

Cellocator Power Surge Protector

Product Overview



Cellocator Division
Pointer Telocation Ltd.

Proprietary and Confidential

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POINTER



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1 Introduction

1.1 Scope and Purpose

The purpose of this document is to describe the features and capabilities as well as the installation of the **FL0014 External Power Surge Suppressor Cello/CR200**. It is intended for service providers' managers, customer support, and sales personnel.

1.2 Abbreviations

| Abbreviation | Description |
|--------------|-------------|
| | |
| | |
| | |

1.3 References

All the reference documents listed in the following table can be downloaded from the Knowledge Base section of the Cellocator website (www.cellocator.com).

| # | Reference | Description |
|----|-----------|-------------|
| 1. | | |
| 2. | | |

1.4 Revision History

| Version | Date | Description |
|---------|------------|-----------------|
| 1.0 | 10/03/2013 | Initial version |

2 Product Description

2.1 Overview

The **FL0014 External Power Surge Suppressor Cello/CR200** provides adequate protection against exceptional electrical disturbances in the vehicle environment. It should be applied between the vehicle's power source and the Protected Device whenever one of the conditions described below is applicable or when the native compliance of Cellocator devices with E-Mark standards for aftermarket ESA (ISO-7637 pulse type 1-4) is insufficient for some other reasons. It was designed to protect all Cellocator's units.

It is recommended to use it in vehicles where extreme electrical disturbances are expected. Possible scenarios are:

- ◆ Vehicles with poor voltage regulation systems.
- ◆ Whenever there is a doubt about the vehicle voltage disturbances.
- ◆ When there is a connector between the protected device and the power source with frequent connections and disconnections (like in a Truck / Trailer), the protection circuit should be installed between the connector and the device.

2.2 Features

- ◆ Low cost
- ◆ Convenient, easy installation
- ◆ Compatible with Cello and CR200 Families.
- ◆ ISO-7637 immunity standards compliant

2.3 Wire description



The Power Surge Protector input wires are short and thick:

- ◆ The Input VCC (+) wire is **red**.
- ◆ The Input GND (-) wire is **black**.

The outputs wires are long and thin:

- ◆ The Output VCC (+) wire is **red**.
- ◆ The Output GND (-) wire is **black**.



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3 Installation instructions

The Input GND (-) wire should be connected to the car ground or car battery (-).

The Input VCC (+) input should be connected to car 12/24V source or battery (+).

The Output GND (-) should be connected to the Protected device GND (-) input.

The Output VCC (+) should be connected to the Protected device VCC (+) input.

NOTES:

1. Incorrect connections may lead to malfunction and damage.
 2. The Power Surge Protector should be installed in addition to the required fuse.
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4 Technical Specifications

| Electrical Ratings | Value |
|---|---------------|
| Operating voltage range | 8v-36v |
| Operating Temperature | -40°C to 70°C |
| Provides immunity for pulses according to ISO-7637-2:2011 | Full |
| Provides immunity according to ISO-16750- Load Dump pulse | 90v |
| Maximum momentary reverse voltage protection | 600v |
| Maximum short term output | 36v |
| Maximum self current consumption | 2mA |
| RoHS Compliant | yes |
| Wires specification | Value |
| Input wires dimensions | 10 cm, 20 AWG |
| Output wires dimensions | 50 cm, 16 AWG |
| UL 1015 compliant | yes |