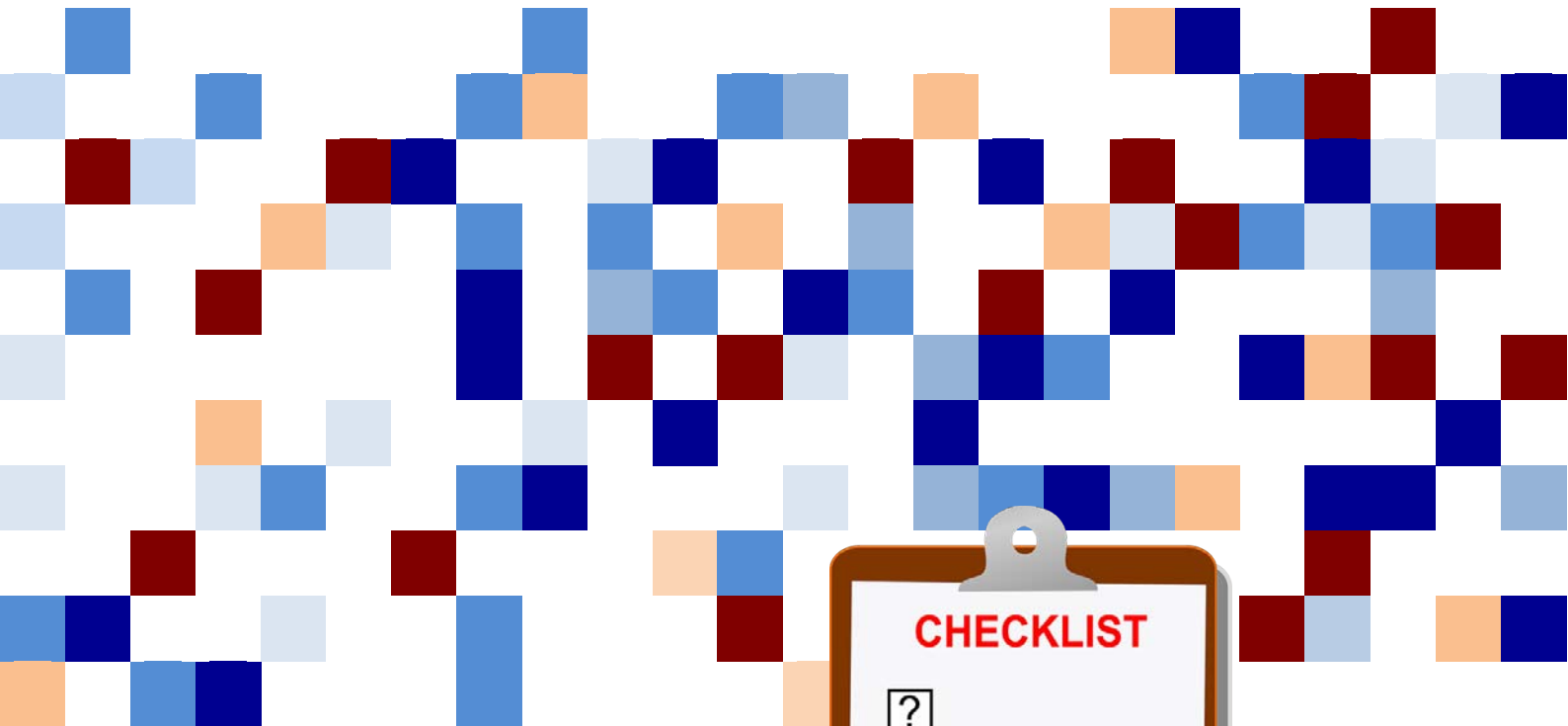


EMC Assessment



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Conformance
CE MARKING & PRODUCT SAFETY

Directives 2014/30/EU

Assessment of electromagnetic compatibility performance

1. Project/product details

1.1.	Project number	WDJ-019
1.2.	Document number	2015_Doc_002249
1.3.	Name of manufacturer/client	Acme Widgets Ltd
1.4.	Type of equipment	Widget-moulding equipment
1.5.	Model/serial no.	Widgeteer 5000
1.6.	Application/user type	Trained professional operators
1.7.	Environment of use	Light-industrial
1.8.	Product description	Equipment heats bulk plastic granules and creates widgets via injection moulding. The process is controlled via a touch-screen display. Access to moving parts is prevented via interlocks linked to a safety relay

2. General Commentary

- 2.1. The Electromagnetic Compatibility (EMC) Directive 2004/108/EC, is applicable to almost all electrical and electronic equipment that is to be placed on the European market. However, equipment covered by a more specific directive which includes requirements for EMC performance may be fully or partially excluded.
- 2.2. More specific directives include those for motor vehicles, tractors, medical devices, R&TTE and weighing and measuring instruments.
- 2.3. The EMC Directive requires manufacturers to ensure that their products do not emit unacceptable levels of electrical noise, either by radiation or conduction, and that they are capable of operating in a normal electrically noisy environment with respect to both radiated and conducted interference.
- 2.4. For simple electrical products, it is possible to be confident of compliance with the Directive under all normal circumstances simply from knowledge of the causes of radio-frequency noise and of its likely effects.

4. Applicable standards

4.1. The EMC standards that are applicable to the complete equipment under this Directive are as follows:

Reference	Issue	Title	Amendments
BS EN 61000-6-1	2007	Electromagnetic compatibility (EMC). Generic standards. Immunity for residential, commercial and light-industrial environments	
BS EN 61000-6-3	2007	Electromagnetic compatibility (EMC). Generic standards. Emission standard for residential, commercial and light-industrial environments	A1:2011

4.2. A list of currently harmonised EMC standards may be found at the European Commission's '[New Approach](#)' website:

http://ec.europa.eu/enterprise/policies/european-standards/harmonised-standards/electromagnetic-compatibility/index_en.htm

5. Radiated emissions risk factors

The equipment contains the following known sources of radiated emissions:

5.1. Radio transmitters		Present in equipment? Y/N	Evidence of compliance or methods used to reduce emissions	Further action required? Y/N
5.1.1.	Broadcast Transmitters	N	N/A	N
5.1.2.	Mobile telephones	N	N/A	N
5.1.3.	Personal radio communications	N	N/A	N
5.1.4.	Private Mobile Communications (PMR, TETRA, BAND3 etc.)	N	N/A	N
5.1.5.	Telemetry links	N	N/A	N
5.1.6.	Radar	N	N/A	N
5.2. Radio frequency equipment		Evidence of compliance or methods used to reduce emissions		
5.2.1.	Microwaves	N	N/A	N
5.2.2.	RF Heating	N	N/A	N
5.2.3.	Ultrasound welding	N	N/A	N
5.2.4.	Medical diagnostic equipment	N	N/A	N



Introduction

This document is intended to accompany our pro-forma EMC assessment checklist (16D1050). The sections are numbered in order to match the sections in the checklist.

You will need to have a reasonable understanding of electrical equipment and radio phenomena in order to use this checklist. While we provide the checklist and this guidance to assist you through the process of CE marking, Conformance Ltd accepts no responsibility for errors or omissions made during your assessment or any associated consequences.

The Directive considers the 'manufacturer' to be:

"Any economic operator that either places apparatus on the market under his own name or trade mark or modifies apparatus in such a way that compliance with this Directive may be affected"

This means that importers of equipment have the same obligations as manufacturers.

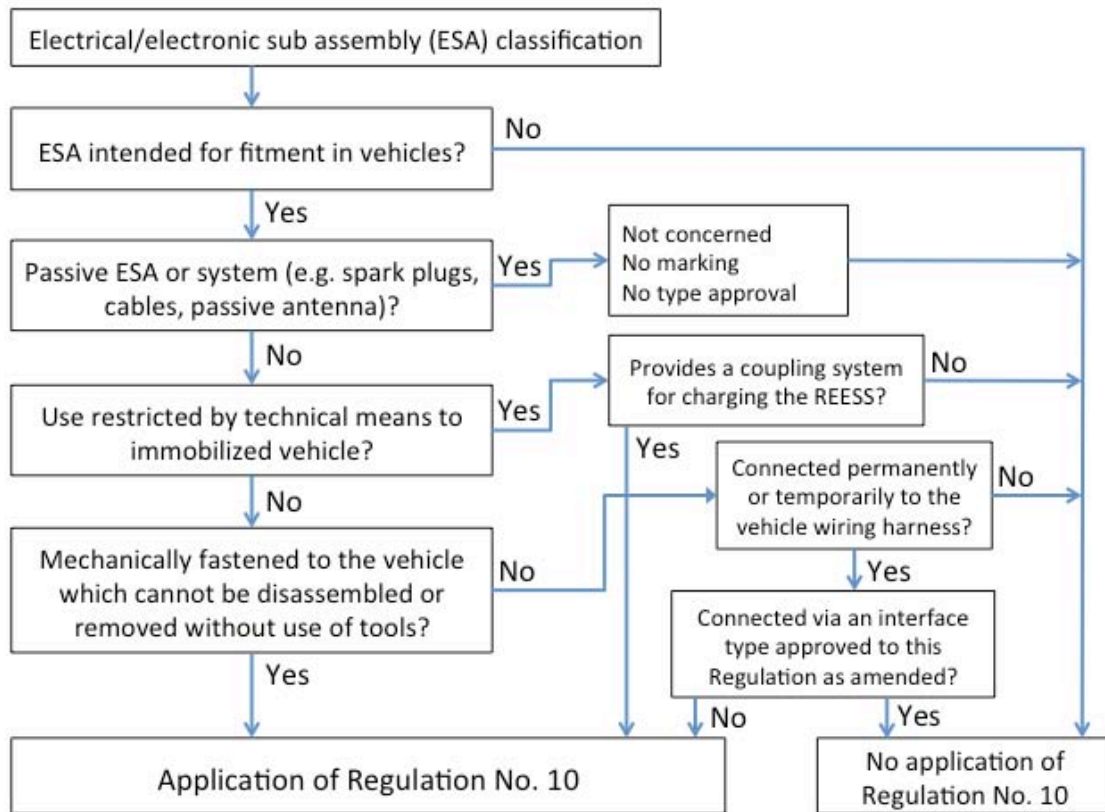
Not all sections of the checklist may apply. Non-applicable sections can be marked as such or deleted.

A single checklist can apply to a range of similar products, provided that all the model numbers are quoted and the differences between models are stated.

1. Project/product details

This section sets out the details of the product and the checklist itself.

- 1.1. A project number/reference can be assigned, or this section can be left blank or marked as not applicable (N/A).
- 1.2. If you assign document references as part of a document control system (such as the system Conformance uses – see the footer of this document for an example), it can be entered here. Otherwise, this section can be ignored.
- 1.3. Your company name and address should be entered here. Ideally, it should match the information given on the Declaration of Conformity.
- 1.4. The generic description of the equipment should be entered here.



Definitions:

"**Electrical/electronic sub-assembly**" (ESA) means an electrical and/or electronic device or set(s) of devices intended to be part of a vehicle, together with any associated electrical connections and wiring, which performs one or more specialized functions. An ESA may be approved at the request of a manufacturer or his authorized representative as either a "component" or a "separate technical unit (STU)".

"**REESS**" means the rechargeable energy storage system that provides electric energy for electric propulsion of the vehicle.

"**Coupling system for charging the REESS**" means the electrical circuit installed in the vehicle used for charging the REESS.

3.3. You can use table 3.2 to record the analysis of whether or not the Regulation applies. Any ticks in shaded boxes mean that the Regulation is likely to apply and you should seek further advice.

3.4. Section 3.2 only applies to equipment intended to be used in vehicles. It can be ignored or deleted for other equipment.

4. Applicable standards

4.1. The standards applicable to your equipment should be included here.

4.2. You should review the available standards (at http://ec.europa.eu/growth/single-market/european-standards/harmonised-standards/electromagnetic-compatibility/index_en.htm or shop.bsigroup.com for example) to determine which standards are applicable.

12. Marking and information

This section lists the markings required by articles 7(6), 9(3) and 18 of the EMC Directive, and provides a convenient checklist to allow you to determine whether you have provided the information required. In particular:

- 12.3: This should also include the name and address of the person/company responsible for placing a product on the EU market, whether they are a manufacturer, authorised representative, importer or distributor.
- 12.4: This refers to any special installation (or other) instructions which must be followed in order for the equipment to meet the requirements of the EMC Directive.
- 12.5: If the product is not for residential use, this should be indicated in the instructions (and packaging if necessary). If the equipment obviously cannot be used in this environment (industrial machine tools, for example), this is not necessary.

13. Technical File

This section provides a list of the information which should be included (where applicable) in your Technical File to demonstrate compliance with the EMC Directive. Note that additional information may be required for other applicable Directives.

You should review the information you currently have available and fill in the columns accordingly. You should also update this section when further information becomes available.

14. Conclusion

This section provides some final information on the assessment, as well as a short summary of the assessment and its conclusions.

15. Responsibility

This section should be updated with the details of the person(s) responsible for performing and reviewing the assessment, as well as the dates on which the assessment and review were conducted. You should also use this section to denote the dates on which the assessment was updated (where applicable).

Blank checklist issue record

This section is a record of the changes made to the checklist format. You can delete it completely, or it can be replaced with an issue record recording the different versions of the assessment as it relates to your product.