

TECHNICAL NOTE 001

Operation of CRITICARE Vital Care™ 506DXN over the Clear Data Channel

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Introduction

This technical note explains the operation and use of the Clear Data Channel. Refer also to “mm225 videophone” User Guide and “eyesite 400 Owner’s Manual, Part 1: User’s Guide”.

Connecting up

Refer to the manufacturer’s instruction guide when setting up the Criticare unit, and set it up in accordance with these instructions, but with the exception of the RS-232 link to the PC. This should be inserted into the Data socket on the back of the mm225, or the Data/Camera Control socket on the back of the eyesite 400.

At the PC end, attach a null Modem cable between the Serial Communications Port on the PC and the Data socket of the mm225 or eyesite unit.

Follow the steps outlined below to enable the Criticare unit to work with Motion Media Technology products.

Configuring the mm225

1. Press the **Set Up** button to access the **Configuration Menu**.
2. Use the **Down** arrow key to scroll through the options until the **Data PC** option is highlighted, then press **OK**.
3. Use the **Right** or **Left** arrow keys to set Baud Rate to **9600**.
4. Use the **Down** arrow key to select **Protocol**, then use the **Right** or **Left** arrow keys select **Data**.
5. Press **OK** to save the changes.
6. Set the Data PC menu of the mm225 as follows:



Configuring the eyesite 400

1. Press the **Set Up** button to access the Configuration Menu.
2. Use the **Down** arrow key to scroll through the options until the **Data PC** option is highlighted, then press **OK**.
3. Use the **Left** or **Right** arrow keys to set the Baud Rate to **9600**.
4. Use the **Down** arrow key to select **Protocol**, then use the **Left** or **Right** arrow keys select **Data**.
5. Use the **Down** arrow key to select **Chan Open**.
6. Use the **Right** or **Left** arrow keys set this to either **Auto** or **Manual**.
Auto - Automatically opened at the start of all outgoing video calls. (Note that the Data Channel uses up bandwidth, reducing video quality slightly. We therefore recommend that you only use this setting if you are going to use the Data Channel.)
Manual - Opened and closed using the DATA button (or equivalent) at either end of the call.
7. Press OK to save the changes.
8. Data PC settings should now be set as follows:



Configuring the Criticare Unit

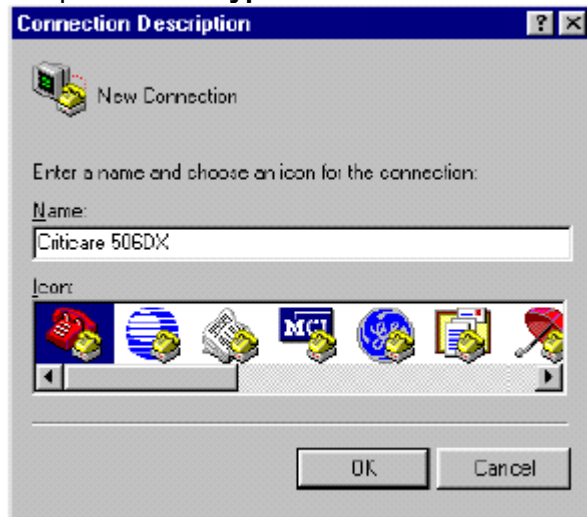
1. Power up the Criticare unit.
 2. Press the **Menu** key to access Main Menu, from the Initial screen.
 3. Press **Up** key once to go to **Printer Setup**.
 4. Press the **Menu** key.
 5. Press the **Down** key until **Print To .** appears, followed by either **Printer**, **Off**, or **Serial**.
 6. If **Print To . Serial** appears, no further action is required. Leave until unit returns to main screen.
 If **Printer** appears, press the **Menu** key and the arrow will change direction.
 7. Use the **Up** or **Down** arrow keys, to scroll through the options until **Serial** is displayed. No further action is required. Leave until unit returns to main screen.
- You can set the Criticare unit to transmit information every 1 to 30 seconds. Set according to your preference, from the Printer Setup Menu under the Interval option.

Configuring Hyper Terminal

1. To open Hyper Terminal, select **Start - Programs - Accessories - Communications - Hyper Terminal**.

If you are intending to use this program frequently, select the **hypertrm** icon from the Hyper Terminal folder and create a shortcut on your desktop.

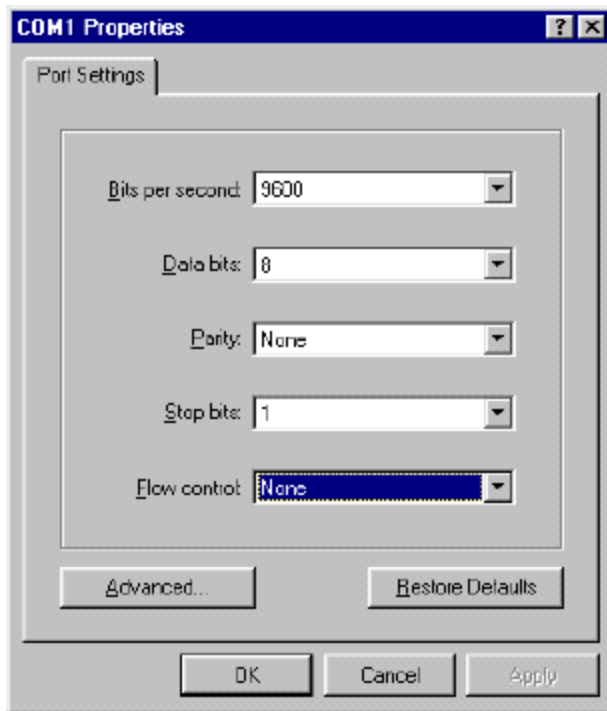
2. Open the file **hypertrm.exe**.



3. Enter a name for the session (enter any name), then press **OK**.
4. Select **Direct to COM1** or **Direct to COM2** (depending on the COM port you plugged into), from the "Connect using" drop down menu, then press **OK**.

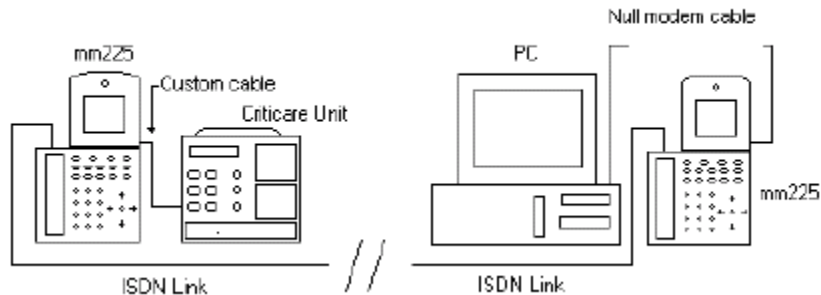


5. The COM1 Properties window should be set as follows.



6. Press **OK** to proceed.

All equipment is now set up correctly to enable vital signs data to be transmitted from the Criticare unit back to a remote PC via the Clear Data Channel.



Making a Data Call

1. Make a video call in the usual way.
2. When you are ready to transfer your data, open a Data Channel. To open a Data Channel press the Data Sharing button on the keypad of the mm225 (Shift followed by Data Sharing), or press the Data button (located under the removable lower flap), on an eyesite remote control unit.
3. If the units are set up correctly, the message 'Data sharing is enabled' appears. The message on the unit at the other end should read 'Data sharing started by remote user'. If the Criticare unit is on, the data should now appear on the Hyper Terminal screen.

Troubleshooting

Question: I cannot receive data from the Criticare device.

Answer: Check the data cables. Ensure the Criticare data cable is the cable supplied by SCOTTY.

Check serial cable to the PC. The connecting cable should be a null modem cable (NOT a serial cable).

Question: I am receiving random characters on my PC from my Criticare unit.

Answer: Check the baud rate on both the PC and the Criticare device. The baud rates should match.

Question: I am not receiving the blood pressure values, but I am receiving the heart rates.

Answer: Check the settings on the Criticare unit. Press the **Menu** key use the **Up** and **Down** arrow keys until **Configuration** appears on the screen. Use the **Up** and **Down** arrow keys to scroll through the options.

Ensure the following values are set:

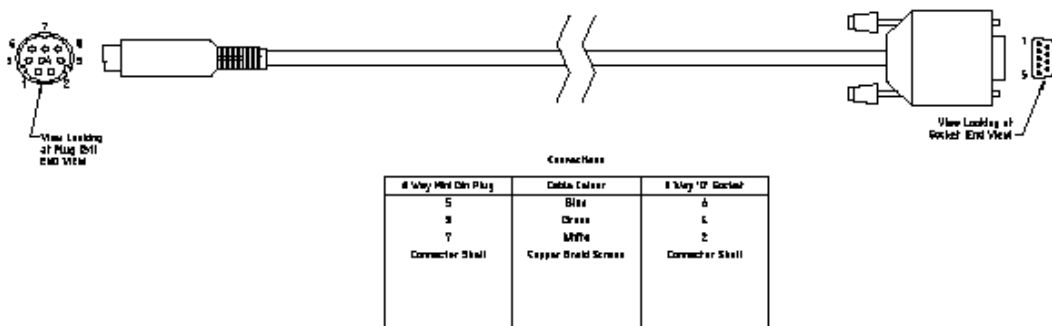
NIBP <- ON

SP02 <- ON

Analogue A <- Pulse

Analogue B <- SP02 50

Appendix A – Wiring Diagram for Criticare to PC Connection Cable



Appendix B – Null Modem Cable

We recommend you purchase a standard 9 pin Null Modem Adaptor from your local electronic retailer.