

Council Directive 72/245/EEC of 20 June 1972 relating to the radio interference (electromagnetic compatibility) of vehicles (repealed)

Article 1
Article 2
Article 3
Article 4
Article 5
Article 6

ANNEX I

REQUIREMENTS TO BE MET BY VEHICLES AND ELECTRICAL/
ELECTRONIC SUBASSEMBLIES FITTED TO A VEHICLE

1. SCOPE
2. DEFINITIONS
 - 2.1.
3. APPLICATION FOR EC TYPE-APPROVAL
 - 3.1. Approval of a vehicle type
 - 3.1.1.
 - 3.1.2.
 - 3.1.3.
 - 3.1.4.
 - 3.1.5.
 - 3.1.6.
 - 3.1.7.
 - 3.1.8.
 - 3.2. Approval of a type of electrical/electronic subassembly (ESA)
 - 3.2.1.
 - 3.2.2.
 - 3.2.3.
 - 3.2.4.
 - 3.2.5.
 - 3.2.6.
 - 3.2.7.
 - 3.2.8.
 - 3.2.9.
4. TYPE-APPROVAL
 - 4.1. Routes to type-approval
 - 4.1.1. Type-approval of a vehicle
 - 4.1.1.1. Approval of a vehicle installation
 - 4.1.1.2. Approval of vehicle type by testing of individual ESAs
 - 4.1.1.3.

- 4.1.2. Type-approval of an ESA
 - 4.1.3.
 - 4.2. Granting of type-approval
 - 4.2.1. Vehicle
 - 4.2.1.1.
 - 4.2.1.2.
 - 4.2.2. ESA
 - 4.2.2.1.
 - 4.2.2.2.
 - 4.2.3.
 - 4.3. Amendments to approvals
 - 4.3.1.
 - 4.3.2. Amendment of a vehicle type-approval by ESA addition or substitution...
 - 4.3.2.1.
 - 4.3.2.2.
 - 4.3.3.
- 5. MARKING
 - 5.1.
 - 5.2.
 - 5.3.
 - 5.4.
 - 5.5.
 - 5.6.
- 6. SPECIFICATIONS
 - 6.1. General specification
 - 6.1.1. A vehicle and its electrical/electronic system(s) or ESA(s) shall be...
 - 6.1.1.1.
 - 6.1.1.2.
 - 6.1.2.
 - 6.2. Specifications concerning broadband electromagnetic radiation from vehicles
 - 6.2.1. Method of measurement
 - 6.2.2. Vehicle broadband type-approval limits
 - 6.2.2.1.
 - 6.2.2.2.
 - 6.2.2.3.
 - 6.3. Specifications concerning narrowband electromagnetic radiation from vehicles.
 - 6.3.1. Method of measurement
 - 6.3.2. Vehicle narrowband type-approval limits
 - 6.3.2.1.
 - 6.3.2.2.
 - 6.3.2.3.
 - 6.3.2.4.
 - 6.4. Specifications concerning immunity of vehicles to electromagnetic radiation.
 - 6.4.1. Method of testing
 - 6.4.2. Vehicle immunity type-approval limits.
 - 6.4.2.1.
 - 6.4.2.2.
 - 6.5. Specification concerning broadband electromagnetic interference generated by ESAs

- 6.5.1. Method of measurement
- 6.5.2. ESA broadband type-approval limits
 - 6.5.2.1.
 - 6.5.2.2.
- 6.6. Specifications concerning narrowband electromagnetic interference generated by ESAs.
 - 6.6.1. Method of measurement
 - 6.6.2. ESA narrowband type-approval limits
 - 6.6.2.1.
 - 6.6.2.2.
- 6.7. Specifications concerning immunity of ESAs to electromagnetic radiation.
 - 6.7.1. Method(s) of testing
 - 6.7.2. ESA immunity type-approval limits
 - 6.7.2.1.
 - 6.7.2.2.
- 6.8. Specifications concerning the immunity to transient disturbances conducted along supply...
 - 6.8.1. Method of testing
- 6.9. Specifications concerning the emission of conducted disturbances
 - 6.9.1. Method of testing
- 7. CONFORMITY OF PRODUCTION
 - 7.1.
 - 7.2.
 - 7.3. If the authority is not satisfied with the auditing procedure...
 - 7.3.1.
 - 7.3.2.
 - 7.3.3.
- 8. EXCEPTIONS
 - 8.1.
 - 8.2.
 - 8.3.
 - 8.4. Electrostatic discharge
 - 8.5. Conducted emission
 - 8.6.
 - 8.7.

Appendix 1

List of standards referred to in this Directive

Appendix 2

Vehicle height above the ground: 10 m

Appendix 3

Vehicle Antenna and electric separation: 3 m

Appendix 4

Vehicle Antenna and electric separation: 10 m

Appendix 5

Vehicle Antenna and electric separation: 3 m

Appendix 6

Electrical Bandwidth reference limits

Appendix 7

Electrical Bandwidth reference limits

Appendix 8

Model for the EC type-approval mark

ANNEX II A

Information document No ... pursuant to Annex I to Directive 70/156/EEC relating to EC type-approval of a vehicle with respect to electromagnetic compatibility (72/245/EEC), as last amended by Directive 2004/104/EC

.....
.....

- 0. GENERAL
 - 0.1.
 - 0.2.
 - 0.4.
 - 0.5.
 - 0.8.
- 1. GENERAL CONSTRUCTION CHARACTERISTICS OF THE VEHICLE
 - 1.1.
 - 1.6.

3.	POWER PLANT (q)
3.1.	.....
3.1.1.	.....
3.2.	.....
3.2.1.1.	.....
3.2.1.2.	.....
3.2.4.	.....
3.2.4.2.	.....
3.2.4.2.9.	.....
3.2.4.2.9.1.	.....
3.2.4.2.9.2.	.....
3.2.4.3.	.....
3.2.5.	.....
3.2.5.1.	.....
3.2.5.2.	.....
3.2.5.2.1.	.....
3.2.6.	.....
3.2.6.1.	.....
3.2.6.2.	.....
3.2.6.3.	.....
3.2.15.	.....
3.2.15.2.	.....
3.2.15.2.1.	.....
3.2.15.2.2.	.....
3.2.16.	.....
3.2.16.2.	.....
3.2.16.2.1.	.....
3.2.16.2.2.	.....
3.3.	.....
3.3.1.	.....
3.3.1.2.	.....
3.9.	.....
3.9.7.	.....
3.9.7.1.	.....
3.9.7.2.	.....
4.	TRANSMISSION (v)
4.2.	.....
4.2.1.	.....
6.	SUSPENSION
6.2.2.	.....
7.	STEERING
7.2.2.1.	.....
8.	BRAKES
8.5.	.....
8.5.1.	.....
9.	BODYWORK
9.1.	.....
9.2.	.....

Status: EU Directives are being published on this site to aid cross referencing from UK legislation. After IP completion day (31 December 2020 11pm) no further amendments will be applied to this version.

- 9.5.
- 9.5.2.3.
- 9.9.
- 9.9.7.
- 9.12.
- 9.12.4.
- 9.18.
- 9.18.1.
- 9.18.2.
- 9.18.3.
- 9.18.4.
- 10. LIGHTING AND LIGHT-SIGNALLING DEVICES
- 10.5.
- 12. MISCELLANEOUS
- 12.2.
- 12.2.3.
- 12.7.
- 12.7.1.
- 12.7.2.

ANNEX II B

Information document No ... relating to EC type-approval of an...

- 0. GENERAL
- 0.1.
- 0.2.
- 0.3.
- 0.3.1.
- 0.5.
- 0.7.
- 0.8.
- 1.
- 2.
- 3.

Appendix 1

Appendix 2

ANNEX III A

MODEL

EC TYPE-APPROVAL CERTIFICATE

SECTION I

0.1.

- 0.1.
- 0.2.
- 0.4.
- 0.5.
- 0.8.

SECTION II

1.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

Appendix to EC type-approval of a vehicle with regard to...

- 1.
 - 1.1.
 - 1.2.
 - 1.3.
 - 1.3.1.
 - 1.3.2.
 - 1.4.
- 5.

ANNEX III B

MODEL

EC TYPE-APPROVAL CERTIFICATE

SECTION I

0.1.

- 0.1.
- 0.2.
- 0.3.
 - 0.3.1.
- 0.5.
- 0.7.
- 0.8.

SECTION II

1.

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.
- 9.

Appendix to EC type-approval certificate No ... concerning the type-approval...

- 1.
 - 1.1.
 - 1.2.
 - 1.2.1.
 - 1.3.
 - 1.3.1.
 - 1.4.
 - 1.5.
- 5.

ANNEX III C

MODEL

ATTESTATION WITH REGARD TO ANNEX I, 3.2.9.

ANNEX IV

METHOD OF MEASUREMENT OF RADIATED BROADBAND ELECTROMAGNETIC EMISSIONS FROM VEHICLES

- 1. General
 - 1.1.
 - 1.2. Test method
- 2. Vehicle state during tests
 - 2.1. Engine
 - 2.2. Other vehicle systems
- 3. Test requirements
 - 3.1.
 - 3.2.
 - 3.3. Measurements
 - 3.4. Readings

ANNEX V

METHOD OF MEASUREMENT OF RADIATED NARROWBAND ELECTROMAGNETIC EMISSIONS FROM VEHICLES

1. General
 - 1.1.
 - 1.2. Test method
 - 1.3. As an initial step the levels of emissions in the...
2. Vehicle state during tests
 - 2.1.
 - 2.2.
 - 2.3.
3. Test requirements
 - 3.1.
 - 3.2.
 - 3.3. Measurements
 - 3.4. Readings

ANNEX VI

METHOD OF TESTING FOR IMMUNITY OF VEHICLES TO ELECTROMAGNETIC RADIATION

1. General
 - 1.1.
 - 1.2. Test method
 - 1.3. Alternative test methods
2. Vehicle state during tests
 - 2.1. The vehicle shall be in an unladen condition except for...
 - 2.1.1.
 - 2.1.2. Basic vehicle conditions
 - 2.1.3.
 - 2.1.4.
 - 2.2.
 - 2.3.
3. Test requirements
 - 3.1. Frequency range, dwell times, polarisation
 - 3.1.1.
4. Generation of required field strength
 - 4.1. Test methodology
 - 4.1.1.
 - 4.1.2. Calibration
 - 4.1.3. Test phase

ANNEX VII

METHOD OF MEASUREMENT OF RADIATED BROADBAND ELECTROMAGNETIC EMISSIONS FROM ELECTRICAL/ELECTRONIC SUBASSEMBLIES

1. General
 - 1.1.
 - 1.2. Test method
2. ESA state during tests
 - 2.1.
3. Test arrangements
 - 3.1.
 - 3.2. Alternative measuring location
 - 3.3. Ambient
4. Test requirements
 - 4.1.
 - 4.2.
 - 4.3. Measurements
 - 4.4. Readings

Appendix 1

Figure 1 Open-area test site: Electrical/electronic subassembly test area boundary Level, clear...Level, clear area free from electromagnetic reflecting surfaces

ANNEX VIII

METHOD OF MEASUREMENT OF RADIATED NARROWBAND ELECTROMAGNETIC EMISSIONS FROM ELECTRICAL/ELECTRONIC SUBASSEMBLIES

1. General
 - 1.1.
 - 1.2. Test method
2. ESA state during tests
3. Test arrangements
 - 3.1.
 - 3.2. Alternative measuring location
 - 3.3. Ambient
4. Test requirements
 - 4.1.
 - 4.2.
 - 4.3. Measurements
 - 4.4. Readings

ANNEX IX

METHOD(S) OF TESTING FOR IMMUNITY OF ELECTRICAL/ ELECTRONIC SUBASSEMBLIES TO ELECTROMAGNETIC RADIATION

1. General
 - 1.1.
 - 1.2. Test methods
 - 1.2.1.

2. State of ESA during tests
 - 2.1.
 - 2.2.
 - 2.3.
 - 2.4.
 - 2.5.

3. General test requirements
 - 3.1. Frequency range, dwell times
 - 3.2.
 - 3.3.

4. Specific test requirements
 - 4.1. Absorber chamber test
 - 4.1.1. Test method
 - 4.1.2. Test methodology
 - 4.2. TEM cell testing
 - 4.2.1. Test method
 - 4.2.2. Test methodology
 - 4.3. Bulk current injection testing
 - 4.3.1. Test method
 - 4.3.2. Test methodology
 - 4.4. Stripline testing
 - 4.4.1. Test method
 - 4.4.2. Test methodology
 - 4.5. 800 mm stripline testing
 - 4.5.1. Test method
 - 4.5.2. Test methodology
 - 4.5.2.1. Positioning of stripline
 - 4.5.2.2. Calibration of the stripline
 - 4.5.2.3. Installation of the ESA under test
 - 4.5.2.4. Main wiring loom and sensor/actuator cables

Appendix 1

Figure 1800 mm stripline testing

Figure 2800 mm stripline dimensions

Appendix 2

Typical TEM cell dimensions

ANNEX X

METHOD(S) OF TESTING FOR IMMUNITY TO AND EMISSION OF TRANSIENTS OF ELECTRICAL/ELECTRONIC SUBASSEMBLIES

1. General
2. Immunity against disturbances conducted along supply lines
3. Emission of conducted disturbances along supply lines