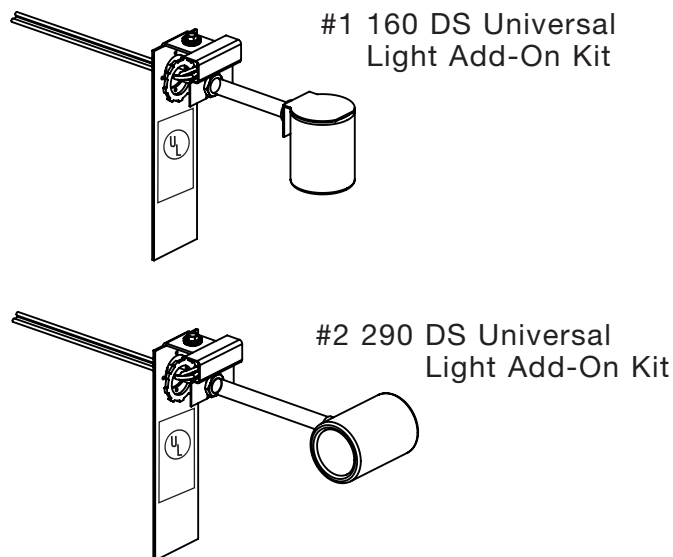


Solatube® Light Add-On Kit Installation Instructions

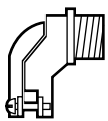


PARTS LIST

PART #	DESCRIPTION	QUANTITY
ASSEMBLY		
1	160 DS Universal Light Add-On Kit Including: 1/8" IPS Conduit Pipe, Lamp Holder, Locknut, UL Label, Thermal Protection Device (TPD) and Ground Screw	1
2	290 DS Universal Light Add-On Kit Including: 1/8" IPS Conduit Pipe, Twin Lamp Holder, Locknut, UL Label, Thermal Protection Device (TPD) and Ground Screw	1
FASTENER PARTS-BAGGED		
1	Flexible Conduit 3/8" (9mm)	1
2	Conduit Connector 3/8" (9mm), 90°	1
3	Anti-Short Bushing (ASB) (Red)	1
4	Conduit Connector 3/8" (9mm), Straight	1
5	Wire Connecting Nuts (Orange)	2
6	Ground Wire Crimp Sleeve (Copper)	1
7	Ground Screw	1
8	Foam Seal 1/8" x 3/4" x 4" (19 x 100mm)	1



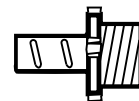
#1 Flexible Conduit



#2 Conduit Connector (90°)
3/8 in (9 mm)



#3 Anti-Short Bushing (ASB) (red)



#4 Conduit Connector (Straight)
3/8 in (9 mm)



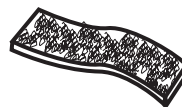
#5 Wire Connecting Nuts (orange)



#6 Ground Wire Crimp Sleeve (copper)



#7 Ground Screw



#8 Foam Seal
1/8 x 3/4 x 4 in (19 x 100 mm)

WARNING

 **Do not proceed with the installation until you have read the entire instructions, including these warnings. (Use of materials or methods not authorized by Solatube International will result in an invalid warranty.)**

Solatube International, Inc. (seller) assumes no responsibility or obligation whatsoever for the failure of an architect, contractor, installer, or building owner to comply with all applicable laws, ordinances, building codes, electrical codes, energy codes, fire and safety codes and requirements, roof warranties and adequate safety precautions. Installation of this product should be attempted only by individuals skilled in the use of the tools and equipment necessary for installation. Protect yourself and all persons and property during installation. If you have any doubt concerning your competence or expertise, consult a qualified expert before proceeding.

Install at your own risk!

Solatube product installations may be dangerous and include the potential for death, personal injury and property damage. The hazardous conditions include but are not limited to the following:

- **During installation, the Solatube Daylighting System's reflective tubes may focus sunlight, causing intense heat or fire. Remove protective film only after the parts have been installed. Prior to and during installation, do not leave tubes in contact with combustible materials or unattended, especially near direct sunlight. Avoid skin burns.**
- Solatube Daylighting System and Solar Star products may have sharp edges. Always wear leather or canvas gloves while handling and installing products.
- Solatube product installations require climbing and working at dangerous heights, including on ladders, scaffolding, roofs and in attic spaces. Risk of death, personal injury and property damage may result from a fall, or from falling objects. Use extreme caution to minimize risk of accidental injury, including, but not limited to the following procedures:
 - Clear area below your work space of all people, animals and other items.
 - Avoid working on surfaces that are slippery or wet.
 - Use foot-wear with excellent traction.
 - Use only strong, well supported ladders.
 - Work only in calm dry weather.
 - When in the attic, ensure that your weight is supported at all times with structurally sound framing; drywall material is not designed to carry a person's weight.
- To reduce the risk of fire, electric shock, and personal injury, basic safety precautions should always be followed when using electric tools, including always wearing safety goggles or other suitable eye protection, and ensuring work area is clear of all electrical wires, gas pipes, water pipes, and other obstacles.
- When working in the attic or other dusty areas, use of a mask or respirator is recommended to avoid lung irritation. Attic spaces may be dark, confined, and subject to extreme temperatures. Beware of sharp protruding objects. Do not attempt installation without having someone within range of your voice or close enough to come to your aid if necessary.
- Solatube products are not designed to withstand the weight of a person, tools or other objects. Walking or placing objects on the system could cause personal injury and property damage. If the product is damaged, the structural capacity may be weakened; therefore the system should be repaired immediately. For safe installation and use, do not deviate from these installation instructions.

For all electrical components

- Before installing, servicing, or cleaning unit, switch power off at service panel and lock service panel to prevent power from becoming switched on accidentally. When the service disconnecting means cannot be locked, securely fasten a prominent warning device such as a tag to the service panel.

Light Add-On Kit Installation Tips

- This product is to be installed by qualified electricians only. Disconnect power before installation.
- "FOR USE IN NON-FIRE-RATED INSTALLATIONS ONLY."
- Thermally protected "TYPE IC" (insulation may contact housing).
- "ACCESS ABOVE CEILING REQUIRED."
- "SUITABLE FOR DAMP LOCATIONS." Use only as a component of Solatube Daylighting System products.
- "MIN. 60°C SUPPLY CONDUCTORS."
- Intended for installation with ½ in (12.7mm) minimum spacing from the fixture to cavity surfaces (side wall and overhead building member) and 1 in (25.4mm) minimum spacing to adjacent fixtures.
- Blinking light may indicate improper lamp wattage or type, or insulation is too close to fixture, or other condition causing overheating.

Caution

- Risk of fire and electrical shock. Most dwellings built before 1985 have supply wire rated 60° C.
- To reduce the risk of fire, use only:
 - Any Medium Base E26 Lamp Rated 23 Watt Maximum (LED, Compact Fluorescent (CFL), or Incandescent), Maximum Overall Length (MOL) 4 3/4 in (120 mm)
- Minimum thickness of metal tubing is 0.018 in (0.47mm)

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For the most current Installation Instructions, please visit www.solatube.com/instructions

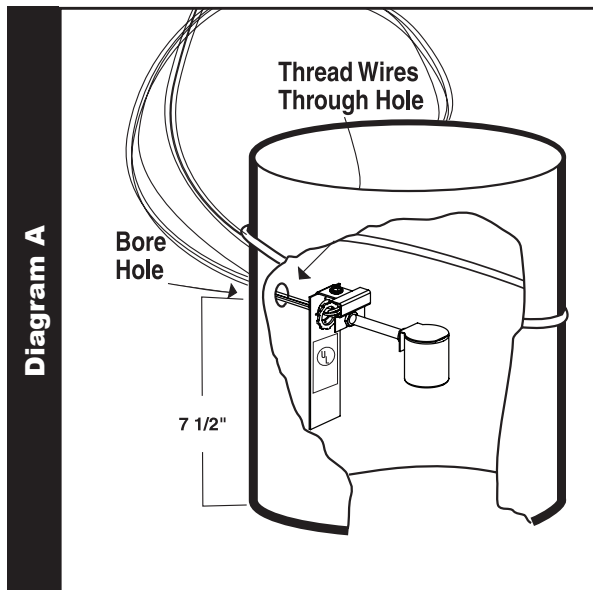
SPECIFICATIONS: Light Add-On Kit - 160 DS Universal, 290 DS Universal

Fixture:	Universal Light Add-On Kit	
Supply:	120volt - 60Hz	
Amps:	160 DS - .19	290 DS - .38 Amp
Cycle:	60 Cycle	60 Cycle
Bulb:	Any Medium Base E26 Lamp Rated 23 Watt Maximum (LED, Compact Fluorescent (CFL), or Incandescent), Total Maximum Length 4 3/4 in (120 mm)	

This lamp is not California Title 24, JA8 compliant on its own. However, when used with a JA8-certified bulb, the lamp holder will meet the compliance standards required by California Title 24 and JA8 for high efficacy lighting. To fulfill the JA8 requirements and specific performance standards, the light bulb used with this lamp must meet the following requirements:

1. Efficacy: A minimum efficacy of 45 lumens per watt.
2. Color Rendering Index (CRI): A CRI of 90 or higher to ensure accurate color representation.
3. Rated Lifespan: A minimum rated lifespan of 15,000 hours.
4. Dimming Capability: The bulb must work effectively with dimming systems without flickering.

Many dimmer manufacturers have a bulb compatibility guides for use with their fixture. Please refer to the dimmer manufacturers website for bulb compatibility.



ASSEMBLY LAMP BRACKET-LOCATION

Step 1. Follow Solatube Brighten Up® Series standard instructions to assemble the Bottom Tube and ceiling ring. Using a spur bit, bore a 7/8" (22.2mm) diameter hole through the tube wall, located 7 1/2" (190mm) up from the bottom of the Bottom Tube.

WARNING: DO NOT MODIFY LOCATION. ALTERATION OF DISTANCE SPECIFIED VOIDS WARRANTY AND IMPAIRS SAFE TEMPERATURE PERFORMANCE.

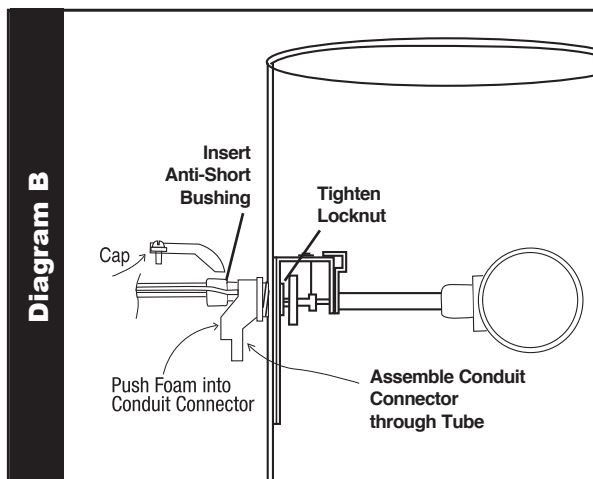
LAMP BRACKET-HOUSING ASSEMBLY

Step 2. Peel protective liner from the Bottom Tube prior to attaching the lamp bracket. Thread the wires out through the 7/8" (22.2mm) hole in the tube, then through 90° conduit connector (**Diagram A**). Push the connector through the tube wall and lamp bracket. For 160 DS Add-On Kit: Adjust the bracket and single lampholder to face down (**Diagram A**). For 290 DS Add-On Kit: Adjust the bracket and twin lamp holder so that the lamp sockets face the sides of the tube (**Diagram B**). Turn the connector to face the junction box and secure it with the connector locknut (min 2 threads) (**Diagram B**). Remove the cap from the back of the 90° connector and wrap the foam seal around the wires. Using a slotted screwdriver, push the foam into the connector to form a dust seal. Replace the cap (**Diagram B**).

CONDUIT/JUNCTION BOX ASSEMBLY

Step 3. Feed the wires through the flexible conduit. Insert the anti-short bushing (ASB) over the wires between the conduit and the 90° connector so the cone of the ASB enters the conduit (**Diagram B**).

Fit the conduit into the 90° connector and tighten screws. At opposite end of conduit, push the exposed wires through the straight connector and screw connector into the conduit. Feed wires into junction box, then fasten conduit connector to box with connector locknut (**Diagram D**). **Junction box not provided- can obtain at local hardware store.**



INSTALLATION

Step 4. Complete Solatube Brighten Up Series standard instructions to install the Bottom Tube in the ceiling.

WIRING

ALL WIRING MUST COMPLY WITH LOCAL CODES, BE PROPERLY GROUNDED, AND JUNCTION BOX MUST BE ACCESSIBLE ABOVE CEILING. DISCONNECT POWER BEFORE PROCEEDING.

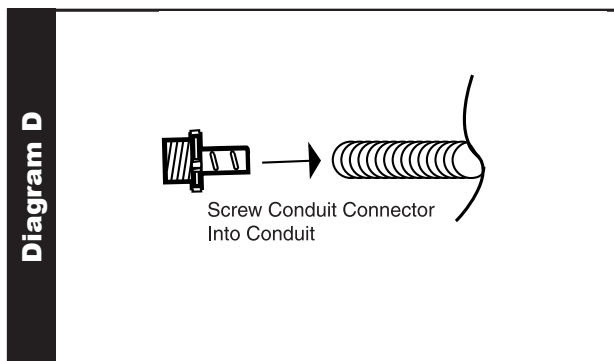
Step 5. Feed (hot) wire of 120 volt AC supply cable (with ground) through a switch then connect the cable to junction box. Bond the supply ground wire to the junction box with #10 ground screw provided. Leave 6" pigtail for fixture ground wire connection.

Step 6. Follow the wiring diagram shown in **Diagram E**. Using the ground crimp sleeve provided, connect the fixture ground wire to the supply ground wire. Using wire nuts provided, connect the black fixture wire to the hot supply wire and connect the white fixture wire to the common supply wire. Install cover on junction box.

Step 7. Install lamps in fixture. Use any Medium Base E26 Lamp Rated 23 Watt Maximum (LED, Compact Fluorescent (CFL), or Incandescent), Total Maximum Length 4 3/4 in.

NOTE: The Solatube warranty and UL rating void if not installed in a Solatube 160 DS or 290 DS product according to manufacturer's installation instructions.

You may now enjoy the convenience of the Solatube Light Add-On Kit, in addition to your Solatube Daylighting System.



UNIVERSAL LIGHT ADD-ON KIT

