

Technical Note

Subject: **User Manual and instructions for the EU & US Telecell**

Date: 29 Oct 2014

Document ref: 6LT041 05

Intentionally Blank

Telesa

Telecell 2 User Manual

Contents

- CONTENTS.....3
- 1 OPERATIONAL SAFETY NOTICES.....4
- 2 TELECELL VARIANTS.....4
- 3 SPECIFICATIONS4
 - 3.1 EU TYPE PRODUCTS, T2E.....4
 - 3.2 US TYPE PRODUCTS, T2A.....4
 - 3.3 NOTES ON DIMMING CONTROL OUTPUTS.....5
- 4 INSTALLATION INSTRUCTIONS5
 - 4.1 DIMMING CONTROL TELECELL.....5
 - 4.2 STANDARD (NON DIMMING) TELECELL.....5
- 5 TELECELL CONNECTION DIAGRAMS6
- 6 NOTICES FOR PRODUCTS OPERATED IN THE USA & CANADA.....9

1 Operational Safety Notices

Installer

Installers must be suitably trained and qualified for electrical work, according to the laws and local codes for the locality and country where the unit will be installed.

This unit must only be installed by personnel that have been trained by Telensa or their representatives to carry out this work.

Power Supply

In the case of field installation the supply voltage present on the luminaire NEMA socket is hazardous and all necessary precautions must be taken to ensure the safety of the installer. Isolate the supply to the NEMA socket before removing an old photocontrol, or installing the telecell.

2 Telecell Variants

There are two variants of the Telecell 2 model; dimming control and standard / non-dimming control. Dimming control products are identified by the text “0-10V & DALI” on the product label.

Telecell products are built and supplied to either the EU or US standards:

EU product part numbers start with: T2E... US part numbers start with T2A...

The products are supplied with NEMA pin connections for insertion into the photocell socket on top of a luminaire.

3 Specifications

3.1 EU Type Products, T2E...

Electrical Parameters:	Supply voltage:	100 - 253 VAC, 50-60Hz
	Maximum switching current:	10A
Radio:	Transmit Power:	25mW EIRP, <1% transmit duty cycle.
	Operating band:	868MHz license free ISM band
Operating Temperature:	NEMA variants:	-40 to 70 °C Ambient

3.2 US Type Products, T2A...

Electrical Parameters:	Supply voltage:	100 - 277 VAC, 50-60Hz
	Maximum switching current:	10A
Radio:	Transmit Power:	100mW EIRP
	Operating band:	915MHz license free ISM band
Operating Temperature:	NEMA variants:	-40 to 70 °C Ambient

3.3 Notes on dimming control outputs

These notes apply to products with the integrated dimming control function:

- Suitable for use with dimmable ballasts with an isolated or non-isolated control input
- DALI or 0-10V control mode is configured over the air by the Telensa Central System
- 0-10V control requires the normally fitted internal pull-up resistor in the ballast
- DALI control includes the DALI supply function within the telecell and is suitable for controlling from one to three dimmable ballasts.

4 Installation Instructions

Instructions for the installation of each of the different variants of Telecell are given below. Figure 2 shows a wiring diagram for a standard lamp with a non-dimmable ballast. Figure 3 shows dimming control using a dimmable ballast.

4.1 Dimming Control Telecell

This product will ONLY control a lamp that incorporates a 5 or 7 pin NEMA socket compliant with ANSI C136.41 2013.

Insert unit into NEMA socket on street light ensuring the largest tab on the unit places into the largest tab recess on the NEMA socket on the street light. Turn by hand clockwise typically 30 degrees to lock in place.

4.2 Standard (non dimming) Telecell

Insert unit into NEMA socket on street light ensuring the largest tab on the unit places into the largest tab recess on the NEMA socket on the street light. Turn by hand clockwise typically 30 degrees to lock in place.

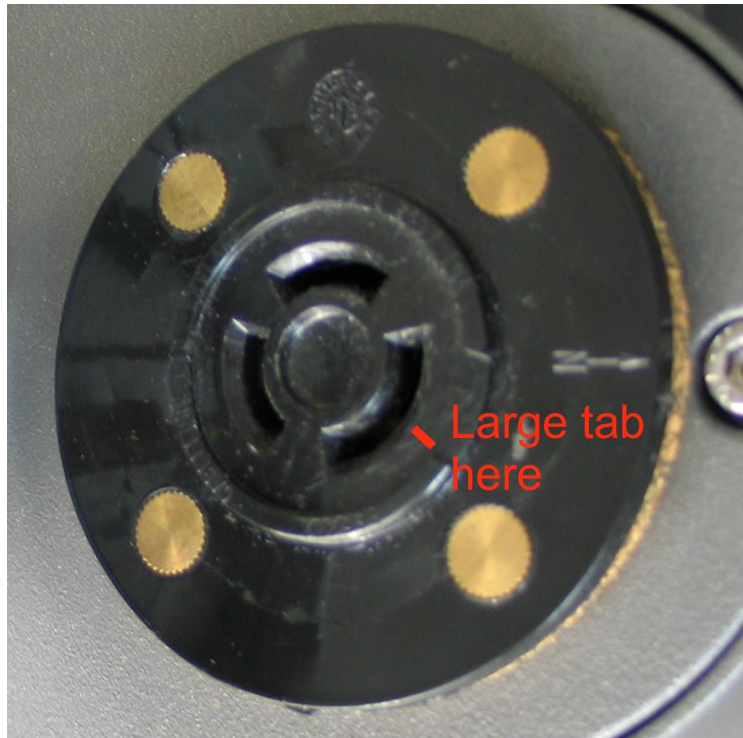


Fig 1: Example NEMA socket showing alignment

5 Telecell Connection Diagrams

Refer to figures 2 and 3 overleaf.

Colour code	Function	Notes
Brown	LIVE/LINE in	
Blue	NEUTRAL in	
Red	LIVE switched out	Relay switched inside telecell
Violet	+ Dimmer control	Integrated dimming function telecells only. DALI control is not polarity sensitive.
Grey	- Dimmer control	

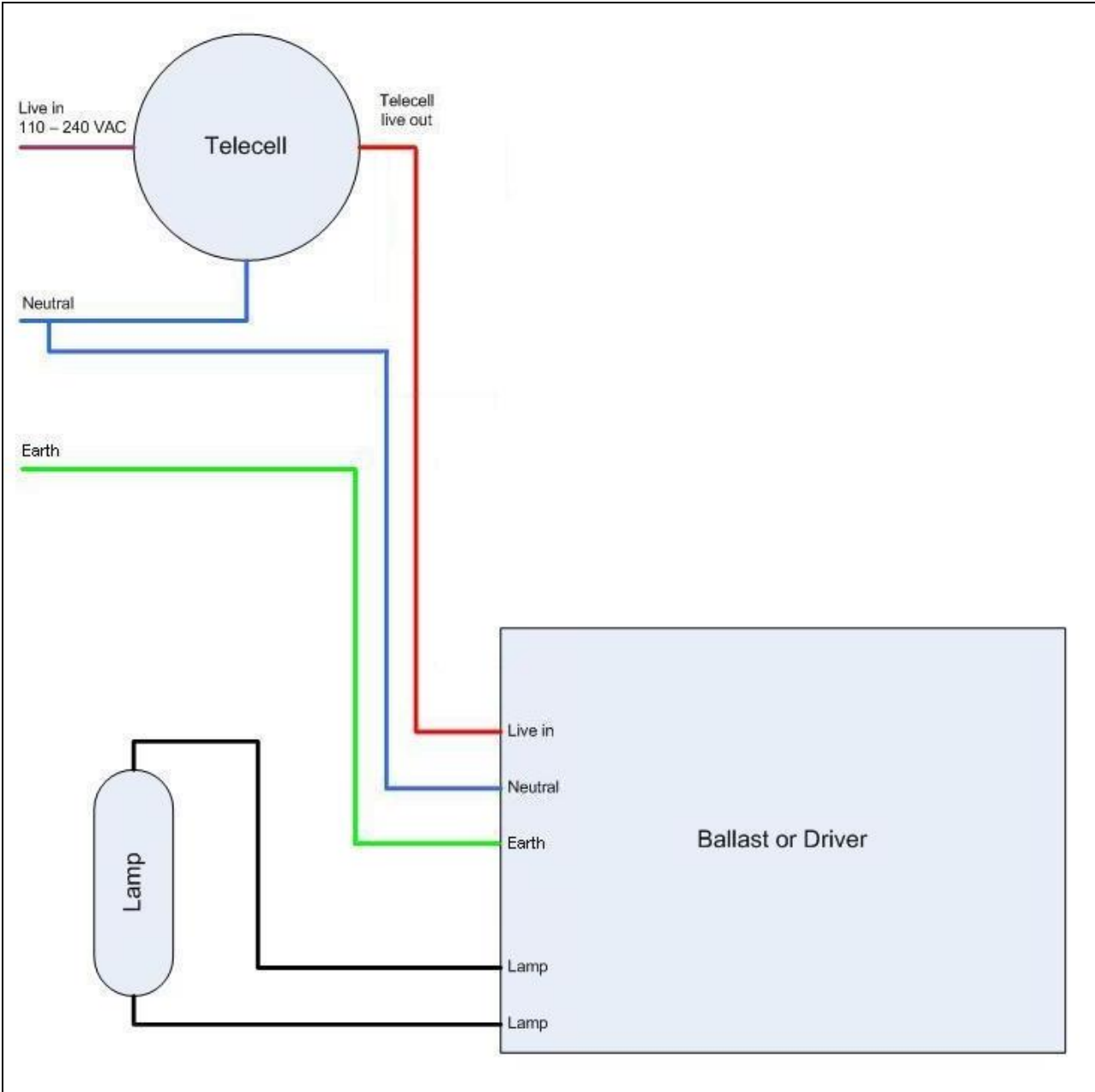


Figure 2: Wiring Diagram for Telecell - No Dimming Function

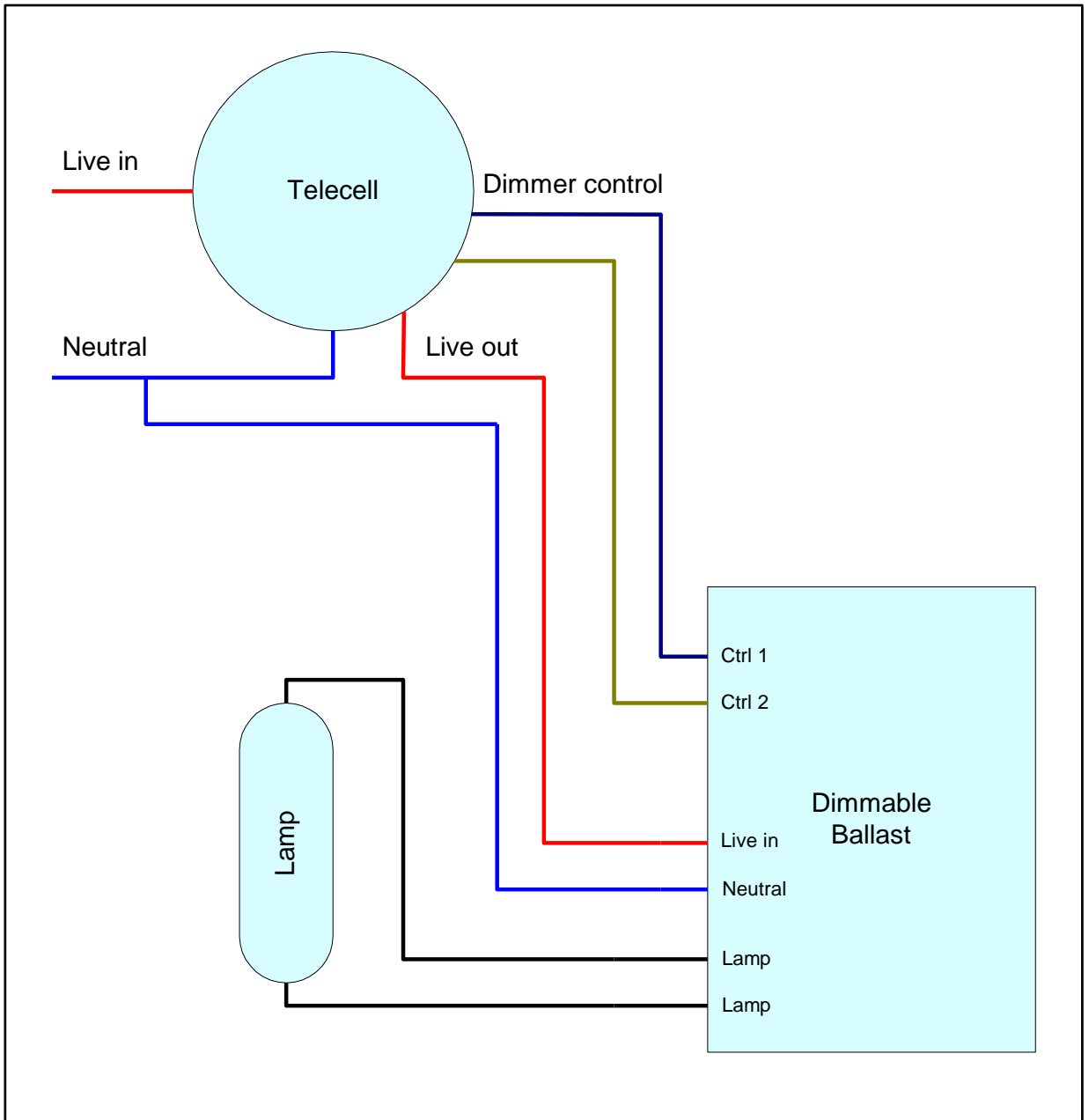


Figure 3: Wiring Diagram for Integral Dimming Control Telecell

6 Notices for products operated in the USA & Canada

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a class B digital device, pursuant to Part 15 of FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Consult a dealer or an experienced radio/TV technician for help.

Note that no changes shall be made to the equipment without the manufacturer's permission as this may void the user's authority to operate the equipment.

This transmitter must not be co-located or operated with any other antenna or transmitter

This device complies with Part 2.1091 of the FCC Rules for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and your body.

This device complies with RSS-310 of Industry Canada. Operation is subject to the condition that this device does not cause harmful interference.