# T23 Series GPRS

Version 0.9

**TRAMIGO™**

T23 Series has the options in which you can send commands and receive reports via SMS, GPRS or both SMS & GPRS connection. GPRS mode (also called Data Mode) is a mobile feature that allows you to access or connect to the unit via the Internet. Through GPRS connection, you can also update or configure your unit remotely. The following information will give you the idea on how to setup GPRS on the T23 Series device.

## Step 1. Prepare

THIS DOCUMENT REQUIRES YOU TO HAVE FOLLOWED T23 SERIES QUICK START FIRST BEFORE PROCEEDING.

**REQUIREMENTS:**

- T23 Series USB Cable
- Tramigo Manager installed on PC
- Configuration file for GPRS
- SIM Card enrolled to data plan
- GSM/GPRS SIM Card
- Registered GPRS modem SIM from Server
- Customer has to run a M1Fleet Enterprise server on a dedicated server running on a public IP and with modem installed. **Customer can also run their own GPRS server**
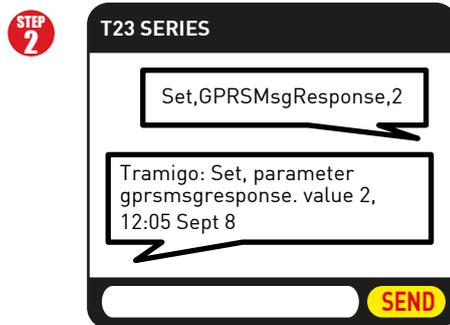
**TIPS TO REMEMBER**

- Know the GPRS settings for data connection enabling, such as APN, check you mobile network provider.
- GPRS will use data connection for traffic, the amount of data used should be specified to match the selected plan (for e.g. 10 MB or 20 MB/month).
- One (1) report is in average 500 bytes (0.5 KB).
- Modem (SMS messages) can be used as backup especially for the alarm messages.
- **GPRS CONNECTION IS NOT APPLICABLE TO M1MOVE or any MOBILE PHONE GPRS.**

## Step 2. Setup

Following commands can be sent via SMS or Tramigo Manager.

**STEP 1**

**T23 SERIES**

GPRS,APN,Etisalat

Tramigo: GPRS APN was set, 12:03 Sept 8
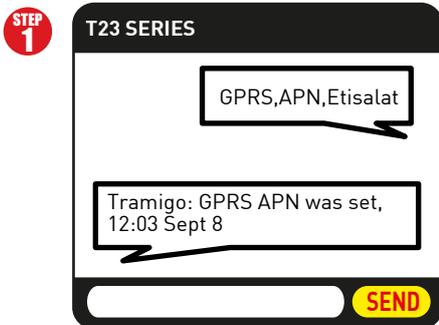
SEND

Send: **GPRS,APN,<APN>,<APN user>,<APN password>**
Leave blank if there is No APN username or No APN password

**STEP 2**

**T23 SERIES**

Set,GPRSMsgResponse,2

Tramigo: Set, parameter gprsmsgresponse. value 2, 12:05 Sept 8

SEND

Send: **Set,GPRSMsgResponse,<0/1/2>**
Note: Use this if you want confirmation for ALL messages, default is 1 which will confirm Trip and Alarm messages.

## Step 3. Connect

**STEP 1** Send: **GPRS,Connect,gprs server IP,port,tcp (default port = 9566)**

e.g. **GPRS,Connect,123.123.123.123,9566,tcp**
T23 Series Response: Tramigo: GPRS connection process started, 12:07 Sept 8

**STEP 2** Send: **STATUS (to check connectivity status)**

T23 Series Response 1: Tramigo: Status: Parked, GPS: 81%, GSM: 80%, **GPRS: StartConnect**, battery: 63% (charging), reports: none, 14.55913, 121.01956, 12:08 Sept 8

T23 Series Response 2: Tramigo: Status: Parked, GPS: 81%, GSM: 80%, **GPRS: Connected**, battery: 64% (charging), reports: none, 14.55913, 121.01956, 12:10 Sept 8

## Step 4. Track

Send the following commands to configure automatic reporting. "R" refers to REPORT command and "10" is the allocated user number for GPRS server, all reports will be sent to GPRS server. All settings mentioned can be listed and saved as CF file.

| | |
|---|---|
| R,10,F,5,3,30,35 | Turn on FIND reporting every 5 minutes and 3 km when in trip, then every 30 minutes when not in trip and when heading changes more than 35 degrees |
| R,10,ST,5,,30 | Turn on STATUS reporting every 5 minutes when in trip, 30 minutes when not |
| R,10,Trip,ON | Turn on TRIP reporting |
| R,10,Power,ON | Turn on POWER reporting |
| R,10,Ignition,ON | Turn on IGNITION reporting |
| R,10,Speed,160 | Turn on SPEED alarm reporting with 160km/s (160 is changeable) |

**tracking.**

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**TRAMIGO™**

## GPRS Setup via Tramigo Manager

### Creating Configuration File (CF FILE)

1. Copy all configuration details above into a notepad application on your computer.
2. Change accordingly the **XXX,YYY,ZZZ** parts in the configuration details.
3. Click "**File**" and choose "**Save As**", browse on desired location where you want to keep the file.
4. Name the file as "**T23 Series GPRS Config.CF**" then click "**Save**".

### Loading Config File thru Tramigo Manager

1. Connect T23 Series to PC via T23 Series USB cable. **DO NOT FORGET TO POWER ON THE UNIT.**
2. Open Tramigo Manager and wait until the connection status gives out com port number.

COM15   Tramigo

3. Click "Load Configuration" button and browse for the previously saved "T23 Series GPRS Config.CF" file.
4. Click then click "OK" button or simple double-click on the browsed CF file. All above commands will be listed while loading it. Once loading is complete, wait till you receive a status report that tell "**GPRS: Connected**" then you're done.

```
// CF file for connecting to GPRS

// xxx is the APN, yyy is the APN username, zzz is the APN password
GPRS,APN,xxx,yyy,zzz

// reporting every 5 minutes and 3 km when in trip
// then every 30 minutes when not in trip and when heading
// changes more than 35 degrees
R,10,F,5,3,30,35

// status every 5 minutes when in trip, 30 minutes when not
R,10,ST,5,,30

// trip reports
R,10,Trip,On

// power reporting
R,10,Power,on

// Ignition reporting
R,10,Ignition,on

// speed alarm
R,10,Speed,160

// send ping to server when there is a report to send only
Set,GPRSPingResponse,2

// require confirmation from server to all sent messages
Set,GPRSMsgResponse,2

// xxx is the server name, yyy is the server port which is 9566
// as default
GPRS,Connect,xxxx,yyyy,TCP

BOOT
```

## GPRS Commands

| COMMAND | INFO/EXAMPLE: | DESCRIPTION |
|---|---|---|
| Set,GPRSPingResponse,‹0/1/2› | 0 - No response to ping<br>1 - Response needed, sent every pingFrequency timeout (see set,pingFrequency command )<br>2 - Ping is sent only when there is a report to send and the pingFrequency timeout has already lapsed | Used to set a flag for requiring response to the PING message sent by the device to the server. Response for every ping connection: "gprs,ack,ping" |
| Set,GPRSMsgResponse,‹0/1/2› | 0 - No response to ping<br>1 - Response to alarm reports needed<br>2 - Response to all reports needed | Used to set a flag for requiring response to the message sent by the device to the server. NOTE: Alarm messages are TRIP report, IGNITION report and all other event triggered reports. |
| Set,PingFrequency,X | Set,PingFrequency,10    X = in minutes | Timeout for the next sending of ping message via gprs |
| Set,GprsMinReconnectDelay,X | Set,GprsMinReconnectDelay,30   X = in seconds | Sets the manimum delay for the device before it reconnects to GPRS when it gets disconnected due to error. |
| Set,GprsMaxReconnectDelay,X | Set,GprsMaxReconnectDelay,15   X = in minutes | Sets the maximum delay for the device before it reconnects to GPRS when it gets disconnected due to error. |
| Set,GprsNoConnectTimeout,X | Set,GprsNoConnectTimeout,60   X = in minutes | Timeout when device cannot establish a connection to server |
| Set,GPRSMinResetTimeout,X | Set,GPRSMinResetTimeout,30   X = in seconds | Minimum delay before device reset its connection after error |
| Set,GprsMsgResponseTimeout,X | Set,GprsMsgResponseTimeout,30    X = in seconds | Timeout to message send via gprs |
| Set,GprsCyclicReportTimeout,X | Set,GprsCyclicReportTimeout,60  X = in seconds | Timeout for the next sending of find/status report |
| Set,GprsSmsCheckTimeout,X | Set,GprsSmsCheckTimeout,5    X = in minutes | timeout for next checking of SMS (used only when gprscyclic reporttimeout is less than 60 seconds, meaning no automatic switching to atmode) |
| GPRS,ClearFlash | | Clears the GPRS reports saved on the flash and on the buffer |
| GPRS,Disconnect | | Disconnects GPRS connection. GPRS,autostart will be disabled. |
| GPRS,Reset | | Reset the gprs connection of the device to the server |

**tracking.**