TABLE OF CONTENTS

Figures

REVISION HISTORY

REVISION	DESCRIPTION	DATE
0.1	Preliminary	Sept 08

1. QMCSETUP: SETTING UP AND CONFIRMING COMMUNICATIONS

1.1. INTRODUCTION

QMCsetup is the PC application that is used to setup and configure all Quartz Master Control Switcher Systems and Control Panels. This document only describes the processes of connecting the QMCsetup application, confirming communications between the PC and Master QMC and downloading the configurations using Serial communications.

Note: The QMCsetup application is not compatible with Microsoft Vista.

1.2. SETUP PROCEDURE

1.2.1. Step 1 – Connecting the PC to the Master Device

The PC must be connected to the Master device using the supplied “Quartz Serial Cable”. See Figure 1-1.

Figure 1-1: Quartz Serial Cable

The Quartz Serial cable is fitted with both a male and female connector, as shown in Figure 1-2.

Figure 1-2: Quartz Serial Cable Ends

The cable end with the male connector fitted connects to the Serial Port of the Quartz device such as the QMC (see Note (1) below). The cable end with the female connector fitted connects to the Serial Port of the PC (see Note (2) below) that will be running the QMCsetup application. If you are making your own cable then the interface cable must be a D9 socket at the PC end and a D9 plug at the router end. The cable must have the following connections.

PC D9 cable (RS-232)

PC D9 skt		Quartz D9 plg
pin 3 (Tx)	-----to-----	pin 3 (Rx)
pin 2 (Rx)	-----to-----	pin 7 (Tx)
pin 5 (0v)	-----to-----	pin 6 (0v)

PC D25 cable (RS-232)

PC D25 skt		Quartz D9 plg
pin 2 (Tx)	-----to-----	pin 3 (Rx)
pin 3 (Rx)	-----to-----	pin 7 (Tx)
pin 7 (0v)	-----to-----	pin 6 (0v)

Note (1):

The Serial 1 of the Quartz Master Control Switchers can be accessed on the rear of the frame, as well as the front card edge using RS232. Serial Port 1 is always to be left open for as-run logging and basic communications. Connect the Quartz Serial cable to “Serial Port 1”.

Figure 1-3: Quartz Serial Cable Connected to the Serial Port 1 of the QMC-2

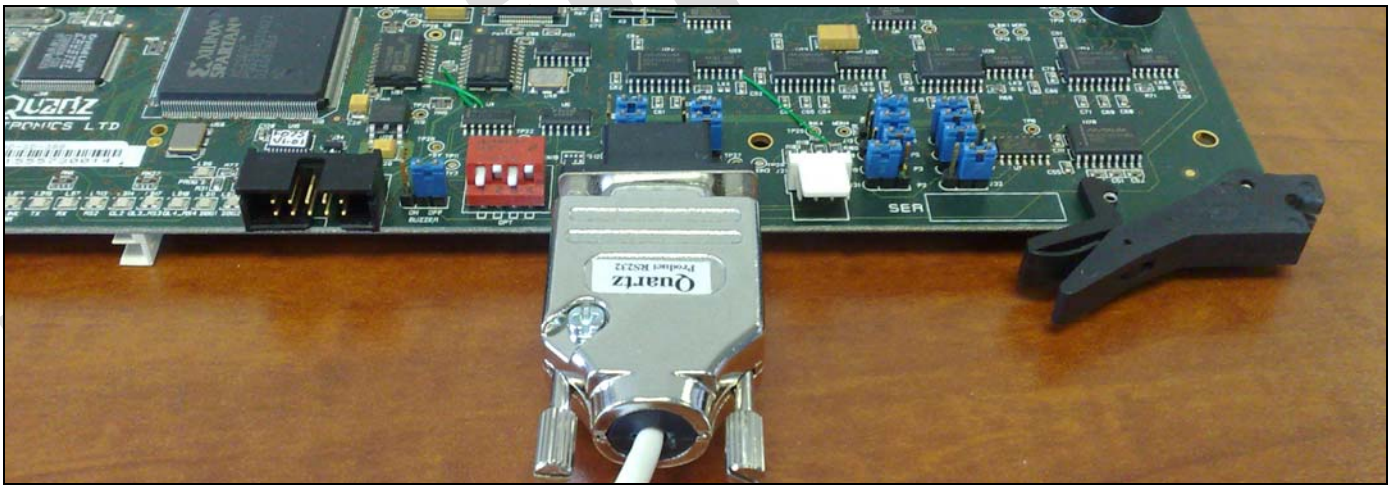

Figure 1-4: Quartz Serial Cable Connected to the Front Serial 1 Port of the QMC-2

Note (2):

Serial Ports on the PC will vary between models.

Figure 1-5: Quartz Serial Cable Connected to the Serial Port Mounted on the PC Rear

If the PC does not support a D-Type connector then a USB to Serial Port converter will have to be used.

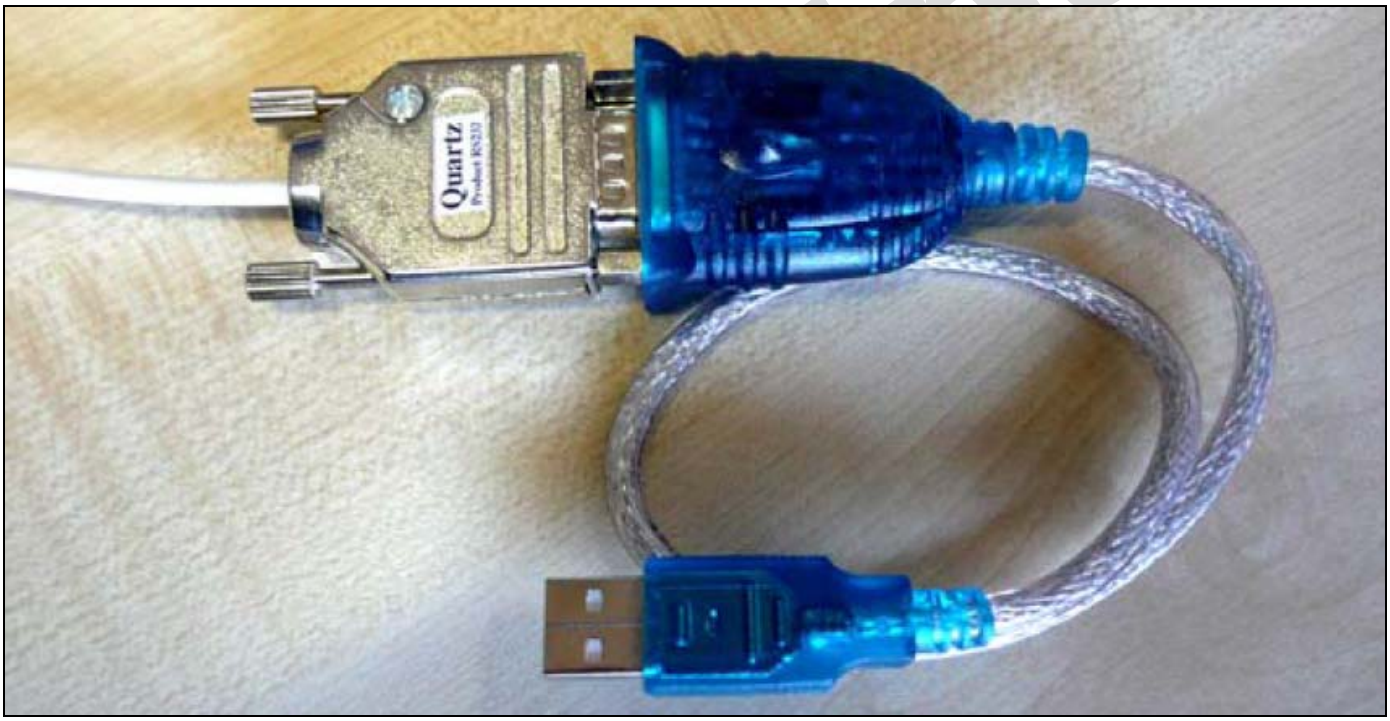

Figure 1-6: Serial to USB Converter

1.2.2. Step 2 – Setting the Switches and Links

Quartz Master Control Switchers:
Once the Quartz Serial Cable is connected between the QMC and the PC, a number of switches and links will need to be checked and set.

1.2.2.1. Serial Port Mode

QMC-2 (FU-0018):
On the QMC-2 Frame Controller (FU-0018), links “J31” and “J32” control the mode of Serial Port 1, link “J31” must be set to “RS 232 on” and link “J32” must be set to “RS 422 off”. Please refer to Figure 1-5.

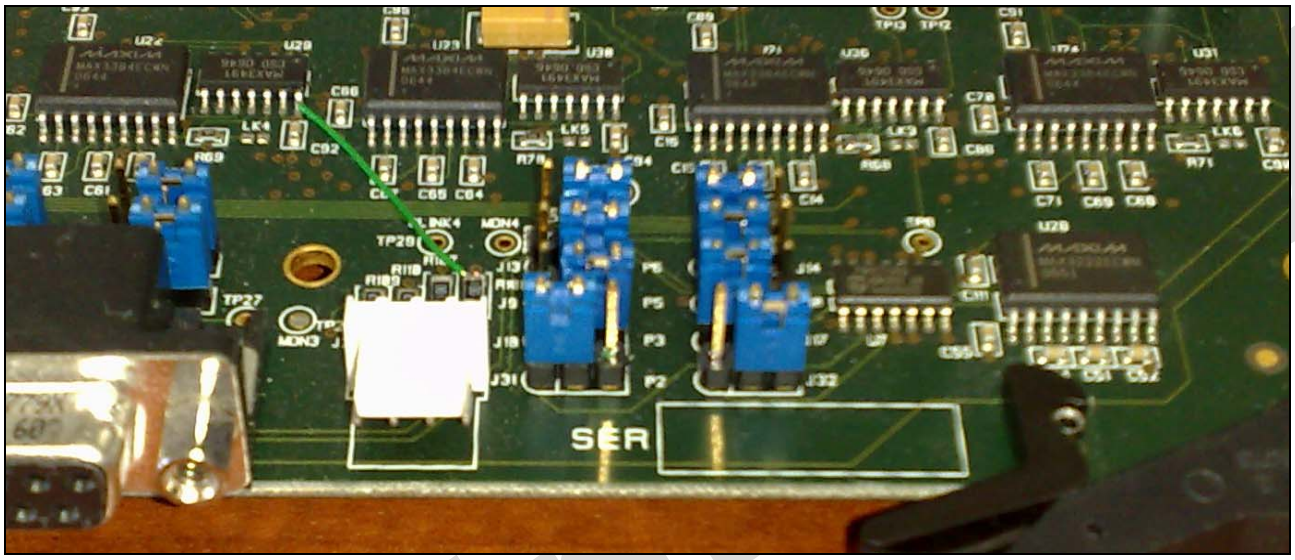

Figure 1-5: QMC-2 Serial Port Mode Link

QMC-MCS (FU-0003):
On the QMC-MCS Frame Controller (FU-0003), link “LK8” controls the mode of Serial Port 1 and must be set to “RS 232”. This link can be found on the front edge of the Frame Controller module and allows the Serial Port to be switched between RS 422 and RS 232 mode.

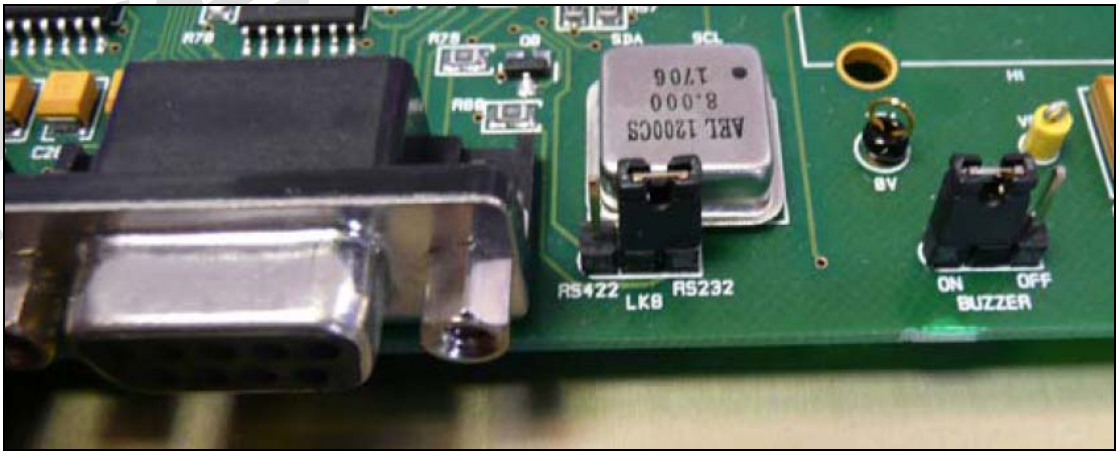

Figure 1-6: QMC-MCS Serial Port Mode Link

1.2.2.2. Dip Switch Settings

QMC-2 (FU-0018):
On the QMC-2 Frame Controller (FU-0018), the “Mode” bank of DIP Switches control the various modes of the Router. For normal operation, which includes using WinSetup to download a new configuration, it is best to have these switches set to Up-Down-Down-UP as shown in Figure 1-7.

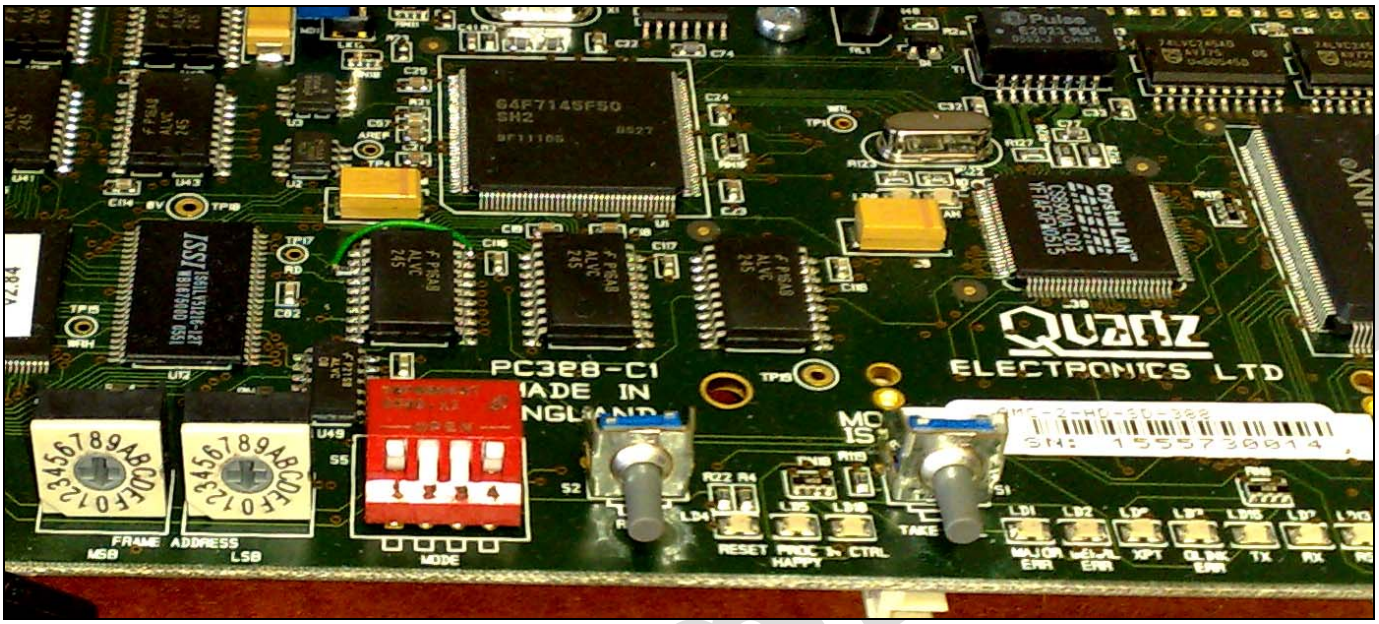

Figure 1-7: QMC-2 DIP Switch Settings

QMC-MCS (FU-0003):
On the QMC-MCS Frame Controller (FU-0003) the “S3” bank of DIP Switches controls various modes of the router. For normal operation, this includes using QMC to download a new configuration, it is best to have these switches set to Up-Down-Down-UP, as shown in Figure 1-8.

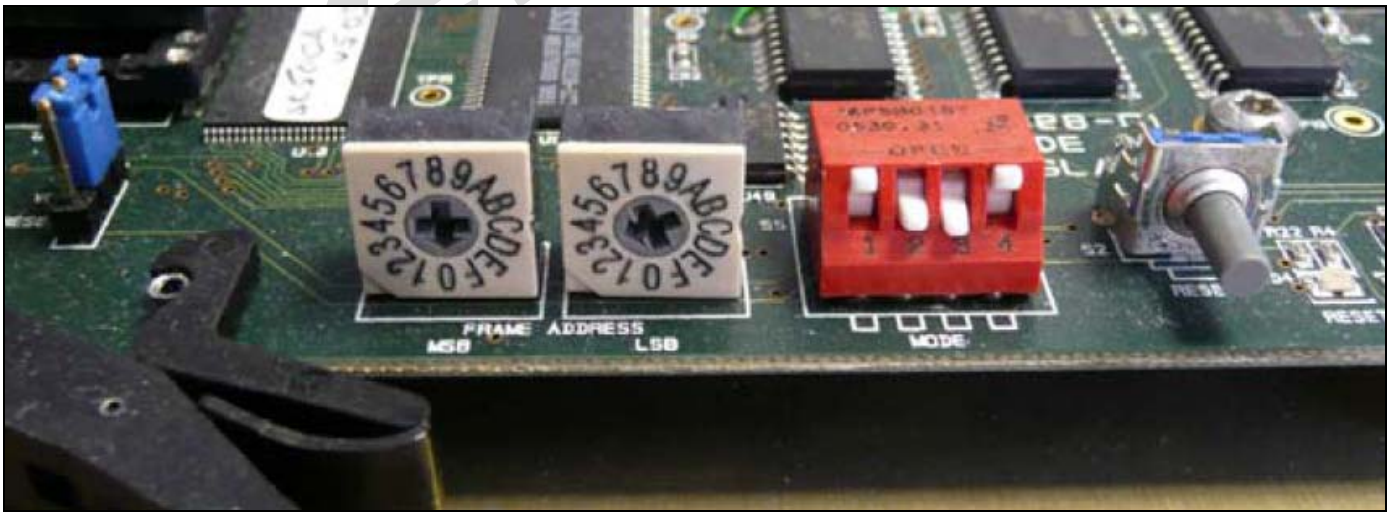

Figure 1-8: QMC-MCS DIP Switch Settings

2. TESTING THE SERIAL COMMUNICATION LINK

Once the Serial cable is in place and the Links and Switches are set, it is advisable to test that there is communication between the PC and the connected device.

STEP 1 - Opening QMCsetup Applications:

1. Launch the relevant version of the QMCsetup application on the PC.

Note 1: Ensure that you are using the correct version of the QMCsetup for the firmware that you are running on your QMC.

Note 2: The QMCsetup application is not compatible with the Microsoft Vista.

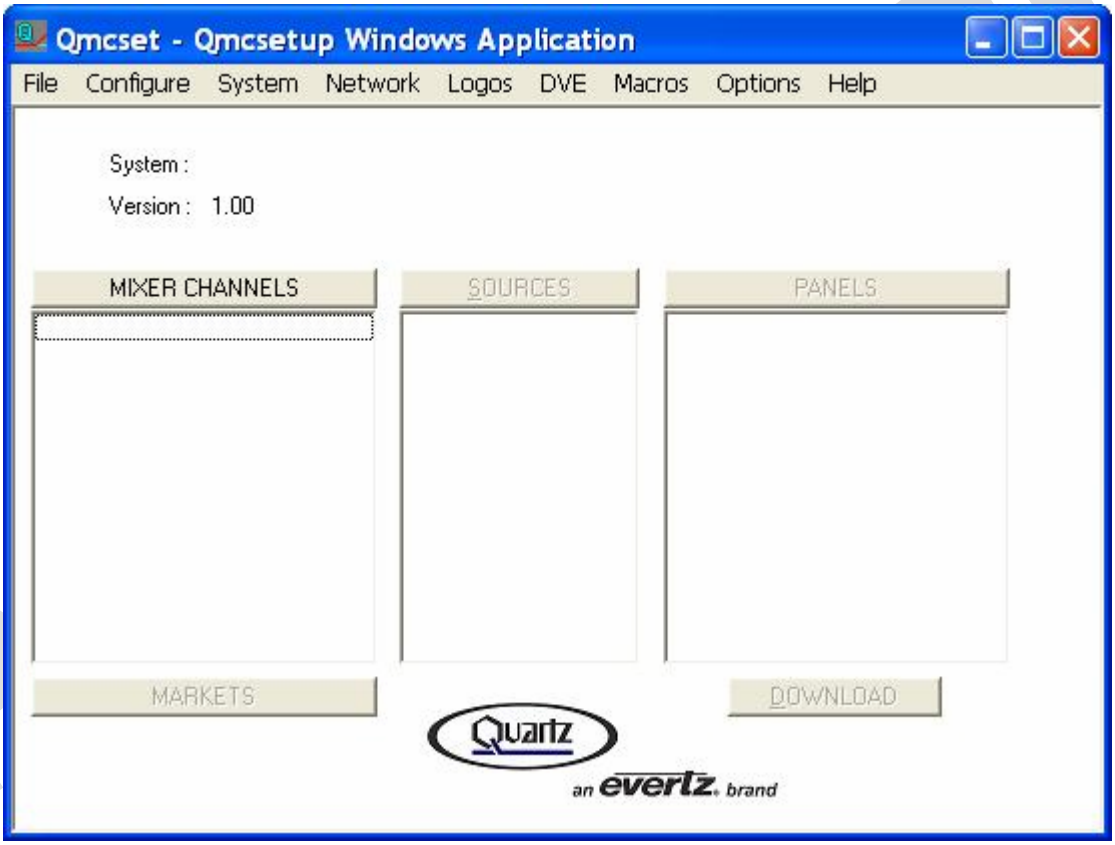

Figure 2-1: QMCsetup Application

STEP 2 - Setting the Communication Parameters:

2. Navigate to the *Options* menu and then select the *Communications* option. See Figure 2-2.

Figure 2-2: Selecting the 'Communications' Option

3. Set the following parameters in the communication options window. See Figure 2-3.

Port: Comm: 1 (This parameter is dependant upon the PC being used)
Baud Rate: 38400 (This is the standard Baud Rate for the Quartz brand products)
Parity: None
Data bits: 8
Stop bits: 1

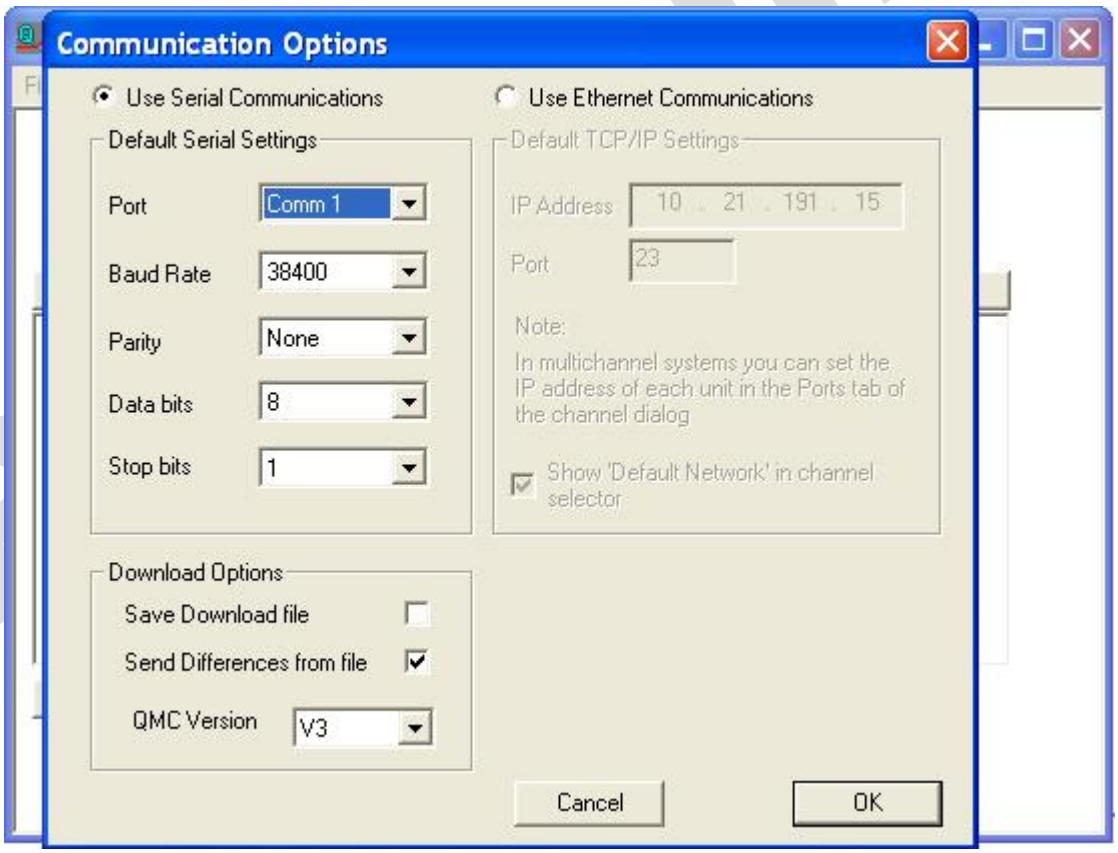

Figure 2-3: Communication Options Settings

STEP 3 - Comms Window:

4. Navigate to the *System* menu and select the "Comms. Window" option (see Figure 2-4). This will open a new window which can be used to verify the communication between the PC and the connected QMC.

5. Navigate to the *Protocol* drop down menu and select the *Quartz Standard* protocol. See Figure 2-5.

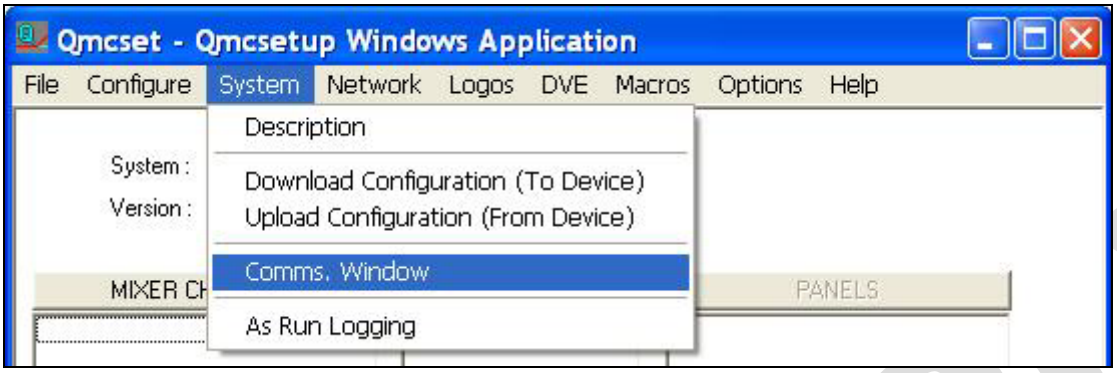

Figure 2-4: Selecting Opening Comms. Window

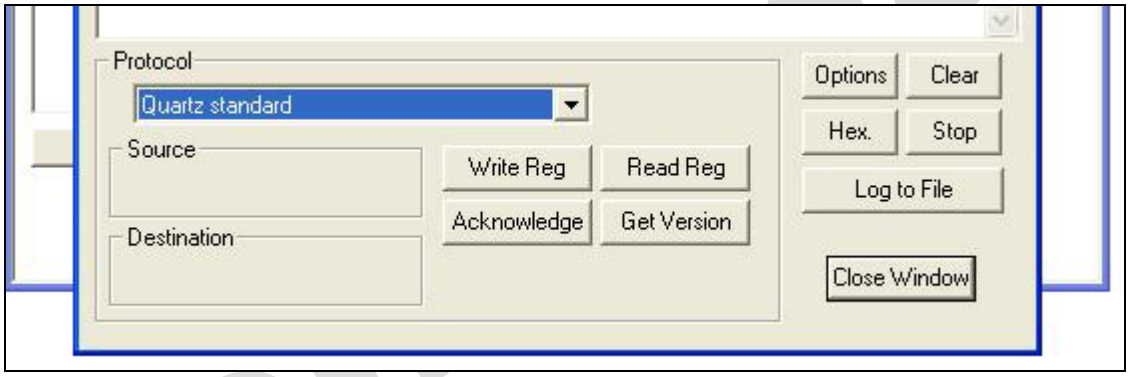

Figure 2-5: Comms. Window

STEP 4 - Confirming 2-Way Connection:

6. Once the communication parameters have been set the next step is to confirm the two way connection between the PC and the connected device. Click on the "Acknowledge" button and the ".#01" command will be displayed in the window. See Figure 2-6.

7. The connected device will respond with ".A" to acknowledge the initial command. See Figure 2-6.

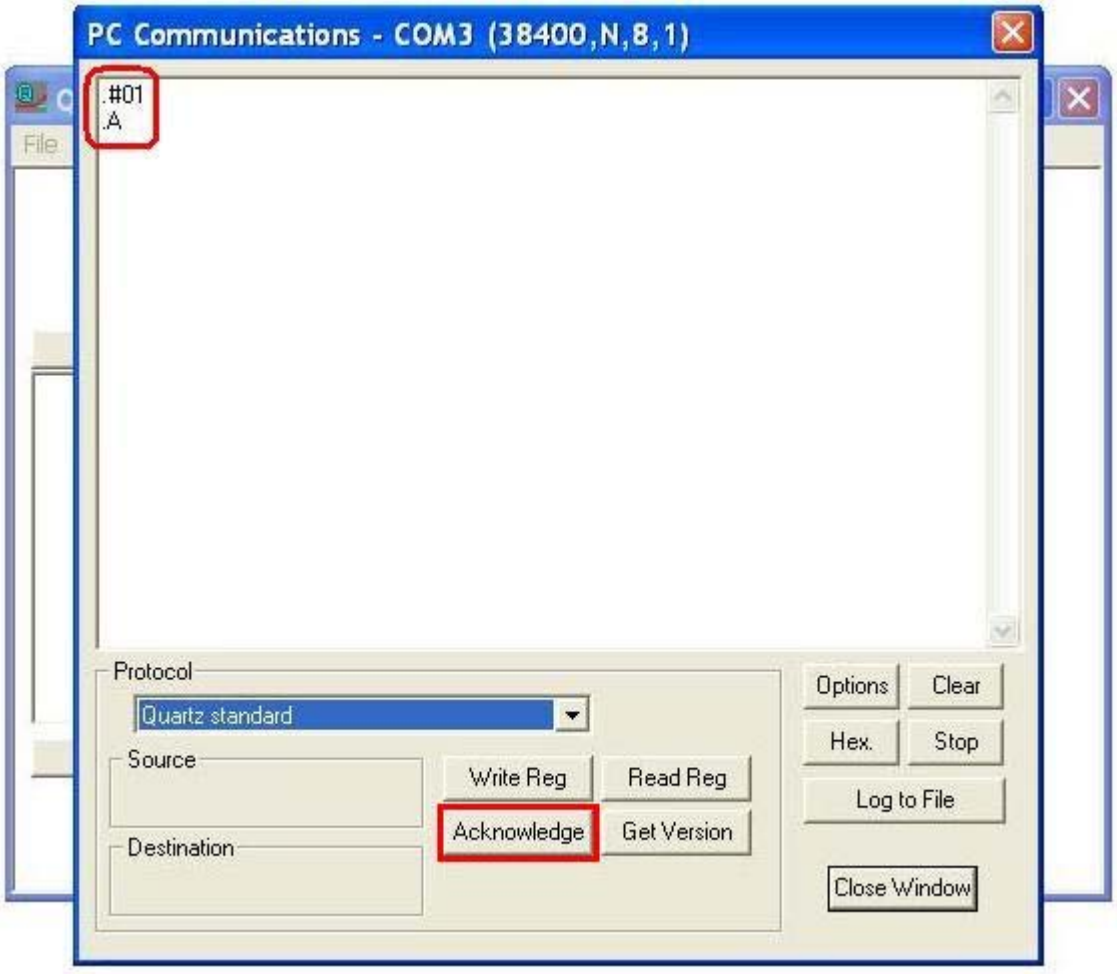

Figure 2-6: PC Communications – Acknowledge Button

8. Congratulations, you have completed testing the serial communication link. You are now ready to download a config or perform As-Run logging. Proceed to section 3 to perform As-Run Logging.

3. AS-RUN LOGGING

This window will interpret the as-run log messages from a QMC-MCS channel and display the textual messages to this window. The window has a history of the last 500 messages. If a longer history is needed then the 'log to file' option should be used.

Note 1: Follow the steps outlined in section 2 Testing the Serial Communication Link before continuing to set up the As-Run Logging.

Note 2: As-run Logging was not designed to run on a constant biases, it is recommended as a debug tool that is turned off when not needed.

STEP 1 - Setup your Mixer Channel for As-Run Logging:

1. In the relevant version of the QMCsetup application on the PC, open the Mixer channel that you wish to apply As-Run logging on.

2. Go to the *As-run logging / Diagnostics* tab. Refer to Figure 3-1.

3. Using the *Logging General* controls, set the ***QMC Logging Port*** to **serial 1**, and ***QMC Logging level*** to **Level 8.** Refer to Figure 3-1.

Figure 3-1: As-Run Logging Tab

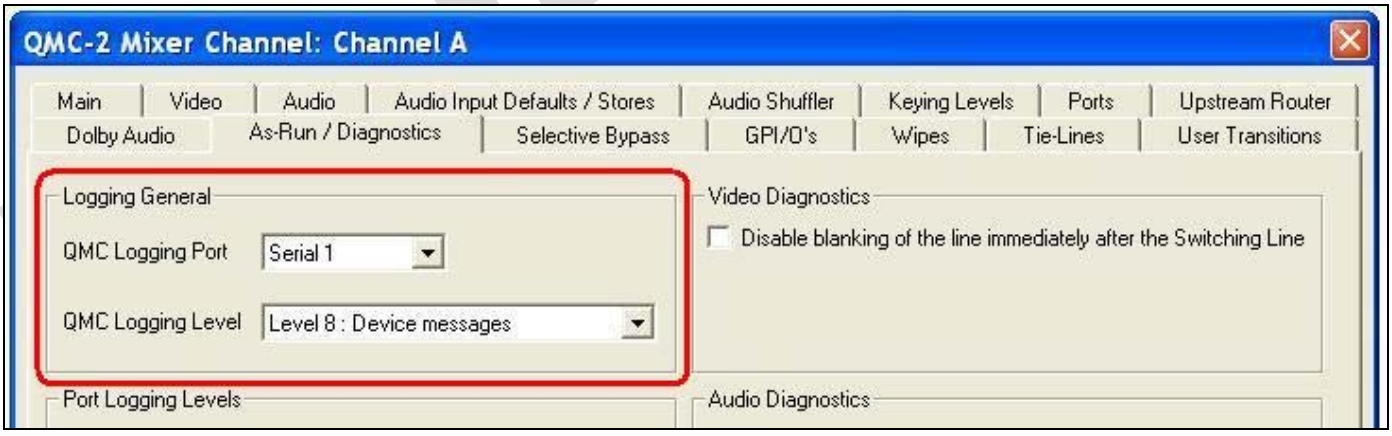

Figure 3-2: Logging General section

STEP 2 - Select the Port You Want to Logs Form On:

4. Select the relevant port that you want to be logging to. To start select level 8. See Figure 3-3.

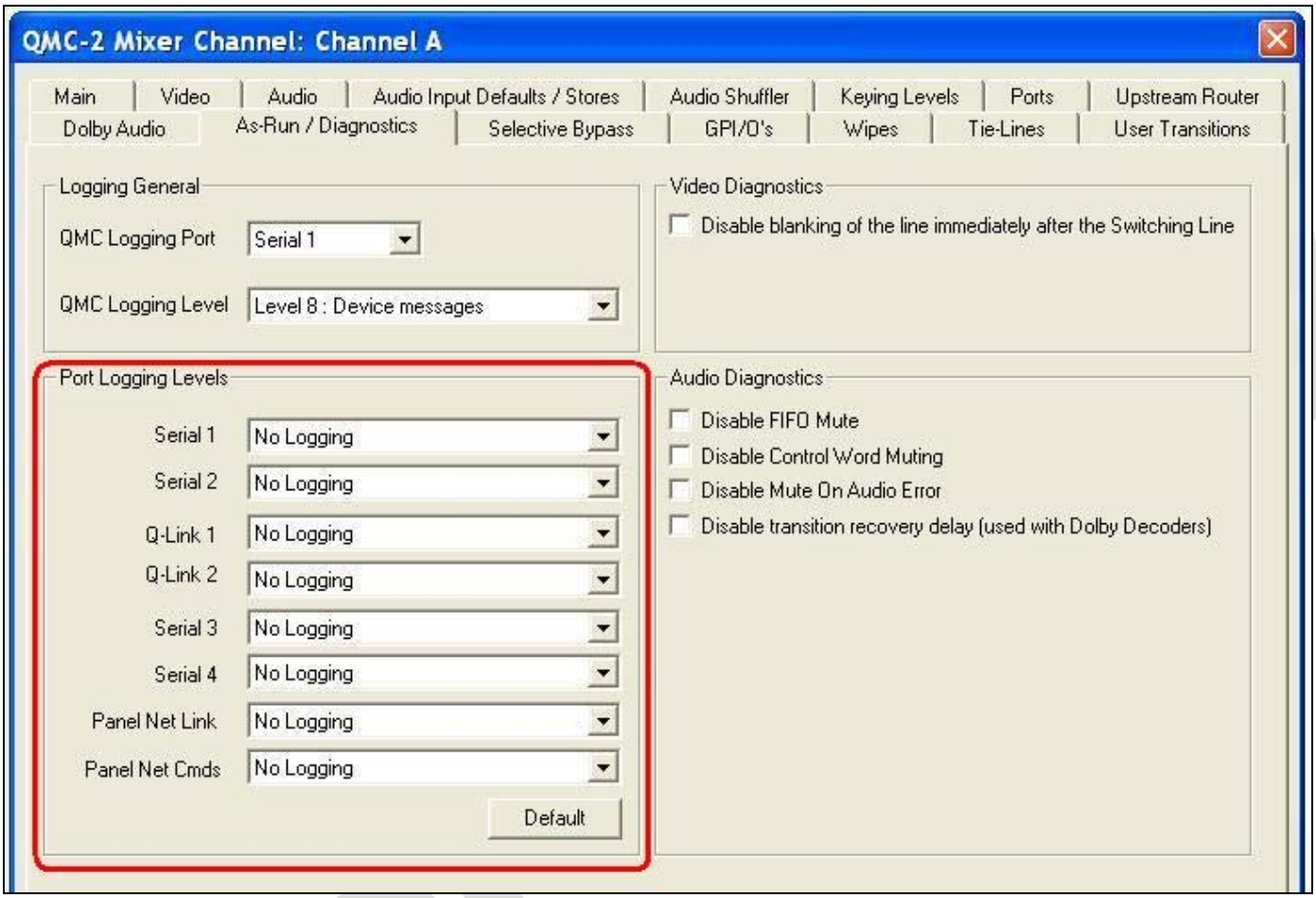

Figure 3-3: Port Logging Levels Section

STEP 3 - Download:

5. Download the changes that were made to the configuration using the "Default COM Port". See Figure 3-4.

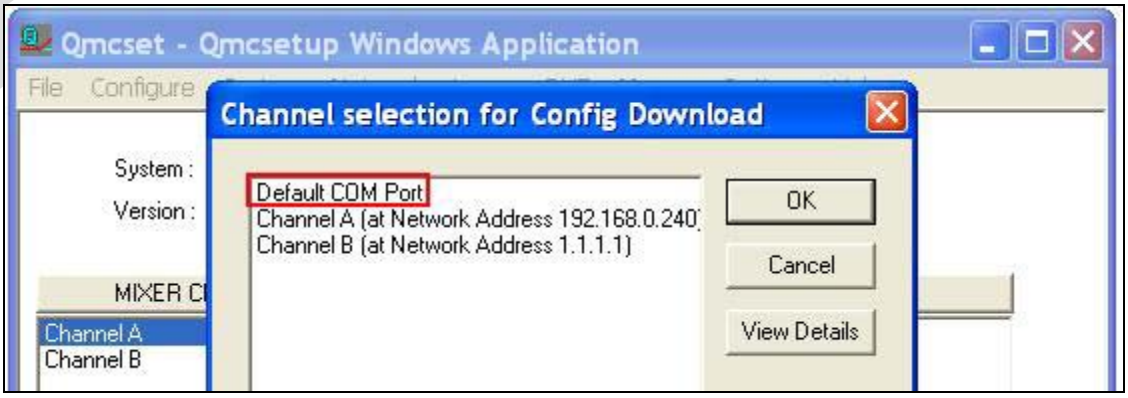

Figure 3-4: Channel Selection for Config Download

STEP 4 - Receiving the Logs:

6. Navigate to the *System* menu and select *As-run logging,* as shown in Figure 3-5, and as before in Figure 3-4 select *Default COM Port*.

7. In the *As Run Logging* window click on the ***Set Time*** button. Pressing this button will sync the As-Run Log to the time on your PC. Refer to Figure 3-6.

Figure 3-5: Selecting As-Run Logging

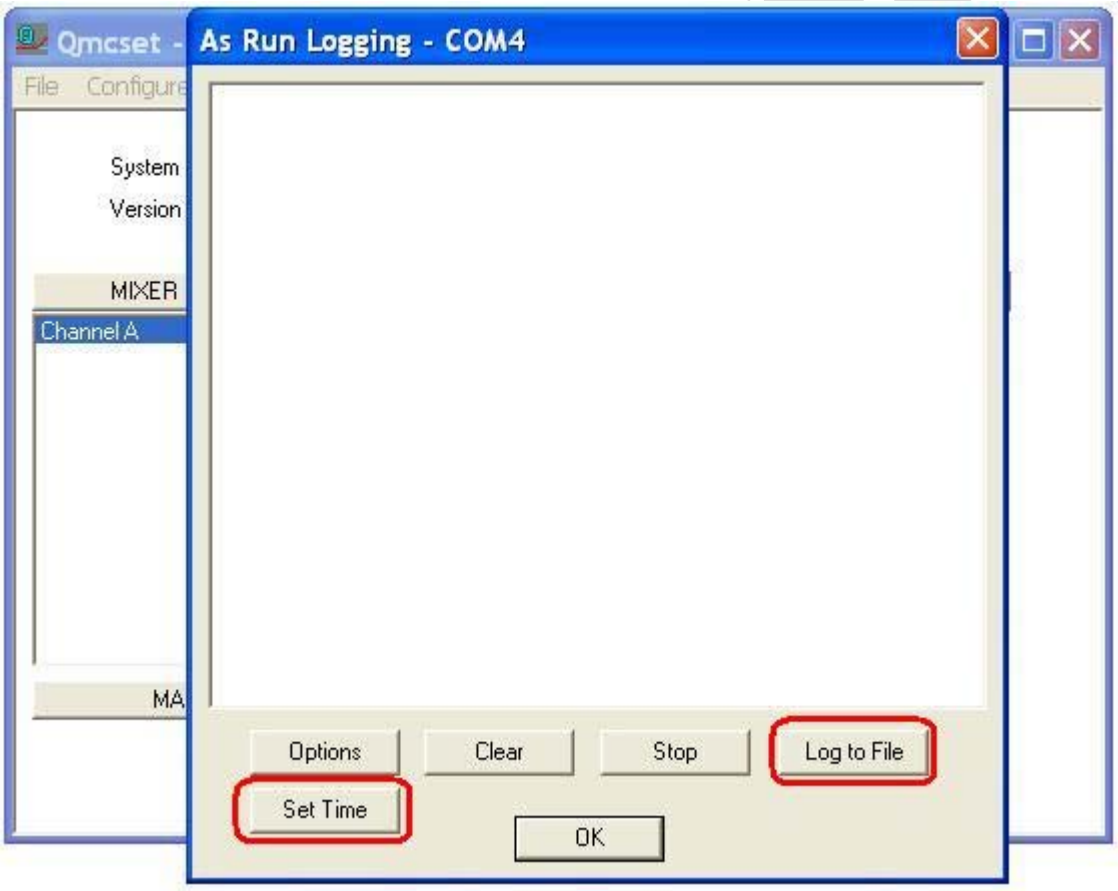

Figure 3-6: Using the 'Log to File' and 'Set Time' Buttons

8. Click on the *Log to File*, as identified in Figure 3-6.

9. Once prompted, select the location and file name that you wish to use.

10. Remember to download your original config to turn off *As-run logging* once you are finished gathering the necessary logs.