

# Smart AL series dimmers

Project Name:	Prepared By:
Project Number:	Date:
Catalog Number:	Type:

## Description

Single pole & 3-Way  
 300W Dimmable LED/CFL  
 600 INC, HAL, FLR, MLV, ELV  
 120V/AC



## Design features

- Preset feature allows user to return to previous light setting when turning lights ON
- Master/Accessory units for multi-location control
- Amber LED at bottom of LED display indicates ON/OFF load status
- Seven step green LED display indicates selected light level – and reduces brightness when OFF (nightlight feature)
- Pressing and holding push pad for 2 seconds when dimmer is OFF brings light to full brightness without affecting preset levels
- Offers a 10 second delayed-OFF feature by pressing and holding push pad for 2 seconds when dimmer is ON
- Aesthetically pleasing soft-ON/fade-OFF that extends lamp life
- Neutral is required for installation of device
- Programmable rapid start feature ensures lamp start-up even at low dim levels
- Adjustable low-level trim setting for optimal lamp compatibility
- Faceplate is removable to allow for color change
- Air-gap switch disconnects power from load, forcing an OFF condition
- Adjustable high-level trim setting for additional energy savings
- Compatible with most common dimmable lighting loads (phase-cut)
- Color change kits are available with packout of 3 different colors for increased flexibility and convenience
- California Title 20 compliant

**Table 1. Smart AL Dimmers, Wire Leads**

Catalog No.	Description	Compatible Lamp Types	Rating		Color Suffix
			Watt	V/AC	
□ AAL06-__	Smart dimmer master, AL series, single pole/multi-location with presets and LEDs. Neutral required.	Dimmable LED/CFL	300	120	C1, C2, C4, C5
		INC, HAL, FLR, MLV, ELV	600	120	C1, C2, C4, C5
□ ARD-__	Accessory dimmer, multi-location, with preset and LEDs. Must be used with AAL06	—	—	120	A, B, BK, C1, C2, GY, LA, V, W
□ AMC-__-BP	Master dimmer color change faceplate	—	—	—	A, B, BK, GY, LA, V, W
□ ARC-__-BP	Accessory dimmer color change faceplate	—	—	—	A, B, BK, GY, LA, V, W



Powering Business Worldwide

Compliances, specifications and availability are subject to change without notice.

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## Applications

The AL series smart dimmer provides smooth, full-range digital dimming for incandescent, halogen, electronic low-voltage, magnetic low-voltage, dimmable LED/CFL, and fluorescent lighting. In addition, an accessory dimmer is included in the product series for multi-location control for up to 5 locations. This line offers a combined single pole/multi-location unit for nearly all lamp loads. All AL smart dimmers are compatible with any decorator, designer-style wallplates.

**Table 2. Specifications**

<b>Catalog No.</b>	<b>AAL06, ARD, AMC-BP, ARC-BP Series</b>
<b>Device Type</b>	<b>Smart AL Dimmers</b>
<b>Wiring Type</b>	6" pre-stripped wire leads, #14 AWG
<b>Testing &amp; Code Compliance</b>	<ul style="list-style-type: none"> <li>• cULus Listed to UL1472, file no. E47967</li> <li>• NOM Certified</li> <li>• California Title 20 compliant</li> </ul>
<b>Environmental Specifications</b>	<b>Flammability:</b> Meets UL 94 requirements; V2 rated <b>Temperature Rating:</b> 0°C to 40°C (32°F to 104°F)
<b>Electrical Specifications</b>	<b>Rating:</b> 120V/AC 60 Hz <b>Light Intensity Control:</b> Full-range, continuously variable dimming <b>Dimming Performance:</b> Smooth and continuous Square Law Dimming curve Solid State Dimming <b>Radio Frequency Interference:</b> Designed to reduce interference with radio, audio and video equipment <b>Lamp Ratings:</b> 300W dimmable LED/CFL 600W incandescent, halogen, dimmable fluorescent, electronic low-voltage, magnetic low-voltage
<b>Mechanical Specifications</b>	<b>Wiring Types:</b> Single pole & multi-location <b>LED Indicators:</b> Load status indicator, light level & locator <b>Air-gap Switch:</b> Meets UL1472 for inclusion of visible, accessible air-gap off switch <b>Voltage Ratings:</b> Permanently marked on device

**Table 3. Materials**

<b>Catalog No.</b>	<b>AAL06, ARD, AMC-BP, ARC-BP Series</b>
<b>Top Housing</b>	Polycarbonate
<b>Bottom Housing</b>	Polycarbonate
<b>Strap</b>	Aluminum
<b>Form Factor</b>	Decorator
<b>Finish</b>	Gloss

**Table 4. De-Rating Chart - 600W Models**

Lamp Type	1-Gang	2-Gang	3-Gang +
<b>LED/CFL</b>	300W max.	300W max.	300W max.
<b>INC, HAL, ELV</b>	600W max.	550W max.	500W max.
<b>MLV</b>	600W max.	550W max.	500W max.
<b>FLR</b>	See Ballast Performance Data pages		

**Table 5. Color Ordering Information**

For ordering devices, include Catalog no. followed by the Color suffix: A (Almond), B (Brown), BK (Black), GY (Gray), LA (Light Almond), V (Ivory), W (White), C1 (Color Change Kit: A, W, V), C2 (Color Change Kit: LA, W, V), C4 (Color Change Kit: BK, W, V), C5 (Color Change Kit: BK, W, GY)

A	B	BK	GY	LA	V	W					
(Almond)	(Brown)	(Black)	(Gray)	(Light Almond)	(Ivory)	(White)					
A	W	V	LA	W	V	BK	W	V	BK	W	GY
<b>C1 Color Kit</b>			<b>C2 Color Kit</b>			<b>C4 Color Kit</b>			<b>C5 Color Kit</b>		
A (Almond), W (White), V (Ivory)			LA (Light Almond), W (White), V (Ivory)			BK (Black), W (White), V (Ivory)			BK (Black), W (White), GY (Gray)		

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**Product Dimensions**

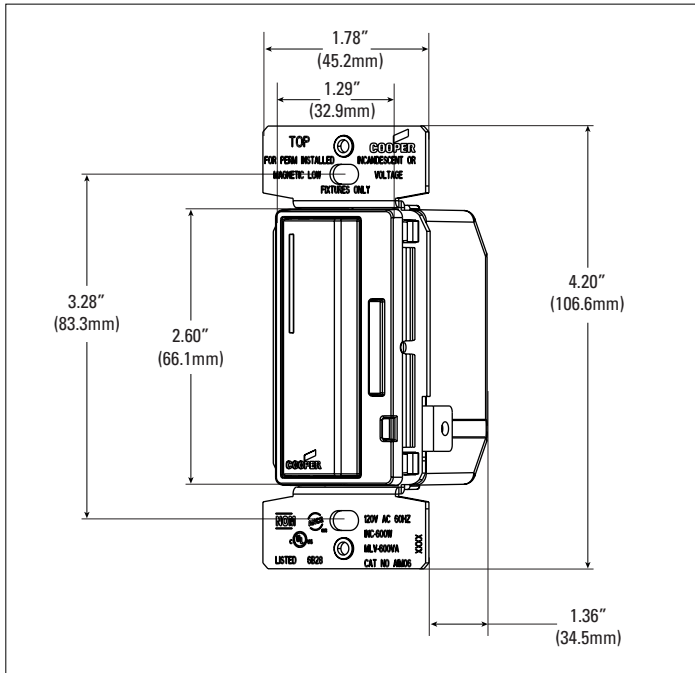


Figure 1. AAL06 Line Art with Dimensions

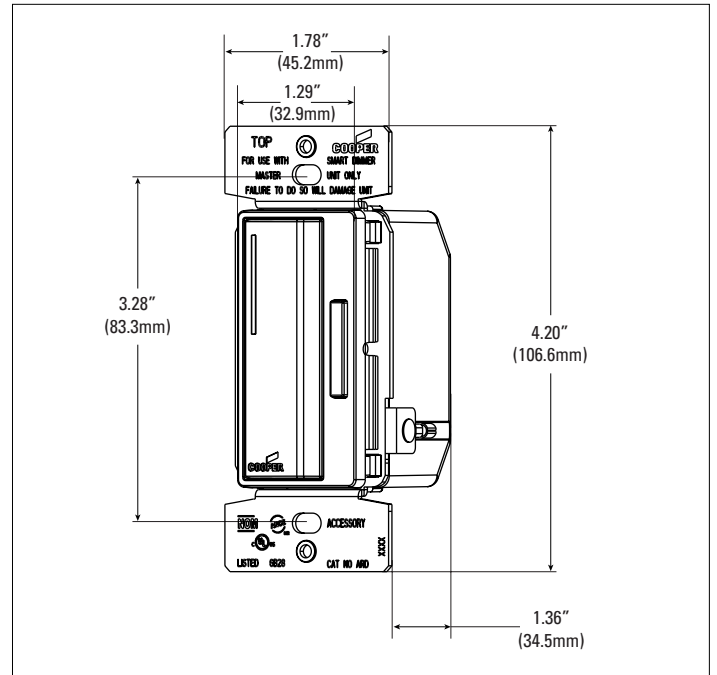
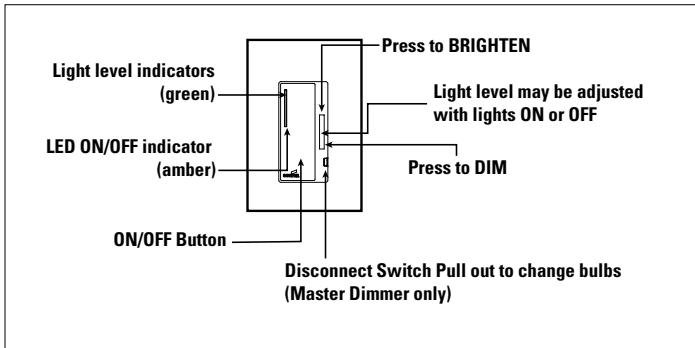


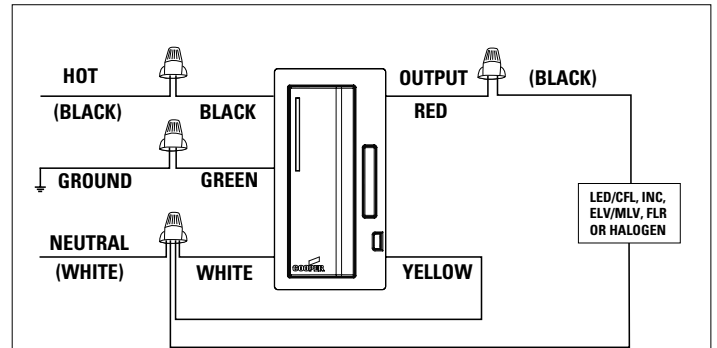
Figure 2. ARD Line Art with Dimensions

**Wiring Diagrams**

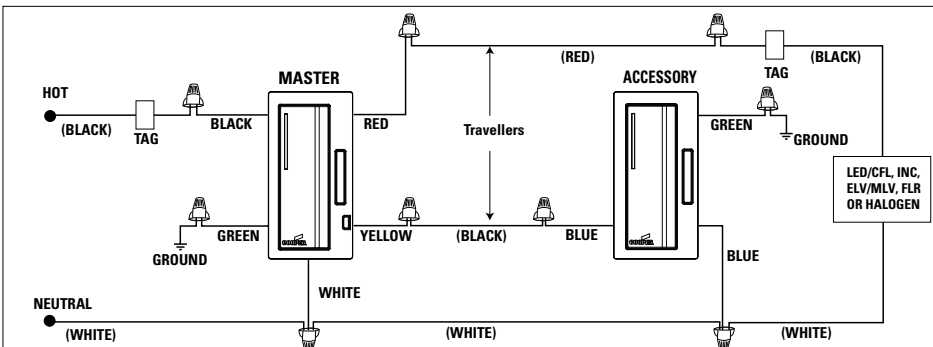
**Switch Functions**



**Single Location Wiring Diagram  
INC, HAL, LED/CFL, FLR, MLV, ELV**



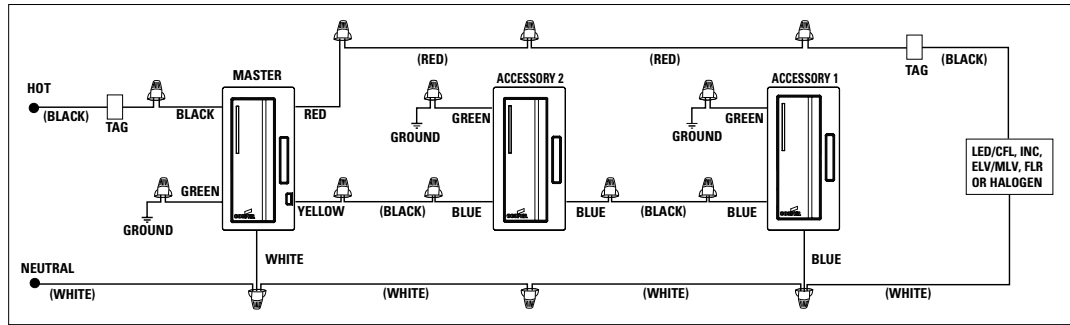
**Two Location Installation Wiring Diagram  
INC, HAL, LED/CFL, FLR, MLV, ELV**



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## Wiring Diagrams

### Three Location Installation Wiring Diagram INC, HAL, LED/CFL, FLR, MLV, ELV



## Certifications & Compliances

Catalog No.	cULus	NOM	TITLE 20
AAL06	•	•	•
ARD	•	•	
AMC-BP	•	•	
ARC-BP	•	•	

**KEY:** cULus cULus NOM NOM TITLE 20 Title 20 compliant

Table 6. Listed Dimmable CFL Bulb List

Make	Catalog Number	Make	Catalog Number
<b>Ecosmart</b>	ES5M814DIM	<b>Neptune</b>	24514-ADIM
	ES5M10123		32016-ADIM
	ES5R214DIM50K	<b>Sylvania</b>	CF5EL/B10/C/DIM/827
	ES5CCDF052		CF5EL/A15/DIM/827
	ES5R315DIM		CF5EL/DECO/DIM
<b>Feit</b>	BPESL15T/DM	CF24EL/TWIST/827/DIM	
	LBP13TC/DM	CF19EL/BR40/827/DIM	
	BPESL23T/DIM	CF15EL/BR30/DIM/827	
	ESL15R30/DM	CF14EL/TWIST/827/DIM	
	BPESL15R30/DM	CF14EL/R20/827/DIM	
<b>GE</b>	FLE15/2/DV/R30	<b>TCP</b>	40114
	FLE15HT3/2/DV/		40123
	FLE26/2/DV/R40		2R2014DIM
	FLE26HT3/2/DV/		2R3016DIM
<b>Globe</b>	CCFL R20	2R4019DIM	
	CCFL VANITY	10123	
	CCFL A-TYPE	8T03CL	
	CCFL PAR20	8T05CL	
<b>Phillips</b>	EL/ES Dim 20 Alto	8T08CL	
	EL/A R30 DIM 16W	8TC05F	
	EL/A R40 DIM 20W	8A08WH	
	EL/A PAR38 DIM 20W	8TF05F	
	EL/A R40 Dim 20W (150725)	2G2514DIM	
	EL/mDT DIM 20W		
	EL/Dt dim 32W		
	EL/mdT Dim 15W		
	EL/A R30 DIM 16W (150417)		

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**Table 7. Listed Dimmable LED Bulb List**

Make	Catalog Number	Make	Catalog Number	
<b>Cooper Lighting</b>	H455ICAT120D	<b>Philips</b>	EnduraLED 7A 2700 A19 Dimm (407956)	
	H455RICAT120D		EnduraLED 11W 2700K PAR30S Dimmable (408096)	
	ML706827		EnduraLED 11W 3000K PAR30S Dimmable (408104)	
	ML706830		EnduraLED 11W 4200K PAR30S Dimmable (408112)	
	ML706835		EnduraLED 11W 2700K PAR30L Dimmable (408120)	
	ML706840		EnduraLED 11W 3000K PAR30L Dimmable (408138 )	
	ML709827ICAT120D		EnduraLED 11W 4200K PAR30S Dimmable (408146)	
	ML709830ICAT120D		EnduraLED 11W 4200K PAR30S Dimmable (410134)	
	ML709835ICAT120D		EnduraLED 11W 2700K PAR30L Dimmable (410142)	
	ML709840ICAT120D		EnduraLED 16W 2700K 120V PAR38 Dimmable (408153)	
	RL706830E26WBS		EnduraLED 16W 3000K 120V PAR38 Dimmable (408161)	
	RL706830WBS		EnduraLED 16W 4200K 120V PAR38 Dimmable (408179)	
<b>Cree</b>	BA19-08027OMF-12DE26-1U100	EnduraLED 6W 3000K R20 Dimm (408203)		
	BA21-16050OMF-12DE26-1U110	423400 (9290002192 on bulb) with 2+ lamps		
	BBR30-06527FLF	423798 (9290002544 on bulb)		
	LR6	424382 (9290002268A on bulb)		
	LR6-DR650	425264 (9290002296A on bulb)		
	LR6-DR1000	432195 (9290002596 on bulb)		
	LE6	433227 (9290002707 on bulb)		
	CR6	433235 (9290002709 on bulb)		
	LR4E-15			
	LR4E-30			
<b>Ecosmart (Home Depot)</b>	ECO-575L ECS19WW120	<b>Satco</b>	S873X (PAR20)	
	ECS20WWFL120		S874X, S877X (PAR30)	
	ECS30WWFL120		S875X (PAR 38)	
	ECS38WWFL120			
ECS25WW120		<b>Solaris</b>	LR30/10/30/750	
<b>Feit</b>	BPAG1100DM/5K/LED		LR30/25/30/750	
	BPCEBR30/DM/LED		LR30LN/10/30/850	
	BPCEG25/LED/3		LR30LN/25/30/850	
	BPCPAR38/930/LED		LR38/10/30/1000	
		LR38/25/30/1000		
<b>G7 Power</b>	G7BR301527D	<b>Sylvania</b>	LED15PAR30LN/DIM/830/FL40	
<b>HitLights/Dura</b>	HL-LED_5WWW_GU10		LED15PAR30LN/DIM/830/NFL25	
<b>Lighting Ever</b>	200039 (not compatible with AAL06P)		LED15PAR30LN/DIM/827/NFL25	
	200055-WW-US		LED15PAR30LN/DIM/827/FL40	
	600026-WW-US		LED18PAR38/DIM/830/NFL25	
<b>Lighting Science</b>	DFN20NWFL120		LED18PAR38/DIM/830/FL40	
	DFN38NWFL120		LED18PAR38/DIM/827/NFL25	
	DFN30NWFL120		LED18PAR38/DIM/827/FL40	
	DFN19NW120		LED8A/DIM/F/830	
	DFN25NWFL120		LED8A/DIM/F/827	
			LED8G25/DIM/F/830	
			LED8G25/DIM/827	
			LED8PAR20/DIM/830/NFL25	
		LED8PAR20/DIM/830/FL36		
		LEDPAR20/DIM/827/NFL25		
		LEDPAR20/DIM/827/FL36		
		<b>Triangle</b>	55961	
			<b>Utilitech</b>	0599032
				0519042
				0113539
		0519037		
		<b>Uber Haus</b>	15735007	
			15735004	
			15735005	

Effective October 2017

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**Table 8. Maximum Fluorescent Lamp Wattage**

The following table lists the maximum number of Mark 10® or AmbiStar® ballasts that can be connected to a dimmer for single and multi-device installations in a wallbox.

Ballast Cast#	Lamp Type	# of Lamps	Lamp Watts	Max # of Ballasts per Dimmer for Multiganging		
				One Gang	Two Gang	Three Gang
REB-2S26	CFQ26W/G24q	1	26	20	18	16
REB-2S26	CFQ26W/G24q	2	26	10	9	8
REB-2S26	CFTR32W/GX24q	1	32	15	14	12
REB-2S26	CFTR42W/GX24q	1	42	11	10	9
REZ-1Q18	CFQ18W/G24q	1	18	26	23	21
REZ-1Q18	CFTR18W/GX24q	1	18	26	23	21
REZ-2Q18	CFQ18W/G24q	2	18	13	11	10
REZ-2Q18	CFTR18W/GX24q	2	18	13	11	10
REZ-2Q26	CFQ26W/G24q	2	26	9	8	8
REZ-2Q26	CFTR26W/GX24q	2	26	9	8	8
REZ-1T42	CFQ26W/G24q	1	26	18	16	14
REZ-1T42	CFTR26W/GX24q	1	26	18	16	14
REZ-1T42	CFTR32W/GX24q	1	32	14	13	12
REZ-1T42	CFTR42W/GX24q	1	42	11	10	9
REZ-2T42	CFTR32W/GX24q	2	32	7	6	6
REZ-2T42	CFTR42W/GX24q	2	42	5	5	4
REZ-2T42	CFTR57W/GX24q	1	57	8	7	7
REZ-2T42	CFTR70W/GX24q	1	70	7	6	5
IEZ-2S24	FT24W/2G11	2	24/27	9	8	8
IEZ-2S24	F24T5/HO	2	24	9	8	8
REZ-1TTS40	FT36W/2G11	1	36/39	14	13	12
REZ-1TTS40	FT40W/2G11/RS	1	40	14	13	12
REZ-2TTS40	FT36W/2G12	2	36/40	7	6	6
REZ-2TTS40	FT40W/2G11/RS	2	41	6	6	5
REZ-154	F54T5/HO	1	54	8	8	7
REZ-154	FC12T5/HO	1	55	9	8	7
REZ-154	FT55W/2G11	1	55	9	8	7
REZ-2S54	F54T5/HO	2	54	4	4	3
REZ-2S54	FC12T5/HO	2	55	4	4	4
REZ-2S54	FT55W/2G12	2	55	4	4	4
REZ-132	F17T8, FBO16T8	1	17	23	21	19
REZ-132	F25T8, FBO24T8	1	25	18	16	14
REZ-132	F32T8, FBO31T8	1	32	16	14	13
REZ-2S32	F17T8, FBO16T9	2	17	14	13	12
REZ-2S32	F25T8, FBO24T9	2	25	10	9	8
REZ-2S32	F32T8, FBO31T9	2	32	8	7	6
REZ-3S32	F17T8, FBO16T10	3	17	10	9	8
REZ-3S32	F25T8, FBO24T10	3	25	7	6	5
REZ-3S32	F32T8, FBO31T10	3	32	5	4	4

**Lutron Tu-Wire® ballast.** The total of all line currents for the ballasts connected to the dimmer should be less than: 4-70A for one gang; 4-30A for two gang and 3-90A for three gang installations.

Electrical Sector  
203 Cooper Circle  
Peachtree City, GA 30269  
United States  
Eaton.com  
Eaton.com/wiringdevices

Electrical Sector  
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5925 McLaughlin Road  
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EatonCanada.ca  
Eaton.com/wiringdevices

Electrical Sector  
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Carr. Tlalnepantla -  
Cuautitlan Km 17.8 s/n  
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Cerrada 8 de Mayo  
Cuautitlan, Mexico CP 54800  
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