

European Aviation Safety Agency

European Technical Standard Order

SUBJECT: Aircraft Cockpit Image Recorder Systems

1 - Applicability

This ETSO provides the requirements that aircraft cockpit image recorder systems (CIR) that are designed and manufactured on or after the date of this ETSO must meet in order to be identified with the applicable ETSO marking.

2 - Procedures

2.1 - General

Applicable procedures are detailed in CS-ETSO, Subpart A.

2.2 - Specific

None

3 - Technical Conditions

3.1 - Basic

3.1.1 - Minimum Performance Standard

Standards set forth in the applicable sections of EUROCAE document ED-112A, MOPS for Crash Protected Airborne Recorder Systems, dated September 2013, that pertain to the cockpit image recorder (CIR) type, except chapters III-1 and III-6, and Sections 2-1.1, 2-1.5, 2-1.6, 2-1.11, 2-1.12, 2-3.1, 2-5, 3-1.1, 3-1.2, 3-1.3, 3-1.4, 3-1.5, 3-1.7, Annex III-A, Annex III-B, and other ED-112A requirements related to installation, flight testing, and aircraft maintenance.

The table below lists recorder types and the ED-112A section or part with the MPS for each:

Table 1. CIR MPS Requirements

CIR Type	ED-112A Reference
Single CIR	Section 2 and Part III
CIR function in a deployable recorder	Section 2, Section 3 and Part III
CIR function in a combined recorder	Section 2, Section 4 and Part III

Note : a CIR article may cover multiple types. A CIR may be a combined CIR and may also be deployable, in which case the applicable MOPS are in Sections 2, 3, 4 and Part I, following the table above.

3.1.2 - Environmental Standard

See CS-ETSO, Subpart A, paragraph 2.1

3.1.3 - Software

See CS-ETSO, Subpart A, paragraph 2.2

3.1.4 Airborne Electronic Hardware

See CS-ETSO, Subpart A, paragraph 2.3

3.2 - Specific

3.2.1 - Failure Condition Classification

See CS-ETSO, Subpart A, paragraph 2.4.

Failure of the function defined in paragraph 3.1.1 of this ETSO is a minor failure condition.

Loss of the function defined in paragraph 3.1.1 of this ETSO is a minor failure condition.

Note: The failure classification requirement is driven by the use of recorders in accident investigations.

4 - Marking

4.1 - General

Marking is detailed in CS-ETSO, Subpart A, paragraph 1.2.

4.2 - Specific

4.2.1 - Lettering Identification

The equipment shall comply with the identification requirement in EUROCAE ED-112A, Section 2-1, paragraph 2-1.16.3.

5 - Availability of Referenced Document

See CS-ETSO, Subpart A, paragraph 3.