

## AR5 V.1 Disassembly Instructions

**Note: Units are STATIC SENSITIVE. Observe care when installing/servicing.  
Retain original packaging for returns/service.**

**Test mode**

**Set address wheels to "00"**

**Power up**

**Unit will cycle**

**To stop test, set wheels to any address**

**Unit will sit in last state**

**Reset address to "00" for three seconds to stop test and then re-address.**

### A. Yoke Section

1. CPU removal
  - a. Open door.
  - b. Remove only visible screw.
  - c. Pull off cover.
  - d. Disconnect motor harnesses
    - i. Blue, Amber, Magenta, Option, Tilt.
  - e. Remove remaining three screws.
  - f. Pull out CPU and remove remaining connectors
    - i. Pan. Power, Data.
  - g. Test Points
    - i. C23 +5VDC
    - ii. C24 +15VDC
2. Tilt motor belt replacement
  - a. Requires unsoldering or pin removal of igniter board wires.
3. Tilt motor replacement
  - a. Slip drive belt off pulley
  - b. Pry retainer off post at motor
  - c. Pull out motor assembly.
  - d. On re-assembly, press motor against spring clip to move shaft closer to pulley to allow drive belt to be installed more easily.
4. Tilt tube assembly replacement
  - a. Remove belt and disconnect all wires.
  - b. Carefully compress opposing fingers while gently prying pulley up.
  - c. Maintain pressure against pulley while compressing other 2 fingers
  - d. Pulley should come off.
  - e. Separate pulley flange, bearing sleeve and bearing assemblies.
  - f. Please note that tilt tube and axle side body are one piece. Breaking tube will require complete re-assembly of tilt tube with new part.
    - i. Cardboard collars must be installed for transporting unit for same reason

### B. Tilt Tube Section

1. Remove lens cap
2. Open rear of tilt tube and remove lamp

- a. Slide clip over carefully
  - b. Pull socket straight out
  - c. Check socket and reflector part of socket for breakage
  - d. Point out interlock
3. Tilt Tube disassembly
- a. Place unit on side
  - b. Remove 2 screws
  - c. Flip unit over so yoke is on table.
  - c. Gently lift body cover until you break it.
  - d. Remove door to rear enclosure
4. Color bulkhead removal
- a. Order of bulkheads BAMOption.
  - b. Light blocker sleeve is for white units only.
  - c. Flip linear actuator out of clip on color bulkhead.
  - d. Close filters to prevent damage.
  - e. Lift bulkhead off pins
    - i. Check gears for heat damage. Blue filter is the most common filter with this damage
  - f. V.1 and V.2 bulkheads are different.V.2 may fit in a V.1
5. Linear Actuator removal
- a. Disconnect appropriate connector from CPU
  - b. Route wire harness through yoke.
  - c. Apply pressure to locking tabs on motor and pull out motor using shaft.
  - d. Actuators are not the same. Wire length and shaft are different depending on position. Use direct replacement.
6. Igniter board removal
- a. Unsolder 2 wires to igniter board. Alternately, use pin removal tool to remove pins from connector and route through yoke.
  - b. Igniter boards on V.1 have surface mount capacitors that may go bad.
  - c. V.1 igniter boards may have been heat staked Use soldering iron to reform posts.
  - c. V.2 igniter boards go into V.1s. V.1s no longer sold.
- C. Upper Enclosure**
1. 3 ways to wire
- a. Top entry
  - b. Side entry
  - c. Connectorized
    - b. Remove exposed 4 screws that attach mounting plate to luminaire
    - c. Will hang from hook.
2. No data connect board
- a. Disconnect data shield from casing!
3. APS (Arc Power Supply)
- a. Power for lamp.
  - b. Not connected to the board below.
  - c. Pull 2 connectors
  - d. Remove 4 screws from heat sink
  - e. Remove 2 screws from APS PCB
  - g. Pull out from unit.

- h. Pot adjusts 110/220 input voltage.
- i. Fuses is for input power
- j. LED is for lamp strike timeout or power fault
- k. Heat sink gets HOT!
  - 1. Make sure there is good mechanical connections to chassis
- 4. LVS (Low Voltage Supply)
  - a. Connects to EMI with 1 connector and CPU with one connector.
  - b. Motor and processor power
  - c. Fuse
    - 1. Input power
  - d. Pot
    - 1. Buss voltage
- 5. Pan Motor
  - a. Same as tilt motor.
- 6. EMI PCB
  - a. Prevents electrical emissions from interfering with other equipment.
  - b. Jumper 1 is in place for 110, removed for 220.
  - c. Pull 2 connectors.
  - d. Remove 4 screws.
  - e. Remove PCB.
  - f. 1 fuse for input power.
- D. Get it back together!**
- E. Test!**
- F. Common problems**