



R2R
GLOBAL TRAINING
Ignite Your Potential

Welcome to Analogue 101 Training

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UNDERSTANDING TWO-WAY RADIOS

Understanding the operation of 2-way analogue radios is paramount in various industries like security, events, and emergency services.

These radios serve as vital communication tools, facilitating seamless and immediate contact between individuals or teams. Proficiency in their usage ensures effective coordination, swift responses, and heightened safety protocols.

Mastery of 2-way radio operation not only enhances productivity within industries but also plays a pivotal role in safeguarding lives and assets. In this course you will be introduced to various concepts and procedures of Analogue Radio usage such as radio components & functions, procedures & operation, as well as basic theory of radio waves & frequencies.



COMPONENTS & FUNCTIONS

Components of a two way radio:



ON/OFF/ VOLUME KNOB

Switches the radio on or off. It also lets you turn the sound up or down.



SPEAKER/MIC JACK

To connect an external speaker (or earpiece), and microphone to the radio.



SEND & RECEIVE CALLS (PTT BUTTON)

Press when you want to talk. Release when you want to listen.

Basic Operations:



POWER ON

The green light turns on when no battery is connected, or when the battery has finished charging.



INSTALLING AND REMOVING BATTERY

Use this point to install your battery and later remove it safely.



CHARGING A BATTERY

The red light turns on when the radio is Pre-charging, or when the radio is Quick-Charging.

TROUBLESHOOTING

PROBLEM

The radio cannot be switched on, or there is no display after being switched on

CAUSE OR SOLUTION

- The battery power may be insufficient. Please recharge or replace the battery pack
- The battery pack may not be installed properly. Remove the battery pack and install again

PROBLEM

The battery power consumes quickly after charging

CAUSE OR SOLUTION

- The battery life is finished. Please replace it with a new battery pack

LOW BATTERY WARNING

When the battery voltage drops to the pre-set value, the low battery warning tone will sound every 10 seconds. The radio will turn off automatically when the battery is very low. You need to recharge or change the battery.

PROBLEM

Other voices from non-group members are heard on the channel.

CAUSE OR SOLUTION

- Change the channel on your radio, as well as the channel on all radios in your group

PROBLEM

The communication range is too short.

CAUSE OR SOLUTION

- Make sure the antenna is properly connected
- Make sure the antenna is the original that was supplied
- Check if the battery power is in normal state
- Ask your local dealer to adjust the squelch level

PROBLEM

Cannot talk to or hear othergroup members

CAUSE OR SOLUTION

- Make sure the radio channel is the same as the group
- Speak on mic area +- 2.5cm from mouth
- The radio is out of effective communication range



GENERAL CARE OF THE RADIOS

GENERAL OPERATING RULES



- Listen out before speaking to ensure that the frequency is clear and do not cut in on other transmissions. Allowance must be made for transmission where you can hear only one of the participants in a conversation.
- Observe short pauses between phrases, and at the end of a conversation, to allow for break-in-working. The press-to-talk (PTT) switch or the voice operated switch (VOX) must be released when pausing.
- Answer all calls immediately and in the correct sequence.
- Ensure that the radio set returns to "receive" after each transmission. A jammed PTT
- To utilise circuit time more efficiently, all messages or their substance must be written down prior to transmission. Those messages which must be delivered by the receiving operator to another person, or which are preceded by the pro-word "MESSAGE" must be written down.
- Transmission via radio should be clear with a natural emphasis on each word and should be spoken in natural phrases, not word by word. If this procedure is followed, no complaints can result.
- When it is necessary for a station to initiate test signals, either for the adjustment of a transmitter, before making a call, or for the adjustment of a receiver, such signals will not continue for longer than 10 seconds, and will consist of spoken numerals (1,2,3, etc.) followed by the call sign of the transmitting station. If this procedure is followed, no complaints can result.

PRINCIPLES OF RADIO PROCEDURES

- 1** **Do not** use abusive language over the air. Apart from prejudicing voice procedure, this can result, in licenses being revoked.
- 2** **Do not** play music in the background.
- 3** **Do** keep the radio room secure.
- 4** **Do** treat radios as technical equipment and handle them with care to prevent damage.
- 5** **Do** use radios for the transmission of official messages only; the transmission of music or other entertainment is prohibited.
- 6** **Always** use the correct call sign.
- 7** Ensure that the battery is always charged.
- 8** **Always** carry out a radio test before going on duty.
- 9** Keep messages short, concise and to the point.
- 10** Prepare all messages mentally before transmitting them.
- 11** Use codes as far as possible.
- 12** Excessive testing of the radio is forbidden.
- 13** Remember to release the transmit button after each message.
- 14** Never switch the radio off. Except when charging.

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