

# TelecomFM GSMRoute



## Unmanaged Programming Guide

Version 3 – September 2007

## Document Control

| Date           | Document Version | Change   |
|----------------|------------------|--|
| August 2002    | 1                | First Edition  |
| March 2003     | 2                | Addition of ON Hold Circuit. Removal of Earth Calling Values |
| September 2007 | 3                | Modified for new version of Unmanaged Programmer             |
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**Notices:**

TelecomFM shall accept no liability for any error or damages of any kind resulting from the use of this document or the equipment it relates to.

The wording in this document may change from time to time. Please refer to the TelecomFM web site [www.telecomfm.co.uk](http://www.telecomfm.co.uk) for the latest release.

## 1 Contents

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>Contents .....</b>                             | <b>3</b>  |
| <b>2</b> | <b>Hardware &amp; Software Requirements .....</b> | <b>4</b>  |
| <b>3</b> | <b>Installation of Programmer.....</b>            | <b>4</b>  |
| <b>4</b> | <b>Starting the Programmer .....</b>              | <b>6</b>  |
| <b>5</b> | <b>Getting Template .....</b>                     | <b>8</b>  |
| <b>6</b> | <b>Edit Template .....</b>                        | <b>9</b>  |
| 6.1      | Statistics Tab.....                               | 10        |
| 6.2      | Management Tab .....                              | 11        |
| 6.3      | GSM Routing Tab .....                             | 12        |
| 6.4      | CDR Tab .....                                     | 13        |
| 6.5      | Config Tab .....                                  | 14        |
| <b>7</b> | <b>Set Template .....</b>                         | <b>16</b> |
| <b>8</b> | <b>Testing the unit .....</b>                     | <b>16</b> |

## 2 Hardware & Software Requirements

Windows NT, 2000, XP (Latest Service Packs where applicable).

PC Hardware as required for operating system.

9 pin RS232 COM Port

300MB Hard Drive Space

## 3 Installation of Programmer

### From CD

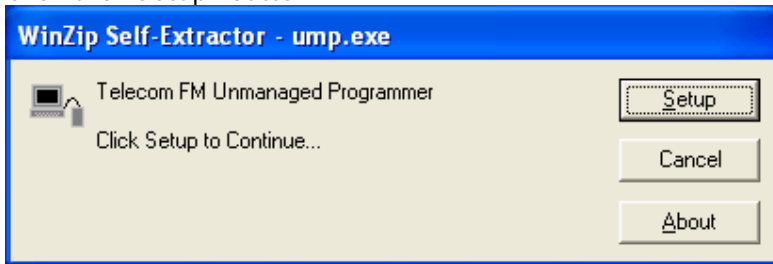
#### 1. From CD

Insert the CD – the CD will autorun and the menu is displayed (if the menu is not displayed then double-click on “My Computer”, double-click on your CD Drive letter and then double-click the “autorun.exe” file). Click on “Install Unmanaged Programmer” to start the installation.

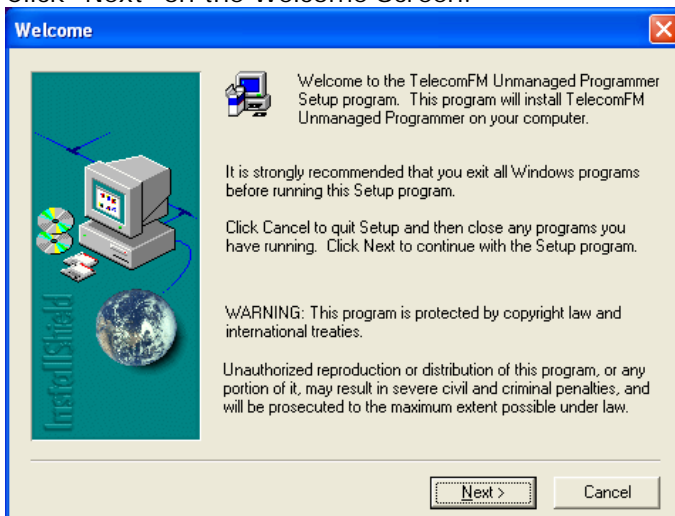
#### Or From Download

Browse to the folder that you downloaded the Unmanaged Programmer to and double-click the “ump.exe” file to start the installation.

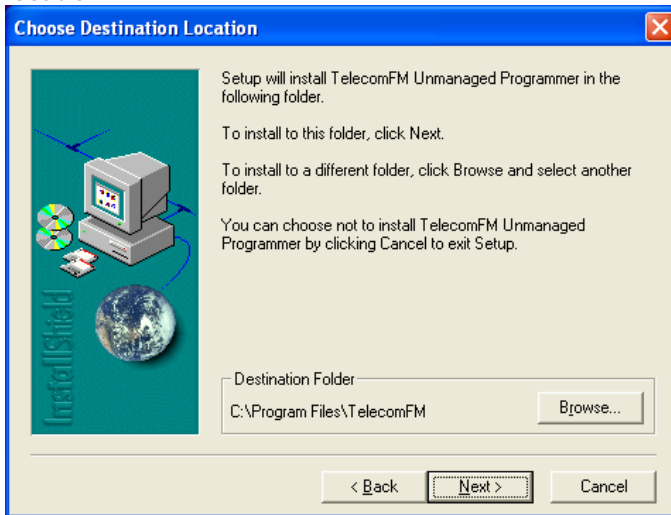
#### 2. Click the “Setup” button:



#### 3. Click “Next” on the Welcome Screen:



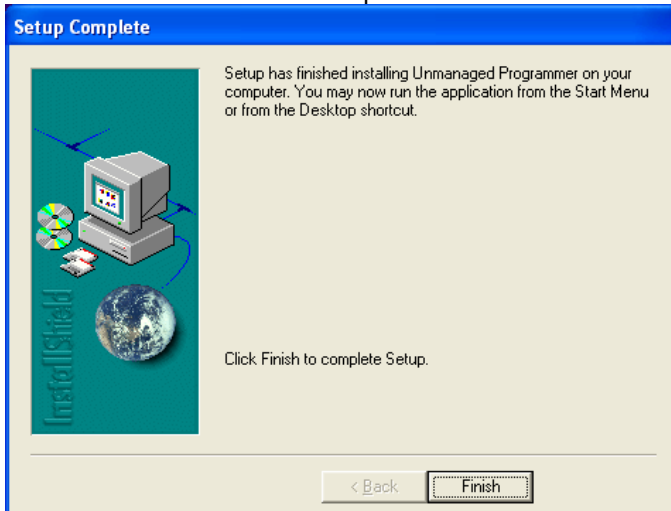
4. Click "Next" to install to the Default location or click the Browse button to choose a different location:



5. Click "Next" to begin the installation:



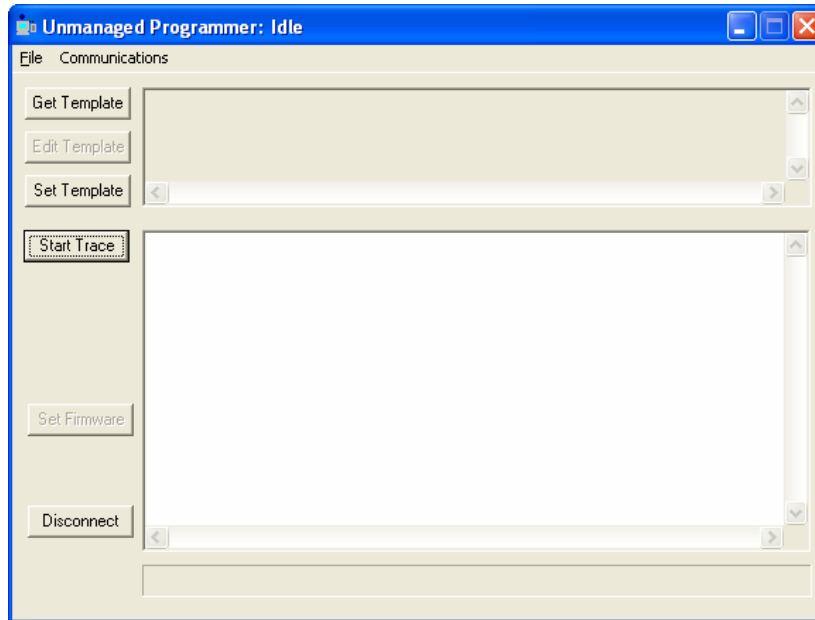
6. When the files have been copied click the "Finish" button to exit the installer:



## 4 Starting the Programmer

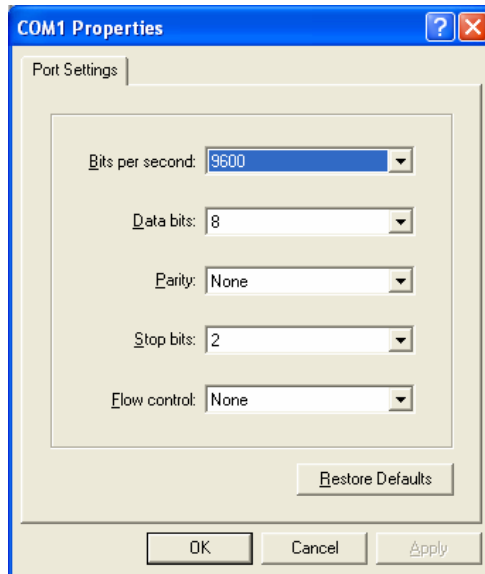
1. Click on the **Start** Menu, **Programs** (or **All Programs**), **TelecomFM, Unmanaged Programmer**

The following screen will be displayed:



2. Connect the mains power cable to the GSM Route and wait for the GSM Route to initialise.
3. Connect the RS232 cable to the Left hand Bus Port connection on the GSM Route (See Fig 1 of the Installation & User Guide) and the other end into the serial port of the Laptop or P.C.
4. The GSM Route will now carryout a self test checking for lines connected and signal strength. When this test is complete you will see a green LED light up.

5. Click on the Communications menu and select the COM port that the GSMRoute is connected to (if the PC has only 1 serial port it is normally COM1). Select properties and adjust the port settings as in the diagram below:



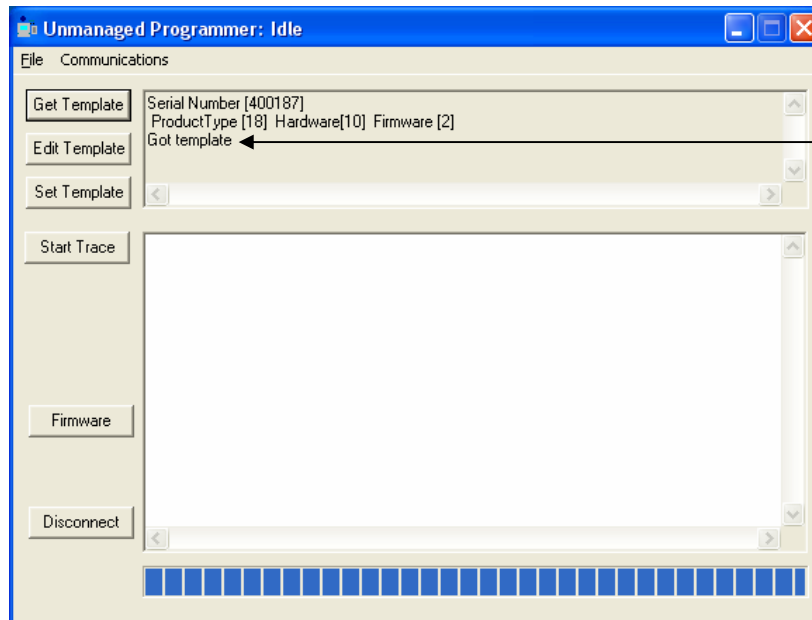
Bits per second: 9600  
Data bits: 8  
Parity: None  
Stop bits: 2  
Flow control: None

6. The Unmanaged Programmer software is now ready for use.

## 5 Getting Template

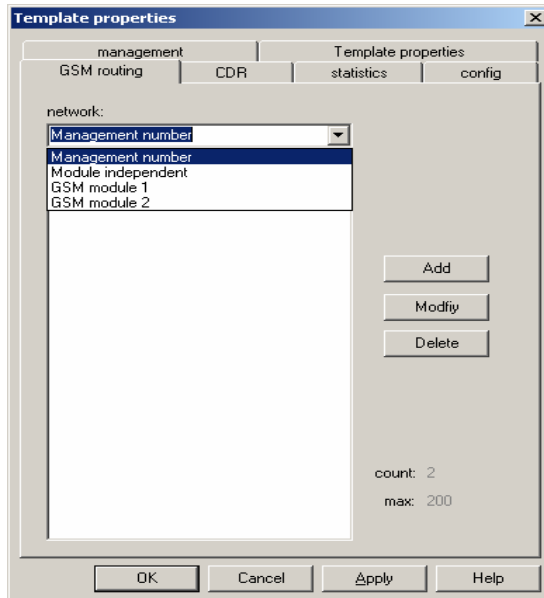
Check that the Green LED is lit and click on the “Get Template” button. The Programmer will now retrieve the Dialler Image from the unit. The IDENTITY of the product should be displayed giving detail of the Product Type, Serial Number, Firmware, Hardware.

The display will show Got template if successful.



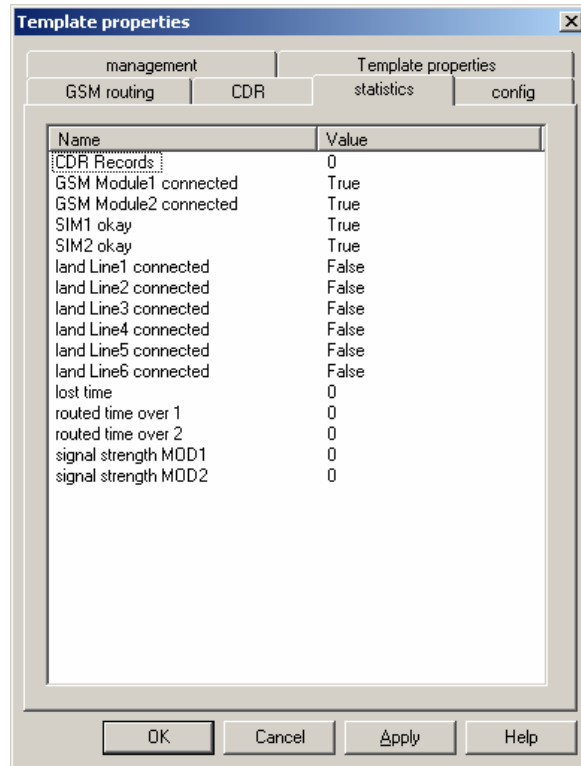
## 6 Edit Template

Click on the “Edit Template” Button and the Template Properties screen will appear:



There are 6 tabs available by clicking on the headings on the top of the screen – GSM Routing, CDR, statistics, config, management and Template properties. These options are described on the following pages:

## 6.1 Statistics Tab



The Statistics screen displays the configuration of the GSM Route as in the diagram above. A summary of the above screen for the GSM Route that is being analysed in this example is as follows: -

CDR Records allow for the collection of Call Data Records when used in conjunction with a Digital Management Centre.

GSM Module 1 connected and GSM Module 2 connected – A TRUE value indication indicates that a GSM Module is connected.

SIM 1 okay and SIM 2 okay – A TRUE value indicates that a SIM Card is inserted in the corresponding SIM holder. (In the example above the value is FALSE therefore no SIM Cards are inserted in the GSM Route).

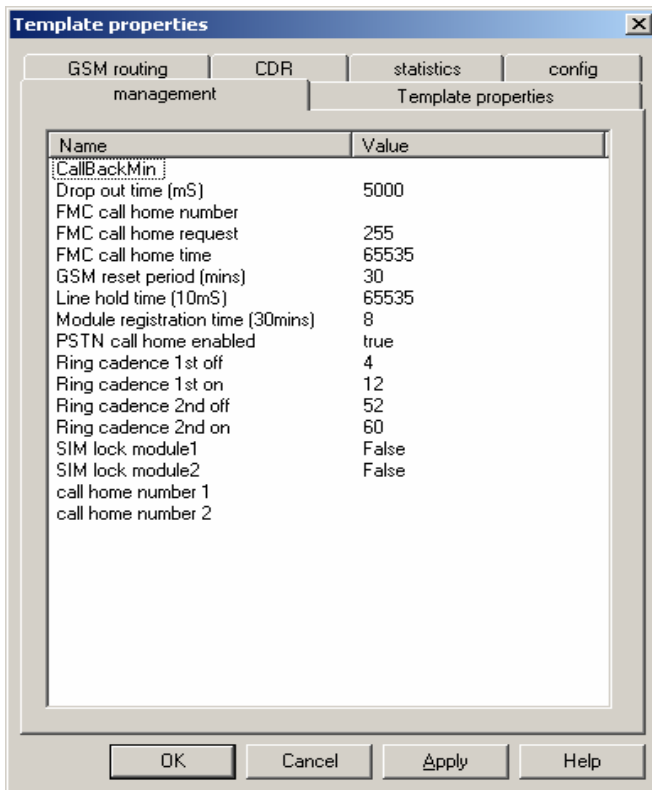
Land Line 1 to 6 connected – A TRUE value indicates the number of physical analogue lines connected to the GSM Route.

Lost Time – This value indicates the total number of minutes of those calls that did not route over the GSM module due to the modules being busy.

Routed time 1 and 2 – This value indicates the total number of minutes of those calls which have routed over each GSM module.

Signal strength Mod 1 and 2 – This value indicates the signal strength measured by each of the GSM modules. (A value of 8 or more is acceptable).

## 6.2 Management Tab



This screen allows changes to be made to the configuration of the dialler.

**Call-Back Min** - Should have no value entered

**Drop Out Timer** – Set at **5000 = 5 seconds**

**FMC Call Home number** – Do not alter this setting

**FMC Call Home request** – Do not alter this setting

**FMC Call Home time** – Do not alter this setting

**GSM reset period** - Set to value of 30

**Line hold time (10ms)** – Do not alter this setting

**Module registration time** - Set to value of 8

**PSTN call home enabled** - Do not Alter

**First Ring off** - Set to Country Value (UK=4), (USA=80), (Spain=60), (ETR=80)

**First Ring on-** Set to Country Value (UK=12), (USA=120), (Spain=90), (ETR=100)

**Second Ring Off-** Set to Country Value (UK=52), (USA=0), (Spain=0), (ETR=0)

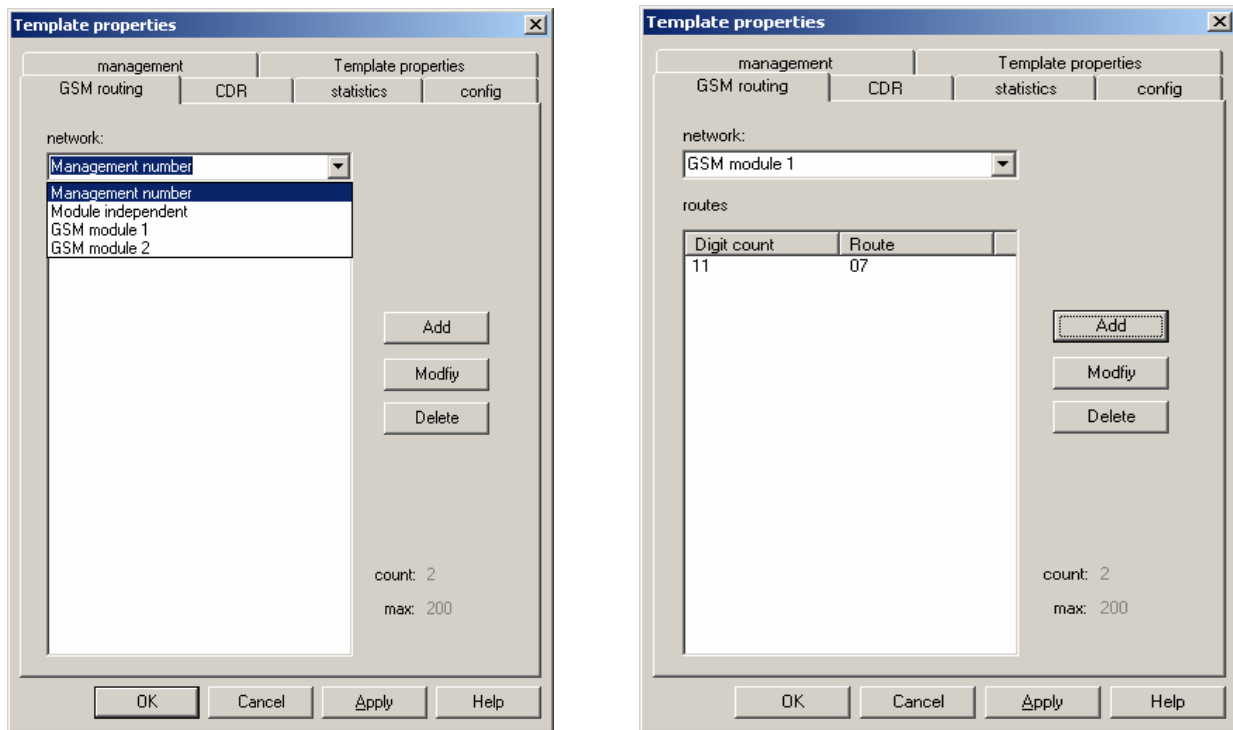
**Second Ring On-** Set to Country Value (UK=60), (USA=0), (Spain=0), (ETR=0)

**SIM Lock Module 1 & SIM Lock Module 2** - Set to True for SIM Lock activation

**Call home number 1** - should have no value entered.

**Call home number 2** - should have no value entered.

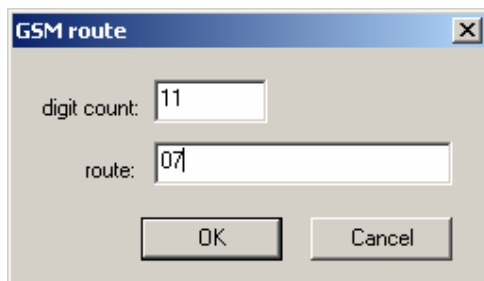
### 6.3 GSM Routing Tab



This screen allows changes to be made to the GSMRoute Routing tables.

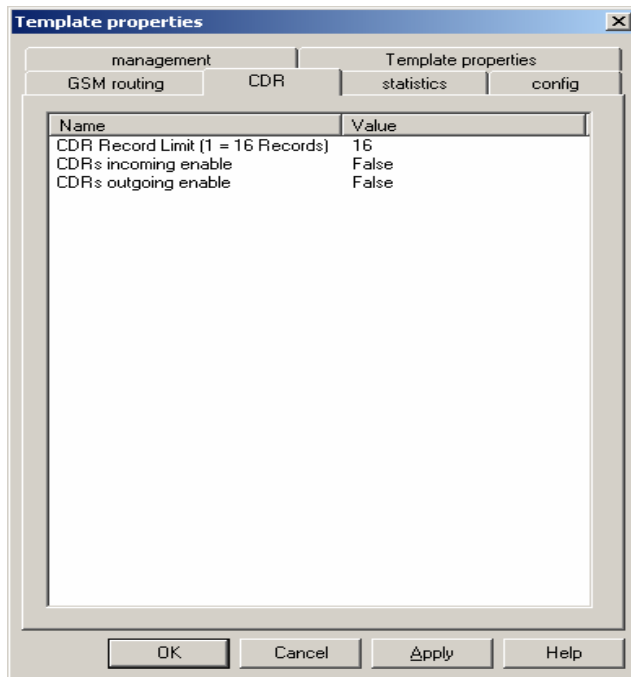
1. Management Number – This is not required for Locally Programmed Units (Default).
2. Module Independent – This is to be used to enter the GSM Routing codes if each sim card in module 1 and module 2 are the same Network.
3. GSM module 1 – This is where you enter the GSM Routing codes for Sim Module 1 if dual Networks are installed.
4. GSM module 2 – This is where you enter the GSM Routing codes for Sim Module 2 if dual Networks are installed.

To enter the GSM Routing Codes select either Module Independent or GSM Module 1 or 2. Click on the add button and a second box appears (see below). Enter the length of digit string into the digit count field. (i.e. if an example of a mobile number was 07770123536 this value would be 11). Now enter the mobile operators GSM code for the GSM Route to route on. (i.e. in this example this would be 07) and will route all calls beginning with 07 over GSM Module 1. Continue entering any other GSM codes for the operator using the selected module.



Now click on the "OK" button to save your settings.

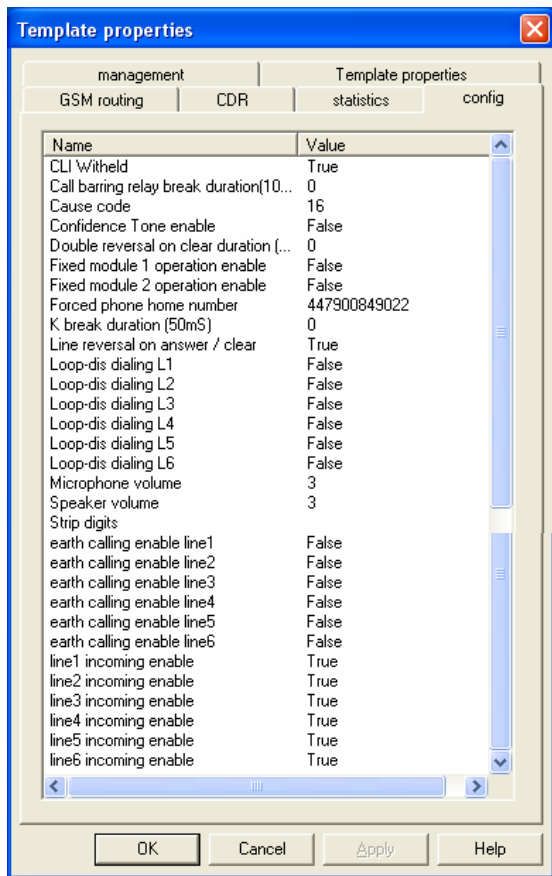
## 6.4 CDR Tab



CDRs allows for collection of call records if managed on a Remote Digital Management Centre.

CDR Record Limit is set by blocks of 16 CDRs records. (1 = 16 records) (Max 32 = 512 records).  
CDRs incoming enabled True for incoming records or False if incoming records are not required.  
CDRs outgoing enabled True for outgoing records or False if outgoing records are not required.

## 6.5 Config Tab



This screen allows changes to be made to various configuration options.

**CLI withheld** TRUE or FALSE allows the user to stop the CLI being presented when making a GSM call. (TRUE=CLI not sent, FALSE=CLI sent)

**Call Barring relay break duration** allows the user to set the duration of the Call Barring Relay Break in resolutions of 10mS units. (value 50 represents 500mS which is the default setting). If Call Barring is not required set to 0.

**Cause Code** allows the user to set network Busy response message issued to the caller. (Default setting 17 and should not be altered unless requested by Telecom FM).

**Confidence Tone** when set to TRUE will give a tone indicating the call is routing to the GSM network. When set to FALSE the tone will be turned off.

**Double Line reversal on Clear** allows the user to enable and set, in resolutions of 50mS units, the duration of the line reversal after the distant end clears the call

**Fixed module 1 & 2 Operation** enabled TRUE or FALSE allows the user to set the unit for Fixed Line Working.

**Forced Phone Home** displays the number dialled when operating a \*1 or \*2 command in Service Port Mode

**K Break** allows the user to enable and set, in resolutions of 50mS units, a K Break after the distant end clears the call.

**Line Reversal on Answer / clear** TRUE or FALSE allows the user to enable Line Reversal when the called Party Answers, and forwards the line when the called Party Clears.

**Loop-Dis Dialling Lines 1 to 6** TRUE or FALSE allows the user to set Loop-Disconnect dialling if the PBX is set-up for this method of dialling.

**Microphone Volume level 1 to 5** allows the user to set the required level of volume. (1 low & 5 high).

**Speaker Volume level 1 to 5** allows the user to set the required level of volume. (1 low & 5 high).

**Strip Digits (LCR)** allows the user to set the Digits to Strip number that the PBX sends out to line.

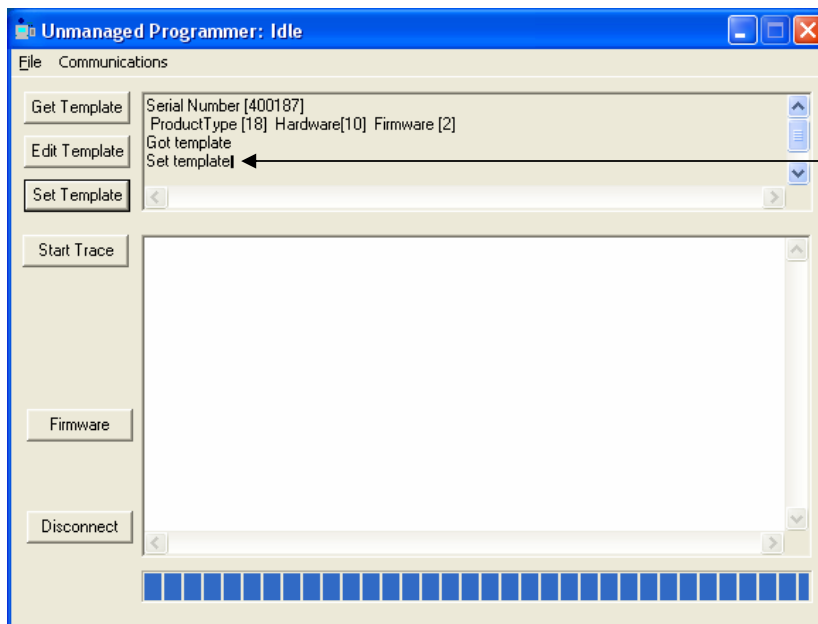
**Earth Calling Lines 1 to 6** TRUE or FALSE allows the user to enable or disable Earth Calling Lines if the local PSTN operator uses this method.

**Lines Incoming 1 to 6** TRUE or FALSE allows the user to enable or disable lines that would normally ring when an inbound GSM call comes in.

## 7 Set Template

**NOTE: Before you Implement any changes, make sure you have read and understood the settings you are about to change in the GSMRoute.**

When all the adjustments to the dialler image have been made, click on the Set Template button. On completion of a successful download, the status screen will display: Set template



## 8 Testing the unit

Go off hook on the telephone and access one of the trunks connected. Dial one of the GSM prefixes that have been set in the Routing table.

If correct at this stage you will receive a confidence tone when the digit count has recognised a match.