

# INMARSAT PHONE Vehicular Version

The new STN ATLAS vehicular Inmarsat-Phone SP 2000 V provides access to the international telephone network almost anywhere in the world.

The SP 2000 V is more than just a telephone. Besides digital voice services it allows to send and receive fax as well as data communication like e-mail and access to the Internet from your vehicle even while in motion.



## Features

- Voice, fax and data transfer almost world-wide
- Low traffic charges approx. US\$ 2,50/Min. and less, depending on the Service Provider
- Low profile, automatic tracking Antenna, height 12 cm, 1,2 kg
- Easy installation
- DC voltage supply 12-32 V, low power consumption
- Simple operation (like cellular phone) menu-driven via handset
- Telephone features: functions for telephone book, monitoring speaker, redialling, call logging etc.
- PIN Code protection: Various possibilities for usage of the unit, i.e. several functions can be blocked or restricted
- Dust proof integrated SIM-card reader Ensures transparent accounting in case of several users with own SIM card
- Interfaces for external phone, fax machine, PC, external ringer, loudspeaker and microphone, radio mute and ignition controlled power on/off
- Reliable communication even in motion
- The tracking antenna is automatically aligned with satellites
- Optional connection of STU III/STU II B telephones (cypher phones)



It is the ideal communication media for all kinds of street, off-road and railway vehicles.

The SP 2000 V makes its user independent from any terrestrial and cellular tele-communication infrastructure - for instance on a railway car in Central Asia, on a expedition in the Andes or during a relief mission in the heart of Africa.

The small low profile antenna weighing only 1,2 kg and the compact and ruggedized (all aluminium case) unit are easy to install in any kind of vehicle.

The menu-driven operation is self-explaining and does not require any previous knowledge. The SP 2000 V provides all the features and functions of a modern mobile telephone such as redialling, monitoring speaker, telephone book as well as display and recording of speech time.

The SP 2000 V Global Vehicular Telephone fully supports hands-free operation to ensure safe driving while talking.

## General Specifications

Inmarsat-phone spot-beam operation (mini-M)

## Antenna:

\* Type:

Azimuth stabilized antenna, symmetrical RHCP antenna. Automatic adjustable elevation setting. Beam-width approx. 70° in elevation, 45° in azimuth.

\* Stabilization:

Induced acceleration 0.5g Velocity 110 km/hr Turning rate 60°/s Turning acceleration 20°/s<sup>2</sup>

\* Antenna Cable:

TNC/TNC female, max. cable length 3 meters front-end to antenna.

\* Front-end Cable:

TNC/TNC female max. cable loss 10 dB at L-Band 1.8 ohm at DC (max. 70m)

## Transceiver:

- G/T: -17 dB/K minimum
- EIRP: 8 - 14 dBW in 2 dB steps
- Operating Frequencies:  
Receive 1525.0 - 1559.0 MHz Transmit 1626.5 - 1660.5 MHz
- Channel Spacing: 1.25 kHz
- Rx-Modulation:  
5.6 kbps O-QPSK SCPC (voice/fax/ data)  
6 kbps BPSK TDM
- Tx Modulation:  
5.6 kbps O-QPSK SCPC (voice/fax/data)  
3 kbps BPSK TDMA
- Voice: 4.8 kbps AMBE  
(3.6 kbps voice)  
1.2 kbps FEC
- Async. Data Rate: Max. 2.4 kbps
- Phone Interface:  
2-wire 600 ohm CCITT Rec. G.473  
standard DTMF telephones  
RJ-11 jack
- Fax Interface:  
2-wire 600 ohm CCITT Rec. G.473  
T.30 Group-III Fax, 2.4 kbps  
RJ-11 jack
- Data Interface:  
Serial EIA standard RS-232E  
Hayes compatible, max. 19.2 kbps  
DB-9 female connector
- Printer Interface:  
Serial EIA standard RS-232E  
max. 19.2 kbps  
DB-9 female connector
- Hands-free Microphone:  
diameter 2.5 mm connector
- Hands-free Speaker:  
8 Ohm. diameter 3.5 mm connector
- Ignition Input:  
Isolated input. PTR screw connector
- Extra Ringer:  
RS410-type-N open collector output  
PTR screw connector
- Mute Output:  
RS410-type-N open collector output  
PTR screw connector
- SIM Card:  
GSM like operation, ISO-7816
- Power Supply:  
10.5 - 32 V DC floating

## Environmental Conditions:

\* Ambient temperature:

Operating -25°C to +55°C

Storage -40 °C to 80°C

\* Relative humidity: 95% non-condensing at 40°C

\* Spray (EME): Solid droplets from any direction

\* Icing (EME): Up to 25mm of ice (no operation)

\* Rain (EME): Up to 50mm/hour

\* Wind (EME): 200 km/h relative wind speed (normal operation)

\* Vibration: Random 5-20 Hz 0.02 g 2 /Hz

20 - 150 Hz -3dB/Oct. (1.05 g rms)

- \* Shock: Half sine, 20 g/11 ms (survival)
- \* EMC: ETSI 300339 (mobile equipment)

## Dimensions and Weight:

### \* Electronics Unit:

H x W x D: 25 mm x 268 mm x 211 mm 1.3 kg

### \* Front-end:

H x W x D: 188 mm x 124 mm x 31 mm 0.95 kg

### \* Low Profile Antenna:

H x W x L: 122 mm x 240 mm x 266 mm 1.2 kg

### \* Handset Cradle:

H x W x D: 160 mm x 61 mm x 27 mm 0.15 kg

### \* Handset:

H x W x D: 200 mm x 52 mm x 33 mm 0.25 kg