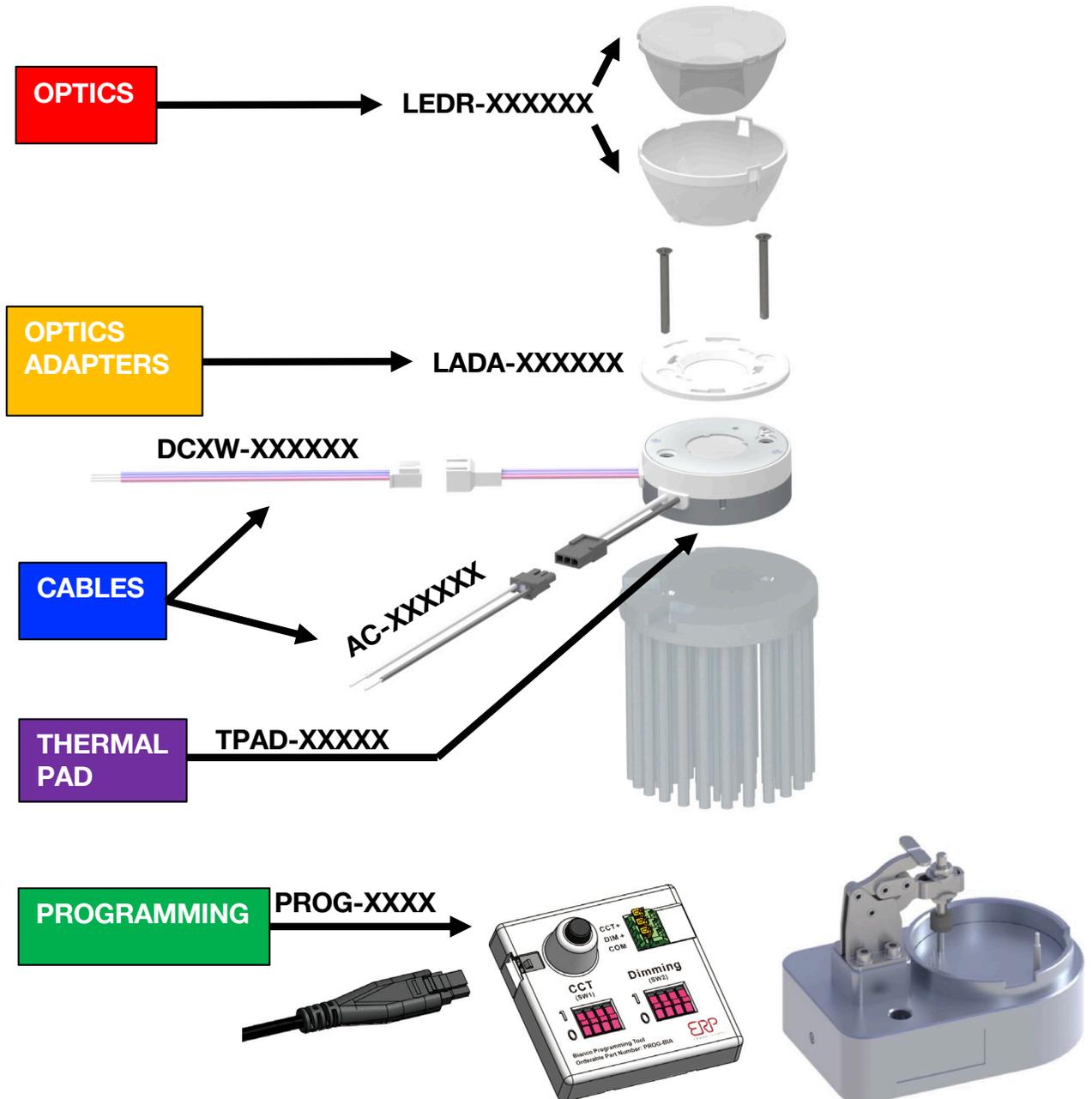


Light Engine Accessory Guide

ERP's Bianco and Araya family of LED Light Engines are a powerful solution for a wide array of lighting applications. As a result, these products have numerous accessory options to meet the requirements of these different applications. The purpose of this guide is to outline all the accessories, what engines they are compatible with, and what functionality would necessitate the use of each accessory.



Light Engine Accessory Guide

OPTICS

		OPTICS				
Required	Accessory P/N	LEDR-BIA50-DK5024-15	LEDR-BIA50-DK5024-24	LEDR-BIA50-DK6230-36	LEDR-BIA50-MN5024-24	LEDR-BIA50-MN5024-50
Conditional Requirement	Accessory Description	50 mm OD (Outside Diameter) DK lens, 15 degree for Bianco 50 mm, with Holder	50 mm OD DK lens, 24 degree for Bianco 50 mm, with Holder	62 mm OD DK lens, 36 degree for Bianco 50 mm, with Holder	50 mm OD MN lens, 24 degree for Bianco 50 mm, with Holder	50 mm OD MN lens, 50 degree for Bianco 50 mm, with Holder
Optional	Usage Criteria	Fixture will use 50 mm OD (Outside Diameter) DK lens		Fixture will use 62 mm OD DK lens	Fixture will use 50 mm OD MN lens	
Light Engine Base Part Number						
TWM2-32-26						
SWM2-18-50						
TWM1-19-14						o
TWM1-19-20						o
TWM1-12-16					o	
TWM1-09-14					o	
SWM1-19-19				o		
SWM1-12-16			o			
SWM1-09-12		o				
AWM1-19-20						o
AWM1-12-16						o

- ERP only offers optics compatible with the TWM1, SWM1 and AWM1 series.

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OPTICS ADAPTERS

		OPTICS ADAPTERS				
Required	Accessory P/N	LADA-BIA65-LEDIL	LADA-BIA65-NATA	LADA-BIA50-19-TIRA	LADA-BIA50-12-TIRA	LADA-BIA50-09-TIRA
Conditional Requirement	Accessory Description	Optic adapter for LEDiL Reflectors	Optic adapter for Nata Reflectors	Optic adapter for Bridgelux, Nata and Herculux lens for 19 mm LES	Optic adapter for Bridgelux, Nata and Herculux lens for 12 mm LES	Optic adapter for Bridgelux, Nata and Herculux lens for 9 mm LES
Optional	Usage Criteria	Fixture will use LEDiL optics	Fixture will use Nata optics	Fixture will be paired with 1 of ERP offered lenses. Required if using any of the ERP offered lens options		
		65 mm ENGINE		50 mm ENGINE		
Light Engine Base Part Number						
TWM2-32-26		O	O			
SWM2-18-50		O	O			
TWM1-19-14				CR		
TWM1-19-20				CR		
TWM1-12-16				CR	CR	
TWM1-09-14				CR	CR	CR
SWM1-19-19				CR		
SWM1-12-16				CR	CR	
SWM1-09-12				CR	CR	CR
AWM1-19-20				CR		
AWM1-12-16				CR	CR	

- Optical Holders for the TWM2 and SWM2 series allow the Light Engine to interface with a compatible Ledil or Nata reflector (purchased separately).
- If using an ERP optic from page 2, TWM1, SWM1 and AWM1 will require the associated compatible holder.
- A larger diameter LES optic adapter (LADA) can be used on a smaller LES light engine; however, a smaller diameter LADA cannot be used on light engines with a larger LES

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CABLES

		CABLES				
Required	Accessory P/N	AC-BIA-NA-610	AC-BIA-NA	AC-BIA-NA-100	AC-BIA-NAQD	AC-NAQD-FL
Conditional Requirement	Accessory Description	AC cable 610 mm (24 in.)	AC cable 400 mm (15.74 in.)	AC cable 100 mm (3.94 in.)	AC cable 400 mm (15.74 in.) with Quick Disconnect (QD)	AC cable 400 mm (15.74 in.) with Quick Disconnect (QD) & Flying Leads (FL)
Optional	Usage Criteria				Fixture is field replaceable	Fixture is field replaceable
Light Engine Base Part Number						
TWM2-32-26		1 of the above required				0
SWM2-18-50		1 of the above required				0
TWM1-19-14		1 of the above required				0
TWM1-19-20		1 of the above required				0
TWM1-12-16		1 of the above required				0
TWM1-09-14		1 of the above required				0
SWM1-19-19		1 of the above required				0
SWM1-12-16		1 of the above required				0
SWM1-09-12		1 of the above required				0
AWM1-19-20		1 of the above required				0
AWM1-12-16		1 of the above required				0

- At least 1 AC power cable is required per Light Engine, and the type of AC cable is dependent on customer requirements. If the fixture is intended to be field replaceable, ERP recommends ordering each Light Engine with 1 AC-BIA-NAQD and 1 AC-NAQD-FL.

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CABLES (CONT'D)

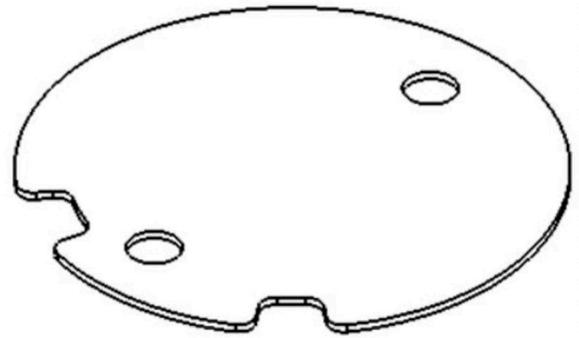
Required	Accessory P/N	DC3W-TWM2-NA	DC3W-BIA-NA	DC2W-BIA-NA-610	DC2W-BIA-NA	DC3W-DMX-NA
Conditional Requirement	Accessory Description	3 wire DC control cable for TWM2, 400 mm (15.74 in.)	3 wire DC control cable, 400 mm (15.74 in.)	2 wire DC control, 610 mm (24 in.)	2 wire DC control, 400 mm (15.74 in.)	3 wire DMX DC control cable for AWM1, 100 mm (3.94 in.)
Optional	Usage Criteria	Fixture will utilize 0-10 V dimming or 0-10 V CCT control	Fixture will utilize 0-10 V dimming or 0-10 V CCT control	Fixture will utilize 0-10 V dimming	Fixture will utilize 0-10 V dimming	
Light Engine Base Part Number						
	TWM2-32-26	O				
	SWM2-18-50			O	O	
	TWM1-19-14		O			
	TWM1-19-20		O			
	TWM1-12-16		O			
	TWM1-09-14		O			
	SWM1-19-19			O	O	
	SWM1-12-16			O	O	
	SWM1-09-12			O	O	
	AWM1-19-20					R
	AWM1-12-16					R

- Light Engines will need a DC control cable if the fixture is intended to either be dimmed using 0-10 V dimming or will utilize 0-10 V CCT control. Static white and warm dim applications intended for use with TRIAC or ELV dimming do not require a DC control cable.
- The AWM1 requires the DC3W-DMX-NA cable assembly as it is only compatible with DMX dimming.

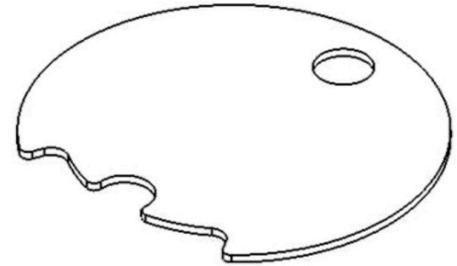
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THERMAL PADS

		THERMAL PAD	
Required	Accessory P/N	TPAD-BIA65	TPAD-BIA50
Conditional Requirement	Accessory Description	Bianco 65 mm Thermal Pad, 1 mm thick, 5 W/mK	Bianco 50 mm Thermal Pad, 1 mm thick, 5 W/mK
Optional	Usage Criteria	Required unless using alternative thermal conducting solution such as grease	
Light Engine Base Part Number			
	TWM2-32-26	R	
	SWM2-18-50	R	
	TWM1-19-14		R
	TWM1-19-20		R
	TWM1-12-16		R
	TWM1-09-14		R
	SWM1-19-19		R
	SWM1-12-16		R
	SWM1-09-12		R
	AWM1-19-20		R
	AWM1-12-16		R



TPAD-BIA65



TPAD-BIA50

Light Engine Accessory Guide

PROGRAMMING

		PROGRAMMING					
Required	Accessory P/N	PROG-BIA65-CRADLE	PROG-BIA50-CRADLE	PROG-JACK-USB	PROG-BIA	PROG-BIA-CBL	PROG-TWM2-CBL
Conditional Requirement	Accessory Description	Bianco 65 mm Programming Cradle	Bianco 50 mm Programming Cradle	USB to 3.5 mm Audio Jack Programming Cable	Bianco Programming Tool	Bianco 50 mm Programming Cable	TWM2 Programming Cable
Optional	Usage Criteria	Engine will need programming during assembly. Not needed per engine		Required for use with programming cradle	Engine will need programming during assembly. Not needed per engine. Cable required if using Bianco Programming Tool		
Light Engine Base Part Number							
TWM2-32-26					O		CR
SWM2-18-50		O					
TWM1-19-14			O	CR	O	CR	
TWM1-19-20			O	CR	O	CR	
TWM1-12-16			O	CR	O	CR	
TWM1-09-14			O	CR	O	CR	
SWM1-19-19			O	CR			
SWM1-12-16			O	CR			
SWM1-09-12			O	CR			
AWM1-19-20			O	CR			
AWM1-12-16			O	CR			

- The programming cradle PROG-BIA65-CRADLE is only compatible with the SWM2 series. PROG-BIA50-CRADLE is compatible with the TWM1, SWM1, and AWM1 series.
- The programming tool PROG-BIA is only compatible with the TWM2 and TWM1 series. ERP recommends one PROG-BIA per assembly line, and to use either the PROG-TWM2-CBL or PROG-BIA-CBL as a consumable resource for programming Light Engines.