

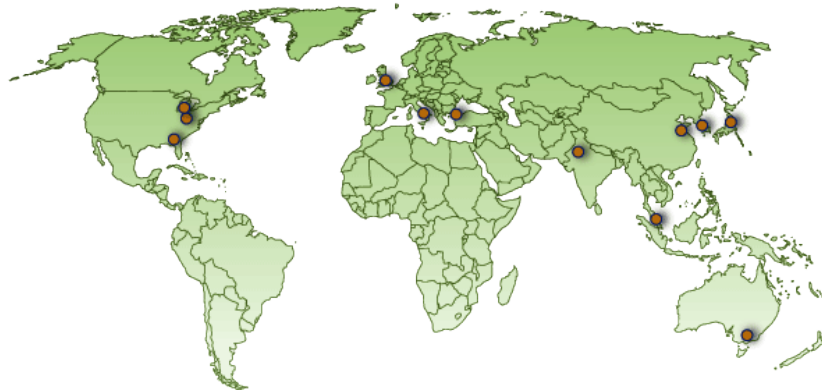
**VCA**

**AUTOMOTIVE TYPE  
APPROVAL**

**FOR**

**ELECTROMAGNETIC  
COMPATIBILITY**

**VCA office locations worldwide**





# AUTOMOTIVE TYPE APPROVAL FOR ELECTRO MAGNETIC COMPATIBILITY

Note: the following is intended as informal guidance only; VCA cannot be held responsible for any errors or omissions.

## VCA

The Vehicle Certification Agency (VCA) is an Executive Agency of the United Kingdom Department for Transport, charged with operating the system of automotive type approval in the UK. VCA is the designated UK Approval Authority and Technical Service for all type approvals to automotive EC Directives, EC and UN Regulations. VCA can also issue quality systems certification to ISO 9000, ISO/TS16949 and environmental management systems certification to ISO 14001, Acorn (staged approach) and EMAS.

## THE EMC DIRECTIVES

The relevant standards for automotive EMC Type Approval are:

Directive 72/245/EEC of 20 June 1972 as last amended by

Directive 2009/19/EC of 12 March 2009

Please note that 72/245/EEC is repealed by Regulation (EC) No 661/2009 (General Safety) with effect from 1 November 2014. This has the effect of mandating UN Regulation 10.03, the date of entry into force of which was: 11 July 2008.

## DO I NEED APPROVAL?

### VEHICLES

As part of European Community Whole Vehicle Type Approval (ECWVTA) set out in 2007/46/EC, all categories of vehicles need to meet the requirements of Directive 72/245/EEC as amended as one of the separate directives which form part of the ECWVTA process.

### ESAs (COMPONENTS)

Only those components that are defined as being 'immunity-related' need automotive Type Approval. Those products defined as being 'non-immunity related' require compliance with the generic EMC Directive 2004/108/EC or the RTTE Directive 1999/5/EC and CE-marking, along with a 2004/104/EC 'Annex IIIC attestation' from a Technical Service.

'Immunity-related' is defined within the Directive, but the term covers these 5 areas:

- Related to the direct control of the vehicle
- Related to driver, passenger and other road-user protection
- Related to causing confusion to the driver and other road users by optical and audible disturbances (although in-car entertainment systems which are not connected to any systems which affect the direct control do not require Type Approval)
- Related to vehicle data bus functionality
- Related to vehicle statutory data

If your product falls within any of these 5 areas, you will need full Type Approval (e-marking).

The processes for either Type Approval or the Annex IIIC attestation are as follows.



## THE TYPE APPROVAL PROCESS

### Application

The manufacturer should apply to VCA in writing (either email, fax or post) for the work to be done (addressed to the Administration Supervisor, Vehicle Systems, Product Certification), which will set the process in motion. If an authorised Technical Service is to be used (see below, under 'Testing') then direct contact with them should be made.

### Worst-case selection

VCA practices worst-case selection prior to testing in order to reduce the amount of testing needed across the range of a product type. A meeting will be held between VCA and the manufacturer in order to consider the products to be tested, the tests to be carried out, and the date and venue for the testing. If an independent test house is to be used (see below), then they can be present also if appropriate. If that laboratory has been appointed by VCA as a Technical Service then they will conduct the meeting. The manufacturer may present results of in house testing, and any other information, in order to assist the worst case selection.

### Testing

VCA is the automotive Approval Authority and Technical Service in the UK. However, VCA does not have its own EMC test facilities. VCA has also designated many laboratories both in the UK and abroad as Technical Services and as such they may conduct tests on our behalf. A full list can be found in VCA Publication VCA054 – Test Facilities Suitable for Automotive EMC Tests.

Those organisations that are designated as Technical Services will handle the whole process for the client. They will give the client a price for the complete test including the VCA fees for the issue of the approval certificate.

Tests carried out at laboratories that are not Technical Services **must** be witnessed by VCA.

If the client wishes to use VCA for testing we can witness the test work being carried out at **any** of the laboratories listed in VCA054. The client will take out a job number (order reference) with VCA and be responsible for making the test booking with the test laboratory, paying the test laboratory and paying VCA for witnessing the test and issuing the approval certificate.

If a manufacturer has their own EMC test facilities then VCA can witness tests on site, without the involvement of any other test house, provided that the facilities prove acceptable after appraisal.

### Conformity of production

Type approval requires not only the testing of a sample of the type and the documentation of the technical specification, but also it requires conformity of production - confirmation that the manufacturer can consistently produce products to the approved specification. To do this VCA quality assessors will wish to examine the quality systems in place in the factory. Our approach follows established quality system principles as in ISO 9001:2008. Certification to ISO 9001:2008 or its equivalents will normally be accepted in place of factory assessments, though control plans dealing with issues specific to type approval activities may be needed in addition.

The COP process can run along side the testing process, in order to avoid delays, and will be triggered by the application letter to VCA.

### The manufacturer

Approval can be given only to the manufacturer of a product - or some one who is able to take legal authority for the manufacture of the product - or his appointed representative. Therefore if a distributor of a product wishes to seek approval, he will need to gain written authority from the manufacturer to act as the manufacturer's representative for the purposes of type approval.

Note, though, that only one type approval may be issued to a product by one Approval Authority, so the distributor would have to ensure that he is the sole representative for this purpose.