

TOUGHSAT XP

MOBILE SATELLITE SYSTEM



The Ground Control TOUGHSAT XP Mobile Satellite Internet Systems are made tough for challenging environments. Ruggedized for harsh conditions & capable of quick deployment, the TOUGHSAT XP will provide a High-speed Internet Connection in 3.5 minutes.

TOUGHSAT XP

The TOUGHSAT XP is Ground Control's flagship Mobile Satellite System built on our years of manufacturing mobile satellite systems.

Mobile Connectivity

The .98 Meter TOUGHSAT XP mounts on top of any vehicle, truck or command trailer. Press a button on the control panel and the dish will automatically deploy, lock on satellite and create a high-speed network for any connected computer.

A Cut Above

The TOUGHSAT features the ability to operate in high winds up to 75MPH, and with a 4 or 6 watt transmitter the system can operate in any weather. The system will lock onto the satellite in 3.5 minutes, faster and more accurate than comparable systems on the market today. Unlike compass based mechanisms, the satellite finder in the TOUGHSAT is not subject to magnetic distortions and can operate unimpeded anywhere.

Depend on Ground Control

Ground Control has been an industry leader in Mobile Satellite Internet connectivity with thousands of customers from all sectors of business including government, military, emergency services, oil & gas, mobile retail, to list a few. Ground Control has the expertise you need to deploy mobile technology for your specific use.

What are the possibilities?

Roll on-site and 3.5 minutes later you can connect a single PC or a network of computers to the Internet at high speed. Use VPN or develop a secure connection with Ground Control that will allow you to connect to organizational network.

Premium Satellite Service

The TOUGHSAT XP works with all Ku-band satellites including our iDirect service with up to 3Mbps down and 1Mbps upload speeds. Since the system is not dependent on the satellite modem, it may connect with any provider that supports a .98 meter dish with a 4 to 6 watt radio from anywhere on the planet.

Mobile Hot-Spot

Each system ships with a wireless access point, so any wireless capable computer within range of 100' from the vehicle may connect. This solution is far more reliable than cellular networks that do not have 100% coverage. If you have line of sight to the satellite, you can connect.



Customer Service and Support

The most important aspect to any service is the level of support offered by your provider. Ground Control was founded and continues to develop around one principle truth—providing unsurpassed customer service and support 24 hours-a-day, 7 days-a-week.

GENERAL FEATURES

- One-button operation
- Requires little or no training to operate.
- Dish peaking accuracy is within 0.1 degrees with near zero play.
- Typical seek time to find and lock on satellite is 3.5 minutes.
- Establishes a self-contained local area network with one button.
- Establishes a wireless access point and wiring to computers is optional.
- System is not affected by magnetic distortions to lock on any satellite.
- Operates globally in both hemispheres.
- 4 watt transmitter with an optional 6 watt upgrade.
- Can find any linear polarized KU Band satellite.
- Modular design - components easily replaced if problems occur.
- Operational in wind speeds up to 75MPH.
- Operational in temperatures of -20 to 140 degrees at 100% humidity.
- No software to install.
- Computer not required
- Remote administration via any web browser.
- Autostow safety features if RV is moved or goes off signal.

Wireless 1U Controller

- The front of the controller has several buttons for "search, stow and stop"
- Built-in wireless 4 port router.
- No fan required - Operates silent.
- Web accessible interface screen from any connected computer.
- Is able to locate and lock on any satellite independently of satellite gateway/modem.
- Remote panel extension allows full operation from vehicle dashboard or other desirable location.
- Intuitive Interface screens allow adjustments and overrides of many system parameters.
- System can be customized to locate any visible satellite using longitude location only.
- Override options for GPS, Autostow, Auto firmware updating.
- Networking Overrides for IP Address, Subnet Gateway address, DNS.

Diagnostic & Updating

- Lifetime free firmware upgrading with easy one-button updating.
- System provides accurate technical diagnostics without dispatching a technician to rig site.
- Remote access into system from Ground Control for performance tuning and troubleshooting.
- System provides historical log of events for accurate diagnostics and quick correction.

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Simple - Rugged - Reliable - Quick Operation



The TOUGHSAT is completely self-contained. No external equipment needs to be connected for it to deploy, lock on satellite, and create a local area network for high-speed Internet access to multiple computers. Included in the system are the Mobile Satellite Dish, and the system controller which includes a wireless router 4 port router to create a wireless "G" hotspot.

Little or no training is necessary to operate the system. One the power is on, simply press the Find Satellite button and the dish will deploy automatically, lock on the satellite and create a high-speed network in about 3.5 minutes.

Optional Items

Case Based - The Flyaway Case places a Toughsat mobile system in a reinforced lightweight case under max shipping weight limits. It can be easily handled and setup by one person.

Fly-And-Drive - At no additional cost, the ground mounting brackets double as a fly-and-drive solution. Ship the Flyaway case anywhere, and then mount it on any vehicle roof rack.



Technical Specifications

BANDWIDTH & NETWORK (iDirect Services)

Download.....	Up to 3000 Kbps
Upload.....	Up to 1000 Kbps
Public IP Address.....	Included
DHCP.....	Yes. Wireless or 4 port Ethernet
NAT.....	Supported by included router
Firewall.....	Supported by included router
Port Mapping.....	Supported by included router
Networkable clients machines.....	Unlimited
Wi-Fi.....	Cisco Linksys wireless router "G"

SATELLITE DISH

Reflector Type	0.98 square meter effective area
Mount Geometry.....	3 Axis motor drive (elevation, azimuth & skew)
Deployment Sensors.....	GPS & Tilt Sensor +/- 1°

MAXIMUM MOUNT ROTATION

Azimuth	410°
Elevation	165°
Polarization	+80°

RF INTERFACE

Transmit Power	4 watts
Receive Frequency	Range 950-1450 mhz

DIMENSIONS OF DISH

Dish Stowing Extended Dimensions	59" L x 39" W x 12" H (150 x 74 x 30.5 cm)
Mounting Plate	22" x 57" (56 x 145 cm)
Base Plate (attached to mounting plate).....	14" x 16" (35.6 x 40.7 cm)
Deployed Height	52" max height (132 cm)
Weight	125 lbs (56.7 kg)
Boom Sweep	53" from center with 5" min. ground clearance

ENVIRONMENT

Wind Deployed	75 mph (120 kph)
Wind Stowed	140 mph (225 kph)
Max Operational Temperature (at 100% humidity)	Operational -20° F to 140° F (-28° C to 60° C)
Max Survival Temperature (at 100% humidity)	-60° F to 160° F (-51° C to 71° C)

Power Requirements

Dish Controller & Dish Motors (Via 120 VAC).....	15 watts (can be turned off after pointing)
iDirect Modem (via AC120V to DC 24V @ 5 Amp).....	75 watts



www.groundcontrol.com

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