

Store 74 Battery Charger Resonating Capacitors

ESI-09-01

Applicability

ARTC Network Wide
SMS

Publication Requirement

Internal / External

Document Audience & Main Points

Audience	Main Points
Maintenance, Construction and Logistics Personnel	<ul style="list-style-type: none"> Some types of Store 74 Resonating Capacitors are a fire risk. The Exelectronics Store 74 Level Crossing Battery Charger is not to be installed in any new level crossing locations until further notice.

Document Status

Version #	Date Reviewed	Prepared by	Reviewed by	Endorsed	Approved
1.0	22 Sep 15	Signals Standards Engineer	Signalling & Engineering Compliance Manager, Hunter Valley	Manager Standards	GM Technical Standards 23/09/2015

Amendment Record

Amendment Version #	Date Reviewed	Description of Amendment
1.0	22 Sep 15	First issue of engineering instruction.

1 Scope

This instruction is for all Maintenance, Construction and Logistics Personnel. It applies to all installed and stocked Store 74 Battery Chargers.

2 Background

Smoke was observed coming from a Store 74 Battery Charger during a past failure. The Battery Charger door was opened and a fire started in the charger. The fault, smoke and fire were the result of a failed resonating capacitor in the Store 74 Battery Charger.

The original capacitors are no longer available and substitute capacitors have caused problems and failed.

The construction of the battery charger has also changed with the Series 4 units relocating the capacitors away from the resonating inductor.

Figure 1: Capacitor failure and fire in Store 74 battery charger.





Figure 2: Failed resonating capacitor. Front and back.

2.1 Actions

During the next scheduled signal inspection of Level Crossing warning equipment the Signal Technician or approved signal staff is to:

1. Open the Store 74 Battery Charger and visually examine the resonating capacitors.
2. If either capacitor shows signs of being affected by heat or other damage, this is to be reported to the signal engineer. The supplier Exelectronics is to be contacted for replacement capacitors.

Details of the failed capacitors are to be recorded on the Signals Standards SharePoint > Signals Equipment Failures section. Details to include the equipment serial number and photos of the damage.

3. The replacement capacitors are to be fitted and the Store 74 Battery Charger tested for correct operation.

2.2 Precautions

The Exelectronics Store 74 Level Crossing Battery Charger is not to be installed in any new level crossing locations until further notice. Alternate approved equipment may be advised by the Signals Standards Engineer.