

3.2.11 SYSTEM PASSWORD

Set a password to control user access to the **System Menu**. The password can be up to eight alphanumeric characters.

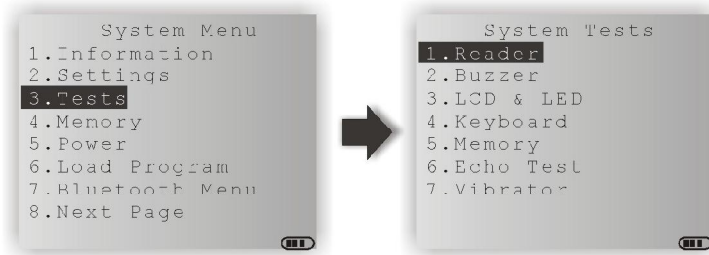
Note: The password is case-sensitive. To disable a previous password, enter blank on the "Input new password" and "Verify password" screens.

3.2.12 RESET TO DEFAULT

Reset system settings to the default values, except for the reader settings.

3.3 TESTS

Here provides functional tests for key parts.



3.3.1 READER

Test the reading performance of the scanner. The supported symbologies depend on the scan engine you use. Refer to [1.6 Data Capture](#) for symbologies that are enabled by default. For symbologies that are disabled by default, they must be enabled through programming.

- ▶ Press [SCAN] to start. To stop and exit the test, press any key.

3.3.2 BUZZER

Test the buzzer with different frequency/duration combinations.

- ▶ To stop and exit the test, press any key.

3.3.3 LCD & LED

Test the LCD display and LED indicators.

- ▶ To stop and exit the test, press any key.

3.3.4 KEYBOARD

Test the rubber keys. Press any key and its corresponding character will be shown on the screen.

- ▶ To stop and exit the test, press [ESC].

3.3.5 MEMORY

Test the data memory (SRAM), and the results will be shown on the screen.

- ▶ To stop and exit the test, press [ESC].

Warning! The contents of the data memory (SRAM) will be wiped out after test.

3.3.6 ECHO TEST

After a physical connection is established properly, run a test utility on your computer and start the test on your mobile computer. Select a desired baud rate if necessary.

- ▶ To stop and exit the test, press [ESC].

Interface	Description	Test Utility
RS-232	This echo test is to verify connectivity via the RS-232 cable between the mobile computer and a host computer.	EchoTest.exe
Modem	This echo test is to verify connectivity via the Modem Cradle. A telephone line must be connected to the Modem Cradle.	EchoTest.exe
USB	<p>This echo test is to verify connectivity via the USB cable between the mobile computer and a host computer.</p> <ul style="list-style-type: none"> ▶ USB VCOM Echo — The mobile computer works as a generic USB device. ▶ USB HID — The mobile computer works as an input device; select keyboard type and Caps Lock status for running a test. 	<p>EchoTest.exe for Virtual COM</p> <p>Any text editor for HID</p>

3.3.7 VIBRATOR

Test the vibrator.

- ▶ To stop and exit the test, press [ESC].

3.4 MEMORY

Here provides information and initialization function of the memory.



3.4.1 SIZE INFORMATION

- ▶ RAM — onboard SRAM for data memory
- ▶ Flash — program memory

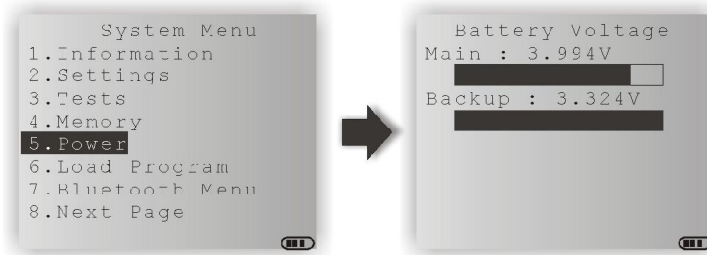
3.4.2 INITIALIZE

Initialize the data memory.

Warning! The contents of the data memory (SRAM) will be wiped out after memory initialization.

3.5 POWER

Here shows current voltage consumption.



Main (battery)

It shows dynamic status of the battery pack, which is used as the main power source.

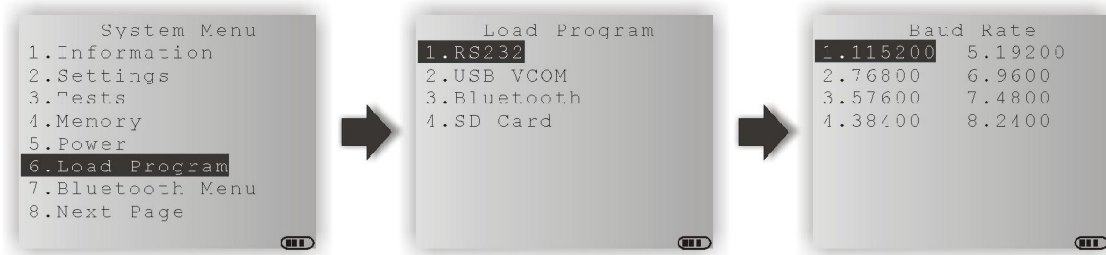
Backup (battery)

It shows dynamic status of the button cell, which is used to retain data in SRAM.

Warning! Always examine the battery icon on the device screen so that you will be alerted for a low battery condition.

3.6 LOAD PROGRAM

Here you can access the [Load Program](#) service provided by the kernel. Because the kernel will take over the job, you will not be able to return to the **System Menu** by pressing [ESC]. After downloading, restart the mobile computer to activate the new program.



.SHX Program

Download one of the following C program files and/or one font file:

Program File

- ▶ AG Runtime (U*.shx)
- ▶ CipherNet Runtime (84xx-5250.shx, 84xx-VT.shx)
- ▶ BASIC Runtime* (BC*.shx)
- ▶ User program

Font File

Refer to the Font Files folder on CD-ROM.

If you have downloaded a BASIC Runtime program, the next time you enter the Load Program submenu you will be able to select whether to download a C program (.SHX) or BASIC program (.SYN).

Note: "Load Basic" menu is only available after you have downloaded a BASIC Runtime program.

3.7 BLUETOOTH MENU

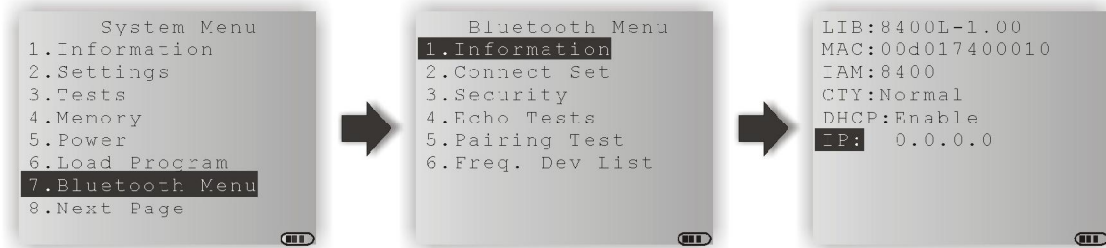
This submenu is for the mobile computer, with built-in Bluetooth module, to work with other Bluetooth enabled devices. You must configure these parameters correctly.

Bluetooth Settings	Default Value	SPP	DUN
Connect Setting		Items Need to Be Checked	
Local Name	Model no. + Serial no.	v	v
Remote Name	---	v	v
Broadcast Me	Enable	v	v
Power Saving	Enable	v	v
BT-GPRS AP Name	---	---	(v)*
Security			
Authentication	Disable	v	v
PIN Code	---	v	v

Note: BT-GPRS AP name is ONLY required for DUN-GPRS mode.

3.7.1 INFORMATION

Information of network configuration can be viewed here.



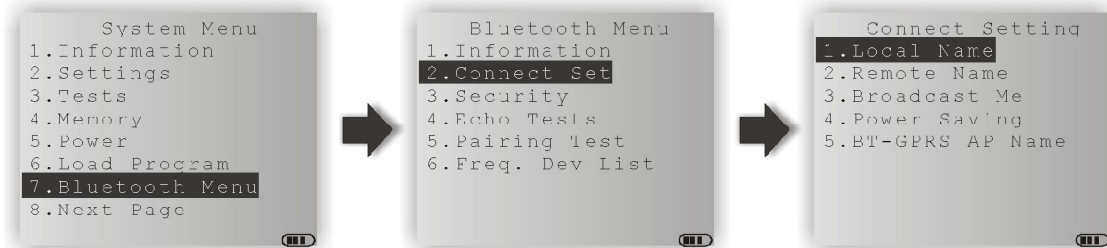
Bluetooth Menu | 1. Information

LIB	C library version
MAC	MAC address of the Bluetooth module
IAM	A name given to the mobile computer for identification. <ul style="list-style-type: none"> ▶ By default, it is made up of model number and the serial number. (Identical to 2. Connect Set 1. Local Name)
CTY	<ul style="list-style-type: none"> ▶ "Normal" means all 79 channels are available for frequency-hopping (There are bandwidth limitations for 2.4 GHz ISM band in some countries. For example, only 23 RF channels are defined instead of 79 RF channels in Japan, Spain and France.)
DHCP	DHCP server in use or not <ul style="list-style-type: none"> ▶ It will automatically become enabled while connecting to a BT-GPRS AP.
IP	IP address of the mobile computer

Note: DHCP and IP information is available only when an external library, 84PPP.lib or 84WLAN.lib, is included in your program (.SHX) for DUN-GPRS mode.

3.7.2 CONNECT SETTING

The 8400 mobile computer supports Bluetooth operated in DUN mode (point to point) and SPP mode (point to multi-point). Set the following parameters if necessary.



Local Name

Enter a name for identifying the mobile computer.

- ▶ By default, it is made up of model number and the serial number.

Remote Name

Enter a name for making a specific connection.

- ▶ The remote name must be one of those in the Freq. Dev. List. Otherwise, the mobile computer will fail to make a connection with any device without pairing.
- ▶ DO NOT specify any remote name when roaming across different groups of APs is required.

Broadcast Me

Options — Enable or Disable

- ▶ For initial connection, broadcasting must be enabled so that other Bluetooth devices can discover the mobile computer.
- ▶ For security concerns, you may disable it in future use to hide the mobile computer from other Bluetooth devices.

Power Saving

This refers to the low power consumption mode.

Options — Enable or Disable (Only the Sniff mode is supported.)

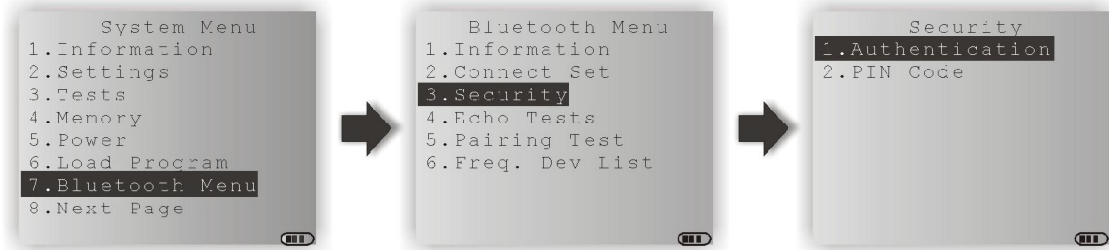
BT-GPRS AP Name

For DUN-GPRS mode, enter the AP name for connecting to the content server.

Note: BT-GPRS AP Name is available only when an external library, 84PPP.lib or 84WLAN.lib, is included in your program (.SHX) for DUN-GPRS mode.

3.7.3 SECURITY

Set or modify security parameters.



Authentication

Options — Enable or Disable

PIN Code

Define the encryption key values.

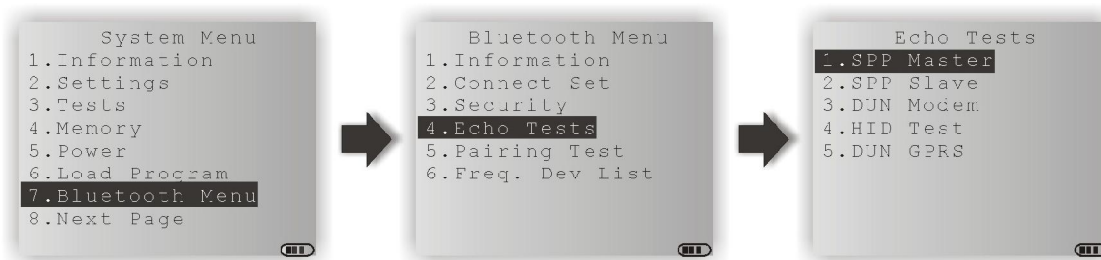
- ▶ Up to 16 characters, using ASCII code.

Note: When authentication is enabled without providing a pre-set PIN code, the mobile computer supports dynamic input of PIN code during pairing.

3.7.4 ECHO TESTS

These echo tests are used for verifying connectivity to make sure the mobile computer is within coverage. Press [ESC] to stop and exit the test.

- ▶ **SPP:** Serial Port Profile
It is used for ad hoc networking, without going through any access point.
- ▶ **DUN:** Dial-Up Networking Profile
DUN Modem - It makes use of a Bluetooth modem or mobile phone as a wireless modem.
DUN GPRS – It makes use of a mobile phone with GPRS functionality and connects to GPRS AP.



Note: DUN-GPRS is available only when an external library, 84PPP.lib or 84WLAN.lib, is included in your program (.SHX) for DUN-GPRS mode.

SPP Master

Set the mobile computer as a master device.

1. Pairing with your computer (slave) must be completed first.
2. Run the utility "EchoTest.exe" on your computer. Associated settings include
 - Select "RS-232" for interface.
 - Use the Bluetooth COM port that has been paired.
 - Set Action Mode to "Passive".
3. Start the echo test on both ends. The mobile computer will try to connect to PC (slave).

SPP Slave

Set the mobile computer as a slave device.

1. Enable Authentication and set your PIN code on the mobile computer.
2. Run the utility "EchoTest.exe" on your computer. Associated settings include
 - Select "RS-232" for interface.
 - Use the Bluetooth COM port that has been configured as "outgoing".
 - Set Action Mode to "Passive".
3. Start the echo test on both ends.

4. The mobile computer will wait for PC (master) to start the connection.
5. Enter the preset PIN code for authentication on your computer.

DUN Modem

The mobile computer will try to connect to a Bluetooth modem or mobile phone.

1. Pairing with your mobile phone must be completed first.
Select "DialUp Network" for Target Machine options.
2. Run the utility "EchoTest.exe" on your computer. Associated settings include
 - Select "Modem" for interface.
 - Set Action Mode to "Passive".
3. Start the echo test on both ends.
4. The mobile computer will connect to your mobile phone that dials up to your computer.

HID Test

Set the mobile computer as an input device.

1. The mobile computer will wait for PC to start the connection.
It is suggested to disable Authentication on the mobile computer.
2. Run a text editor on your computer.
3. Start to input data via the keypad on the mobile computer.

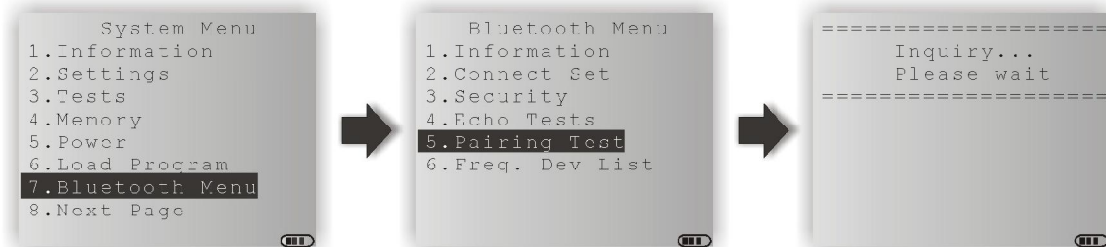
DUN GPRS

The mobile computer will try to connect to a mobile phone with GPRS functionality.

1. Pairing with your mobile phone must be completed first.
Select "DialUp Network" for Target Machine options.
2. Run the utility "EchoTest.exe" on your computer. Associated settings include
 - Select "TCP/IP – Server" for interface.
 - Set Action Mode to "Passive".
3. Start the echo test on both ends.
4. Enter the server IP on the mobile computer.
5. The mobile computer will connect to your mobile phone that dials up a GPRS AP, and finally connect to your computer (server) through the GPRS AP.

3.7.5 PAIRING TEST

The pairing procedure is for the creation and exchange of a link key between two Bluetooth-enabled devices. The devices use the link key for future authentication when exchanging information.



- 1) The mobile computer will start with making an inquiry so that the system can generate a list of device(s) that has been discovered nearby.
- 2) Select a desired target device.
- 3) Select a Bluetooth service from the "Target Machine" menu. To stop and exit the test, press [ESC].
 - ▶ Serial Port (SPP)
 - ▶ DialUp Network (DUN)

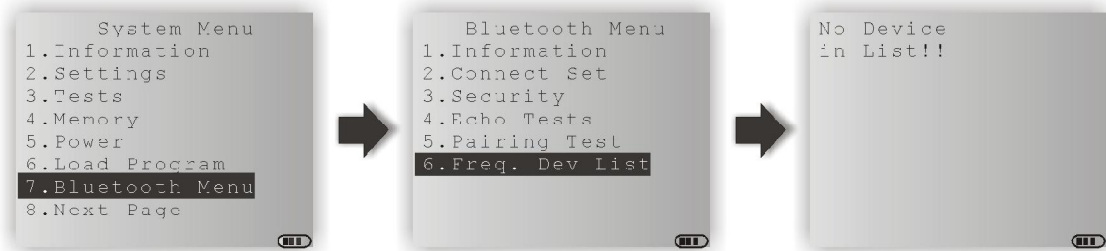
After pairing successfully, the target device will be added to the Frequent Device List for quick connection in the future.

Note: During the initial setting of Bluetooth wireless network, the pairing procedure must be carried out before the Echo tests.

3.7.6 FREQ. DEV. LIST

The Frequent Device List is used to store a list of target device(s) that the mobile computer has been connected to lately. After each successful pairing, the system will update the list.

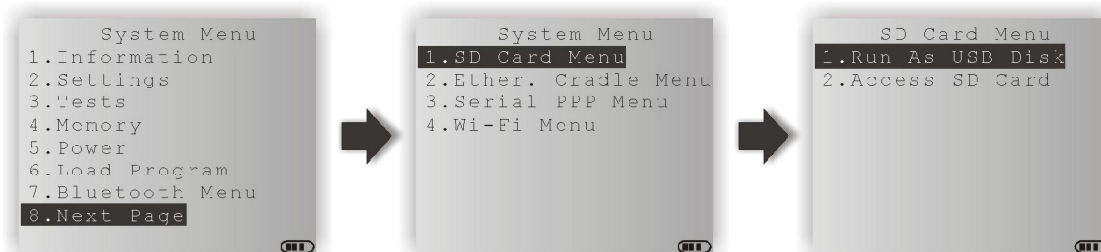
- ▶ This list can show information of one target device that provides Serial Port (SPP) or Dial-Up Networking (DUN) service.



Note: To unpair any device, simply delete the device from this list.

3.8 SD CARD MENU

This submenu is for using the mobile computer equipped with a SD card as a removable disk, as well as manipulating files on the SD card.



3.8.1 RUN AS USB DISK

When the mobile computer is equipped with SD card and connected to your computer via the USB cable, it can be treated as a removable disk (USB mass storage device) as long as it is configured properly through programming or via selecting [Run as USB Disk] here.

Note: The SD card must be properly configured through programming or user menu before use.

3.8.2 ACCESS SD CARD

Edit the file system or format the SD card.

Edit Files

View and edit the file system on the SD card.

Format

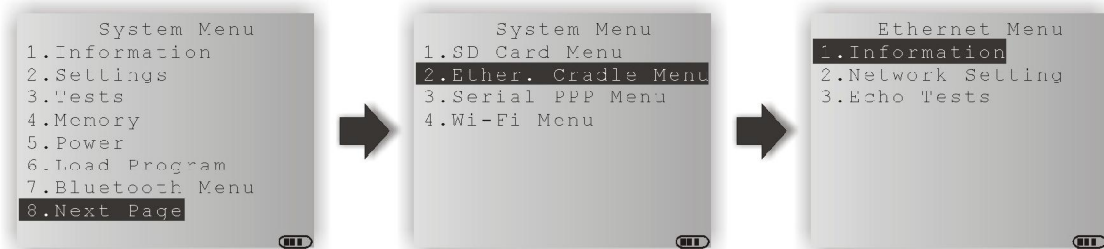
If the file system is not desired any more, you may format the SD card.

- ▶ If the capacity is 2 GB or under, the FAT file system will be FAT16.
- ▶ If the capacity is 4 GB or above, the FAT file system will be FAT32.

Warning! The contents on the SD card will be wiped out after formatting.

3.9 ETHERNET CRADLE MENU

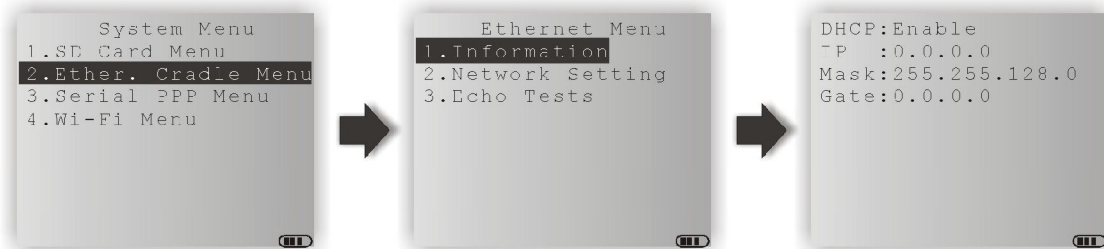
This submenu is for establishing an Ethernet connection via the Ethernet Cradle. You must configure these parameters correctly.



Note: The menu is available only when an external library, 84PPP.lib or 84WLAN.lib, is included in your program (.SHX).

3.9.1 INFORMATION

Information of Ethernet network configuration can be viewed here.

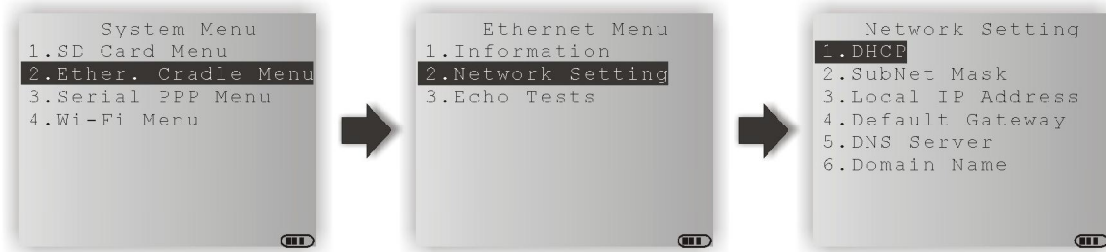


IR Network Menu | 1. Information

DHCP	DHCP server in use or not
IP	IP address of the mobile computer
Mask	Subnet Mask
Gate	Default Gateway

3.9.2 NETWORK SETTING

Set parameters for IP networking.



DHCP

Options - Enable or Disable

Subnet Mask

Enter a new Mask IP, if necessary.

Local IP Address

Enter a new address for the mobile computer, if necessary.

Default Gateway

Enter a new address for the default Gateway, if necessary.

DNS Server

Enter a new address for the DNS server, if necessary.

Domain Name

The domain name of the host is displayed when DHCP server is enabled.

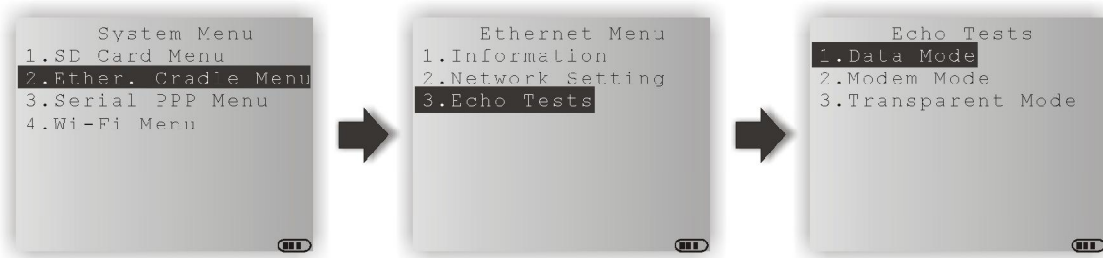
Note: Normally, DHCP is enabled and all of the settings can be obtained from the DHCP server.

3.9.3 ECHO TESTS

The Ethernet Cradle supports three working modes:

- ▶ Data Mode
- ▶ Modem Mode
- ▶ Transparent Mode

These echo tests are used for verifying connectivity via the Ethernet Cradle. For details, refer to the Ethernet Cradle manual.



Data Mode

Set the Ethernet Cradle in Data mode. The mobile computer works as a client.

Modem Mode

Set the Ethernet Cradle in Modem mode. The mobile computer works as a client.

Transparent Mode

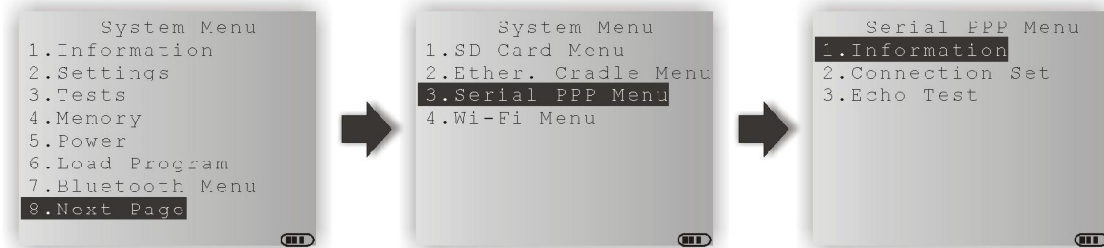
1. Client Mode - Set the mobile computer as a client.
Enter the IP address of a server with which a connection is desired.
2. Server Mode - Set the mobile computer as a server that waits for other devices to connect to.

Note: After the Ethernet connection is established properly, run the utility "EchoTest.exe" on your computer (TCP/IP – Server or Client), and then, start this test on your mobile computer.

3.10 SERIAL PPP MENU

This submenu is for establishing a PPP connection via the Modem Cradle. You must configure these parameters correctly.

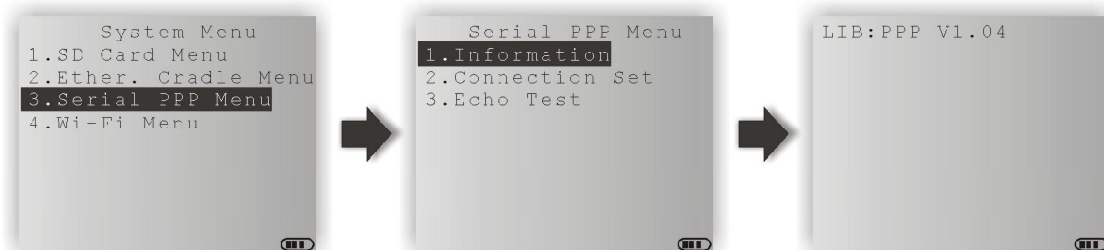
- ▶ Point-to-Point Protocol (PPP) is a method of connecting the mobile computer to the Internet over serial links. It sends TCP/IP packets to a server that connects to the Internet.



Note: The menu is available only when an external library, 84PPP.lib or 84WLAN.lib, is included in your program (.SHX).

3.10.1 INFORMATION

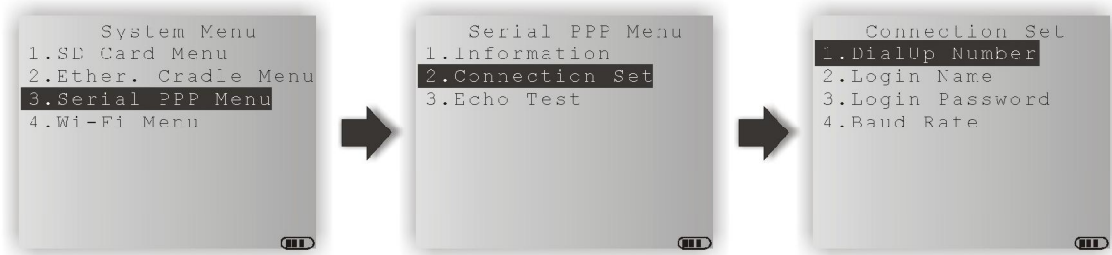
Information of library version can be viewed here.



Serial PPP Menu | 1. Information

LIB PPP library version

3.10.2 CONNECTION SET



DialUp Number

Enter the number provided by your ISP.

Login Name

Enter the login name provided by your ISP.

Login Password

Enter the login password provided by your ISP.

Baud Rate

Select a desired baud rate.