Q-SET-1

12V or 24V AC Power Supply - 60W–300W



- UL Listed direct burial power supply
- Designed to be used with the Q-VAULT-5 IP68 direct burial power supply enclosure
- Available in 12VAC or 24VAC options
- Wattage options range from 60W to 300W
- Equipped with one secondary circuit breaker
- Holds three UL listings: Landscape Lighting, Pool & Spa, and Low-Voltage Luminaire Power Supply
- Suitable for both interior and exterior lighting applications
- Provides five secondary taps to compensate for voltage drop
- Allows for connecting loads to one or more secondary taps of the Q-SETs.
- Must be purchased with Q-VAULT-5

1 PRODUCT	2 WATTAGE	3 PRIMARY VOLTAGE	4 SECONDARY VOLTAGE
Q-SET			

Sample Part Number: **Q-SET-60-120(60Hz)-12V**

1 PRODUCT

Q-SET

2 WATTAGE

60W
120W
180W
240W
300W

180W, 240W, and 300W listed for Pool & Spa

3 PRIMARY VOLTAGE

120	60Hz
220	60Hz
230	50Hz
240	60Hz
277	60Hz

4 SECONDARY VOLTAGE

12V
24V

PRODUCT INFORMATION

- For supply connections use wire rated for at least 90˚C
- Suitable for inground installation
- Use dimmers rated for magnetic low voltage load
- Not for installation to conduit extending directly to an underwater pool light forming shell
- Suitable for use with submersible luminaries
- Suitable for indoor & outdoor use
- WARNING: Risk of fire - if installation involves running wiring through a building structure, special wiring methods are needed. Consult a qualified electrician.
- 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
- Component Hydromassage - 120V primary, 12V secondary
  - CSA Class 3425-96
  - ANSI/ UL Standard 379-Power Units for Fountain, Swimming Pool, and Spa Luminaires
- 10 Year Warranty

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Q-SET-1

12V or 24V AC Power Supply - 60W–300W

VOLTAGE DROP CHART

Distances shown reflect a 5% voltage drop (95% of rated voltage delivered) — the maximum recommended run.

24V SYSTEM

No Dimming - use primary tap #1

SECONDARY TAP 2, 24V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	688	432	272	171
100	344	216	136	86
150	229	144	91	57
200	172	108	68	43
250	138	86	54	34
300	115	72	45	29

SECONDARY TAP 3, 26V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	1452	913	574	361
100	726	456	287	181
150	484	304	191	120
200	363	228	143	90
250	290	183	115	72
300	242	152	96	60

SECONDARY TAP 4, 28V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	2217	1393	876	552
100	1108	697	438	276
150	739	464	292	184
200	554	348	219	138
250	443	279	175	110
300	369	232	146	92

With Dimming - use primary tap #2

SECONDARY TAP 2, 24V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	688	432	272	171
100	344	216	136	86
150	229	144	91	57
200	172	108	68	43
250	138	86	54	34
300	115	72	45	29

SECONDARY TAP 3, 26V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	1452	913	574	361
100	726	456	287	181
150	484	304	191	120
200	363	228	143	90
250	290	183	115	72
300	242	152	96	60

SECONDARY TAP 4, 28V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	2217	1393	876	552
100	1108	697	438	276
150	739	464	292	184
200	554	348	219	138
250	443	279	175	110
300	369	232	146	92

12V SYSTEM

No Dimming - use primary tap #1

SECONDARY TAP 2, 12V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	430	270	170	107
35	246	154	97	61
50	172	108	68	43
75	115	72	45	29
100	86	54	34	21
150	57	36	23	14
200	43	27	17	
240	36	23	14	
300	29	18		

SECONDARY TAP 3, 13V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	908	571	359	226
35	519	326	205	129
50	363	228	143	90
75	242	152	96	60
100	182	114	72	45
150	121	76	48	30
200	91	57	36	
240	76	48	30	
300	61	38		

SECONDARY TAP 4, 14V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	1385	871	548	345
35	792	498	313	197
50	554	348	219	138
75	369	232	146	92
100	277	174	110	69
150	185	116	73	46
200	139	87	55	
240	115	73	46	
300	92	58		

With Dimming - use primary tap #2

SECONDARY TAP 2, 12V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	430	270	170	107
35	246	154	97	61
50	172	108	68	43
75	115	72	45	29
100	86	54	34	21
150	57	36	23	14
200	43	27	17	
240	36	23	14	
300	29	18		

SECONDARY TAP 3, 13V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	908	571	359	226
35	519	326	205	129
50	363	228	143	90
75	242	152	96	60
100	182	114	72	45
150	121	76	48	30
200	91	57	36	
240	76	48	30	
300	61	38		

SECONDARY TAP 4, 14V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	1385	871	548	345
35	792	498	313	197
50	554	348	219	138
75	369	232	146	92
100	277	174	110	69
150	185	116	73	46
200	139	87	55	
240	115	73	46	
300	92	58		

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Q-SET-1

12V or 24V AC Power Supply - 60W–300W

Distances shown reflect a 5% voltage drop (95% of rated voltage delivered) — the maximum recommended run.

24V SYSTEM

No Dimming - use primary tap #1

SECONDARY TAP 5, 30V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	2981	1874	1178	742
100	1490	937	589	371
150	994	625	393	247
200	745	468	295	185
250	596	375	236	148
300	497	312	196	124

With Dimming - use primary tap #2

SECONDARY TAP 5, 30V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
50	2981	1874	1178	742
100	1490	937	589	371
150	994	625	393	247
200	745	468	295	185
250	596	375	236	148
300	497	312	196	124

12V SYSTEM

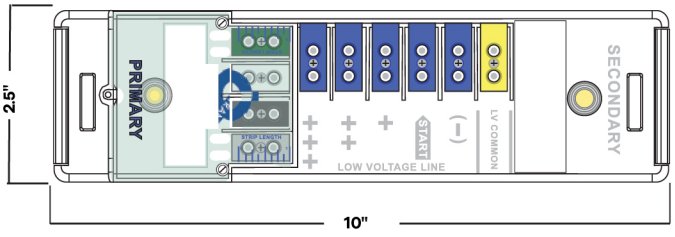
No Dimming - use primary tap #1

SECONDARY TAP 5, 15V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	1863	1171	736	464
35	1065	669	421	265
50	745	468	295	185
75	497	312	196	124
100	373	234	147	93
150	248	156	98	62
200	186	117	74	
240	155	98	61	
300	124	78		

With Dimming - use primary tap #2

SECONDARY TAP 5, 15V				
Load (W)	8 AWG	10 AWG	12 AWG	14 AWG
20	1863	1171	736	464
35	1065	669	421	265
50	745	468	295	185
75	497	312	196	124
100	373	234	147	93
150	248	156	98	62
200	186	117	74	
240	155	98	61	
300	124	78		

1 PRODUCT - DIMENSIONS



2 TECHNICAL INFORMATION

Volt Rating	Secondary Circuit Breaker Size	Total Circuit Breaker Load	Number of Circuit Breaker	Total Q-SET Load
24V	2.5 A	60W	1	60W
24V	5 A	120W	1	120W
24V	7.5 A	180W	1	180W
24V	10 A	240W	1	240W
24V	12.5 A	300W	1	300W

12V	5 A	60W	1	60W
12V	10 A	120W	1	120W
12V	15 A	180W	1	180W
12V	20 A	240W	1	240W
12V	25 A	300W	1	300W

MULTI-VOLT & TAPS

- Two (2) primary taps, a switch or a dimmed tap to compensate for losses when dimming
- Five (5) secondary taps provide nominal secondary voltages of:
- 12V = 11V, 12V, 13V, 14V, & 15V
- 24V = 22V, 24V, 26V, 28V, & 30V
- Loads may be connected to one or more of the secondary taps of the PSC.
- No derating required for incandescent and halogen loads
- 50% derating require for LED retrofit loads

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Q-SET-1

12V or 24V AC Power Supply - 60W–300W

- For VOYA COB products refer to specific derating requirements on VOYA spec sheets
- The advantage is that loads at varying distances from the PSC can be tapped on different taps to recover voltage drop, allowing you to get the correct voltage at your load and produce between 85%-100% light output. (See QTL Voltage drop Calculator)
- Primary Circuit Protection: All 120V units come with both a primary and secondary, hydraulic, magnetic circuit breaker.
- All have a primary auto-reset thermal protector, which is built into the transformer. This thermal protector will temporarily disconnect the primary if the transformer overheats due to an overload or saturation from a faulty dimmer.
- Secondary Circuit Protection: 1 secondary breaker

COMPATIBLE DIRECT BURIAL PRODUCTS

Q-VAULT



IP68 wet listed direct burial enclosure for two Q-SET-1s

Q-CLIK



Watertight fitting for entryway in and out of QTL housing

Q-WIRE



Highly efficient, long-lasting wire

Q-TWO



Underground low voltage UF splice kit

QW-STRIPPER



UF cable outer jacket strip tool

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Q-VAULT-5-Q-SET

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 - 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
- Use dimmers rated for magnetic low voltage load
- Not for installation to conduit extending directly to an underwater pool light forming shell.
- Use dimmers rated for appropriate lighting load.
- Suitable for use with submersible luminaires
- Suitable for indoor & outdoor 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	SEC. 12V	BREAKERS 24V
QSET-60	CLASS 1	60W	120V/277 (60Hz)	12V/24V	MLV	1x5	1X2.5
QSET-120	CLASS 1	120W	120V/277 (60Hz)	12V/24V	MLV	1x10	1x5
QSET-180	CLASS 1	180W	120V/277 (60Hz)	12V/24V	MLV	1X15	1X7.5
QSET-240	CLASS 1	240W	120V/277 (60Hz)	12V/24V	MLV	1X20	1X10
QSET-300	CLASS 1	300W	120V/277 (60Hz)	12V/24V	MLV	1X25	1X12.5
QSET-360	CLASS 1	360W	120V/277 (60Hz)	12V/24V	MLV	2X15	2X7.5
QSET-480	CLASS 1	480W	120V/277 (60Hz)	12V/24V	MLV	2X20	2X10
QSET-600	CLASS 1	600W	120V/277 (60Hz)	12V/24V	MLV	2X25	2X12.5
QSET-540	CLASS 1	540W	120V/277 (60Hz)	12V/24V	MLV	3X15	3X7.5
QSET-720	CLASS 1	720W	120V/277 (60Hz)	12V/24V	MLV	3X20	3X10
QSET-900	CLASS 1	900W	120V/277 (60Hz)	12V/24V	MLV	3X25	3X12.5

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Q-VAULT-5-Q-SET

LED Power Supply Direct Burial Installation Instructions

CSA LISTING

OUTDOOR Under 15 Volts = LV Wire Burried 0" to 6"

Outdoor Landscape Lighting - Under 15 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 15V. This listing allows for the LV Q-WIRE to be installed 0" to 6" underground.

Pool & Spa - Under 15 Volts

CSA Certified for the U.S. to the UL-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 15V.

QSET-180
QSET-240
QSET-300
QSET-360
QSET-480
QSET-600
QSET-540
QSET-720
QSET-900

OUTDOOR 15 to 30 Volts = LV Wire burried 18"

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

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 120V (60HZ) - 12V

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 - 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 60C.

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

Q-VAULT 277V (60HZ) - 12V (US Only)

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.

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

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

For Supply connections use wire rated for at least 60C.

- 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

LED Power Supply Direct Burial Installation Instructions

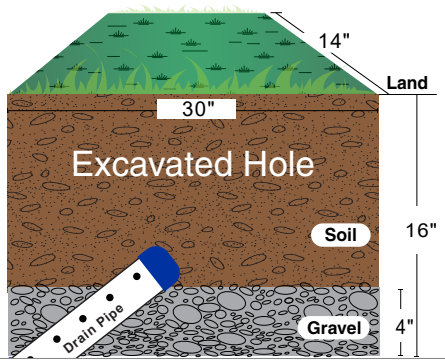
ROUGH IN WIRING

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.

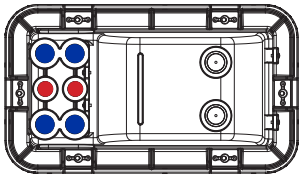
   B: On the bottom of Junction Box there are: (4) 3/4" NPT and (2) 1/2" NPT KO's. SEE DIAGRAM B

   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.

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

4-6
DIAGRAM **B**



Bottom View

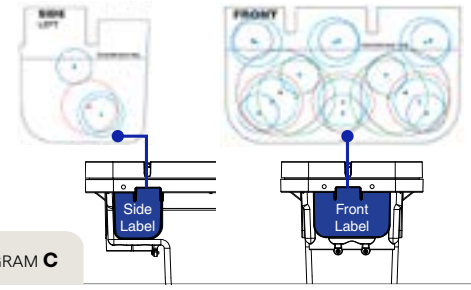


DIAGRAM **C**

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

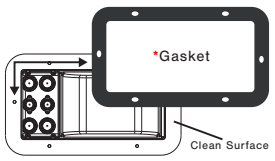
Q-VAULT-5-Q-SET

LED Power Supply Direct Burial Installation Instructions

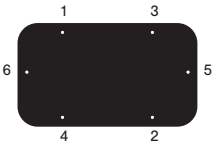
7 Clean debris from the top perimeter and install gasket. SEE DIAGRAM D

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**



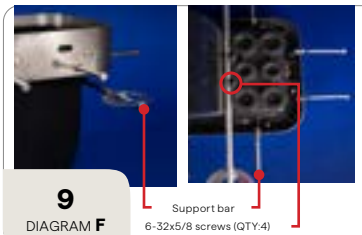
8 DIAGRAM **E**

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**

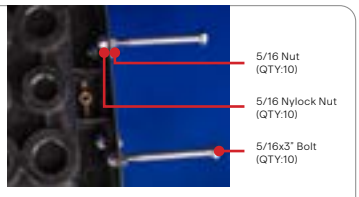
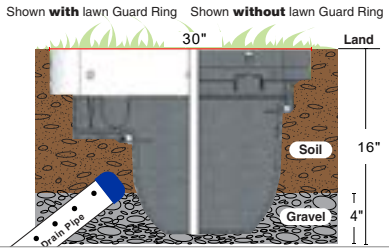


DIAGRAM **G**

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.

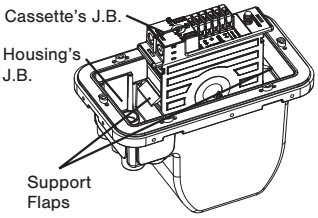


10 DIAGRAM **H**

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.

13 Place Q-SET low voltage luminaire power supply cassette into the Q-VAULT housing using the support flaps. The cassette's primary junction box should be placed next to field wiring junction box located on the housing. SEE DIAGRAM I



11-13 DIAGRAM **I**

ISO View

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

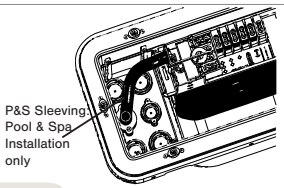
Pool & Spa: Bring primary field wiring through the P&S sleeving. Do not screw base fitting to field junction box until re-enterable potting is complete. SEE DIAGRAM J
Call QTL (203-367-8777) if P&S sleeving is needed.

Primary Connections:
- Ground to Green terminal
- Neutral to White terminal
- Hot to either: Tap1 - No Dimmer / Tap2 - With Dimmer

A: For proper connection to terminal block, use the Strip Length Guide on the primary junction box cover of the Cassette. Determine the strip length approximately 1".

B: Using supplied hex key unscrew wire(s) and hand tighten the (2)1/4-28 316ss set screws.

C: Fully insert the properly stripped wire(s) and hand tighten both set screws with provided hex key. Do Not use a ratchet wrench. Maximum torque = 30 in-lbs. SEE DIAGRAM K



14 DIAGRAM **J**

TOP View

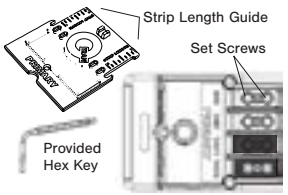


DIAGRAM **K**

TOP View

Note: See page 7 for re-enterable potting steps.

Terminal Capacity

Solid or Stranded
7 - #14 AWG Wires
5 - #12 AWG Wires
4 - #10 AWG Wires
2 - #8 AWG Wires

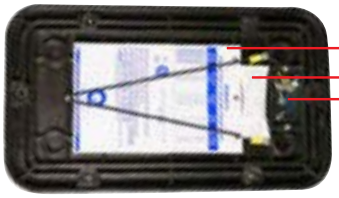
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Q-VAULT-5-Q-SET

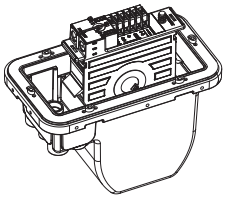
LED Power Supply Direct Burial Installation Instructions

HOUSING

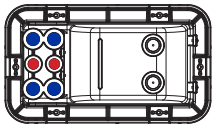
HOUSING DOOR: Underside View



Fits	1	Up to 2
Q-SET-1		•
Q-SET-2	•	
Q-SET-3	•	



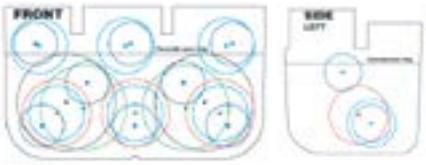
Knock Outs (in)	NPT KO's
1/2"	2
3/4"	4

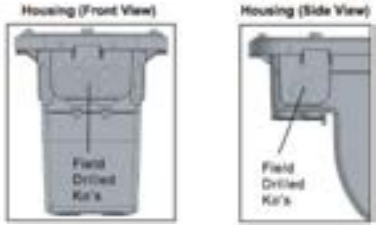


Bottom View

HOUSING: Outside View

Hole Drill Guide Label: Refer to sticker instructions





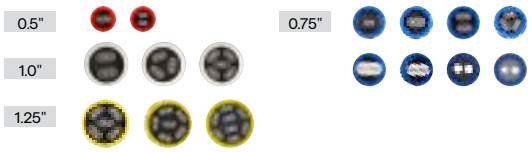
NPT National Pipe Taper (Conduit Entries)

MST Machine Screw Thread (Housing Entries)

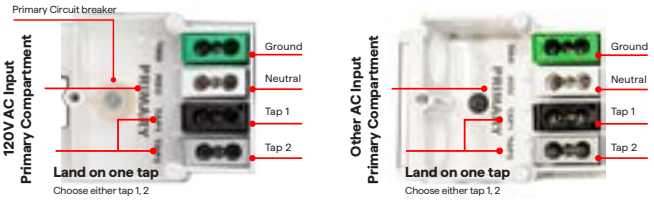
For Field Drilled KO's



Q-CLIK inserts



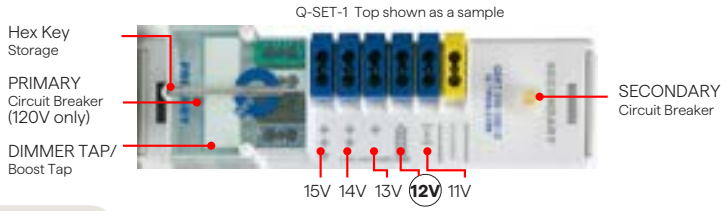
INSTALLING Q-SET 1, 2, 3



All other AC input voltages

Q-SET-1, 2, 3 compartment

Note: Dimmer, if used, must be a magnetic low-voltage dimmer.



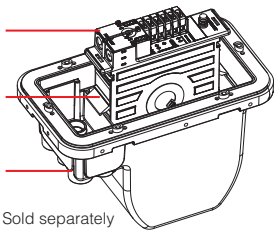
Q-SET-1, 2, 3 compartment

NOTE: Always put your wire on the start & move to the next tap if more Volts are needed

Q-SET 1 (2.5"Cassette)

Support flaps for easy access while wiring.

QVAULT-5 (5.0"Housing)



Q-SET Sold separately



15 Determine proper lengths and trim to correct length.

16 Low Voltage Common: Is connected to a yellow terminal block which is internally wired to a secondary breaker.

17 Low Voltage Line: Is connected to 1 of the 5 taps.

Note: Unless the proper tap is known, always connect to the terminal marked START. For multiple secondary runs repeat steps.

Note: Assemble Part Q-Vault only with part

- QSET-900/ -750/ -720/ -600/ -540/ -480/ -360/ -300/ -240/ -180/ -120/ -60

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

Q-VAULT-5-Q-SET

LED Power Supply Direct Burial Installation Instructions

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

LAST STEP

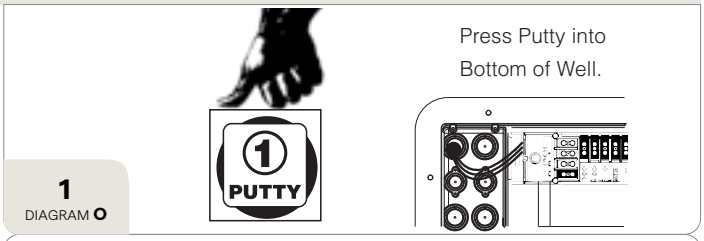
Final Door Installation

Gasket and door installed only in one direction

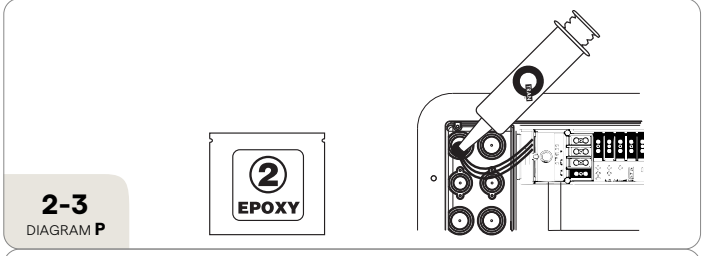
- Clean housing area where door gasket will rest
- Reinstall clean door gasket.

Before Door is Installed

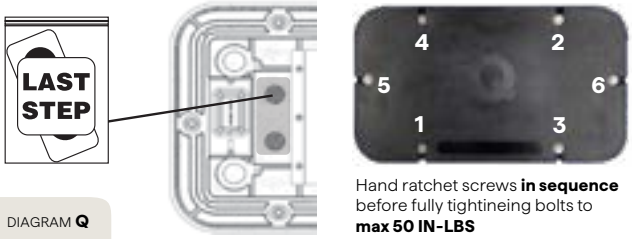
Put velcro desiccant bag in place. Attach the two velcro loop coins on the desiccant bag to the two velcro hook coins on the underside of the housing door. SEE DIAGRAM Q



1
DIAGRAM **O**



2-3
DIAGRAM **P**



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

DIAGRAM **Q**

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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Q-VAULT-5-Q-SET

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
Wire Type & Burial Depth: 6"+ Conduit / UF-B (Q-Wire); 0-6" UF-B (Q-Wire) / L.V.Cable; Grade: 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 Labo-ratories 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)	
∞ ∞ ∞ ∞	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	

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 600 MAX Transformer 300 MAX low voltage	UL 2108 NEC 411 NEC Annex A Low Voltage Luminaires Power Supply Output at power supply with no load 30V AC/30DC MAX	UL Pool & Spa NEC 680 Low Voltage Pool & Spa Power Supply Output at power supply with no load 15 AC only MAX	UL 1838 NEC Annex A Low Voltage Landscape Lighting Power Supply Output at power supply with no load 15V AC/30DC MAX

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

LED Power Supply Direct Burial Installation Instructions

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

	MODEL NUMBER	MAX LAMP LOAD	AVAILABLE PRIMARY VOLTAGES			LAMP VOLTS	SEC. CIRCUIT BKR. & SIZE	
							12V AC	24V AC
			A B C 1 2	A B 2	CE ONLY		A B C 1 2	B 2
Magnetic AC	QSET-60	60W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	1x5A	1x5A
	QSET-120	120W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	1x10A	1x5A
	QSET-180	180W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	1x15A	1x10A
	QSET-240	240W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	1x20A	1x10A
	QSET-300	300W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	1x25A	1x12.5A
	QSET-360	360W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	2x15A	2x10A
	QSET-480	480W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	2x20A	2x10A
	QSET-600	600W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	2x25A	2x12.5A
	QSET-540	540W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	3x15A	3x10A
	QSET-720	720W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	3x20A	3x10A
	QSET-900	900W	120V (60 Hz)	277V (60 Hz)	230V (50 Hz)	12V / 24V	3x25A	3x12.5A
							12V DC	24V DC

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 - Pool & Spa Standard.**

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

A B C 1 2 **INDEPENDENT 0-10V DIMMER, MLV/ELV DIMMER, DMX CONTROL OR DALI CONTROL**

A B C 1 2 **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

A B C 1 2 **FOR IN-GROUND INSTALLATION ONLY**
POUR INSTALLATION AU SOL UNIQUEMENT

C 1 **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

C 1 **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

A B C 1 2 **SUITABLE FOR USE WITH SUBMERSIBLE LUMINARIES**
ADAPTÉ AUX LUMINAIRES SUBMERSIBLES

A B C 1 2 **SUITABLE FOR INDOOR & OUTDOOR USE**
ADAPTÉ À L'USAGE INTÉRIEUR ET EXTÉRIEUR

A B C 1 2 **SUITABLE FOR WET LOCATIONS**
ADAPTÉ AUX ENDROITS HUMIDES

A B C 1 2 **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.

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

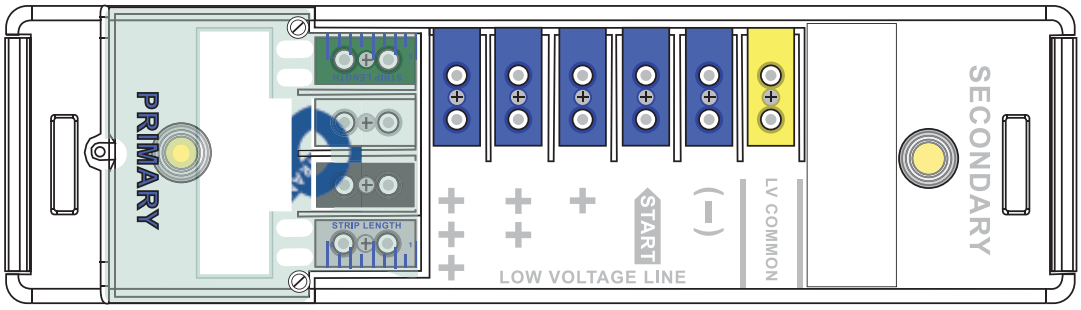
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MATERIAL RECYCLING

AC OUTDOOR - Q-SET 1,2,3

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.



E

Fully Potted Power Supply

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