

SPECIFICATIONS

System	<b>Display</b>	10.4" (diag.) TFT LCD with Resistive Touch; outdoor-viewable option
	<b>Display Resolution</b>	1024 x 768 (XGA)
	<b>Processor</b>	Intel® Atom™ processor Z530 1.6GHz
	<b>Memory (RAM)</b>	1GB DDR2 533MHZ
	<b>Storage</b>	1GB to 16GB Internal Flash Module, 32GB to 64GB SSD
	<b>Software Operating Systems</b>	Microsoft® Windows® CE; Windows® XP Embedded; Windows® XP Pro for Embedded Systems; Windows® XP Professional or Linux
	<b>Network Interface</b>	WiFi 802.11a/g/n, Bluetooth 2.0
	<b>Input and Control Buttons</b>	1 Power button, 7 Front buttons and 1 Trigger button
	<b>Indicator</b>	1 Power/ Battery status LED and 1 WLAN active LED
	<b>Input/Output Ports</b>	1 DC-in Jack; 1 Microphone-in and 1 Headphone-out Jacks; 2 USB 2.0 ports
Mechanical	<b>Audio</b>	Built-in speakers
	<b>Security</b>	WPA-Personal, WPA2-Personal, WPA-Enterprise, WPA2-Enterprise, AES-CCMP 128-bit, WEP 128-bit and 64-bit; 802.1X: EAP-SIM, LEAP, PEAP, TKIP, EAP-FAST, EAPTLS, EAP-TTLS
	<b>Enclosure</b>	ABS + PC Plastic and Magnesium-aluminum alloy
	<b>Protective Grips</b>	Rubber with handstrap to add drop protection
	<b>Dimensions (H x W x D)</b>	8.3 x 10.3 x 0.8 (in); 210 x 261 x 18 (mm)
	<b>Weight</b>	2.05 lbs (0.93 kg)
	<b>Battery Pack</b>	Internal (2S2P; 7.4V, 2200mAh) or (2S2P; 7.4V, 3760mAh) <b>Optional:</b> External (2S2P; 7.4V, 3760mAh)
	<b>AC/DC Adapter</b>	<b>Input:</b> 100 – 240VAC <b>Output:</b> 12VDC@3.5A
	<b>Power Cords</b>	North America, EU, UK, China and Japan
	<b>Stylus</b>	Non-electronic tip
Environmental	<b>Regulatory</b>	FCC Class B, CE, C-Tick, RoHS compliant
	<b>Operating Temperature</b>	<b>Operation:</b> 0°C - 40°C <b>Storage:</b> 0°C - 60°C
	<b>Humidity</b>	0% - 90% non-condensing



# Mobile Tablet

## SUMO ST312

### BASIC OPERATION GUIDE

#### ENGLISH



#### INTRODUCTION

Thank you for acquiring the latest addition to SUMO Technologies line of tablet devices— the SUMO ST312. Featuring a slim yet robust enclosure, the two-pound SUMO ST312 with 10.4" TFT display is powered by the Intel® Atom™ processor, offering optimal combinations of performance and power savings. An external battery expansion option provides approximately 3-4 hours of additional battery operation for up to six hours of mobile usage.

The SUMO ST312 is available in Windows® CE, Windows® XP Embedded, Windows® XP Professional or Linux operating systems. Each software operating system features web browser, client/ server computing software, media player, accessories, and applications support.

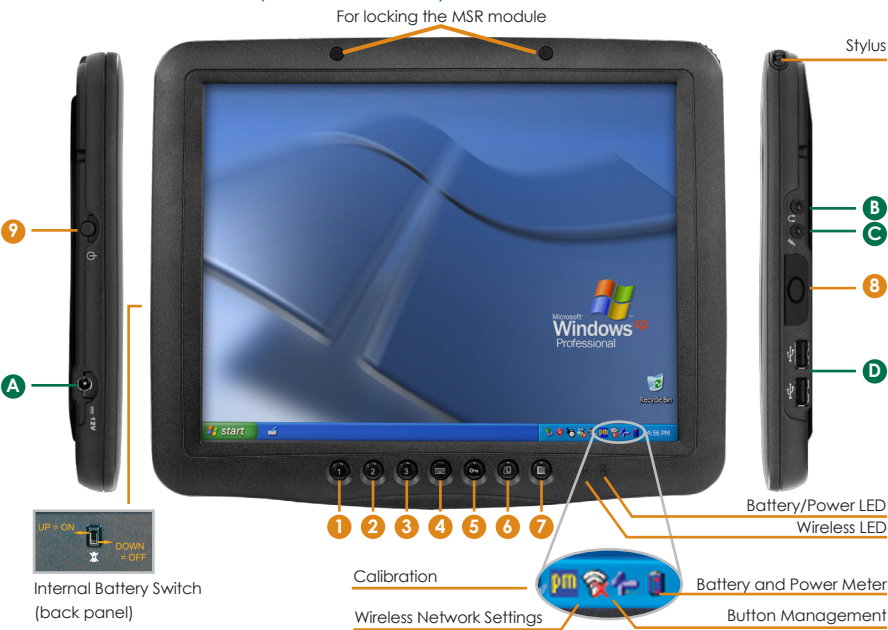
#### PACKAGE CONTENTS

- One SUMO ST312 with Internal Battery Pack (2200mAh), Stylus, Grips and Screen Cover
- AC-DC Power Adapter with Power Cord

#### Major options, depending on configuration:

• Desktop Charging Cradle with DC-in Power Jack and Ethernet, USB and optional VGA Ports	• External Battery Pack
• Internal High Capacity Battery (3760mAh)	• External Battery Charger Kit

The SUMO ST312 (with Windows XP)



Input/ Output Ports

<b>A</b>	DC Power Input
<b>B</b>	Headphone Jack
<b>C</b>	Microphone Jack
<b>D</b>	USB Ports (2)

Button Functions

(with Windows XP Operating System)

BUTTON	ACTION
<b>1 2 3</b>	Programmable
<b>4</b>	Programmable, launch soft (on-screen) keyboard (default)
<b>5</b>	Launch SAS (Secure Attention Sequence) Generate Ctrl+Alt+Del keys to invoke the security windows defined under Windows XP
<b>6</b>	Programmable, Change display orientation (portrait/ landscape) (default)
<b>7</b>	Programmable, system utility menu (default)
<b>8</b>	Programmable, As scanner trigger when equipping with the scanner module
<b>9</b>	Push/release typically enters Standby mode, or Push/release exits Standby mode or restarts device (software dependent) Push and hold (over 4 seconds) invokes hardware shutdown

Power/Battery LED Status:

- Blue indicates the battery is 25% to 100% charged
- Blinking blue indicates the battery is charging
- Orange indicates that the battery is between 11% to 25%
- Blinking Orange indicates that the battery is below 10%

Precautions

- Always exercise care when operating and handling the SUMO ST312.
- Do NOT apply excessive pressure to the display screen.
- We recommend using the Stylus provided to keep the screen clean.
- Avoid prolonged exposure of the display panel to any strong heat source. Wherever possible, the SUMO ST312 should face away from direct light to reduce glare.
- If the AC-DC power adapter is used to recharge or power the device, do NOT use any AC-DC adapter other than the one provided with the device or acquired from the manufacturer or its partners.
- In the unlikely event that smoke, abnormal noise, or strange odor is present, immediately power off the SUMO ST312 and disconnect all power sources. Report the problem to your device provider immediately.
- Never attempt to disassemble the SUMO ST312, as this will void the warranty.

THE SUMO ST312

Basic Features

The SUMO ST312 wireless tablet integrates a bright and responsive touch display, two USB ports, and embedded networking elements such as wireless LAN and Bluetooth. The primary device is complemented by a suite of accessories, including battery expansion, charging cradles, and battery charger kit, for a comprehensive user experience.

A SUMO ST312 typically integrates an 802.11a/g/n wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your SUMO ST312 does not come with such a network adapter, please consult your device provider to establish the desired network connectivity.

## OPERATION

### Internal Battery Switch

To prevent battery drain during shipping and extended storage, the internal battery may be turned off. To turn on the internal battery, push the battery button switch (on the back panel) to the “up” position (see page 2 for photo). The internal battery pack has to be turned on for it to operate, be charged, and for the optional external battery pack to function.

### Powering ON and OFF

To activate the SUMO ST312, push and quickly release the Power Button to the left of the front bezel. The display will come on in a few seconds. To put the SUMO ST312 in Standby mode, push and quickly release the Power Button. To turn the SUMO ST312 off for extended storage, power off the device safely using any software function that “shuts down computer” provided in the software operating system.

**NOTE:** The battery packs shipped with your device may be low in power—please use the AC-DC adapter with the SUMO ST312 when setting up the device for the first time to fully charge the internal battery pack. You may charge the external battery pack with it attached to the SUMO ST312, or with the optional external battery charger kit.

**NOTE:** LED should blink slowly. If plugging in the AC-DC adapter does not trigger this blinking activity and the LED stays dark, the battery pack(s) may have been drained substantially. Try unplugging/ replugging the AC-DC adapter to the SUMO ST312 a few times to activate the charging process.

**NOTE:** To conserve power, use (push and quick release) the Power Button to put the device in “Standby” mode while not in use. Pushing briefly on the same button will wake up the system within seconds.

**NOTE:** Avoid using the Power Button (“hold 4+ seconds” feature) to turn off the device—this form of hardware shutdown is intended to be a means of recovery from device lockups, and not as normal operation.

### Start Up

If the power up (from Standby or otherwise) is successful, the appropriate interface will be displayed after a launch sequence of several seconds. The wireless LAN connection may take 10-15 seconds to be established.

## Configuring the SUMO ST312

The device may be configured using the utilities and methods dictated by the software operating system. The SUMO ST312 should be configurable for various properties such as user profiles, network features, and several system elements.

### Calibration

The touch display for the SUMO ST312 is calibrated before shipping. In the event that the calibration has been modified or is unsatisfactory, the respective calibration routines (e.g., PenMount (PM) for Windows XP) to calibrate the touch interface may be used. Such applications are typically executed through touch input via Stylus or through mouse click via a USB mouse.

## Wireless Networking

### Wireless LAN

The SUMO ST312 is often delivered with an embedded (user-inaccessible) 802.11 a/g/n WLAN adapter equipped with a hidden custom antenna.


- Through the support of typical WLAN adapters, the SUMO ST312 should be able to detect all 802.11 access points in the vicinity for you to select the access point of your choice for connection.
- The SSID and WEP/WPA/WPA2 (if enabled) parameters on the SUMO ST312 and the access points have to match. The SSID is case-sensitive and it is recommended that you enable WEP/WPA/WPA2 encryption (or advanced alternatives) for secure access.
- When WEP/WPA/WPA2 is enabled, you may need to consult your network administrator or your networking equipment literature to properly configure associated settings such as Authentication mode, etc.
- Refer to the access point operating manuals for setting up the 802.11 access points.

## Bluetooth

The SUMO ST312 features a built-in Bluetooth adapter that operates on the Microsoft Windows Bluetooth protocol. The Bluetooth configuration application is invoked from the System Tray or from the Control Panel for Windows XP. Under Windows CE, it can be executed from the Control Panel. Follow the instructions and options provided within the application to configure and invoke Bluetooth connectivity with the corresponding peripherals.

**NOTE:** Bluetooth devices or accessories that are not compatible with the Microsoft Windows Bluetooth protocol may not work with the SUMO ST312.

## Button Management

Where supported by software, many of the hard buttons on the SUMO ST312 are programmable to perform a function of the user's choice. The exception is the Power Button and the SAS Button. To activate the button re-assignment application, invoke the Button Agent application, e.g., in Windows XP Embedded .

## Brightness Control

Where supported by device firmware and software, a hard button may be engaged to manipulate the display brightness. Press the System Menu button (Button 7) on the front of the SUMO ST312. The System screen will display a Brightness control section with up and down arrows that can be activated with the stylus.

## Battery and Power Management

The SUMO ST312 is equipped with an internal 2200mAh Li-Ion battery pack that is capable of supporting approximately 1.5–2 hours of continuous operation. With the optional internal 3760mAh battery and an external battery pack that clips (hot-pluggable) onto the back of the device, the maximum period of continuous operation will be approximately 3–4 hours. The period between battery recharges can be significantly lengthened by putting the device into Standby mode through the Power Button (see Buttons Function Table) whenever the device is not in use. Depending on the operating software, the SUMO ST312 may also be configured to enter various power-saving modes via the Power Button or through timed entry.

## Desktop Cradle

The SUMO ST312 is complemented by an optional Desktop Cradle for support, pass-through charging, and connection to a range of USB peripherals, including keyboard and mouse. The Cradle offers the following interfaces: a DC-in port for the AC-DC adapter, an Ethernet port, a VGA port (optional) and USB ports. Always seat the SUMO ST312 securely onto the cradle. The cradle must be powered by the AC-DC adapter for the Ethernet and USB ports to function. The battery packs on the SUMO ST312 may be recharged by connecting the AC-DC adapter directly to the DC-in port on the SUMO ST312 or through the DC-in port on the Desktop Cradle while the SUMO ST312 is docked to the Cradle.

## USING THE SUMO ST312

### Memory configuration

The SUMO ST312 is available in various memory configurations. They currently range from: 1GB to 16GB of flash memory and 1GB of RAM.

### Peripherals Support

Through its USB ports, the SUMO ST312 supports a wide range of USB-based peripherals. These peripherals are applicable for software installation, applications storage, data storage, and system software recovery and updates. The SUMO ST312 is also compatible with custom mountable cradle options. These securable and mountable cradles provide an interface to VESA mounts and arms, and to ports that may include USB, Ethernet, VGA and pass-through power.

### Remote Management

Depending on software configuration, the SUMO ST312 can be centrally managed for asset monitoring and for software control. Please consult your device provider.