

## SPECIFICATIONS

System	<b>Display</b>	8.9" (diag.) TFT LCD with Resistive Touch and LED backlight; outdoor-viewable option
	<b>Display Resolution</b>	1024 x 600 (WSVGA)
	<b>Processor</b>	Intel® Atom™ processor Z530 1.6GHz
	<b>Memory (RAM)</b>	1GB to 2GB DDR2 533MHZ
	<b>Storage</b>	2GB to 16GB Internal Flash Module, 32GB to 64GB SSD
	<b>Operating Systems</b>	Windows® XP Embedded; Windows® XP Professional or Linux
	<b>Network Interface</b>	WiFi 802.11a/g/n
	<b>Bluetooth</b>	YES; Bluetooth 2.1 with EDR Class 2 (eGM-A1E) (USB interface)
	<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; 1 USB 2.0 port
Mechanical	<b>Audio</b>	Built-in speakers
	<b>Enclosure</b>	ABS + PC Plastic
	<b>Protective Grips</b>	Rubber with handstrap
	<b>Dimensions (H x W x D)</b>	7.7 x 10 x 1.25 (in); 196 x 256 x 32 (mm)
	<b>Weight</b>	2.43 lbs (1.1 kg)
	<b>Battery Pack</b>	Internal (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> 19V DC@2.36A
	<b>Power Cords</b>	North America, EU, UK, China and Japan
Environmental	<b>Stylus</b>	Non-electronic tip
	<b>Water and Dust Resistance</b>	IP54
	<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

**SUMO**  
Masters of Technology

# Mobile Tablet

## SUMO ST390

### BASIC OPERATION GUIDE



#### ENGLISH

#### INTRODUCTION

Thank you for acquiring the latest addition to SUMO Technologies line of mobile tablets— the SUMO ST390. Featuring an IP54-rated, slim yet robust enclosure, the two-pound SUMO ST390 with 8.9" 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 eight hours of mobile usage.

The SUMO ST390 is available with 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

- SUMO ST390 with Internal Battery Pack, Stylus and Bumpers
- AC-DC Power Adapter with Power Cord
- Mini USB to USB Cable
- Basic Operation Guide

#### Major options, depending on configuration:

- Desktop Charging Cradle with DC-in Power Jack and Ethernet/ USB Ports
- External Battery Pack
- External Battery Charger Kit
- Vehicle/ Wall Mount Cradle
- 5-System Gang Charger

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For more information, including pricing, availability and detailed features please look at our web site at [www.sumotech.com](http://www.sumotech.com) or email [sales@sumotech.com](mailto:sales@sumotech.com)

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The SUMO ST390 (with Windows XP Operating



Input/ Output Ports

A	Headphone Jack
B	USB Ports
C	DC Power Input

Button Functions (with Windows XP Operating System)

BUTTON	ACTION
1 2 3	Programmable
4	Programmable, launch soft (on-screen) keyboard (default)
5	Launch SAS (Secure Attention Sequence) Generate Ctrl+Alt+Del keys to invoke the security windows defined under Windows XP
6	Programmable, Change display orientation (portrait/ landscape) (default)
7	Programmable, system utility menu (default)
8	Programmable, As scanner trigger when equipped with the scanner module
9	Power on, 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 ST390.
- 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 ST390 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 ST390 and disconnect all power sources. Report the problem to your device provider immediately.
- Never attempt to disassemble the SUMO ST390, as this will void the warranty.

THE SUMO ST390

Basic Features

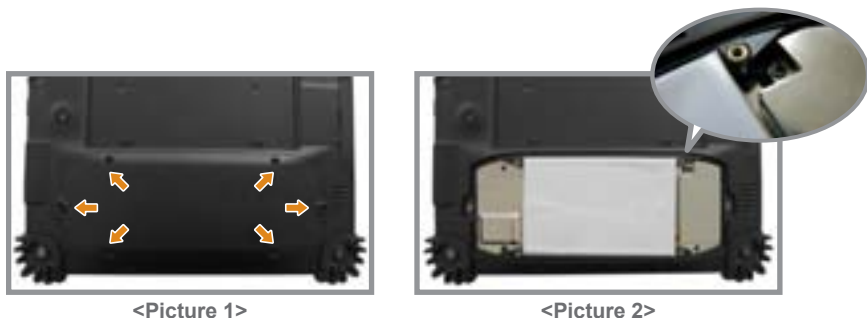
The SUMO ST390 wireless tablet integrates a bright and responsive touch display, 1 mini-USB port, and embedded networking elements such as wireless LAN, Bluetooth or optional 3G. The primary device is complemented by a suite of accessories, including battery expansion, docking cradles, and carrying cases, for a comprehensive user experience.

A SUMO ST390 typically integrates an 802.11a/g/n wireless LAN (WLAN) adapter that may connect to other wireless devices or access points. If your SUMO ST390 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, unscrew the 6 screws and open the battery cover (Picture 1). Push the battery button switch to the “up” position (Picture 2). 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 ST390, push and quickly release the Power Button to the right side of the front bezel. The display will come on in a few seconds. To put the SUMO ST390 in Standby mode, push and quickly release the Power Button. To turn the SUMO ST390 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 ST390 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 ST390, or with the optional external battery charger kit.

**NOTE:** When the battery pack(s) is (are) charging, the blue-colored Battery 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 ST390 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 ST390

The device may be configured using the utilities and methods dictated by the software operating system. The SUMO ST390 should be configurable for various properties such as user profiles, network features, and several system elements.

### Calibration

The touch display for the SUMO ST390 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 ST390 is often delivered with an embedded (user-inaccessible) 802.11a/g/n WLAN adapter equipped with a hidden custom antenna.


- Through the support of typical WLAN adapters, the SUMO ST390 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 ST390 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 ST390 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 ST390.

## Button Management

Where supported by software, many of the hard buttons on the SUMO ST390 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 ST390. 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 ST390 is equipped with an internal 3760mAh Li-Ion battery pack that is capable of supporting approximately 3 - 4 hours of continuous operation. With the internal 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 6 - 8 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 ST390 may also be configured to enter various power-saving modes via the Power Button or through timed entry.

## Desktop Cradle

The SUMO ST390 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 ST390 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 ST390 may be recharged by connecting the AC-DC adapter directly to the DC-in port on the SUMO ST390 or through the DC-in port on the Desktop Cradle while the SUMO ST390 is docked to the Cradle.

## USING THE SUMO ST390

### Memory configuration

The SUMO ST390 is available in various memory configurations. They currently range from: 2GB to 16GB flash memory or 32GB to 64GB SSD and 1GB of RAM.

### Peripherals Support

Through its USB ports, the SUMO ST390 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 ST390 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 and pass-through power.