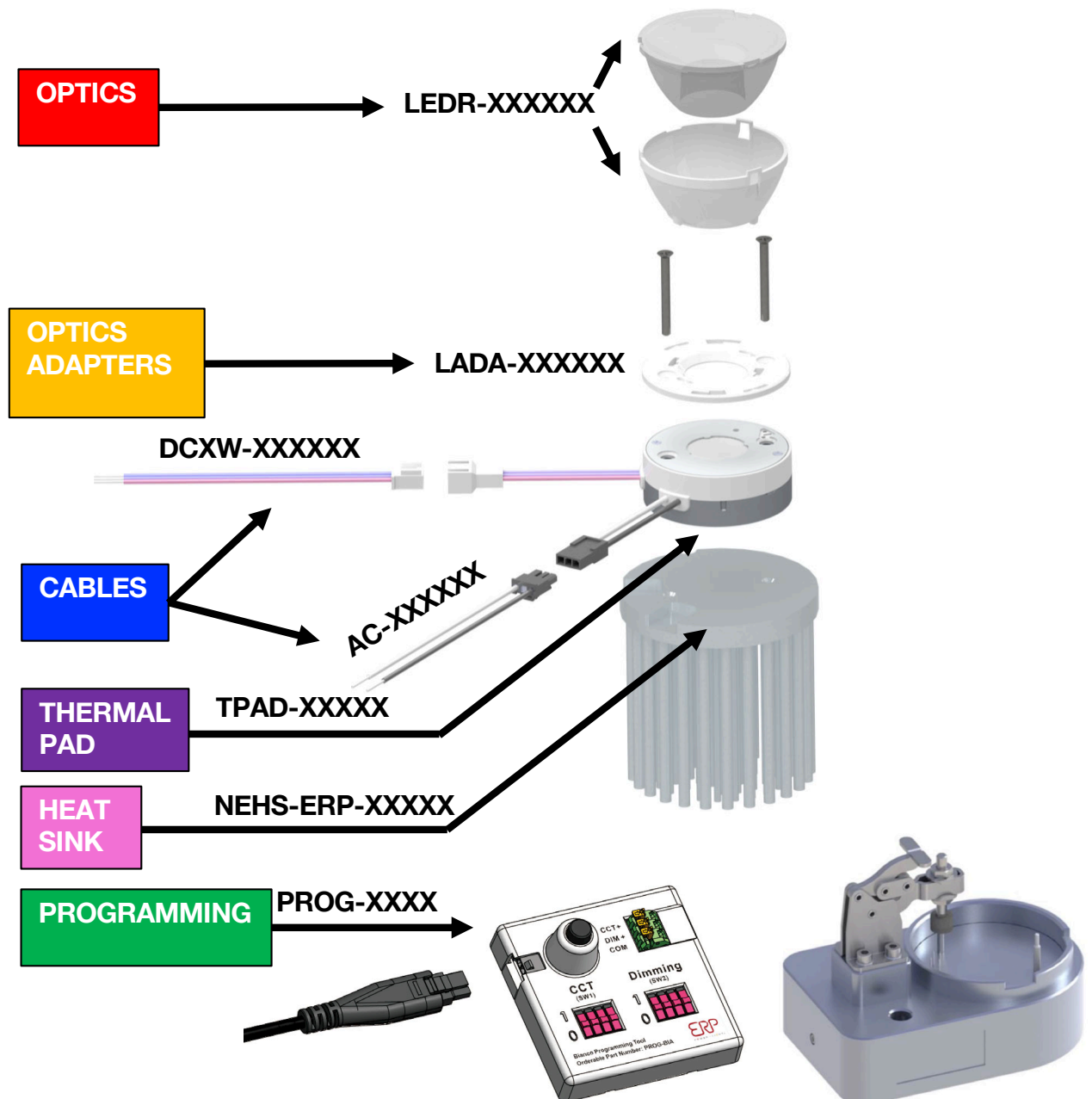


Light Engine Accessory Guide

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-BIA65-DK6832-36	LEDR-BIA50-DK5024-15	LEDR-BIA50-DK5024-24	LEDR-BIA50-DK6230-36	LEDR-BIA50-DKA5024-36	LEDR-BIA28-ZG2813-36	LEDR-BIA50-MN5024-24	LEDR-BIA50-MN5024-50
Conditional Requirement	Accessory Description	68 mm OD DK lens, 36 degree for Bianco 65 mm, with Holder	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 DKA lens, 36 degree for Bianco 50 mm, with Holder	28 mm OD ZG lens, 36 degree for Bianco 28 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 an ERP provided secondary optic							
Light Engine Base Part Number									
TWM2-32-26									
SWM2-18-50									
SWC-B6522W		o							
TWM1-19-14									o
TWM1-19-20									o
TWM1-12-16								o	
TWM1-09-14								o	
TWC-A5019W									o
TWC-A5012W								o	
TWC-A5009W								o	
SWM1-19-19					o				
SWM1-12-16				o					
SWM1-09-12			o						
SWC-B5018W						o			
SWC-B2806W							o		
SWC-B2810W							o		
AWM1-19-20									o
AWM1-12-16									o
TDC-A5019W									o
TDC-A5012W									o

- ERP does not offer optics compatible with the TWM2 or SWM2 series.

Light Engine Accessory Guide

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 when labeled "CR"		
Light Engine Base Part Number						
TWM2-32-26		O	O			
SWM2-18-50		O	O			
SWC-B6522W						
TWM1-19-14				CR		
TWM1-19-20				CR		
TWM1-12-16				CR	CR	
TWM1-09-14				CR	CR	CR
TWC-A5019W				CR		
TWC-A5012W				CR	CR	
TWC-A5009W				CR	CR	CR
SWM1-19-19				CR		
SWM1-12-16				CR	CR	
SWM1-09-12				CR	CR	CR
SWC-B5018W						
SWC-B2806W						
SWC-B2810W						
AWM1-19-20				CR		
AWM1-12-16				CR	CR	
TDC-A5019W				CR		
TDC-A5012W				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, TWC, SWM1, AWM1, and TWC 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

Light Engine Accessory Guide

CABLES

		AC 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
	SWC-B6522W	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
	TWC-A5019W	1 of the above required				0
	TWC-A5012W	1 of the above required				0
	TWC-A5009W	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
	SWC-B5018W	1 of the above required				0
	SWC-B2806W	1 of the above required				0
	SWC-B2810W	1 of the above required				0
	AWM1-19-20	1 of the above required				0
	AWM1-12-16	1 of the above required				0
	TDC-A5019W	1 of the above required				0
	TDC-A5012W	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.

Light Engine Accessory Guide

CABLES (CONT'D)

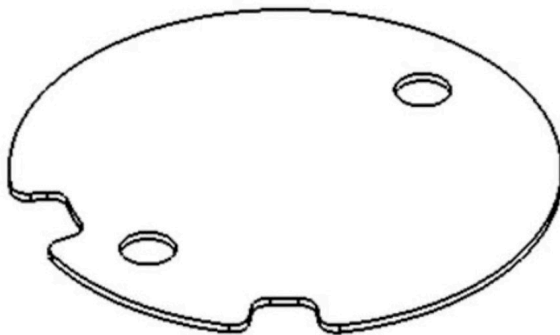
		DC CABLES						
Required	Accessory P/N	DC3W-TWM2-NA	DC3W-BIA-NA	DC3W-BIA-NA-400	DC2W-BIA-NA-610	DC2W-BIA-NA	DC3W-DMX-NA	DC3W-DMX-NA-400
Conditional Requirement	Accessory Description	3 wire DC control cable for TWM2, 400 mm (15.74 in.)	3 wire DC control cable, 100 mm (3.94 in.)	3 wire DC control cable, 400 mm (15.74 in.)	2 wire DC control, 610 mm (24 in.)	2 wire DC control, 100 mm (3.94 in.)	3 wire DMX DC control cable for AWM1, 100 mm (3.94 in.)	3 wire DMX DC control cable for AWM1, 400 mm (15.74 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 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		
	SWC-B6522W				O	O		
	TWM1-19-14		O	O				
	TWM1-19-20		O	O				
	TWM1-12-16		O	O				
	TWM1-09-14		O	O				
	TWC-A5019W							
	TWC-A5012W							
	TWC-A5009W							
	SWM1-19-19				O	O		
	SWM1-12-16				O	O		
	SWM1-09-12				O	O		
	SWC-B5018W				O	O		
	SWC-B2806W				O	O		
	SWC-B2810W				O	O		
	AWM1-19-20						R	R
	AWM1-12-16						R	R
	TDC-A5019W							
	TDC-A5012W							

- 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.

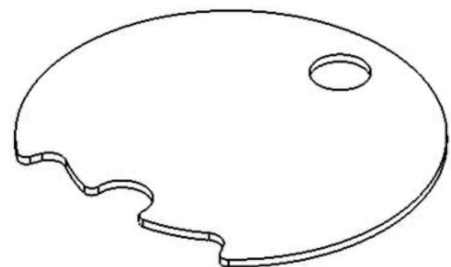
Light Engine Accessory Guide

THERMAL PADS

		THERMAL PAD							
Required	Accessory P/N	TPAD-BIA65	TPAD-BIA50	NETP-ERP-65-000	NETP-ERP-65-001	NETP-ERP-50-000	NETP-ERP-50-001	NETP-ERP-28-000	NETP-ERP-28-001
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	New Energy Thermal Pad for 65 mm Engines, Bottom Lead cutout, 0.3 mm thick, 3 W/mK	New Energy Thermal Pad for 65 mm Engines, NO Bottom Lead cutout, 0.3 mm thick, 3 W/mK	New Energy Thermal Pad for 50 mm Engines, Bottom Lead cutout, 0.3 mm thick, 3 W/mK	New Energy Thermal Pad for 50 mm Engines, NO Bottom Lead cutout, 0.3 mm thick, 3 W/mK	New Energy Thermal Pad for 28 mm Engines, Bottom Lead cutout, 0.3 mm thick, 3 W/mK	New Energy Thermal Pad for 28 mm Engines, NO Bottom Lead cutout, 0.3 mm thick, 3 W/mK
Optional	Usage Criteria	Required unless using alternative thermal conducting solution such as grease or alternative thermal pad. Side lead variants should use "-001" part numbers and bottom lead variants should use "-000" part numbers.							
Light Engine Base Part Number									
	TWM2-32-26	CR		CR	CR				
	SWM2-18-50	CR		CR	CR				
	SWC-B6522W	CR		CR	CR				
	TWM1-19-14		CR			CR	CR		
	TWM1-19-20		CR			CR	CR		
	TWM1-12-16		CR			CR	CR		
	TWM1-09-14		CR			CR	CR		
	TWC-A5019W		CR			CR	CR		
	TWC-A5012W		CR			CR	CR		
	TWC-A5009W		CR			CR	CR		
	SWM1-19-19		CR			CR	CR		
	SWM1-12-16		CR			CR	CR		
	SWM1-09-12		CR			CR	CR		
	SWC-B5018W		CR			CR	CR		
	SWC-B2806W							CR	CR
	SWC-B2810W							CR	CR
	AWM1-19-20		CR			CR	CR		
	AWM1-12-16		CR			CR	CR		
	TDC-A5019W		CR			CR	CR		
	TDC-A5012W		CR			CR	CR		



TPAD-BIA65



TPAD-BIA50

Light Engine Accessory Guide

HEAT SINKS

		HEAT SINK					
Required	Accessory P/N	NEHS-ERP-65-000	NEHS-ERP-65-001	NEHS-ERP-50-000	NEHS-ERP-50-001	NEHS-ERP-28-000	NEHS-ERP-28-001
Conditional Requirement	Accessory Description	New Energy Heat Sink for 65 mm Engines, Bottom Lead cutout	New Energy Heat Sink for 65 mm Engines, NO Bottom Lead cutout	New Energy Heat Sink for 50 mm Engines, Bottom Lead cutout	New Energy Heat Sink for 50 mm Engines, NO Bottom Lead cutout	New Energy Heat Sink for 28 mm Engines, Bottom Lead cutout	New Energy Heat Sink for 28 mm Engines, NO Bottom Lead cutout
Optional	Usage Criteria	Required unless using alternative heat sink or fixture chassis heat sinking. Side lead variants should use "-001" part numbers and bottom lead variants should use "-000" part numbers.					
Light Engine Base Part Number							
TWM2-32-26		CR	CR				
SWM2-18-50		CR	CR				
SWC-B6522W		CR	CR				
TWM1-19-14				CR	CR		
TWM1-19-20				CR	CR		
TWM1-12-16				CR	CR		
TWM1-09-14				CR	CR		
TWC-A5019W				CR	CR		
TWC-A5012W				CR	CR		
TWC-A5009W				CR	CR		
SWM1-19-19				CR	CR		
SWM1-12-16				CR	CR		
SWM1-09-12				CR	CR		
SWC-B5018W				CR	CR		
SWC-B2806W						CR	CR
SWC-B2810W						CR	CR
AWM1-19-20				CR	CR		
AWM1-12-16				CR	CR		
TDC-A5019W				CR	CR		
TDC-A5012W				CR	CR		

Light Engine Accessory Guide

PROGRAMMING

		PROGRAMMING						
Required	Accessory P/N	PROG-BIA65-CRADLE	PROG-BIA50-CRADLE	PROG-CAS50-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	Bianco 50 mm Programming Cradle for Casambi Enabled Engines	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						
	SWC-B6522W							
	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	
	TWC-A5019W			O	CR			
	TWC-A5012W			O	CR			
	TWC-A5009W			O	CR			
	SWM1-19-19		O		CR			
	SWM1-12-16		O		CR			
	SWM1-09-12		O		CR			
	SWC-B5018W							
	SWC-B2806W							
	SWC-B2810W							
	AWM1-19-20		O		CR			
	AWM1-12-16		O		CR			
	TDC-A5019W			O	CR			
	TDC-A5012W			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.