Project		Catalog #		Type	
Prepared by		Notes		Date	

iO LED

CovSelect

LED
Interior Architectural Cove
Integral Driver

Typical Applications

Commercial Office Spaces • Schools • Hospitals
Retail • Residential • Hospitality • Restaurants

Interactive Menu

Product Certification

UL CERTIFIED SAFETY · RoHS COMPLIANT · ENERGY STAR · FC · T24 Efficiency Standards Can be used to comply with California Title 24 Non-Residential

Product Features

5 seleCCTable colors 2400K • 2700K • 3000K 3500K • 4000K · selectable lumens · QS QUICK SPEC

Top Product Features

- Cove lighting fixture with integral dimming driver
- Rated for interior / damp installations
- 5 Field Selectable CCTs (2400K, 2700K, 3000K, 3500K, 4000K)
- 90 CRI Standard with 3 SDCM binning
- Field Selectable output nominal (350 lm/ft and 700 lm/ft) with lockout plate
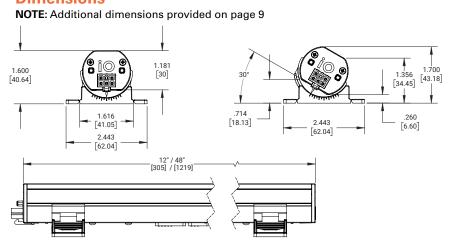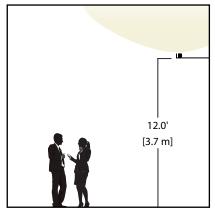
- Up to 200ft run from a single power drop
- 1 ft and 4 ft length options
- Corner (COR) fixture available for continuous illumination of corners and curves
- Adjustable mount (+/- 30 deg)
- Integral 0-10V dimming (100%-10%)
- DALI and WaveLinx control options available

Dimensions

NOTE: Additional dimensions provided on page 9

1.600 [40.64] · 1.181 [30] · 1.616 [41.05] · 2.443 [62.04]

30° · 1.356 [34.45] · 1.700 [43.18] · .714 [18.13] · 2.443 [62.04] · .260 [6.60]

12" / 48" [305] / [1219]

Scale

12.0' [3.7 m]

additional product diagrams

Composing an Order

Orders must include:

1 Fixture(s) + **2** Power Harness / Control Module + **3** Optional Accessories as needed

1 Fixtures (REQUIRED)

Catalog Number	Length	CCT Setting	Low Output Setting (3.5W)		High Output Setting (7W)	
			Lumens (lm)	Efficacy (LPW)	Lumens (lm)	Efficacy (LPW)
CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F **CS-SL-9SCT-120-ID-UNV-W-SA-STD-COR**	1 ft (12" / 305 mm)	2400K	339	97	731	104
		2700K	351	100	759	108
		3000K	359	103	778	111
		3500K	369	105	801	114
		4000K	379	108	827	118
CS-SL-9SCT-120-ID-UNV-W-SA-STD-4F	4 ft (48" / 1220 mm)	2400K	1661	119	3336	119
		2700K	1719	123	3454	123
		3000K	1758	126	3532	126
		3500K	1805	129	3626	129
		4000K	1854	132	3725	133

2 Power Harness/Control Modules (REQUIRED)

Note: Please utilize adjacent iO CovSelect Run Length Limits[1] chart to determine the number of power harnesses / control modules required to support planned runs.

Catalog Number	Details
CS-10V-STD	Standard power harness (for beginning of run power connection)
CS-10V-BOX	Power connection box without harness for small spaces.

Notes

1. A power harness, power connection box or or control module is required for line voltage connection of each run.

2. DALI and WaveLInx control modules can be added to CS-10V-BOX only. DALI and WaveLinx control modules must be ordered separately as accessories (see section 3 below).

3 Accessories (OPTIONAL)

Catalog Number	Details
CS-10V-STD-72CORD	72" Cord and plug accessory
CS-JHARN02-006	6" Jumper accessory
CS-JHARN02-012	12" Jumper accessory
CS-HARN02-060	60" Jumper accessory
CS-JHARN02-144	144" Jumper accessory
CS-DLENS-1F	Diffuse lens accessory, 1 ft
CS-DLENS-4F	Diffuse lens accessory, 4 ft
DAC-DC1	DALI control module (can be added to CS-10V-BOX for DALI control)
RSP-P-010-347	WaveLinx control module (can be added to CS-10V-BOX for WaveLinx wireless control)
CS-10V-STD	Standard Power Harness (for beginning of run power connection)
CS-10V-BOX	Power connection box without harness for small spaces

Notes

1. A power harness, power connection box or or control module is required for line voltage connection of each run.

2. DALI and WaveLInx control modules can be added to CS-10V-BOX only. DALI and WaveLinx control modules must be ordered separately as accessories (see section 3 below).

iO CovSelect Run Length Limits[1]

Run Length Limits (ft)		
Fixture Length	1F = 12"	4F = 48"
Fixture Input Wattage	6.2 W	20.6 W
Source Current	0.2mA	0.2mA
Input Current (120-277V)	64.8mA	222mA
Dimming Protocol **0-10V (STD)** — **Maximum Run Length (ft) @ 120V**	100	116*
Maximum Run Length (ft) @ 277V	150***	288**

Notes

* Run must be limited to 100 ft when using both 1F and 4F fixtures in a single run at 120V.

** Run must be limited to 200 ft when using both 1F and 4F fixtures in a single run at 277V.

*** Run length is limited based on common 30 mA dimmer limit. Run length could be extended to 200 ft for dimmers with 50 mA current rating.

Catalog Number Details

No QS prefix needed for Stock or Quick Ship orders.

SAMPLE CATALOG NUMBER: **CS-SL-9SCT-120-ID-UNV-W-SA-STD-4F**

Series	Lumen Package (Power)	LED CRI & CCT	Optical Distribution	Environment	Voltage
CS=CovSelect Linear LED	**SL**=Selectable Output (350lm/ft or 700lm/ft)	**9SCT**= 90+ CRI, Selectable CCT	**120**=Standard lambertian	**ID**=Indoor	**UNV**=120-277V
Notes	**Notes**	**Notes**	**Notes**	**Notes**	**Notes**
Architectural LED cove luminaire with integral driver from iO LED.	Nominal for 12" section. See Lumen Multiplier Chart below for absolute lumen output per wattage and CCT setting.	5 selectable CCT settings: 2400K | 2700K | 3000K | 3500K | 4000K.	CovSelect is indoor rated for damp locations only.	CovSelect is indoor rated for damp locations only.	See iO CovSelect Run Length Limits for limitations.

Housing Color	Mounting	Control	Length
W=Standard White	**SA**=Surface Mount - Adjustable	**STD**=0-10V dimming (100%-10%)	**1F**=1 ft (12") Individual fixture **4F**=4 ft (48") Individual fixture **COR** = Corner and curved installations (for use without jumper cable)
Notes	**Notes**	**Notes**	**Notes**
	Mounting bracket has built in +/- 30 deg adjustability and can be mounted in any orientation including direct, indirect, or wall mounted. Mounting brackets are shipped integral to fixture for easy installation.	Integral 0-10V dimming driver standard.	

Accessories
(OPTIONAL)

Note: Jumpers are required for all curves and corners in planned runs if not using the corner fixture (COR).

Catalog Number	Details
CS-10V-STD-72CORD	72" Cord and plug accessory
CS-JHARN02-006	6" Jumper accessory
CS-JHARN02-012	12" Jumper accessory
CS-HARN02-060	60" Jumper accessory
CS-JHARN02-144	144" Jumper accessory
CS-DLENS-1F	Diffuse lens accessory, 1 ft
CS-DLENS-4F	Diffuse lens accessory, 4 ft
DAC-DC1	DALI control module (can be added to CS-10V-BOX for DALI control)
RSP-P-010-347	WaveLinx control module (can be added to CS-10V-BOX for WaveLinx wireless control)
CS-10V-STD	Standard Power Harness (for beginning of run power connection)
CS-10V-BOX	Power connection box without harness for small spaces
Notes	
1. A power harness, power connection box or or control module is required for line voltage connection of each run.	
2. DALI and WaveLInx control modules can be added to CS-10V-BOX only. DALI and WaveLinx control modules must be ordered separately as accessories (see section 3 below).	

Product Specifications

Construction

- Extruded aluminum, powder coated housing.

- Diffuse polycarbonate extruded lens.

- Proprietary quick connect plugs for fast installation.

- Available in 1 ft (12") or 4 ft (48") lengths.

- COR option available with extended connection cable for maximum fixture placement flexibility in installing corners or curves with continuous light distribution.

Electrical

- Integral high performance constant current driver.

- Field Selectable output with nominal 350 lm/ft and 700 lm/ft setting options.

- Lockout plate included to assure desired power ratings during and after inspections.

- Flicker free performance with PST < 1.0 and SVM < 1.0.

- Standard 0-10V dimming (10% - 100%).

- Each cove module is configured for a line voltage feed while providing through wiring and quick connects for continuous mounting applications.

- Universal driver accepts 120V to 277V supply voltage. 277V supply voltage increases run lengths possible from a power drop.

- Utilize jumpers and separate power feed(s) to create emergency circuits. Consult customer service for additional assistance.

- See page 2 for iO CovSelect Run Length Limits for limitations.

- See pg 7 for Dimmer Compatability chart.

LED Optics

- 90+ CRI standard with 3 SDCM binning.

- Field Selectable CCT with 2400K, 2700K, 3000K, 3500K or 4000K setting options maintain 3-step MacAdam Ellipse across selectable CCT range.

- Discrete mid-powered LED array with diffuse, extruded lens delivers a cove light distribution free from striations.

- Field-installable diffuse lens accessory is optional for added diffusion.

- Fixtures designed to connect directly via plug-and-play connectors to deliver the most consistent cove illumination possible.

- Luminaires tested per IESNA LM-79.

- TM-21 lifetime extrapolation based on LM-80 data:
  L70 at 25°C > 60,000 hours
  L90 at 25°C = 52,000 hours

Mounting

- Each individual fixture comes standard with molded polycarbonate mounting bracket(s) with integrated +/- 30 deg adjustability.

- Can be mounted in any orientation including direct, indirect, or wall mounted. Mounting brackets are shipped integral to fixture for easy installation.

- Mounting has scoring line on one side for tightly spaced installations. Note 2 mounts per fixture and at least 1 screw per mount is required for secure installation.

- Power harness is required for connection to line voltage at the beginning of each run and must be ordered separately as an accessory.

- STD power harness includes beginning of run power harness and junction box for line voltage connection.

- Power connection box (CS-10V-BOX) is available without power harness for when minimal installation space is desired.

- Fixture end caps include quick connects for easy and secure end-to-end installation in straight runs. Release tab must be pressed to disconnect fixtures.

- Corner (COR) option available with extended connection cable for fixture placement flexibility in installing corners or curves with Corner (COR) continuous light distribution.

- Jumper cables are available in a variety of lengths (6", 12", and 144") to enable a wide variety of curved installations and avoid interference with other building and architectural systems. Jumpers must be ordered separately as accessories.

Finish

- Powder-coated aluminum housing.

- Standard color is white with white end caps and white power harness and white jumpers.

Compliance

- Luminaires are ULus listed for 50° C ambient environments.

- Title 24 / JA8 certified.

- Damp Location Listed.

- RoHS compliant.

- Tested according to IESNA LM-79 (See pg pg 5). Full set of IES files are available at CooperLighting.com.

Environment

- Suited for indoor / damp installations.

Control

- Integral 0-10V driver standard with minimum dim level of 10%.

- DALI and WaveLinx control is possible for run by adding appropriate control module accessory to CS-10V-BOX.
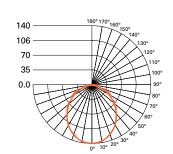
Weight

- 1F = 0.46 lbs

- 4F = 1.33 lbs

Warranty

- 5-year standard limited warranty.

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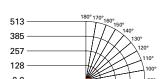## Photometric Data

Test Information
File Name:
CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-
(Low-4000K)
Test Method: LM-79-2019
Report Number: P861226
TEST IS SCALED FROM IESNA
LM-79-08 TEST DATA (G2-2312-259-1)
1FT Selectable Settings:
4000K CCT, Low Output
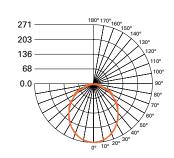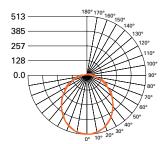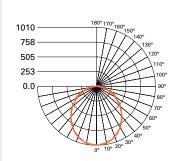Luminaire Lumens: 378.7 lumens
Efficacy: 108.2 lumens/watt

Test Information
File Name:
CS-SL-9SCT-120-ID-UNV-W-SA-STD-1F-
(High-4000K)
Test Method: LM-79-2019
Report Number: P861222
TEST IS SCALED FROM IESNA
LM-79-08 TEST DATA (G2-2312-259-2)
1FT Selectable Settings:
4000K CCT, High Output
Luminaire Lumens: 724 lumens
Efficacy: 118.7 lumens/watt

Test Information
File Name:
CS-SL-9SCT-120-ID-UNV-W-SA-STD-4F-
(Low-4000K)
Test Method: LM-79-2019
Report Number: P861234
TEST IS SCALED FROM IESNA
LM-79-08 TEST DATA (G2-2312-259-3)
4FT Selectable Settings:
4000K CCT, Low Output
Luminaire Lumens: 1390.5 lumens
Efficacy: 132.4 lumens/watt

Test Information
File Name:
CS-SL-9SCT-120-ID-UNV-W-SA-STD-4F-
(High-4000K)
Test Method: LM-79-2019
Report Number: P861230
TEST IS SCALED FROM IESNA
LM-79-08 TEST DATA (G2-2312-259-4)
4FT Selectable Settings:
4000K CCT, High Output
Luminaire Lumens: 2740.2 lumens
Efficacy: 133 lumens/watt

Note: Refer to IES files for complete product data for all CCT and output settings. Full set of IES files are available at CooperLighting.com.
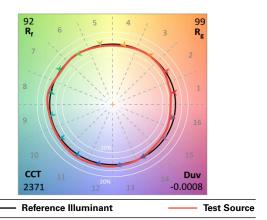
Light Output Conversion Table

CRI	CCT	Low	High
90	2400K	0.45	0.90
	2700K	0.46	0.93
	3000K	0.47	0.95
	3500K	0.48	0.97
	4000K	0.50	1.00

Specifications
>0.9 Power Factor
<20% Total Harmonic Distortion
Average Efficacy > 116 lm/W
-30˚C Minimum Ambient Temperature
50˚C Maximum Ambient Temperature

TM-30 DATA FOR 90 CRI, SELECTABLE CCT (2400K SETTING)

ANSI/IES TM-30-18 Color Rendition Report

92 R_f 99 R_g

CCT 2371 Duv -0.0008

— Reference Illuminant — Test Source

TM-30 DATA FOR 90 CRI, SELECTABLE CCT (2700K SETTING)

ANSI/IES TM-30-18 Color Rendition Report

94 R_f 101 R_g

CCT 2753 Duv -0.0028

— Reference Illuminant — Test Source

TM-30 DATA FOR 90 CRI, SELECTABLE CCT (3000K SETTING)

ANSI/IES TM-30-18 Color Rendition Report

94 R_f 102 R_g

CCT 3031 Duv -0.0029

— Reference Illuminant — Test Source

TM-30 DATA FOR 90 CRI, SELECTABLE CCT (3500K SETTING)

ANSI/IES TM-30-18 Color Rendition Report

93 R_f 101 R_g

CCT 3472 Duv -0.0020

— Reference Illuminant — Test Source

TM-30 DATA FOR 90 CRI, SELECTABLE CCT (4000K SETTING)

ANSI/IES TM-30-18 Color Rendition Report

90 R_f 99 R_g

CCT 4055 Duv 0.0004

— Reference Illuminant — Test Source

TM-30 data is extrapolated from LM-79 integrating sphere tests. Contact factory for specific TM-30 data.

DCRI	CCT	CRI	R_f	R_g	R9
90	2400K	92	92	99	55
	2700K	95	94	101	64
	3000K	96	94	102	69
	3500K	95	93	101	70
	4000K	92	90	99	63

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Dimmer Compatability

List of Tested Dimmers		
Manufacturer	**Technology**	**Part Number**
EWD (Eaton)	0-10V DC	SF10P-W
EWD (Eaton)	0-10V DC	SF10P-W
Lutron	0-10V DC	DVSTV-WH
Lutron	0-10V DC	IP710-LFZ
EWD (Eaton)	0-10V DC	WBSD-010M-C1

Mounting and Installation

CovSelect fixtures are designed to connect end-to-end to deliver optimized cove illumination and performance. The dimensions below show adjoining fixtures with the simplistic plug-and-play mechanical and electrical design. The connector includes a snap feature to ensure a secure connection is maintained over time. The release button on the bottom of the connector must be pressed to disconnect the fixtures.

Other mounting and design considerations:

- Mounting location must have solid base / blocking material for secure mount.
- The adjustable mount is designed to secure fixtures in any orientation: direct, indirect, or wall mounted.
- The adjustable mount can be aimed +/- 30 deg in either direction to optimize light distribution for each installation.
- Matte surface finishes in, above and adjacent to cove will deliver optimal volumetric cove light distribution.
- Fixtures should be mounted at least 2" from wall for optimal cove light distribution. See cove design guidelines at right.
- Cove height should be optimized to allow for effective direct light distribution from the cove. See design guidelines at right.
- Jumper cable accessory or corner fixture is required for curves and corners.
- CovSelect is approved for dry or damp installations only.
- The height of the cove face should be designed to hide the fixture from direct view but not interfere with the optical distribution of the light.

Linear Run Layout / Design

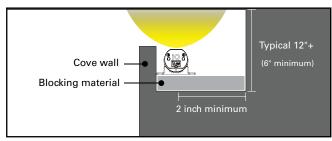CovSelect fixtures and accessories must be ordered separately. (see details on pg.3).
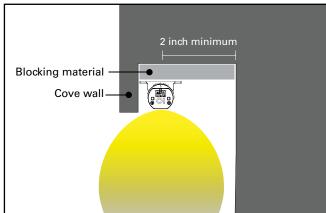Orders must include:

1. 1F and 4F fixtures (mounts are included) to cover desired run length.
2. Power harness or control module for line voltage connection (see page 2 for run length limits).
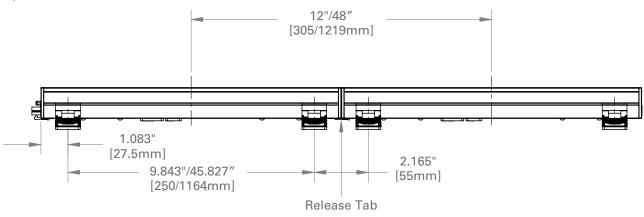3. Jumper accessories or COR (corner) fixtures are required for any curves or corners.

Cove Design Guidelines

Optimize cove design details utilizing the considerations at left and the diagram below.

Note: Design the cove big enough so the light will wash the intended surface effectively. More space typically results in a more pleasing cove effect. A smaller cove does not produce better illumination and may limit light output distribution. The cove face height should be optimized to hide visibility of the cove fixture while not interfering with the light distribution. See diagram below for reference.
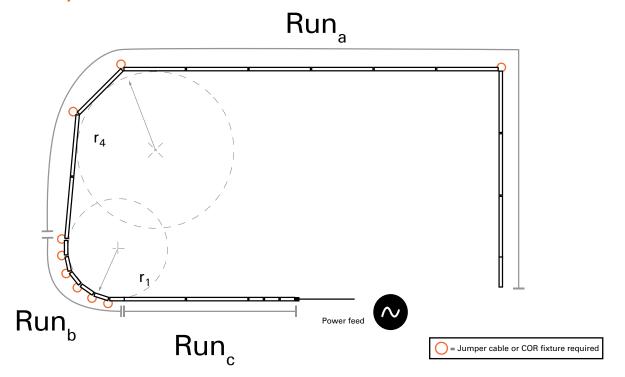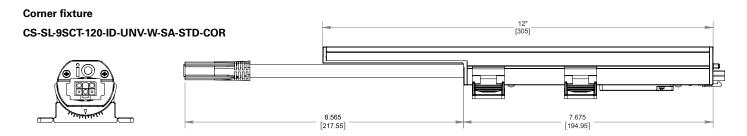

Cove wall
Blocking material
Typical 12"+
(6" minimum)
2 inch minimum

2 inch minimum
Blocking material
Cove wall

12"/48"
[305/1219mm]

1.083"
[27.5mm]

9.843"/45.827"
[250/1164mm]

2.165"
[55mm]

Release Tab

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Run Layout Guidelines

- Run$_a$ is a 49 ft run and would be ordered as (12) x 4F fixtures + (1) x 1F fixture + (3) x jumpers or corner (COR) fixtures (required for curves and corners)
- Run$_b$ is a 6 ft curved run and would be ordered as (6) x 1F fixtures + (6) x jumpers or COR (corner fixtures) (for curve) NOTE: If COR fixtures are used (3) x additional 1 ft fixtures would be needed in addition to the COR fixture to replace the 4F fixtures shown
- Run$_c$ is an 11 ft run with power feed and would be ordered as (2) x 4F fixtures + (3) x 1F fixtures + (1) x power cord
- **Summary:** The entire run shown in the diagram above would be ordered as
  (14) x 4F fixtures + (10) x 1F fixtures + (9) x jumpers or corner (COR) fixtures + (1) x power cord
  The total run of Run$_a$ Run$_b$ and Run$_c$ is 66' in length, hence only (1) x power cord is required (see pg 2 for run length limits)

Dimensions

Corner fixture

CS-SL-9SCT-120-ID-UNV-W-SA-STD-COR

12"
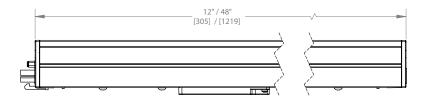[305]

8.565
[217.55]

7.675
[194.95]

Note: The COR fixture includes an extended 8" power cable with quick connect in place of having the quick connect built into the fixture end cap. This allows for added flexibility of connections between fixtures for corners and curves without the need for jumpers.
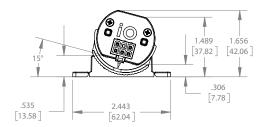
The COR fixture enables seamless connections between fixtures with consistent, continuous light distribution for 90 deg corners or curves up to 180 deg.

Without Bracket

1.360
[34.55]

1.185
[30.09]

12" / 48"
[305] / [1219]

With Bracket

15°

1.489
[37.82]

1.656
[42.06]

.306
[7.78]

.535
[13.58]

2.443
[62.04]

30°

1.356
[34.45]

1.700
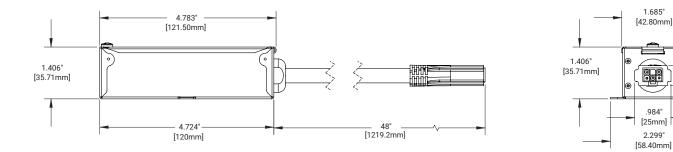[43.18]

.714
[18.13]

.260
[6.60]

2.443
[62.04]

Dimensions

Corner (COR) fixture installation for corners and curves

Note: For any fixtures where fixtures overlap wire harnesses, fixtures will not tilt.

1.98" [50]

2.37" [60]

120°

2.58" [65]

150°

CS-10V-STD - Beginning of Run Power Harness

4.783" [121.50mm]

1.406" [35.71mm]

4.724" [120mm]

48" [1219.2mm]

1.685" [42.80mm]

.551" [14mm]

1.406" [35.71mm]

.984" [25mm]

2.299" [58.40mm]
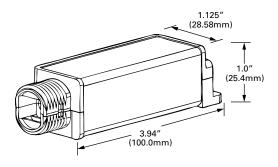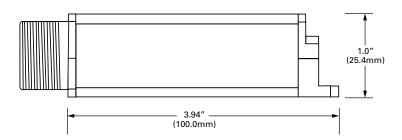
Dimensions

CS-10V-BOX
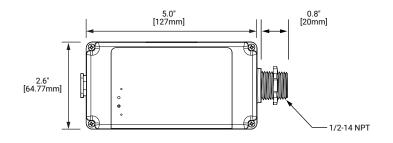

Optional Control Accessories
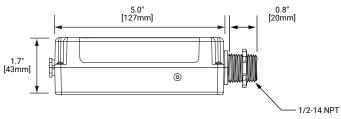
(for adding to CS-10V-BOX)

DAC-DC1 (for DALI control)

RSP-P-010-347 (for WaveLinx control)

Jumpers (Refer to accessories on pg2.)

Specifications and dimensions
subject to change without notice.

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