



AUSTRALIAN RAIL TRACK CORPORATION

STANDARDS and SYSTEMS

Engineering Standards and Documents

The following recommendation, together with attached supporting documentation, has been considered by the ARTC Manager Standards on 24th December 2007.

Documents:

Ref No:	08-08-10-086 - Equipment Type Approval
Subject:	'Safetran' Electronic Highway Crossing Bell
Dated:	15 th October 2007.

Prepared By: Arthur Haberlin, Signalling Engineer
Endorsed by: Trevor Moore, Signalling Standards Engineer

Items Considered for Approval:

Manufacturer:	SAFETRAN Systems (Invensys)
Product:	Electronic Highway Crossing Bell
Item Identification:	No. 80301-0002 (Loud) – preferred No. 80301-0004 (Soft)

The items in the form presented at the review date were approved for System & Equipment Approval to be used on all ARTC jurisdictions in accordance with the manufacturers published performance criteria and subject to the following.

Relevant ARTC Specifications:

Ref. No.	Title	Status	Date
SPS 02	Environmental Conditions	Issue 1 Revision 2	May '05
SPS 05	Electrical and Electronic Components (Ratings & Construction Requirements)	Issue 1 Revision 2	May '05
SC 03 01	Level Crossing Equipment	Issue 1 Revision 2	Nov '05

Specific Conditions of Approval:

- i.** For use in accordance with ARTC standard typical circuits as adapted for the application of the E-bell only.
- ii.** Power feed for the electronic bell must be derived from a supply bus bar which is positively limited to 15v maximum.
- iii.** Where required, due to remote monitoring equipment connections made in equipment location or hut, the inductance to be inserted between monitor connections and power feed busbar shall be at least 250 μ H @ 1kHz (DC resistance <0.25 Ω). (Vishay Dale type IHA-204 is an approved example).
- iv.** Maintenance schedules for sites with these units installed shall include requirements to visually inspect the sound output apertures and audible inspection from all road approaches.
- v.** The supplier's catalogue item number 80301-0002 (loud sound) is the preferred component, catalogue item number 80301-0004 (soft sound) also approved for use in locations where reduced sound levels are required.

Certificate Issued to:

Westinghouse Rail Systems
Australia
179-185 Normanby Road
South Melbourne
Victoria 3205

A general condition of approval is that the supplier remains accredited to ISO 9001 specifically for these products and ARTC is advised on a 12 monthly basis that accreditation is current. ARTC reserves the right to conduct its own audit of the manufacture and supply of these components to AS 19011:2003.

Any subsequent change to the design, materials or manufacturing process is not covered by this approval.

Approved for use in the ARTC



John Furness
Manager Standards

APPROVAL No: 08-08-10-086

Approval Date: **24th December 2007**