

IAM RoadSmart Radio Procedures Manual



Contents:

- 1. Introduction**
- 2. Cross modal distraction**
- 3. Preparation**
- 4. Modes**
- 5. Level of use**
- 6. Advice on the move**
- 7. Commentary**
- 8. Demonstration rides**
- 9. Timing of transmissions**
- 10. Group Riding**
- 11. Conclusion**

1. Introduction

Radios have been in use for many years on motorcycles, both for training and leisure communication between rider and pillion or several machines.

Previously IAM RoadSmart gave extensive advice relating to the use of radios and the prevalent technology at the time of writing, with three distinct qualification levels. This guidance replaces that documentation and the three-tier system which is no longer in use.

Although focussing on the term 'Radio', this documentation also applies to Bluetooth communications devices and similar future technologies.

For the sake of simplicity, the term 'Radio' is used throughout.

The terms 'Observer' and 'Associate' are not used in this document, as it covers the use of radios in all scenarios including Masters Mentoring and Observer Training. As such the terms 'Trainer' and 'Trainee' are used.

2. Cross-modal distraction

Contrary to common belief multi-tasking is not something we as humans can do well. Trying to do two tasks at once reduces the ability to do either of them to our usual standard.

This is termed cross-modal distraction, several studies conducted concerning driving and communicating using hands free devices¹ have proved that driving ability suffers as a consequence of having a conversation using a hands-free system.

The distraction caused by using a hands-free mobile phone whilst driving can equate to the same level of distraction / impairment (26%) as being under the influence of alcohol (10% to 30%)².

Riding a motorcycle whilst using a hands-free communications system must be viewed in the same light.

¹ The battle for attention Driver distraction –a review of recent research and knowledge Dr Neale Kinnear and Dr Alan Stevens, TRL. Published by IAM RoadSmart November 2017

² Don't poke me I'm driving: a simulator study on smartphone use. Published by Institute Advanced Motorists March 2012

3. Preparation

All users should ensure sufficient power is available to the radio for the duration of the journey from its battery or by connection to the motorcycle. They should also be familiar with the operation and control of the equipment.

Any safety commands that may be used such as 'wait' (see section 5) should be explained to the trainee prior to setting off. The possible confusion between similar sounding words ('go' and 'no') should also be explained with the understanding they will not be used, or default to 'no' if such a word is heard.

If there is more than one trainee with the trainer, clarify that the trainer will only be communicating with the lead rider. All other trainees must concentrate on their own ride. The primary hazard for them may not be the primary hazard for the lead rider.

Have a plan in place for the possibility of radio equipment failing; this will likely be a safe stop to discuss and potentially rectify the fault or revert to indicators / signals.

4. Modes

To transmit there are two possibilities, depending on the individual systems.

Older equipment may have a PTT (push to talk) button which the rider presses whilst talking to transmit (a PTT button is also available for some Bluetooth systems). This button is often remotely mounted away from the equipment, connected via cable or wireless. It should be easily accessible by the rider without interfering with the controls or stability of the motorcycle. Any cables should be routed safely and properly secured.

Some systems transmit automatically (voice-operated) when the user starts to speak, this is termed VOX and is the most common method with Bluetooth systems.

There are two modes to consider in with radio communications.

Simplex is one-way communication where only one person can transmit, and the other(s) can only receive.

Duplex is a two-way communication where all parties can both transmit and receive.

Simplex is the mode that must be used when training. The trainer can talk to the trainee(s) but not vice-versa. If a discussion is needed, the ride should be safely stopped, and the matter discussed to the satisfactory conclusion of both parties.

It is acknowledged that many Bluetooth systems do not have the option to select simplex communication, in which case clear instructions must be given to the trainee not to transmit to the trainer.

5. Level of use

It is essential to remember that radios are an aid to training; they are not intended to replace the need for the trainee to observe, anticipate and plan.

Prior to the advent of radios, a trainee was expected to see a junction (or advance warning of one) and carry out an effective rear observation as part of the systematic approach to the hazard. In doing so they would pick up route directions from the trainer by way of the indicators being 'on' to turn, or 'off' to remain on the current road.

There should be no need to use radios in the above scenario; effective observations from the trainee are all that is required.

In some more complicated situations radios may be helpful, for example taking an unsigned left turn just after a left bend with no lateral vision, or at a double roundabout system when the use of indicators to direct the rider in front is impracticable. Any route directions given must be clear, unambiguous, and timely.

6. Advice on the move

Whilst it is tempting to highlight learning points whilst riding, the issues around cross-modal distraction must be borne in mind. If an area of improvement is communicated via radio the trainee will be trying to ride the machine, safely navigate the road ahead, recall the previous route / incident, listen to the trainer's advice, and process the information. This is a great deal of distraction.

Therefore, if a learning point has been identified the ride should be safely stopped, and the matter discussed to the satisfactory conclusion of both parties. This will allow both trainer and trainee to recall the event and focus fully on the learning point.

Even seemingly innocent prompts, given with the best of intentions, can cause issues. For example, on the approach to a bend, a prompt to the trainee to consider their position may have consequences. They may have already considered their position and decided they are correct (for a valid reason such as surface conditions or nearside hazard). This prompt may cause them to assume they are incorrect, adjust position and have an incident themselves.

An example where advice on the move is appropriate would be where a series of bends has been ridden very well and we are now riding through a short section of reduced speed limit (a village, say) and the trainer knows another set of bends is coming up. A brief 'Well done on those bends, keep that up' will reward the trainee and let them know they have done well.

Any advice given on the move must be short, and for positive re-enforcement only.

Any developmental points must be covered at the end of ride de-brief, or the ride stopped, and the matter discussed.

Think very carefully about words used:

'No' can easily be misheard as 'Go' which could lead to a serious incident.

For safety issues consider using an unambiguous word such as 'Wait'.

A 'Wait!' command would be appropriate if the trainee starts to emerge from a junction or overtake when it is unsafe.

If a 'Wait' command has been given, then the ride should be safely stopped and the reasons behind the trainee's plan and the trainer's advice discussed and understood.

Other words can be ambiguous in meaning; think carefully and keep transmissions to a minimum.

7. Commentary

The use of full commentary via radio is to be discouraged due to the potential for cross-modal distraction.

Commentating on a trainee riding ahead of you will cause them distractions as they are trying to process their own information gathering and riding plans, whilst listening to your advice which may be contrary.

Good use of questions whilst discussing learning points will have a far greater benefit.

8. Demonstration rides

In exceptional circumstances it may be that a trainer wishes to give a demonstration ride whilst commentating on their own ride ahead of a trainee to illustrate a point.

If that is essential, then the commentary should be focused on the point to be made and the ride kept short, just a few minutes at the most.

As the trainee will be behind you, the greatest hazard they are facing is not necessarily the same as the one you are dealing with.

If this technique is to be used ensure the trainee understands you are talking about your own ride, not theirs, and they must focus on their own ride.

This risk becomes greater if there is more than one trainee with the trainer; the trainee at the back will be at the greatest risk.

9. Timing of transmissions

Think carefully about when to transmit to the trainee. Do not transmit if they are dealing with a hazard; it will cause distraction with potentially serious repercussions. For example, whilst planning an overtake the trainee does not need to know to take the third road on the left after the supermarket in the next village.

10. Group riding

If a group ride involves training, then separate channels must be used for each pairing of trainer / trainee(s).

If radios are to be used in social group ride scenarios the risks can increase.

The transmitter is unlikely to know the exact situation of every rider and may inadvertently transmit at a most inopportune time for one of them. If duplex communication is used, then the risks will at least double.

It is suggested that transmission to the entire group is only done in the case of an emergency.

11. Conclusion

It is acknowledged that the use of radios can be beneficial when riding and enhance the experience, but it is important that they are always used correctly, appropriately and with due regard for the safety of all road users.

They should be used at the minimum possible level, to allow a trainee to implement the techniques described in the course documentation.



1, Albany Place
Hyde Way
Welwyn Garden City
AL7 3BT
0300 303 1134

Registered in England and Wales 562530
Registered charity number 249002 (England and Wales) SC041201 (Scotland)

www.iamroadsmart.com