

## PREFACE

### ***Important Information***

It is the purchasers' responsibility to determine the suitability of this equipment and its derivatives for any given application, Scope cannot give specific advice in this manual, as each use will require independent evaluation.

Scope has, wherever possible, employed extra safeguards or designed optional equipment to further monitor the system's performance. Certain system installations, operational requirements or budgets may, however, limit the effectiveness of these safeguards. Again, the suitability of the system for any given application must therefore be decided by the installer and their customer, relative to the application and risk.

### ***Licence***

This equipment is cleared for use within the USA under a license assigned to the exclusive importer, PIPS Holdings Inc. License No. 950415906. Certain restrictions apply in respect of power output and antenna installations. Alternative frequencies are available by formal license application (Form 600) via the FCC. These may not be subject to the same restrictions as the dockside frequencies. Before operation you should obtain and read the FCC Rules and Regulations, Title 47, Part 80 to End, including Parts 90 and 95, available from the US Government Printing Office, GPO Bookstore or FCC Office.

### ***Important Safety Information***

Scope products are designed to operate safely when installed and used according to general safety practices. The following requirements should be observed at all times.

#### **Do NOT subject this equipment to:**

- Mechanical shock
- Excessive humidity or moisture
- Extremes of temperature
- Corrosive liquids

This equipment must not be used in classified Hazardous Areas, including areas containing explosive or flammable vapors, unless express authorization has been given in writing by the manufacturer. If in doubt, consult your local product dealer for further information.

Only use a damp cloth for cleaning (not liquid or aerosol based cleaners), and ensure that any power is removed from the unit(s) prior to beginning the cleaning operation.

### ***Important Safety Information***

Removal of covers from the equipment/chargers must only be undertaken by authorized service personnel, who must ensure that power is isolated prior to removal.

## **Preface**

### ***Equipment Applications***

It is the user's responsibility to determine the suitability of the Scope products for any given application. Scope or any of its subsidiaries or Distributors, cannot provide specific advice within this manual, as each application will require independent evaluation. Common sense dictates that certain applications may require back up systems in place to cover in the event of mains or equipment failure and all applications should be thoroughly assessed by the installer in conjunction with the customer so as to minimize risk. The following information, however, may be of benefit. Scope has no control of the use and application of the frequencies issued by the FCC. Some equipment that is individually licensed may have a greater degree of protection than other equipment that is operated on a FCC dockside frequency.

### ***Equipment Testing.***

Range tests should be carried out at least once a week on portable radio equipment, more often when critical criteria apply. They should involve testing the unit past the limit of its required working range. Good working practice dictates that a suitable system installation log, covering both portable and fixed equipment must be generated, together with a record of the dates when the system has been manually checked and/or serviced, (with the aid of suitable test equipment etc.) enabling the system performance to be compared with the original installation data.

The frequency of the tests required will vary between applications. If portable equipment has been dropped or is worn by a person involved in an accident, the unit should be tested again before re-use. It must be stressed that the physical range tests are essential and any construction work or movement of plant or equipment could alter the signaling capability of the unit. Radio equipment like any other requires servicing from time to time to ensure that it is operating to its optimum performance. It is essential that equipment should be inspected and tested by authorized service centers at least once a year.

### ***Literature***

Distributors in conjunction with Scope Marketing, (Communications UK) Ltd., the manufacturer, operate a policy of continual improvement, and therefore reserve the right to modify or change the specifications without prior notice.

While every possible care has been taken in the preparation of this manual, Scope shall not be liable for technical or typographical errors or omissions contained herein, nor for incidental or consequential damage arising from the use of this material.

### ***Installation***

Installation must only be undertaken by an Approved contractor, who shall ensure that all work is carried out in compliance with the appropriate State and Federal Regulations. For mains powered equipment, a readily accessible isolating fuse or socket must be located within 1 meter of the equipment.

### ***Liability***

Scope does not accept liability for any damage or injury, howsoever caused as the result of misuse of this equipment. It is the responsibility of the user to ensure that the equipment is operated in the manner for which it was intended and that it is the correct item of equipment for the required task.

## **Warranty**

This product is warranted as free from defects of workmanship and materials for a period of one year from the original purchase date. During this time, if there is a defect or malfunction of this product, Scope will, with proof of purchase, repair or replace at its discretion any defective parts, free of charge. This does not include where the adjustments, parts and repair are necessary due to circumstances beyond the control of Scope, including but not limited to fire or other casualty, accident, neglect, abuse, abnormal use or battery leakage damage.

There are no other expressed or implied warranties except as stated herein, and those excluded include those of merchantability and fitness for a particular purpose. In no event will Scope or any of its agents be liable for direct, indirect, special incidental or consequential damages resulting from any defect in the product, even if advised of the possibility of such damages.

The warranties and remedies set forth above are exclusive and in lieu of all others, oral or written, expressed or implied. No Scope distributor, dealer, agent or employee is authorized to make any modification, extension or addition to this warranty.

Some states do not allow limitations on how long an implied warranty may last and some states do not allow exclusions or limitation of incidental or consequential damages.

### **Warning ! No User Serviceable Parts**

Alteration or modification to any part of this equipment, without the prior written consent of the manufacturer, will invalidate all manufacturer approvals and warranties. No adjustments can be undertaken except by qualified and licensed persons as defined by the FCC Rules and Regulations. Operation of altered equipment can result in fines, imprisonment, and/or confiscation of such equipment.

## Draft Manual for UHF Hand Held

The Scope UHF Hand Held Digital transmitter has been designed to cover a wide range of applications across industry, from very simplistic press button calling to advanced automated monitoring of individuals who could be overcome by physical or other means and require to have calls sent to provide automated assistance.

The equipment:-

The Hand Held Transmitter

A leather carry case

A slot in fast charger

A switch mode UL approved AC adapter for the charger.

Safety Lanyard (advanced lone worker use only)

Prior to operating the unit connect the AC adapter to the charger and check that the red LED is lit on the Charger. The unit is powered by Nickel Metal Hydride batteries which may well be completely flat when you receive your unit. The unit should be placed in the charger for 1 hour prior to use. The LCD display must be lit when the unit is placed in the charger, in the event that the display does not come on press and hold the top trigger button on the front of the transmitter to wake up the onboard processor to allow charging to start. The charger will fast charge the batteries when it detects that they are flat. The transmitter processor talks to the processor in the charger to check what is needed and to ensure that the batteries do not overcharge. It is quite normal that the unit will become warm when charged from flat. The LCD display has a battery icon located within its window. This will show the battery in full, 2/3, 1/3 or flat conditions. When the battery is charging it will flash the message "FAST CHARGE" or when trickle charging "CHARGING".

**IMPORTANT NOTE!** The batteries must not be thrown in the trash when replaced. Be responsible avoid pollution. Only dispose of batteries by taking them to a recycling center. Your county or city should offer a safe disposal route.

### ***Caution: Potential Exposure to Radio Frequency Energy***

The HHUTX1 uses RF energy to communicate and may expose the user to small amounts of radio frequency electromagnetic energy. The EUT is designed to minimize this energy. The HHUTX1 has been evaluated for Maximum Permissible Exposure (MPE) and found to comply with the requirements of FCC Section 1.1310 for Occupational/Controlled Exposure limits.

A minimum distance of 2.5cm from the antenna must be maintained during use of the unit. This distance is met by using the carrying case provided with the device. One of two types of carrying cases are provided with the unit. The first type provides at least 25mm of clearance distance while the second type provides 40mm.

To assure optimal radio performance and to ensure that exposure to RF energy is within the guidelines and kept at a minimum the following operating procedures should be observed:

- DO NOT operate the transmitter by repeatedly pressing the call button. The average use of the transmitter should be kept to no more than 1 per every six minutes.
  
- DO NOT operate the transmitter with a damaged antenna.

### ***Portable Paging Aid***

This is the simplest of the applications of this unit. The operating cycle between charges will depend upon the duty cycle. However in what we assume will be a standard duty cycle the unit should operate for seven days or more before needing to be re-charged.

The LCD display located on top of the transmitter will display '0' when in standby mode. Two gray buttons are located adjacent to the LCD display and these will allow you to scroll up and down from 1 through to 99. Press the up button and the numbers will increment 1,2,3 and so on. Press the down button and the numbers will decrease 99,98,97 and so on. Stop at the number desired which will relate to the pager that you wish to call. If you pass the required number simply press the other scroll button until the correct number is displayed. You are now ready to call the selected pager. The front of the transmitter is equipped with two blue keys. Pressing the top blue key will invoke a transmission with an "A" call type. Pressing the bottom blue button will invoke a transmission with a "B" call type. Pressing both buttons will invoke a transmission with a "C" call type. Any transmission will be confirmed by an aerial transmission icon appearing on the LCD display accompanied by an audible beep. When the unit has completed its transmission it will return the LCD display to zero. When the display is showing zero the unit is inhibited from transmission.

### ***Typical applications and duty cycles for this application***

This unit would most commonly be used in say a restaurant where the manager or hostess wanted to call a waiter to clear a table for waiting customers, or to call a waiter to a table to provide the customer with service. This will obviously mean that certain times of the day the unit would be used more often than others. It is assumed that a average duty cycle would be approximately six transmissions per hour. Each transmission would last in the order of 600 milli-seconds.

### ***Advanced Use as a Lone Worker Panic Call System***

This will represent the most advanced use of the equipment and also convey the heaviest duty cycle. The unit will typically be equipped with an on board motion sensor/accelerometer, a safety lanyard and an infra-red serial data port. The unit will be worn on a belt or harness and it will be programmed to provide heart beat transmissions to confirm operation to a central fixed receiver on the site. They will be monitored by the central receiver but will only present an alarm condition by their absence. It is intended to provide a monitoring signal to confirm that everything is alright.

The unit can be used to send manual transmissions via the two trigger keys fitted to the front of the unit. These will typically send a data burst lasting up to 600 milli-seconds and would not normally be repeated. They would only be sent on as needed basis. Where the unit is required to send panic alarms this can be achieved in one of three ways.

The unit would be programmed to send a manual panic call by pressing and holding both of the front trigger keys simultaneously. This would then start a sequence of transmissions that will not stop until the unit is re-set.

A similar sequence would be triggered in the event that the unit is snatched or torn away from the operative by separating the safety lanyard from its trigger pin, which is locked into the base of the transmitter. The curly cord attached to the pin would normally attach to the belt or trouser loop at the other end by way of a dog clip. In the event that during a physical attack the unit is separated from its user the sequence is triggered and repeated around the same time frame until manually reset.

If the unit is equipped with a motion sensor or accelerometer the unit is programmed to monitor the activity of the sensor. In the event that the conditions arise that would allow the processor to start a count down sequence to an alarm the following would occur.

A period of inactivity would be selected when programming the device. This could be typically 30 seconds. If no activity is recorded within this period the onboard warning beeper would begin to emit an audible warning of an impending alarm. This would have another time base selected, typically 15 seconds. At the end of the 15 seconds the transmitter would automatically initiate its alarm transmission sequence which will not stop until manually reset. If at anytime during the initial countdown or during the audible countdown the sensor picks up activity commensurate with normal activity the unit will auto reset and no transmission would occur.

Typical applications and duty cycles for this application

Heartbeat transmissions will last for a maximum of 600 milliseconds but will more typically send for less than 200 milliseconds. These would be repeated automatically once every 10 to 60 minutes depending on the application. These signals would be the normal operating cycle for the transmitter. The only time that an alarm signal would be generated would be where a life-threatening situation arose and then the unit would only transmit until reset. The automated signals would expect to be sent once every 10 seconds and typically last no more than 600 milliseconds. If a response to an attack were to take 2 minutes to respond to then the operative would be exposed to 12 transmission bursts of 600 milliseconds.