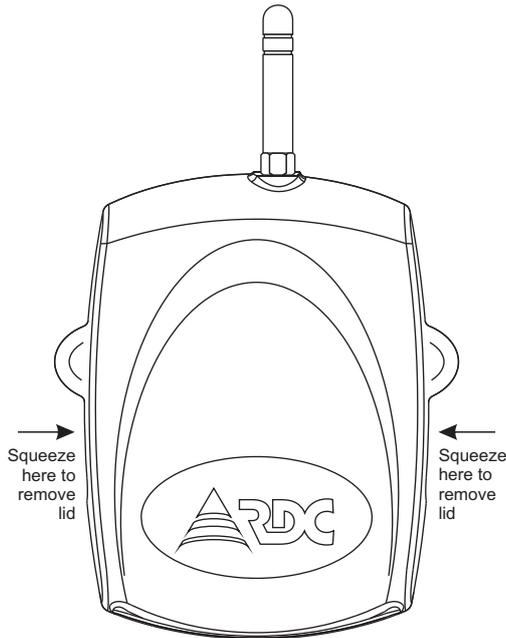


# SMS mini base - Installation Instructions

24hr Standby  
082 444 7176



## Overview

The SMS Mini Base is a receive only device for SMS's from machine to machine (M2M) enabled TX-SMS units. The unit has a very simple setup requirement. SMS's that are received in the correct format are sent out in ASCII format via the serial port of the unit. The ASCII format can then be interpreted by monitoring software.

To receive signals on the SMS Mini Base, TX-SMS units in the field must be set up for M2M functionality using the TX-SMS PC application software. The M2M feature will send a shortened numeric response to the Mini Bases' pre-defined cellular number (not one of the reporting numbers). The M2M functionality feature is not configurable by remote SMS due to its complexity.

## Features

- Programmable output baud rate (9600/115200 baud)
- Output string includes standard RDC telemetries and full Contact ID
- Optional MSISDN information in output string
- Optional date and time information in output string
- Battery backed time and date
- Single SIM operation

## Connection

Using the cable provided, connect the serial connection of the TX-SMS unit to the monitoring PC using the D9 connector on the opposite end of the cable. Power the unit by connecting a 12V DC supply to the positive and negative terminals on the unit.

## Output string

```
AAAAA TTT CCCCCCCC <CR>
```

AAAAA 5 digit unit ID as configured in the TX-SMS  
 TTT 3 digit standard telemetry as configured in the TX-SMS  
 CCCCCCCC Contact ID telemetry  
 A<CR> (0x0D) always terminates the output string.

Both standard and Contact ID fields are present in the output string. If a standard telemetry is being reported, the Contact ID field will contain all '0' characters. If a Contact ID event is being reported, the standard telemetry field will contain '999'.

The Contact ID account code is not included in the string because the TX-SMS unit already has a unit ID. The message type is also not included as this has already been verified by the unit that received the DTMF strings from the alarm panel.

## Standard telemetries

TX-SMS Event	3 Digit Telemetry
Power Up	017
Input 1 High	003
Input 1 Low	xxx
Input 2 High	000
Input 2 Low	xxx
Input 3 High	001
Input 3 Low	002
Input 4 High	004
Input 5 Low	xxx
Mains Fail	010
Mains Restore	011
Battery Low	008
Battery Critical	008
Battery Restore	009
Auto Test	074
Tamper Movement	101

*xxx = Not defined, but can be configured by user if required.*

All telemetries have been chosen to mimic the standard RDC VHF radio codes, but can be changed by the PC application software to be any code that is required.

**Note:** the 3 digit code '999' is reserved and may not be used.

## Contact ID telemetry codes

The Contact ID field consists of 9 characters:

Id1	<b>Event Qualifier</b> '1' = New event or opening '3' = New restore or closing '6' – Previously reported event is not supported
Id2 - Id4	<b>Event code</b>
Id5 - Id6	<b>Group or partition</b>
Id7 - Id9	<b>Zone or user</b>

Please refer to the Contact ID specification for a description of the event codes.



## Output string options

### Include MSISDN number

The output string may be modified so that the MSISDN number is added to the beginning of the string. The string will thus begin with '+27xxxxxxx', followed by the 17 character output string as described. The output string default setting has no MSISDN number.

### Include date and time

The output string may include the date and time that the event was received. When this option is selected, the date and time follows the 17 character output string. The default setting does not include the date and time.

**Date and time format:** ddmmyyhhmmss

i.e. date, month, year, hour, minute, second

## Serial output speed

The serial output speed can be configured using PC configuration software to be either 9600 (default) or 115200 baud.

## SIM card

A contract GSM SIM card from any network can be used in the unit. A prepaid SIM cannot be used as the Mini Base does not generate reliable events which means that the network will deactivate (churn) the card after 3 months. Only use a SIM card which is on contract. Choose a network which has the best coverage in your area.

The SIM card is fitted into the SIM-LOCK holder on the PCB. The card slides into the top hinged cover. Close the cover and push forward to lock into place.

**WARNING:** DO NOT insert or remove SIM cards while the unit is powered!

### IMPORTANT - Before you install the SIM card

Install the SIM card to be used into a normal cellular phone. Verify that there is no SIM PIN enabled (The phone must not ask for a PIN when switched on with this SIM card inside). If the phone does request a PIN, you need to enter the correct PIN so that the phone can start, and then disable the SIM card PIN. See your cell phone documentation on how this can be done. Verify that you are able to send an SMS message. The SIM card will now work with the SMS Mini Base.

## Antenna

A basic (stubby) antenna or an outdoor antenna can be used with the unit. Screw the antenna to the connector on top of the unit (only finger-tight). Verify that there is sufficient signal at the proposed installation site using a cell phone. On a phone with a 4 or 5-bar signal strength indicator, you should have at least 1-2 bars of signal. If the signal is too weak, the Mini Base may have trouble receiving SMS messages. In these cases, try and find a better location, or use a special antenna.

## Real Time Clock

The clock and calendar function has a built-in battery backup that will keep the date and time up to date in the event that there is no power. The time and date cannot be set via the PC application software and can only be set via remote SMS command. - \$0000\*syt

## LED Functionality

- ..... Searching for GSM network
- .. .. Registered on GSM network - AC failure
- . . . . Registered on GSM network - AC present
- ..... Configuration failure

## Configuration software

APC application is supplied to configure the device.

Most of the configuration options in the PC application software are self explanatory. Insert the supplied CD to automatically run the configuration software setup and install the drivers for the USB programmer interface.

### IMPORTANT

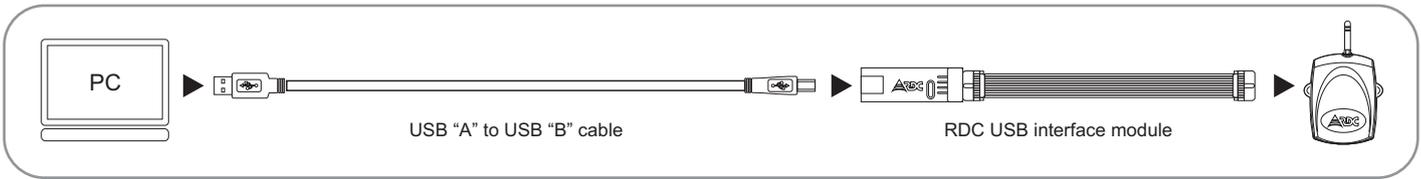
Although the Mini Base does not send SMSs, it is still recommended that the the '*Message Centre*' number for the SIM is set using the PC application software.

If the cellular network is not listed in the pre-select buttons, the message centre number can be manually added in the provided box.

**NB** - The Message Centre Number must be in International format i.e. +27....

**NOTE:** Once changes to the configuration settings have been made in the PC application software, they must be written back to the TX-SMS to make them permanent.

## USB Programmer Interface



A USB interface module (available from RDC) and a USB "A" to USB "B" cable (available from computer shops) are required to connect the PC to the unit for configuration. The interface is plugged into the unit's PGM connector. The interface requires the installation of Windows drivers before the PC application software can be run. The drivers are installed during the main PC application installation from the supplied CD.

**NOTE:** The software and driver installation should be done BEFORE the USB interface module is attached to your PC.

### USB driver installation

When the interface has been connected, the Found New Hardware Wizard window will appear. Select the "Recommended setting" and click <Next>.

When the Found New Hardware Wizard has located the drivers, the following screen will appear



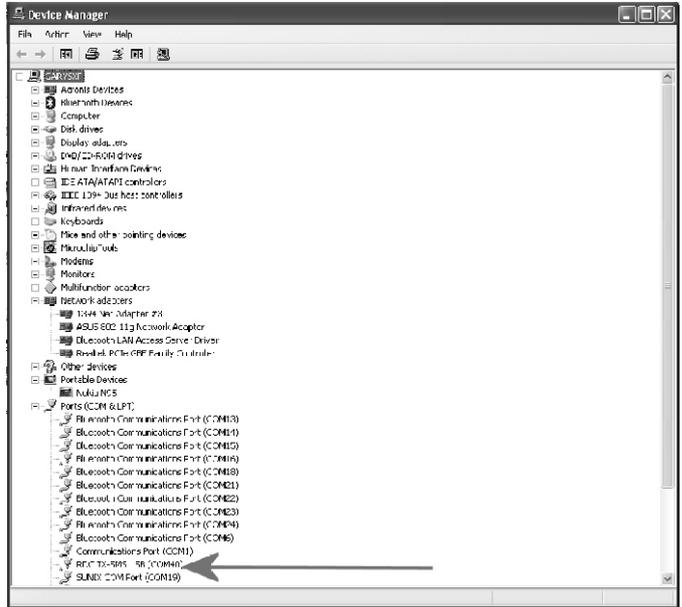
Click <Continue Anyway>  
Click <Finish> to complete the installation.

The next two steps are important to see what COM port number has been allocated to the RDC TX-SMS interface.

Select 'My Computer' and then 'View System Information', the following panel should be displayed - Click on the 'Hardware' Tab and select <Device Manager>



The following Information will be displayed



Expand the Ports (COM&LPT) information and look for the RDC TX-SMS USB COM port allocation. In the example shown it has been allocated to COM40. Make a note of which COM port it has been allocated to in your system and use this COM port number when requested by the PC application software.

**NOTE:** This procedure only needs to be done once during installation and the allocated COM port number will remain the same, unless there is a hardware change on the computer. The PC application software will save and remember the selected COM port chosen.

#### WARNING

Read these instructions fully before operating and installing the unit.

DO NOT insert or remove SIM cards while the unit is powered.

The manufacturer has no control over the reliability of the cellular networks and can therefore not be held responsible for any signal problems associated with the network services.

Make sure that sufficient airtime or SMS bundles are loaded at all times. See your network's documentation on how to purchase and load airtime.

If a prepaid SIM card has not produced a billable event for a long period of time (typically 3 months), the card will be de-activated (churned) by the network. It is strongly recommended that you configure the SMS Mini Base to send a self test SMS every day so that your SIM card remains active.

Visit [www.radiodata.co.za](http://www.radiodata.co.za) for complete warnings.



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