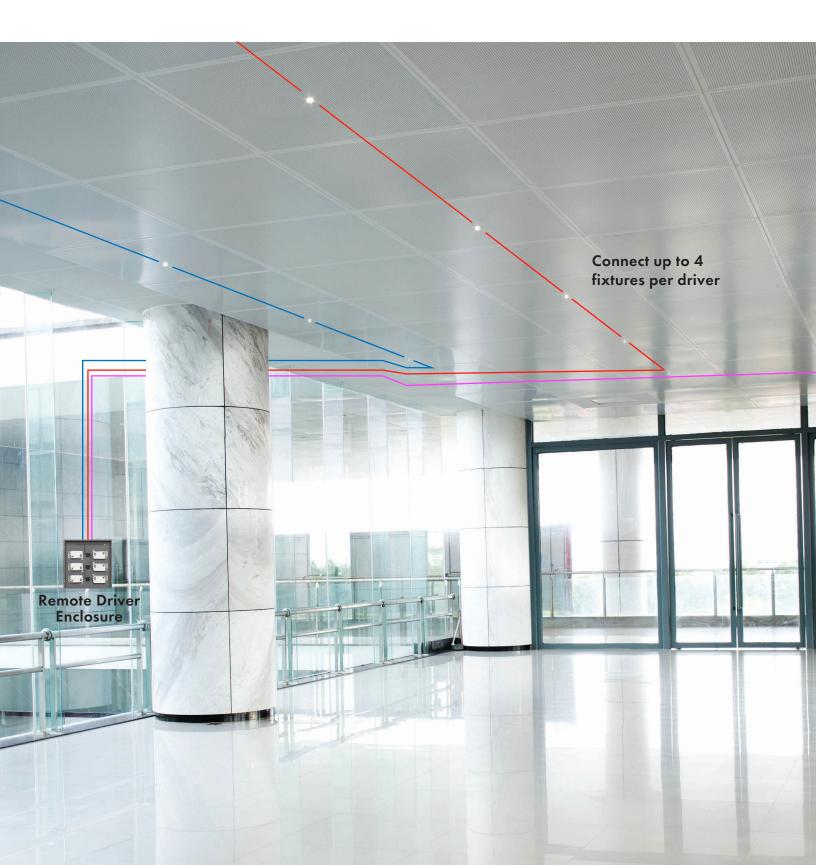
# **USAI**<sup>®</sup>Lighting

# Remote Driver and Enclosure Guide



# **USAI**<sup>®</sup>Lighting

# **Remote Driver & Enclosure Guide**

We know coordinating power supplies for a lighting specification can be daunting, especially with the myriad of options available for remote dimming drivers and pre-wired enclosures by USAI. That's why USAI Lighting offers a dedicated Remote Driver Applications Assistance service – where your specific project is evaluated for remote dimming driver and enclosure requirements.

Our remote applications team will guide you through:

- \*Creating a control zone / load schedule for your project
- \*Optimizing remote dimming driver requirements for your design
- \*Configuring pre-wired enclosures by USAI if desired
- \*Creating a project submittal for all remote drivers and enclosures required

Our remote driver applications assistance service ensures your final remote driver and enclosures list aligns perfectly with your project needs. Unless requested otherwise, we will provide the solution that uses the fewest amount of drivers and/or enclosures, and requires the least amount of storage space.

USAI's Applications Assistance team will help streamline your remote driver specification process and provide confidence that everything will be implemented according to the design intent. Taking advantage of our free and fast service helps eliminate coordination miscommunications and project delays.

Contact your local USAI representative with your project's light fixture specification and zoning information to get started. Our team will work with your representative to accurately configure and specify the correct remote drivers and enclosures for your project.

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# USAI Remote Drivers & Enclosure Service in 3 Steps

USAI offers application assistance for configuring remote drivers and remote driver enclosures. Start the process by contacting your local USAI representative with your project's light fixture specification and zoning information. In three easy steps, USAI can provide an optimized remote driver and enclosure submittal for your specific project.

# STEP

#### Load Schedule and/or RCP with Zoning

Provide USAI with a fixture spec and load schedule identifying dimming control zone groups, quantity of fixtures per zone, wattage, and type of dimming driver. If this cannot be provided, USAI and the specifier's sales representative will require a RCP with zoning information to create the load schedule.

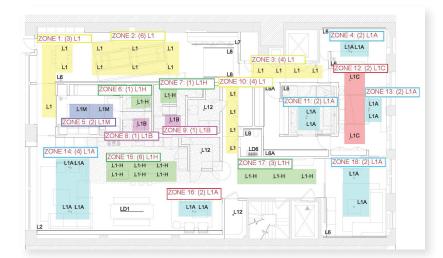
A 1	1.1.1.1			- I
Architectural	Lighting	Load	Schedule	Example

USAľ	۹ USAI Lighting - Lighting Load Schedule							
Lighting	Instructions: Please fill out for your project. Fixture counts by dimming control zone for LittleOnes Micro and LittleOnes Zepto are required to enabl quotes team to ascertain accurate remote dimming driver counts, generate enclosure configuration submittals, and provide the best pricing.							
Project Name: Specifier: Representative: Date: Notes:	OFFICE PROJECT							
Enclosure(s)?	By USAI	By Others						
1	El 1 Conference	main downlights		12	11X4C	D6F		
						D6E		
2	FI 1 Conference	east wall accents		5	15X4C	D6E		
	FI 1 Conference	east wall accents	Fixture Type			D6E		
2 Dimming Zone #			Fixture Type	5	15X4C			
Dimming Zone #	Location	east wall accents Dimming Control Zone Name		5 # of Fixtures on Zone	15X4C	D6E		
Dimming Zone #	Location Corridor	east wall accents Dimming Control Zone Name ZONE 1	L5	5 # of Fixtures on Zone 12	15X4C	D6E		
Dimming Zone #	Location Corridor Lobby	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2	L5 L1	5 # of Fixtures on Zone 12 16	15X4C	D6E		
Dimming Zone # 1 2 3	Location Corridor Lobby Lobby	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 3	L5 L1 L2	5 # of Fixtures on Zone 12 16 2	15X4C	D6E		
Dimming Zone # 1 2 3 4	Location Corridor Lobby Lobby Office	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 3 ZONE 4	L5 L1 L2 L3	5 # of Fixtures on Zone 12 16 2 3	15X4C	D6E		
Dimming Zone # 1 2 3 4 5	Location Corridor Lobby Lobby Office Office	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 3 ZONE 4 ZONE 5	L5 L1 L2 L3 L4	5 # of Fixtures on Zone 12 16 2 3 3 3	15X4C	D6E		
Dimming Zone # 1 2 3 4 5 6	Location Corridor Lobby Office Office Office	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 3 ZONE 4 ZONE 5 ZONE 6	L5 L1 L2 L3 L4 L3	5 # of Fixtures on Zone 12 16 2 3 3 3 3 3	15X4C	D6E		
Dimming Zone # 1 2 3 4 5 6 7	Location Corridor Lobby Office Office Office Printing Room	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 3 ZONE 4 ZONE 5 ZONE 6 ZONE 7	L5 L1 L2 L3 L4 L3 L4 L4	5 # of Fixtures on Zone 12 16 2 3 3 3 3 2	15X4C	D6E		
Dimming Zone # 1 2 3 4 5 6 7 8	Location Corridor Lobby Office Office Office Printing Room Open Office	east wall accents Dimming Control Zone Name ZONE 1 ZONE 2 ZONE 2 ZONE 3 ZONE 4 ZONE 5 ZONE 6 ZONE 6 ZONE 7 ZONE 7 ZONE 8	L5 L1 L2 L3 L4 L3 L4 L3 L4 L3 L4 L3	5 # of Fixtures on Zone 12 16 2 3 3 3 3 2 5	15X4C	D6E		

# 2 Driver Counts

Based on a project's zoning information, USAI will calculate the most efficient quantity of drivers required to power light fixtures in a design scheme. When specifying multiple fixtures per driver, we ensure individual dimming drivers are not assigned to multiple dimming zones.

#### Architectural Reflective Ceiling Plan Example



# USAI Remote Drivers & Enclosure Service in 3 Steps

### STEP 3

#### Enclosure

When enclosures are requested, USAI will load dimming drivers into an optimal quantity. Each floor will be assigned an enclosure to ensure light fixtures to drivers and/or enclosures remain within their maximum distances. A final enclosure schedule with part numbers and enclosure submittal listing driver assignments and wiring will be provided.

#### NOTE:

 Maximum distance from light fixtures to drivers and/or enclosures is 50-100 feet.

#### Single Driver Enclosure Options:

Enclosure options for one remote driver at a time only.

#### Single Driver Enclosure (ENC)



Junction Box Mounting Plate Enclosure (MP)



Recessed Rough-In Driver Enclosure

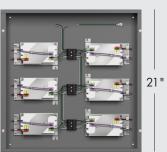
(RRO, RR1)



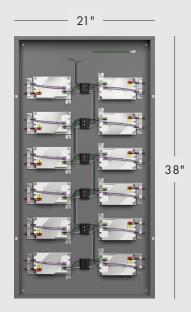
#### **USAI Multi Driver Pre-Wired Enclosures**

**6-Driver Prewired Enclosure** Houses up to 6 dimming drivers.





**12-Driver Prewired Enclosure** Houses up to 12 dimming drivers.



#### DISCLAIMER:

USAI Lighting strives to provide accurate wiring diagrams as well as fixture and remote power supply bill of materials in accordance with the zonal information provided. It is the customer's responsibility to review and confirm the accuracy of the project submittal USAI provides prior to placing an order. USAI cannot be responsible for changes on site, local codes, or installation of the system. Proper care should be taken to ensure the information is correct, and the system is installed accordingly.

#### the LittleOnes® Zepto® Remote Driver Options

#### Standard Output with 2+ Fixtures Per Driver

Connect up to four light fixtures at a time to one dimming driver for efficient power distribution and cost savings.



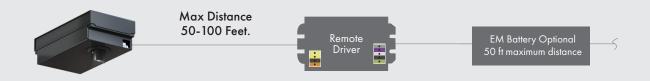
Classic White Options: 07X4C- 7W, 11X4C - 11W, 15X4C - 15W.

NOTE: Use a maximum of 4 fixtures per driver.

**NOTE:** The quantity of fixtures connected to a driver depends on driver selection - please refer to spec sheets. Contact your local USAI representative for more information on additional driver layouts, power requirements and/or custom configurations.

#### 2 High Output with 1 Fixture Per Driver

Dedicate one fixture per driver to provide optimal performance and the best possible delivered light output.



Classic White Options: 09X1M - 9W, 15X1M - 15W.

### the LittleOnes® Zepto® High Output Integral Driver Option



Use one integral dimming driver per light fixture. Above ceiling access required for service to the driver.

Similar to all USAI Lighting products, the LittleOnes family of products are compatible with all common lighting controls; choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

Classic White Options: 09X1M - 9W, 15X1M - 15W.

NOTE: No EM Battery Option. Inverter (By Others) Possible.

#### the LittleOnes® Micro Remote Driver Options

#### Standard Output with 2+ Fixtures Per Driver

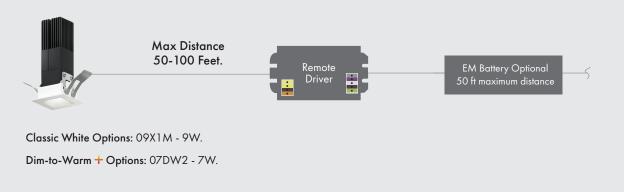
Connect up to four light fixtures at a time to one dimming driver for efficient power distribution and cost savings.



Classic White Options: 07X4C- 7W. Dim-to-Warm + Options: 07DW2 - 7W. NOTE: Use a maximum of 4 fixtures per driver. NOTE: The quantity of fixtures connected to a driver depends on driver selection - please refer to spec sheets. Contact your local USAI representative for more information on additional driver layouts, power requirements and/or custom configurations.

#### 2 High Output with 1 Fixture Per Driver

Dedicate one fixture per driver to provide optimal performance and the best possible delivered light output.

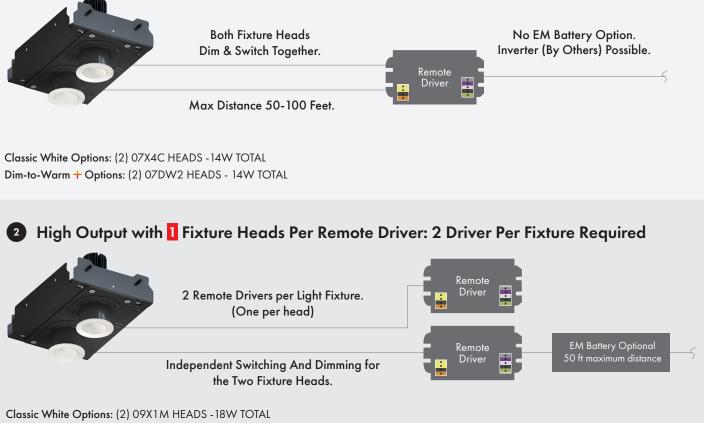


Similar to all USAI Lighting products, the LittleOnes family of products are compatible with all common lighting controls; choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

# **USAI**<sup>®</sup>Lighting

### the LittleOnes<sup>®</sup> Micro Doubles Remote Driver Options

#### Standard Output with 2 Fixture Heads Per Remote Driver: 1 Driver Per Fixture Required



Dim-to-Warm + Options : (2) 07DW2 HEADS - 14W TOTAL

### the LittleOnes® Micro Doubles Standard Output Integral Driver Option



Classic White Options: (2) 07X4C HEADS - 14W TOTAL Dim-to-Warm + Options: (2) 07DW2 HEADS - 14W TOTAL NOTE: No EM Battery Option. Inverter (By Others) Possible. Use one integral dimming driver per light fixture. Both fixture heads dim and switch together. Above ceiling access required for service to the driver. Available with trimmed fixtures only.

Similar to all USAI Lighting products, the LittleOnes family of products are compatible with all common lighting controls; choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

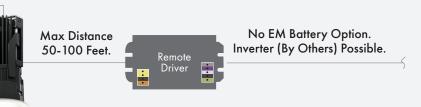
#### the LittleTwos Pinhole Remote Driver Options

#### Standard Output with 2+ Fixtures Per Driver

Connect up to four light fixtures at a time to one dimming driver for efficient power distribution and cost savings.



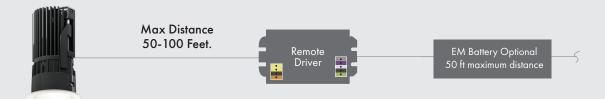




Classic White Options: 07V4C - 7W, 11V4C - 11W NOTE: Use a maximum of 4 fixtures per driver. NOTE: The quantity of fixtures connected to a driver depends on driver selection - please refer to spec sheets. Contact your local USAI representative for more information on additional driver layouts, power requirements and/or custom configurations.

#### 2 High Output with **1** Fixture Per Driver

Dedicate one fixture per driver to provide optimal performance and the best possible delivered light output.



Classic White Options: 09V2M, 09V6M - 9W, 15V2M, 15V6M - 15W, 20V2M - 20W Dim-to-Warm + Option: 15DW2M - 15W Color Select Tunable White Option: 15CS4F - 15W

#### the LittleTwos Pinhole High Output Integral Driver Option



Classic White Options: 09V2M, 09V6M - 9W, 15V2M, 15V6M - 15W, 20V2M - 20W Dim-to-Warm + Option:15DW2M - 15W Color Select Tunable White Option:15CS4F - 15W Use one integral dimming driver per light fixture. Driver is field replaceable and serviceable from below the ceiling. Integral Emergency Battery housing options are also available (above ceiling access required).

Similar to all USAI Lighting products, the LittleTwos family of products are compatible with all common lighting controls; choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

#### the LittleTwos Cylinder Remote Driver Options

#### Standard Output with 2+ Fixtures Per Driver

Connect up to four light fixtures at a time to one dimming driver for efficient power distribution and cost savings.

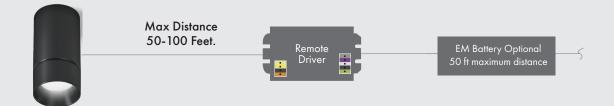


NOTE: The quantity of fixtures connected to a driver depends or driver selection - please refer to spec sheets. Contact your local USAI representative for more information on additional driver layouts, power requirements and/or custom configurations.

#### 2 High Output with 1 Fixture Per Driver

NOTE: Use a maximum of 4 fixtures per driver.

Dedicate one fixture per driver to provide optimal performance and the best possible delivered light output.



Classic White Options: 09V1M - 9W, 15V1M - 15W Dim-to-Warm + Option:15DW2M - 15W

### the LittleTwos Cylinder High Output Recessed & Canopy Mounted Driver



Classic White Options: 09V1M - 9W, 15V1M - 15W Dim-to-Warm & Dim-to-Warm + Options: 15DW2M - 15W Recessed Dimming Drivers:

Choose recessed rough-in housing to locate dimming drivers within the ceiling plane. Local driver location makes for easy installation and servicing.

Canopy Mounted Dimming Drivers: Select oversized canopy styles to house dimming driver below the ceiling surface for use with either recessed or surface mounted J-box.

Similar to all USAI Lighting products, the LittleOnes family of products are compatible with all common lighting controls; choose from 0-10V, Phase, EcoSystem, DMX, or DALI dimming.

# Configuring Remote Drivers With USAI As Easy As

Provide a fixture specification and a load schedule

USAI calculates driver quantities and optimizes enclosures needed

Place an order matching the USAI remote driver submittal for trouble-free coordination!

# FAQs

#### Why should a project use remote driver vs. integral driver?

For our smallest fixtures, sometimes a remote driver is the only solution. For other fixtures, in some cases specifying remote drivers can save you plenum space, which can be essential for certain projects with tight spaces. We also find customers prefer remote drivers for ease of access when it comes to service and maintenance, so going remote can be a preference held by the project owner or contractor.

# Why specify remote driver enclosures by USAI?

All remote drivers require enclosures in order to meet national and local electrical code. You can eliminate a coordination step, and in some cases costly contractor time, by specifying enclosures from USAI. The dimming driver ships preloaded in the enclosure box, and in the case of the big box multi driver enclosure styles, they are also prewired - saving time on the job site

#### What is the maximum remote distance from the fixture to the dimming driver?

Max distance is 50-100 ft, depending on wire gauge used. Remote power supplies with Emergency Batteries must be located within 50 ft of the light fixture. See specification sheets for details.

#### How many drivers can I locate in the enclosure boxes?

You can locate anywhere from 1 to 12 drivers in the enclosure boxes.

## Where can I locate remote enclosures?

USAI's remote driver enclosures should be placed in an accessible location within 50 to 100 ft of the furthest light fixture; typically an electrical closet or utility room provides a convenient location. Due to the distance limitations, it's not advisable to combine drivers for fixtures from different floors in the same enclosure box.

## Can I recess remote enclosures?

At this time USAI's remote driver enclosures are not rated for recessing in walls or ceilings. Check back with us for updates.

# Are all of USAI's remote products available with enclosures?

Yes, all of USAI's remote dimming driver solutions are available with at least one type of enclosure. The exception is EM battery supplies: those require enclosures by others.

#### Can I use other manufacturer's enclosure boxes with USAI remote drivers?

Yes, of course. USAI provides minimum spacing requirements required for each dimming driver type on our specification sheets to reference when using "Enclosure by others".

#### Who should you contact for questions and specifications for remote driver enclosure projects?

Contact your local USAI representative with your project's light fixture specification and zoning information to get started. Our team will work with your representative to accurately configure and specify the correct remote drivers and enclosures for your project.



#### USAI LIGHTING COLLABORATORY

13 Crosby Street New York, NY 10013 845-234-4090 showroom@usailighting.com

#### USAI LIGHTING HEADQUARTERS

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