Power Up and Final focus

29. Apply power to start lamp.

Note: The luminaire calibration process will drive all filters to an open position. The luminaire will remain in this state until data is present. Allow seven minutes for lamp to reach operating temperature.

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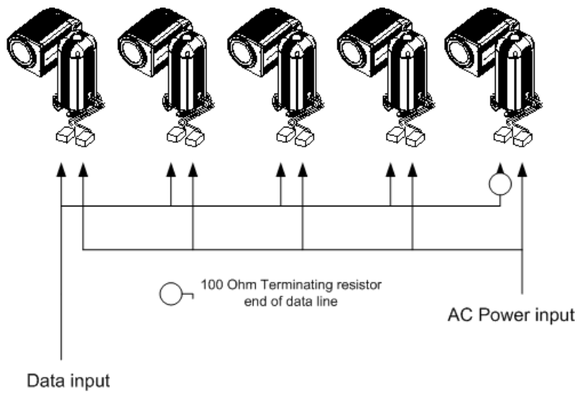
30. Focus luminaire as follows:

a Tilt head assembly to adjust for elevation.
b Turn stanchion to adjust left/right orientation.
c Tighten Allen head screw in tilt tube clamp securely.
d Power unit off.
e Remove stanchion cap.
f Tighten 1-1/4 inch nut securely. Tilt tube clamp should hold head in place while tightening.
g Replace stanchion cap (ensure gasket forms good seal).
h Tighten nuts or bolts on stanchion base securely.

Sample wiring riser



Technical Assistance

The **AR500** is a low maintenance luminaire, but in the event of malfunction, troubleshooting and repair procedures have been included in the owners manual. For further assistance regarding the **AR500** luminaire, please contact Electronic Theatre Controls Technical Support staff at one of the offices identified below.

Americas

ETC Americas
Technical Services Department
3030 Laura Lane
Middleton, WI 53562
phone: (608) 831-4116
toll free: (800)775-4382
email: service@etcconnect.com

Europe

ETC Europe Ltd.
Technical Services Department
5 Victoria Industrial Estate
Victoria Road
London, W3 6UU England
phone: +44 (0)208 896 1000
email: service@etceurope.com

Asia

ETC Asia, Ltd.
Technical Services Department
Room 605-606
Tower III, Enterprise Square
9 Sheung Yuet Road
Kowloon Bay, Kowloon, Hong Kong
phone: +852-2799-1220
email: service@etcasia.com

Americas Middleton, Wisconsin • USA • Tel: (+1) 608 831 4116 • Fax: (+1) 608 836 1736 • (+1) 800 775 4382 • service@etcconnect.com
Europe London • United Kingdom • Tel: +44 (0)20 8896 1000 • Fax: +44 (0)20 8896 2000 • service@etceurope.com
Asia Hong Kong • Tel: (+852) 2799 1220 • Fax: (+852) 2799 9325 • service@etcasia.com
International 3030 Laura Lane • Middleton, Wisconsin 53562 • Tel: (+1) 608 831 4116 • Fax: (+1) 608 836 1736 • www.etcconnect.com

Product information and specifications subject to change • **7091M1004** • Rev D• Released 09/02

IRIDEON™ AR500™ Exterior Wash Luminaire Installation Sheet - Standard Version

Before Starting

The **AR500** luminaire head and stanchion are packed in two separate cartons. Lamps (if purchased), manuals, full lens set, tool kit and accessories are packed in a third box. The tool kit (part# 7091K4009) includes the following items:

- 1-15/16 inch wrench
- 3/16”x9” T-handle Allen wrench
- 100 Ohm Termination resistor
- Depinning tool

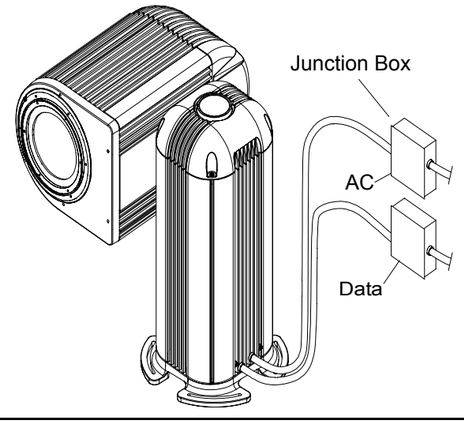
Items also required, but not supplied:

- #2 Phillips screwdriver
- 5/32 Allen wrench
- Two waterproof junction boxes with terminal strips (or one barriered waterproof junction box) for each luminaire.
- Stanchion mounting hardware: 4 each 3/8-18 or M10 studs, nuts, flat and lock washers.
- Ohm meter

Site Preparation

Note: The installation contractor is responsible for compliance with local electrical codes.

The luminaire stanchion is provided with 10 feet (3m) of data input-cable and 10 feet (3m) of power input cable for external termination. Use separate waterproof junction boxes (or a single barriered waterproof junction box) to connect data and AC power cabling to each luminaire. Use terminal strips to connect data wiring inside junction boxes.



CAUTION: This equipment contains sensitive electronic components that require electrical isolation during installation and operation. DO NOT arc weld on mounting platform with electronics assembly installed in luminaire stanchion.

AC Power requirements

The AR500 luminaire is available in voltages ranging from 100VAC to 277VAC. Each AR500 luminaire requires 900 watts of power at the specified voltage and frequency.

At Voltage	Current at Startup	Current at Run
100V	24A	8A
120V	21A	7A
208V	12A	4A
240V	10A	3.5A
277V	9.75A	3.25A

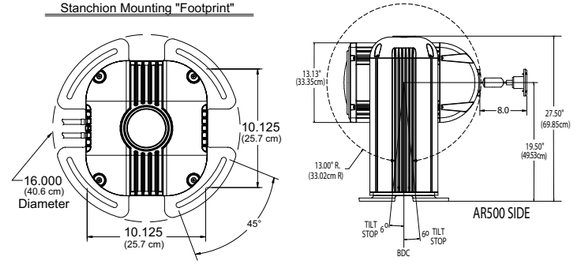
AC Power and Data wire requirements

AC Power Input:
Wire Gauge: 16AWG 3-conductor (*1.5mm2X3-conductor)
* European “CE” model

Data Input:
Belden 9729 or equivalent - 22AWG 2-shielded twisted pairs with drain wire.

Stanchion Placement

The AR500 luminaire stanchion mounts using 3/8-18 inch (M10) hardware placed in a 10-1/8 inch (257mm) square pattern. When using a concrete platform, the studs should be at least 4 inches (100mm) deep. As shown below, the slots in the stanchion base allow the unit to rotate 45 degrees.



The luminaire head tube is installed through a hole in the side of the stanchion. The luminaire head rotates 348 degrees from stop to stop. Allow at least eight inches (203mm) clearance behind the luminaire head for lamp removal and replacement.

WARNING: Do Not install the luminaire stanchion up side down. The internal electronics are designed to be mounted in an upright position. Serious injury may result if stanchion is mounted incorrectly.

Installation

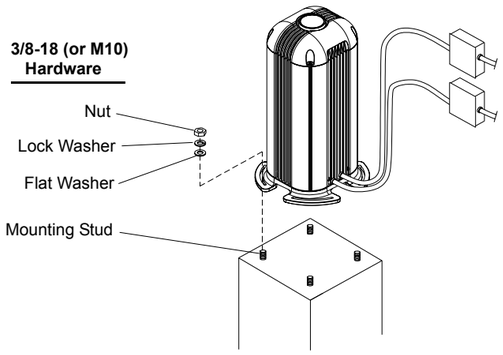
Unpack Shipping Cartons

Note: The stanchion weighs 82 pounds (37.19Kg) or less, depending on voltage configuration. The head enclosure weighs 62 pounds (28.12Kg) for a total weight of 144 pounds (65.31Kg). The luminaire requires two people for installation.

1. Remove stanchion and head assembly from cartons.
2. Locate tool kit (provided in additional carton).

Install Stanchion

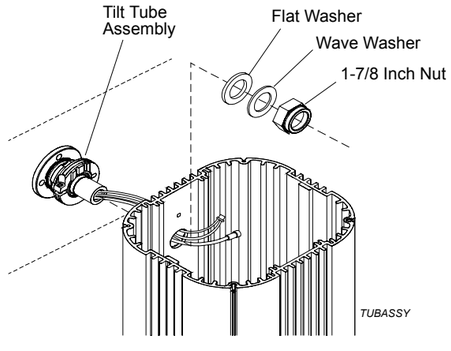
3. Set stanchion on mounting pad in appropriate orientation.
4. Loosely install mounting hardware (not provided). See illustration below.



5. Remove ballast and electronics plate assemblies:
   a Remove stanchion cap.
   b At ballast assembly, disconnect 3-position AC connector and Series 30 lamp wire connector. Remove ballast plate.
   c At electronics assembly, disconnect 9-position power/data CPC connector. Remove electronics plate. *This connector should not be reconnected until external wiring is complete and verified (see "Wiring Verification").*

CAUTION: Do not ground to fixture when welding, open j-boxes.

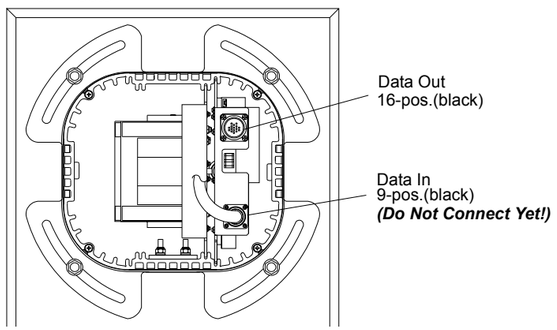
Install Head



6. At head assembly, remove nut, spring washer, and flat washer from head enclosure tilt tube and from cables. **Ensure black o-ring stays in tilt tube groove**.
7. Dress cables through hole in stanchion.
8. Position grooves in tilt tube clamp facing upwards (head enclosure can later be rotated to face desired direction) and insert head enclosure tilt tube through hole in stanchion.

Note: The grooves in the tilt tube clamp should fit over the two corresponding ridges running vertically on side of stanchion. **Ensure black o-ring remains in groove of tilt tube.**

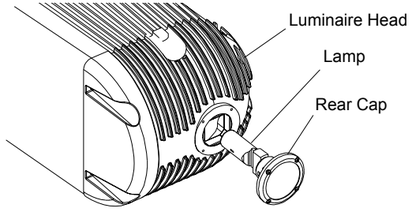
9. Place flat washer over cables and onto threaded part of tilt tube. Repeat with wave washer.
10. Dress nut over cables and thread onto tilt tube.
11. Using 1-15/16 inch open-ended wrench (provided), tighten 1-7/8 inch nut only until snug. (The head should rotate when moved with both hands, yet hold itself in place when left alone. There should be no gap between tilt tube and stanchion side.)
12. Using 3/16 inch T-handle Allen wrench (provided), loosen Allen head screw on tilt tube clamp.
13. Rotate head assembly to approximate desired angle.
14. Tighten Allen head screw on tilt tube clamp to hold head assembly in place.
15. Install ballast plate and connect white 3-position AC lamp wire connectors.
16. Install electronics plate and connect black 16-position data out connector.



CAUTION: Do not connect black 9-position elec. input connector until wiring is complete and verified (See step 27).

Install Lamp

17. At head assembly, remove rear cap. **Ensure O-ring remains in groove of rear cap.**

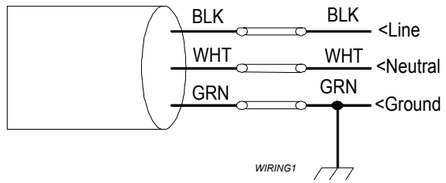


18. Install lamp in lamp socket. Do not touch the quartz bulb with bare fingers. If touched, clean quartz bulb with alcohol.
19. Reinstall rear cap on head enclosure, **assuring O-ring is still in-place**. Tighten screws in a diagonal cross pattern only until snug. Then tighten screws in same pattern until tight.

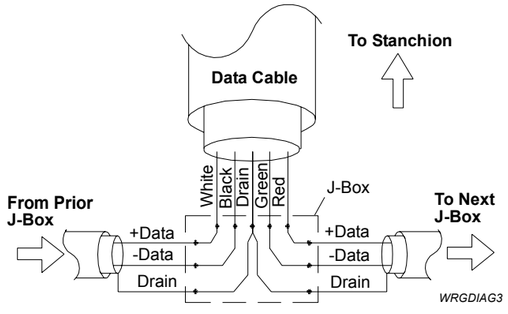
Connect Wiring

WARNING: Remove power from source before connecting junction box wiring.

20. Connect power wires:
   a Run three conductor power cable to junction box.
   b Cut away extra cable and remove approximately four inches (100mm) of cable housing.
   c Strip and connect three wires to terminal block as follows:
   Black (*Brown) = AC Line
   White (*Blue) = Neutral
   Green (*Grn/Yel) = Ground
   *designates European model



21. Connect data wires:
   a Run data cable to junction box.
   b Cut away extra cable and remove four inches (100mm) of cable housing.
   c Strip and connect data wires to terminal strip as follows:
   White/Red = Positive Data
   Black/Green = Negative Data
   Drain = Ground



Note: See "Sample wiring riser" on back cover.

22. If luminaire is at end of data line, install 100 Ohm resistor (provided) between positive (red) and negative (green) data lines.

Wiring Verification

23. To verify data wiring:
   a Disconnect data line from controller.
   b At beginning of data line, or output of data splitter, use Ohm meter to measure impedance of data line to fixtures.
   c Measurement should be approximately 120 Ohms.
   d If not, check wiring and termination resistor connection.
   e Call tech support (800-688-4116) if problems continue.
24. At stanchion, install ballast and electronics plates and fasten all connectors **except** 9-position elec. input CPC connector.

Control System

The AR500 luminaire is controlled with one of two types of electronics plates: **DMX** only or **Composer** controller. Both systems recognize luminaires according to the luminaire's base address channel setting. The base address channel for each luminaire is assigned using either a three digit thumbwheel (**DMX** only) or two rotary knobs (**Composer** controller) located on the electronics plate.

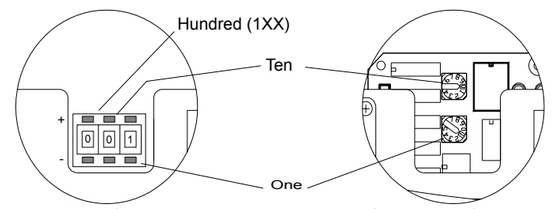
25. At the stanchion electronics plate, set luminaire base address as shown:

DMX Only Address Setting

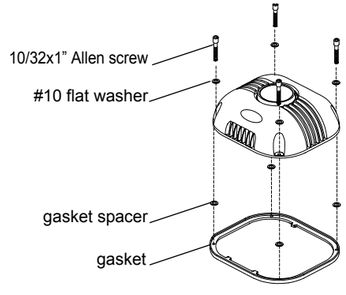
Each DMX luminaire requires four control channels. Using the three digit thumbwheel, set each luminaire's base address four steps apart, for example:
Luminaire A = Base Address 001, Luminaire B = Base Address 005, Luminaire C = Base Address 009, and so on.

Composer Controller Address Setting

Each Composer luminaire contain two rotary knobs on the control PCB. One knob controls the **ones** position and the other controls the **tens** position. Unlike the DMX only version, each luminaire base address is set one position apart. For example, Luminaire A = Base Address 1, Luminaire B = Base Address 2...



26. Ensure power is stable and continuous:
   a All welding near the fixture must be complete.
   b J-box doors are sealed.
27. Connect 9-position elec. input connector to electronics plate.
28. Install stanchion cap. Secure cap by tightening four screws in an alternating cross pattern.



Note: Ensure #10 washers and gasket spacers are installed as pictured above.