



EMC and the Radio Amateur

What is EMC?

EMC, short for Electro-Magnetic Compatibility, is the capacity of equipment to function without causing excessive interference and without being unduly affected by emissions from other apparatus.

Why is EMC important?

Amateurs are privileged in being allowed to operate at high power levels in residential areas.

This privilege brings responsibility. Interference can be immensely annoying. As a responsible amateur, you will naturally take care not to interfere with television and radio reception, for example. Apart from general considerations of good neighbourliness, there are conditions in the Amateur Radio Licence on interference. In addition, from 1st January 1996 an EC Directive imposed new EMC standards on virtually all electrical and electronic equipment.

Does the Directive apply to amateur equipment?

Self-built amateur equipment is not covered by the Directive but it will still be necessary when using it to abide by the Licence conditions on interference. Commercially available products will have to comply and carry the **CE** mark to show compliance.

What happens if an interference problem arises?

If a problem arises, as a first step, the amateur should check that his or her own equipment is not at fault. Poor immunity is often to blame for reception problems and it may be necessary to take steps to improve the immunity of the affected installation. The amateur should co-operate with the neighbour and/or the dealer to identify and resolve the problem. But, if this does not work, the Radiocommunications Agency is likely to become involved.

What happens then?

The Agency is empowered to vary the amateur's permitted power so that the amateur does not cause excessive interference. Before resorting to this, the Agency will take all relevant circumstances into account, including the immunity of the affected installation. In the final analysis, however, the Agency will be guided by the immunity required by the relevant European standard. If poor immunity is not to blame and other steps to reduce interference have failed, the amateur may be required to take steps to stop the field strength exceeding the level that the relevant European standard requires the affected installation to be able to withstand.

How can I find out more?

The RSGB produce a helpful guide on interference. In addition, information sheets on television and radio reception (RA 179) and EMC for radio (RA 200) are available free of charge from

The Information and Library Service,
Radiocommunications Agency,
Wyndham House,
189 Marsh Wall,
London E14 9SX

Tel: 020 7211 0502 or 020 7211 0505
Fax: 020 7211 0507

For further information on other radio matters contact the Agency's 24 Hour Telephone Enquiry Service 020 7211 0211.

Website: www.radio.gov.uk