



PENDANT Mk4 (MPA) PC Programming



Scope Communications UK Ltd

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General Notes

Never use data files that were generated and saved by earlier CCP versions, create new ones.

The Pendant has undergone several versions over the years and is now currently supplied as Pendant Mk4.

The colour of the serial number label, on the back of the Pendant case identifies the Pendant version (mark). A blue label with back markings is a Mark 4 Pendant, as below.



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Programmer Kit

PENPRO Programmer (shoe) 1 off
USB Cable A Male to Mini B Male 1 off
Program software (V1.8.3) 1 off

Installing programming software

Do not connect the Base Programmer unit until the software has been installed and the required USB drivers have been installed.

Software

Insert the CD or the emailed downloadable link, supplied with the unit, and allow the auto run function to complete. Select "Install PND Software" option and allow the software to install to the default location, unless there is a good reason not to do so. A standard set up file is also included in the installation.

Drivers

When the installation has finished, select the "Install USB drivers' option" and allow the software to install. The user manual is installed as a Windows compiled help file that can be used in conjunction with the software.

Software Start.

Connect the shoe to the USB port via the supplied cable . Ensure that the Red LED is on, and the green LED is flashing every 2 seconds. This indicates that the device is ready to accept configuration parameters. If the LEDs are not on/flashing at the required rate remove the USB cable and reconnect. If the LED is still not flashing, then there is a potential problem with the device, contact technical support for further information.

Note:- Do not disconnect the device from the USB port while a "read from device" or "write to device" is in progress, as this could cause the device to stop functioning. Please ensure all other Scope USB devices are disconnected.

From the Start/Programs/Scope menu select the Base Pendant Programmer to start the configuration program for the Pendant module.

The software will detect the device connected, interrogate it and if validated will start up as shown below.

The software can detect when the connection has been broken and will detect when the device is reconnected.

Note that the command window indicates when the Pendant is verified. The device number and the Com port that it is associated with is shown in the right-hand section of the software. If the Com port number is not shown, this indicates that the drivers are not installed properly, or the wrong drivers are installed. If this is the case, please reinstall the drivers from the CD or use the emailed downloadable link. Ensure the software indicates the device is connected.

Text files called User and Region are also required in the installation, these are automatically loaded at program start. Please do not try to alter these files as they are encrypted.

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FTDI Driver Test List

Version Date Released Comments

CDM 2.00.00 May 18th 2006 First stable release used by scope. Issued as an exe Install file.

CDM 2.04.16 Feb 17th 2009 Tested and released with application software. Issue as an exe Install file.

CDM 2.04.22 Nov 3rd 2009 Current driver set and recommended for new installs.

CDM 2.08.02 Aug 11th 2010 Tested with Current application firmware.

CDM 2.08.14 April 12th 2011 Most recent non beta version of the drivers.

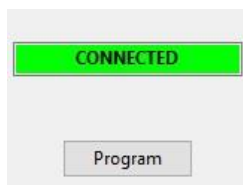
Users should upgrade to this driver version.

Please note FTDI drivers are continuously being updated. Your PC may already contain drivers for FTDI Devices. Scope application software has been tested with the drivers allocated on the software package disk and selected previous driver releases. The driver test list is shown above.

Programming

Before making any changes to a pendant configuration, it is recommended that you use the standard set up file, supplied with the programming software. Never use data files that were generated and saved by earlier CCP versions, create new ones.

- 1) Make sure the Pendant is powered.
- 2) Connect the supplied USB lead from the PC/laptop to programming shoe.
- 3) Open the Pendant Configuration Utility.
 - 3.1) The red DISCONNECT window has now changed to a green CONNECTED window.



- 3.2) The red PWR led will now light continuously and the green DATA led will flash every 3 seconds.
- 4) load your standard set up file into the Configuration Utility, top left File followed by open and select your set up file.
- 5) Make the desired changes to the pendant setup.
- 7) Place the Pendant into the programming shoe and press the program button.
 - 7.1) A green task bar will appear bottom left, once the task bar has disappeared the PC/Laptop has sent the setup to the Pendant.

7.2) As the Pendant is being programmed, the Pendant led will flash as below. If the last two flash sequence are not correct, reprogram Pendant.

Single flash

Double flash

9 single flashes

Double flash

Single flash

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An Introduction to POCSAG

POCSAG is a message protocol used for paging, and is the standard protocol used by Scope in our paging transmitters. It is not necessary to have an in-depth technical understanding of the protocol in order to use and configure the equipment, but an overview is useful. All transmitted messages need five settings to be correct to be received and displayed correctly on the correct pagers and/or fixed receivers. These five settings are:

Frequency

Baud Rate

Identity Code (sometimes referred to as a CAP code, RIC, or Address)

Message Type (can be Tone, Numeric, or Alpha-Numeric)

Beep Type (can be A, B, C, or D)

Frequency

There should be no need to change the frequency because the transmitter and pagers and/or fixed receivers will already be set up to work together on a matching frequency. The frequency of the Rx10 can be changed using this software. please contact Scope technical support on +44 (0)1803 860720 for more information.

POCSAG Baud Rate

This is the speed at which messages are transmitted over the air. It can be set to either 512, 1200 or 2400 bits per second and must match the pager setting.

Identity Code

This identity code is sent out by the transmitter at the start of each message, and only pagers and/or fixed receivers programmed with that code will respond to that message. All current model Scope pagers and/or fixed receivers support multiple identity code slots.

Message Type

The POCSAG protocol supports three message types: Tone, Numeric and Alpha-Numeric. The Scope transmitter can send all message types. The message type is set using the transmitter Configuration Software and must match the setting on the pagers and/or fixed receivers to which the message is being sent.

Beep Type

At its most basic, the Beep Type (A, B, C or D) for each message determines the sound the pager/fixed receivers makes when the message is received, according to the settings programmed into the pager. On most pagers one of the Beep Types can be programmed as 'Urgent' which overrides any user-set alert type in the pager and always causes a vibrate and audible alert. This is often used for messages sent by Fire Alarm systems. The Beep Type can actually be treated as a sub-address for each Identity Code; especially when communicating with fixed receiver decoders, which can be programmed to respond differently to different Beep Types.

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a) Info Tab



No user interface required on the tab.

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b) Messages Tab

Pendant-Mk4 Configuration Utility (c) 2015 Scope Communications UK Ltd

Info Messages Fall detection Testing Frequency Setup Engineering

Button Pressed

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A Number of Repeats: 0 Repeat Time: 10 Secs

Message: PANIC BUTTON ALARM !!

Pull Cord Removed

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A Repeat Time: 10

Message: NECKLACE BUTTON ALARM !!

☒ Increase time per repeat

Magnet Wand Touched to Pendant

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A

Message: Reed Switch Activated

Fall detector

Activated: Fall Detection On! Disabled: Fall Detection Off!

Battery Low

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A

Message: BATTERY LOW !!

Battery Shutdown

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A

Message: BATTERY SHUTDOWN !!

Version: 1.8.3

Button Pressed: Messages that will be transmitted when from case button is pressed.

Pull Cord Removed: Messages that will be transmitted when pull cord is removed from case of pendant.

Magnet Wand Touch To Pendant: Messages that will be transmitted when the read switch is activated for a second.

Battery Low: Messages that will be transmitted when a battery low is detected.

Fall detector: Messages that will be transmitted when the Fall detector options is Activated or Disabled by read switch, maximum 22 characters for both messages.

Battery Shutdown: Messages that will be transmitted before a pendant shutdown due to low battery.

Message Type: The POCSAG protocol supports three message types: Numeric and Alpha-Numeric. The Pendant transmitter can send all message types.

Baud Rate: This is the speed at which messages are transmitted over the air. It can be set to either 512, 1200 or 2400 bits per second and must match the pager setting.

Identity Code: All pagers/fixed receivers are set to use one or more 7-digit numeric Identity Codes. This identity is sent out by the transmitter at the start of each message, and only pagers/fixed receivers programmed with that code will respond to that message. All current model Scope pagers support multiple identity slots; this allows the pager not only to respond to its own unique identity, but also to respond to group or global identities.

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Beep Type: The Beep Type (A, B, C or D) for each message determines the sound the pager makes when the message is received, according to the settings programmed into the pager.

Message: Text that will be transmitted on trigger, maximum 54 characters.

Number of Repeats (Button Pressed only): Repeat transmissions that can be set by each press of the button, 0 to 4 repeat transmissions can be selected.

Repeats Time (Button Pressed only): Time between repeat transmissions, can be set as 5, 10, 20, 30, 45 and 60 seconds.

Repeats Time (Pull Cord Removed only): Time between repeat transmissions, can be set as 5, 10, 20, 30, 45 and 60 seconds, transmissions with repeat until Pull Cord replaced.

Increase Time Per Repeat (Pull Cord Removed only): The increase time repeat will slowly as its name suggests increase time repeat no matter what setting you have selected; this is helpful to preserve battery life.

c) Fall detection (None) Tab

Pendant-Pro Fr

File Help

Pendant MK4 Configuration Utility [c] 2015 Scope Communications UK Ltd

Info Messages **Fall detection** Testing Frequency Setup Engineering

Fall Detected Message

AlphaNumeric 1200 0100000 A Number of Repeats 0 Repeat Time 10 ☒ Increase time per repeat

FALL DETECTED !!

Settings

☒ None ☐ Fall Detection ☐ Man Down

None Fall Detection Man Down

Scope

DISCONNECTED

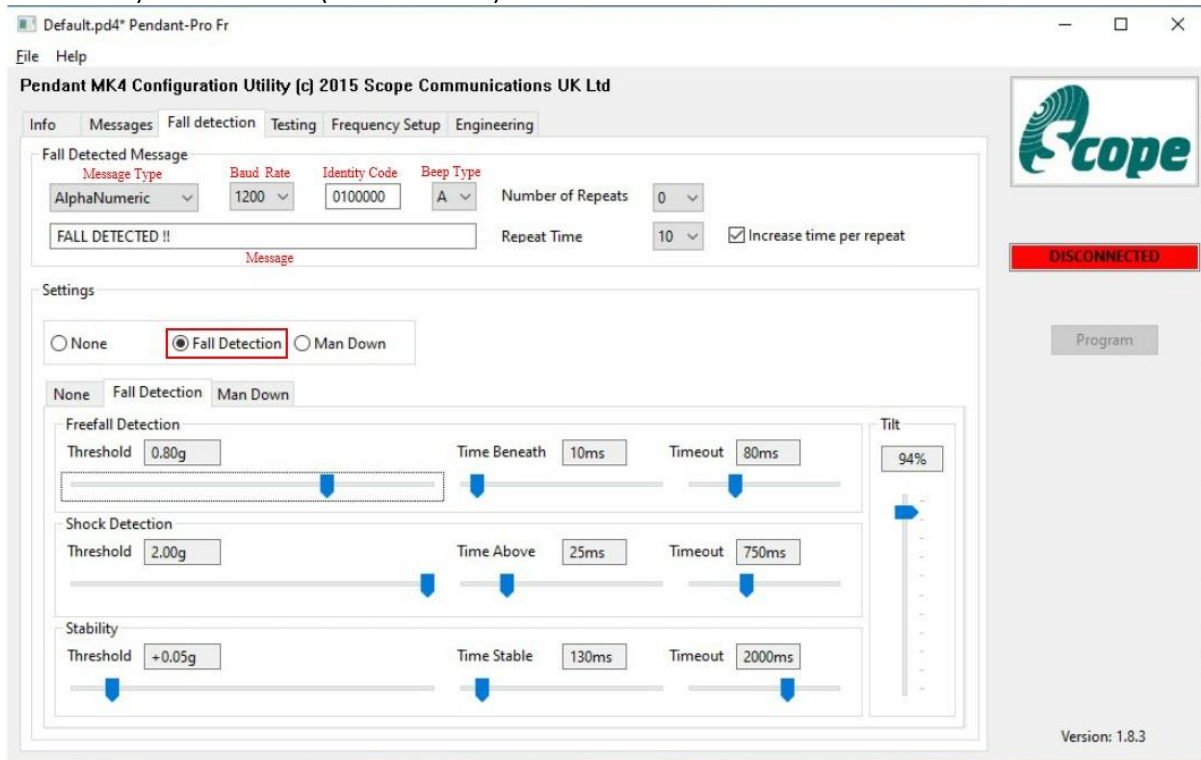
Program

Version: 1.8.3

No user interface required on the tab.

Pendant Mk4 (MPA) PC programming

c.1) Fall detection (Fall Detection) Tab



With the Fall Detection option enabled, the 3-axis accelerometer can measure motion sensing/shock/tilt. Values can be configured using the application software. Shown in the above photo are the Scope standard settings

On the “Fall Detection” page, when “Fall Detection” is selected; the “g” in the “Threshold” fields refers to units of g-force, gravitational acceleration.

The “Time Beneath”, “Time Above” and “Time Stable” boxes in the “Settings” section define the time periods for which the selected “g” value must be true.

The “Timeout” values define the time window of which the event must be within.

The “tilt” value is a percentage change from the vertical to the horizontal position.

All events must be true to trigger and transmit the programmed “Fall Detected Message”

Message Type: The POCSAG protocol supports three message types: Numeric and Alpha-Numeric. The Pendant transmitter can send all message types.

Baud Rate: This is the speed at which messages are transmitted over the air. It can be set to either 512, 1200 or 2400 bits per second and must match the pager setting.

Identity Code: All pagers/fixed receivers are set to use one or more 7-digit numeric Identity Codes. This identity is sent out by the transmitter at the start of each message, and only pagers/fixed receivers programmed with that code will respond to that message. All current model Scope pagers support multiple identity slots; this allows the pager not only to respond to its own unique identity, but also to respond to group or global identities.

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Beep Type: The Beep Type (A, B, C or D) for each message determines the sound the pager makes when the message is received, according to the settings programmed into the pager.

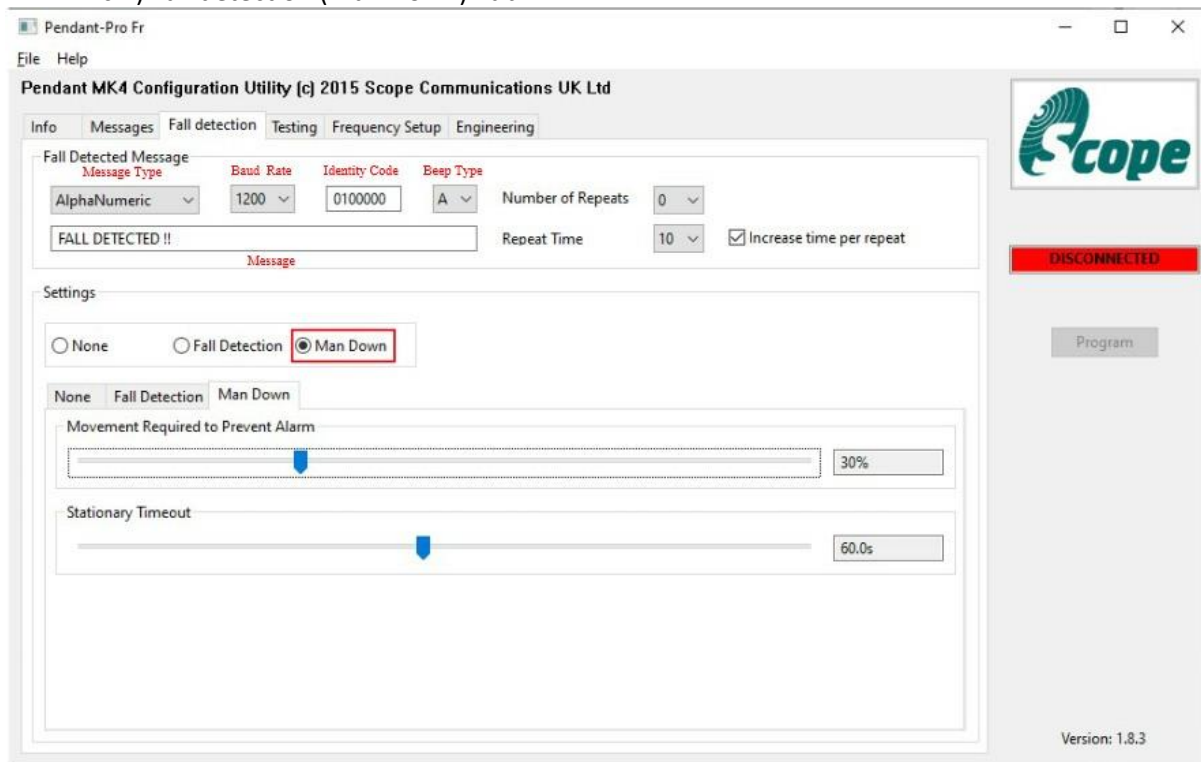
Message: Text that will be transmitted on trigger, maximum 54 characters.

Number of Repeats: Repeat transmissions that can be set by each press of the button, 0 to 4 repeat transmissions can be selected.

Repeats Time: Time between repeat transmissions, can be set as 5, 10, 20, 30, 45 and 60 seconds, transmissions with repeat until Pull Cord replaced.

Increase Time Per Repeat: The increase time repeat will slowly as its name suggests increase time repeat no matter what setting you have selected; this is helpful to preserve battery life.

c.2) Fall detection (Man Down) Tab



With the Man Down option enabled, the 3-axis accelerometer can measure motion sensing/shock/tilt. Values can be configured using the application software. Shown in the above photo are the Scope standard settings.

The “Movement Required to Prevent Alarm” slider is used to select the amount of pendant movement required before the “Fall Detected Message” is paged, 0% being the most sensitive and 100% requiring the most movement.

The “Stationary Timeout” slider is used to select the time of no movement. If this value is reached the “Fall Detected Message” will be paged.

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Message Type: The POCSAG protocol supports three message types: Numeric and Alpha-Numeric. The Pendant transmitter can send all message types.

Baud Rate: This is the speed at which messages are transmitted over the air. It can be set to either 512, 1200 or 2400 bits per second and must match the pager setting.

Identity Code: All pagers/fixed receivers are set to use one or more 7-digit numeric Identity Codes. This identity is sent out by the transmitter at the start of each message, and only pagers/fixed receivers programmed with that code will respond to that message. All current model Scope pagers support multiple identity slots; this allows the pager not only to respond to its own unique identity, but also to respond to group or global identities.

Beep Type: The Beep Type (A, B, C or D) for each message determines the sound the pager makes when the message is received, according to the settings programmed into the pager.

Message: Text that will be transmitted on trigger, maximum 54 characters.

Number of Repeats: Repeat transmissions that can be set by each press of the button, 0 to 4 repeat transmissions can be selected

Repeats Time: Time between repeat transmissions, can be set as 5, 10, 20, 30, 45 and 60 seconds, transmissions with repeat until Pull Cord replaced.

Increase Time Per Repeat: The increase time repeat will slowly as its name suggests increase time repeat no matter what setting you have selected; this is helpful to preserve battery life.

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d) Fall detection (Man Down) Tab

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Info Messages **Fall detection** Testing Frequency Setup Engineering

Test Call

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A

Repeat Time: Hours: 0 Mins: 0 Secs: 0

Message: TEST CALL!!

Enabling test calls will reduce battery life

Reset Message

Message Type: AlphaNumeric Baud Rate: 1200 Identity Code: 0100000 Beep Type: A

Message: DEVICE HAS RESET!

Version: 1.8.3

Test Call: A test call can be program to transmit from 1 second to 24 hours in intervals of 1 second. Our default address for a test call is 2000000 for the 1st device and the n incremented by 8. This can be used in conjunction with a receiver to check if your system is working correctly. For example, a pendant may be out of range and a receiver could be set to trigger if it misses a few consecutive calls.

Reset Message: This is a message the pendant will transmit on being Reset/rebooted.

Message Type: The POCSAG protocol supports three message types: Numeric and Alpha-Numeric. The Pendant transmitter can send all message types.

Baud Rate: This is the speed at which messages are transmitted over the air. It can be set to either 512, 1200 or 2400 bits per second and must match the pager setting.

Identity Code: All pagers/fixed receivers are set to use one or more 7-digit numeric Identity Codes. This identity is sent out by the transmitter at the start of each message, and only pagers/fixed receivers programmed with that code will respond to that message. All current model Scope pagers support multiple identity slots; this allows the pager not only to respond to its own unique identity, but also to respond to group or global identities.

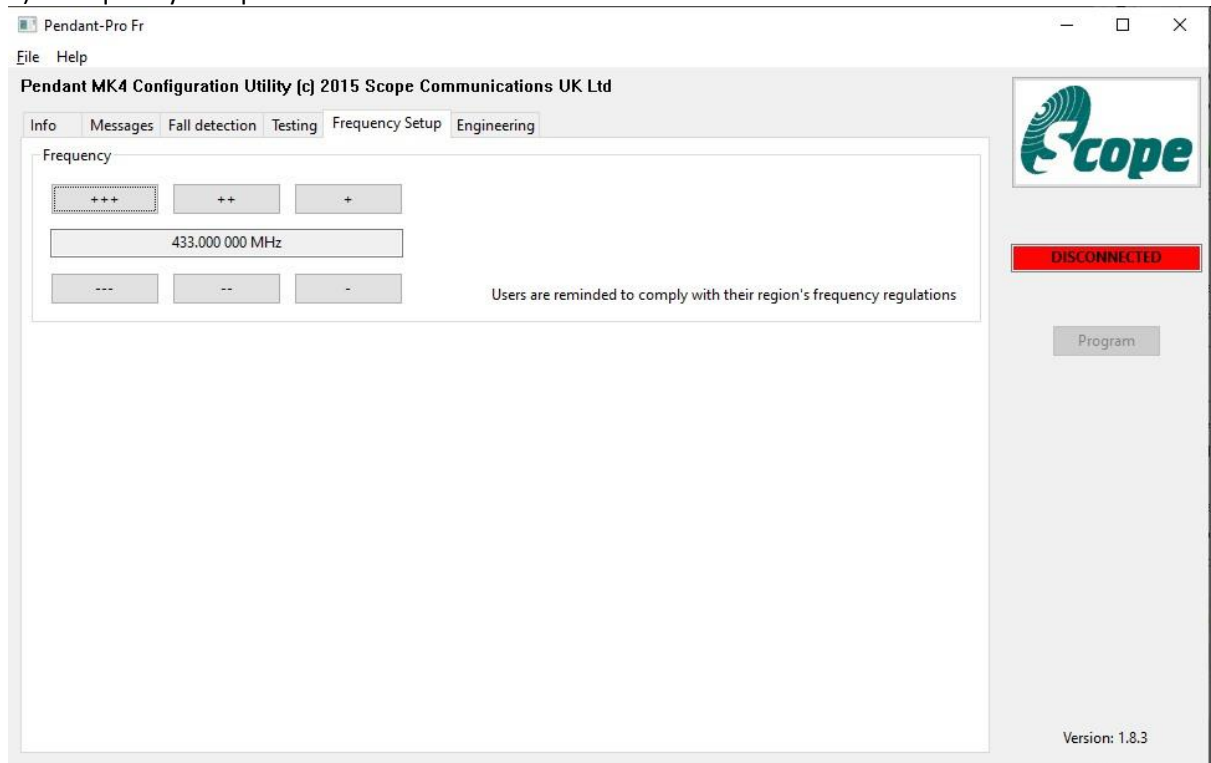
Beep Type: The Beep Type (A, B, C or D) for each message determines the sound the pager makes when the message is received, according to the settings programmed into the pager.

Message: Text that will be transmitted on trigger, maximum 54 characters.

Repeats Time: Time between Test call transmissions, 1 second to 24 hours in intervals of 1 seconds.

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e) Frequency Setup Tab

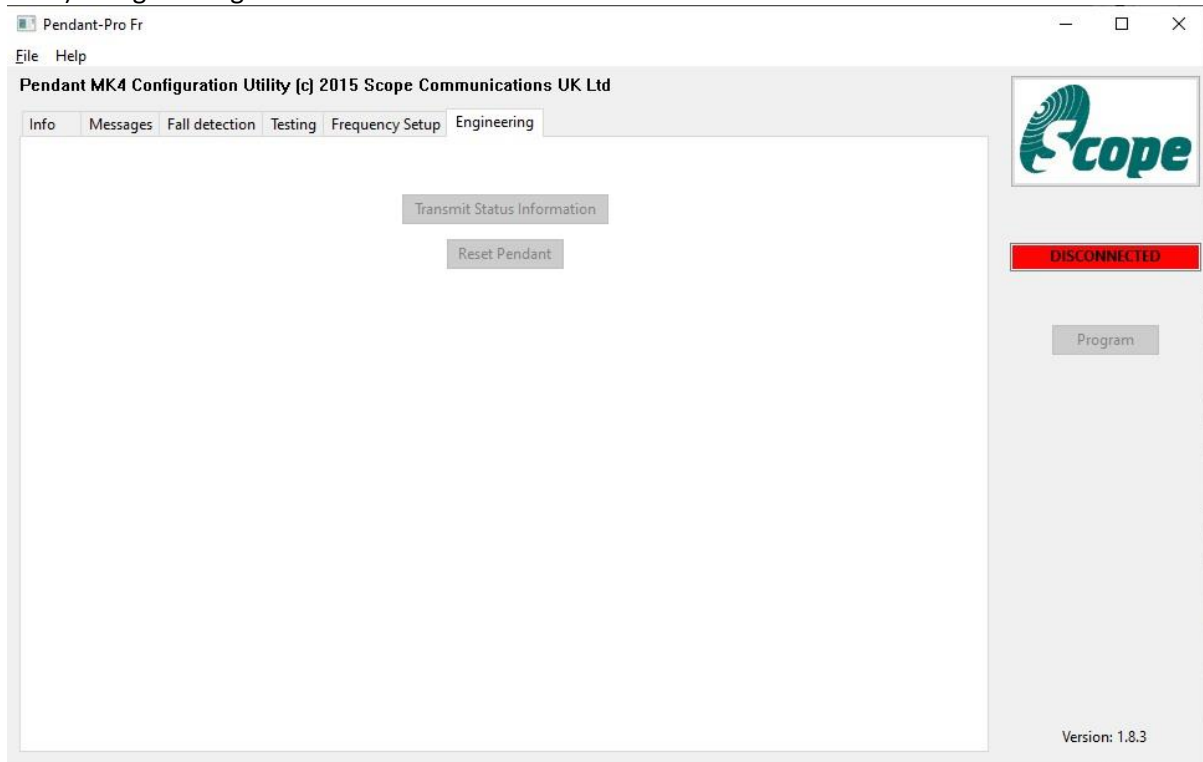


The Pendants frequency can be programmed on this Tab, Reminder to comply with the region's frequency regulations.

The band can be changed with the +++ or --- buttons and the channel with the ++ / + or -- / -

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f) Engineering Tab



No user interface required on the tab.

If any further advice is needed or technical manuals
Please call our Technical Support Department on 01803 860720, support@scope-uk.com or visit
<https://www.scope-uk.com/technical-support>