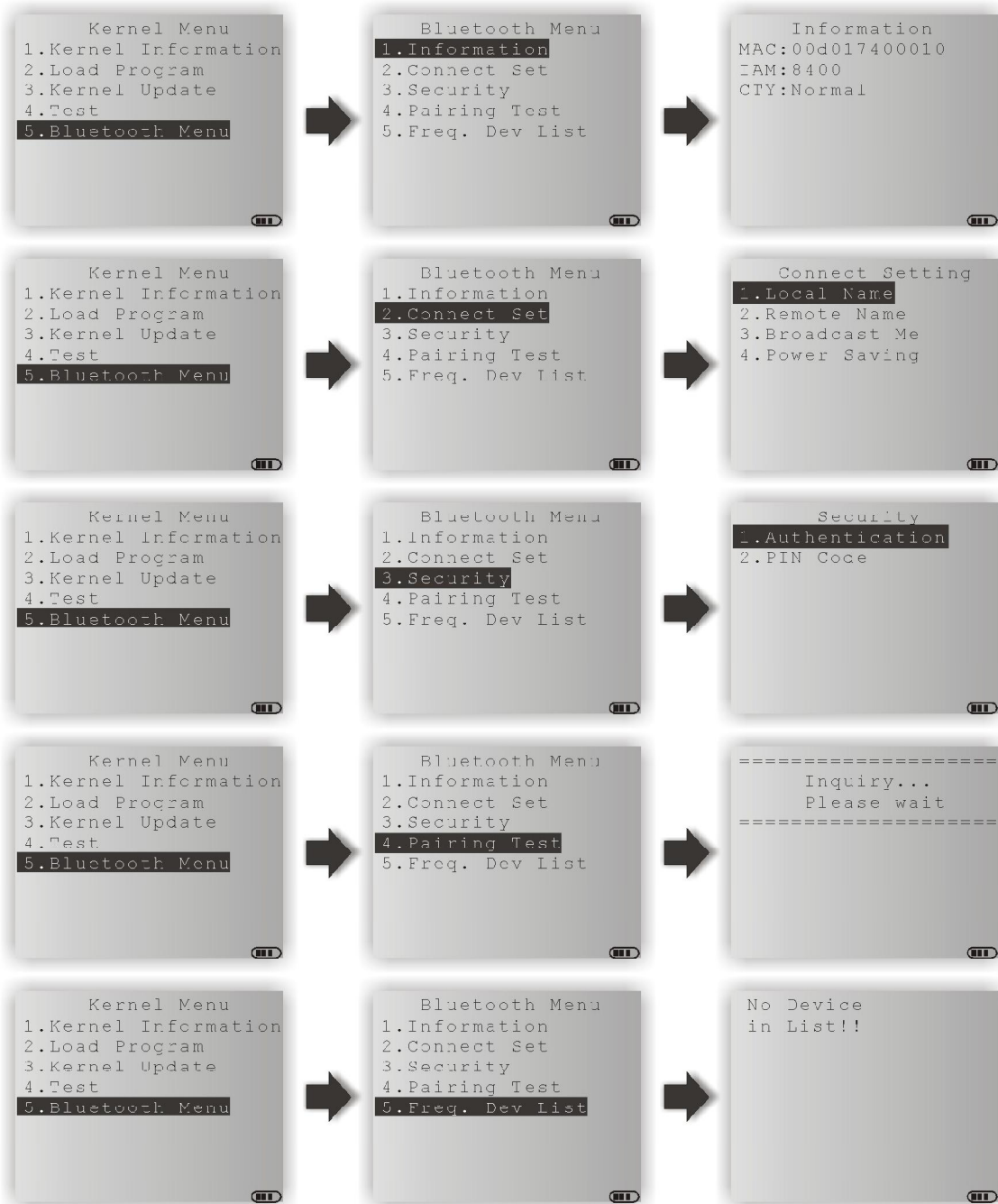


4.2.5 BLUETOOTH MENU

This submenu is the same as the one under the **System Menu** except for the following items:

- ▶ "2. Connect Set | 5. BT-GPRS AP Name" is not provided.
- ▶ "4. Echo Tests" is not provided.



SPECIFICATIONS

Model Designation		8400	8470		
Wireless Communications	Bluetooth Class 2	√	√		
	802.11b/g	√	√		
Readers	Barcode Reader	<ul style="list-style-type: none"> ▶ CCD (linear imager) ▶ Standard Laser ▶ 2D Imager 			
Electrical Characteristics	Main Battery	Rechargeable Li-ion battery – 3.7 V, 1800 mAh			
	Working Time	Laser, one scan per 5 seconds, without backlight: <ul style="list-style-type: none"> ▶ 110 hours in batch mode ▶ 35 hours in Wi-Fi mode ▶ 65 hours in Bluetooth mode 			
	Backup Battery	<ul style="list-style-type: none"> ▶ Rechargeable Lithium button cell – 3.0 V, 7 mAh ▶ Data retention – at least 25 days 			
Physical Characteristics	CPU	32-bit Toshiba CMOS type, 60 MHz			
	Memory	<ul style="list-style-type: none"> ▶ Program memory – 4 MB flash ▶ Data memory – onboard SRAM, options include 4 or 16 MB 			
	Display	Graphic LCD, 160 x 160 pixels, FSTN with LED backlight programmable <ul style="list-style-type: none"> ▶ Font size 6x8: 26 characters by 18 lines ▶ Font size 8x16: 20 characters by 9 lines ▶ Font size 12x12: 13 characters by 12 lines ▶ Font size 16x16: 10 characters by 9 lines 			
	Keypad	29 or 39 rubber keys, LED backlight programmable			
	Indicators	<ul style="list-style-type: none"> ▶ Two dual-color LEDs – red/green and blue/green, programmable ▶ Buzzer – 2.7 KHz, programmable 			
	Vibrator	0.45G			
	Expansion Slot	microSDHC, up to 8 GB			
	Enclosure Material	Rubber & ABS plastic			
	Dimensions	171 mm (L) 72 mm (W) 41 mm (H)			
	Weight	Approx. 295 g (Laser, battery included)			
	Environmental Characteristics	Temperature	Operating : -10 °C to 60 °C Storage: -20 °C to 70 °C		
Humidity		Operating : 10% to 90% non-condensing			

		Storage: 5% to 95% non-condensing
	Impact Resistance	1.5 m, 5 drops per 6 sides
	Tumble Test	100 cm, 1000 cycles
	Splash / Dust Resistance	IP 54
	Electrostatic Discharge	± 15 kV air discharge, ± 8 kV contact discharge
	EMC Regulations	FCC, IC, CE, C-Tick, NCC, BSMI, TELEC, KCC, SRMC
Programming	Development Tools	C and BASIC
	Software & Utilities	Windows-based Application Generator (AG), AG utilities; Windows-based CipherNet for VT100/220, IBM 5250 emulation; Download utilities, testing tools, etc.
Accessories		<ul style="list-style-type: none"> ▶ Protective cover ▶ Spare rechargeable battery pack ▶ 4-slot Battery Charger ▶ Charging & Communication Cradle ▶ Modem Cradle (Auto-detect) ▶ Ethernet Cradle (10/100 BASE-T) ▶ GPRS/GSM Cradle (EDGE/Quad-band) ▶ RS-232 cable

DOWNLOAD UTILITY

For easy development of applications, the mobile computer ships with development tools on the CD-ROM. It includes Windows-based **Application Generator** programs, batch and WLAN, as well as a download utility.

FILE TYPES

Depending on the file type, you may download a program or font file via **System Menu**, **Kernel Menu** or **Program Manager**.

File Type	System Menu	Kernel Menu	Program Manager
Font file	√	√	–
AG runtime	√	√	√
CipherNet runtime	√	√	√
Kernel update	–	√	–
BASIC program	√	–	–
BASIC runtime	√	√	√

FONT FILE

Download a font file (.SHX) via **System Menu** or **Kernel Menu**.

- ▶ Font file: Font-Multi-Language.SHX, Font-Japanese.SHX, and so on.

C PROGRAMS

Download a C program (.SHX) via **System Menu**, **Kernel Menu** or **Program Manager**.

- ▶ AG runtime: U8400*.SHX, U84WLAN*.SHX
- ▶ CipherNet runtime: 84xx-VT.SHX, 84xx-5250.SHX
- ▶ Kernel update: K*.SHX

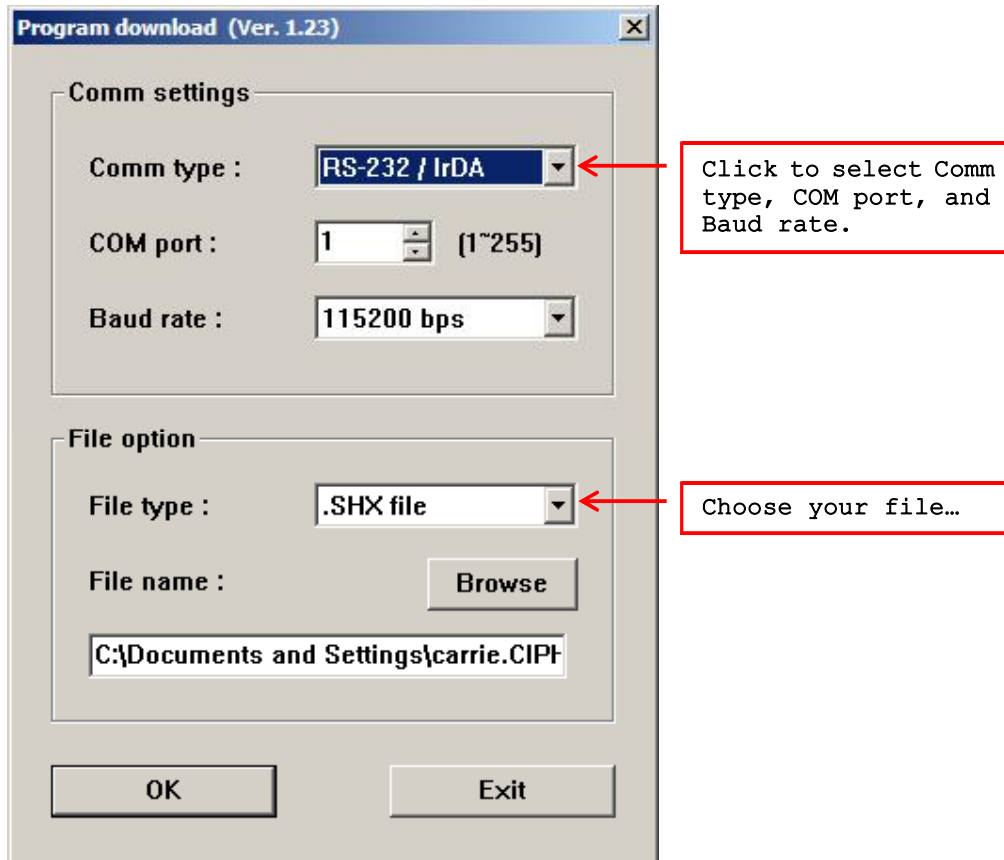
Note: You can only download a Kernel update via the **Kernel Menu**.

BASIC PROGRAMS

First, download a BASIC runtime (BC*.SHX) via **System Menu** or **Kernel Menu**. Then, it will allow you to download a BASIC program (.SYN) via **System Menu**.

PROGLOAD.EXE

The utility "ProgLoad.exe" is provided for you to download a program (*.SHX or *.SYN) to the mobile computer. Run the program on your computer. The following dialog box pops up.



Communication Type

RS-232/IrDA	Connection via direct RS-232 cable, IrDA port, or Bluetooth SPP
Serial IR	Connection via cradle
TCP/IP	Connection over networks

File Type

.SHX file	Any C program, such as AG Runtime, BASIC Runtime, font file, etc.
.SYN file	Any BASIC program after BASIC Runtime has been installed first.

Note: For 8400, USB Virtual COM shares the interface option of RS-232/IrDA!

TROUBLESHOOTING

CANNOT TURN ON WHEN PRESSING POWER KEY

- ▶ Make sure the battery pack is installed properly.
- ▶ Re-charge the battery inside the mobile computer and monitor the charging status. (See [3.5 Power.](#))
- ▶ If the battery is faulty, replace it with a fresh and fully charged battery then.

CHARGING ERROR

- ▶ If using the USB cable for direct charging, make sure a suitable charging current is selected. (See [3.2.9 USB Charge Current.](#))
- ▶ If joining the power adaptor to the USB or RS-232 cable, make sure it is well connected between the power jack and an outlet.
- ▶ If using a cradle or charger, make sure the power cord is well connected the cradle/charger and an outlet.
- ▶ Check if the battery contacts of the battery itself and the battery compartment are clean.
- ▶ Try to re-charge the battery and monitor the charging status.

Warning! Only use batteries or charging device manufactured by CipherLab. The use of wrong battery or charging device could result in damage to human body or the product itself, and will void your warranty.

BUZZER SEEMS NOT WORKING

- ▶ Perform the buzzer test. (See [3.3.2 Buzzer.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

LED INDICATORS SEEM NOT WORKING

- ▶ Perform the LCD & LED test. (See [3.3.3 LCD & LED.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

LCD SEEMS NOT WORKING

- ▶ Perform the LCD & LED test. (See [3.3.3 LCD & LED.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

KEYPAD SEEMS NOT WORKING

- ▶ Perform the keyboard test. (See [3.3.4 Keyboard.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

VIBRATOR SEEMS NOT WORKING

- ▶ Perform the vibrator test. (See [3.3.7 Vibrator.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

MOBILE COMPUTER SEEMS NOT WORKING

- ▶ Upload all data to the host and perform the memory test. (See [3.3.5 Memory.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

CANNOT SCAN BARCODES

LOW BATTERY CONDITION

- ▶ Check if the battery icon on the screen indicates a low battery status. If so, replace it with a fresh battery then.
- ▶ If the problem persists, check if the battery contacts get dirty or the battery pack does not fit to the compartment.

BARCODE READER PROBLEM

- ▶ Perform the reader test to see if the reader is working. (See [3.3.1 Reader.](#))
- ▶ If the problem persists, reload the battery pack and perform the test again.

CANNOT DECODE DATA AFTER SCANNING

UNREADABLE BARCODE

- ▶ Check if the barcode is defaced. A defaced barcode may not be readable.

UN-PROGRAMMED TO READ

- ▶ Check if the scanner is programmed to read the symbologies (types of barcode) that you are trying to read.
- ▶ Try scanning a test barcode of the symbology you are trying to read.

DIRTY SCAN WINDOW

- ▶ Check if the scan window gets dirty. Wipe it with a clean and dry cloth, and try again.

OUT OF SCANNING RANGE

- ▶ Try adjusting the scanning distance from the scanner to the barcode.

CANNOT TRANSMIT/RECEIVE DATA

USING RS-232 CABLE

- ▶ Check if the RS-232 connection is correct and secured.
- ▶ Make sure the serial port parameters on the host are configured to match the serial parameters on the mobile computer. Try to establish connection again.
- ▶ If the problem persists, run the RS-232 Echo Test to check if the interface between the mobile computer and the host is working. (See [3.3.6 Echo Test.](#))

USING USB CABLE

- ▶ Check if the USB connection is correct and secured.
- ▶ Check if the USB driver has been installed. Driver version 5.3 or later is required.
- ▶ If the problem persists, run the USB Echo Test to check if the interface between the mobile computer and the host is working. (See [3.3.6 Echo Test.](#))

VIA BLUETOOTH

- ▶ Make sure the distance between the mobile computer and a target device is within proper range. Try to establish connection again.
- ▶ Check if the relevant settings are correct. (See [3.7 Bluetooth Menu.](#))
- ▶ If the problem persists, run the Echo Test to check if the connection is working properly. (See [3.7.4 Echo Tests.](#))

VIA WI-FI

- ▶ Make sure the mobile computer is connected to an access point properly, under the same SSID. Try to establish connection again.
- ▶ Check if the relevant settings are correct. (See [3.11 Wi-Fi Menu.](#))
- ▶ If the problem persists, run the Echo Test to check if the connection is working properly. (See [3.11.5 Echo Tests.](#))

VIA ETHERNET CRADLE

- ▶ Check if the Ethernet connection is correct and secured.
- ▶ Make sure the networking parameters are configured properly. Try to establish connection again.
- ▶ Make sure the mobile computer is well seated inside the cradle. DO NOT remove the mobile computer or disconnect the cradle before communications are done.
- ▶ If the problem persists, run the Echo Test to check if the Ethernet connection is working properly. (See [3.9.3 Echo Tests.](#))

VIA MODEM CRADLE

- ▶ Check if the modem connection is correct and secured.
- ▶ Make sure the modem parameters are configured properly. Try to establish connection again.
- ▶ Make sure the mobile computer is well seated inside the cradle. DO NOT remove the mobile computer or disconnect the cradle before communications are done.
- ▶ If the problem persists, run the Echo Test to check if the PPP connection is working properly. (See [3.10.3 Echo Test.](#))
- ▶ If the problem persists, run the Echo Test to check if the MODEM interface between the mobile computer and the cradle is working. (See [3.3.6 Echo Test.](#))

KEY REFERENCE TABLES

29-KEY KEYPAD

SYSTEM DEFAULTS

Key	Blue pressed key once	Blue pressed key twice	Key	Orange key pressed once	Orange key pressed twice
1	@	@	F1	F5	F1
2	ABC	abc	F2	F6	F2
3	DEF	def	F3	F7	F3
4	GHI	ghi	F4	F8	F4
5	JKL	jkl	SP	Tab	SP
6	MNO	mno	BkSp	Del	BkSp
7	PQRS	pqrs			
8	TUV	tuv			
9	WXYZ	wxyz			
0	/*	/*			
-	+\$	+\$			
.	%#	%#			



EXTENDED FUNCTION KEYS

Key	Blue key pressed once	Blue key pressed twice	Key	Orange key pressed once	Orange key pressed twice
1	@	@	1	F11	1
2	ABC	abc	2	F12	2
3	DEF	def	3	F13	3
4	GHI	ghi	4	F14	4
5	JKL	jkl	5	F15	5
6	MNO	mno	6	F16	6
7	PQRS	pqrs	7	F17	7
8	TUV	tuv	8	F18	8
9	WXYZ	wxyz	9	F19	9
0	/*	/*	0	F20	0
-	+\$	+\$	-	F9	-
.	%#	%#	.	F10	.
			F1	F5	F1
			F2	F6	F2
			F3	F7	F3
			F4	F8	F4
			SP	Tab	SP
			BkSp	Del	BkSp

Extended Function Keys must be enabled through programming!

39-KEY KEYPAD

SYSTEM DEFAULTS

Key	Blue key pressed once	Blue key pressed twice	Key	Orange key pressed once	Orange key pressed twice
1	A	a	1	:	1
2	B	b	2	;	2
3	C	c	3	,	3
+	D	d	+	=	+
4	E	e	4	<	4
5	F	f	5	>	5
6	G	g	6	(6
-	H	h	-)	-
7	I	i	7	\$	7
8	J	j	8	?	8
9	K	k	9	&	9
*	L	l	*	@	*
.	M	m	.		.
0	N	n	0		0
#	O	o	#	%	#
/	P	p	/	\	/
F1	Q	q	F1	F11	F1

Key	Blue key pressed once	Blue key pressed twice	Key	Orange key pressed once	Orange key pressed twice
F2	R	r	F2	F12	F2
F3	S	s	F3	F13	F3
F4	T	t	F4	F14	F4
F5	U	u	F5	F15	F5
F6	V	v	F6	F16	F6
F7	W	w	F7	F17	F7
F8	X	x	F8	F18	F8
F9	Y	y	F9	F19	F9
F10	Z	z	F10	F20	F10
			SP	Tab	SP
			BkSp	Del	BkSp