



---

# StarPort 700 and StarFax 100 Quick Start User Guide

**Customer Version 1.0**  
**May 29, 2004**

**WARNING: To avoid damaging the unit or battery:**

- a. Make sure the unit is OFF and the adapter is disconnected before connecting the battery to the unit
- b. Plug in the adapter.
- c. Turn on the unit.

**Note: The information in this document applies to the StarFax 100 and StarPort 700 Interface products. These products may also at times be referred to as the UCH-300 Lite and UCH-300.**

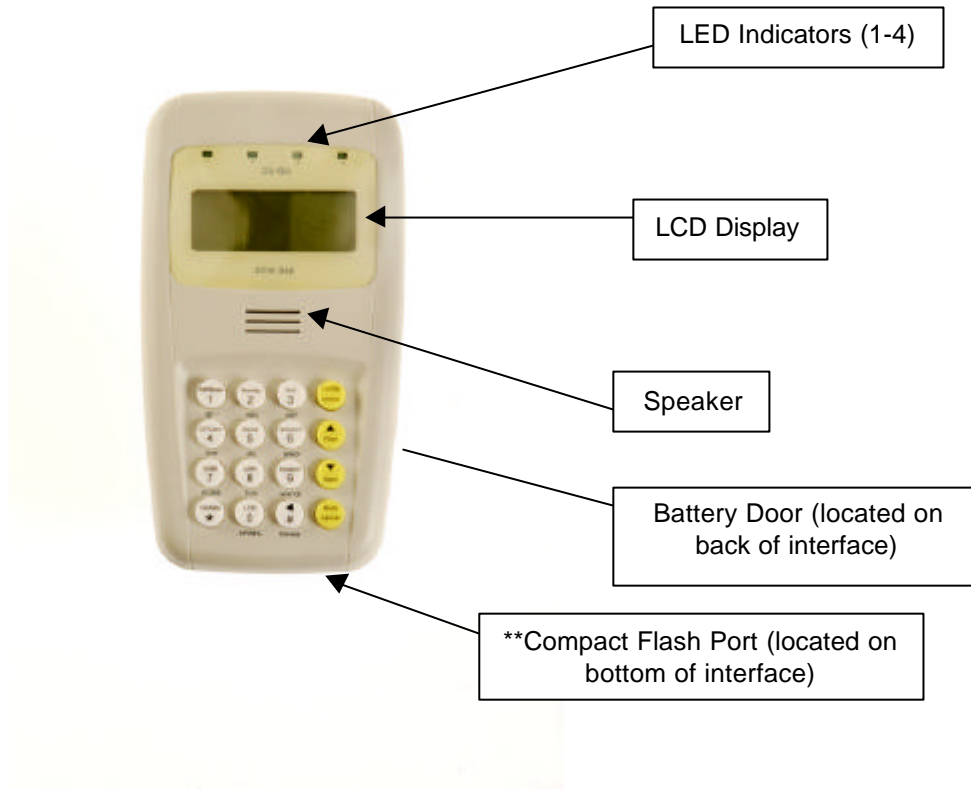
Copyright © Globalstar LLC., 2004.  
GS-04-100 Reference Number: User Guide-SFX-100  
05/29/04

## General Information

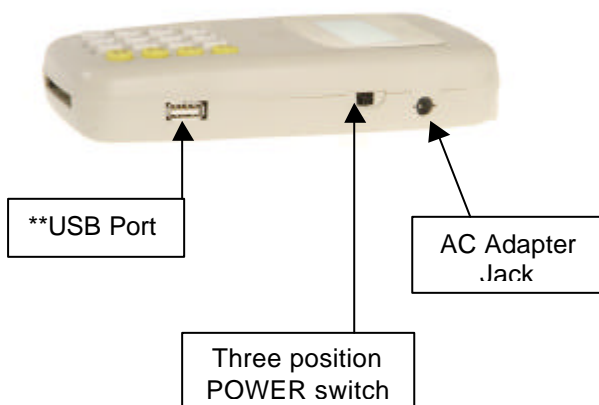
### StarPort 700 and StarFax 100 Interface

(\*\* Indicates features enabled on the StarPort 700 Only)

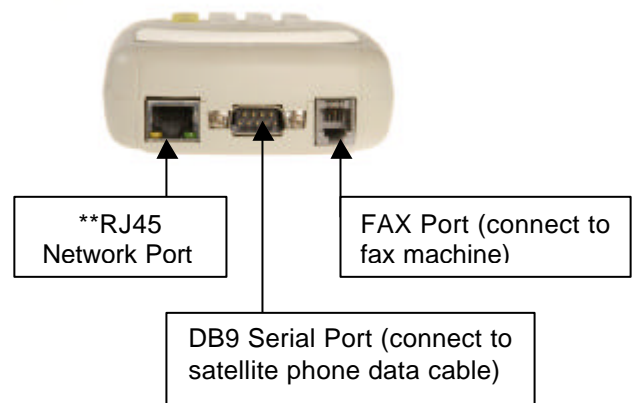
#### 1. Front View



#### 2. Right Side View



#### 3. Top View



### **1.1 Concept**

Thank you for purchasing the StarFax 100 or StarPort 700 Universal Communications Interface Hub (UCH). The primary function of the StarFax 100 is to act as a fax interface allowing the user to send and receive faxes over the Globalstar Satellite Network. In addition to this, the StarPort 700 can also act as a network router and device interface allowing it to be used for more advanced data applications.

Because the StarFax 100 is primarily designed to be used for various fax applications only, it is therefore shipped with only the fax and serial (DB9) ports enabled.

The StarPort 700 however is shipped with the following connections or ports enabled and ready to use.

- Serial (DB9)
- FAX
- Ethernet (RJ45)
- USB
- Compact Flash

Each of these ports can be configured as the Globalstar or "Network" port, and the remaining ports are then used as "Local" ports.

### **1.2 Product Applications**

The StarFax 100 provides for the following

- Data and fax capability

With the additional ports enabled, the StarPort 700 can be used for the following

- Mobile to mobile (Point to Point) fax capability
- Network routing (Ethernet or Wireless LAN)
- Data aggregation

To check the product version number, simply press "#" key and the bottom line will indicate whether you have StarPort (indicated as UCH-300) or StarFax (indicated as UCH-300 LITE).

### **1.3 Keypad**

There are 16 keys on the unit. The Yellow keys are used mainly for configuration, and the other keys are "ACTION" keys, which are associated more with the operation of the unit.

The keypad can be locked if the POWER switch is pushed all the way up to the KEYLOCK position. This design is mainly for the purpose of allowing the unit to be carried around without keys being accidentally pressed. Set the POWER switch to the middle position for the keypad to operate properly.

### **1.4 LED and LCD Display**

There are four LED indicators on the unit (marked 1,2,3,4). For most applications, the LED indicators represent:

1. Flow Control (On=Unit is being flowed controlled on the network interface port)
2. Modem Ready (On=Modem port is ready to receive incoming call)
3. Network Status (On=Network connection established, Flashing=Unit is trying to connect to the network)
4. Incoming Fax failed to print (Need user intervention)

The bottom row of the LCD display presents a status of the message count in the unit. The status read consists of four counts. The first is the INBOX count (incoming from network). The second is the OUTBOX count (outgoing to network). The third number (behind the letter R:) is the number of messages that have been transmitted but not yet acknowledged from the Gateway (ACKWAIT Queue, see Section 2.1.2). The final number is the count of messages that failed to be delivered or failed to receive any status indication after a long period of time.

### **1.5 Updating Software**

In the future, the software for your StarFax 100 interface MAY be upgradeable. If you do wish to upgrade your StarFax 100 with the features found in the StarPort 700, please contact your local Globalstar dealer (availability and pricing TBD).

## **2 Application**

### **2.1 Fax**

#### **2.1.1 Store and Forward Fax**

Store and forward fax means the fax is stored and relayed over data network.

##### **2.1.1.1 Notification**

The first configuration step of store-and-forward faxing is to determine what type of notification is to be used.

Notification is used for two purposes:

- a. Indicating the delivery status (Mobile Originated Fax)
- b. Indicating the availability of incoming fax (Mobile Terminated Fax)

Two notification mechanisms are supported:

1. Short SMS: For a network with shorter SMS message length capability, this mechanism is used to simply “wake up” the Universal Communication Hub and the (UCH) will attempt to establish a data call to the Gateway to pick up the status. This method of notification must be used by those customers equipped with a GSP-1600 handset and/or GCK-1410 car kit.
2. Direct Call: For a system that does not support SMS, this mechanism is used for the Gateway to place a short data call to wake up the Universal Communication Hub. This notification method must be used by customers with the GSP-2900 fixed unit. **A secondary remote terminated data number must be activated. See your Globalstar dealer for details.**

**The appropriate notification mechanism needs to be provisioned at the central Gateway Business Management System interface to allow proper operation.**

##### **2.1.1.2 Mobile Originated Fax**

Mobile Originated fax allows an off-the-shelf G3 fax machine to be used to send documents over the data network. After connecting the G3 fax machine to the RJ11 modem port, wait for the LED #2 to be ON (indicating modem port is ready), then take the fax offline, and dial the number in the format: 1 + Area Code + NUMBER.

### 2.1.1.3 Mobile Terminated Fax

Mobile terminated fax is automatic. When the user subscribes to a service plan, a "MAILBOX" number will be assigned to the unit. When a fax is sent to that MAILBOX number (this number is not the same as the mobile data number) a notification is sent to the unit and the unit will connect to the Gateway to pick up that message. **(NOTE: This fax MAILBOX number is a SEPARATE U.S. based phone number and is not the same as the mobile data number or satellite telephone number. As indicated above the user is assigned the MAILBOX number when activating the fax service.)** When the message is completely downloaded to the unit, it will simply ring the fax machine and print the message out.

If for some reason the fax is not powered on, out of paper or simply not connected, the user has to use the Message Management to get the fax to be printed (see Section 2.1.2).

### How it Works

#### Mobile Originated/Terminated Calls



### FAQs

#### **When I send a fax, am I being billed for satellite airtime?**

When a user places a document in the fax machine and dials out to a destination, the fax machine sends the data to the StarFax or StarPort interface. The interface then converts this data and sends it to your Globalstar Satellite phone. **NOTE:** although this setup or conversion process may take several seconds, the user is not paying for any airtime during this process. Once your phone begins to access the satellite network, the user is then being billed for satellite airtime.

#### **If I drop a call when sending a fax, will the unit automatically try to redial the number?**

Yes, the StarFax and StarPort will attempt to redial the number at least seven times.

#### **If I drop a call in the middle of sending a fax, do I have to re-send the whole document?**

No. Once a connection to the server has been established, only the unsent portion of the document will have to be sent. The interface will automatically redial and send the unsent portion of the document. Therefore if a user is sending a 10 page fax and the call is dropped halfway through transmission, only the unsent portion of five pages will be sent.

### 2.1.1.4 Point to Point Fax (Available on the StarPort 700 only)

In the case where someone wants to only send faxes to a few KNOWN parties, and both the senders and receivers are equipped with the StarPort interface, point to point fax can be advantageous. One of the key benefits is the additional privacy and security.

Note that each receiver must also be equipped with at StarPort 700 interface in order for this mode to work.

#### Point-to-Point Fax



### **2.1.2 Fax Message Management**

The messages in the Universal Communication Hub are organized in several groups. When the message is ready to go out through the network, it is in the *Outgoing Queue*. When the message is sent over the network and acknowledgement has not been received yet, it is in the *Ackwait Queue*. After the acknowledgement is received indicating delivery attempts failed (or when the timer expired without receiving acknowledgment), it is put in the *Failed Queue*.

When incoming message is received from the network, it is put in the *Incoming Queue*. If it cannot be printed for some reason (fax is disconnected, fax is out of paper, fax is turned off), it will be moved to the *FromNetworkFail Queue*.

All of these messages in various queues can be managed by pressing the NETWORK action key (6).

### **2.2 Data (please detach the interface and use your GSP-1600 handset or GSP-2900 with the appropriate data cable kit.)**

### **2.3 Serial Port Daisy-chain (StarPort 700 users only)**

Serial port daisy-chain is used to provide a serial connectivity to the mobile terminal from another computer/device through the Universal Communication Hub. This function is designed to be used for advanced data usage and supports mobile originated data only.

### **2.4 GPS (StarPort 700 only)**

With the popularity of GPS, GPS receivers can be bought on the market fairly inexpensively. The StarPort 700 can interface to a NMEA based GPS receiver (for example: [http://www.rayming.com/products/tripnav\\_tn200.htm](http://www.rayming.com/products/tripnav_tn200.htm)), either the USB based or Compactflash based, process the information, and communicate that information to configured destination. For more details concerning the configuration of your StarPort 700 interface for use with GPS, please contact your Globalstar dealer.

### **2.5 Networking**

#### **2.5.1 Serial**

The most typical use of this port is for communication with the Globalstar network. The serial port should be connected to your Globalstar telephone.

The connection protocol being established over the serial port is PPP.

#### **2.5.2 Ethernet (StarPort 700 only)**

The Ethernet port can be used to interface individual computers or local area networks to the Internet via Globalstar.

In this mode, the Ethernet port can be configured for either DHCP or Static IP addresses Wireless LAN (StarPort 700 only). The StarPort 700 can serve as a Wireless LAN Access Point if a PRISM based WIFI compact flash card is plugged in the compact flash slot. Most of the CF-based WIFI cards are PRISM chipset based, like DLINK DCF-660W. In addition to the Ethernet type of configuration (i.e., DHCP or static IP address), this port needs ESSID, WEP and Channel configuration. The default ESSID is uniHub and WEB is off and Channel is 6.