

Custom Luminous SkyCeiling T5 Lighting Installation Instructions (Imperial)

T5 Single Lamp Fixture Dimmable and Non-Dimmable Lighting Systems

See Lighting Plan L1 for the layout of the Single Lamp Fixtures.

To assemble the fixtures:

1. Each fixture has a base and a cover. Remove the cover by removing one pan head screw on one end and loosening the pan head screw on the other end. Save the screw.
2. Connect the ballast wiring to the T5 lampholders. Lampholders are supplied in a separate packet. The lampholders need to be connected to the ballast wiring before attaching them to the fixture base.
 - a. Feed the two red and two blue ballast wires through the rectangular openings on each end of the base (see photo below): red wires on one end, blue wires on the other end.



- b. Connect the wires to the lampholders by inserting the pre-stripped wire ends into the twin push wire terminals on the bottom of the lampholders. **IMPORTANT:** There are two twin push wire terminals on the bottom of each lampholder. One of the two wires should be inserted in a terminal of one twin, and the other wire should be inserted in a terminal of the other twin. This will leave an unused terminal in each twin push wire terminal (see preceding photo).
3. Attach the lampholders to the base. First angle it into the rectangular opening, as shown in the picture, and then push it to an upright position. Lampholder will snap into place.



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 4. Attach the fixture base to the plenum ceiling following the layout in Lighting Plan L1. Note: 2' Single Lamp Fixtures have two mounting-hole locations, one on each end. All other sizes have three mounting-hole locations.

For Non-Dimmable Systems:

Run the building's power, neutral and ground wires through a box connector inserted in one of the knockouts on the end of the base. Connect the power and neutral wires to the ballast wire leads in the fixture – black to black and white to white – using wire nuts or other code compliant connectors; connect the green ground wire lead to the green earth ground screw on the floor of the base.

For Dimmable Systems:

To wire a 0 – 10v dimmable lighting system, refer to the wiring diagrams supplied by the manufacturer included with the Dimmer Switch. For troubleshooting, see **Universal SuperDim System Troubleshooting** guide attached. If you are using a ballast other than the 0 – 10v system, please contact The Sky Factory for further assistance.

5. Once the wiring has been connected, reattach the cover, being careful not to pinch the wires or over-tighten the pan head screws.
6. Install the T5 lamp. Insert lamp into lampholders with lamp pins in line with slot in lampholder. With both ends inserted into the lampholders, turn lamp one quarter turn to lock in place.
7. Follow steps 1 through 7 for all the single lamp fixtures.
8. Test the lighting before continuing with the SkyCeiling installation.

For technical support please call us toll free at 866-759-3228. We want your installation to go as smoothly as possible. Thank you for choosing The Sky Factory.



Application Note: SD04



SuperDim® System troubleshooting

Note: All wiring must be completed in compliance with national and local electric codes. Caution!!! : Disconnect power before servicing ballasts or lighting fixtures

Symptom	Possible Reason	Step to take
1 Ballasts and modules not responding to wall control	Control May not be powered.	Check Line, Neutral and ground connections
	Control wires disconnected.	Check & fix control wire connections
	Wrong control unit	Check control specification. Use only 0-10V control
	Shorted Control wires.	Check & fix control wire connections
2 All fixtures stuck at full bright	Control wires at one or more devices may be cross-wired.	Check & fix control wire connections
	Control wires disconnected.	Check and fix the control wiring
	Wrong control unit	Check control specification. Use only 0-10V control
	Incorrect ballast	Use only SuperDim analog dimming ballasts.
3 All fixtures stuck at full dim	Non-Dimming ballast.	Check and replace with correct unit.
	Shorted Control wires.	Check & fix control wire connections
4 Lamps flicker at low light levels	Control wires at one or more devices may be cross-wired.	Check & fix control wire connections
	Two ballasts operating on exact same frequency	Wait five minutes for ballast self-adjustment.
	Long lead lengths.	Limit lead lengths as short as possible
	Leads bundled.	Limit lead lengths as short as possible
	Lamps too cold (low room ambient).	Wait until lamps warm up
	New lamps.	Burn lamps at full bright for at least 12 hours
	Ballasts not properly grounded.	Check fixture wiring. Check grounding point for proper contact.
5 Lamps flash and turned OFF	Fixture not properly grounded.	Check fixture wiring. Check grounding point for proper contact.
	Lamp too close or far from the ground fixture surface.	Spacing between the ground plane and linear lamp must be between 1/8"-1/2" for linear fluorescent..
	Bad Lamps.	Replace lamps
	Shunted sockets (Instant start socket with shorted terminals)	Check and replace lamp sockets
6 Lamps never turned on	Incorrect ballast.	Check and replace with correct unit.
	Wrong lamps.	Check device specification and use correct lamps.
	Wrong fixture wiring.	Check and correct wiring
	Ballasts or modules not powered.	Check device power wiring, circuit breakers etc
	Bad Lamps.	Replace lamps
	Shunted sockets (Instant start socket with shorted terminals)	Check and replace lamp sockets
7 Intermittent operation of SuperDim system	Incorrect ballast.	Check and replace with correct unit.
	Wrong Fixture wiring or shunted sockets.	Check and fix the problem
8 Lamp ends turned black or frequent lamp failure	Loose connection with control or power wiring.	Check and fix the wiring
	Wrong Fixture wiring or shunted sockets.	Check and fix the problem
	Wrong lamps	Check device specification and use correct lamp
	Wrong fixture wiring.	Check and correct wiring

Additional Troubleshooting Techniques: In some cases the troubleshooting methods outlined above may not lead to a quick detection and resolution of the problem. In this case it is often beneficial to perform one or more of the following tasks.

Divide and troubleshoot the system.

If a large system of SuperDim® ballasts has an apparent malfunction, but the specific component or location of the malfunction is unknown, the system can be divided somewhere near the center of the control circuit. If the malfunction persists on one side but not the other, further separations may help determine the actual failure site.

Bypass installed control wires: If the source of a malfunction cannot be assigned to a ballast or to the wires connecting it to the control system, disconnect the installed control wiring and connect a known good control device using visible, external control wires.

Ballast substitution: After performing all steps mentioned above, if still any of the luminaires doesn't respond then replace it with a known good unit and try again.

Control substitution: After performing all these troubleshooting technique, if none of the lighting devices in the SuperDim loop is responding to the control device then replace the existing control device with a known good unit.

For further assistance or ordering information contact Universal lighting technologies @ 1-800-BALLAST or visit our website at <http://www.universalballast.com>

Subject to change without notice

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