

CERTIFICATION

Informs...

An INFORMATION Bulletin from CSA International

Ref No: I03-026

Date: July 11, 2003

AUDIO AND VIDEO EQUIPMENT NO. 17

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New Certification Program for External Power Supplies for Use with Audio/Video Equipment

See Attachment 1 for affected Class Numbers

Who is affected?

Manufacturers of Audio, Video and Similar Electronic Equipment and External Power Supplies

What do you do?

1. Contact your CSA engineer for information concerning the changes and how they apply to you.
2. CSA has attached an application for evaluation of your products to these Program requirements in case you decide to proceed with the evaluation of your power supplies.
3. Please return the application at your convenience, to your CSA engineer with appropriate supporting documentation* and samples (if needed)

*Technical information as well as company name, address, factory locations and CSA file number or master contract number (if assigned) when applying.

Background and Rationale:

- Announcement of publication T.I.L. I-41, External power supplies for use in the above equipment.
- At the request of industry the attached T.I.L. I-41 contains technical requirements for external power supplies that will be used with audio/video and related electronic equipment.
- Power supplies evaluated for use with audio/video and related electronic equipment will be listed under Class numbers 2221 01 and 2221 81
- CSA can issue a CB Certificate for the power supply

Need additional technical information?

Contact Mr. Eng Yap
by phone (604) 244-6645, fax (604) 244-6600 or
e-mail eng.yap@csa-international.org

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Power Supplies
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ATTACHMENT 1

Affected Class Numbers

- 2221 01 AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for Electronic Products
- 2221 51 AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for Electronic Products
- 2221 81 AUDIO AND VIDEO EQUIPMENT - Accessories and Parts for Electronic Products - Certified to US Standards
- 5311 01 POWER SUPPLIES Direct Plug-In, Class 2
- 5311 02 POWER SUPPLIES Cord-connected, Class 2
- 5311 81 POWER SUPPLIES Direct Plug-In, Class 2 - Certified to US Standards
- 5311 82 POWER SUPPLIES Cord-connected, Class 2 - Certified to US Standards

TECHNICAL INFORMATION LETTER NO. I-41

Product Group: Audio and Video

Date: July 11, 2003

Issued by: Eng Yap

EQUIPMENT: Audio/Video and Similar Electronic Equipment

ITEM: External power supplies for use in the above equipment.

NOTE: This Technical Information Letter (T.I.L.) does not cover Power Supplies intended for use with Toys.

STANDARDS:

- CAN/CSA-E60065-00 - Audio, Video and Similar Electronic Apparatus – Safety Requirements
- CAN/CSA-C22.2 No. 223-M91 - Power Supplies with Extra-Low-Voltage Class 2 Outputs

Background and Rationale

Traditionally, external power supplies e.g. AC/DC adapters (either direct plug-in or cord-connected) are certified to Standard CAN/CSA-C22.2 No. 223. This standard requires that the power supply output(s) to be classified as Class 2, and may be used with any type of end-use product.

Class 2 outputs are limited to values as per the table below:

Accessible Limits	Open-Circuit Secondary Voltage	Maximum Output Current and Power
CAN/CSA-C22.2 No. 223-M91 (R1999)	30 V rms (42.2 V peak or DC)	8 A, 100 W

The evaluation and acceptance of these types of power supplies by CSA using CAN/CSA E60065 was restricted in the past to specific applications as components for audio/video and similar electronic equipment.

At the request of industry, CSA International developed this T.I.L. No. I-41 to announce the technical requirements for external power supplies, that will be used only with any audio/video and related electronic equipment.

Effective Date: Immediately

Requirements

Acceptance of external power supplies for use with audio/video equipment is based upon compliance with the relevant requirements of CAN/CSA-E60065-00 and the following additional requirements.

A) Marking

Power Supply will be provided with the additional permanent marking: "For Use only with A/V Equipment" or equivalent.

B) Maximum Output Voltage And Maximum Output Current and Power (CAN/CSA-C22.2 No. 223-M91 (R1999))

1. Objective: The purpose of this test is to ensure that the open circuit secondary voltage does not exceed 30 V rms or 42.4 V peak or dc and that the maximum output current and power do not exceed the specified limits.
2. Test Methods:
 - a) Open Circuit Output: Clause 6.2.1
 - b) Rated Input/Output: Clause 6.2.2
 - c) Maximum Output Current and Power: Clause 6.2.4 and Table 4

C) Over-current Protection (CAN/CSA-C22.2 No. 223-M91 (R1999))

1. Objective: The purpose of the over-current protection test is to ensure that the Class 2 non-energy limiting characteristic is met.
2. Test Methods: Clause 6.2.4.3 and Table 5.

Notes:

- 1) *External Power Supplies not complying with the requirements of CAN/CSA-C22.2 No. 223-M91 (R1999) may be evaluated as part of a complete system to CAN/CSA-E60065-00.*
- 2) *For the USA, corresponding references are:
UL 6500-99 and UL 1310, pages 26-29.*
- 3) *CSA can issue a CB Certificate or provide other assistance to gain approvals in other countries.*