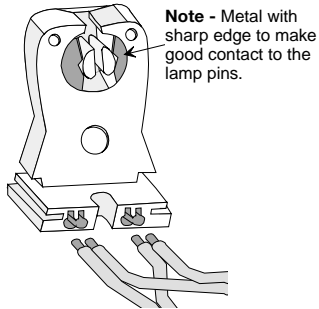


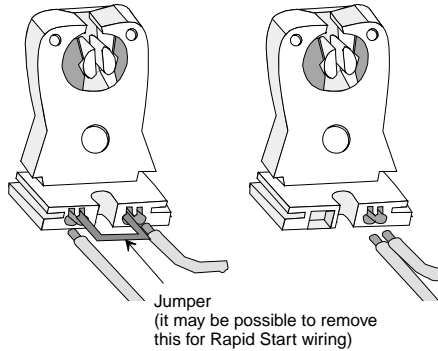
Lamp Sockets

When installing Lutron ballasts, socket type and wiring are important. Good filament contact and correct wiring are needed to produce flicker free dimming and ensure long lamp life. For longest lamp life and best filament contact, use only **Rapid Start Knife Edge Sockets for linear lamps**. **Compact lamps require 4-pin (vs. 2-pin) sockets**.

Rapid Start Linear Lamp Sockets



Instant Start Linear Lamp Sockets



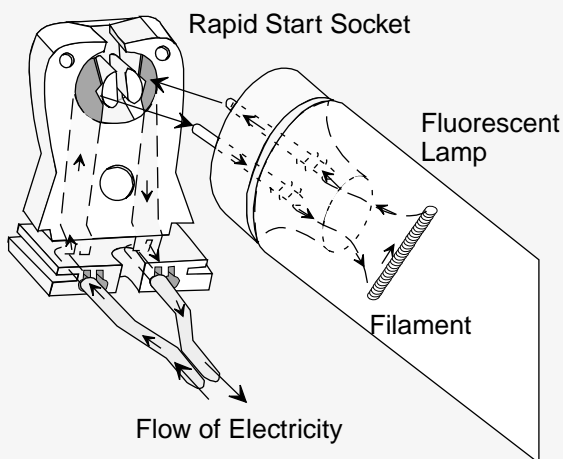
Rapid Start Sockets can accept 4 wires (2 for wires from the ballast and 2 for wires to another lamp).

Note - Both Rapid Start and Instant Start fixtures use Rapid Start (4-pin) Lamps.

Instant Start Sockets can only accept 2 wires (1 for a wire from the ballast and 1 wire to another lamp) and must be replaced with Rapid Start sockets.

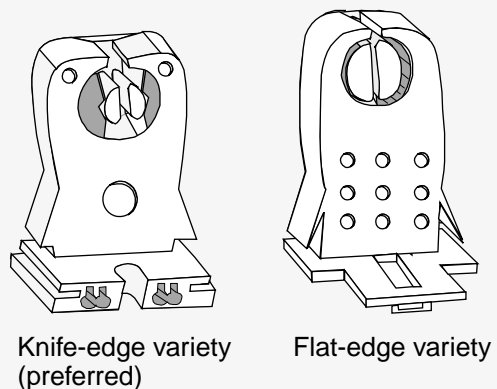
WARNING - Using Lutron ballasts with Instant Start Sockets will damage the ballasts.

Why are sockets important?

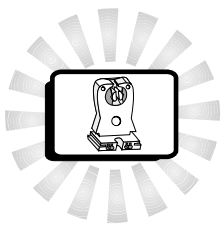


Dimming Ballasts must access both lamp pins to heat the lamp filaments—without heating, the lamp ends will become black and fail prematurely (it may take a week or several months).

Why use a knife-edge socket?

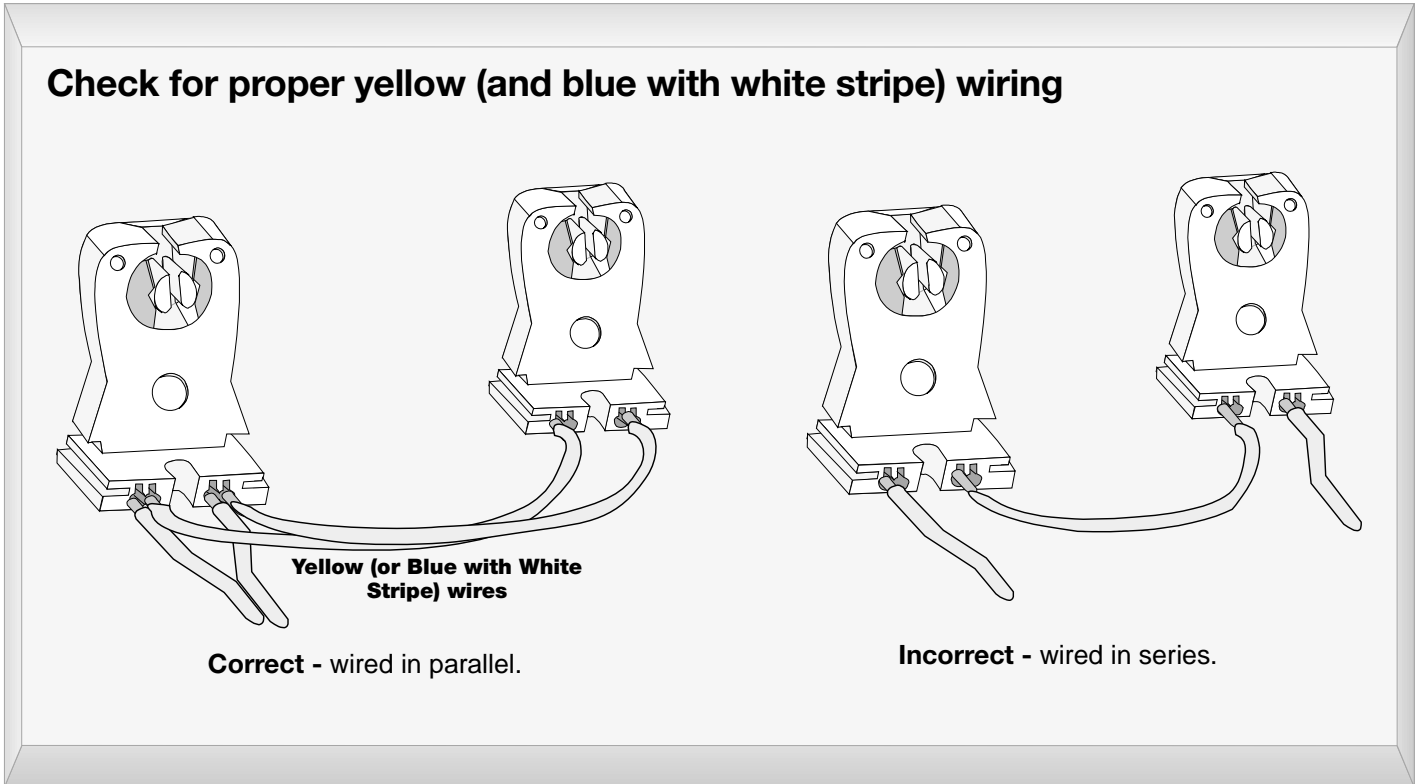


A knife-edge socket makes a superior contact with the lamp pin by contacting with a sharp edge — rather than a flat surface. Dimming Ballasts require a good pin contact.









Socket Wiring

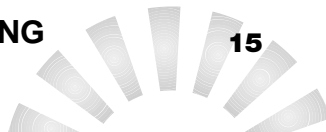
Sockets in multi-lamp fixtures must be wired in parallel, not in series.

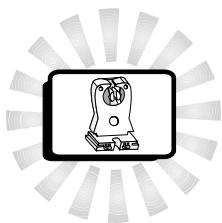


Maximum Lead Lengths

Exceeding maximum lead lengths may cause lamp flicker, improper lamp starting, and reduced lamp life due to reduced lamp and filament voltages supplied by the ballast.

Lutron Ballast Models	Lamp Type	Maximum Lead Length (Ballasts to sockets)
Hi-lume Compact Eco-10 (ECO and TVE) Tu-Wire	T4 Compact 	3 feet (1 meter)
	T5 Twin Tube 	
Hi-lume Eco-10 (ECO and TVE) Tu-Wire	T5 HO Linear High Output 	7 feet (2 meters)
	T8 Linear and U-Bent, 	
	HF 32 EX 	
	T12 Linear and U-Bent FLR40S Linear 	





BALLAST GUIDE ■ Sockets and Ballast Dimensions

Check the Lamp Sockets


Use the following table to determine if the lamp sockets in the fixture need to be replaced. (Linear and 4-Tube lamps)

Existing Ballast(s) Information		How to prepare the existing fixture for Lutron Dimming Ballasts
Number of lamps per ballast	Total number of wires coming out of the ballast	
1	5 or FEWER	Replace the lamp sockets with Rapid Start sockets
	6 or 7	Use the existing sockets, and the existing wires
2	7 or FEWER	Replace the lamp sockets with Rapid Start sockets
	8 or 9	Use the existing sockets, and the existing wires
3	9 or FEWER	Replace the lamp sockets with Rapid Start sockets
	10 or 11	Use the existing sockets, and the existing wires
4	11 or FEWER	Replace the lamp sockets with Rapid Start sockets Note that (2) 2 lamp Lutron ballasts will replace this ballast
	12 or 13	Use the existing sockets, and the existing wires Note that (2) 2 lamp Lutron ballasts will replace this ballast


Notes-

When replacing linear lamp sockets, use only Rapid Start sockets. (A knife-edge variety, such as model #13053-UN by Leviton Mfg. Co., or a #660 Series by Triboro Mfg. Co., is recommended.)


A Rapid Start, one-lamp ballast will normally have 6 wires — (1) Hot, (1) Neutral, (4) lamp wires. A 7th wire, the Ground, may be present depending upon the manufacturer. New sockets are not required when this type of ballast is replaced with a Lutron ballast.



For More Information...



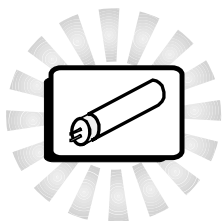
.....Refer to Lutron publication
P/N 362-767



Warning - Operating Lutron Dimming Ballast(s) with the wrong sockets in place will damage the ballast(s) and void the warranty.

Ballast Case Dimensions

Ballast Model	Lamp Type	Dimensions (WxHxL)
Hi-lume Hi-lume Compact Eco-10 (ECO and TVE)	T4 Compact, T5 Twin Tube, T8, T12, HF32EX, FLR40S Linear	2.38" (60mm) x 1.50" (38mm) x 9.50" (241mm)
Hi-lume	T5 High Output Linear	1.18" (30mm) x 1.00" (25mm) x 18.00" (457mm)
Tu-Wire	T8 Linear	
Tu-Wire	T4 Compact One Lamp	3.00" (76mm) x 1.00" (25mm) x 4.90" (124mm)
	T4 Compact Two Lamps	3.00" (76mm) x 1.00" (25mm) x 6.75" (171mm)
Eco-10 (TVE) Japan	T8 Linear	1.55" (39mm) x 1.08" (27mm) x 18.50" (470mm)



New Lamps Must be "Seasoned"

New fluorescent lamps must be "seasoned" for dimming applications by operating at full intensity for their first 100 hours.

Leave the lamps at full intensity for 100 hours. Although this may be inconvenient, it is necessary for good dimming performance, and achieving normal lamp life.



Warning - Lamps must be operated at full intensity for 100 hours before being dimmed. Without these operating hours, lamps may fail prematurely.

Ways to Obtain Seasoned Lamps

- Operate new lamps continuously for 100 hours (approximately four days). Time period might include a weekend or holiday.
- Remove lamps with over 100 hours use from another (non-dimmed) area; re-install in dimming area.
- Use a lamp burn-in station to build an inventory of

Why keep the lamps at full intensity for 100 hours?

Area Enlarged

Area Enlarged

Lamp that was **NOT** seasoned for 100 hours. Lamp that **WAS** seasoned for 100 hours.

New fluorescent lamps have impurities in them which lamp manufacturers cannot eliminate completely. **Lamps must be operated at full intensity for 100 hours before dimming** to neutralize the harmful effects of these impurities. Without the 100 hours at full intensity, the impurities may cause the lamp to fail within a week (or failure may take months depending on usage and the amount of impurities).

Lamp Mounting Height

Many fluorescent lamp sockets are available with mounting slots to vary the height of the lamp away from the grounded metal surface. Use these slots to get the outside edge of the lamp to be 1/2" +/- 1/4" away from the grounded metal surface.

Having a fluorescent lamp too close to the grounded metal will make the minimum intensity too low and will reduce lamp life.

Having a fluorescent lamp too far away from the grounded metal will make the lamp flicker or not turn ON at all.

