

Standards and Certification of Radio Apparatus and Electronic Equipment Used in Canada

Aussi disponible en français :

*La normalisation et l'homologation des appareils radio
et dispositifs électroniques utilisés au Canada*

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Who should read this booklet?

This booklet provides helpful information for people who manufacture, import, distribute, lease, offer for sale, or sell **in Canada** any radio apparatus, interference-causing equipment or radio-sensitive equipment. It outlines certification and compliance procedures to ensure that this equipment meets Industry Canada's technical standards.

Equipment imported or manufactured in Canada for export to other countries is not subject to the standards and certification procedures described in this booklet.

Why is the information in this booklet important?

Canada's *Radiocommunication Act* and *Radiocommunication Regulations* state that manufacturers, importers, distributors and sellers of radio apparatus, interference-causing equipment or radio-sensitive equipment have three responsibilities:

- They must make sure that the equipment they provide meets all the technical standards that are required in Canada for that type of equipment.
- They must obtain a Technical Acceptance Certificate (TAC) if it is required for that type of equipment.
- They must ensure that all equipment is labelled to show that it meets the applicable standards.

Individuals and corporations that do not comply with the Regulations may face charges under the *Radiocommunication Act*. An individual may be fined up to \$5,000 and/or face one year in prison. Corporations can be fined up to \$25,000.

The Act also states that any officer, director or agent of a corporation who participated in an offence committed by that corporation is liable to the same punishment (fine and/or jail term) as an individual who is found guilty under the Act.

Why are standards and certification necessary?

Technical standards for radio equipment help to:

- Ensure electromagnetic compatibility between radio apparatus and services such as: broadcasting, air traffic control, security services and communications with satellites.
- Minimize interference between radio apparatus and equipment that is not radio-based.
- Improve the quality of equipment offered for sale in Canada.

Certification of equipment for use in Canada guarantees that:

- The equipment meets the technical requirements under Canada's *Radiocommunication Regulations*. Certified equipment also meets the regulations of the International Telecommunication Union (ITU) of which Canada is a member.
- The requirements and standards for specific types of equipment are the same for all manufacturers and importers of radio apparatus.
- The use of spectrum efficient radio devices is encouraged. Greater efficiency in spectrum use allows a greater number of Canadians to benefit from radiocommunication services.

How was the certification process established?

Canada's *Radiocommunication Act* permits technical requirements and standards to be set for radio apparatus, interference-causing equipment, and radio-sensitive equipment. Under the Act, the Minister of Industry may issue Technical Acceptance Certificates for approved products.

The Act states that no person shall manufacture, import, distribute, lease, offer for sale or sell any radio apparatus, interference-causing equipment or radio-sensitive equipment **unless**:

- Equipment for which a Technical Acceptance Certificate is required, must meet all of the certification requirements;
- Apparatus or equipment for which technical standards have been established, must comply with those standards.

Industry Canada consulted with representatives of the radiocommunication industry to develop the *Radiocommunication Regulations*. To respond to industry's request for control over sub-standard equipment, the Regulations now give responsibility to the manufacturer, importer, distributor or seller of radio apparatus or equipment to ensure that it meets all applicable technical standards.

Industry Canada's Spectrum Management program (called the Department in this booklet) has overall responsibility for setting standards, certifying that radio apparatus and equipment meet these standards, and enforcing the Act and Regulations.

What equipment is covered by standards?

Standards can apply to the following types of equipment:

- *Radio apparatus* –
A device or combination of devices intended for, or capable of being used for, radiocommunication (includes a broad range of equipment from remote car alarms to high-powered broadcast transmitters).
- *Interference-causing equipment* –
Any device, machinery or equipment, other than radio apparatus, that can cause interference to radiocommunication (includes digital equipment that uses a microprocessor or microcontroller, and Industrial, Scientific and Medical equipment such as switching power supplies used in halogen lamps).
- *Radio-sensitive equipment* –
Any device, machinery or equipment, other than radio apparatus, that can be adversely affected by radiocommunication emissions (includes consumer electronics and industrial controls).

Two categories of equipment have been defined:

Category I equipment must meet technical standards and requires a Technical Acceptance Certificate (TAC). The following equipment is included in Category I: broadcasting transmitters, portable radio transmitters, digital scanner receivers, cellular phones, remote car alarms and starters, garage door openers and wireless computer links.

Category II equipment must meet technical standards but does not have to be certified. The following equipment is included in Category II: electronic transformers or ballasts, alarm keypads, intelligent battery chargers, satellite TV receivers, VCR's and computers.

How do you find out what standards apply?

Industry Canada publishes the lists of standards that apply to Category I and Category II equipment in the *Canada Gazette*.

These lists are available on our Internet site at the following address:

<http://strategis.ic.gc.ca/spectrum>

What are the procedures for certification and compliance?

Requirements that apply to both Category I and Category II equipment:

Maximum number

The maximum number of units that may be manufactured or imported without a TAC or without compliance to the standard, is one more than the number listed in the standard for that type of equipment.

Testing

The Department may test, or request that the manufacturer or importer test, the equipment at any time in order to ensure compliance with applicable standards.

Labels

Equipment certified to comply with applicable standards and/or for which a TAC has been issued must be labelled according to the requirements set out in the Industry Canada standards which apply to that equipment.

These requirements do not prevent labelling the product for other purposes or pursuant to other legislation.

You may not:

- remove, replace or alter a label that has been attached as required by the applicable standards; or
- mark, label or otherwise indicate how to modify equipment so that it will not comply with applicable standards.

Additional requirements for Category I equipment

A person who manufactures, imports, distributes, leases, offers for sale, or sells a piece of equipment in Category I must apply to Industry Canada for a Technical Acceptance Certificate (TAC). The applicant must demonstrate that the model (or models) of equipment meet all the required standards. A report showing the results of all tests performed on the equipment must be submitted to the Department with the TAC application.

Applicants must follow the procedures outlined in Radio Standards Procedure 100 (RSP-100), *Radio Equipment Certification Procedure*, or in Broadcasting Equipment Standards Procedure 100 (BESP-100), *Certification of Broadcasting Equipment*.

Industry Canada may issue a TAC for a specific model of equipment or for several models that have similar technical characteristics.

Applicants may choose to submit the equipment directly to the Department's certification branch for testing and issuance of a TAC.

Special Considerations

New Models – The TAC number can **only** be used on the model of equipment that was tested and approved. If the holder of a TAC wants to produce a new model of equipment that possesses similar technical characteristics to a previously approved model, that person must submit a request to the Department to list the new model under the same TAC number. If the request is approved, the new model will be added to the radio equipment list published by the Department. This process is called "Family Approval".

New Manufacturers – The TAC number can **only** be used by the company that received the approval. If a different company wants to market equipment for which a TAC has been issued, it will have to apply to the Department for approval. The applicant must include an authorization from the holder of the current TAC with the request. If the request is accepted, the Department will issue a new TAC number for the new manufacturer. This process is called "Multiple Listing".

Changes to the Equipment – The TAC can **only** be used for the specific model or models of equipment for which it was issued. If the equipment is modified in such a way as to affect any parameter specified in the standard under which the equipment was certified, the modified equipment is no longer considered to be certified and requires testing to ensure that it complies with the applicable standard.

FCC Standards – Industry Canada wants to reduce the burden on manufacturers and importers and to expedite the process of certification in Canada. As a result, the Department will accept reports that show equipment complies with the U.S. Federal Communications Commission (FCC) standards. However, the applicant must indicate how FCC standards compare to Canadian standards for this equipment. Where there are differences between the technical standards of Industry Canada and the FCC, supplementary test results will be required.

Pre-November 1996 – Approvals issued by Industry Canada before November 1996 are still valid as long as the approved equipment is labelled according to the requirements and standards in effect when the equipment was approved.

Additional requirements for Category II equipment

The manufacturer or importer of Category II equipment must ensure that it meets all the required standards for that type of equipment. Testing must be carried out as necessary. Test results must be made available to Industry Canada if the Department requests this information. The standards published in the *Canada Gazette* show the period of time for which test results must be made available.

Where can you get more information?

Reference:

Radio Standards Procedure 100 (RSP-100), *Radio Equipment Certification Procedure*.

Broadcasting Equipment Standards Procedure 100 (BESP-100), *Certification of Broadcasting Equipment*.

Associated documents are available on our Internet site at:
<http://strategis.ic.gc.ca/spectrum>

Contacts:

For more information, contact the nearest Industry Canada Spectrum Management office.