

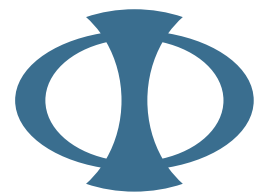
get connected

XSports[®] 2400

wireless communication



User Manual



Phicom[®]

extreme communication

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This equipment has been tested and found to comply with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines in Supplement C to OET65. The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

CLASS B Product

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna

Increase the separation between the equipment and receiver

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected

Consult the dealer or an experienced radio/TV technician for help

Warning: Any changes or modifications not expressly approved by Phicom Pty Ltd could void the user's authority to operate this equipment.



Phicom and the stylised Logo are trademark of Phicom Pty Ltd. All other product or service names are property of their respective owners.

introduction

1

Congratulations on your purchase of the XSports 2400. Read this document to learn about the features of the XSports 2400, how to use its controls, and apply it to your needs.

XSports 2400

The XSports 2400 is an advanced digital communications product, using leading edge wireless and computer chips to provide you with enhanced audio quality.

Use your XSports 2400 to:

- Communicate with up to 3 (programmable) stored users
- Interface to long haul communications equipment
- Experience clear sound quality
- Full duplex communication
- Enjoy privacy
- Try different filter settings (2)

features

2

- Advanced Digital Signal Processing
- Digital noise filtering
- Noise cancellation
- Low power consumption - extended operation time
- Intrusion Protection rating - 67 (IP67)
- Virtual Networking
- Interface to CB radios
- Lightweight and Compact Design
- Rugged construction
- Removable belt clip
- Automatic reconnect
- Large Push to Transmit Button
- Plug and play accessories
- 2 Users stored to caller memory *
- 1 Preferred User *
- Critical single button control for function access
- Remote PTT capability



* If your application requires additional users, models can be software upgraded for up to 100 users and 50 associations with the Push to Transmit button. If you feel your application has these sorts of requirements please contact Phicom for further information and a quotation.

getting started 3

Power Control - 1

A single button press controls either power up or power down. On powering up the unit will flash the red, amber and green LEDs in sequence, and then show a solid amber LED indicating the unit is powering up. Once the unit has completely powered up, there will be an audio tone and the Green LED will flash periodically. Press the power control button again and the unit will turn off.

Volume Control - 2

The volume control button located on the top of the unit. The volume can be either increased or decreased by pressing the plus or minus symbols.

Indicators - 3

There are three indicators, red, amber and green. These indicators communicate the status of the battery charger when the unit is switched off and charging. When the unit is on, the indicators show status and mode of the unit.

Main Connector - 4

The main connector is the single access point to the product providing the following functions:

- Remote push to transmit in and out
- Microphone input
- Mono audio output (differential)
- Stereo audio output (differential)
- Charge input
- USB 2 interface (when optioned)

Function - 5

The function button allows the user to enter and exit Bluetooth programming mode.

Plus - 6

The plus button allows access to special options when supported with software. When the unit is in programming mode this button allows users to be stored to memory.

- 1 Power control
- 2 Volume control
- 3 Indicators
- 4 Connector
- 5 Function button
- 6 Plus Button
- 7 Minus Button
- 8 Throat microphone
- 9 Headset
- 10 Filter Control
- 11 Push to transmit



Note - MP3, USB and MicroSD

not included in the XSports[®] 2400 model

getting started

Minus - 7

The minus button similar to the plus button allows access to special features of the unit. When the unit is in programming mode, this button allows users to remove a caller from memory.

Throat Microphone Accessory - 8

When not connected to another person, press this button when using a throat microphone for optimum throat microphone settings. This setting is stored automatically, and will be kept until changed.

Headset Accessory - 9

When not connected to another person, press this button when using a headset (Helmet Kit) for optimum settings. This setting is stored automatically, and will be kept until changed.

Filter Selection - 10

There are two types of filters offered as standard with the product. Filter 1, and Filter 2. One (1) beep indicates the first filter setting has been selected (FIR - type) and two (2) beeps indicate the second filter setting has been selected (IIR - type).

- continued

Push to Transmit - 11

The push to transmit button allows, connect, disconnect, accept incoming call waiting and return to MP3 mode.

at a glance

4

Using the XSports 2400 intuitive controls make it easy to talk to other XSports units, disconnect or talk over long distances using the Phicom interface to professional equipment.

To	Do this
Turn the unit on or off	press the power button (⏻)
Enter programming mode - to search	press function (Ⓜ) - (Amber flashing)
Enter programming mode - searchable	press function (Ⓜ) for 1 second - (Amber flashing)
Enter programming mode - delete user	click function twice (Ⓜ) - (Green flashing quickly)
Exit programming mode	press function (Ⓜ) - (Green flashing slowly- MP3 mode)
To delete a caller	press (−) (in programming mode - Green flashing)
To store the other party unit ID	press (+) (while talking)
To connect to the first user	a single press on the (ptt)
To connect to the second user	two presses on the (ptt) button
To connect to the third user (or radio)	press and hold the (ptt) button
To disconnect from any caller	double click the (ptt) button or remote PTT switch
To select the throat microphone setting	press the triangle
To select the helmet kit setting	press the square
To select filters (toggle between two types)	press the wavy lines

Modes

5

Modes of operation

There are two basic modes of operation. Standard mode, or default MP3* player or programming mode. On power up the user will hear two tones indicating the unit has powered up correctly, and the green LED will flash periodically. The unit powers up in standard mode or default MP3 player mode for the XSports 2401 only. The indicator lights show the current mode the unit is in.

Standard Mode

When the unit is in Standard mode the green indicator will flash periodically. This mode allows the user MP3 functionality of the Play / Pause, Advance / Forward, and back function keys. These keys control the MP3 player, and allow the user to manage the sounds they are listening to.

Programming Mode

To enter programming mode, press the function button. Programming mode is indicated by a flashing amber light. In this mode the user can store other users to memory, and be accepted by other users into their memory.

Units need to be paired together. When you want to talk to another person, both units must be paired together.

After pressing the function button (5), the unit immediately enters programming mode indicated by a flashing amber light.

Default Mode

Default mode allows the person to listen to their sounds, accept incoming calls, and call others, and disconnect from calls, all with the control of a single button (PTT or remote PTT).



Programming 6

The programming mode allows users to set up a virtual network to communicate with peers and access long haul radio communication equipment, with a seamless transition. It is the first truly wireless communications network giving users real wireless access to a range of communication gateways, without the need for infrastructure (between 30m and 180m).

The important thing to remember about programming, is that two units must be programmed at the same time. The programming method allows users to ensure they are connected to the correct person, before allocating that person to a memory location.

Programming mode

The programming mode allows the user to store 3 caller ID's from other units.

Storing a single unit

Programming is performed between two units.

Unit 1



Step 1 - Enter Programming mode by pressing the function button - to search.

The amber light will flash quickly and a tone will sound in the headset. Once the units have been connected, then the user can either program the other caller ID to memory by pressing the plus key, or disconnect from the call with a double click on the PTT.

Step 2 - A single press of the plus button will store the caller ID to the first memory location.

Alternatively if the other unit is not found then a time - out tone will be heard.

The second unit, should at the same time as the first unit, enter programming mode by pressing and holding the function button for 1s. Similarly, the amber light will flash on the second unit and a tone will sound in the headset when its in programming mode.

Unit 2



Step 1 - Press the function button for 1s to enter programming mode - to be discovered.

The amber light will flash and a tone will sound in the headset.

Step 2 - When the user has connected to the caller, they can choose to save the caller ID to a memory location. Pressing the plus button once will store the caller to the first memory location.

If the user does not wish to accept the connection, they can simply disconnect by clicking the push to transmit button twice.

Storing to different memory locations

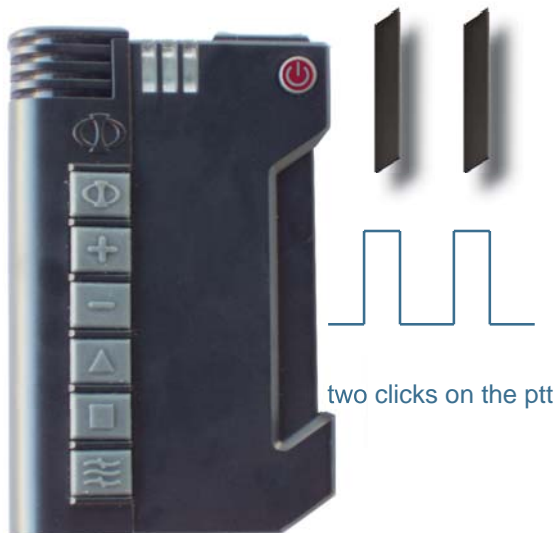
A user may select where to store a caller ID by simply:

- pressing once for the first memory location
- press twice for the second memory location
- press and hold for the remote radio or communications equipment

disconnecting

Disconnecting

To terminate a call with another user, double click on the Push to Transmit button or the remote Push to Transmit button.

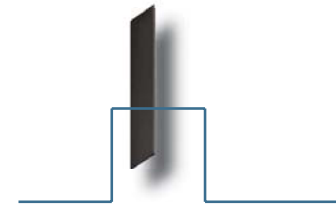


connecting

Connecting

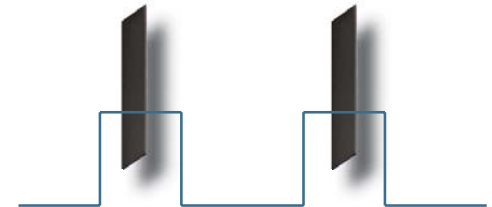
To connect (when not on a call) to a stored user or the remote communications equipment do the following.

Either



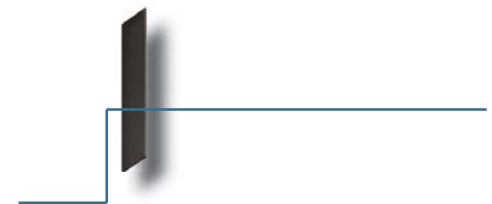
A single press of the ptt button to connect to the first stored caller, the user will hear one beep

Or



Two presses on the ptt button to connect to the second stored caller, the user will hear two beeps

Or



A single press and hold on the ptt to connect to the communications equipment, the user will hear a long beep

Clearing Users

Clearing users from memory

The units supports the removal of users from memory. To remove a user from a memory location perform the following operation.



Step 1 - Double click the function button

The green light will flash quickly and a tone will sound in the headset.

Step 2 - Press the minus:

- i) once for the first location
- ii) twice for the second location
- iii) press and hold for the radio or third location.

On removal of the ID in the memory location, a tone will be heard in the headset.

ptt - operation 7

Push-to-Transmit disconnect

The Push-to-Transmit button is designed to provide quick access to a preferred user and equipment, where the user may toggle between long haul radio equipment or a preferred user, or disconnect from a call.

Using the ptt button on the unit or an external ptt button the user can:

- disconnect from any current call
- connect to a stored user
- connect to remote communications equipment
- return the unit to MP3 mode
- connect directly from MP3 mode to a preferred user
- connect directly from MP3 mode to communications equipment
- accept in coming call

Disconnect from any call

A double click on the push to transmit

Connect to a preferred user

A single press on the push to transmit (for the first stored user) or
two presses on the push to transmit button (for the second stored user)

Connect to communications equipment

A single press and hold

Notification of Second Call Waiting

When a person is either listening to their sounds or on a call and someone is attempting to connect to them, they will hear a beeping in the background. They can stop the beeping by clicking the ptt twice, and continue talking, or disconnect from their current call and then call the second call waiting.

- To reject the call waiting - double click on the ptt - this will stop the beeping
- To disconnect from the current call - double click on the ptt.

NOTE

To change callers or long haul communications equipment, the current call must be disconnected before making another call.

charging

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When the unit is switched off and charging the red and green indicators show the state of the battery condition.

When the unit is charging, the red LED will be on.

When the unit has fully charged, the green LED will be on.

When the unit is on and connected to the charger, the indicators indicate the state / mode of the unit.

The user may charge their XSports via the supplied charge plug pack or the USB supplied with the XSports 2401.



battery care 11

With care, you can maximize the battery life (i.e. the time your battery will run before it must be recharged) and lifespan of your XSports's battery.

Your New XSports

Be sure to fully charge your XSports when you plug it in for the first time.

Standard Maintenance

For proper maintenance of a lithium-based battery, it's important to keep the electrons in it moving occasionally. Phicom does not recommend leaving your XSports plugged in all the time for charging.

An ideal use would be a person who uses their XSports in their activity, after which plugs it in to charge. This keeps the battery activity flowing.

Long Term Storage

If you don't plan on using your XSports for more than six months, Phicom recommends that you charge your unit and then store.

specification 12

Electrical

Indicators

Charging - Red LED is on continuously
Fully charged - green LED flashes
Bluetooth mode - Amber LED flashes

Operation Time

Unit operation time (fully charged battery)	
Unit shelf time before charge (off state)	4 months
Unit On - connected (talk time)	4 hours
Unit On - Talk time ratio 20% with 80% standby	8 hours

Audio Out Put

Audio standard out - differential 150 ohm 15mW Stereo / Mono
Audio with adapter - single ended 4 ohm / 8 ohm 100mW

Range 30m - 180m (depending upon conditions in some instances up to 300m)

Important Notes - Battery

The battery used in this product is a Lithium Ion cell. For health, safety and environmental considerations, the following is to be observed.

The battery must NOT be - incinerated
- disposed of with household or industrial refuse

The battery should be - disposed of at an approved battery recycling centre
- returned to the manufacturer (please see the website for conditions of return)

Mechanical

Height	112mm
Width	25mm (max) 22mm (min)
Length	73mm
Weight	180g (typical) 200g (max)

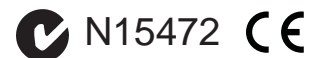
Environmental

Charging battery	0 to +45 degrees celsius
Discharging battery	-20 to +60 degrees celsius
Maximum humidity	100% condensing
Protection against dust	100%
Protection against immersion	15cm to 100cm (1 hour)

The product meets the European Union (EU) new directives on electrical and electronic equipment in relation to its composition and the levels to which it should be recycled.

The product complies with the directive restricting the use of six hazardous substances in electrical and electronic products and complies with the Waste Electrical and Electronic Equipment (WEEE) directive, encouraging reuse and recycling.

Warning: Any changes or modifications not expressly approved by Phicom Pty Ltd could void the user's authority to operate this equipment.



warranties

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Phicom one (1) year limited product warranty

Introduction

This is a limited warranty from Phicom (as warrantor) that gives you specific legal rights.

You may also have other rights under specific consumer protection laws and regulations – if any (referred to in this warranty as “law”) of the country, state or province in which the Product was purchased (“your jurisdiction”).

This warranty is governed by and subject to law and is not intended to and does not exclude, limit or suspend any rights you have under law. Some or all of the limitations or exclusions described below may not apply to you.

For the purposes of this warranty –

Phicom means Phicom Pty Ltd (ABN 62 130 625 919). (A list of Phicom authorised distributors appears at the end of this document.)

Product means a Phicom-branded hardware product manufactured by or for Phicom and identified by the “Phicom” trademark, trade name, or logo affixed to it.

You means the original end-user and retail purchaser of a Phicom Product.

Phicom reserves the right to make changes at any time to:

- (1) Product hardware and software components and specifications; and
- (2) terms and conditions governing Product use, service and repair; and
- (3) Phicom services.

Such changes are entirely at Phicom’s discretion and may involve modification, upgrade, enhancement, replacement, deletion or abandonment.

Specific warranty obligations

Phicom warrants that its Product is free from defects in materials and workmanship under normal use for a period of one (1) year from the date of your purchase (the “warranty period”).

Subject to law and the conditions set out below, if a Product is defective, Phicom will decide whether to:

- (1) repair the Product at no charge, using new parts or parts that are equivalent to new in performance and reliability; or
- (2) exchange the Product with either a new product or one that is equivalent to new in performance, reliability and functionality; or
- (3) refund the purchase price of the Product,

provided that your claim is made in accordance with this warranty and is received by Phicom within the warranty period.

A replacement product or part assumes the remaining warranty of the original Product or ninety (90) days from the date of replacement or repair, whichever provides you with longer coverage.

When a Product or part or a Product is exchanged, any replacement item becomes your property and the replaced item becomes Phicom’s property.

Parts provided by Phicom in fulfillment of its warranty obligation must only be used in the Product for which warranty service is claimed.

If Phicom agrees to refund the purchase price of a Product, the refund can only be paid after you have returned that Product to Phicom. All returned Products become Phicom’s property.

Phicom does not make any representation that it will be able to repair or exchange any Product without loss of or corruption to programs and data.

Warranty exclusions and limitations

This limited warranty applies only to Phicom Products and does not apply to any non-Phicom hardware product or any software, even if packaged or sold with a Phicom Product. Manufacturers, suppliers, or publishers, other than Phicom, may provide their own warranties to you, but Phicom, in so far as permitted by law, provides its products “as is”.

Software (including system software) distributed by Phicom with or without the Phicom brand name is not covered under this warranty. Refer to the licensing agreement accompanying such software for details of your rights and obligations concerning its use.

Phicom does not warrant that the operation of the Product will be uninterrupted or error-free. Phicom is not responsible for damage arising from failure to properly follow instructions relating to the Product’s use.

This warranty does not apply to:

- (1) consumable parts, such as batteries, unless damage has occurred due to a defect in materials or workmanship; or
- (2) cosmetic damage, including but not limited to scratches, dents, and worn material on ports; or
- (3) damage caused by use with non-Phicom products; or
- (4) damage caused by accident, abuse, misuse or external causes (such as earthquake, fire or flood); or
- (5) damage caused by operating the product outside the permitted or intended uses described by Phicom; or
- (6) damage caused by service (including upgrades and expansions) performed by anyone who is not a representative of Phicom or a Phicom authorised service provider; or
- (7) modifications by you or someone else other than Phicom to alter Product functionality or capability without Phicom’s written approval; or
- (8) any Phicom Product where its serial number has been removed or defaced.

Important!

Opening a hardware Product may cause damage; such damage is not covered by this warranty. Only Phicom or an authorized service provider should open and perform Product service.

To the extent permitted by law:

- (1) this warranty and your rights under it are exclusive and are in lieu of any other oral, written, statutory, express or implied warranties, remedies and conditions; and
- (2) Phicom disclaims all other warranties, including but not limited to warranties of merchantability and fitness for a particular purpose and warranties against hidden or latent defects.

If Phicom cannot lawfully disclaim statutory or implied warranties then, to the extent permitted by law, all such warranties will be limited in duration to the duration of the express warranty and to the repair or replacement service or refund as determined by Phicom in its absolute discretion.

No Phicom reseller, agent, or employee is authorised to make any amendment, extension, or addition to this warranty.

If any term or condition of this warranty is held to be illegal or unenforceable, the legality or enforceability of the remaining terms and conditions will not be affected or impaired.

Except as provided in this warranty and to the maximum extent permitted by law, Phicom is not responsible for direct, special, incidental or consequential damages resulting from any breach of warranty or condition, or under any other class, category of head of claim, including but not limited to loss of use; loss of revenue; loss of actual or anticipated profits (including loss of profits on contracts); loss of the use of money; loss of anticipated savings; loss of business; loss of opportunity; loss of goodwill; loss of reputation; loss of, damage to or corruption of data; or any indirect or consequential loss or damage howsoever caused including the replacement of equipment and property, any costs of recovering, programming or reproducing any program or data stored in or used with the Phicom Product and any failure to maintain the confidentiality of data stored on the Product.

Phicom does not authorise use of and reliance on any Phicom product in safety-critical situations, where the failure of a Phicom product or its compromised or interrupted operation could cause or contribute to personal injury or death ("potentially life-threatening situations" or "PLTS"). For the avoidance of any doubt, Phicom does not assume liability for any risk of personal injury or death arising out of the use or misuse and operation of any of its Products in such circumstances.

Phicom may be prepared to assist you to undertake a risk management assessment and prepare a protocol for your use of Phicom Products in the context of PLTS, but always on the basis that all such use (including misuse) remains entirely at your risk.

It is your responsibility to identify and comply with the law governing your use of the Product applicable in each jurisdiction in which the Product is to be used.

Only those products designated by Phicom as "military grade" are authorised for use in military applications. Please refer to the specific terms and conditions of use for each Phicom Product.

Obtaining warranty service

Before seeking warranty service, please first refer to Phicom's online help resources identified in the Product documentation.

If the Product is still not functioning properly, you should contact Phicom representatives or, if applicable, a Phicom retail store, distributor or authorized service provider.

Phicom will determine whether the Product requires service and, if so, Phicom will advise you how, where and by whom service will be performed.

It is important that you assist Phicom to diagnose issues with your Product and that you follow Phicom's warranty processes.

Service options, parts availability and response times will vary according to the place in which service is requested. Please note that service options are subject to review and change by Phicom at any time and Phicom may restrict service to be performed in the place at which the Product was originally sold.

Upon receipt of the replacement Product or part, the original Product or part becomes the property of Phicom and you agree to properly follow instructions, including, if required, arranging the return of the original Product or part to Phicom in a timely manner.

When providing service requiring the return of the original Product or part, Phicom may require a credit card authorisation as security for the retail price of the replacement Product or part and applicable shipping costs. If you follow all Phicom's instructions, Phicom will cancel the credit card authorisation, and you will not be charged for the product or part and shipping costs. If you fail to return the replaced product or part as instructed, Phicom will charge your credit card for the authorised amount.

If you seek service in a country that is not the country of original purchase, you must comply with relevant export requirements and be responsible for the payment of all duties, taxes, levies, fees and other charges including shipping and handling costs.

Where international service is available, Phicom may repair or exchange defective Products and parts with comparable products and parts that comply with local law.

Phicom may require you to provide proof of purchase details and/or comply with registration or other requirements before providing warranty service.

Phicom will collect, maintain and use your information in accordance with Phicom's privacy policy accessible at:

<http://www.phicom.com.au/privacy>

Recovery and reinstallation of software programs and user data are not covered under this warranty.

If your Product is capable of storing software programs, data and other information, you should protect its contents against possible operational failures.

Phicom recommends that you keep a separate backup copy of such information. You should also disable any security passwords prior to seeking service, as the contents of your Product will be deleted and the storage media reformatted. Repaired Products will be returned configured as originally purchased, subject to updates. You will be responsible for reinstalling other software programs, data and passwords.

Phicom authorised distributors

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Facsimile: + 61 3 5446 1215
Email: info@phicom.com.au

A updated list of Phicom authorized distributors is also available online at:

http://www.phicom.com.au/contact_us.php