Synergy® LIGHTING CONTROLS
An AcuityBrands Company

Designer Wall Box Dimmer

Single Pole (One location) or 3-Way (Multi-location)

Fluorescent or LED

Cat. No. ISD BC (Lighted)

Rated: 1200VA-120VAC, 60Hz
1500VA-277VAC, 60Hz

For use with 0-10 dimming ballasts or LED drivers

INSTALLATION INSTRUCTIONS

Synergy® LIGHTING CONTROLS
1335 Industrial Boulevard, Conyers GA 30012
Phone: 800-533-2719 www.synergylightingcontrols.com

INSTALLATION INSTRUCTIONS

WARNING: TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH APPROPRIATE ELECTRICAL CODES AND REGULATIONS.

WARNING: IF YOU ARE NOT SURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONTACT LITHONIA CONTROL SYSTEMS AT 1-800-533-2719.

WARNING: TO AVOID OVERHEATING AND POSSIBLE DAMAGE TO THIS DEVICE AND OTHER EQUIPMENT IN FLUORESCENT LIGHTING APPLICATIONS, USE ONLY WITH THE ADVANCE TRANSFORMER 120/277V MARK VII™ OR OSRAM SYLVANIA QUICKTRONIC HELIOS ELECTRONIC BALLASTS FOR CONTROLLING THE SPECIFIC FLUORESCENT LAMPS.

OTHER CAUTIONS:

1. USE ONLY ONE (1) DIMMER IN A 3-WAY CIRCUIT. THE SWITCH(ES) WILL TURN THE LIGHT ON AT THE BRIGHTNESS LEVEL SELECTED AT THE DIMMER.

2. LIGHTING FIXTURE AND DIMMER MUST BE GROUNDED.

3. DISCONNECT POWER WHEN SERVICING OR CHANGING LAMPS.

4. USE THIS DEVICE ONLY WITH COPPER OR COPPER CLAD WIRE. WITH ALUMINUM WIRE USE ONLY DEVICES MARKED CO/ALR OR CU/AL.

MAXIMUM LOAD PER DIMMER FOR MULTI-GANG

Cat. No.	Volts	Single	Two Gang	More than 2 Gang
ISD-BC	120	1200 VA	1200 VA	1200 VA
ISD BC	277	1500 VA	1500 VA	1500 VA

MULTI-GANG INSTALLATION:

When ganging dimmers, the side sections of the mounting strap must be removed. Use pliers to carefully bend side sections back and forth until they break off **(see Chart and Figure 1)**.

MAXIMUM BULB WATTAGE IF USING WITH FLUORESCENT FIXTURES:

Mark VII™ and OSRAM Sylvania Quicktronic Helios ballast are rated in Volt-Amps (VA). The maximum number of ballast per dimmer is based on the load VA rating (see Maximum Load per Dimmer table) or 50 ballast maximum, which ever is less. The maximum bulb wattage is determined by the efficiency of the ballast. The following tables show the maximum number of ballasts that can be connected to a single dimmer for different Mark VII™ OSRAM Sylvania Quicktronic Helios ballasts.

FOR FOR DIRECT LOAD APPLICATION CONFIGURATIONS (WIRING DIAGRAMS 1, 2 AND 3), REFER TO TABLE 1 AND TABLE 2 FOR BALLAST INFORMATION.

NOTE: For additional switching capacity (up to 50 ballast), use dimmers in conjuction with a Lithonia LPCS 120/277V remote power control station.

FOR APPLICATIONS USING LITHONIA'S LPCS (WIRING DIAGRAMS 4 AND 5), LPCS SWITCH RATINGS ARE AS FOLLOWS (REFER TO LPCS INSTRUCTION SHEET FOR ADDITIONAL INFORMATION):

LPCS SWITCH RATINGS:

20 Amps for 120 and 277 VAC Ballast

TO INSTALL:

1. WARNING: TO AVOID FIRE, SHOCK, OR DEATH; **TURN OFF POWER** AT CIRCUIT BREAKER OR FUSE AND TEST THAT POWER IS OFF BEFORE WIRING!

2. Remove existing wallplate and switch, if applicable.

3. Remove 3/4" (1.9 cm) of insulation from each circuit conductor. Make sure the ends of wires are straight.

4. Connect wires per appropriate WIRING DIAGRAM and FIGURE 3 as follows: **NOTE: Common terminal of 3-Way Switch is usually labeled and/or BLACK.** Twist strands of each lead tightly and, with circuit conductors, push firmly into appropriate wire connector. Screw connectors on clockwise making sure no bare wires show below the wire connectors. Secure each connector with electrical tape.

NOTE: For single pole applications, cap one BLACK lead with an appropriate size wire connector. Secure connector with electrical tape.

NOTE: For long low-voltage wiring runs or where excessive electrical noise exists, shielded cable or conduit is recommended.

5. Installation may now be completed by carefully positioning all wires to provide room in outlet box for dimmer. Mount dimmer into box with mounting screws supplied. Attach wallplate.

6. Restore power at circuit breaker or fuse. **INSTALLATION IS COMPLETE.**

COLOR CONVERSION PROCEDURE

The color of this device can be changed to suit your interior design requirements. Simply obtain a color conversion kit of the appropriate color from your Lithonia distributor and proceed as follows (please note that wallplate must be removed):

1. Select the color of the face you desire.

2. The frame has snaps on its sides. Using your fingers, grip around the frame and push on one side to release it from the strap **(refer to Figure 2)**.

3. Take the new frame and position it properly to the strap. Line up the plastic snaps with the square holes in the strap. Insert the snaps on one side of the frame into the strap.

4. Firmly press sideways and down to slip the other snaps into place. The frame snaps in with a audible click. Ensure that all four snaps are secure.

5. Moving the slider up or down will automatically engage the slider control mechanism. Replace wallplate. **The color conversion is complete.**

TO OPERATE

- GREEN LED will remain ON when the lights are OFF
  - Facilitates access to switch in the dark.
- Depress push-button switch to ON position
  - Lights will turn ON (GREEN LED will turn OFF).
- Move slider control lever – lights will brighten or dim to level set.
- Depress push-button switch to OFF position
  - Lights will turn OFF (GREEN LED will turn ON).
- Lights will turn ON at set brightness level (from either switch location in a 3-way installation).

TROUBLESHOOTING

- Lights do not go to full output
  - Move the slider to the top and adjust the high end trim until the desired output is achieved.
- Lights do not dim low enough
  - Disconnect the 0-10V control circuit from the purple and gray dimmer leads. Short the 0-10V control leads from the ballast(s) together and verify minimum dimming level. If the lamps are not dim enough in this configuration, check the dimming specs and/or operation of the ballast.
  - If the verified minimum level is acceptable but not achieved when the dimmer is connected, replace the wall box dimmer or contact Lithonia Control Techinical Service Department at 800-533-2719.

GUARANTEE

Synergy Lighting Controls warrants all equipment to be free from defects in manufacturing, under normal and proper storage, installation, and use, for a period of two years. Our guarantee liability extends only to the repair or replacement of the defective part and no labor charges for correction of the defect by repair or replacement will be honored by Synergy Lighting Controls unless prior written authority has been granted by our Customer Service Department.

For Technical Assistance Call:
1-800-533-2719
www.synergylightingcontrols.com

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DI-40X-IP710-00A

Figure 1 – Dimmer Functions

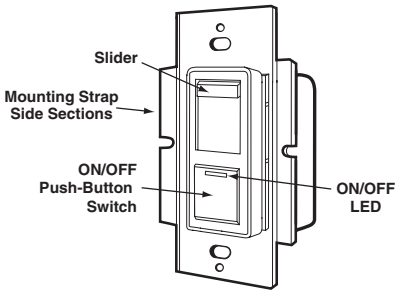


Figure 2 – Color Conversion

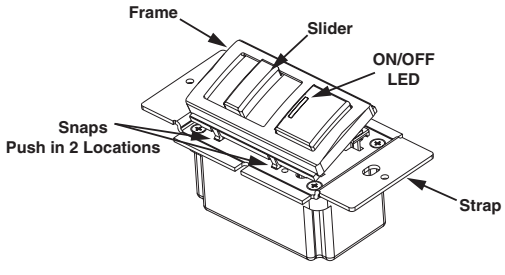


Figure 3 – Low-Voltage Wiring

Wire Size	Max. Distance
#18 AWG	500' (150 m)
#16 AWG	825' (250 m)
#14 AWG	1300' (400 m)
#12 AWG	2100' (650 m)

TABLE 1

Cat. No. ISD BC, 120/277V, For use with Advance Transformer 120/277V Mark VII™

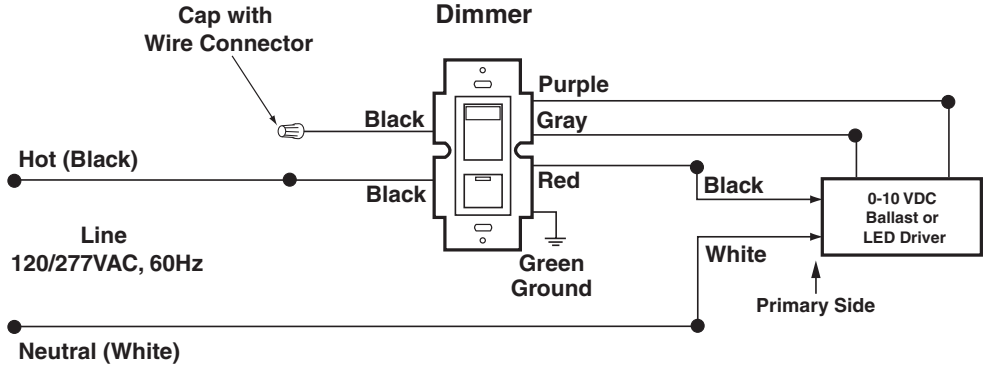
Advance Mark VII™ Part No.	Lamp	Max. # Ballasts/Dimmer for Multi-gang		
		Voltage	1200VA@ 120V	1500VA@ 277V
RZT-I32	F25T8	120	47	N/A
RZT-2S32	F25T8	120	23	N/A
RZT-3S32	F25T8	120	15	N/A
RZT-132	F32T8	120	35	N/A
RZT-2S32	F32T8	120	18	N/A
RZT-3S32	F32T8	120	12	N/A
RZT-1TTS40	FT40W/2G11	120	31	N/A
VZT-4S32	F17T8	277	N/A	21
VZT-132	F25T8	277	N/A	50
VDC-2S32-TP	F25T8	277	N/A	31
VZT-2S32	F25T8	277	N/A	30
VZT-3S32	F25T8	277	N/A	19
VZT-4S32	F25T8	277	N/A	15
VZT-132	F32T8	277	N/A	45
VDC-2S32-TP	F32T8	277	N/A	24
VZT-2S32	F32T8	277	N/A	22
VZT-3S32	F32T8	277	N/A	15
VZT-4S32	F32T8	277	N/A	12
IZT-1T42-M2-BS@120	CFM26W/GX24Q	120-277	40	N/A
IZT-1T42-M2-BS@277	CFM26W/GX24Q	120-277	N/A	49
IZT-1T42-M2-LD@120	CFM26W/GX24Q	120-277	40	N/A
IZT-1T42-M2-LD@277	CFM26W/GX24Q	120-277	N/A	49
IZT-2Q26-M2-BS@120	CFM26W/GX24Q	120-277	20	N/A
IZT-2Q26-M2-BS@277	CFM26W/GX24Q	120-277	N/A	25
IZT-2Q26-M2-LD@120	CFM26W/GX24Q	120-277	20	N/A
IZT-2Q26-M2-LD@277	CFM26W/GX24Q	120-277	N/A	25
IZT-1T42-M2-BS@120	CFM32W/GX24Q	120-277	30	N/A
IZT-1T42-M2-BS@277	CFM32W/GX24Q	120-277	N/A	38
IZT-1T42-M2-LD@120	CFM32W/GX24Q	120-277	30	N/A
IZT-1T42-M2-LD@277	CFM32W/GX24Q	120-277	N/A	38
IZT-2T42-M3-BS@120	CFM32W/GX24Q	120-277	15	N/A
IZT-2T42-M3-BS@277	CFM32W/GX24Q	120-277	N/A	20
IZT-2T42-M3-LD@120	CFM32W/GX24Q	120-277	15	N/A
IZT-2T42-M3-LD@277	CFM32W/GX24Q	120-277	N/A	20
IZT-1T42-M2-BS@120	CFM42W/GX24Q	120-277	23	N/A
IZT-1T42-M2-BS@277	CFM42W/GX24Q	120-277	N/A	30
IZT-1T42-M2-LD@120	CFM42W/GX24Q	120-277	23	N/A
IZT-1T42-M2-LD@277	CFM42W/GX24Q	120-277	N/A	30
IZT-2T42-M3-BS@120	CFM42W/GX24Q	120-277	12	N/A
IZT-2T42-M3-BS@277	CFM42W/GX24Q	120-277	N/A	15
IZT-2T42-M3-LD@120	CFM42W/GX24Q	120-277	12	N/A
IZT-2T42-M3-LD@277	CFM42W/GX24Q	120-277	N/A	15
IZT-1T42-M2-BS@120	CFQ26W/G24Q	120-277	40	N/A

TABLE 2

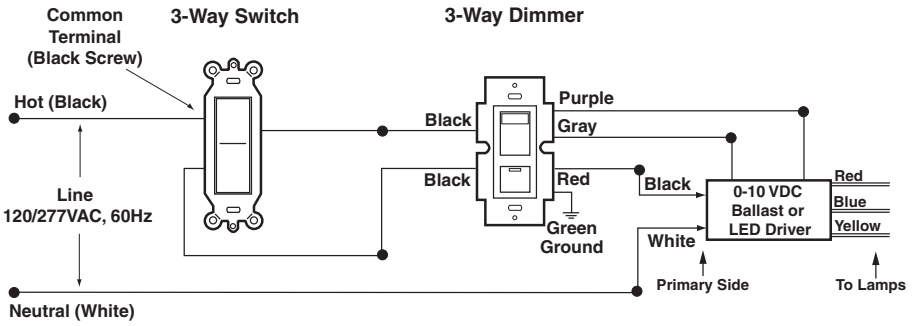
Cat. No. ISD BC, 120/277V, For use with OSRAM Sylvania Quicktronic 120/277V Helios Electronic Ballasts

OSRAM Sylvania Quicktronic Helios Part No.	Lamp	Max. # Ballasts/Dimmer for Multi-gang		
		Voltage	1200VA@ 120V	1500VA@ 277V
QTP1x32T8/120 Dim5-B	F17T8	120	50	N/A
QTP1x32T8/120 Dim5-B	FBO16T8	120	50	N/A
QTP1x32T8/120 Dim5-B	F25T8	120	43	N/A
QTP1x32T8/120 Dim5-B	FBO24T8	120	45	N/A
QTP1x32T8/120 Dim5-B	F32T8	120	37	N/A
QTP1x32T8/120 Dim5-B	FBO32T8/U/6	120	37	N/A
QTP1x32T8/120 Dim5-B	FBO31T8/U	120	38	N/A
QTP2x32T8/120 Dim5-B	F32T8	120	17	N/A
QTP2x32T8/120 Dim5-B	FBO32T8/U/6	120	17	N/A
QTP2x32T8/120 Dim5-B	FBO31T8/U	120	18	N/A
QTP3x32T8/120 Dim5-Q	F32T8	120	12	N/A
QTP3x32T8/120 Dim5-Q	FBO32T8/U/6	120	12	N/A
QTP3x32T8/120 Dim5-Q	FBO31T8/U	120	13	N/A
QTP4x32T8/120 Dim10-B	F32T8	120	9	N/A
QTP4x32T8/120 Dim10-B	FBO32T8/U/6	120	9	N/A
QTP4x32T8/120 Dim10-B	FBO31T8/U	120	9	N/A
QTP1x32T8/277 Dim5-B	F17T8	277	N/A	50
QTP1x32T8/277 Dim5-B	FBO16T8	277	N/A	50
QTP1x32T8/277 Dim5-B	F25T8	277	N/A	50
QTP1x32T8/277 Dim5-B	FBO24T8	277	N/A	50
QTP1x32T8/277 Dim5-B	F32T8	277	N/A	45
QTP1x32T8/277 Dim5-B	FBO32T8/U/6	277	N/A	45
QTP1x32T8/277 Dim5-B	FBO31T8/U	277	N/A	45
QTP2x32T8/277 Dim5-B	F32T8	277	N/A	21
QTP2x32T8/277 Dim5-B	FBO32T8/U/6	277	N/A	21
QTP2x32T8/277 Dim5-B	FBO31T8/U	277	N/A	22
QTP3x32T8/277 Dim5-Q	F32T8	277	N/A	15
QTP3x32T8/277 Dim5-Q	FBO32T8/U/6	277	N/A	15
QTP3x32T8/277 Dim5-Q	FBO31T8/U	277	N/A	16
QTP4x32T8/277Dim10-B	F32T8	277	N/A	9
QTP4x32T8/277 Dim10-B	FBO32T8/U/6	277	N/A	9
QTP4x32T8/277 Dim10-B	FBO31T8/U	277	N/A	10
QT1x54/120PHO-Dim	FP54T5HO	120	18	N/A
QT2x54/120PHO-Dim	FP54T5HO	120	9	N/A
QT1x54/120PHO-Dim	FT55DL	120	19	N/A
QT2x54/120PHO-Dim	FT55DL	120	10	N/A
QT1x54/120PHO-Dim	FPC55	120	19	N/A
QT2x54/120PHO-Dim	FPC55	120	10	N/A
QT1x54/277PHO-Dim	FP54T5HO	277	N/A	23
QT2x54/277PHO-Dim	FP54T5HO	277	N/A	12
QT1x54/277PHO-Dim	FT55DL	277	N/A	24
QT2x54/277PHO-Dim	FT55DL	277	N/A	12
QT1x54/277PHO-Dim	FPC55	277	N/A	24
QT2x54/277PHO-Dim	FPC55	277	N/A	12

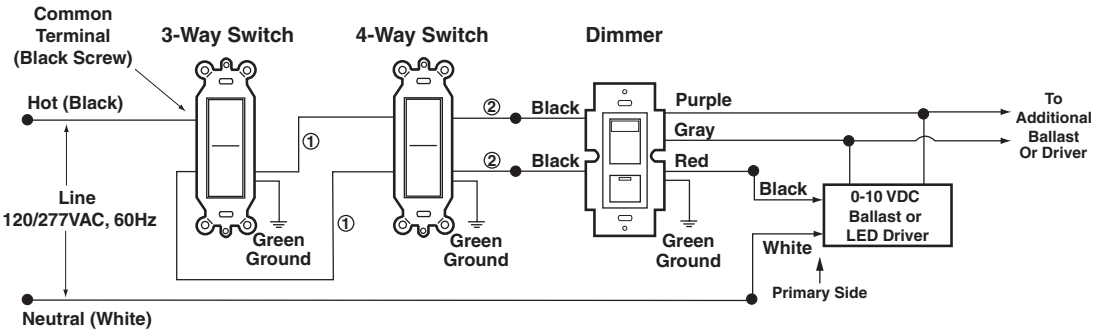
Wiring Diagram 1 – Single Control Application



Wiring Diagram 2 – Two Location Control Application

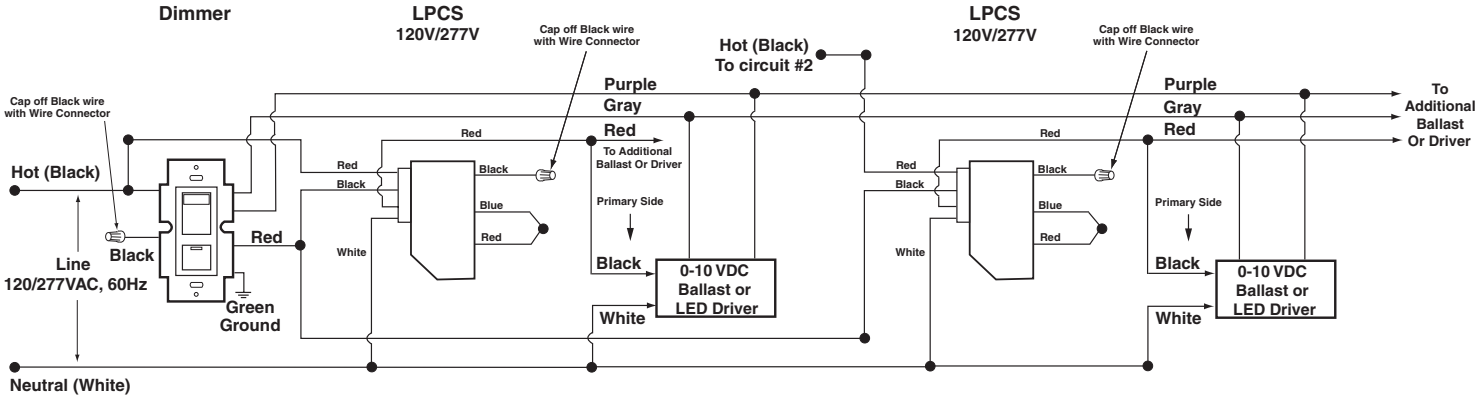


Wiring Diagram 3 – Three Location Control Application



① Travelers between switches "IN"
② Travelers between switches "OUT"

Wiring Diagram 4 – Single Control with Multiple LPCS Power Control Station Application



Note: The ISD BC can be connected to 4 LPCS remote Power Stations. The Purple and Gray wires of the Class 2 circuit can be connected to a maximum of 50 ballasts.

Wiring Diagram 5 – Two Location Control with LPCS Power Control Station