EDW-200T

Automatic Vehicle Locator User Manual

Version 2.0

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A Working Directions

  Thank you for your purchase of EDW-200T Automatic Vehicle Tracker. In order to realize the full functions of this product, please read this manual carefully before starting to use the product.
1. This product can only be maintained and repaired by qualified professional service personnel. If you detach this product for maintenance or repair, your warranty will be invalidated.
2. When connecting the other devices, read carefully their instruction manuals ,so as to carry out correct installation; do not connect incompatible device.
3. As this product is a high-tech product, please read carefully this manual before starting to use the product, so as to avoid inappropriate operation.
4. Drivers should not operate this product while driving a vehicle, thereby ,affecting safe driving.
5. This product can work properly only when GSM communication is in good condition.
6. Please reduce electromagnetic wave interference to the product; and use it properly.
7. GPS communication is liable to be affected by environmental shielding; may fail to carry out positioning during certain circumstances. It will resume the positioning function as soon as it leaves the shielding environment. This is normal. Please do not worry when encountering such problem.
8. Each signal sent out from the system will be confirmed for successful transmission in the base station of the mobile operator. However, if system stoppage occurs or if the mobile telephone is preset to a switch off state by the customer, it cannot ensure successful transmission.
9. For safety reason, do not tell the other people your EDW-200T mobile number ,without taking precautions. Otherwise, your privacy may be compromised along with other safety problem.

B. System Introduction

  EDW-200T is a high-tech product through cooperation with mobile operators. It combines GPS Global Positioning System and GSM/GPRS communication system, which can clearly inform you the position & situation of your car.

  GPS is the abbreviation for Global Positioning System, which based on 24 position location satellites around the earth orbit. Their locating precision can be kept within 10 to 15 meters.

  GSM is the second digital mobile communication system (GPRS, second and fifth digital mobile communication system), and at present it is the mobile communication system that has the largest coverage and owns the most number of users. This product combines GPS and GSM/GPRS technologies together. It uses GPS system to locate your car, and sends the position/ situation report back to you via GSM/GPRS communication system.
With a delicate mobile phone, you can monitor the present situation in your car from a faraway place. You can use the telephone remote control function to set monitoring mode, which will report the situation of your car to you periodically.

Following are the major function descriptions for the EDW-200T products.

GPS Position Tracking Function
IP66 water resistance
Build-in GPS antenna and GSM antenna, easy for
   installation
Build-in 850mAh battery

C. Wiring Installation

1. Product Parts List

AVL Unit

Car Charger Lighter Socket
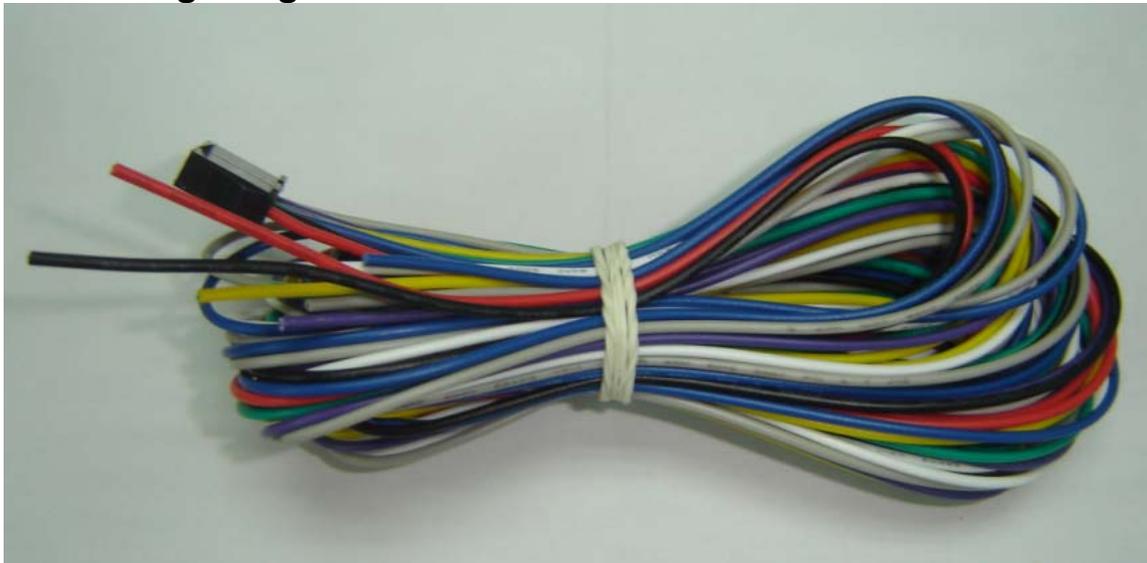
GPS Antenna(optional)

2. Precaution before Installation

Check if all the parts are included.

Prepare a SIM card for GSM communication. Use some other mobile phone to confirm that the PIN code has not been set, and that it can dial out and receive telephone calls without problem.

Before installing the SIM card, make sure to cut off power from the AVL unit. The correct installation method is to push the tray completely into the AVL unit, until you feel it is hooked by something.

Find a suitable place inside the car for installing the unit.

Check if all the wiring has been connected correctly; then connect the AVL unit to the power source.

3.INSTALLATION

3.1 Step 1: Install SIM Card

(1) Unscrew and remove the front cover of your locator.

(2) Insert the SIM card by sliding it into the card holder slot, with the chip module facing to the connectors on PCB, as direction shown in the picture.

(3)Switch the tracker on ,as following picture shows.After switch on,the red and blue led will blink

(4) Put back the front cover and screw it up.

※ Make sure to turn off the power before installing the SIM card.

※ **Make sure to deactivate the PIN code, so that the SIM card can operate without PIN protection.**

※ **Before install the SIM card to the GPS Tracker, please use a mobile phone to make sure the SIM card can make & receive phone calls without problem**.

※ Before install the SIM card to the GPS Tracker, please use a mobile phone to empty the SMS storage of the SIM card.

3.2 Step 2: Connect power charging

EDW-200T   connects to the car charger lighter socket.

```
┌─────────────────────────┐
│                         │
│          AVL            │
│                         │
│                      ┌──┴──────┐
└──────────────────────┘         │
                      ┌──────┐    │
                      │  +  - │    │
                      │ Car Battery │
                      │          │
                      └──────────┘
```
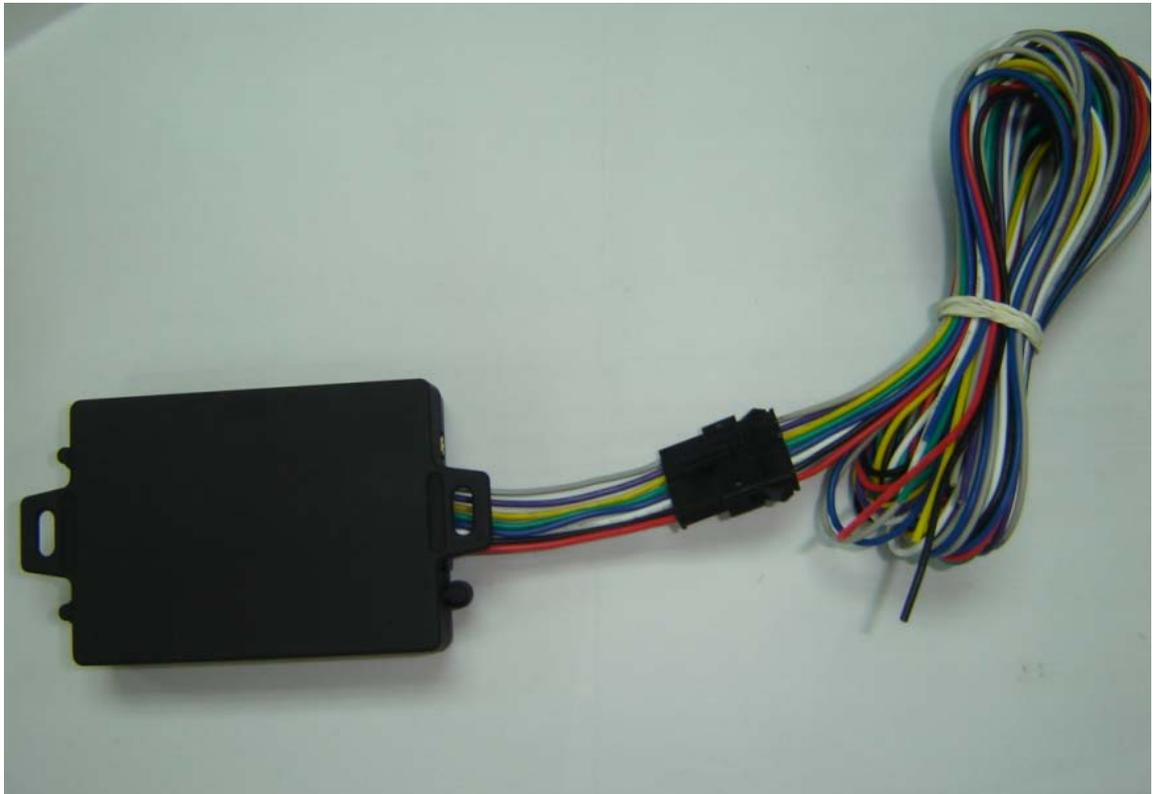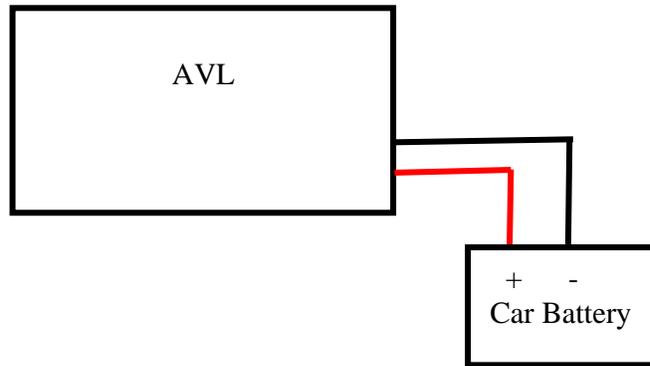
PIN description for EDW-200T socket:

Pin	Colour	function
1	Red	DC IN (power input) Input voltage : **9V~25V** (important) Suggested : **12V**
2	Black	GND
3	white	No usage now
4	Blue	No usage now
5	Green	No usage now
6	Yellow	No usage now
7	Purple	No usage now
8	Gray	No usage now

4. Wiring Description

Connect the wiring correctly.

The AVL unit should be connected to power source, after all the wiring work has been completed and checked.

Build-in GPS antenna and GSM antenna is used in this unit to make installation easy.GPS antenna is used to receive satellite signals in the sky. The front panel of this unit should be fixed to face the sky; and should not be covered or shielded by any object containing metal, such as the metallic windshield.

Front side

Wiring connections must be firm and reliable; and the joints should be wrapped with insulating tape tightly.

The unused electrical wire should be properly insulated.

D. Operating Instructions

1. Position Report Function by SMS

No matter where you are, when you want to know the position of your vehicle, send a SMS message or make a telephone call to the EDW-200T; it will report its location back to you by SMS .

Edit a message as following format, then send it to EDW-200T:

Format: W+Password+, +000

(init password is : 000000)

For example: W000000,000

The EDW-200T will send back one SMS ,which includes the position information

Position Data means :

Longitude = 114 degree - 04 cent - 57.74 second
Latitude   =   22   degree - 32 cent - 40.05 second

 Tips:

Apply for one position service by another easier way:

    (a) Make a cell phone call to EDW-200T
    (b) After listening the ring of EDW-200T, wait for about 10s ,then you can
       hold off the dialup --
    (c) Then, after 10 second, the cell phone will receive
      the Position SMS.

2. Tracking by GPRS

The MT200 can send GPRS package,with position info to preset IP and port at preset time interval. For more about how EDW-200T sending GPRS package,please refer to GPRS communication protocol.

E. Hardware Specifications

Feature	Characteristics
GPS chipset	**SirF III**
Power Supply	**+9V to +25V**
Power Consumption For VBATT	Active mode(peak) < 1.0A Active mode(avg.) < 300mA Idle mode < 50mA Sleep mode < 5mA
Operating Temperature Range	-20℃ to +60℃
Storage Temperature Range	-20℃ to +70℃
Humidity	Up to 75% non-codensing
External Antenna	Connected via the 50Ω coax connector
External SIM Card	Connected via SIM Card connector
SIM card type	3V

Transmit Power	Class 4(2W) for E-GSM 900 and 850 Class 1(1W) for DCS 1800 Class 1(1W) for PCS 1900
Sensitivity	-104 dBm minimum for E-GSM 900 and 850 -102 dBm minimum for DCS 1800 -102 dBm minimum for PCS 1900
Speech Codec	Triple rate Codec: Half rate –ETS 06.20 Full rate –ETS 06.10 Enhance Full rate-ETS 06.50/06.06/06.08
GPRS	Multi-slot Class 8(4Rx , 1Tx , 5 slot Max.) Support all 4 coding schemes(CS-1, CS-2, CS-3 and CS-4) ● Maximum download speed is 85.6kbps ● Maximum upload speed is 21.4kbps
Circuit-Switched Data Rate	14.4kbps
Interface	Full duplex 3V CMOS-level Serial interface for AT commands protocol
Dimensions	**6.0 x 4.0 x 2.0 (cm)**

G More Professional SMS Instruction

****** is user password , and init password is 000000

	SMS Instruction	Format	Note
1	Request one position	W******,000	
2	Modify user password	W******,001,######	****** is old password ###### is new password
3	Set the time interval to position refresh	W******,002,XXX	XXX(3 digital) =000,stop =[1,999] time internal (unit: mins)
4	Set a preset phone number for SOS button When this button is pressed, EDW-200T will dial the preset number.	W******,003,1,1,TelNumber	TelNumber: Preset Tel number (TelNumber must <16 digits)
5	Set low power alarm When the EDW-200T voltage is lower than the preset value, EDW-200T will send one lower power alarm SMS to the SOS preset number.	W******,004,X	X (voltage preset value) =0 , close =1, <3.3V send SMS alarm =2 , <3.4V send SMS alarm =3 , <3.5V send SMS alarm (default) =4 , <3.6V send SMS alarm =5 , <3.7V send SMS alarm
5	Set over speed alarm When the EDW-200T speed higher than the preset value, EDW-200T will send one over speed alarm SMS to the SOS preset number.	W******,005,XX	XX (the speed preset value) =00 , close =[01<XX<20] (unit: 10Km)
6	Set Geo-fence alarm When the EDW-200T move out preset scope, EDW-200T will send one Geo-fence SMS to the SOS preset number.	W******,006,XX	XX (preset distance to original place) =00 close =01 30m =02 50m =03 100m =04 200m =05 300m =06 500m

			=07 1000m =08 2000m
8	Extend setting (note: Please use this instruction carefully)	W******,008,ABCDEFG###	A=0 , Close position report function which get position SMS by Calling EDW-200T A=1 , Open position report function which get position SMS by Calling EDW-200T B=0, position SMS format be analyzed in order to read easily. For example: *Longitude = 114 degree - 04 cent - 57.74 second* *Latitude = 22 degree - 32 cent - 40.05 second* B=1, position SMS format is NMEA 0183 Format For example: *$GPRMC,072414.000,V,3114.3763,N,12131.3255,E,0.00,0.00,050805,*00* C=0, EDW-200T do NOT hang up when one call incoming . C=1, EDW-200T hang up after 4~5 rings when call incoming D=0, EDW-200T do NOT send one notice SMS to SOS preset number when the GT30 power on D=1, EDW-200T do send one notice SMS to SOS preset number when the GT30 power on E=0, EDW-200T do NOT shut down automatically when the power voltage lower than 3V E=1, EDW-200T will shut down automatically when the power voltage lower than 3V F=0, EDW-200T do NOT send the notice SMS to the SOS preset number when the GPS signal is weak F=1, EDW-200T send the notice SMS to the SOS preset number when the GPS signal is weak ###, end character

			(Default value should be : ABCDEFG=1011110)
9	Set sleep mode for saving power.	W******,021,XX###	XX=00 close sleep mode XX=01 sleep XX=02 deep sleep
	GPRS setting		

9	Set the phone number for EDW-200T for GPRS	W******,010,tel	tel :
			   telephone number according the SIM card of GT30
			
			   (tel must be < 14 digits)

10	Set APN	W******,011,APN	APN : APN string
11	Set IP Address &port number	W******,012,IP,PORT	IP: xxx.xxx.xxx.xxx PORT：[1,65536]
12	Select GPRS protocol	W******,013,X	X=0 Enable Protocol B (Suggestion) X=1 Enable Protocol A

H GPRS communication setting

Step1: Make sure that your SIM card in EDW-200T support the GPRS function

Step2: Set tracker ID of EDW-200T by send one SMS:

    SMS Format: W*****,010, Tracker ID

    For example :
        W000000,010,123456

    GT30 will response one SMS to confirm the setting.
    For example : "Set SIM OK/123456"

(tip:
"123456" can be considered to be the device's name. (Tracker ID must be < 14 digits)
If there are several devices ,you can use their Tracker ID to differ from each other.   )

Step3 : Set IP address and Port by send one SMS

    SMS Format: W*****,012,IP,PORT

      IP: xxx.xxx.xxx.xxx
      PORT： [1,65536]

    For example :
      W000000,012,202.116.11.12,8000

    GT30 will response one SMS to check it.
      Like   "Set IP ok /**202.116.11.12**#8000"

(tip:
 Make sure that the IP should be the Extranet IP. If your pc is in Intranet ,you must know your
Extranet IP . You may need the help of you network administrator   )

Step4: Set APN String

SMS format : W*****,011, APNString

For example :
W000000,011, CMNET

GT30 will response one SMS to check it
For Example "set APN OK /CMNET"

Step5: Set time interval of sending GPRS package

SMS format: W******,014 , XXXXX

XXXXX：means times interval, (Unit: 10s)
(The length of XXXXX **MUST** be **5 digits**)

XXXXX=00001, means time interval is 10s;
XXXXX=00000, means **STOP** GPRS function.

For example:
W000000,014,00003

SMS meaning: Make GT30 send a GPRS package every 30 seconds

GT30 will response one SMS to confirm the setting .
For example   "set GPRS Timer ok/00003"

*(tip: W000000,014,00000 mean **STOP** GPRS function)*

Step6: Enable communication protocol type

SMS format: **W******,013,X**

X meaning is defined by RedView GPS.
You can set it as 1 or 0
X=0: Enable Protocol B （Suggestion）
X=1: Enable Protocol A

For example: **W00000, 013, 1**
                        W00000, 013, 0

(tip: About the detail of Protocol B or Protocol A
pls contact with our support teams: customer@redview.net   )
Step7 : According to the document of our ***RedView GTP communication protocols*** , the
server can analyses the GPRS data.
Please contact us if you have not this protocol :   customer@redview.net

（tips:
1 You can get the latitude & longitude data sent from GT30 by GPRS every interval
time from the Any software of TCP receiver ,which is installed in your PC.

2 if you require the document about GTP communication protocol of GT30, please
contact us by mail.   Our mail address: annagps@gmail.com   )

3 *for bulk number:*

You can configure EDW-200T by PC tools named "Parameter Editor" in CD
----the tools is be designed by RedView GPS, and it is for configuring bulk number of
Tracker unit, And the customers require one special USB configure cable from RedView
GPS which connect PC with Tracker unit.

For detail, read *RedView Configuration tool V1.02 User Guide* in CD
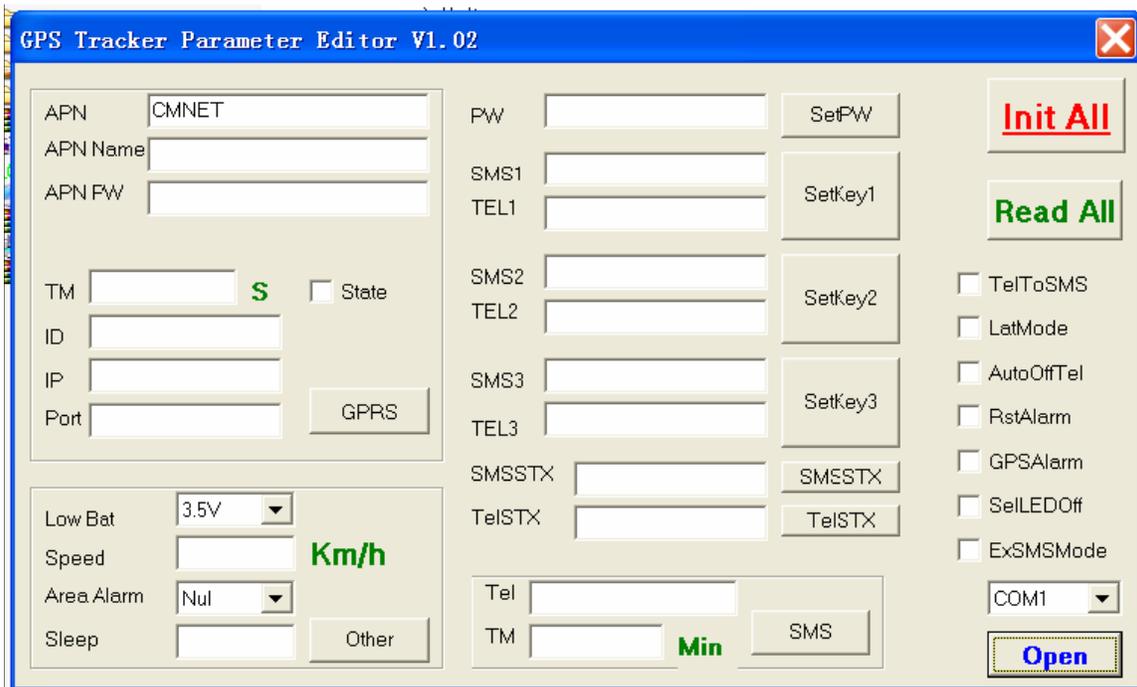
K Trouble shooting

If you find some trouble in using EDW-200T, please refer the following:

(1) Check GPS signal is normal,

   please check following issue:

    (a) **Working ouEDW-200TVT200 can get better GPS signal;**

  (b) Check the front side is placed toward sky;

  (c) Charging EDW-200T for 3 hours for the tracker has enough power before

  usage

(2) Check GSM signal is normal

  **(a) Whether the GSM network is strong enough to make the track unit work.
You can judge it by calling someone thorough your cell phone.**

  **(b) Whether the SIM card is installed correctly or not ,and try to pull out and insert
SIM card as following picture shows to ensure it; try this operation a few times
may help to ensure correct installation**

  (c) Whether there is enough deposit in SIM card or not;

**(d) Whether your SIM card in EDW-200T support SMS function or not, (including send
SMS and receive SMS)**

  **(f) Whether SIM card has specific requirement on cell phone or not,
for example whether the SIM card can only use in a appointed cell phone, other
cell phone cannot use the SIM card**

  (g) Whether SIM card is binding to the specific cell phone or not

  **(h)   Whether SIM card need some authorization when using it
For example, you need type one password when you use the kind of SIM cards**

  **(i)   Whether the tracker has enough power to work, we strongly suggest it was
charged at least 3 hours before use it**

(3) The SMS which be replied by EDW-200T is including the chars --- " Last ………."
It is indicate the GPS signal is weak.

Attachment :Worldwide APN (Access Point Name) List

Country	Mobile operator	Access point name
Argentina	Personal	gprs.personal.com
Argentina	Unifon	internet.gprs.unifon.com.ar
Australia	Telstra	telstra.internet
Australia	Optus	internet
Australia	Three	3netaccess
Australia	Vodafone	internet
Austria	Max Online	gprsinternet
Austria	One	wap.one.at
Belgium	Orange	orangeinternet
Belgium	Mobistar	web.pro.be
Belgium	Proximus	internet.proximus.be
Bermuda	AT&T	proxy
Bermuda	Mobility	net.bm
Brazil	Claro	claro.com.br
Brazil	Oi	gprs.oi.com.br
Brazil	TIM	tim.br
Bulgaria	Mobiltel (Mtel)	inet-gprs.mtel.bg
Canada	Fido	internet.fido.ca
Canada	Rogers AT&T	internet.com
Chile	Entel PCS	imovil.entelpcs.cl bam.entelpcs.cl
Chile	Telefonica GSM	web.tmovil.cl
China	China Mobile	cmnet
Croatia	VIPNET	gprs.vipnet.hr
Czech Republic	Eurotel	internet
Czech Republic	Oskar	internet
Czech Republic	Oskar prepaid cards	ointernet
Czech Republic	T-Mobile	internet.t-mobile.cz

Denmark	TDCmobil	internet
Denmark	Orange	web.orange.dk
Eygpt	Vodafone	internet.vodafone.net
Dominican Republic	Orange Dominicana	orangenet.com.do
Finland	Telia Mobile	internet
Finland	DNA	internet
Finland	Sonera	internet
Finland	Radiolinja	internet
Finland	Saunalahti	saunalahti
France	Orange	orange.fr
France	SFR	websfr
France	Bouygues Telecom	eBouygTel.com
Germany	D2 Vodafone	web.vodafone.de
Germany	E-Plus	internet.eplus.de
Germany	O2	internet
Germany	Quam	quam.de
Germany	T-Mobile D1	internet.t-d1.de
Greece	Vodafone	internet.vodafone.gr
Greece	Telestet	gint.b-online.gr
Greece	Cosmote	internet
Hungary	Vodafone (Prepaid "Optimized")	vitamax.internet.vodafone.net
Hungary	Vodafone (Prepaid "Standard")	vitamax.snet.vodafone.net
Hungary	Vodafone (Postpaid "Optimized")	internet.vodafone.net
Hungary	Vodafone (Postpaid "Standard")	standardnet.vodafone.net
Hong Kong	CSL	internet
Hong Kong	Orange	web.orangehk.com
Hong Kong	New World	internet
Hong Kong	People	internet
Hong Kong	SmarTone	internet

Hong Kong	Sunday	internet
India	Orange, Hutch	www
Iceland	Siminn	gprs.simi.is
India	BPL Mobile	bplgprs.com
India	Airtel	airtelgprs.com
Indonesia	Telkomsel	internet
Ireland	O2	internet
Ireland	Vodafone	live.vodafone.com
Israel	Cellcom	internetg
Israel	Orange	internet
Italy	TIM	uni.tim.it ibox.tim.it
Italy	Vodafone Omnitel	web.omnitel.it
Italy	Wind	internet.wind
Latvia	Latvia Mobile Telefone	internet.lmt.lv
Luxembourg	LUXGSM	web.pt.lu
Luxembourg	Tango	internet
Malaysia	Celcom	celcom.net.my
Mexico	Movistar	internet.movistar.mx
Mexico	Telcel	internet.itelcel.com
Montenegro	Monet	gprs.monetcg.com
Netherlands	T-Mobile	internet
Netherlands	KPM Mobile	internet
Netherlands	Orange	internet
Netherlands	O2	internet
Netherlands	Vodafone (normal)	web.vodafone.nl
Netherlands	Vodafone (business)	office.vodafone.nl
New Zealand	Vodafone NZ	www.vodafone.net.nz
Norway	Netcom	internet.netcom.no

Norway	Telenor	internet
Pakistan	UFone	ufone.internet
Paraguay	Personal	internet
Paraguay	Tigo	internet.tigo.py
Philippines	Smart	internet
Philippines	Globe	internet.globe.com.ph
Poland	Era	erainternet
Poland	Idea	www.idea.pl
Poland	PlusGSM	www.plusgsm.pl
Portugal	Optimus	internet
Portugal	TMN	internet
Portugal	Vodafone (Telcel)	internet.vodafone.pt
Romania	Connex	internet.connex.ro
Romania	Orange	internet
Russia	BeeLine	internet.beeline.ru
Russia	Megafon	internet.nw
Russia	MTS	internet.mts.ru
Russia	PrimTel	internet.primtel.ru
Saudi Arabia	Saudi Telecom	Jawalnet.com.sa
Serbia-Montenegro	Mobtel Srbija	internet
Serbia-Montenegro	Telekom Srbija	gprsinternet
Singapore	M1	sunsurf
Singapore	Singtel	internet
Singapore	Starhub	shwapint
Slovakia	Eurotel	internet
Slovakia	Orange	internet
South Africa	MTN	internet
Spain	Amena	amenawap

Spain	Telefonica (Movistar)	movistar.es
Spain	Vodafone	airtelnet
Sweden	Telia	online.telia.se
Sweden	Vodafone SE	internet.vodafone.net
Switzerland	Swisscom	gprs.swisscom.ch
Switzerland	Orange CH	internet
Switzerland	sunrise	internet
Switzerland	UMC	www.umc.ua
Taiwan	Chunghwa Telecom	internet
Taiwan	Far EasTone	fetnet01
Taiwan	KG Telecom	internet
Taiwan	Taiwan Cellular	internet
Thailand	AIS	internet
Thailand	DTAC	www.dtac.co.th
Turkey	Avea	internet
Turkey	Aycell	aycell
Turkey	Telsim	telsim
Turkey	Turkcell	internet
UK	Jersey Telecom	pepper
UK	O2	mobile.o2.co.uk
UK	T-Mobile	general.t-mobile.co.uk
UK	Vodafone UK	internet
UK	Orange	orangeinternet
Ukraine	Kyivstar GSM	www.kyivstar.net
Ukraine	UMC	www.umc.ua
USA	T-Mobile	internet2.voicestream.com
USA	AT&T	proxy
USA	Cingular	isp.cingular
Venezuela	Digital TIM	gprsweb.digitel.ve