Taylorbrite
Dimmer Module Instructions

FOR USE WITH: CCF & LED Series Lights

PLEASE READ ALL INFORMATION CAREFULLY

DESCRIPTION:
The Taylorbrite CCF Light Dimmer is intended for use solely with Taylorbrite CCF and LED interior lights. It CANNOT be used with any other form of lighting. By the same token, Taylorbrite lights will not operate properly with any other type of dimming device.

Dimming is accomplished by way of a unique three wire system that allows the main power feed wires to be parallel connected to all lamps, while a third wire carries dimmer level information to selected fixtures. Please refer to the wiring diagrams below for specific wiring details.

OPERATION:
This dimmer module is designed to be maintenance-free, using surface sealed push-button switches to control its operation. Two controls are provided: ON/OFF and Dimmer Level Set. The ON/OFF switch works in "push/pull" fashion. Press once to turn ON, press again to turn OFF (if a switched light is connected to a dimming circuit, the ON/OFF function on the dimmer can not override any lights that are set to OFF by their local switches). The previously set light level is automatically restored whenever the dimmer is turned ON, even if a brown-out or power failure should occur, after 5 seconds of changing the level setting.

The current light level setting can be changed by pressing the Dimmer Level Set switch. Since only a single switch is provided, a special sequence of switch-presses is required to allow full control of lighting levels:

1. When the switch is pressed after any idle period lasting 5 seconds or more, the level changes to full bright. If the switch is then released and pressed again within 2 seconds, the light level will be decreased by one step. Additional presses in this fashion will continue to decrease the light level in one step increments to a maximum of 32 steps. Five seconds after finally releasing the switch, the level selected will be stored for recall during a future power ON command.
2. The dimmer level can be changed more rapidly by holding the Dimmer Level Set switch ON, after the initial activation (resulting in the full bright condition), for at least 3 seconds. As long as the switch remains activated, the light level will decrease in even steps automatically. When the desired light level is reached, simply release the button. Again, within 5 seconds this new setting will be stored for future recall.

The actual light level selected is continuously displayed by a surface sealed indicator lamp located midway between the two function switches. This indicator is a solid state device requiring no maintenance or replacement.

INSTALLATION:
The dimmer module is designed for use with the Vimar "Idea" modular component mounting system. One, two, and three module wall boxes and bezels are available to match any decor. Location of the dimmer module is not critical. Since it does not directly control the supply power to the lights, very little heat is generated. However, it is still advisable to stay clear of other heat generating sources. Once the mounting plate is fastened where desired, attach the wiring as described below and simply snap the dimmer module into place.

WIRING:
Each dimmer is supplied with three colored #18 AWG wire leads:

Yellow (Vbat) = (+) Positive
Black (Power Return) = (-) Negative/Ground
Blue = Dimmer Control

1) Connect the Yellow wire to the positive (+) branch feed using a suitable barrel splice, soldered joint, wire nut, or other proven reliable connection method.
2) Similarly, connect the Black wire to the negative (-) branch return feed. This is often referred to as "ground."
3) Finally, run the Blue wire on the dimmer to the blue wires found on all Taylorbrite lights that are to be controlled by this particular dimmer. Multiple Taylorbrite lights can be dimmed together, simply by connecting their blue wires together and wiring to the dimmer's blue wire.

Connectors are not included. Wire splices generally will require the ability to crimp two wires onto a third. One recommended connector is a Hollingsworth #B4051 (16-14 Oval Butt Splice) or equivalent. The recommended hand crimp tool specified is a Hollingsworth #H7B. An acceptable alternate tool is an Ideal Industries #83-001.

Three-way ON/OFF control of each dimmer can be accomplished by wiring any number of remote momentary contact switches in parallel with the two white wires labeled "Remote".

For long distance connections (>50ft.), it is desirable to use a shielded cable, such as Belden 9154 or equivalent, with the shield wire attached to 0V (black wire) at the dimmer site.

****If three-way operation is not required, *the white wires must be left unconnected* and insulated from accidental contact using wire nuts or electrical tape. ****

ELECTRICAL RATINGS:

Input Voltage: 9V DC Minimum, 34V DC Maximum
Input Current: 0.2A Maximum
Output Current: 0.1A Typical (Sufficient to control 80 lights)
Output Voltage: 0 to Vin-1.5, Pulse Width Modulated rectangular wave
Output Frequency: DC when OFF or full bright, 140Hz for all other settings

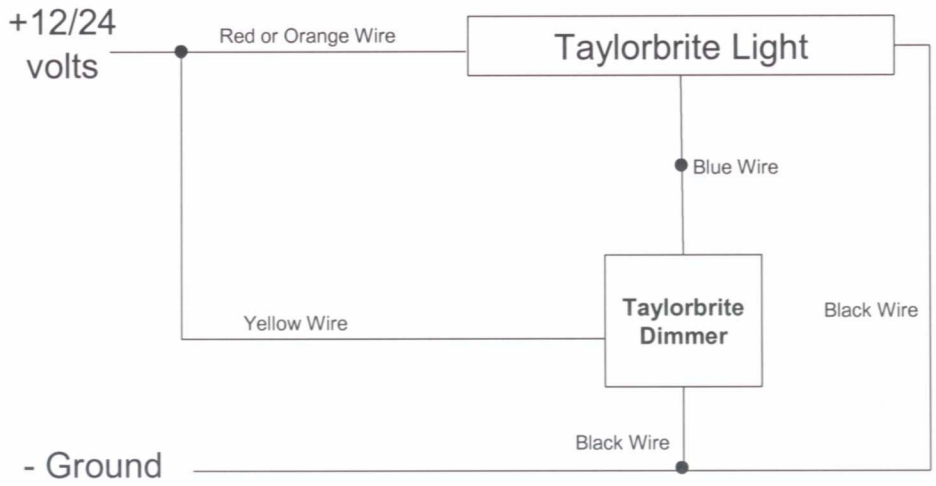
ENVIRONMENTAL:

Operating temperature range: -5°C (23°F) to +50°C (122°F).
Storage temperature range: -40°C (-40°F) to +70°C (158°F).

Note: Power does not run "through" the dimmer, the only wire connected to the lights from the dimmer are the blue wires. Connect all yellow leads to the positive terminal, all black leads to ground, and all blue wires together.

There are five wires that comprise the dimmer unit's wiring. The yellow wire is the positive lead, and the black wire is ground. The blue wire is the dimmer control wire that interconnects the dimmer with the individual lights, blue wire to blue wire (see diagram below). The two white wires are for 3 way switching (see above).

Wiring diagram with dimming



Red or Orange Wire = 12 or 24 volt DC power

Black Wire = Ground

Yellow Wire = 12 or 24 volt DC power

Blue Wire = Connect blue wire on lights to blue wire on dimmer

Notes:

1) One Taylorbrite dimmer can control up to 40 Taylorbrite lights.
2) If not using a dimmer, connect the blue wire on the Taylorbrite light to the +12/24 Volt power (red or orange wire).
3) Only Taylorbrite lights may be used with Taylorbrite dimmers and vice versa.
4) The dimmer has two white wires for use with 3 way switching. If not using 3 way switching, do not connect these wires and keep them separated from each other.
5) It will take a few minutes for the Taylorbrite CCF light to reach full brightness, this is normal operation.