

# DELKIM *Plus* RADIO SYSTEM

## GETTING STARTED

Before the system can be used the Rx *Plus* Mini Receiver must first be programmed to recognise the users uniquely coded transmitters (Tx-i *Plus* or Tx *Plus*). Normally the user programmes the individual LED channels to match the LED colour of the Delkim *Plus* Bite Alarm but this is not essential. The user can programme any colour combination of Delkim *Plus* Bite Alarm into any channel of the Rx *Plus* irrespective of LED colour, i.e. three blue LED Delkims may be programmed into red, white & blue LED channels on the Rx *Plus* if required.

## PROGRAMMING

(Usually required once only unless additional transmitters are added to the system)

**STEP 1** - Connect a PP3 battery, fit inside the battery compartment, close the door and turn up the volume. Please note that the volume control is totally independent from that on the Delkim *Plus* which can be set at zero, the recommended setting. For optimum performance it is recommended to use a Duracell MN1604 battery.

**STEP 2** - Switch on into either L (Local) or D (Distant), press and release programming button, situated at the bottom right of the receiver back - Channel One LED starts flashing (Purple Haze).

**STEP 3** - If programming of the first channel is required, activate the first Delkim, either automatically by just switching on or manually by vibrating the sensor to transmit the code. When the code is accepted, it is confirmed audibly by a double tone and the next channel's LED starts flashing. If the channel does not require programming, press and release button once to skip to next channel.

**STEP 4** - Repeat Step 3 until all required channels are programmed. To complete programming skip over any unprogrammed channels which is confirmed visually by all the LEDs giving a "Mexican Wave" flash and audibly by the musical switch-on tone. (A short cut is to simply turn the Rx *Plus* off once all the desired channels are programmed and switch back on again).

**STEP 5** - Check successful programming by switching on into either Local (L) or Distant (D) and activating each programmed Delkim in turn as described in Step 3.

**STEP 6** - Fit mounting clips or Velcro as required.

**THE DELKIM *Plus* RECEIVER IS NOW READY TO USE** - For programming of extra or additional transmitters see ADVANCED PROGRAMMING.

## RESET TO CLEAR PROGRAMME MEMORY

If a channel has been programmed in error clear the memory of the Rx *Plus* and re-programme :-

(If using a Tx *Plus* Micro Transmitter it can simply be re-fitted to the correct Delkim)

**STEP 1** - Switch receiver off.

**STEP 2** - Press and hold the programming button down and switch on the receiver.

**STEP 3** - Continue to hold the programming button down until a "pip" is heard and then release button. All the LEDs will start to flash.

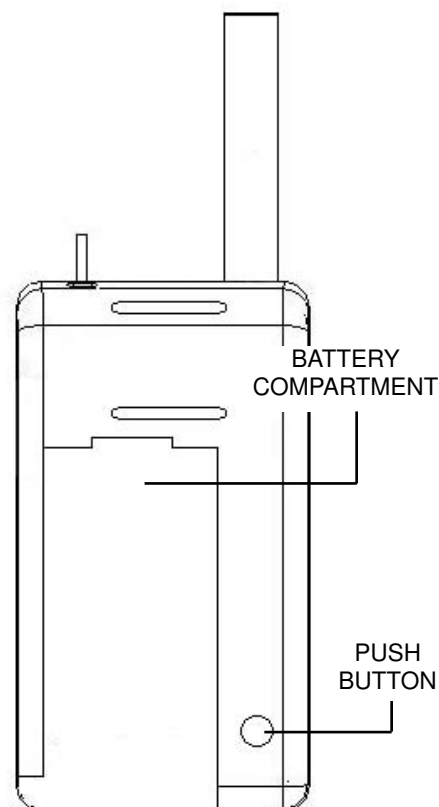
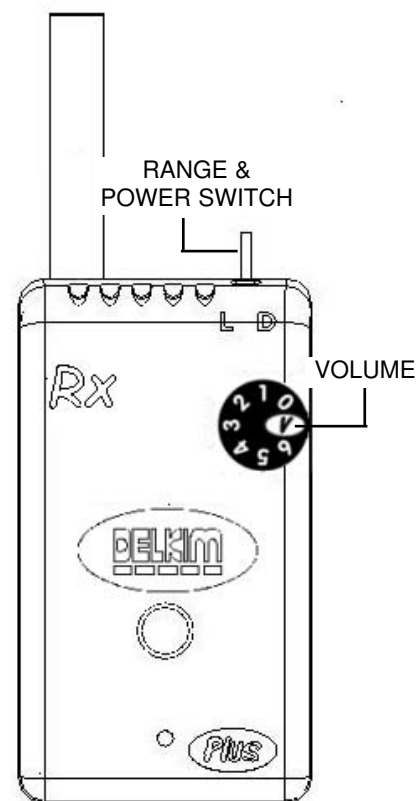
**STEP 4** - Press and hold the programming button down, the LEDs will go out, wait until another "pip" is heard and then release. The musical start up tone will be heard and all the LEDs will flash in a double "Mexican Wave" effect. This confirms a successful reset.

This procedure should always be used if you are in any doubt about what is programmed and wish to start again. Full programming then has to be repeated.

## USING THE RX *Plus* MINI RECEIVER

Simply switch on the Rx *Plus* Mini Receiver into either Local (L) or Distant (D) and set volume to required level. To maximise battery life it is recommended to use Local (L) for all in swim situations where the range is up to 50 metres.\* Only use Distant (D) for occasional out of swim use over 50 metres\*.

\* Range will always depend on bankside obstructions, atmospheric conditions, positioning of transmitters & receiver and may vary from unit to unit. The range check facility on the Tx-i *Plus* will give a rough guide to the reception range but as conditions change constantly it should not be relied upon. USING A TRANSMITTER CLOSE TO THE GROUND MAY REDUCE THE RANGE. RAISING IT BY JUST A FEW CENTIMETRES CAN GIVE A DRAMATIC INCREASE IN RANGE.



## SETTING ANTI-THEFT ALARM

This must be set manually when required and it is cancelled automatically by switching off the Rx Plus. The Anti-theft Alarm is NORMALLY OFF. This is particularly useful for users who prefer to switch the Tx-i Plus off when setting visual indicators to prevent annoying bleeps. It is recommended to set the Anti-theft Alarm whenever the bite alarms are unattended even for a short time i.e. when the user is sleeping or when leaving the swim.

- To set Anti-theft Alarm, hold down the programming button, switch on the Rx Plus Mini Receiver into either Local (L) or Distant (D) with the button held down and release quickly before you hear a "pip" which commences the RESET routine.
- The Rx Plus will confirm audibly and visually that the Anti-theft Alarm is set with two quick alarm tones accompanied by the LEDs all flashing.
- To cancel Anti-theft Alarm simply turn off the Rx Plus and back on again.

(For additional technical information for advanced users apply direct to Delkim or you can download from our website)  
[www.delkim.co.uk](http://www.delkim.co.uk)

## ADVANCED PROGRAMMING

### PROGRAMMING ADDITIONAL TRANSMITTERS

STEP 1 - Switch on Rx Plus Receiver and press and release programming button, Channel One LED starts flashing (Purple Haze).

STEP 2 - Continue to press and release until the LED flashes on the channel which requires programming then programme as before.

### PROGRAMMING EXTRA TRANSMITTERS (I.E. MORE THAN FIVE)

STEP 1 - Press and hold down programming button until a single "pip" is heard and release - Channel One LED starts to DOUBLE flash (Purple Haze) indicating additional transmitter required

STEP 2 - Repeat as main programming. This facility enables up to TEN transmitters to be programmed into an Rx Plus.

### PROGRAMMING OVER A CHANNEL THAT IS ALREADY PROGRAMMED

A previously unprogrammed transmitter may be programmed over a channel that is already programmed by overwriting the code. Any attempt to programme a channel with a transmitter that is already coded in to another channel will generate an audible error message (bee-bah).

## RECEIVER AUDIBLE AND VISUAL INFORMATION SUMMARY

### AUDIBLE & VISUAL INFORMATION DURING NORMAL USE

**Arming tones** - A single pre-set tone before a normal tone - Each channel has a different pre-set tone which forms the first "beep" of a sequence of received normal Delkim tones. The arming tone is produced whilst the receiver is decoding the data from the transmitter. In addition each activated channel's LED will flash and latch as the LEDs on the Delkim Plus Bite Alarm.

**Rx Plus low battery in receiver** - Single low tone IMMEDIATELY AFTER normal activation with the Receiver & Delkim Bite Alarm LEDs LATCHED ON - REPLACE Rx Plus BATTERY AS SOON AS POSSIBLE.

**Rx Plus battery fail warning** - continuously repeating low tones - REPLACE Rx Plus BATTERY IMMEDIATELY.

**Delkim Plus Bite Alarm low battery warning** - Single drooping low tone after normal tone - Bite Alarm LED ON and the identifying LED LATCHED ON in Receiver. This is transmitted information from the Delkim Plus Bite Alarm. REPLACE Delkim Plus BATTERY AS SOON AS POSSIBLE.

**Delkim Plus battery fail warnings** - As above but continuously repeating. REPLACE Delkim Plus BATTERY IMMEDIATELY.

**Radio monitor warning** -Two low error tones twice (bee - bah, bee -bah) with LEDs flashing as a "Mexican Wave" for 5 seconds - RADIO INTERFERENCE PRESENT, USE LOCAL (L) SETTING ONLY.

### AUDIBLE & VISUAL INFORMATION DURING PROGRAMMING

**Confirmation tones** - Four musical tones with all the LEDS flashing as a "Mexican Wave".

**Code accepted** - Two high tones followed by all the LEDS flashing as a "Mexican Wave".

**Programming error** - Two low tones (bee bah) - TRANSMITTER CODE ALREADY PROGRAMMED.

**Auxiliary transmitter programming request** - Single "pip" followed by double flashing LED

**Reset memory request** - Single "pip" followed by all LEDS flashing together

**Reset memory confirmation** - Single "pip" followed by all the LEDS flashing twice as a "Mexican Wave" with four musical tones.

## **ADDITIONAL INFORMATION FOR ADVANCED USERS**

### **LOCAL & DISTANT RANGE SETTINGS**

We have recognised that most of the time the Delkim Plus Radio System will be used within a distance of no more than 50 metres. We have a Patented method of optimising the battery life of the Rx Plus Mini Receiver by reducing its sensitivity to unwanted radio signals by using the Local (L) setting. If there are no unwanted radio signals present the switch setting will not make any difference but as radio use is increasing the use of the Local (L) setting coupled with ultra low power consumption gives the possibility of up to 6000 hours battery life which is TWELVE TIMES greater than on our previous system which is still recognised as "state of the art". If the Distant (D) setting is used for any length of time, with unwanted radio signals present there may be a significant decrease in battery life.

### **RECEIVER LOW BATTERY WARNING**

The Rx Plus Mini Receiver automatically tests the battery every time an LED latches on. If the battery voltage drops to a level where reception may become unreliable, a recognisable audible low tone is emitted when an LED is latched on, immediately after the normal sound pulse. It should be noted that when the battery is low the warning will be activated more readily if more than one LED is latched on and possibly not at all with only one LED on. If the low battery warning is activated with only one LED on, you are advised to change the battery as soon as possible. The Rx Plus Mini Receiver will continue to work satisfactorily for some time after the warning is given and batteries do recover during periods of low activity, but once the warning has been given, don't take a chance, fit a new battery, you may miss the fish of a lifetime.

### **RADIO ACTIVITY MONITOR & WARNING**

The Delkim Plus Radio System uses digitally coded radio transmission and only alerts the user when a valid code is received by the Rx Plus Mini Receiver from one of the users own Transmitters. In common with all digitally coded radio systems the Rx Plus Mini Receiver has to respond to all transmissions received in an attempt to find a valid code. Periodically there may be signals received which are monitored but ignored. These unwanted radio signals are counted by the Receiver and if they reach a level where the battery life of the Receiver may be reduced, a low two tone error warning which is repeated twice will be heard from the Rx Plus Mini Receiver and the LEDs will all flash for about 5 seconds. The Radio Monitor Warning is advisory only but it warns that the battery life on the Rx Plus Mini Receiver may be seriously reduced. If the radio monitor warning is given, it is recommended to use the LOCAL (L) setting. The user can re-check the current situation at any time by switching the receiver off and back on again.

### **RANGE & RELIABILITY OF TRANSMISSION**

The Delkim Plus Radio System is designed for in swim and occasional emergency out of swim use and although the range has been optimised by the precisely tuned aerials, it is totally dependant on bankside and ambient conditions. The FM radio signals will pass through obstructions such as trees, bushes and walls between the transmitters and Rx Plus Mini Receiver but the range will reduce depending on the density of the obstructions and in the case of high banks the range may be severely impaired or blocked completely, it is therefore essential to test reception in every situation. As a general rule, range will be improved by raising the height of the transmitters and the Rx Plus Mini Receiver.

**VALID RANGE TESTING CAN ONLY BE CARRIED OUT IN ACTUAL BANKSIDE CONDITIONS AND THE RESULTS FROM ANY TESTS CARRIED OUT IN UNOBSTRUCTED CONDITIONS OR WITH THE TRANSMITTER OR RECEIVER POSITIONED HIGHER THAN IN NORMAL USE, MAY BE FAR BETTER THAN CAN BE EXPECTED IN AN ACTUAL FISHING SITUATION AND CAN BE TOTALLY MISLEADING.**

In common with all radio, the proximity of electricity pylons, strong radio signals from other sources such as mobile phones, varying atmospheric conditions and electrical storms, may all affect reception range and quality adversely.

### **IMPORTANT**

The Delkim Plus Radio System transmits on 433.92 MHz and it is possible for two different frequency receivers, if placed close together, to interfere with each others reception. It is therefore recommended that if you are fishing next to someone using an alternative frequency, that the receivers only be kept apart by at least 10 metres to avoid any interaction. THERE SHOULD BE NO INTERACTION WITH RECEIVERS OF THE SAME FREQUENCY.

### **UNATTENDED RODS WARNING**

You are advised to check with Fishery Rules, Local Bylaws, EA Regulations and consider fish welfare before leaving any rods unattended, no matter for how short a time, even if monitored by the Delkim Plus Radio System. We understand that the UK, Environment Agency Regulations state that an angler should be within "immediate control of the rods". This is open to interpretation and Delkim will not be responsible for any use of our products in contravention of any fishery, environmental or radio regulations. The volume on the DELKIM Bite Indicators can be set to zero therefore with responsible use the Delkim Plus Radio System must be seen as more environmentally friendly than bite indicators at full volume which in certain situations can cause nuisance and annoyance to other anglers and members of the public.

### **WARNING**

**DELKIM WILL NOT BE RESPONSIBLE FOR ANY USE OF OUR PRODUCTS IN CONTRAVENTION OF ANY FISHERY, ENVIRONMENTAL OR RADIO REGULATIONS.**

## SPECIFICATION

### DELKIM *Plus* RADIO SYSTEM

- **CUSTOM MADE FM RADIO** - crystal controlled phase lock loop (PLL) with Patented digital transmission & reception of codes, tones and battery condition data
- **THE ORIGINAL PATENTED AUDIBLE AND VISUAL REPLICATION SYSTEM**
- **HARMONISED PAN-EUROPEAN FREQUENCY** - Complies to EN300-220

### Rx *Plus* - 5 LED Mini Receiver

- **FM RADIO RECEIVER** - receives all data from the transmitter (Tx-i *Plus* or Tx *Plus*)
- **UP TO 6000 HOURS CONTINUOUS USE** - using a Duracell MN1604 battery (subject to local radio conditions)
- **DUAL RANGE SETTINGS** - Distant (**D**) up to 200 metres plus and Local (**L**) up to 50 metres (subject to bankside obstructions and atmospheric conditions)
- **PATENTED LOCAL (L) SETTING** - maximises battery life in the face of radio interference
- **5 HIGH VISIBILITY CLEAR FLASH & LATCH LEDS** - Purple Haze, Flame Red, Brilliant White, Electric Blue & Emerald Green
- **HIGH VOLUME** - adjustable from zero to over 100dB with tone adjusted from the Delkim Bite Alarm
- **EXTERNALLY OPERATED PROGRAMMING BUTTON** - for easy customer programming, takes up to 10 transmitters with no restrictions on colour combination of bite alarms
- **RADIO ACTIVITY MONITOR** - with audible and visual warning, advises of any serious radio interference
- **ANTI-THEFT ALARM** - audible and visual warning of Tx-i *Plus* switch off
- **CONTINUOUS BATTERY CONDITION MONITORING WITH AUDIBLE & VISUAL WARNINGS** - informs user of low battery and battery fail in both receiver and bite alarms
- **EXTERNAL COIL AERIAL** - in tough sealed tube
- **CLEAR COVER** - allows switching and visual & audible monitoring without removal for maximum protection
- **TWO CLIP ATTACHMENTS** - for pocket , belt or rod rest, plus additional self adhesive Velcro strip
- **2 YEAR GUARANTEE**

### GUARANTEE AND AFTER SALES SERVICE

DELKIM LTD will repair or replace at our discretion any faulty unit with a new or Service Replacement within 2 years of purchase provided proof of purchase is retained. Delkim may refuse to repair or replace any product where the seals are broken, the aerials or circuits have been tampered with or the product has been abused or treated with any substance. Repairs on faults falling outside of the guarantee period may be charged at our discretion and any payment required must be made in full before the units can be returned. Please return direct to DELKIM LTD for our rapid repair service with a full description of any fault or via your DELKIM dealer, although this may take longer.

IF ANY UNIT GETS ACCIDENTALLY IMMERSSED IN WATER, RETRIEVE AS QUICKLY AS POSSIBLE, SWITCH OFF, REMOVE BATTERY AND ALLOW TO DRY COMPLETELY. SOME APPLICATION OF HEAT MAY BE NECESSARY IN ORDER TO FULLY DRY THE UNIT. DO NOT OVERHEAT OR DRY OVER AN OPEN FLAME. IN THE UNLIKELY EVENT THAT WHEN TOTALLY DRY THE UNIT MALFUNCTIONS RETURN TO OUR SERVICE DEPARTMENT.

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**[www.delkim.co.uk](http://www.delkim.co.uk)**

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