



Introduction

Northumbria Blood Bikes currently operates using the Andromeda Digital Radio system. The system is similar to the Airwave or Tetra systems used by the Emergency services, the difference being that the Andromeda devices operate on the 3G Band of the EE Network.

The following aims to explain the use of the devices, in day to day operations.

Note: It is an offence to operate any Andromeda set directly whilst Driving / Riding a motor vehicle. (NBB Policy dictates the devices will only be operated, in the absence of a hands free device, when vehicles are static & parked)

The Devices – Andromeda AD100 Handheld Radio

The devices have both an 'open speech on channel' mode, and a point to point mode. The first, being that any set can transmit on a channel, and all other units on that set can hear the transmission and respond. The latter, is a direct call to one set, from the duty coordinator, which is private and cannot be heard by any other set.

All of the units, whilst switched on, transmit GPS location to the duty coordinator; this can be refreshed manually, or at an interval set by the coordinator.



User Controls

Power/Volume – The control will give a physical click to indicate power off when fully anti-clockwise. Unit can be switched on by turning clockwise, which in turn increases speaker/accessory volume.

Channel Selector – Andromeda units come with 15 channels in-built, at present all NBB units will operate on channel 1.

Speaker/Microphone – The microphone is built into the same area as the speaker, it will pick up voice from a short distance, it is not necessary to speak directly into the unit, voice will be received when the unit is clipped to riding vest, providing the user speaks in the general direction of the set.

Accessory Jack – There are a number of motorcycle headsets available which are compatible with Andromeda. The jack on the unit is 2.5mm. (NB: When using a headset, additional push-to-talk buttons are available for attachment to bars for ease of use)



Push to talk - Once the push-to-talk is depressed, a double beep will sound to notify the user they are transmitting, any speech before the tone will not be sent. The user should keep the push-to-talk depressed until they have completed their message.

Call back request – This button should be depressed and held until a positive tone is heard. This will send a notification to the coordinator indicating that you wish to be contacted.

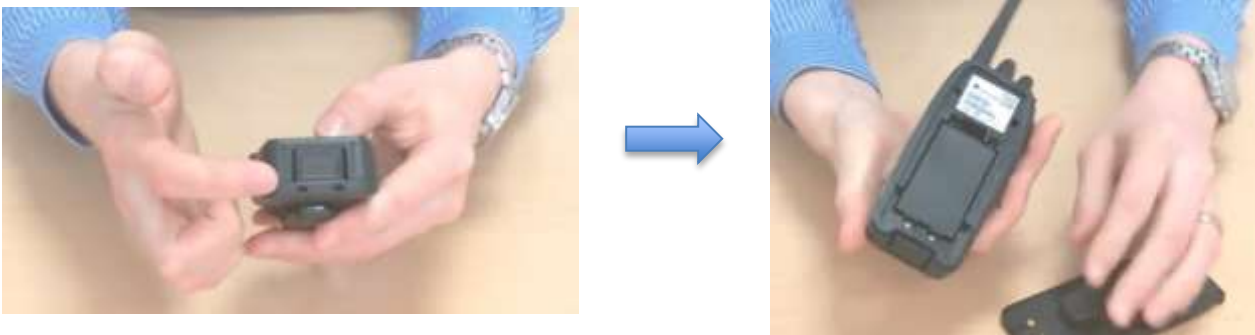
Emergency Button – This function should be used in emergencies when you are unable to contact the duty coordinator, or do not have the time to do so. When activating the emergency function, please depress the button for around 5 seconds. When activated the unit will sound a triple beep and the microphone will become 'live' for a period of 20 seconds to all units on the channel, and the coordinator, without the need to press the push-to-talk.



Day to Day Care

Each of the devices owned by NBB comes in a high visibility protective case. These cases are designed to shelter the devices for general day to day use. In times of adverse weather, where possible, efforts should be made to protect the devices from damage, in particular during wet weather. Each unit has a click-fast attachment on the rear, and the relevant attachments have been fitted to NBB riders vests, and suitable attachments provided to drivers. Care should be taken to ensure the click-fast attachments are secure before departing.

Each unit has a removable battery, which should be changed, and replaced with a fully charged battery at the beginning of each shift. A fully charged battery is indicated by a solid green LED on the charging unit.



The units can be charged using the supplied micro-usb charger, should the battery become depleted during the shift.



**Micro USB Port
(Charging Only)**

Each unit should be switched off at the end of each tour of duty, and placed into the glove box/pannier of the vehicle. In general, the batteries should last between 12 and 15 hours, depending on the polling intervals of GPS, set by the coordinator. They should not, as a matter of routine, be left switched on and allowed to drain each day.

Each NBB car is fitted with a 12v in car charger, for use during each shift.

NB: Whilst charging the LED will show solid amber, until it becomes fully charged and becomes green.



General Operations

During normal operations, communication between riders and the duty coordinator will be conducted using the Point to Point function. All sets should be set as default onto Channel 1, and switched on whether the rider/driver chooses to use the Andromeda system or to remain using mobile telephones.

Once switched on, the radio will take a short time to connect to the network. Once switched on, the LED on the top of the unit (shown below) will show a solid red, until the connection is made. Once made and whilst the connection remains, the LED will flash green.



RED – Network Error/Unable to Transmit

AMBER – Incoming Call

GREEN – Connected to Network

Point to Point function – A point to point call can only be initiated by the duty coordinator, using the Andromeda Dispatching client. When a point to point call is received, the radio will sound an intermittent dull tone, which will continue until the call is answered, or cancelled by the coordinator. Whilst this tone is sounding, the LED will flash orange, in sync with the tone. A point to point call can be accepted by pressing the ‘Push-to-talk’.

Open Speech function – Open speech function can be used at any time whilst the unit is connected to the network.

Things to Note

- If a user attempts to transmit when the set is unable, it will sound a short dull tone, and the LED will show red.
- A user cannot transmit whilst another is transmitting.
- If there are no other users connected to the network, the LED will remain red.
- A point to point call, if not cancelled by the coordinator, will self-cancel after 30 seconds of inactivity.
- If signal is lost, the unit will ‘double beep’ intermittently until signal is picked up again.

For general operations of the radio, Andromeda have produced the following training video: [Here](#)



'On the Job'

Although mainly informal, a degree of radio etiquette is encouraged to aid in the ease of coordinating and the accurate transfer of information.

To ease is communication, times should be passed in 24 hour format, 7pm being 'One Nine Zero Zero Hours'. Any addresses or such should be spelled out using the phonetic alphabet (documented below).

The following are commonly known as the ABC of using handheld radios/communicators.

A	Accuracy	All information passed should be accurate
B	Brevity	Information passed should be as brief as possible
C	Clarity	Speech should be clear to aid in communication

Northumbria Blood Bikes Vehicles have been assigned the following callsigns:

- North Rota *"North Bike"*
- South Rota *"South Bike"*
- Car 2 Rota *"Central Car"*
- B.o.b. Rota *"Helimed/Bob Car"*

What follows is an example of communication between rider and coordinator, for a typical detail.

Point to Point Call

Dispatch: (Coordinator calls Rider/Driver)

Rider/Driver: *"North Bike, go ahead"*

Coordinator: *"North Bike, I have an urgent detail for you, details when you're ready"*

Rider/Driver: *"Pass the details"*

Coordinator: *"Collection from Freeman Road, Main Reception, Samples for RVI Leazes Wing, confirm"*

Rider/Driver: *"Urgent Collection from Freeman Road, Main Reception, received"*

Coordinator: *"Coordinator out"*

(Standard detail – as soon as is practical, Urgent detail – as soon as possible or in any case within the hour, Emergency Call – as soon as is safe and legal)



Collection/Delivery: (Rider/Driver requests call back)

Rider/Driver: *"North Bike, collection made, time two two five zero hours, leaving Freeman for RVI Leazes Wing"*

Coordinator: ***"Received, nothing further, out"***

Rider/Driver: *"North Bike, delivery made at time two three zero zero hours , anything further?"*

Coordinator: ***"Nothing at this time, call when stood down"***

Stand Down: (Rider/Driver requests call back)

Rider/Driver: *"North Bike, stand down time Two Three Two Two Hours"*

Coordinator: ***"Received, Goodnight"***

Open speech can be used for communicating with other riders/drivers as necessary.

Below are some commonly used phrases and a table of the (British) Phonetic alphabet:

"Yes Yes"

"Negative"

"Pass Your Message"

"Please Repeat"

"Standby"

"Received"

"ETA"

"Confirmed"

"Acknowledge"

"Out"

"Wait One"

"Confirm"

"Radio Check"

A - Alpha	N - November
B - Bravo	O - Oscar
C - Charlie	P - Papa
D - Delta	Q - Quebec
E - Echo	R - Romeo
F - Foxtrot	S - Sierra
G - Golf	T - Tango
H - Hotel	U - Uniform
I - India	V - Victor
J - Juliet	W - Whiskey
K - Kilo	X - X-ray
L - Lima	Y - Yankee
M - Mike	Z - Zulu

