8000 GPRS Cradle Installation

Fig. 1

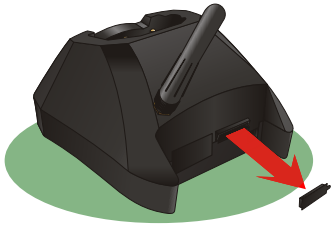

Fig. 2

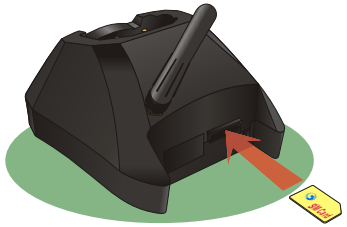

Fig. 3

Fig. 4

Fig. 5

Fig. 6

Intended Purpose

In addition to charging the 8000 Series Mobile Computer, the GPRS cradle is specifically designed for connecting the mobile computer to WWAN via GPRS or GSM data services. Please contact your service provider for information on GSM/GPRS data services.

- Dual-Band EGSM900 and GSM1800
- GPRS multi-slot Class 10
- Full PBCCH support
- Comply with GSM phase 2/2+
- Output power — Class 4 (2W) for EGSM900 and Class 1 (1W) for GSM1800
- Power consumption
  - — GSM Mode: Typical 900 mA (including battery charging)
  - — GPRS Mode (Class 10): Typical 1200 mA (including battery charging)

Installation

1. Screw the antenna to the cradle. **(Fig. 1)** For initial configuration, skip steps 2 and 3.
2. Remove the rubber cover at the back of the cradle. **(Fig. 2)**
3. Insert your SIM card with contacts facing down, and replace the rubber cover. **(Fig. 3)**
4. Seat the mobile computer in the cradle. **(Fig. 4)**
5. Connect the power supply cord to a suitable power outlet. **(Fig. 5)**
6. The cradle's first LED will become red, indicating it is ready for charging the mobile computer. **(Fig. 6)**

Note that you will need pliers to take out your SIM card when it is not desired in use.

Specifications

Electrical Characteristics		
Power Adapter	Output — DC 5V, Maximum (peak) 2000 mA Input — AC 100~240 V, 50/60 Hz	
Environmental Characteristics		
Temperature Humidity (non-condensing)	Operating -10 ℃ ~ 60 ℃ Operating 10% ~ 90%	Storage -20 ℃ ~ 70 ℃ Storage 5% ~ 95%
Certification		
Europe China	CE SRMC, MII	

Notifications

LED	Status	Meaning
Power	Solid red Off	Power ON Power OFF
Tx/Rx	Flashing green Off	Transmitting/receiving data No activity
Link	Flashing green Solid green Off	Dialing out Connected Disconnected

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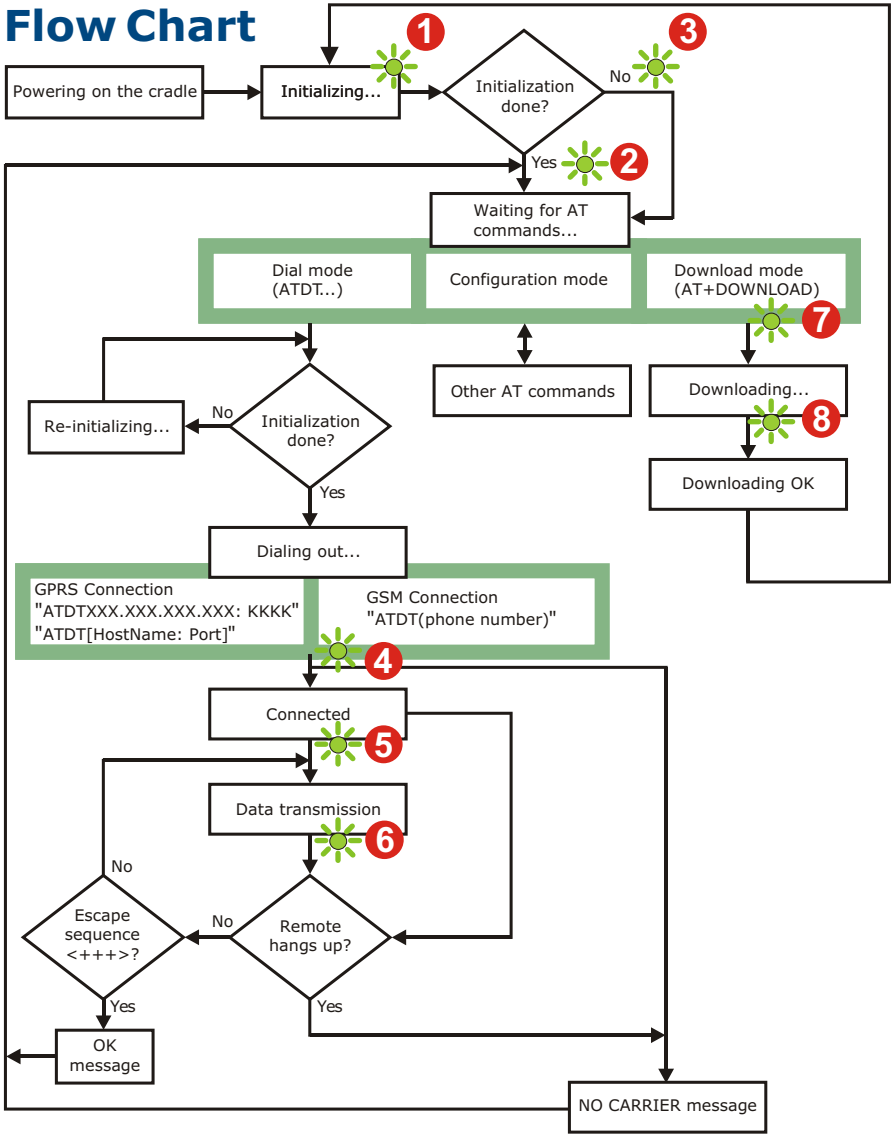
Flow Chart



How It Works

Referring to the flow chart on the left, LED 2 and LED 3 are used to indicate a specific stage of initialization, data connection, as well as firmware download. They are explained below (by number).

❶ **Initializing** — After powering on, the Tx/Rx and Link LEDs will flash by turns at the time interval of 0.25 seconds for about 30 seconds, indicating the cradle is in initialization process.

❷ **Initialization OK** — If initialization is done successfully, the Link LED will flash at the time interval of 1 second, Waiting for AT commands.

❸ **Initialization NG** — If initialization fails, the Tx/Rx LED will flash at the time interval of 0.5 seconds, indicating an error occurs. For example, it might fail to pass PIN authentication, the signal strength is weak for the GSM network, the Access Point name is incorrect, etc.
For details on the specific initialization error, use "AT+ERR?" to get the error code. Although initialization fails, the cradle can still accept AT commands. In case of the "ATDT" command, it will re-initialize before dialing out.

❹ **Dialing out** — When in Dial mode ("ATDT"), the Link LED will flash at the time interval of 0.3 seconds for about 20 seconds.

❺ **Connected** — When in Dial mode ("ATDT"), the Link LED will be green after successfully establishing a connection.

❻ **Data Transmission** — When in Dial mode ("ATDT"), the Tx/Rx LED will flash as long as data transmission occurs.

❼ **Download Ready** — When in Download mode ("AT+DOWNLOAD"), the Tx/Rx and Link LEDs will flash by turns to indicate the cradle is ready.

❽ **Downloading** — When in Download mode ("AT+DOWNLOAD"), the Tx/Rx and Link LEDs will flash simultaneously to indicate downloading is in process.

How to upgrade firmware?

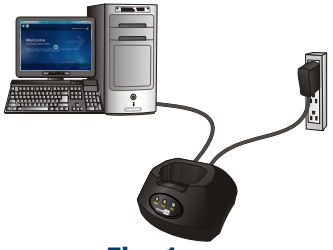


Fig. 1

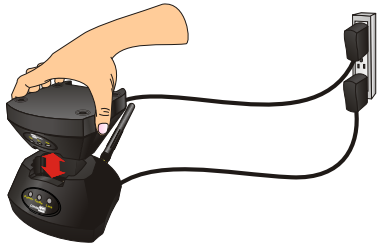


Fig. 2

Fig. 3

❶ Connect a spare 8000 cradle to your computer and make sure its baud rate is 57,600 bps. If not, adjust the DIP switch. **(Fig. 1)**

❷ Hold this spare cradle upside-down so that its IR port is facing to the IR port of the 8000 GPRS cradle. Note that you must connect the power supply cord of the two cradles. **(Fig. 2)**

❸ Run HyperTerminal on your computer. Type "AT+DOWNLOAD" and press the [Enter] key.

❹ The Tx/Rx and Link LEDs will flash simultaneously. The GPRS cradle is ready for upgrading firmware. **(Fig. 3)**

❺ Exit HyperTerminal, and run CipherLab download utility, such as ProgLoad.exe on your computer.

❻ Downloading will be in progress as long as the two LEDs are flashing simultaneously.

❼ The 8000 GPRS cradle will restart itself automatically upon completion of program download.