



CONVERSION FROM BULLEYT & ULTIMATE TO QT-LED

Just to let you know Underwater Lights Limited have made a conversion package to change our original metal halide underwater lights manufactured since 1991 to LED without changing the insert or screwed hull fitting.

The conversion uses our standard cool white LED which is shown in a recent retro fit. Picture above shows the light output.

The conversion can also use our colour changing R.G.B + White LED This does requires the addition of DMX cabling on board.

The additional documents show the underwater lights that can be converted to LED.

**Please consult us for further information at -
RETRO@ UNDERWATERLIGHTS.COM**

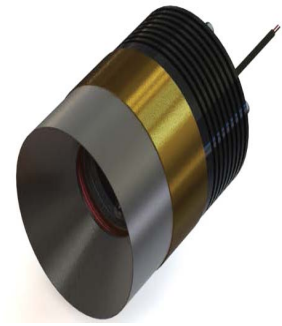


underwater lights limited™
Manufacturer of the Original **underwater lights**™
Brand Marine Lighting Products since 1991



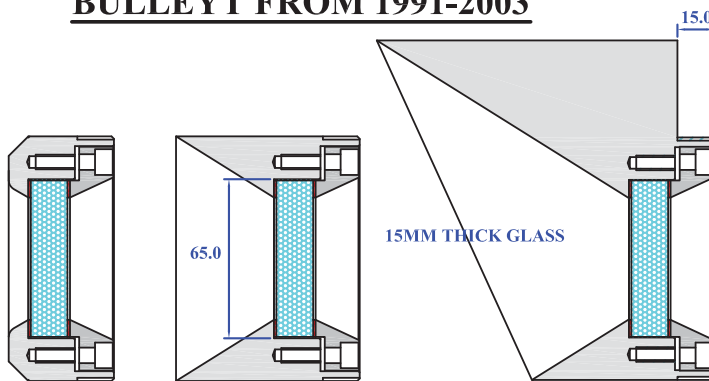
CUTE ON SIZE - BIG ON LIGHT
For sales and information visit WWW.QTLED.COM

QtLED 75 RETRO

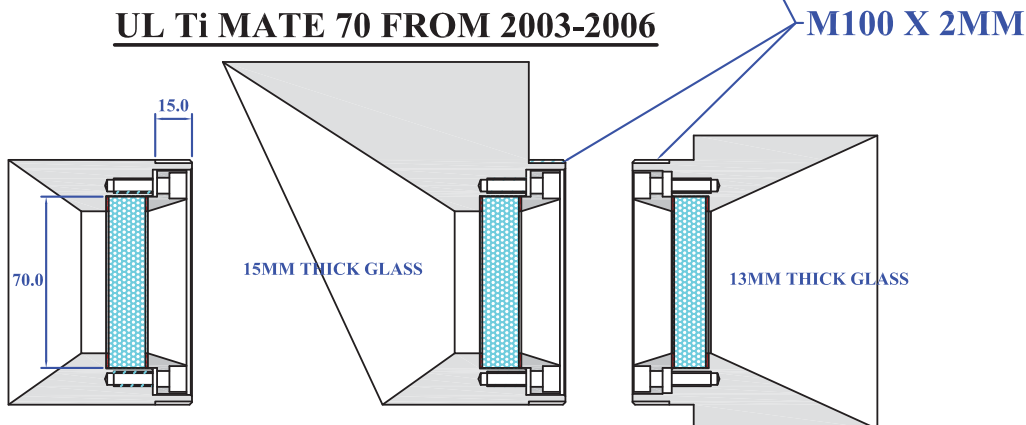


CONVERSION FROM BULLEYT & UL Ti MATE TO QT-LED

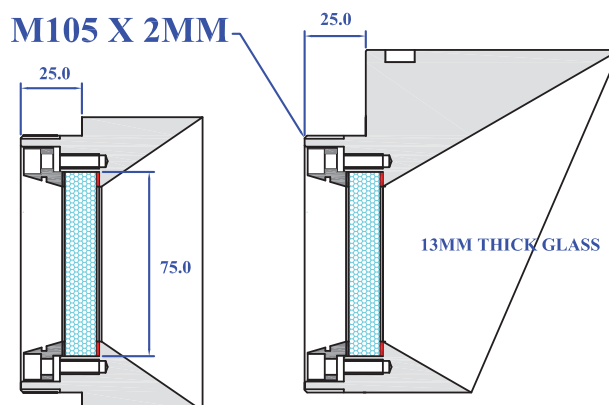
BULLEYT FROM 1991-2003



UL Ti MATE 70 FROM 2003-2006



UL Ti MATE 75 FROM 2006-2014



CUTE ON SIZE - BIG ON LIGHT
For sales and information visit WWW.QTLED.COM



PLEASE REGISTER YOUR PRODUCT WARRANTY DIRECT TO
WWW.REGISTER-UWL.COM

For sales telephone numbers visit www.qtled.com

THE QT-LED RANGE IS DESIGNED AND MANUFACTURED BY UNDERWATER LIGHTS LTD IN THE U.K.

QT LED -RETRO



ORDERING NUMBER FOR 120 VOLT AND 230 VOLT MODELS

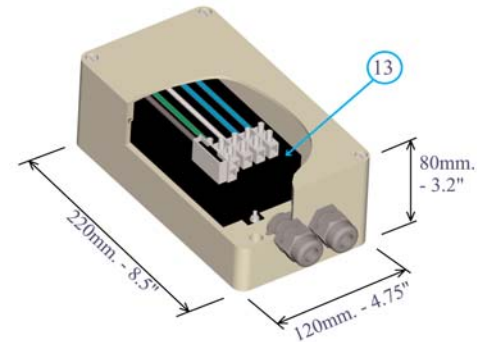
A00310-120, A00324-120, A00338-120, A00350-120
 A00310-230, A00324-230, A00338-230, A00350-230

OPERATIONAL CONDITIONS AND CONSIDERATIONS

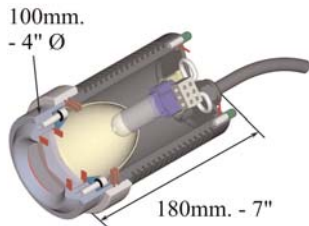
- The Bulley is serviced from inside the hull. Allow access for maintenance and space for ventilation.
- Do not use the Bulley in dry-dock or out of the water.
- Allow a minimum of 70mm behind the projector lid (item 2) for lamp replacements.
- Do not attempt to remove the glass lens while afloat.
- The projector must be correctly assembled with lid and secured to the Bulley whilst afloat.

ELECTRICAL INFORMATION

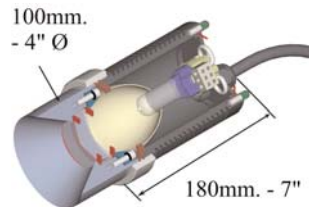
- Cable specification from electronic ballast to projector (Pt.No. S00111) Shielded 3 core, Temperature -60C to +180C, Voltage 2000 volts.
- Maximum distance between ballast and projector with the shield earthed 20 meters.
- 120 volt 150 watt ballast - running current 1.5 amps
- 230 volt 150 watt ballast - running current 0.75 amps



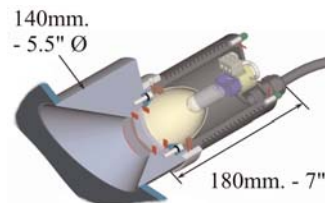
ELECTRONIC BALLAST COMPLETE WITH ALUMINIUM ENCLOSURE -S00800-120 OR 230



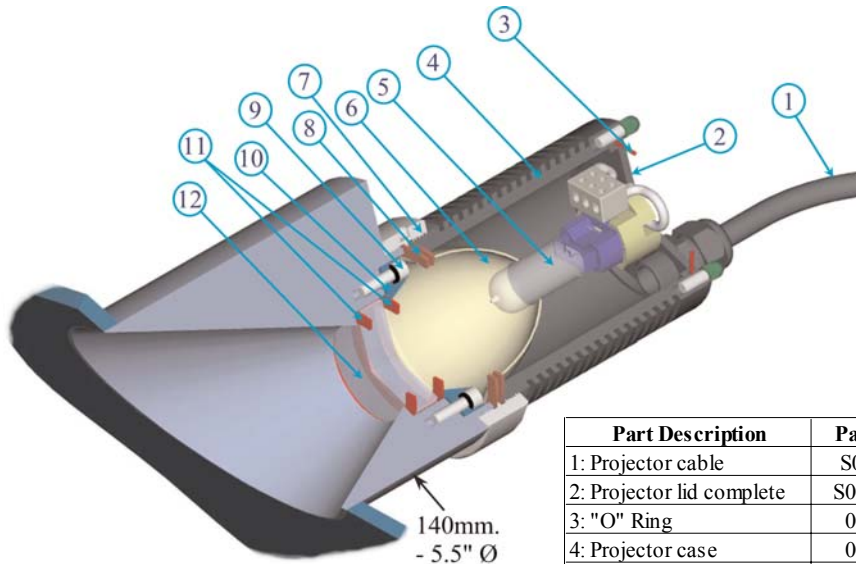
FLUSH - A00310



0-24 DEGREE - A00324



24-38 DEGREE - A00338



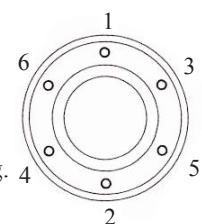
50 DEGREE - A00350

Part Description	Part No
1: Projector cable	S00111
2: Projector lid complete	S00C102
3: "O" Ring	00108
4: Projector case	00101
5: Lamp (150w HQI)	91004
6: Reflector	91791
7: Connecting ring	000C03
8: Gaskets	000C07
9: S.S. M6 socket screws	93306
10: Glass retaining ring	000C04
11: Gaskets	000C02
12: Glass	000C01
13: Electronic ballast-120v	S00801-120
13: Electronic ballast-230v	S00801-230

Recommended Spares	Part No
Lamp (150w HQI)	91004
Glass with gaskets	S00C01-2
Electronic ballast-120v	S00801-120
Electronic ballast-230v	S00801-230

LENS FITTING INSTRUCTIONS

- Check the glass landing surface is clean and apply a suitable silicone grease to the gaskets. Fit the glass, gaskets and retaining ring as shown above. Hand tighten the screws with a 5mm "Allen key" making sure the glass retaining ring is square. Torque the screws to 9Nm (7ft/lbs) in the sequence shown, check the ring again and re-torque the screws again to the same setting.



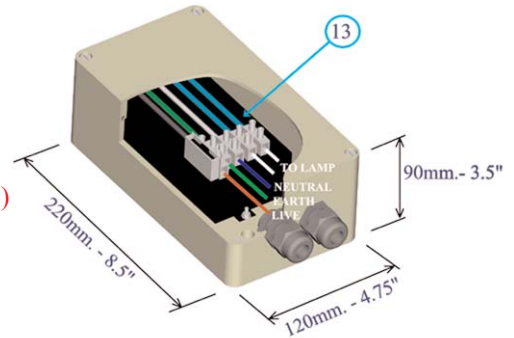
ORDERING NUMBERS FOR 100-277 VOLT 150 WATT LIGHTS
 FLUSH - S00310-70A-V1, 20 DEGREE - S00320-70A-V1,
 24-38 DEGREE - S00338-70A-V1, 50 DEGREE - S00350-70A-V1

OPERATIONAL CONDITIONS AND CONSIDERATIONS

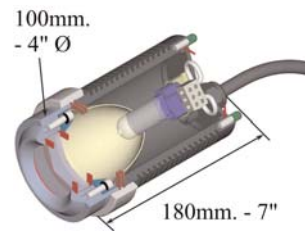
- The UL Ti MATE is serviced from inside the hull. Allow access for maintenance and space for ventilation.
- Do not use the UL Ti MATE in dry-dock or out of the water
- Allow a minimum of 70mm behind the projector lid (item 2) for lamp replacements.
- UL Ti MATE to be fitted 250mm below the yacht's water line when loaded with 50% fuel and 50% freshwater onboard.
- Do not attempt to remove the glass lens while afloat.
- The projector must be correctly assembled with lid secured to the UL Ti MATE 70 whilst afloat.

ELECTRICAL INFORMATION

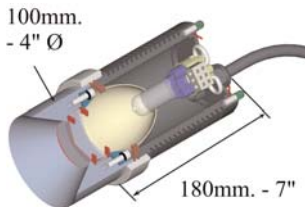
- Cable specification from electronic ballast to projector (Pt.No. S00111) Shielded 3 core, Temperature -60C to +180C, Voltage 2000 volts.
- Maximum distance between ballast and projector with the shield earthed 10 meters.
- Ballast power 100/277 volt 150 watt ballast - running current 2.0/07.A
- Ballast will not ignite a hot lamp. The ballast has a cycle of three attempts to ignite the lamp then will wait for four minutes before repeating the cycle.



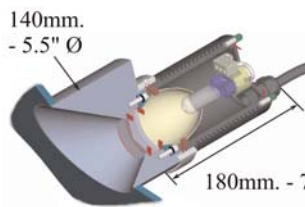
ELECTRONIC BALLAST COMPLETE WITH IP65 ENCLOSURE -S00800-V1W2 (V1=100-277 VOLTS, W2=150 WATTS)



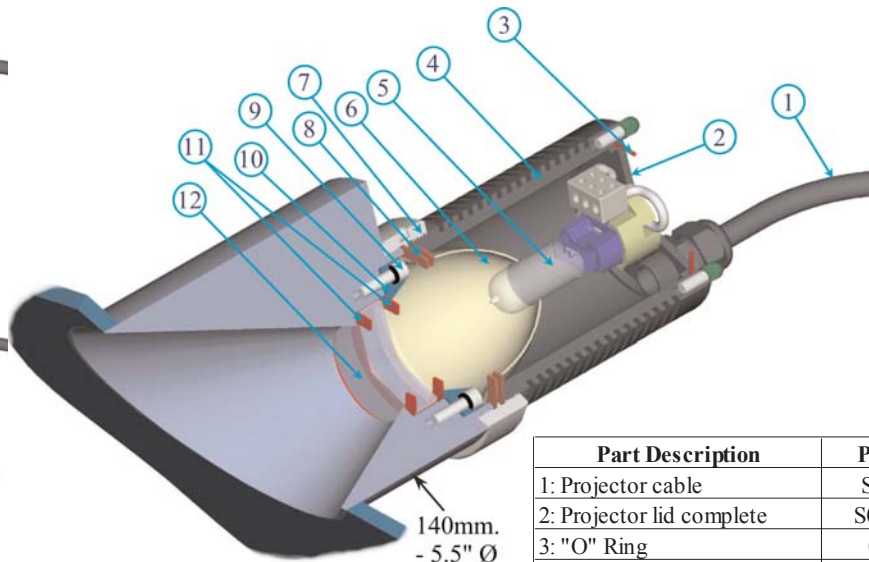
FLUSH - S00310-70A



20 DEGREE - S00320-70A



24-38 DEGREE - S00338-70A



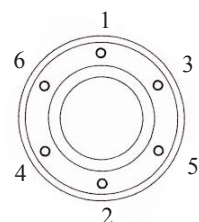
50 DEGREE - S00350-70A

Recommended Spares	Part No
Lamp (150w HQI)	91205
Glass with gaskets	S00C01-70A
Electronic ballast	95322

Part Description	Part No
1: Projector cable	S00111
2: Projector lid complete	S00C102
3: "O" Ring	00108
4: Projector case	00101
5: Lamp (150w HQI)	91205
6: Reflector	91791-1A
7: Connecting ring	000C03
8: Gaskets	000C07
9: S.S. M6 socket screws	93334
10: Glass retaining ring	00304-70A
11: Gaskets	00278-A
12: Glass	00280-70A
13: Electronic ballast-100/277v	S00800-V1W2

LENS FITTING INSTRUCTIONS

- Check the glass landing surface is clean and apply a suitable silicone grease to the gaskets. Fit the glass, gaskets and retaining ring as shown above. Hand tighten the screws with a 5mm Allen key making sure the glass retaining ring is square. Torque the screws to 10Nm (7.5ft/lbs) in the sequence shown, check the ring again and re-torque the screws again to the same setting.





316 S.S. UL Ti MATE 75 SA-ICE

'submersible through hull light'



ORDERING NUMBERS

FLUSH - S00300-75-SA-ICE. 30 DEG - S00330-75-SA-ICE. 50 DEG -S00350-75-SA-ICE WITH 120 (V3) / 230 (V2) VOLT BALLAST AND 150W (W2) OR 250W (V2,W1) WATT LAMP.

OPERATIONAL CONDITIONS AND CONSIDERATIONS

- The UL Ti MATE 75 SA is serviced from inside the hull. Allow access for maintenance and space for ventilation.
- Do not use the UL Ti MATE™ in dry-dock or out of water
- Allow a minimum of 170mm behind the cable gland for lamp replacements on 150w and 150mm behind the ignitor on 250w.
- Do not attempt to remove the glass lens while afloat.
- The projector must be correctly assembled with lid secured to the UL Ti MATE™ whilst afloat.

- UL Ti MATE™ to be fitted a minimum of 250mm below the yacht's water line when loaded with 50% fuel and 50% freshwater onboard

ELECTRICAL INFORMATION

- **150 WATT** Maximum distance between ballast and projector -10 meters
- **250 WATT** Maximum distance between ballast and projector - 10 meters.
- Ballast power 150 watt ballast 120/230 volt, running current 1.4/0.7.A
- Ballast power 250 watt ballast 230 volt, running current 1.2.A
- Ballast will not ignite a hot lamp. The ballast has a cycle of three attempts to ignite the lamp then will wait for six minutes before repeating the cycle.
- Ballast must be installed in dry space. Maximum ambient temperature 40C **DO NOT swich ballast on and off.**

CABLE SPECIFICATION TO PROJECTOR

- High temperature (180C) silicone screened three core. Cable diameter 9mm

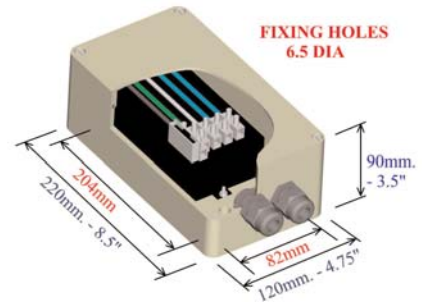
PART NUMBER

S00111-180 EWKF 3G0,0.75

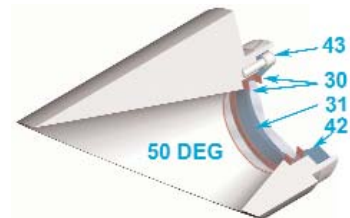
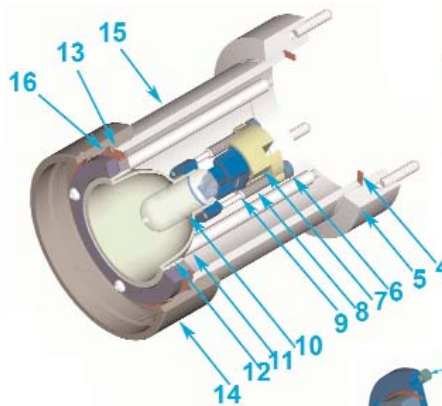
Part Description 75-SA	Part No
1: Projector lid securing plate	00283-B
2: M6 Nut	93381
3: 'O' Ring	00108
4: Gasket NAF	00285-A
5: Connecting ring	00274-C
6: Lamp holder screw	00290
7: Lamp holder (250W)	91195
7: Lamp holder (150W)	91191
8: Reflector collar bush	00288-A
9: M4 Lock nut	93374
10: Lamp (250W)	91209
10: Lamp (150W)	91210
11: Reflector adjustment rod	00284
12: Reflector complete	S91791
13: Gasket NAF	00285-A
14: AB2 Connecting ring	00503-75-A
15: Projector barrel	00101-C
16: Gasket NAF	000C07-B
30: Glass gaskets NAF	00286-A
31: Glass lens	00281
39: Body Flush (s.s.)	S00300-75 ICE
40: Body 50 deg (s.s.)	S00350-75-B ICE
41: Body 30 deg (s.s.)	S00330-75 ICE
42: Glass retaining ring	00304-ICE 75B
43: Cap head screws	93334

Part Description 75-SA	Part No
22: Gland	92011
23: Projector cover	00102-E
24: Ballast 250 watt 230v	S00820-V2 W1
24: Ballast 150 watt 230v	S00800-V2W2
24: Ballast 150 watt 120v	S00800-V3W2

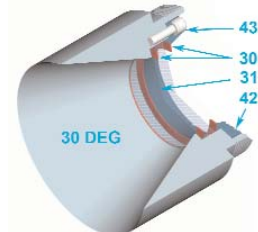
Recommended Spares	Part No
Lamp (250w = W1)	91209
Lamp (150w = W2)	91210
Glass with gaskets	S00281-A
Ballast	



120 & 230 VOLTAGE SUPPLY FOR 150 & 250 WATT ELECTRONIC BALLAST COMPLETE WITH ENCLOSURE .

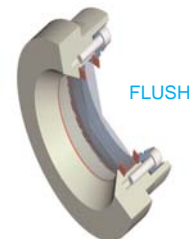


S00350-75 ICE (40)



S00330-75 ICE (41)

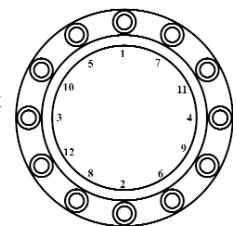
150 & 250 watt



S00300-75 ICE (39)

LENS FITTING INSTRUCTIONS

- Check the glass landing surface is clean and apply a suitable silicone grease to the gaskets. Fit the glass, gaskets and retaining ring as shown above. Hand tighten the screws with a 5mm "Allen key" making sure the glass retaining ring is square. Torque settings for all retaining screws - 10 Nm (7.5 ft/lbs). Torque the screws in the sequence shown. Check the ring again and re-torque the screws again to the same torque setting.



PLEASE REGISTER YOUR PRODUCT WARRANTY DIRECT TO WWW.REGISTER-UWL.COM
 FOR TECHNICAL INFORMATION PLEASE EMAIL T@UNDERWATERLIGHTS.COM
 SALES, PRODUCT INFORMATION AND NEWS GO TO WWW.UNDERWATERLIGHTS.COM



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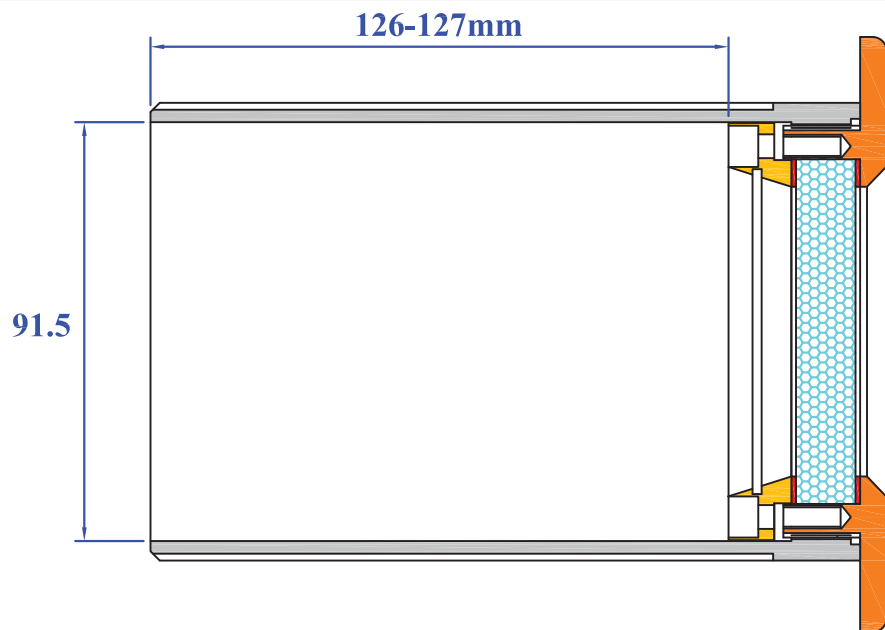
QtLED 130 RETRO



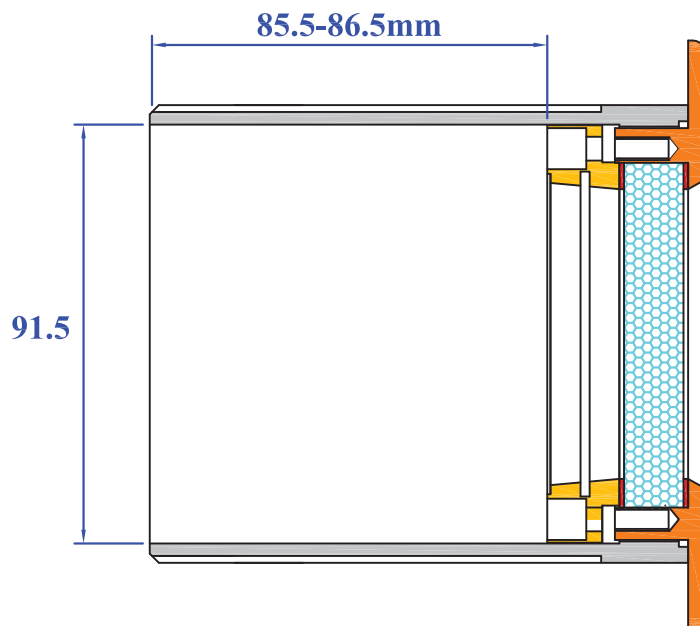
CONVERSION FROM
UL Ti MATE 130

TO QT-LED - 130

UL Ti MATE 130 SA FROM 2005-2014



UL Ti MATE 130 FROM 2005-2014



PLEASE REGISTER YOUR PRODUCT WARRANTY DIRECT TO
WWW.REGISTER-UWL.COM

For sales telephone numbers visit www.qtled.com

THE QT-LED RANGE IS DESIGNED AND MANUFACTURED BY UNDERWATER LIGHTS LTD IN THE U.K.

QT LED - 130-RETRO



QtLED
CUTE ON SIZE - BIG ON LIGHT
For sales and information visit WWW.QTLED.COM



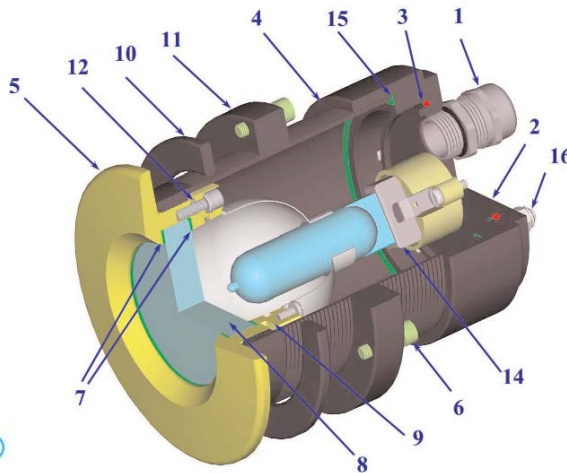
UL Ti MATE 130 Aluminium Bronze Fixed Screwed Underwater Lights



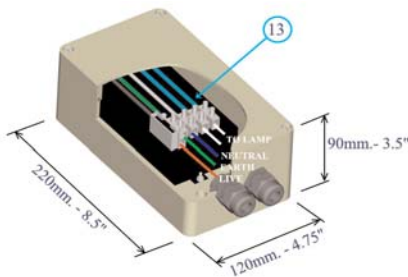
ORDERING NUMBER FOR 230 VOLT 150WATT LIGHTS S00475-V2(H)W2
 ORDERING NUMBER FOR 120 VOLT 150WATT LIGHTS S00475-V3(H)W2



- **UL Ti MATE 130 INSTALLATION** (The UL Ti MATE 130 should be no less than 250mm/10" below the water line)
- Qualified/Approved personnel must be used to carry out installation
- Cut and prepare a 4 inch / 100 mm clearance hole for the body (16). Coat the flange of the body and the area around the hole with 3M 4200FC sealant then slide the body into the hole. From the inside fit the compensating ring (17) and screw the securing ring (18) up "hand tight". Adjust the screws (19) so the compensating ring is flush to the hull and check the sealant has flowed completely around the flange. Do "NOT" over tighten the screws as this will squeeze the sealant from the surface. Allow the sealant to solidify and remove surplus. Finally tighten the adjustment bolts to 4Nm / 3ft.lbs
- Note for cored hulls - After cutting, the exposed surfaces of the hole must be finished to form a solid surface through it, thus protecting the internal core of the hull.
- Maximum hull thickness should not exceed 4.75 inches - 120mm Minimum wall thickness 0.375inches.- 10mm
- After completing the installation procedure it is highly recommended to coat the exposed body with antifouling.
- **EARTHING LIGHT FOR CATHODIC PROTECTION-tighten the earth screw on the securing ring so that it bites into the screwed barrel. Check there is continuity to the front face. This prevents galvanic corrosion.**
- **OPERATIONAL CONDITIONS AND CONSIDERATIONS**
- The UL Ti MATE 130 is serviced from inside the hull. Allow a minimum of 170mm behind the cable gland for lamp replacements on 150w and 150mm behind the ignitor on 250w
- **ELECTRICAL INFORMATION**
- **CABLE SPECIFICATION TO PROJECTOR**
- **150 Watt** High temp silicone three core part number. S00111
- **150 WATT** Max distance between ballast and projector with -10 meters
- Ballast power 150 watt ballast 120/230 volt, running current 1.4/0.7.A
- Ballast will not ignite a hot lamp. The ballast has three attempts to ignite the lamp then will wait for four minutes before repeating the cycle.
- Do not attempt to remove the glass lens while afloat



Part Description	Part No
1: Cable	S00111
2: Projector lid complete	S00102-C
3: "O" Ring	00108
4: Connecting Ring	00274-B
5: Body	S00475-A
6: Screws (M6X 25 ALU.)	93610
7: Gasket - NAF	00286-A
8: Glass	00281
9: Glass retaining ring	00476-C
10: Comp. ring	00277-B
11: Securing ring	00275-B
13: Electronic ballast-230 volt	95322-V2HW2
13: Electronic ballast-120 volt	95322-V3HW2
12: Reflector Tube with Reflector	S00273
14: Lamp (MSD-150W/70)	91210
15: Gasket - NAF	000C07-A
16: Cable gland	92010
17: Screws (M6X 16 S.S.)	93333
Recommended Spares	Part No
Lamp (MSD-150W/70)	91210
Glass with gaskets	S00279-A
Electronic ballast	95322



ELECTRONIC BALLAST COMPLETE WITH IP65 ENCLOSURE



EARTH TAB AND SCREW

● LENS FITTING INSTRUCTIONS

- Check the glass landing surface is clean and apply a suitable silicone grease to the gaskets. Fit the glass, gaskets and retaining ring as shown above. Hand tighten the screws with a 5mm Allen key making sure the glass retaining ring is square. Torque the screws to 6 Nm (4.5ft/lbs) in the sequence shown, check the ring again and re-torque the screws again to the same setting



UL **Ti** MATE 130

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UL **Ti** MATE 130



UL Ti MATE 130 SA

'submersible through hull light'



ORDERING NUMBERS

250 WATT LIGHTS - 230V. S00475-SA-V2W1.

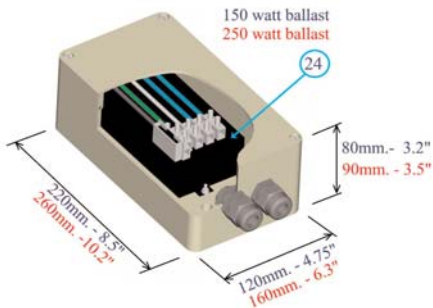
150 WATT LIGHTS - 120V. S00475-SA-V3W2. 230V. S00475-SA-V2W2

- **UL Ti MATE 130 SA INSTALLATION** (The UL Ti MATE 130 SA should be no less than 250mm/10" below the water line)
- Qualified/Approved personnel must be used to carry out installation
- Cut and prepare a 4 inch / 100 mm clearance hole for the body (16). Coat the flange of the body and the area around the hole with 3M 4200FC sealant then slide the body into the hole. From the inside fit the compensating ring (17) and screw the securing ring (18) up "hand tight". Adjust the screws (19) so the compensating ring is flush to the hull and check the sealant has flowed completely around the flange. Do "NOT" over tighten the screws as this will squeeze the sealant from the surface. Allow the sealant to solidify and remove surplus. Finally tighten the adjustment bolts to 4Nm / 3ft.lbs
- Note for cored hulls - After cutting, the exposed surfaces of the hole must be finished to form a solid surface through it, thus protecting the internal core of the hull.
- Maximum hull thickness should not exceed 4.75 inches - 120mm Minimum wall thickness 0.375inches.- 10mm
- After completing the installation procedure it is highly recommended to coat the exposed body with antifouling.
- **EARTHING LIGHT FOR CATHODIC PROTECTION-tighten the earth screw on the securing ring so that it bites into the screwed barrel. Check there is continuity to the front face. This prevents galvanic corrosion.**
- **OPERATIONAL CONDITIONS AND CONSIDERATIONS**
- The UL Ti MATE 130 is serviced from inside the hull. Allow a minimum of 170mm behind the cable gland for lamp replacements.
- **ELECTRICAL INFORMATION**
- **CABLE SPECIFICATION TO PROJECTOR**
- **150 Watt-250 Watt-** High temp silicone three core part number. S00111-0.75-
- **150 WATT** Max distance between ballast and projector with -10 meters.**250 WATT** Max distance 25 meters
- Ballast power 150 watt ballast 120/230 volt, running current 1.4/0.7.A
- Ballast power 250 watt ballast 230 volt, running current 1.2.A
- Ballast will not ignite a hot lamp. The ballast has three attempts to ignite the lamp then will wait for four minutes before repeating the cycle.
- Do not attempt to remove the glass lens while afloat

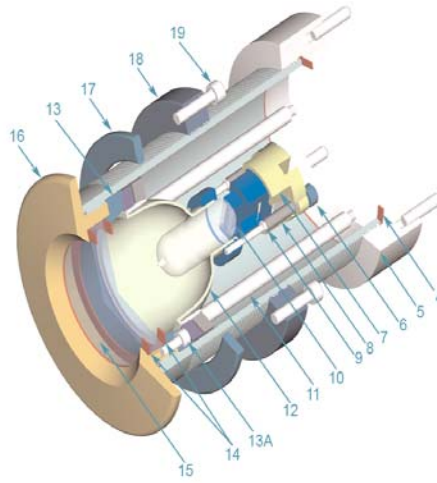
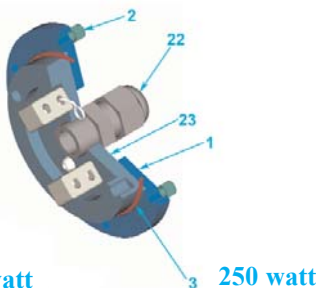


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underwater lights limited



ELECTRONIC BALLAST COMPLETE WITH IP65 ENCLOSURE



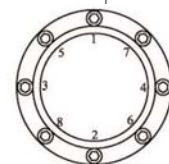
EARTH TAB AND SCREW

Part Description 130-SA	Part No
1: Projector lid securing plate	00283-B
2: M6 Nut	93381
3: 'O' Ring	00108
4: Gasket NAF	00285-A
5: Connecting ring	00274-C
6: Lamp holder screw	00290
7: Lamp holder (250W)	91195
7: Lamp holder (150W)	91191
8: Reflector collar bush	00288-A
9: M4 Lock nut	93374
10: Lamp (250W)	91209
10: Lamp (150W)	91210
11: Reflector adjustment rod	00284-2-D
12: Reflector complete	S91791
13: Glass retaining ring	00476-B
13A: Cap head screws	93325
14: Glass gaskets NAF	00286-A
16: Body	S00475-A
17: Compensating ring	00277
18: Securing ring	00275
19: Cap head screws	93610
20: Ignitor (250W)	S95325
21: Projector cover (250W)	00102-H
22: Gland	00107
23: Projector cover (150W)	00102-E
24: Ballast 250 watt	S00800-V1W2
24: Ballast 150 watt 230v	S00800-V2W2
24: Ballast 150 watt 120v	S00800V3W2

Recommended Spares	Part No
Lamp (250w = W1)	91209
Lamp (150w = W2)	91210
Glass with gaskets	S00281-A
Ballast	S00801

LENS FITTING INSTRUCTIONS

- Check the glass landing surface is clean and apply a suitable silicone grease to the gaskets.
- Fit the glass, gaskets and retaining ring as shown above. Hand tighten the screws with an Allen key making sure the glass retaining ring is square. Torque the screws to 6 Nm (4.5ft/lbs) in the sequence shown, check the ring again and re-torque the screws again to the same setting



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