

CSA Approval

Product Listing (For Use in Hazardous [Classified] Locations)

Manual Supplement For TK-2180 & TK-3180 Kenwood CSA Approved Radio Models

Intrinsically Safe (I.S.)/ Non-Incendive (N.I.) CSA Approval labels are attached to the portable radio to identify the unit as being CSA Approved for specified hazardous atmospheres.

The label specifies the hazardous Class/Division/Group along with the Kenwood battery pack model number(s) that must be used.

The Approval mark is as shown



The hazardous location ratings are divided into Class, Division, and Group to indicate the existence of flammable gases or vapors, ignitable dust, fibers, or filings under normal or unlikely conditions of operation.

These TK-2180 & TK-3180 Kenwood portable transceiver models when properly equipped with the approved battery pack(s) listed in the Batteries list are CSA approved by Canadian Standards Association as intrinsically safe for use in Classes I, II, and III, Division 1, Groups C, D, E, F, G, and are also approved for non-incendive use in Class I, Division 2, Groups A, B, C, D hazardous locations.

WARNING: - EXPLOSION HAZARD - IN CL I DIV 2 GRPS A & B, KENWOOD CARRYING CASE KLH-75C/76C MUST BE USED.

Note:

- The following radios and accessories are approved as intrinsically safe/ non-incendive by CSA.
- Refer to the radio label for intrinsic safety/ non-incendive ratings and required battery pack(s).
- Only the accessories listed may be used on CSA approved radios. Use of a non approved accessory or battery on an I.S./ N.I. radio is potentially dangerous, and voids the Approval.

Radio Models

TK-2180 VHF TK-3180 UHF

Battery Pack(s)

KNB-41NC

Accessories**Antennas**

KRA-22M	VHF Low-profile helical antenna 148-162 MHz
KRA-22M2	VHF Low-profile helical antenna 162-174 MHz
KRA-22M3	VHF Low-profile helical antenna 136-150 MHz
KRA-23M	UHF Low-profile helical antenna 450-490 MHz
KRA-23M3	UHF Low-profile helical antenna 403-430 MHz
KRA-25	VHF High-gain antenna 148-162MHz
KRA-26M	VHF helical antenna 146-162 MHz
KRA-26M2	VHF helical antenna 162-174 MHz
KRA-26M3	VHF helical antenna 136-150 MHz
KRA-27M	UHF whip antenna 440-490 MHz
KRA-27M2	UHF whip antenna 470-520 MHz
KRA-27M3	UHF whip antenna 400-450 MHz
KRA-28	VHF Helical Broadband Antenna 140-170 MHz

Carrying Accessories

KBH-10	KBH-11	KBH-8DS	KLH-75C	KLH-76C
KLH-3SW	KWR-1			

Microphones, Earphones and Headsets

Hurricane V4-HC2KB1/ Otto	KCT-30	KEP-1	KEP-3
KEP-4	KHS-11	KHS-12	KHS-14
KMC-25	Lightsword V2-D2KB111/ Otto		

Optional Internal Modules

CAE-3	KCT-47	KW21/ Transcrypt	QE-2
SC20/ Transcrypt	VGS-1		

Important Safety Information for Intrinsically Safe/ Non-Incendive Radios

This leaflet contains safety information and recommendations that must be complied with in order to guarantee safe function of the radio under conditions Kenwood recommends. Non compliance with these safety recommendations and instructions may have dangerous consequences, infringe regulations or void the safety certification.

Please read this leaflet very carefully before using the radio.

For operating this radio in a location where hazardous concentrations of flammable materials exist, users are advised to be familiar with the subject of intrinsic safety and with the Section 18 (Hazardous Locations) and Appendix J of the Canadian Electrical Code, Part I, C22.1-02.

CSA Approved Radios

The radio and battery pack with a CSA Approval label is identified as being CSA Approved for specified hazardous atmospheres. This label specifies the hazardous Class/Division/Group(s) along with the battery pack(s) part or model number(s) specified by Kenwood that must be used. The Exi in CSA label means "Intrinsically Safe". The CSA label is located on the back of the radio chassis under the battery pack and on the bottom of the battery pack. The CSA Approval Mark is shown above.

The transceiver conforms to intrinsically safe ratings of the CSA

- Intrinsically safe: Class I, II, III, Division 1, Groups C, D, E, F, G
- Non-incendive: Class I, Division 2, Groups A, B, C, D
- Approved battery pack: Kenwood KNB-41NC
- Temperature Code: T3C at Ta = -30°C to +60°C

Safety Regulations

When using the radio the user is required to follow the usual safety advice to prevent any dangerously unsafe situations.

- 1) Do not use the radio with any battery or accessories or options in a hazardous atmosphere unless they are specifically certified (for example CSA Approved) for such use. An explosion or fire may result.
- 2) Do not open or disassemble the radio in a hazardous atmosphere. An explosion or fire may result.
- 3) Only Kenwood battery pack model KNB-41NC must be used with this Approved radio in a specified hazardous location. Any other battery pack may cause an explosion or fire.
- 4) Do not use the radio with batteries, accessories or options in a hazardous atmosphere if they have been physically damaged. An explosion or fire may result.
- 5) The battery must be changed only in a non-hazardous location. Contact sparking may occur while installing or removing the battery and an explosion or fire may result.
- 6) To prevent ignition of a hazardous atmosphere, batteries must only be charged in an area known to be non-hazardous. Battery Chargers are not CSA Approved product and are not to be brought into or used in a hazardous location.
- 7) Do not disconnect, replace or change accessories or options in a hazardous atmosphere. Contact sparking may occur while installing or removing accessories or options and an explosion or fire may result.
- 8) Do not connect to other equipment or apparatus approved for zones. This will void the Approval rating of the radio.
- 9) You must ensure that this radio is not taken into Class I, Division 1, Group A, B or Class I, Zone 0 hazardous locations.
- 10) Do not disassemble a CSA approved intrinsically safe product in any way that exposes the internal circuits.
- 11) Do not repair or modify a CSA approved product in any way that will void the Approval rating of the product.
- 12) Do not modify the labels attached to the radio, battery or accessories, or re-label the radio. This action may affect the Approval rating of the radio and result in a dangerously unsafe condition.
- 13) Do not substitute the components in the radio. It may impair intrinsic safety and the suitability for Class I, Division 2.
- 14) Do not substitute accessories or options not specified by Kenwood. It may impair intrinsic safety and the suitability for Class I, Division 2. ^[1]
- 15) Do not attempt to repair the radio or accessories. This may impair and therefore void the intrinsic safety/ non-incendive rating. CSA approved product may be repaired only by a Kenwood Authorized Service Center.
- 16) Battery packs are not repairable, and therefore must be recycled or otherwise safely disposed in accordance with local regulations.
- 17) Use KLH-75C/76C carrying case when operating the radio in Class I, Division 2, Groups A & B hazardous locations.

Note: ^[1] CSA tested and certified Kenwood communications equipment consists of the portable transceiver, battery pack, and any accessories or options as a system. This portable radio and battery combination must be strictly observed. There must be no substitution of items, even if the substitute has been previously approved with different Kenwood communications equipment. Approved configurations are listed in the Product Listing (For Use in Hazardous [Classified] Locations) that was included with your radio.