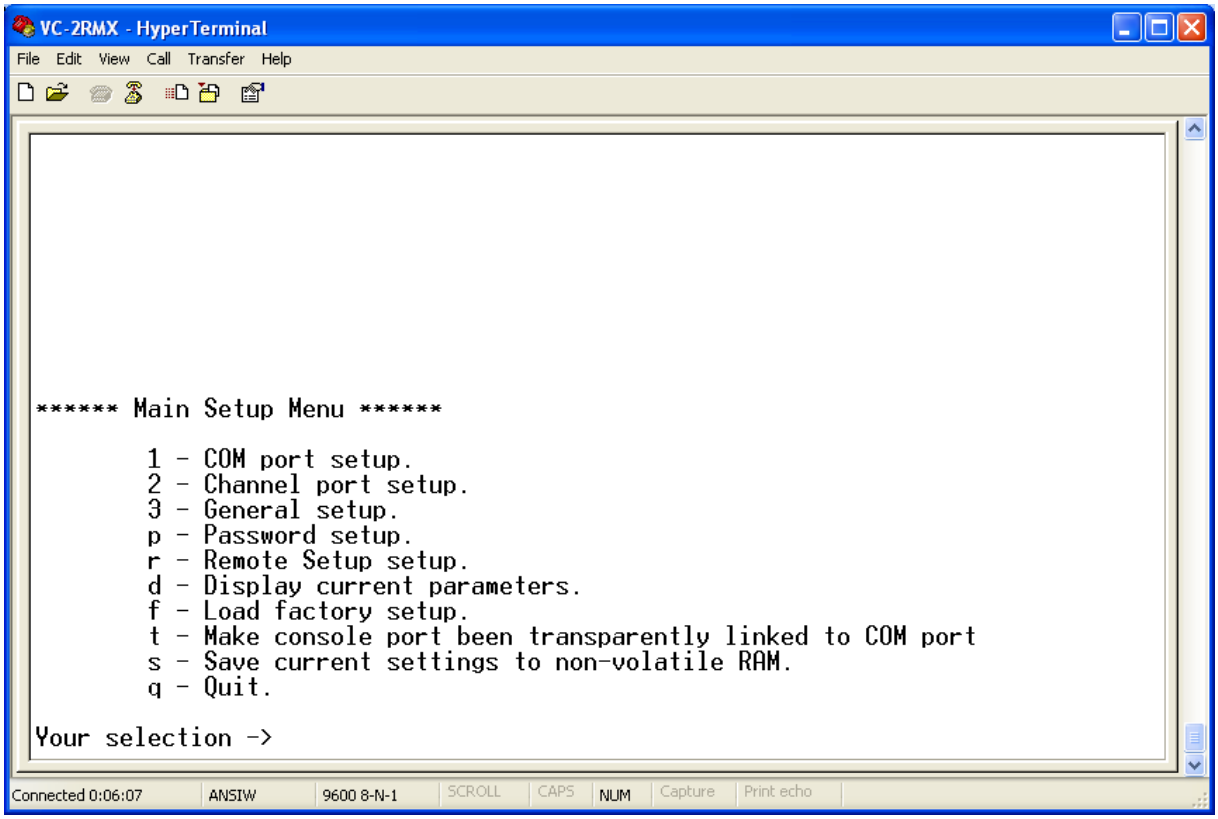


Figure 3-3: Main Setup Menu in setup mode

3.2.1 COM Port Parameters Setup

By selecting '*1*' from '*Main Setup Menu*', '*COM Ports Setup Menu*' will be displayed in terminal:

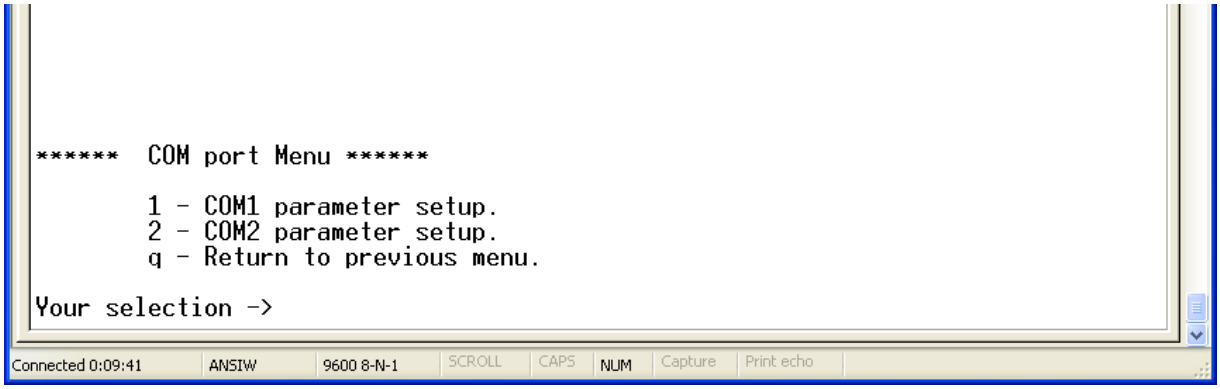


Figure 3-4: COM Ports Setup Menu

Select '*1*' to configure COM1 parameters, '*2*' to configure COM2 parameters or '*q*' to return back to previous menu (‘*Main Setup Menu*’).

When you select '*1*' or '*2*' from '*COM ports Setup Menu*', the following parameters can be selected to change:

- **Baud rate:**

1200, 2400, 4800, 9600, 19200, 38400, 57600 or 115200bps

- **Stop Bit:** 1 or 2 bit.
- **Character Size:** 7 or 8 bits
- **Parity Check:** None, Even, or Odd.
- **Flow control:** RTS/CTS can be enabled or disabled.

3.2.2 Channel Port Parameters Setup

When you select '*2*' from '*Main Setup Menu*', '*Channel Ports Setup Menu*' will be displayed in terminal:

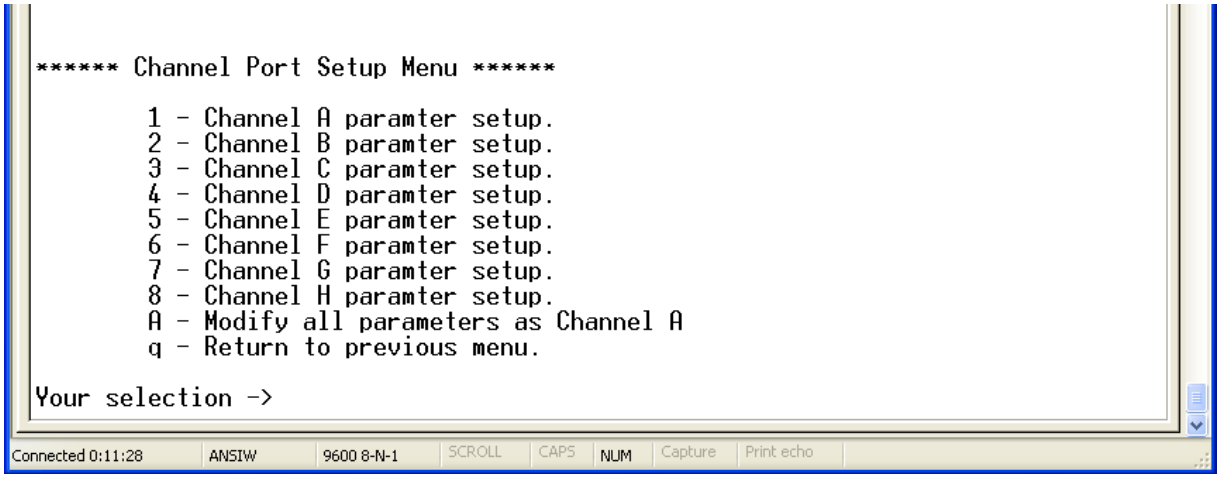


Figure 3-5: Channel Ports Setup Menu

We can select '*1*' ~ '*8*' to configure the parameters of channel A ~ H.
Select "*A*" to set all of channel's parameters as Channel A
Select '*q*' return back to '*Main Setup Menu*'

When you select '*1*' ~ '*8*' from '*Channel ports Setup Menu*', the following parameters can be changed:

- **Mode:** Clocal or Modem mode

- **FIFO Type:** Disable or Enable.
- **Baud rate:** 50, 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200, 38400 or 57600 bps or User Define
- **Number of stop bit:** 1 bit or 2 bits.
- **Data size:** 7 or 8 bits.
- **Parity Check:** None, Even parity, or Odd parity.
- **Flow Control:** none, RTS/CTS, XON/XOFF, XON/XOFF transparent, or XON/XANY.
- **Special baud rate setting:** You can select "*User Define*" and give the Time constant to set the special baud rate for channel port.
  The rule is: Time constant = 460800 / Baud rate.
- **CLOCAL/MODEM mode:** For CLOCAL mode you just need 3 wires connection as local terminal to connect with host. For MODEM mode we may send DCD active to channel port after both VC-2RMX boxes linked.

3.2.3 General Setup

We can select '*1*' to configure the parameters of VC-2RMX box miscellaneous feature or select '*q*' to return back to '*Main Setup Menu*'.

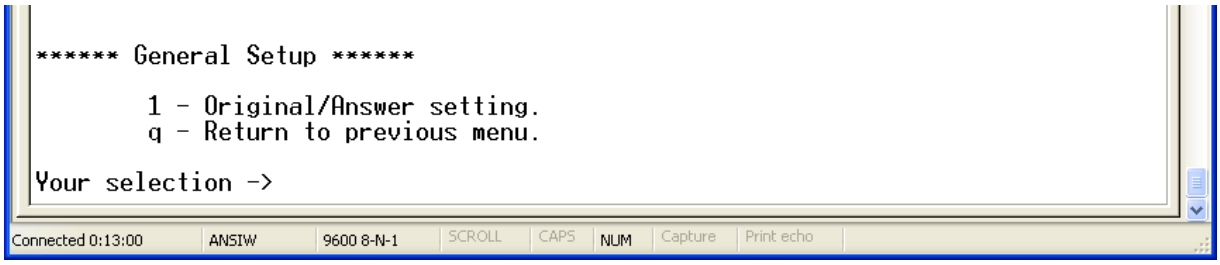


Figure 3-6: General Setup Menu

When you select '*1*' from '*General Setup Menu*', the following parameters can be changed:

- **Original/Answer mode:** We may need to set one VC-2RMX box in Original mode and the other VC-2RMX box in Answer mode.

3.2.4 Password Setting

By selecting '*p*' from '*Main Setup Menu*', user can setup the password between both VC-2RMX. We have two types of Password. One is User Password to be used in normal enter setup checking. Another is Supervisor Password to be used in remote setup double checking. Both Passwords can be used to enter local VC-2RMX box setup procedure. But only Supervisor Password can have rights to enter remote setup procedure.

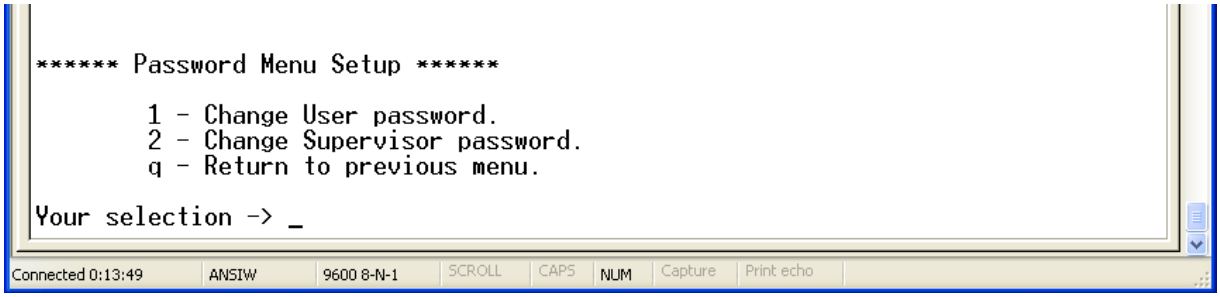


Figure 3-7: Password Setup Menu

3.2.5 Remote Setup Setting

By selecting '*r*' from '*Main Setup Menu*', user can enter the remote setup procedure. Firstly, user needs to input correct Supervisor Password to enter link procedure with remote VC-2RMX box. After we can connect with remote VC-2RMX box, everything is same as local VC-2RMX box setup procedure.

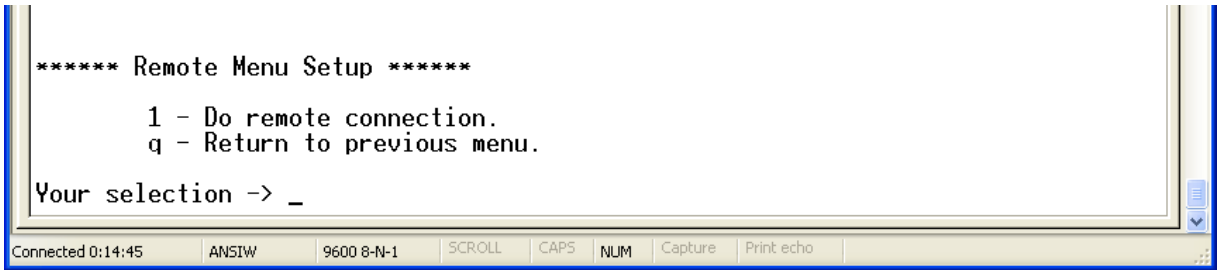


Figure 3-8: Remote Setup

If you need to enter this procedure, you must confirm that you can connect with remote VC-2RMX box.

3.2.6 Display Current Parameters

By selecting '*d*' from '*Main Setup Menu*', all current system settings will be shown in terminal. The first page displays the major VC-2RMX box parameters.

The second page displays the COM port parameters, and then the third page displays the channel port parameters.

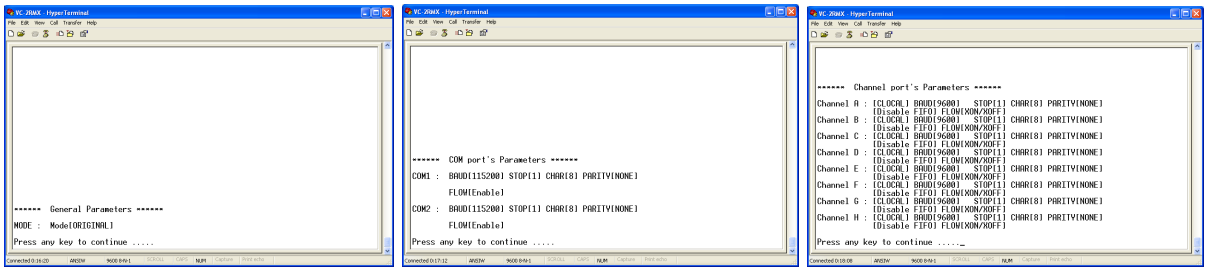


Figure 3-9: Display Current Parameters

3.2.7 Load Factory Setup

By selecting '*f*' from '*Main Setup Menu*', the factory settings will be set to the current settings. User can set to this setting firstly and modify to target setting later. We have ten sets default setting for user to choose.

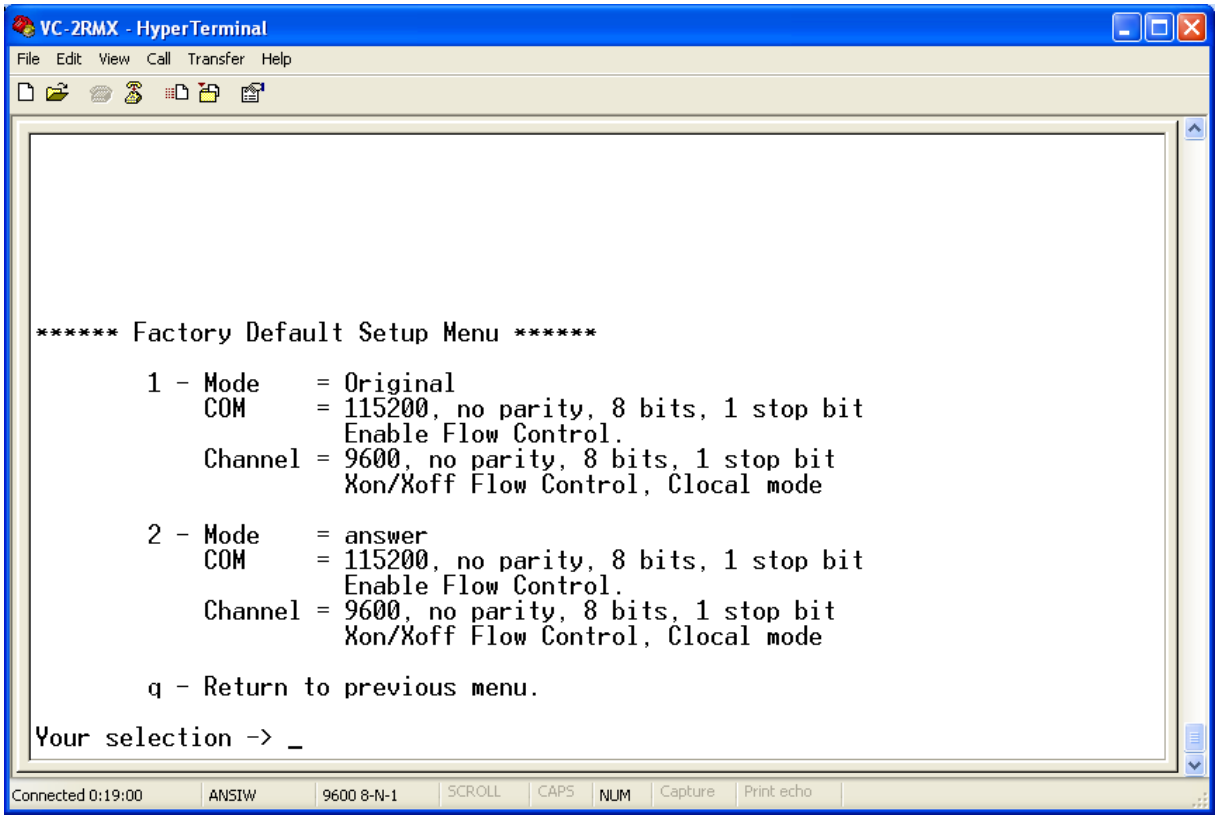


Figure 3-10: Load factory Setup

3.2.8 Console Port Transparently Linked to COM port

By selecting '*t*' from '*Main Setup Menu*', this makes VC-2RMX to enter transparent mode. In this mode, each character typed on

console terminal will be sent to COM port. And each character received from COM port will be sent to console terminal. You may use this feature to configure MODEM directly without changing any cables. Note that you can not return back to setup procedure after entering this mode. So all the parameter setting must be saved before entered this mode.

In transparent mode, the baud rate of COM port is the value as you saved in NVRAM. You should setup the COM port speed and save it before entering this mode. Also you may need to save the configuration in MODEM to the work profile, because VC-2RMX will do nothing in MODEM local configuration.

Because we do not support XON/XOFF handshake in COM port, user can not enable the XON/XOFF handshake in MODEM.

- **Note 1:** For evaluating the telephone line between two VC-2RMXes we can let two VC-2RMXes in transparent mode. Then two consoles will be connectted directly through MODEM. If the setting for both MODEM are correctly and the telephone line quality is good. The communication between two consoles will be functioned well. Then we can confirm to have good connection between two VC-2RMXes.

- **Note 2:** We can use transparent mode in both VC-2RMX box to evaluate the connection quality between them. Generally we can monitor the data transmission between both VC-2RMX boxes to check the possible problem between both VC-2RMX normal connections.

3.2.9 Save Current Settings to NVRAM

By selecting '*s*' from '*Main Setup Menu*', the current settings will be saved to NVRAM. Before exiting the '*Main Setup Menu*', you should do this action.Then all the parameter will be available in your next boot procedure.

Chapter 4 - Installation

4.1 General

After system parameters are completely configured, you can install VC-2RMX into your environment very easily.

The installation can be very complex and daisy chain of VC-2RMX units. Please see picture bellow for more idea:

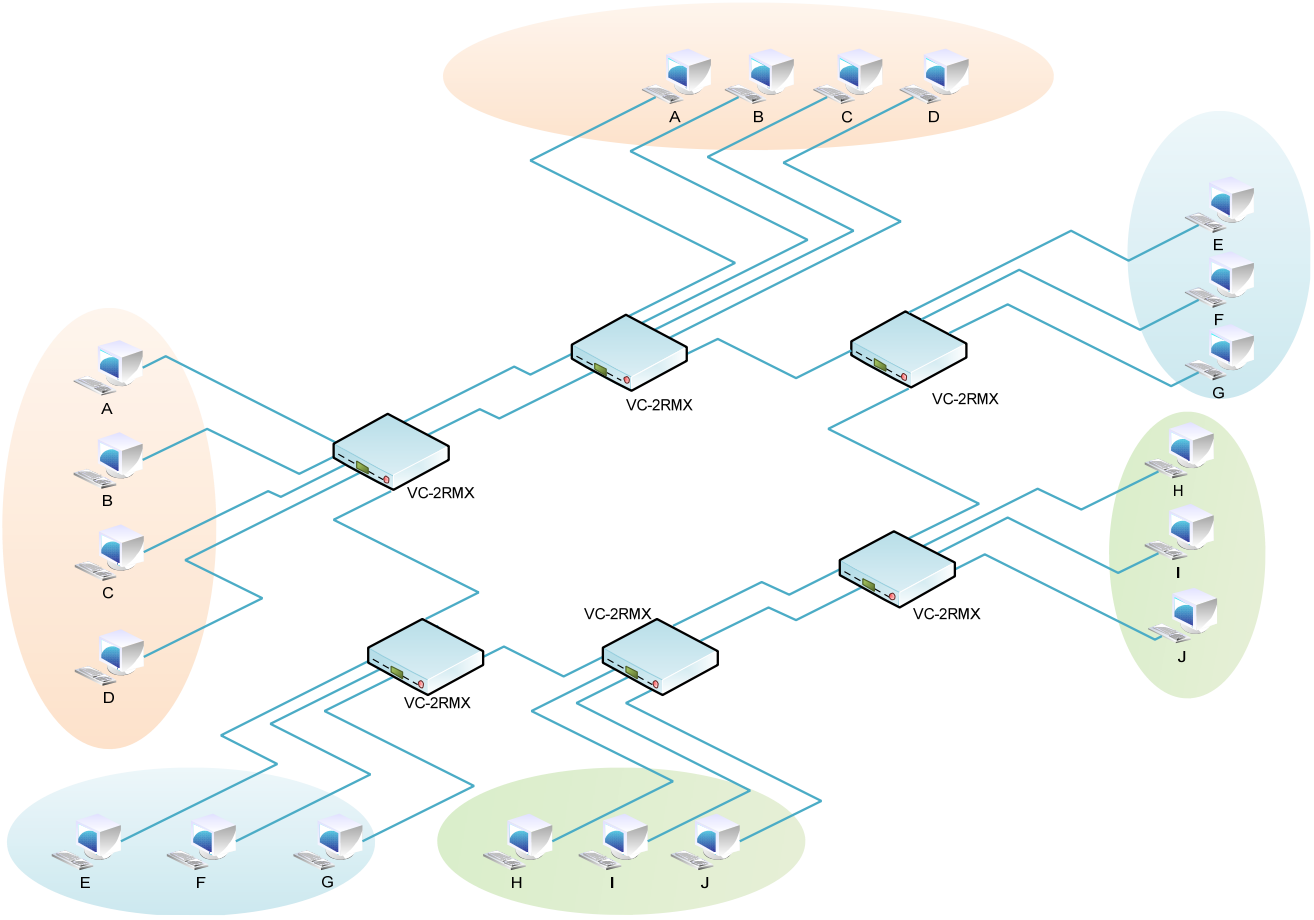


Figure 4-1: VC-2RMX Complex Installation Diagram

4.2 COM-to-COM connection

Three types of connections can be used to build the link between two VC-2RMXes.

4.2.1 Direct Connection

There's no MODEM and no telephone line needed in this application. A null-modem cable should be used to connect between two VC-2RMX'es. In real application environment, this kind of connection is nonsense except for testing purpose. It is due to one RS232c cable can not be used in long-distance connection. And you can connect channel equipement directly. After booting up two RMXes, link will be built automatically.

Figure 4-2: Com to Com Null Modem Direction Connection

But in evaluation procedure we can use this method to check function of VC-2RMX. See the Chapter 5 - Ports & Wiring for more information about this connection.

If some application may just need to connect within 300 meters, user can use our V.35 interface model to connect both VC-2RMX boxes.

4.2.2 Leased Line Connection

In this case, the cable between COM1 and MODEM should meet the standard RS232c DTE-to-DCE connection. See the Chapter 5 - Ports & Wiring for more information about this connection.

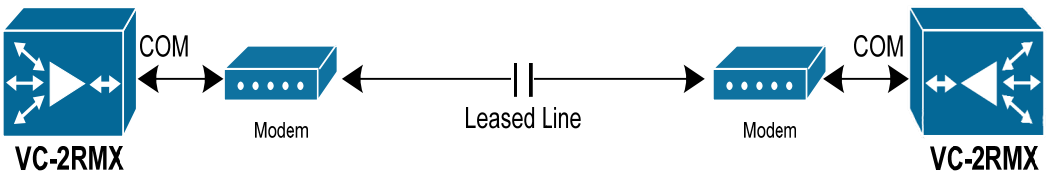


Figure 4-3: Com to Com Modem Connection

After booting up two VC-2RMX'es, link condition would be built automatically when MODEMs are correctly configured. This type of MODEM must have "leased line" mode and can confirm the link condition always maintained between two MODEMs.

4.3 Channel Connection

Because we emulate MODEM on channel port, all channel ports are DCEs. Before using VC-2RMX, you may connect a DTE (terminal for example) to a MODEM and through the PSTN to access remote host. You don't need to change the cable when you replace your MODEM with VC-2RMX.

Device connected with a channel port on VC-2RMX should use a cable which follows the standard RS232c DTE-to-DCE wiring. That is same as one DTE device to connect with one MODEM.

When two VC-2RMX'es are successfully linked up, same channel numbers on each VC-2RMX can be seen as connected with each other directly. The relationship just like following condition:

Channel A on MUX1 is logically linked to channel A on MUX2,

Channel B on MUX1 is logically linked to channel B on MUX2, etc.

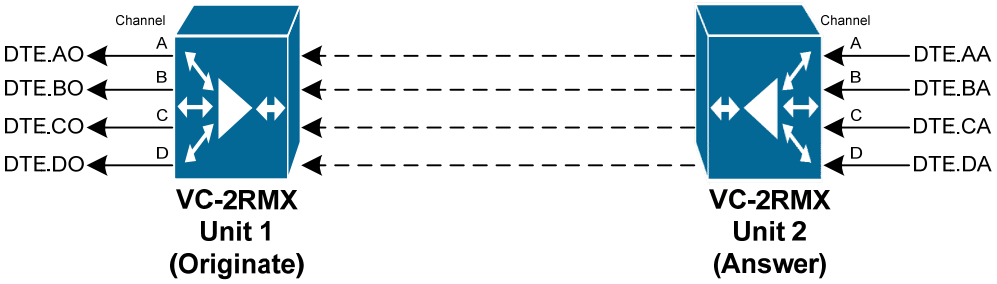


Figure 4-4: Multiplexer Diagram Connection

The DTE.AO in Unit 1 site is seen to connect directly with DTE.AA in Unit 2 site.

4.4 Channel Port Link Timing

Due to channel port is seen as MODEM to DTE equipment, the control signal between channel port and DTE device is very important. Channel port will work as one leased line type MODEM to DTE device. In MODEM mode we may have following procedure to work in channel port. In CLOCAL mode it is no special action in control signal.

- Step 1: The DTR signal from DTE device must be actived to notify RMX to enable this MODEM (channel port). (DTE need to use MODEM).
- Step 2: When RMX is ready to run, the DSR signal to DTE device is actived. (MODEM is ready).

- Step 3: When remote DTE device's DTR signal is actived, and both VC-2RMX are linked in COM port. VC-2RMX will send DCD signal to DTE device. (MODEM is linked).

- Step 4: DTE device enter to data mode. All the data send between both DTE devices. (MODEM is in data mode).

Before DCD is actived, all the data from DTE will be ignored. So you must set your terminal to MODEM mode not just hardware handshake mode. Or some data may be lost before MODEM linked.

Above condition is used in MODEM mode. In CLOCAL mode DCD signal will be always actived in channel port. So all the data will be received and re-transmitted to remote site anytime.

Chapter 5 - Ports & Wiring

5.1 General

In this chapter you will see about wiring & cabling diagrams and schematics that help you to avoid any miss connection wirings.

5.2 COM Ports

5.2.1 RS232 Interface

Pin definition for VC-2RMX COM (1,2) port DB25 male connector in RS232 interface:

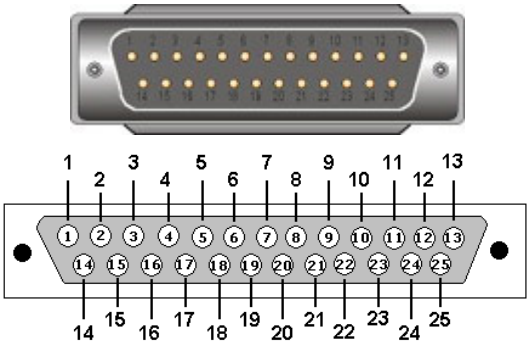


Figure 5-1: RS232 COM Port, DB25 male connector

Pin	Abbreviation	Name	Direction
1	FG	Frame Ground	--
2	TXD	Transmitted Data	To DCE (out)
3	RXD	Received Data	To DTE (in)
4	RTS	Request To Send	To DCE (out)
5	CTS	Clear To Send	To DTE (in)
6	DSR	Data Set Ready	To DTE (in)
7	SG	Signal Ground	--
8	DCD	Data Carrier Detect	To DTE (in)
15	TXCI	Transmit Clock Input	To DTE (in)
17	RXCI	Receive Clock input	To DTE (in)
20	DTR	Data Terminal Ready	To DCE (out)
24	TXCO	Transmit Clock Output	To DCE (out)

Table 5-1: RS232 COM Port, DB25 male connector pinout definition

- **Note:** In this description DTE is VC-2RMX equipment. DCE is MODEM or other serial equipment.

5.2.2 V.35 Interface

Pin definition for VC-2RMX COM port male connector in V.35 interface:

Table 5-2: V.35 COM Port, DB25 male connector pinout definition

Pin	Abbreviation	Name	Direction
1	FG	Frame Ground	--
2	TXD+	Transmitted Data	To DCE (out)
3	RXD+	Received Data	To DTE (in)
4	RTS	Request To Send	To DCE (out)
5	CTS	Clear To Send	To DTE (in)
6	DSR	Data Set Ready	To DTE (in)
7	SG	Signal Ground	--
8	DCD	Data Carrier Detect	To DTE (in)
9	RXCI-	Received Clock Input	To DTE (in)
11	TXCO-	Transmit Clock Output	To DCE (out)
12	TXCI-	Transmit Clock Input	To DTE (in)
14	TXD-	Transmitted Data	To DCE (out)
15	TXCI+	Transmit Clock Input	To DTE (in)
16	RXD-	Received Data	To DTE (in)
17	RXCI+	Receive Clock Input	To DTE (in)
20	DTR	Data Terminal Ready	To DCE (out)
24	TXCO+	Transmit Clock Output	To DCE (out)

- **Note:** In this description DTE is VC-2RMX equipment. DCE is MODEM or other serial equipment. V.35 interface with differential signal pair in TXD, RXD, TXCI, RXCI, and TXCO. For other signal is RS232C compatible.

5.3 Channel Ports

Pin definition for VC-2RMX Channel (A-H) DB25 port female connector:

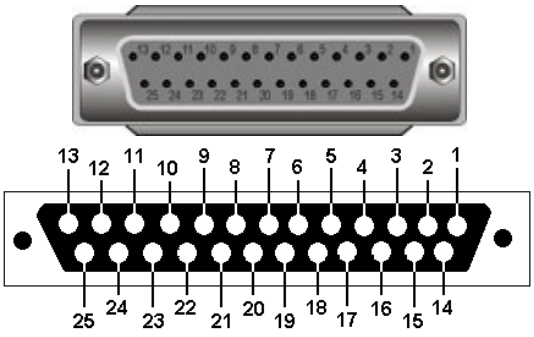


Figure 5-2: RS232 Channel Port, DB25 female connector

Pin	Abbreviation	Name	Direction
1	FG	Frame Ground	--
2	TXD	Transmitted Data	To DCE (in)
3	RXD	Received Data	To DTE (out)
4	RTS	Request To Send	To DCE (in)
5	CTS	Clear To Send	To DTE (out)
6	DSR	Data Set Ready	To DTE (out)
7	SG	Signal Ground	--
8	DCD	Data Carrier Detect	To DTE (out)
20	DTR	Data Terminal Ready	To DCE (in)

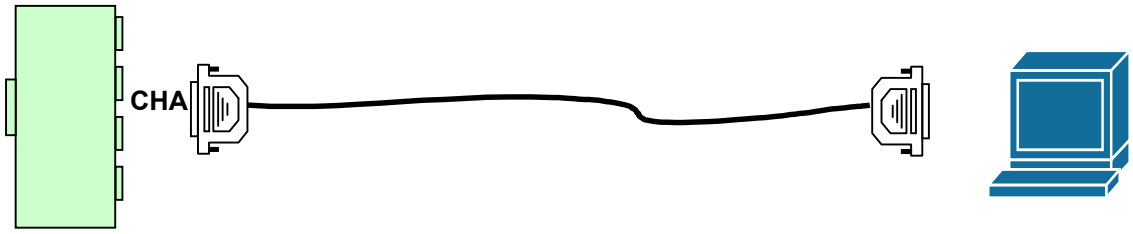
Table 5-3: RS232 Channel Port, DB25 female connector pinout definition

- **Note:** In this connector DCE is VC-2RMX equipment. DTE is Display Terminal or other serial equipment.

5.4 Wiring

5.4.1 Console Port Cable

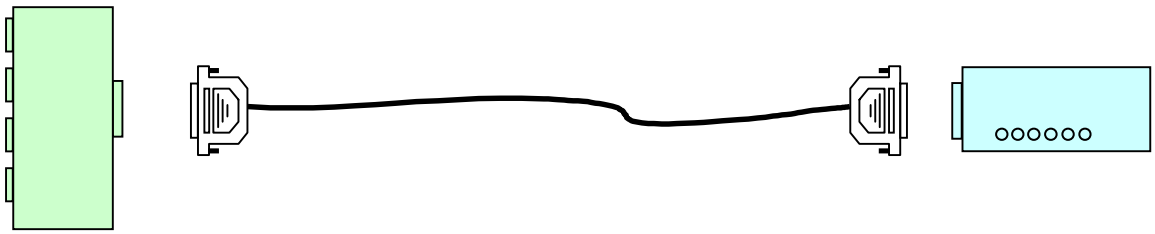
Console Port (CHA) between VC-2RMX and PC for SETUP:



VC-2RMX	DB-25	Cable	DB-25	DB-9	PC
FG	1		1	-	FG
TXD	2		2	3	TXD
RXD	3		3	2	RXD
RTS	4		5	8	CTS
CTS	5		4	7	RTS
DSR	6		6	6	DSR
SG	7		7	5	SG
DCD	8		8	1	DCD
DTR	20		20	4	DTR
Female Connector	Male Connector	COM Port of VC-2RMX	Female Connector		Male Connector

5.4.2 COM Ports to Modem

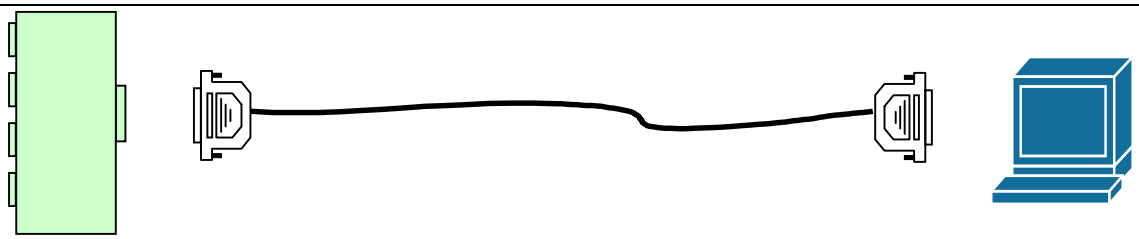
Suggested Cable wiring between VC-2RMX ports and MODEM:



VC-2RMX	DB-25	Cable	DB-25	Modem
FG	1		1	FG
TXD	2		2	TXD
RXD	3		3	RXD
RTS	4		4	RTS
CTS	5		5	CTS
DSR	6		6	DSR
SG	7		7	SG
DCD	8		8	DCD
DTR	20		20	DTR
Male Connector	Female Connector	COM Port of VC-2RMX	Male Connector	Female Connector

5.4.3 COM Ports to DTE

Direct connection between VC-2RMX and DTE:



VC-2RMX	DB-25	Cable	DB-25	DB-9	DTE
FG	1		1	-	FG
TXD	2		3	2	RXD
RXD	3		2	3	TXD
RTS	4		5	8	CTS
CTS	5		4	7	RTS
DSR	6		6	6	DSR
SG	7		7	5	SG
DCD	8		8	1	DCD
DTR	20		20	4	DTR
Male Connector	Female Connector	COM Port of VC-2RMX	Female Connector		Male Connector

5.4.4 Channel Ports to Modem

5.4.5 Channel Ports to DTE

5.4.6 Power Supply Port

Chapter 6 - Troubleshooting

6.1 General

Generally, fail to install VC-2RMXes may be solved by yourself. When the VC-2RMX is malfunctioned, we suggest that you can fix the problem by yourself firstly. If your problem is not one of the following common problems please contact your supplier.

When one VC-2RMX is powered up, correct boot sequence should be as follows:

Step 1. The power indicator is lighted up.

Step 2. You will hear a long bell and then stop to sound.

Step 3. Testing all indicators (indicators are flashed on and off in turns).

Step 4. Two short bells will be heard to say self test OK.

Step 5. If the link between two VC-2RMXes is up, the LINK1 indic-ator will be lighted up continuously. Or you will see a fast flash LINK indicator in linking procedure.

Step 6. If the VC-2RMX keeps alive, the ACTIVE indicator will be flashed on and off per second all over the running time.

In the followings there are frequently asked questions and our answer.

6.2 Question & Answer

1- Q: Power indicator does not light and there's no bell after powering up the VC-2RMX.

A: Check if your power cord is completely pluged into the power socket of VC-2RMX, and check if the power source has no problem.

If everything's OK, but the VC-2RMX does not work, contact your provider. The power supply in VC-2RMX may be failed.

2- Q: On boot, power indicator is lighted up, but the bell does not stop (sound continuously).

A: Contact your provider. The logic circuitry in RMX may be failed.

3- Q: On boot, 3--7 short bells are heard after a long bell, and the sound sequence is repeated forever.

A: At this point, the power on self-test find some device failure. You may need to contact your provider.

4- Q: On boot, 5 short bells are heard after a long bell, and the SETUP indicator is lighted up.

A: At this point, VC-2RMX is running in SETUP procedure. This may be due to checksum error in NVRAM. You just need to have one terminal to connect with channel A port in VC-2RMX. And you can start to do the SETUP procedure (see the Chapter 3 - Setup Procedure). After the SETUP procedure has been finished (make sure you have saved all system parameters in NVRAM), please reboot VC-2RMX again. If this problem occurs again, contact your provider. The NVRAM in VC-2RMX may fail.

5- Q: In SETUP procedure, a terminal is attached to channel A port in VC-2RMX, and there's no Copyright message shown on terminal but garbage.

A: Press 'ENTER' key on terminal. If the copyright message is still not shown, this may be due to the error parameter settings in your terminal. If SETUP procedure is running, the parameters of channel A is set to 9600 baud, no parity, and 8 data bits, 1 stop bit. Your terminal settings should match this configuration.

6- Q: I use one cable directly connectted between two RMXes, but the LINK indicator does not light.

A: a) Check if your cable is correctly wired to null MODEM type. (See the Chapter 5 - Ports & Wiring).
b) Check if the baud rate and other parameter of COM ports on both VC-2RMXes are the same (see the Chapter 3 - Setup Procedure).
c) Check the password for both VC-2RMX is same.

7- Q: I use leased line MODEM to connect between two VC-2RMXes, but the LINK indicator does not light.

A: a) One of your MODEM should be set to 'Originate' mode, the other one should be set to 'Answer' mode.
b) Make sure the DCD setting of MODEM is 'normal', but not 'force on'. See your MODEM's user manual.
c) Check if the line type setting of your MODEM matches the real connected telephone line. The line type may be 2-wired leased line or 4-wired leased line. Different manufacture may have different pin definition in leased line connector.
d) Check if all your MODEM settings are correct, you should make sure the link between two MODEMs is correctly before connecting VC-2RMXes to them.You can use "transparent" mode to check it.
e) Check if the baud rate and parameter of COM port matches the setting in MODEM.

8- Q: The link is up between two RMXes, but the channel port does not work properly.

A: a) Make sure you have connected on the same channel of each RMX.
b) Check if your cable connected to the channel port on RMX is correctly wired.
c) Make sure the parameter settings are matched between your DTE device and channel port on VC-2RMX.

9- Q: The link is up between two RMXes, and the channel ports work properly, but data will be lost when channel port is heavy loaded.

A: This problem may be due to wrong flow control setting. The flow control between COM port and MODEM, flow control between channel port and DTE, or flow control between two COM ports on direct link. Besides, when you use data compress protocol between your MODEMs (V.42bis/MNP-5), you should choose RTS/CTS flow control between MODEM and COM port on VC-2RMX. Please keep in mind that we do not support XON/XOFF mode in COM port. Don't enable XON/XOFF function in your MODEM.

10- Q: The RMX box in remote site does not response in linking procedure.

A: a) Please confirm that remote MODEM is set to auto answer mode.
b) Please confirm the telephone line is correctly.

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