QUICK START GUIDE FOR FIRMWARE UPGRADE
RS232-TO UART INTERFACE BOARD AND SOFTWARE

DESCRIPTION

RS232-TO-UART Interface board is a PC-Serial-Port-to-UART adaptor that uses a customise Toshiba application program to upgrade the CTP Handset Firmware. The RS232 communicates between the PC and interface board at 38400 Baud.

The Interface Board generates its 3.3V when adaptor is plug in J101.

The Interface Board comes with Toshiba Flash Programmer application software design to communicate with CTP Handset unit.

Please refer to Figure 1: Test Setup & Appendix A: Setting up the Programming Station before actual firmware upgrade can be performed.

EQUIPMENT REQUIRED

1. Laptop or PC with Serial Interface Cable.
2. RS232-TO-UART Interface board
3. Power Adaptor
4. Toshiba Flash Programmer software

QUICK START PROCEDURE

Refer to Figure 1 for proper setup and follow the procedure below:

1. Plug power adaptor into J101.
2. Connect the 9-pin serial port to a serial port on your computer (e.g. COM1. COM2).
3. Copy the updated Firmware onto the computer's hard disk.

For instance, Place the updated firmware onto C:\FB250 Project\Project.abs

4. Plug the connector into the connector at the bottom of the Primary Handset. Refer to figure 2.
5. Press SW102 and switch on the Power switch (SW103).
6. Double click the Toshiba Flash Programmer executable file .
7. If you set-up correctly, you'll be asked to erase all data in the device. Select "Yes". If not. Check the above set-up again.
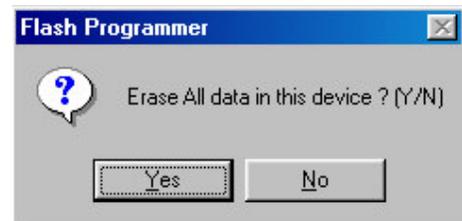
8. The following windows appears when erase completed, click "OK"
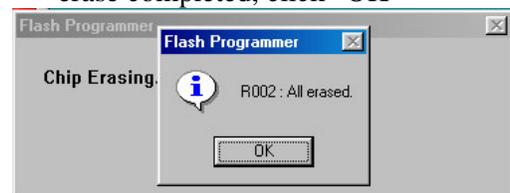
9. Toshiba Flash programmer is ready to flash in the code, Click on the "P" button to start the flashing.

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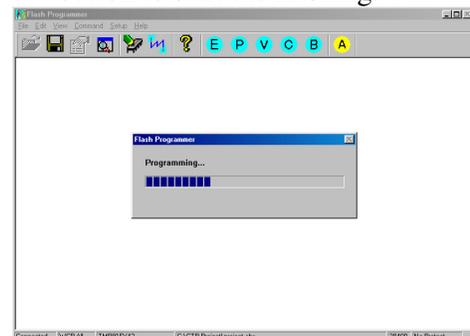
10. When Flashing completed. The following screen appears.
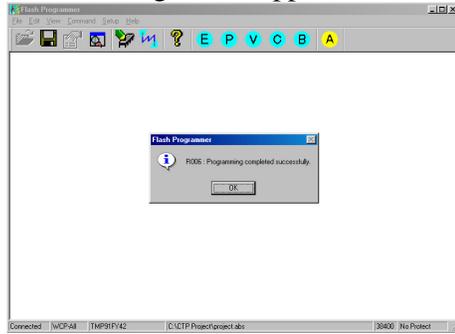
11. Power off the interface board and remove the cable.

Note: If there continue to be communication problems make sure the serial port being used (COM1, COM2, COM3 etc.) has resources provided for it under Window's Start >Settings>Control Panels>System-Port Settings Window and ensure the FIFO enable option is selected under this window.

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Fugure 1

Fugure 2

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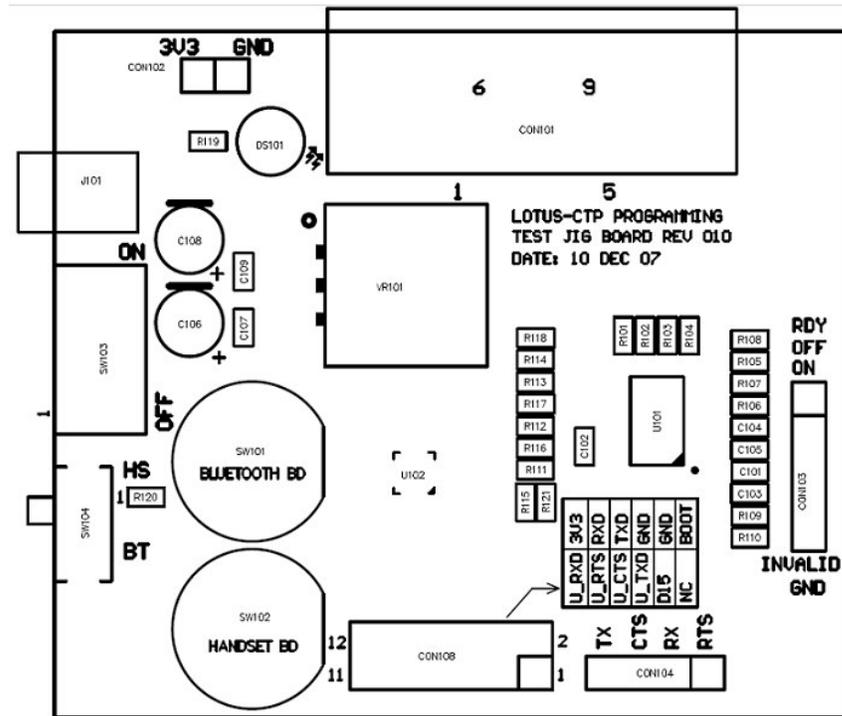
Appendix A Setting up the Programming Station

- Install the Toshiba Flash Programmer (sw00fn5-zccuv109_en.exe) Software into the PC.

- New icon will not be added on the desktop when it's completed.
- Go to "C:\Program Files\Toshiba\Flash Programmer\FlashProg.exe", copy shortcut and paste to desktop.
- Double click on the icon to start-up the application.
- A window pops up as show below.
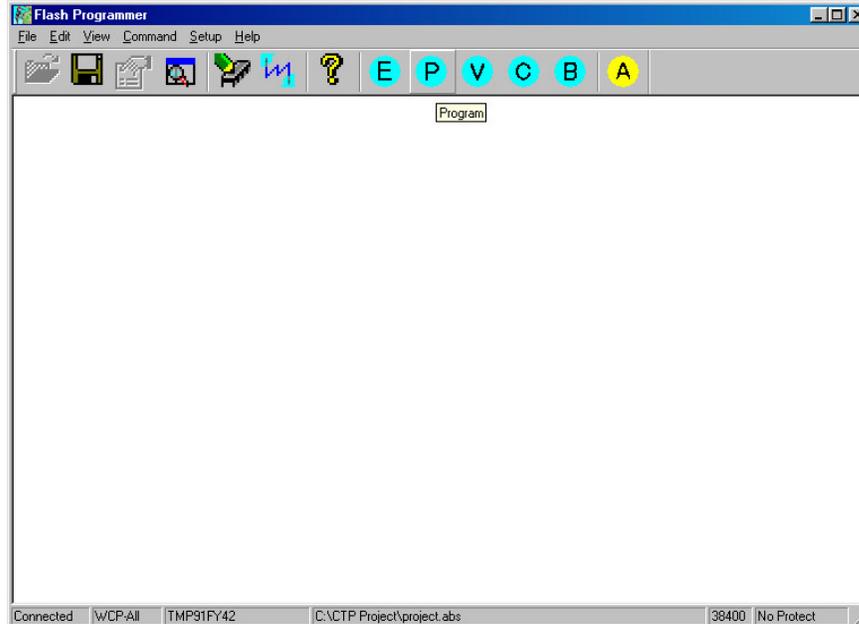
- Double click on **setup** to set-up the programming environment.

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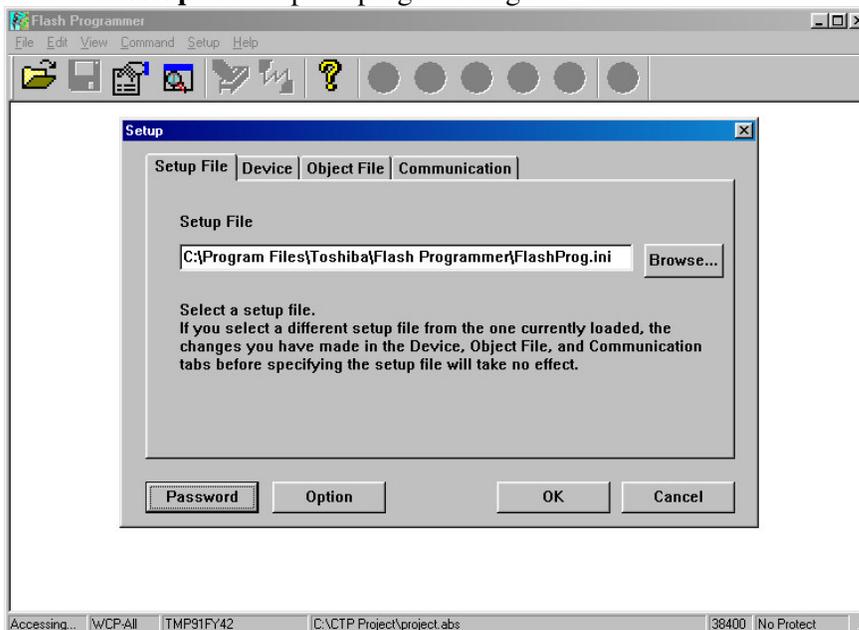
- In the Set-up File window the FlashProg.ini link will automatically update when you install the software. If not shown, type out the Set-up file path as shown on top
  C:\Program Files\Toshiba\Flash Programmer\FlashProg.ini
- Click on Device tab
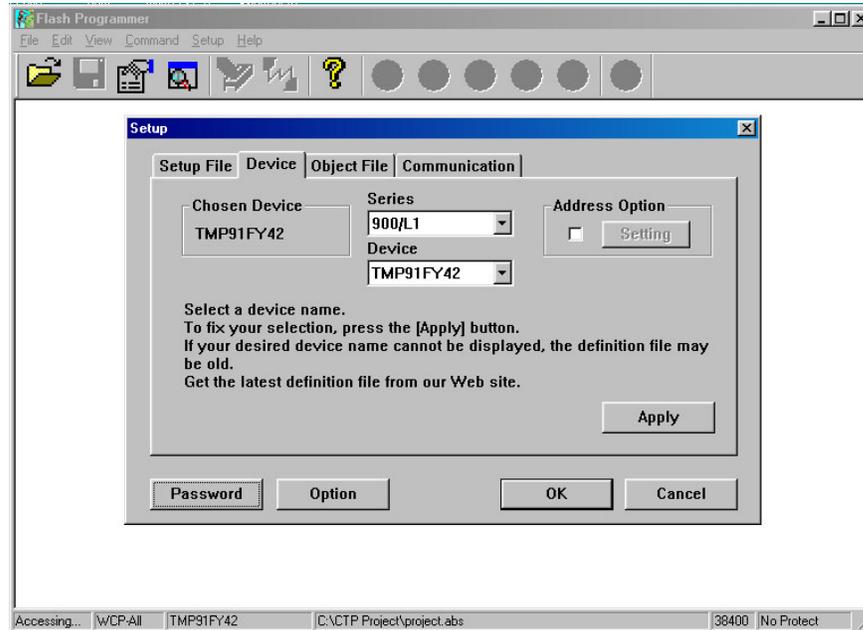
- In the Device window, select the **Series** to be **900/L1** and **Device** to be **TMP91FY42**.
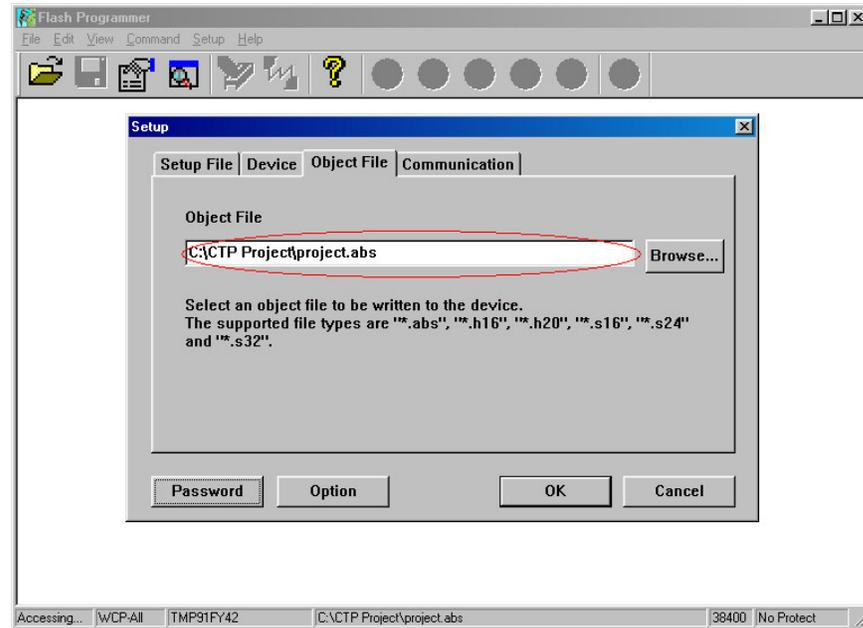
- In the Object File window, input the link whereby you place your Object File. Example.
  C:\FB250 Project\project.abs

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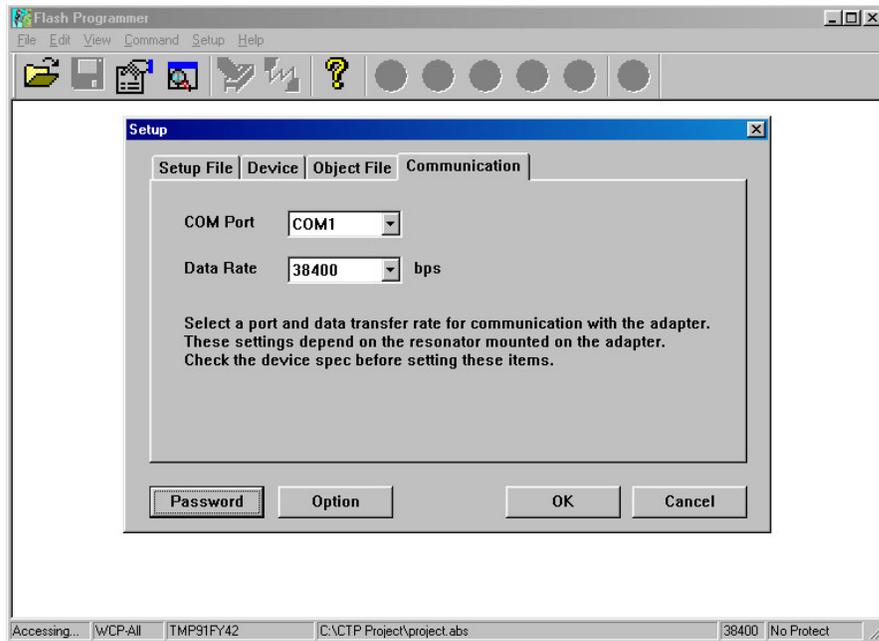
- In the communication window, select the COM port, and set the data rate to **38400** bps..
- After all the setting has been changed , click on "ok" button.
  Note: Depends on PC you may need to set to a lower Data Rate.
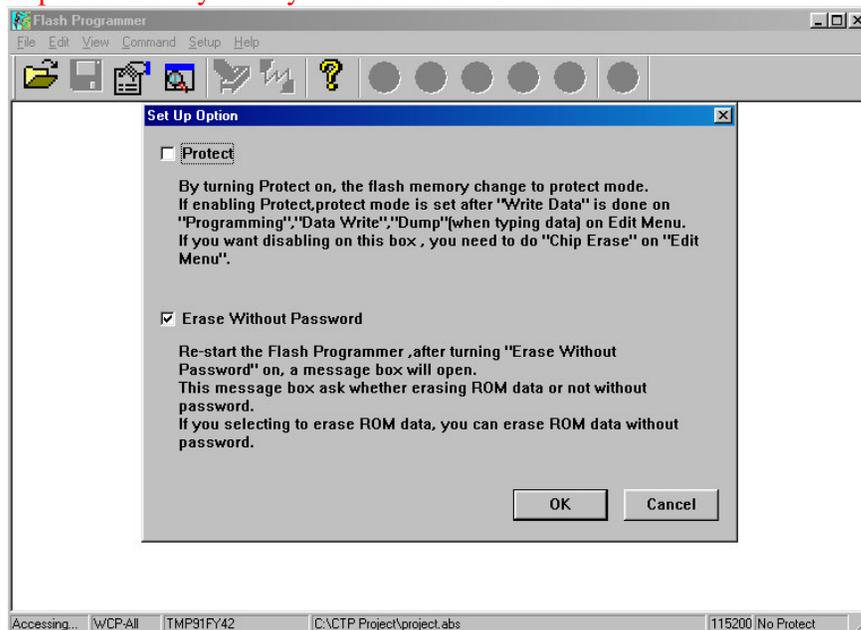
- Under the **Device**, **Option** pull down menu, check the Erase Without Password box.
- The Toshiba Flash Programmer Software set-up has completed.

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DESCRIPTION

Data programming is required to program picture and font data into the Primary Handset for normal operation. The programming setup is similar to firmware upgrade where an RS232-TO-UART Interface board is used for communication between Primary Handset and the PC Host.

EQUIPMENT REQUIRED

1. Laptop or PC with Serial Interface Cable.
2. RS232-TO-UART Interface board.
3. Power Adaptor.
4. Hyper Terminal.

QUICK START PROCEDURE

Refer to Firmware Upgrade procedure for proper setup and follow the procedure below:

1. Switch On Interface board using the Power Switch
2. Using the Primary Handset, press and hold key "5" until you see the display turns into Blue.
3. Configure Hyper Terminal as stated in Appendix B
4. Make sure that the Hyper Terminal is connected to the Interface Board
5. From the Hyper Terminal, select Transfer->Send File
6. Browse and select the data file to be programmed
7. Select Protocol "1K Xmodem"
8. Press "Send"
9. Primary Handset display should start blinking after 25 seconds indicating start of data programming.
10. Primary Handset display turns into Green when programming is completed successfully otherwise Red colour is displayed when programming has failed.

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Appendix B Setting up Hyper Terminal

- If COM1 is connected to the interface board, select "COM1" and "Configure"
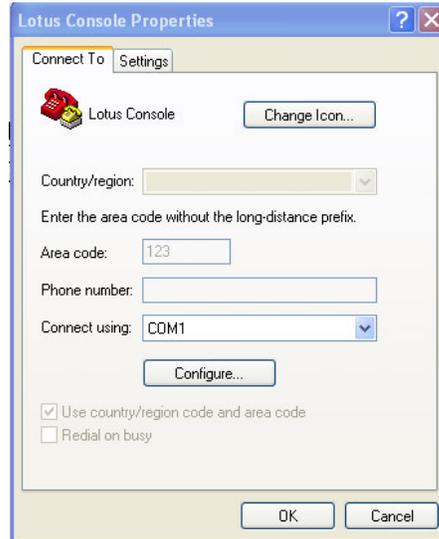
- Configure COM1 using the following settings:

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