Q-SET+QZ-DALI-DT8

24V DC Power Supply - 96W



- Direct burial and outdoor rated electronic power supply to be installed in our Q-VAULT-5 enclosure
- Versatile Class 2 LED driver with DALI DT8 dimmable options
- The Pulse Width Modulation (PWM) output provides smooth flicker-free dimming
- 24VDC constant voltage output and is available in 96W
- Programmable with QTL NFC App for reading and writing DALI addresses and adjusting output voltage. Also programmable with DALI-2 controller
- Control up to 4 LED channels
- Fully potted driver(s) for moisture resistance
- Suitable for dry, damp, and wet locations
- Suitable for use with submersible luminaire

1 PRODUCT	2 WATTAGE	3 PRIMARY VOLTAGE	4 SECONDARY VOLTAGE	5 CONTROL	6 CHANNEL	7 OPTIONS
Q-SET+QZ	96W	UNV	24V	DALI-DT8		

Sample Part Number: **Q-SET+QZ-96W-UNV-24V-DALI-DT8-2CH-N/A**

1 PRODUCT

Q-SET+QZ

2 WATTAGE

96W

3 PRIMARY VOLTAGE

UNV Universal (120-277V)

4 SECONDARY VOLTAGE

24V

5 CONTROL

DALI-DT8

6 CHANNEL

2CH 2 Channel
3CH 3 Channel
4CH 4 Channel

7 OPTIONS

N/A
PS Pool and Spa

COMPATIBLE LEDS

STATIC WHITE

SW24/1.5-4.0 SW-DR24/1.5-4.0 SHLD-SW24/1.5-4.0 SW-SCOB24/1.5-4.0	
SW24/5.0, SW-HE, SW-HE+ SW-DR24/5.0, SW-HE-DR SHLD-SW24/5.0, SHLD-SW-HE SW-SCOB24/5.0	
SW-SD24/1.0-4.0	
SW-SD24/6.0	
SW-IA	
SW-XT	

OTHER

DW-HE Tunable Applications	✓	2CH
DW-HE Warm Dim Applications	✓	2CH
WD		
SC		
RGB	✓	3CH
RGBW, RGBW-HE	✓	4CH

If using a DW LED, wattage must be doubled

SHEETS

Q-SHEETS SW		
Q-SHEETS DW Tunable Applications		2CH
Q-SHEETS DW Warm Dim Applications		2CH
Q-SHEETS RGB		3CH
Q-SHEETS RGBW		4CH

If using a DW LED, wattage must be doubled

MICRO 5

MICRO 5 SW		
MICRO 5 DW Tunable Applications	✓	2CH
MICRO 5 DW Warm Dim Applications	✓	2CH
MICRO 5 RGB	✓	3CH

If using a DW LED, wattage must be doubled

PRODUCT INFORMATION

- Constant voltage output
- DALI-2-DT8 Control
- NFC App for addressing & voltage adjustment
- Adjustable output voltage - Range: 24V-26V
- DALI dimming down to 0.2%
- Suitable for dry, damp and wet locations
- Suitable for indoor & outdoor use
- Not for installation to conduit extending directly to an underwater pool light forming shell. In line Pool and Spa rated junction box required.
- Suitable for use with submersible luminaries
- Primary voltage - universal (100-277V)
- Wide operating temperature range: -40˚F to +122˚F
- UL, cUL listed
- Type HL rated
- Compliant to FCC Part 15B
- 5 year warranty
- CSA #239924
- Low Voltage Lighting Systems
  - CSA Class 3426-04 and Class 3426-94
  - CSA Standard C22.2 No. 250.0-08 - Luminaires
  - ANSI/ UL Standard 2108 - Low Voltage Lighting System
- Landscape Lighting Systems
  - CSA Class 3425-15 and Class 3425-95
  - CSA Standard C22.2 No. 250.7-07 - Extra-Low Voltage Landscape Lighting Systems
  - ANSI/ UL Standard 1838 - Low Voltage Landscape Lighting Systems
- Hydromassage (Pool and Spa)
  - CSA Class 3425-46 and class 3425-96
  - ANSI/UL Standard 379 - Power Units for Fountain, Swimming Pool, and Spa Luminaires

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Q-SET+QZ-DALI-DT8

24V DC Power Supply - 96W

VOLTAGE DROP CHART

This product must be installed in accordance with the applicable installation code by a person familiar with the construction and operation of the product and the hazards involved
Wiring from power supply to light fixture must be two conductor cable. To calculate the wire lengths at specific loads, use QTL's online voltage drop calculator at https://www.qtl.lighting/voltage-drop-calculator/

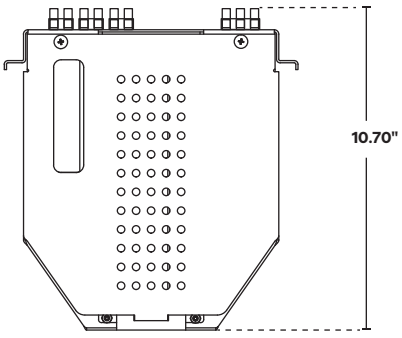
VOLTAGE DROP

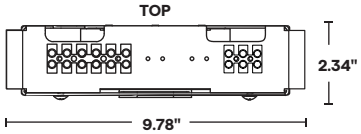
Distance from PS for 1% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	192	121	76	48	30	19	12	7	5
24	30	96	60	38	24	15	9	6	4	2
24	45	64	40	25	16	10	6	4	2	2
24	60	48	30	19	12	8	5	3	2	1
24	80	36	23	14	9	6	4	2	1	1
24	96	30	19	12	7	5	3	2	1	1

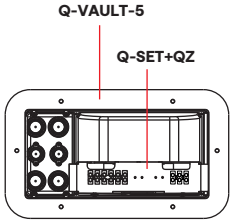
Distance from PS for 3% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	577	362	228	143	90	57	36	22	14
24	30	288	181	114	72	45	28	18	11	7
24	45	192	121	76	48	30	19	12	7	5
24	60	144	91	57	36	23	14	9	6	4
24	80	108	68	43	27	17	11	7	4	3
24	96	90	57	36	22	14	9	6	4	2

Distance from PS for 5% Voltage Drop										
VDC	Load (W)	10 AWG	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG	26 AWG
24	15	961	604	380	239	150	95	59	37	24
24	30	480	302	190	120	75	47	30	19	12
24	45	320	201	127	80	50	32	20	12	8
24	60	240	151	95	60	38	24	15	9	6
24	80	180	113	71	45	28	18	11	7	4
24	96	150	94	59	37	23	15	9	6	4

1 PRODUCT - DIMENSIONS







Must be purchased with Q-VAULT-5
Install only one Q-SET+QZ per Q-VAULT-5

2 TECHNICAL INFORMATION

Size	Primary Voltage	Secondary Voltage	Secondary Current
96W	100-277V	24VDC	4A

If any of the primary or secondary wiring is done outside of conduit, please consult factory for proper connectors and wire to maintain IP68 rating and warranty.

To maintain Class 2 wiring compliance, do not exceed 60 watts at 12VDC or 96 watts at 24VDC per fixture feed. Failure to do so will void fixture warranty and create a fire hazard.

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Q-SET+QZ-DALI-DT8

24V DC Power Supply - 96W

6 CHANNEL

Channel	Wattage	Primary Voltage	Secondary Voltage	Secondary Current	Compatible Light Engine
CH2	96W	100-277V	24VDC	2X2A	DW-HE
CH3	96W	100-277V	24VDC	3X1.33A	RGB
CH4	96W	100-277V	24VDC	4X1A	RGBW, RGBW-HE

HOUSING

- Dimensions: 10.70"L x 9.78"W x 2.34"D
- Q-VAULT-5 enclosure can fit up to one Q-SET+QZ-DALI-DT8
- Q-VAULT-5 is IP68 rated
- Housing for direct burial fixtures shall be IP68 Rated, with all sealing materials supplied by the manufacturer
- Housing for direct burial fixtures shall be rated for burial in soil, gravel and concrete

PERFORMANCE

- Power supply shall be rated for outdoor and direct burial use in Q-VAULT-5 IP68 Listed direct burial enclosure
- Fully rated to operate low voltage load at listed wattage (No Derating Required)
- Limit voltage regulation to 5% or less of rated output voltage
- Universal input range of 120-277 Vrms
- Terminal blocks shall be made of tin plated copper with a voltage rating of 300V and a current rating of 40A
- Live tested by manufacturer to ensure proper operation
- Rated for:
  - CSA Class 3425-15 and Class 3425-95 - Landscape Lighting System Components
  - CSA Class 3426-04 and Class 3426-94 - Low Voltage Lighting Systems
  - CSA Class 3425-46 and class 3425-96 - Hydromassage

SPECIFICATIONS

Input			
Input Voltage (Vrms)	100-277V		
Input Current, max (Arms)	1.25A @ 100V		
Inrush Current, max* (Apk)	51.2A@277V		
Input Frequency (Hz)	50/60		
Input Power (W)	118		
Output	TW	RGB	RGBW
Output Voltage, nom (V)	24	24	24
Output Current (A)	2	1.33	1
Output Power (Wmax)	96	96	96
Environmental	Min	Nom	Max
THD (%)	-	-	15
PF (%)	0.95	-	-
Working Temp (°F)	-	-	122

*-200us event

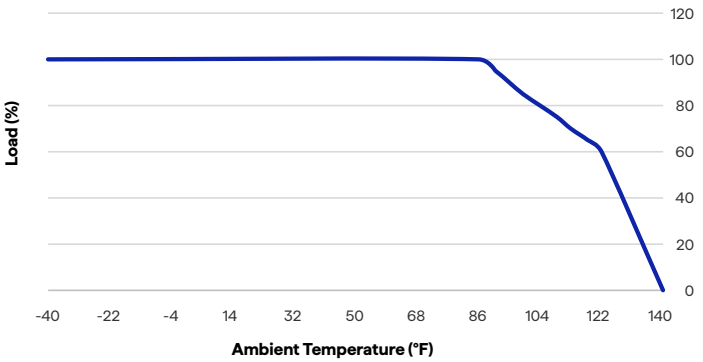
PROTECTIONS

- Short Circuit Protection (SCP)
- Over Loading Protection (OLP)
- Over Temperature Protecton (OTP)
- I/P-O/P:1.88KVAC
- I/P-O/P:100MΩ/500VDC/77°F/70%RH

COMPLIANCE

- EMI Spec
  - FCC 47 CFR Part 15 Subpart B
- CSA Certified
  - UL-2108
  - UL-8750
  - UL-379
  - CSA C22.2 No 250.7-07
  - CSA C22.2 No 250.0-08

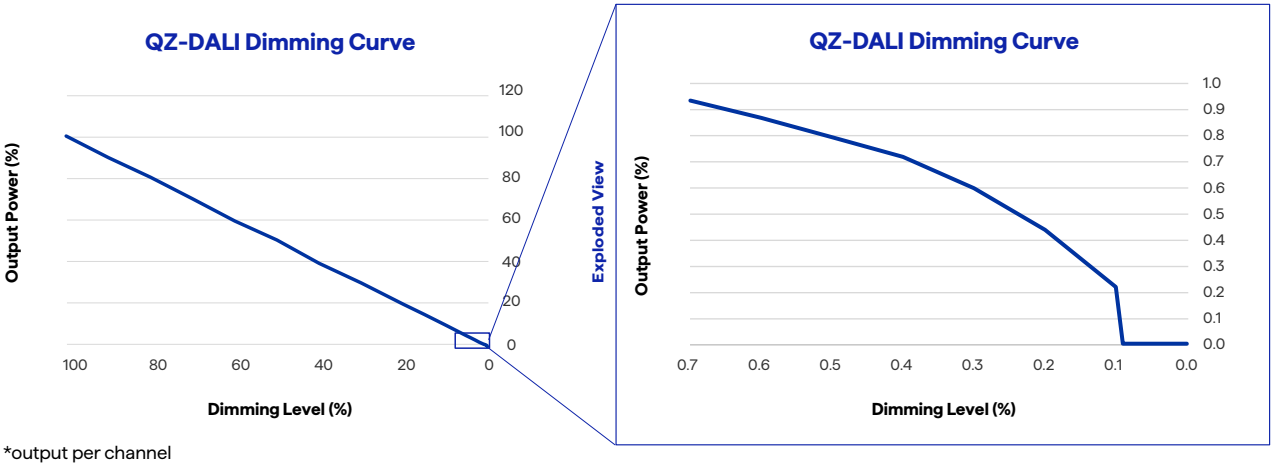
Derating Curve



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Q-SET+QZ-DALI-DT8

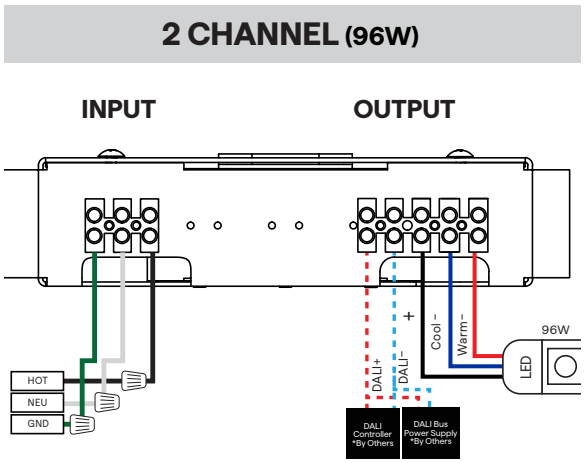
24V DC Power Supply - 96W



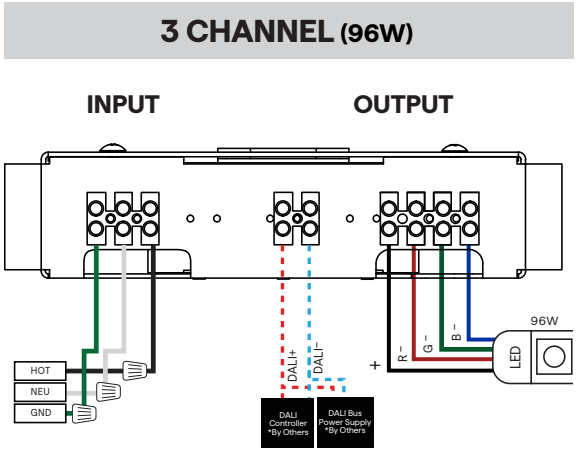
*output per channel

WIRING DIAGRAM

DALI-DT8 Control: 2CH



DALI-DT8 Control: 3CH



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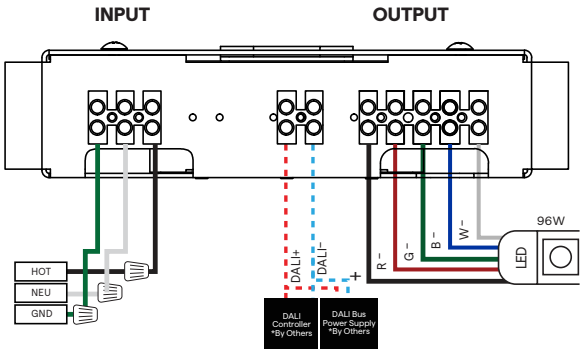
Specification subject to change. **Rev-08-21-26**

Q-SET+QZ-DALI-DT8

24V DC Power Supply - 96W

DALI-DT8 Control: 4CH

4 CHANNEL (96W)



- Default DALI address for the driver is #1 and default output voltage is 24V.
- Wiring from power supply to light fixture must be single multiconductor cable

COMPATIBLE DIRECT BURIAL PRODUCTS

Q-VAULT	Q-CLIK	Q-WIRE	Q-TWO	QW-STRIPPER
				
IP68 wet listed direct burial enclosure for one Q-SET-QZ	Watertight fitting for entryway in and out of QTL housing	Highly efficient, long-lasting wire	Underground low voltage UF splice kit	UF cable outer jacket strip tool

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QUICK START GUIDE

CONFIGURATION INSTRUCTION - DALI-2-DT8-TW

These are general guidelines for configuring QTL DALI-2 DT8 TW drivers for the required CCT range. Consult your DALI programmer/commissioning device manufacturer's guide for the specific steps.

1. When connecting the DA+/DA from your device to the QTL drivers, ensure that no other controllers are connected to the DA+ and DA- lines at the same time. See the next page for the wiring diagram.

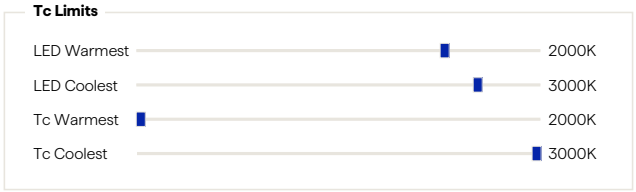
2. QTL DALI-2 drivers do not have integrated bus power supply. Therefore, DALI bus power must be provided by the programming device.

3. When addressing for custom CCT range configuration, multiple drivers may be connected simultaneously to a single controller/programming device.

4. The CCT range can be set in the "Tc Limits" section of the software interface accompanying the DALI-2 application controller.

5. In the "Tc Limits" section, LED Warmest and Tc Warmest should be set to the lowest CCT of the LED strip. LED Coolest and Tc Coolest should be set to the highest CCT of the LED CCT range.

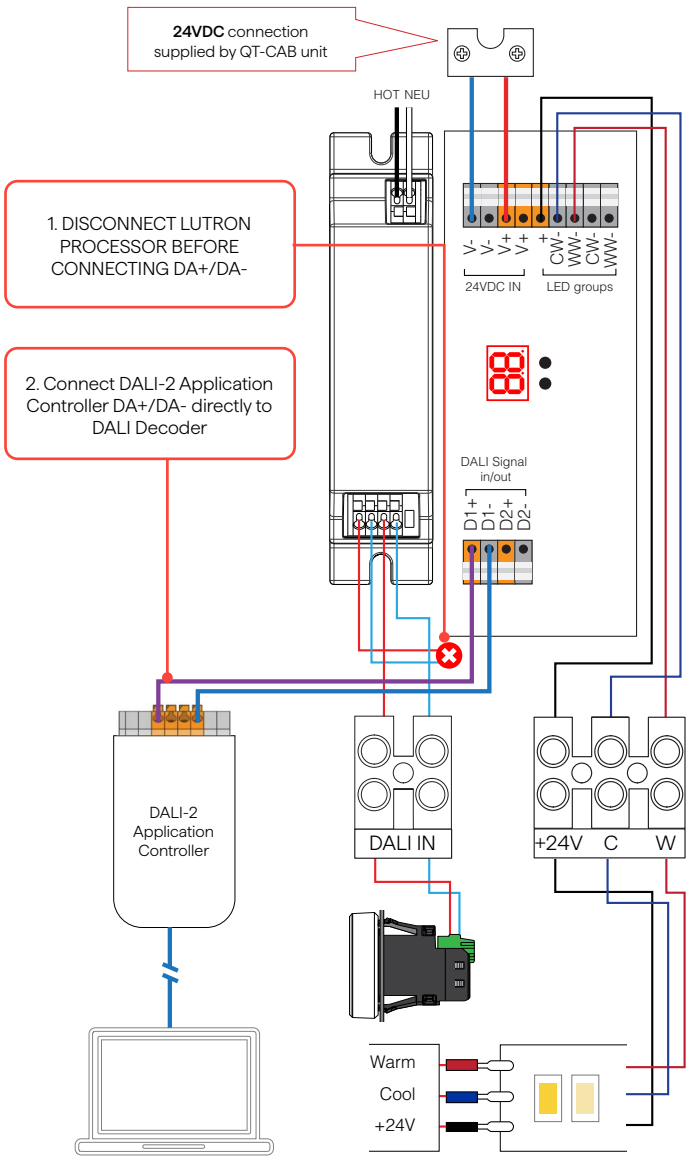
6. For example, if the LED CCT range is 2000K to 3000K (20/30), the LED Warmest and Tc Warmest should be set to 2000K. LED Coolest and Tc Coolest should be set to 3000K.



7. If the exact value cannot be selected, select the next value closest to the required limits. For warm, select the next lower value. For cool, select the next higher value.

8. Save the configured values to the driver by clicking on "write"/"save" or equivalent option in your software interface.

WIRING DIAGRAM



For use with QTL DALI-2 LED drivers only

FOR POWER SUPPLIES WITH LUTRON ATHENA NODES, DISCONNECT LUTRON DC-OEM-DBI FROM THE DALI LINE BEFORE CONNECTING THE DALI-2 PROGRAMMER. RECONNECT AFTER ALL DEVICES ARE CONFIGURED.

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Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

10 YEAR WARRANTY

- 3426-94 Luminaires - Landscape Lighting Systems - Certified to UL - 1838 Standard.
- 3425-95 Luminaires - Low Voltage Lighting Systems - Certified to UL - 2108 Standard.
- 3425-96 Luminaires - Component Hydromassage - Certified to UL - 379 Pool & Spa Standard.

CANADA

- 3426-04 Luminaires - Landscape Lighting Systems - Component (including Hydromassage).
- 3425-15 Luminaires - Low Voltage Lighting Systems.

- For supply connections use wire rated for at least 90°C
- Suitable for in-ground installation.
- Not for installation to conduit extending directly to an underwater pool light forming shell. In line Pool and Spa rated junction box required.
- Suitable for use with submersible luminaries
- Suitable for direct burial use.
- Warning: risk of fire - if installation involves running wiring through a building structure, special wiring methods are needed. Consult National and Local Codes.

Q-SET LOW VOLTAGE LUMINAIRE POWER SUPPLY

MODEL NUMBER	OUTPUT CLASS	MAX LAMP LOAD	PRIMARY VOLTS	LAMP VOLTS	DIMMER RATING
Q-SET+QZ-30	CLASS 2	30W	120V/277 (60Hz)	24VDC	0-10/ELV/MLV
Q-SET+QZ-60	CLASS 2	60W	120V/277 (60Hz)	24VDC	0-10/ELV/MLV
Q-SET+QZ-96	CLASS 2	96W	120V/277 (60Hz)	24VDC	0-10/ELV/MLV
Q-SET+QZ-DW-96	CLASS 2	96W	120V/277 (60Hz)	24VDC	0-10/ELV/MLV
Q-SET+QZ-DMX-96	CLASS 2	96W	120V/277 (60Hz)	24VDC	NO
Q-SET+QZ-DALI-96	CLASS 2	96W	120V/277 (60Hz)	24VDC	NO

If any of the primary or secondary wiring is done outside of conduit, please consult factory for proper connectors and wire to maintain IP68 rating and warranty.

To maintain Class 2 wiring compliance, do not exceed 60 watts at 12VDC or 96 watts at 24VDC per fixture feed. Failure to do so will void fixture warranty and create a fire hazard.

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Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

CSA LISTING

OUTDOOR Under 30 Volts = LV Wire Burried 0" to 6"

Q-SET+QZ-30
Q-SET+QZ-60
Q-SET+QZ-96
Q-SET+QZ-DW-96
Q-SET+QZ-DMX-96
Q-SET+QZ-DALI-96

Outdoor Landscape Lighting - Under 30 Volts
CSA Certified for both the U.S. and Canada to the UL-1838 Standard for Landscape Lighting with in-ground enclosure and component power supply operating at less than 30VDC. This listing allows for the LV Q-WIRE to be installed 0" to 6" underground.

Pool & Spa - Under 30 Volts
CSA Certified for the U.S. to the UL-379 Pool & Spa Power Supply Standard. This listing is intended for power supplies used to power fountain, swimming pool and spa luminaires operating at less than 30V.

OUTDOOR 15 to 30 Volts = LV Wire burried 18"

Q-SET+QZ-30
Q-SET+QZ-60
Q-SET+QZ-96
Q-SET+QZ-DW-96
Q-SET+QZ-DMX-96
Q-SET+QZ-DALI-96

Outdoor Landscape Lighting - 15 to 30 Volts
CSA Certified for both the U.S. and Canada to UL-2108 Standard with a listing of "Low Voltage Luminaire Power Supply" for lamps operating at 12 or 24 volts where the secondary voltage is between 15 to 30 volts. Please note that the secondary wiring must be installed 18" below grade per the N.E.C.

INDOOR LV Lighting under 30 Volts

Q-SET+QZ-30
Q-SET+QZ-60
Q-SET+QZ-96
Q-SET+QZ-DW-96
Q-SET+QZ-DMX-96
Q-SET+QZ-DALI-96

Indoor Open Conductor Systems - Under 30V
CSA Certified for both the U.S. and Canada to UL-2108 Standard as a "Low Voltage Luminaire Power Supply" for lamps operating at 12V or 24V allows for live conductor lighting equipment mounted above 7 feet and other types of LV Lighting equipment, per N.E.C. Article 411. When tested in conjunction with open conductor lighting system.

NOTE: Refer to the last page.

Q-VAULT 120/277V (50/60HZ) - 24V

FOR CONDUIT CONNECTION
WARNING - RISK OF SHOCK. Install power unit 5 feet (1.5 m) or more from the pool or spa and 10 feet (3.05 m) or more from a fountain. Where the power unit is installed within 10 feet (3.05 m) of a pool or spa, connect unit to GFCI protected branch circuit.

FOR POWER SUPPLY CORD CONNECTION
WARNING - RISK OF SHOCK. Installed power unit 5 feet (1.5M) or more from the pool, spa, or fountain. Where the power unit is installed (a) indoors within 10 feet (3.05) of a pool, spa, or fountain or (B) outdoors, connect power unit to a receptacle protected by a GFCI.

WARNING - RISK OF FIRE. If installation requires running wire through a building structure, special wiring methods are needed. Contact a qualified electrician.

WARNING - Outdoor Cord-connected unit shall be connected to a GFCI protected hooded flush type cover plate receptacle marked "Wet Location".

WARNING - Do not use extension cords.

The main Secondary Wiring is intended for shallow burial - less than 6 inches (152 mm)

For Supply connections use wire rated for at least 90C.

- SUITABLE FOR INDOOR / OUTDOOR USE
- SUITABLE FOR USE WITH SUBMERSIBLE LUMINAIRES OR SUBMERSIBLE PUMPS
- SUITABLE FOR USE WITH LOW VOLTAGE LANDSCAPE LUMINAIRES / FITTINGS

CONTACT YOUR LOCAL DISTRIBUTOR OR QTL FOR Q-WIRE, Q-CLIK OR PROPER ACCESSORY KITS.

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Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

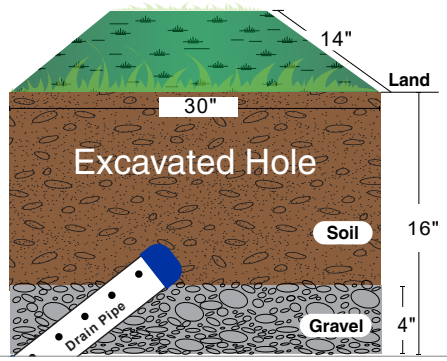
ROUGH IN WIRING

1. Excavate a 14" x 30" x 16" deep hole for the Q-VAULT direct burial housing.
2. Dig trenches for primary & secondary wiring to Q-VAULT housing location.
3. Place drain pipe at a 30 degree angle at the lowest slope of land for proper drainage. Fill bottom of pit with a minimum of 4" of gravel.

   SEE DIAGRAM A

Note: Increase width to 30" x 30" when stabilizing bars are used.

1-3
DIAGRAM **A**



4. Bring all primary and secondary wiring into housing.

   A: Entry location is provided at both the bottom and side of the Junction Box located on the Q-VAULT housing.

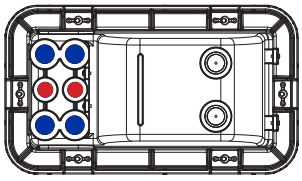
   B: On the bottom of Junction Box there are: (4) 3/4" NPT and (2) 1/2" NPT KO's. SEE DIAGRAM B

   C: Using the Field Drill Guide Labels provided in the installation kit you are able to drill for various fitting sizes. Only knock out openings for conduits being utilized in installation. SEE DIAGRAM C
5. After all field wiring has been installed with proper lead lengths, tighten all fittings properly to assure they are water proof. All drilled entries require Q Click wire connectors to insure water tight connection. Use of other connectors voids warranty.
6. Coil and store field wiring in Junction Box area.

Note: Label all wiring for future reference.

4-6
DIAGRAM **B**

Knock Outs (in)	NPT KO's
1/2"	2
3/4"	4



Bottom View

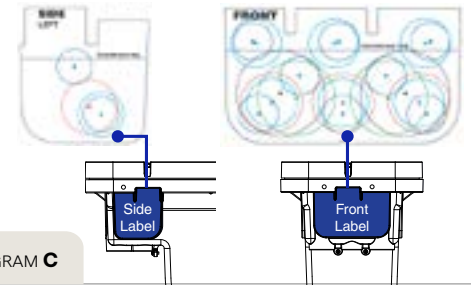


DIAGRAM **C**

1/2" Fittings
- Front: 8 max
- Side: 2 per side max

3/4" Fittings
- Front: 6 max
- Side: 1 per side max

1" Fittings
- Front: 3 max
- Side: 1 per side max

1-1/4" Fittings
- Front: 2 max

FOR COMPLETE WATER TIGHT GUARANTEE

PRIMARY WIRING IN (120-277V)

Conduit – Use Installation Kit
- Step 1: Putty
- Step 2: Epoxy
- Step 3: Syringe

Non-conduit - use Q-CLIK NPT.75, Q.750-1E, Q-WIRE 12/2+GND

WARRANTY IS VOID IF THE CORRECT METHOD IS NOT USED.

SECONDARY WIRING OUT (12-24V)

Low voltage wire (non-conduit)
- Q-CLIK
  - NPT-or knock outs in bottom of Q-VAULT, .5-.75
  - MST to drill into the side of the housing, .5-1.25
- Q-WIRE low voltage marine grade UFB wire (recommended) 10-14AWG
  - Standard Q-CLIK insert

Conduit – low voltage, requires Seal Kit (sold separately)
- Step 1: Putty
- Step 2: Epoxy
- Step 3: Syringe

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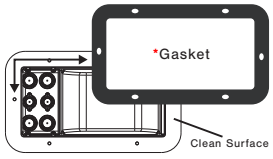
Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

7 Clean debris from the top perimeter and install gasket. SEE DIAGRAM D

8 Install door and tighten the 6 door bolts in the number sequence shown. SEE DIAGRAM E

Note: Nut driver can be used to get bolts seated before final tightening. Proper door bolt tightening must be done with a ratchet wrench using a 3/8" socket at a maximum torque of 50 in-lbs.



7 DIAGRAM **D**



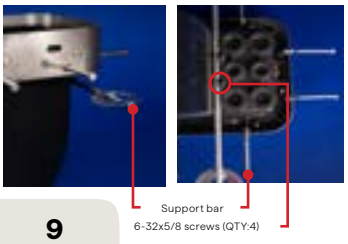
8 DIAGRAM **E**

Top View of Q-VAULT housing door. Maximum torque 50 in-lbs.

*Gasket only fits one way. Gasket easily slides over Q-VAULT posts. If you are having to force the gasket, it is backwards (Gasket must sit on top of Q-VAULT. No portion should be overhanging).

9 Attach the provided Support Bars to the Q-VAULT housing using the 6-32 X 5/8 screws. SEE DIAGRAM F

*OPTIONAL: Concrete Pour Ring Nut & Bolt Installation. SEE DIAGRAM G



9 DIAGRAM **F**

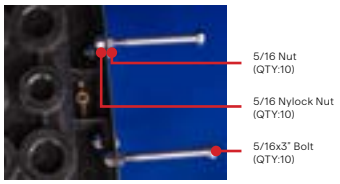
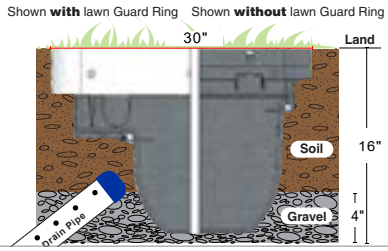


DIAGRAM **G**

10 Level housing and fill hole with gravel to 4" of below grade. Add soil to surface. SEE DIAGRAM H

All wire entry/exits other than conduit entries MUST use Q-CLIK connectors. Failure to use them will void warranty.

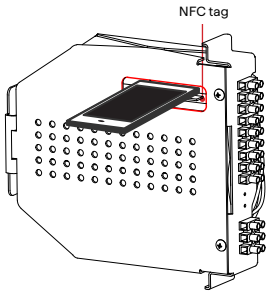


10 DIAGRAM **H**

11 Remove cover if installed, be sure to store cover and cover gasket in a clean and dry location.

12 Move field wiring out of the way.

Stick your phone through the slot, holding it over the driver's NFC tag. Read the factory default settings of the driver. Write the desired address and output voltage. **Only applicable to Q-SET+QZ-DMX and Q-SET-QZ-DALI**



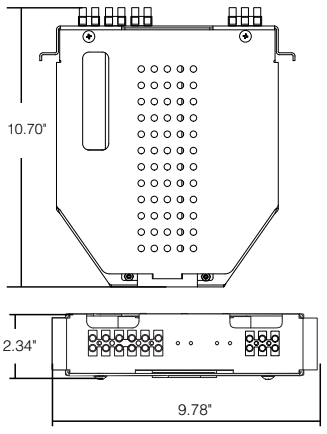
13 Place Q-SET+QZ low voltage luminaire power supply cassette into the Q-VAULT housing.

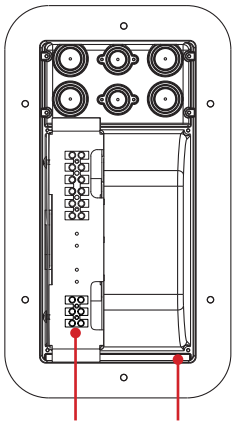
14 **Landscape Lighting:** Landscape Lighting: Bring primary field wiring directly into the Cassette's primary terminal block through open hole.

Primary Connections:

- Ground to ground labeled on terminal block
- Neutral to neutral labeled on terminal block
- Hot to hot labeled on terminal block

SEE DIAGRAM I



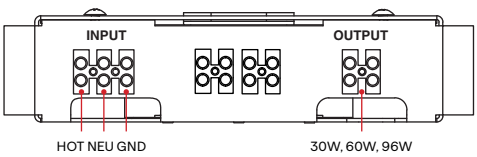


Q-SET+QZ Q-VAULT-5

(Must be purchased with Q-VAULT-5)

*Install only one Q-SET+QZ per Q-VAULT-5

11-14 DIAGRAM **I**



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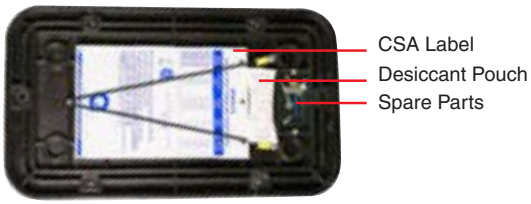
Specification subject to change. Rev-10-15-26

Q-VAULT-5-Q-SET+QZ-DALI

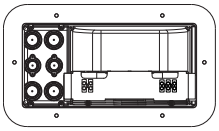
LED Power Supply Direct Burial Installation Instructions

HOUSING

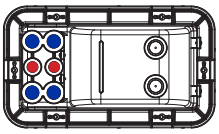
HOUSING DOOR: Underside View



Fits	1
Q-SET+QZ	•



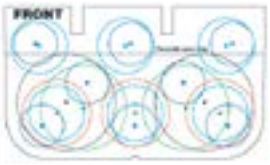
Knock Outs (in)	NPT KO's
1/2"	2
3/4"	4



Bottom View

HOUSING: Outside View

Hole Drill Guide Label: Refer to sticker instructions



NPT
National Pipe Taper (Conduit Entries)

MST
Machine Screw Thread (Housing Entries)

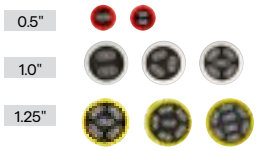
For Field Drilled KO's







Q-CLIK inserts





INSTALLING Q-SET+QZ

Determine proper lengths and trim to correct length.

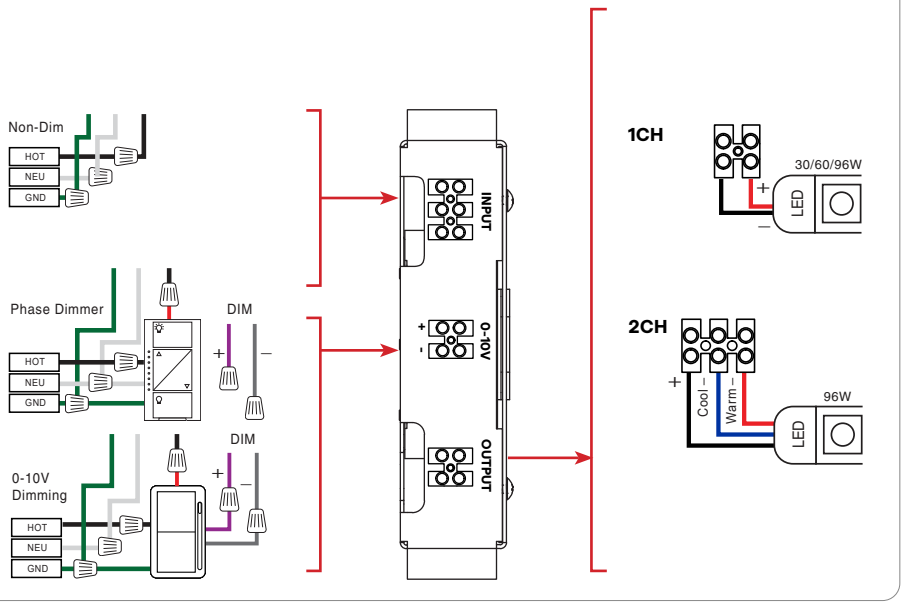
Low Voltage Connections:

1CH: Q-SET+QZ

Connect red wire to +24V on low voltage terminal block.
Connect black wire to - on low voltage terminal block .

2CH: Q-SET+DW

Connect black wire to +24V on low voltage terminal block.
Connect red wire to Warm on low voltage terminal block.
Connect blue wire to Cool on low voltage terminal block.



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Specification subject to change. Rev-10-15-26

Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

INSTALLING Q-SET+QZ

Low Voltage Connections:

1CH: Q-SET+QZ-DMX / Q-SET+QZ-DALI

Connect red wire to +24V on low voltage terminal block.
Connect black wire to - on low voltage terminal block.

2CH: Q-SET+QZ-DMX / Q-SET+QZ-DALI

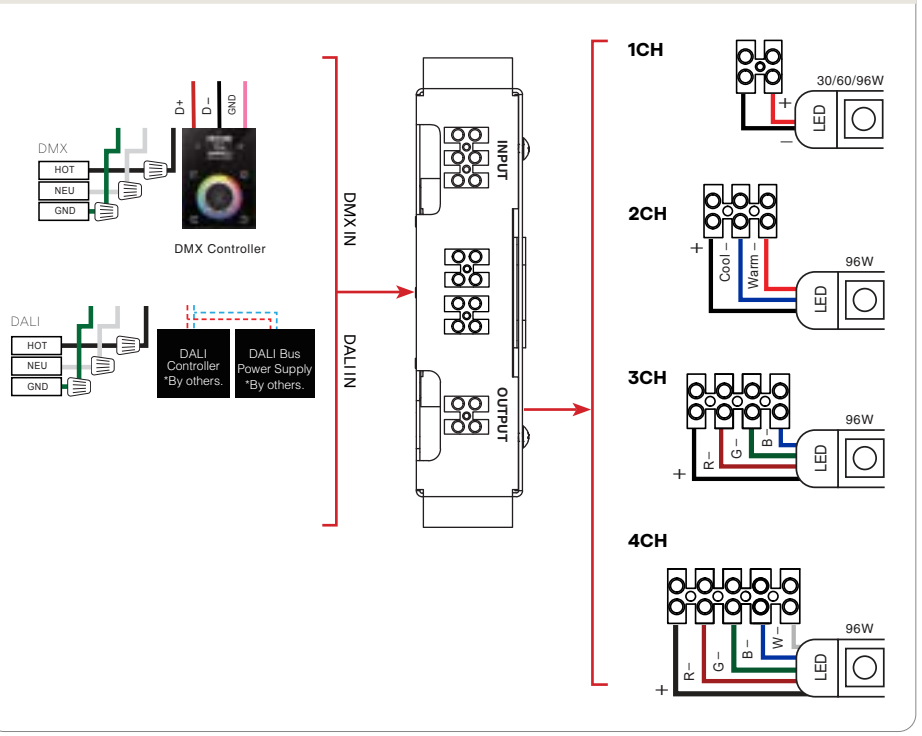
Connect black wire to +24V on low voltage terminal block.
Connect red wire to Warm on low voltage terminal block.
Connect blue wire to Cool on low voltage terminal block.

3CH: Q-SET+QZ-DMX / Q-SET+QZ-DALI

Connect black wire to +24V on low voltage terminal block.
Connect red wire to R on low voltage terminal block.
Connect green wire to G on low voltage terminal block.
Connect blue wire to B on low voltage terminal block.

4CH: Q-SET+QZ-DMX / Q-SET+QZ-DALI

Connect black wire to +24V on low voltage terminal block.
Connect red wire to R on low voltage terminal block.
Connect green wire to G on low voltage terminal block.
Connect blue wire to B on low voltage terminal block.
Connect white wire to W on low voltage terminal block.



SIMPLE AS 1, 2, 3

1. Use putty provided to seal wires in potting well. It is important that the well is liquid tight so that when the re-enterable epoxy is poured, it does not escape out the bottom. Be sure the putty is put into the very bottom of the well to allow ample room for the epoxy. SEE DIAGRAM O

2. **A:** The 3M-8882 re-enterable epoxy takes several hours to set. When set it will form a into a water tight "jello" consistency.

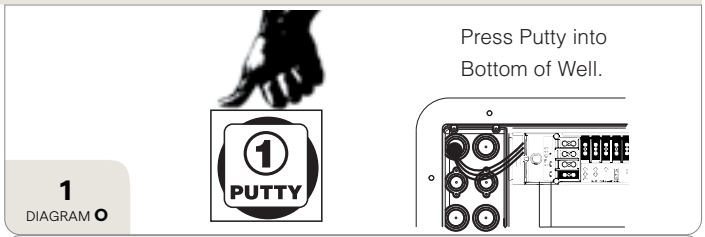
   B: Mix the two part epoxy together per 3M instructions located on the epoxy packaging.

   C: Push all the mixed epoxy together to one end of the bag. Cut the corner of the bag.

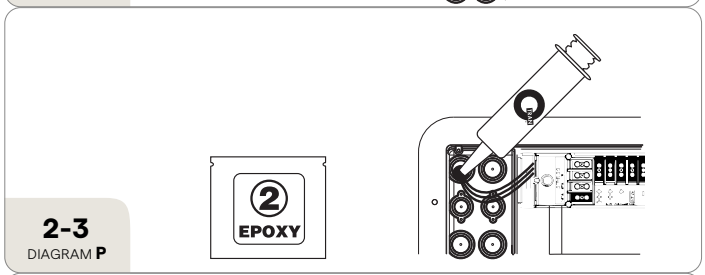
3. **A:** Using the syringe pull the mixed epoxy into the syringe by pulling the plunger out slowly.

   B: Slowly dispense the mixed epoxy from the syringe into the utilized potting wells. SEE DIAGRAM P

Note: Potting is now complete



1
DIAGRAM **O**



2-3
DIAGRAM **P**

LAST STEP

Final Door Installation

Gasket and door installed only in one direction

- Clean housing area where door gasket will rest
- Reinstall clean door gasket.

Before Door is Installed
Put velcro desiccant bag in place. Attach the two velcro loop coins on the desiccant bag to the two velcro hook coins on the underside of the housing door. SEE DIAGRAM Q

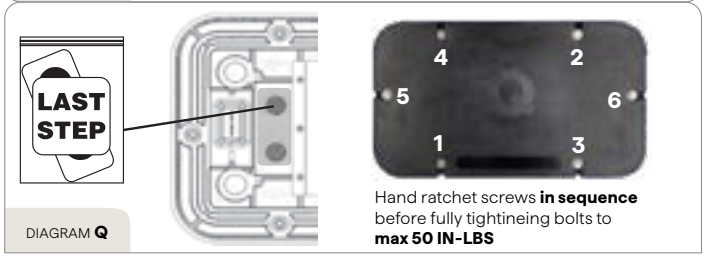


DIAGRAM **Q**

Hand ratchet screws **in sequence** before fully tightineing bolts to **max 50 IN-LBS**

Note: Install door and tighten the 6 door bolts **NOT TO EXCEED 50 IN-LBS**. Door bolt tightening must be done with a ratchet wrench using a 3/8" socket.

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Specification subject to change. Rev-10-15-26

Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

NEC CODE & UL STANDARDS FOR LIGHTING

Systems Operating at 30 Volts or Less

READ ACROSS & DOWN

SECONDARY WIRE & BURIAL DEPTH	MAX VOLTS	UL- NEC	LUMINAIRE LISTING	POWER SUPPLY TRANSFORMER
	15V AC / 30V DC	UL 1838 NEC Annex A	Low Voltage Landscape Lighting Luminaires	
	15V AC Only	UL Pool & Spa NEC 680	Low Voltage Pool & Spa Luminaires	
	30V AC / 30V DC	UL 2108 NEC 411 NEC Annex A	Low Voltage Lighting Luminaires	
	30V AC / 30V DC	UL 1598 NEC 410	Luminaires	

Wire Type & Burial Depth	6"+		0-6"	
Grade	Conduit	UF-B (Q-Wire)	UF-B (Q-Wire)	L.V.Cable
	Wire to Class 1 NEC - Chapter 3			
6" Below Grade			UF-B Underground Feeder - Burial	

Max Secondary Volt at Power Supply with no load (Open Circuit).

NEC = National Electric Code NFPA-70

UL = Underwriters Laboratories Inc.

Article 411.3 (B-2) Listed NEC - 2008	●
Grounded Isolation for LV Wet Location	□
Secondary Circuit Protector 25A Max	●
Open / Bare Conductor (When Tested)	●

Wet

120V Only

UL 1838 - LV Landscape Lighting System: 15V AC / 30V DC Max Output at Power Supply - No Load
Luminaires + Power Supplies must be UL 1838 Listed as complimentary components for lighting garden, walkway, patio areas, trees and similar outdoor locations with in ground and above ground fixtures; and for certain indoor locations such as atriums and shopping malls. This listing also covers luminaires submersed in or floating on ponds, rivers, water features and lakes or a portable self contained fountains per NEC Article 682 where immersed persons would not be present as defined by luminaire installation instructions.
UL 1838 allows LV Underground Lighting Cable - no other listing permits this wire type. 120V Primary only. **Not for indoor use.**
Note: NEC Annex A = UL 1838

Low Voltage Luminaire Primarily for Wet Locations

Submersed

120V Only

UL Pool & Spa Listing: 15V AC only Max Output at Power Supply - No Load **Indoor & Outdoor**
Luminaires 4 Power Supplies must be UL Pool & Spa Listed as complimentary components for lighting a Pool, Spa, permanent fountain or other bodies of water intended to contain immersed persons. All wiring must be Class 1 per NEC Chapter 3. 120V Primary only.
Install per NEC Article 680

Low Voltage Luminaire for Submersed Locations with immersed persons

Dry or Damp

UL 2108 - LV Lighting System: 30V AC / 30V DC Max Output at Power Supply - No load
Luminaires + Power Supplies must be UL 2108 Listed as complimentary components. This Standard covers:
4113 (A) Listed Systems for exposed bare conductor systems comprised of cable, linear track or the like where the support structure is exposed and current carrying; here the Power Supply must be listed as part of the same identified lighting systems.
Note: Use Power Supply as defined in Luminaire installation instructions.

4113 (B) Assembly of Listed Parts covers mono, dual or multi point L.V Luminaires which are an assembly of listed parts if a UL 2108 Low Voltage Luminaire Power Supply is utilized. For wet Location luminaires UL 2108 covers luminaires with up to 30 volt input provided they are Class I wired per NEC Chapter 3. For wet Location luminaires with inputs not exceeding 15 volts, UL 1838 applies.
Note: NEC Article 411 + Annex A = UL 2108.

Low Voltage Luminaire Primarily for Dry and Damp Locations

Obsolete for LV Remote Dry, Damp & Wet

UL 1598 - Luminaires: 30V AC / 30V DC Max Output at Power Supply - No load
This UL Standard applies to line voltage luminaires for use in non- hazardous locations and allows up to 600 volts input and all wiring must be Class 1 per NEC Chapter 3. Low Voltage luminaires powered by remote transformer are **NOT covered by this standard.**

This Listing does not cover:
- LV Landscape Lighting products and Submersible Luminaires installed in the United States at 15V or less. (UL 1838 is the Standard per NEC-Annex A)
- Swimming Pool & Spa Luminaires (UL Pool & Spa is the Standard per NEC Article 680)
- Low Voltage Lighting Systems powered by remote transformers (UL 2108 is the Standard per NEC 411 & Annex A)

Note: NEC Article 410

Intended for Line Voltage Luminaires for Dry, Damp and Wet Locations

UL 506-General Purpose or Specialty Transformers: 600V Max
This UL Standard is a transformer standard only and is not a complimentary component to any luminaire standard. UL 1838, Pool & Spa and 2108 does not permit the use of UL 506 transformers unless the transformer is additionally tested and subsequently listed to UL 1838, Pool & Spa or 2108. A UL-506 transformer may be tested as an internal components to a UL-1598 luminaire, to be an integral transformer.
The Scope of UL-506 (Section 1.2) specifically excludes use in Landscape Lighting Systems and for use in Pool & Spa Lighting Systems. Additionally, a Cord and Plug connection is not permitted. In no instance can a UL-506 transformer be used in Landscape or Pool & Spa Lighting. A UL 1838, UL Pool Spa and UL 2108 Power Supply may power a UL-1598 luminaire that was listed prior to the UL-2108 effective date since these Luminaires are required to be Class 1 wired per NEC Chapter 3.

General Purpose Transformer

POWER SUPPLY TRANSFORMER			
T	PS	PS	PS
UL 506 General Purpose or Specialty Transformer	UL 2108 NEC 411 NEC Annex A Low Voltage Luminaires Power Supply	UL Pool & Spa NEC 680 Low Voltage Pool & Spa Power Supply	UL 1838 NEC Annex A Low Voltage Landscape Lighting Power Supply
600 MAX Transformer 300 MAX Low Voltage	30V AC/30DC MAX Output at power supply with no load	15 AC only MAX Output at power supply with no load	15V AC/30DC MAX Output at power supply with no load

Power Supply

Key

Conduit (Q-CLIK)	UF-B (Q-WIRE)	L.V. Cable	Exceeds Standard	Complimentary Component
Yes	No	Optional	Transformer	Power Supply

The UL limit of 15 volts AC at the Power Supply under no load (Open Circuit) was established for life safety due to shock potential in wet conditions. The Standard also requires a grounded isolation barrier between the primary and secondary windings. In the Pool & Spa Standard the primary must be 120V & the connection must be in a separate junction box or compartment.

Q-SET = 3 UL Listings	UL 1838 UL 2108 UL Pool & Spa	⬭ ⬭ ⬭
Q-HEX = 2 UL Listings	UL 1838 UL 2108	⬡ ⬡
QOM = 1 UL Listings	UL 1838	◻

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Q-VAULT-5-Q-SET+QZ-DALI

LED Power Supply Direct Burial Installation Instructions

QVAULT-5 USE ONLY WITH QTL Q-SET+QZ POWER SUPPLY

	MODEL NUMBER	MAX LAMP LOAD	AVAILABLE PRIMARY VOLTAGES			LAMP VOLTS	SEC. CIRCUIT
			ABC12	AB2	CE ONLY		24V AC ABC12
Electronic LED	Q-SET+QZ-30	30W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2
	Q-SET+QZ-60	60W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2
	Q-SET+QZ-96	96W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2
	Q-SET+QZ-DW-96	96W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2
	Q-SET+QZ-DMX-96	96W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2
	Q-SET+QZ-DALI-96	96W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	24V	Class 2

IP68 RATED

C US 239924

A 3426-94 Luminaires - Landscape Lighting Systems - **Certified to UL - 1838 Standard.**
B 3425-95 Luminaires - Low Voltage Lighting Systems - **Certified to UL - 2108 Standard.**
C 3425-96 Luminaires - Component Hydromassage - **Certified to UL - 379 Pool & Spa Standard.**

1 3426-04 Luminaires - Landscape Lighting Systems - Component (including Hydromassage).
2 3425-15 Luminaires - Low Voltage Lighting Systems.

ABC12 **INDEPENDENT 0-10V DIMMER, MLV/ELV DIMMER, DMX CONTROL OR DALI CONTROL**

ABC12 **FOR SUPPLY CONNECTIONS USE WIRE RATED FOR AT LEAST 90°C**
POUR LES CONNEXIONS D'ALIMENTATION, UTILISEZ UN FIL ÉVALUÉ À 90°C AU MOINS

ABC12 **FOR IN-GROUND INSTALLATION ONLY**
POUR INSTALLATION AU SOL UNIQUEMENT

C1 **NOT FOR INSTALLATION TO A CONDUIT EXTENDING DIRECTLY TO AN UNDERWATER POOL LIGHT FORMING SHELL**
NE PAS INSTALLER SUR UN CONDUIT S'ETENDANT DIRECTEMENT SUR UN ENVELOPPE DE LUMIERE DE PISCINE SOUS L'EAU

C1 **PRIMARY TERMINAL MARKED WITH IDENTIFICATION MARKINGS BLACK FOR LINE, WHITE FOR NEUTRAL, GREEN FOR GROUND**
BORNE PRIMAIRE MARQUÉE AVEC DES MARQUAGES D'IDENTIFICATION NOIR POUR LA LIGNE, BLANC POUR LE NEUTRE, VERT POUR LA TERRE

USE DIMMERS RATED FOR ELECTRONIC OR MAGNETIC LOW VOLTAGE LOAD IF THE POWER UNIT IS ELECTRONIC OR MAGNETIC
UTILISEZ DES GRADATEURS CONÇUS POUR UNE CHARGE ÉLECTRONIQUE OU MAGNÉTIQUE À BASSE TENSION SI L'UNITÉ D'ALIMENTATION EST ÉLECTRONIQUE OU MAGNÉTIQUE

ABC12 **SUITABLE FOR USE WITH SUBMERSIBLE LUMINARIES**
ADAPTÉ AUX LUMINAIRES SUBMERSIBLES

ABC12 **SUITABLE FOR INDOOR & OUTDOOR USE**
ADAPTÉ À L'USAGE INTÉRIEUR ET EXTÉRIEUR

ABC12 **SUITABLE FOR WET LOCATIONS**
ADAPTÉ AUX ENDROITS HUMIDES

ABC12 **WARNING: RISK OF FIRE - IF INSTALLATION INVOLVES RUNNING WIRING THROUGH A BUILDING STRUCTURE, SPECIAL WIRING METHODS ARE NEEDED. CONSULT A QUALIFIED ELECTRICIAN.**
AVERTISSEMENT: RISQUE D'INCENDIE - SI L'INSTALLATION IMPLIQUE DE RACCORDER UN CÂBLAGE À TRAVERS UNE STRUCTURE DE BÂTIMENT, DES PROCÉDÉS DE CÂBLAGE SPÉCIAUX SONT NÉCESSAIRES. CONSULTER UN ÉLECTRICIEN QUALIFIÉ.

CAUTION

USE ONLY WITH MAXIMUM 30 WATT LAMP LOAD FOR MODELS Q-SET+QZ-30
UTILISER UNIQUEMENT DES AMPOULES DE 30 W MAX. DE TYPE Q-SET+QZ-30

USE ONLY WITH MAXIMUM 60 WATT LAMP LOAD FOR MODELS Q-SET+QZ-60
UTILISER UNIQUEMENT DES AMPOULES DE 60 W MAX. DE TYPE Q-SET+QZ-60

USE ONLY WITH MAXIMUM 96 WATT LAMP LOAD FOR MODELS Q-SET+QZ-96, Q-SET+QZ-DW-96, Q-SET+QZ-DMX-96, Q-SET+QZ-DALI-96
UTILISER UNIQUEMENT DES AMPOULES DE 96 W MAX. DE TYPE Q-SET+QZ-96, Q-SET+QZ-DW-96, Q-SET+QZ-DMX-96, Q-SET+QZ-DALI-96

READ INSTALLATION INSTRUCTIONS www.QTL.lighting, MILFORD, CT U.S.A. QTL.lighting

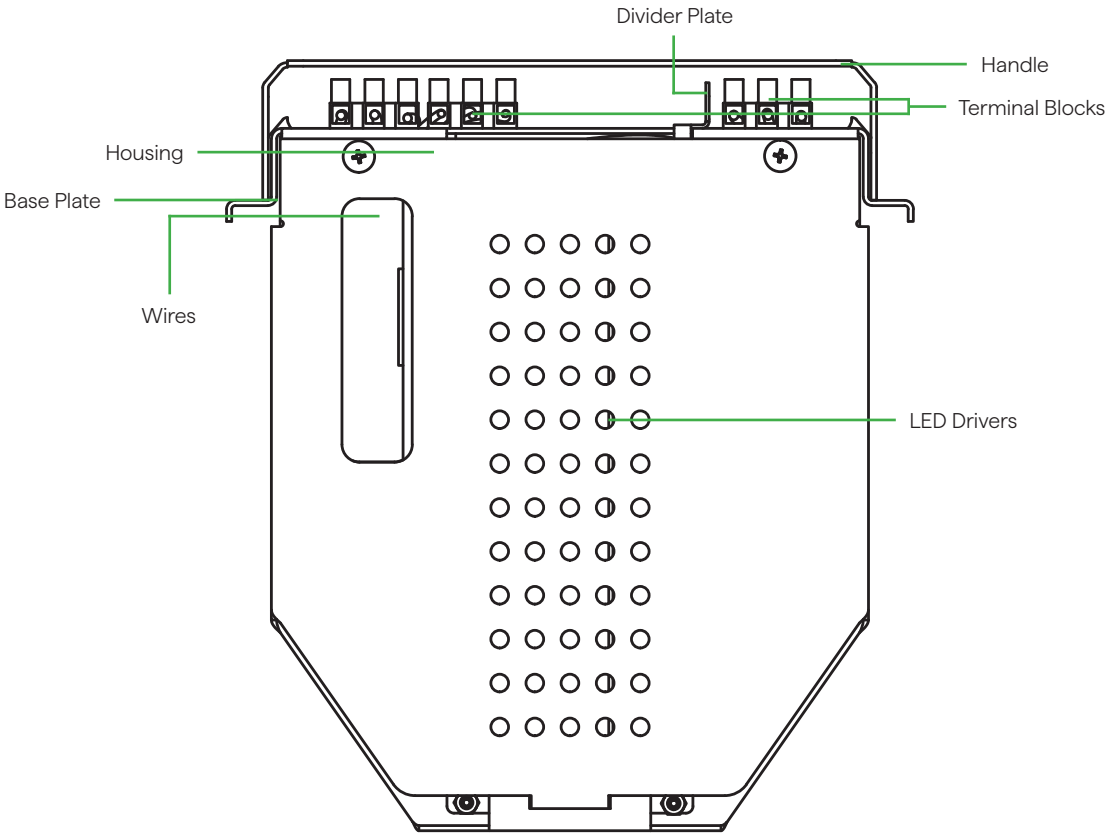
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MATERIAL RECYCLING

Q-SET-QZ

You may be done with your products, but chances are they still have more to give. Follow these instructions to break down and sort recyclable components. Check with local recycling collection to ensure they accept the materials listed below.

Additionally, Q-Tran offers a Takeback Program. Contact factory for information.



7

Terminal Blocks

E

LED Drivers
Wires

40

Housing
Base Plate
Divider Plate
Handle

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