



P/N 030-872-12

Universal Electronic Dimmer

RNSU-452 (Dimmer): Rated at: 220–240 V~ 50/60 Hz 50–450 W/VA
RISU-452 (Dimmer with IR Receiver):
 220–240 V~ 50/60 Hz 50–450 W/VA

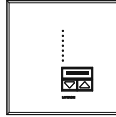
Compatible load types:
 Incandescent, Magnetic and
 Electronic Low-Voltage



Incandescent Electronic Dimmer

RNSI-452 (Dimmer): Rated at: 220–240 V~ 50/60 Hz 40–500 W
RISI-452 (Dimmer with IR Receiver):
 220–240 V~ 50/60 Hz 40–500 W

Compatible load types: Incandescent



Important Notes

Please read before installing.

- Caution:** To avoid overheating and possible damage to other equipment, do not use to control power outlets, fluorescent lighting fixtures, motor-operated or transformer-supplied appliances.
- For new installations, test the circuit with a conventional switch before installing Dimmer.
- Turn off power at consumer unit (fuse box) and turn off MCB or remove fuse before performing any installation work or maintenance of lighting circuit. Ensure that it is not possible for another person to restore power while you are working.
- Install in accordance with all national and local electrical codes.
- This Dimmer complies with IEC and EN60669-2-1.
- Do not paint Dimmers.
- Protect Dimmer from dust and dirt when painting or during construction.
- Accessory Dimmers (extension units) are available to enable multi-way switching and dimming at a possible nine other locations. Contact Lutron for details.
- It is possible to use the Rania® with existing 2-way switches for remote on/off switching only. Connection and configuration details can be found at www.lutron.com/rania. Note that dimming control is only possible from a remote location using the RDSU or RDDU Accessory Dimmer.
- Maximum wire length between the Dimmer and the furthest Accessory Dimmer is 50 m.
- Operate between 0 °C and 40 °C. For indoor use only.
- It is normal for the Dimmer to feel warm to the touch during operation.
- Dimmer requires a minimum total lamp wattage. Do not exceed the maximum rating of the Dimmer.
- This Dimmer is overload protected. If the rated wattage is exceeded, power to the load will shut off until the Dimmer cools. If this occurs, reduce the wattage connected to the dimmer.
- Recommended backbox depth is 35 mm.
- Maximum torque for terminal screws is 0.5 N•m. Recommended torque for mounting screws is 0.2 N•m.
- To ensure the best performance, the mains shall be free of noise; in particular, high frequency noise and peak voltages exceeding 425 V.
- Clean with a soft damp cloth only. DO NOT use any chemical cleaners.
- For best performance with magnetic and electronic low voltage transformers, ensure that they are loaded to their rated capacity.
- Do not mix magnetic and electronic low voltage transformers on the same dimmed circuit.
- Dimmer may not work with dioded lamps.
- Use only magnetic low voltage transformers with built-in thermal protection.
- For use with compatible electronic low-voltage loads. For an up to date list of compatible transformers, see our web site at www.lutron.com/rania/elv.

Technical Assistance

If you have questions concerning the installation or operation of this product, call **Lutron's Headquarters**. Please provide exact model number when calling.

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Installation

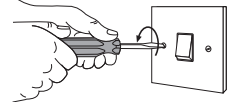
1 **WARNING:** Turn power OFF at MCB (circuit breaker) or remove fuse.

2 Remove switch mounting screws.
 Remove switch from wall.

Note: DO NOT disconnect wires from the switch.

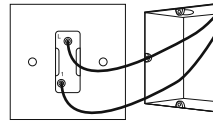


Caution: Verify power to each switch is OFF before proceeding.



3 Switch wiring:

Single-Location control



One switch controlling a light fixture.

No tagging is needed.

This switch will be a 1-way. The switch will have insulated wires connected to two terminals.

Note: Terminal placement may be different on your switch.

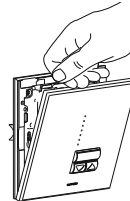
Important Note:

Your wall switch may have two wires attached to the same terminal. Tape these two wires together before disconnecting.

For details of control from two or more locations, refer to the instructions supplied with the Accessory Dimmer or contact Lutron.

4 Disconnect switch wires.

5 Prepare Dimmer for installation.



Snap off Front Plate

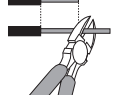
Important Wiring Information



WARNING: Permanent damage can be caused by overtightening the terminal screws.

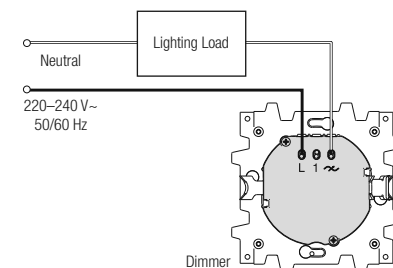
5 mm

Trim or strip backbox wires to 5 mm. Insert wires fully into the terminals and tighten screws.



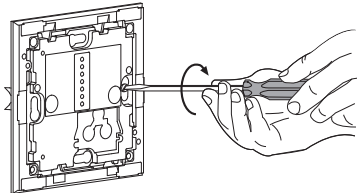
6 Connect the Dimmer.

Notes: Dimmer does not require an earth wire. Follow your local and national wiring codes to terminate the earth wire in your backbox. If two wires were taped together, connect both wires to the terminal.



- Connect one of the insulated wires removed from the switch to terminal L.
- Connect the other insulated wire removed from the switch to the terminal.
- Terminal marked '1' should be left unconnected.

7 Mount and align Dimmer.

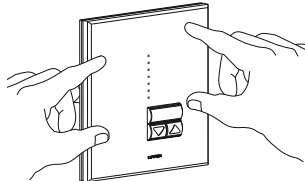


- Secure Dimmer to the backbox.
- Caution - Do not pinch wires. Do not overtighten mounting screws.**

8 Snap on Front Plate.

Align the Front Plate and the Dimmer.

Press all corners to ensure front plate is fully snapped into position.



9 Turn power ON at MCB (circuit breaker) or replace fuse.

Operation

Models: RNSU-452, RISU-452, RNSI-452, RISI-452

For the RISU and RISI model Dimmers, use Lutron infrared hand-held remote controls for programming and recalling lighting scenes, remote dimming, and switching from the palm of your hand.

LEDs
Indicate light level or glow softly when unit is OFF.

Tap Button
Basic Operation

- Tap once when unit is off - Lights brighten smoothly to preset intensity.
- Tap once when unit is on - Lights dim smoothly to off.
- Tap twice quickly - Lights brighten rapidly to full intensity.

Advanced Operation
Fade to OFF - Press and hold to activate delayed fade to OFF. As tap button is held, LEDs will begin to flash. The first flashing LED represents a 10 second fade to OFF. Each additional flashing LED represents an additional 10 seconds of delay before lights fade to OFF (up to 60 seconds).

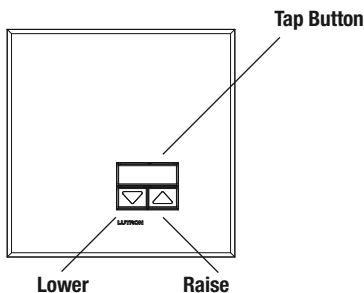
Infrared Receiver
(RISU and RISI models only)

Lower
Press to dim

Raise
Press to brighten

Model: RDSU-452 (Accessory Dimmer)

Raise, Lower and Tap buttons have the same function as Dimmer.



Models: RIS-REMOT, MIR-ITFS 3 V₌₌₌ 150 mW

For use with RISU and RISI model Dimmers.

Point the transmitter at the *Rania* Dimmer(s), then use the buttons as outlined below.

ON FULL:
Tap once - lights brighten smoothly to full intensity.

OFF:
Tap once: 3 sec fade to off
Press and hold: 10-60 second delayed fade to off.

RAISE:
Press to brighten lights

LOWER:
Press to dim lights.

ONE-TOUCH BUTTON:
Tap once to recall your favourite light level.
To store your favourite level, press and hold for about 3 seconds until the dimmer LED begins to flash. ("Off" is a valid preset level.)

This transmitter is compatible with most learning remote controls. Please see the learning remote control manufacturer's instructions for programming information.

Advanced Programming

The *Rania* Dimmer allows a number of advanced features to be accessed. These include:

1. **Locked-in Preset** - Sets the level that the lights always turn on to.
2. **Fade to ON time** - Set the rate at which the dimmer switches on.
3. **Fade to Off time** - Set the rate at which the dimmer switches off.

For details on the Advanced Programming options, visit

www.lutron.com/techInfo/InstallGuides/AdvancedProgramming.pdf or call +44 (0) 207 702 0657.

Problems

If your Dimmer does not work, check that the light bulb has not failed before contacting Lutron Technical Assistance.

Limited Warranty

Lutron EA Ltd. ("Lutron EA") warrants each unit to be free from defects in material and workmanship and to perform under normal use and service. To the extent permitted by law, Lutron EA and Lutron Electronics Co. Inc. ("Lutron") make no warranties or representations as to the units except as set forth herein. This warranty shall run for a period of two years from the date of purchase and Lutron's obligations under this warranty are limited to remedying any defect, replacing any defective part or replacement (at Lutron EA's sole option) and shall be effective only if the defective unit is shipped to Lutron EA postage prepaid within 24 months after purchase of the unit. Repair or replacement of the unit does not affect the expiry date of the warranty. This warranty does not cover damage or deficiencies due to abuse, misuse, inadequate wiring or insulation or use or installation other than in accordance with instructions accompanying the unit.

To the extent permitted by law, neither Lutron EA nor Lutron shall be liable for any other loss or damage including consequential or special loss or damages, loss of profits, loss of income, or loss of contracts arising out of or relating to the supply of the unit or the use of the unit and the purchaser assumes and will hold harmless Lutron EA and Lutron in respect of all such loss or damage. Nothing in this warranty shall have the effect of limiting or excluding Lutron EA's or Lutron's liability for fraud or for death or personal injury resulting from its own negligence, or any other liability, if and to the extent that the same may not be limited or excluded as a matter of law.

This warranty does not affect the statutory rights of consumer purchasers of this product.

Although every attempt is made to ensure that catalogue information is accurate and up-to-date, please check with Lutron EA before specifying or purchasing this equipment to confirm availability, exact specifications, and suitability for your application.

These products may be covered under one or more of the following European patents: 0587878; 1145603; and the following design registrations in Europe: 000315136-0001; 000409669-0001; and in Hong Kong: 0500633.7; and corresponding patents and design registrations in other countries. Patents pending.

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