

## ▲ WARNING

READ EQUIPMENT MANUFACTURES MANUAL BEFORE USING THIS PRODUCT

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## SAFETY INSTRUCTIONS

### Prior to operation a daily inspection and log are required.

- User must be authorized, qualified and certified in jurisdiction of use.
- It is the user's responsibility and obligation to determine and comply with all applicable laws and regulations.
- Do not operate if unit appears damaged.
- Always use approved safety cables secured to a point capable of supporting the total weight of the load.
- In case of malfunction disconnect all power supplies, discontinue use, notify supplier.
- Area under fixture must be cordoned off at all times and kept clear of all personnel.
- For handling information see page twelve.
- Do not operate without UV lens in place.
- If using a power trolley with this fixture please refer to "LRX Power Trolley" manual.
- THERE ARE NO USER SERVICEABLE PARTS.
- IF YOU ARE UNSURE ABOUT ANYTHING SUSPEND USE OF THE PRODUCT.
- Questions? Contact CINELEASE LRX service representative, for contact details go to Irx-lighting.com and click on the contact page.
- For the latest version of this manual please visit "Irx-lighting.com"

## A DANGER

- Dangerous voltages are present when power is supplied to the fixture.
- This fixture has more than one power supply. Disconnect all power supplies before installation or removal of the lamps.
- Ensure all power supplies are off when connecting or disconnecting any cabling.
- Ensure lamp power supply matches lamp manufactures specification.
- Always stand clear of fixture during ignition cycle.
- Power must be removed when not in use and when data signal is removed.
- Ensure fixture meets all local codes prior to operation.
- Safety power lockout procedures must be followed.
- Safe electrical and working practices must be observed.

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## A WARNING

- This fixture has rotating parts with pinch points.
- Fixture may move without warning.
- No personal within range of motion.
- Never operate with any covers missing.
- Fixture has a fan which starts automatically, without warning.

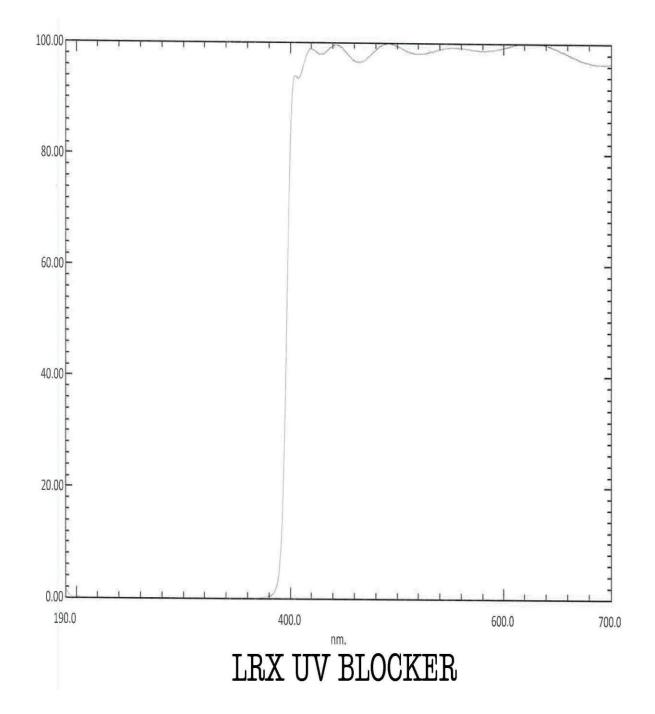


### HEAT AND ULTRA VIOLET RADIATION!

- Arc lamps generate broad spectrum UV radiation.
- Do not operate without complete lamp enclosure in place or if UV lens is damaged.
- Limit exposure to high density light.
- UV blocking sun tan lotion should be used when working in high density light locations.
- Excessive exposure to high intensity white light may cause fatigue and skin irritation.
- High energy light output will burn skin and ignite combustible materials. Do not operate in the proximity of materials that are adversely affected by heat or light.
- Failure to adhere to these warning may result in serious burns or irreversible skin/eye damage.
- Do not look directly into the light during operation.
- Personal or flammable objects may not be within 40m (131 feet) of the lens during operation.
- Lamp housing becomes extremely hot when in operation, avoid contact.
- When fixtures are mounted in close proximity to one another, care must be taken so that output energy from one fixture is not directed at another fixture or electrical cabling.
- IMPORTANT: Please follow the operating instructions of the ballast.

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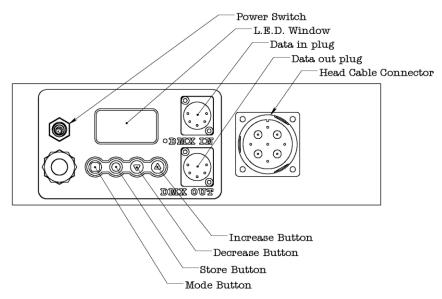




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### FIXTURE ADDRESSING



Fixture addressing is performed at the rear of the fixture hanger assembly. The fixture can be programmed to operate in DMX mode or FIXTURE mode (for use with the hand controller). Because each LRX fixture requires sixteen DMX channels for operation, FIXTURE mode is merely a convenient way of skipping DMX channels in 16 channel increments, beginning with DMX channel #001. Additionally, fixture mode provides power to a connected hand controller, which is also designed to work in 16 channel increments.

DMX Connector pin out: (also see important note below)

- Pin 1 = ground
- Pin 2 = Data negative
- Pin 3 = Data positive
- Pin 4 = 12VDC negative
- Pin 5 = 12 VDC positive

When the LRX fixture in FIXTURE mode, pins 4 & 5 on the DMX IN connector become energized to 12VDC to supply power to the hand controller. No power is supplied to pins 4 & 5 when in DMX mode. Ensure that fixture is in the correct mode prior to connecting DMX lines. Always connect the hand controller to the fixture with the power off. Damage could result if attempting to connect the hand controller to the LRX fixture while the power is on.

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### FIXTURE ADDRESSING

The mode (square icon) on the left is used to toggle between DMX mode and FIXTURE mode. FIXTURE mode is designated by a capital 'F' in the left-most digit, with the remaining two digits indicating the fixture number. E.g. F01=fixture#1, etc. DMX mode is shown as a three digit number from 001 to 512. Once the mode is selected the fixture number or DMX address can be increased or decreased using the up/down arrows on right side of the switch assembly. When the correct FIXTURE/address has been selected, the store (round icon) button second from the left is pressed and held (until the display stops flashing) to store that address. It is important to note that the LRX fixture will not begin responding to a newly selected FIXTURE/DMX address until it has been stored by pressing and holding the store (round icon) button. If the display is flashing, this is a warning that the displayed FIXTURE/DMX address does not match the address that fixture is currently responding to. Saving the displayed address tells the fixture to begin listening and responding to the new address. If the address is not stored within five seconds it will return to the previous set

The LRX fixture always writes the last saved address and mode to non-volatile memory, such that in the event of a power interruption, the fixture will power up with the mode and address it was using before the power interrupt.

Pressing and holding the mode button will provide access to the hour meter. Once in hour meter mode press the up icon to display bulb hours, indicated as a scrolling number. It will show as a blank digit followed by three digits then a decimal place and two more digits (i.e. \_120.59). The bulb hours can be reset by pressing and holding the store button until the meter zeros, about five seconds.

To display fixture hours, press the down icon. Fixture hours will be displayed as a scrolling number with an "F" prefix. This can't be reset by the user.

#### DMX CHANNEL ALLOCATION

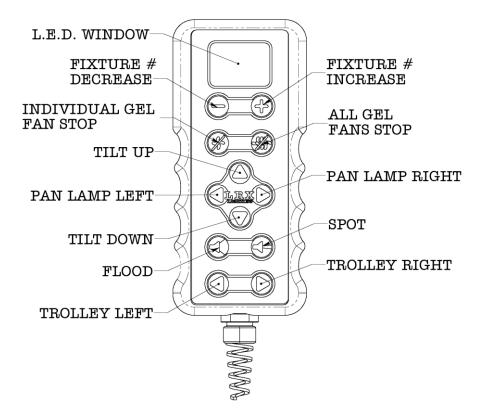
When using the LRX with a lighting console or other device that offers discrete control over the DMX channels, they are used by the fixture as follows:

Where N = base channel of fixture. [LRX DMX address shown on display]: N + (0.9) = motor control (depends on MODE)N+10 = GEL fan ON/OFF (OFF < 127 < = ON)N+11 = lamp control (unimplemented)N+12 = motor control MODE: N+12 < 127 = BUMP MODEN+12>=127 = FADER MODEN+13 = reserved (future use) N+14 = reserved (future use) N+15 = reserved (future use) If (MODE = BUMP): (n+12 < 128)•(N+0 > 127) = pan left•(N+1 > 127) = pan right•(N+2 > 127) = tilt up $\bullet$ (N+3 > 127) = tilt down •(N+4 > 127) = spot•(N+5 > 127) = flood $\bullet$  (N+6 > 127) = trolley left  $\bullet(N+7 > 127) = \text{trolley right}$  $\bullet$ (N + 8, 9) = reserved (future use) If (MODE=FADER): (n+12>=128)• (N+0 < 64) = pan left•(N+0 > 127) = pan right• (N+1 < 64) = tilt up $\bullet$ (N+1 > 127) = tilt down •(N+2 < 64) = spot(N+2 > 127) = flood•(N+3 < 64) = trolley left  $\bullet$ (N+3 > 127) = trolley right  $\bullet$  (N+4 thru 9) = reserved (future use); each motor above is stopped when the fader is in the middle of its range (DMX value 64-127)

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#### HAND CONTROLLER

The hand controller will allow fixture selection, (up to 32 fixtures), control of tilt - up/down, pan - left/right and flood/spot functions and will also shut off individual gel cooling fans or all gel cooling fans connected to that controller. All switches act as momentary type. When the "Individual Gel Fan Stop" switch is held the gel fan for the fixture indicated on the display stops. When the "All Gel Fans Stop" switch is held all gel fans connected to that hand controller will stop.



### **FIXTURE SPECIFCATIONS**

## Electrical:

Control power: Volts – 120 AC – non-dimmed feed line. Hertz – 50 - 60 Amps – 2.0 U- Ground plug

Metal Halide Lamps:

| 6KWSE: 125VAC / 48 amps approximate   |
|---------------------------------------|
| 12KWSE: 160 VAC / 75 amps approximate |
| 18KWSE– 225 VAC / 85 amps approximate |

Tungsten Lamps:10KWSE Volts: 120/240 VAC - 83/41.5 amps approx.12KWSE Volts: 120/240 VAC - 100/50 amps approx.

Head Input Connector:

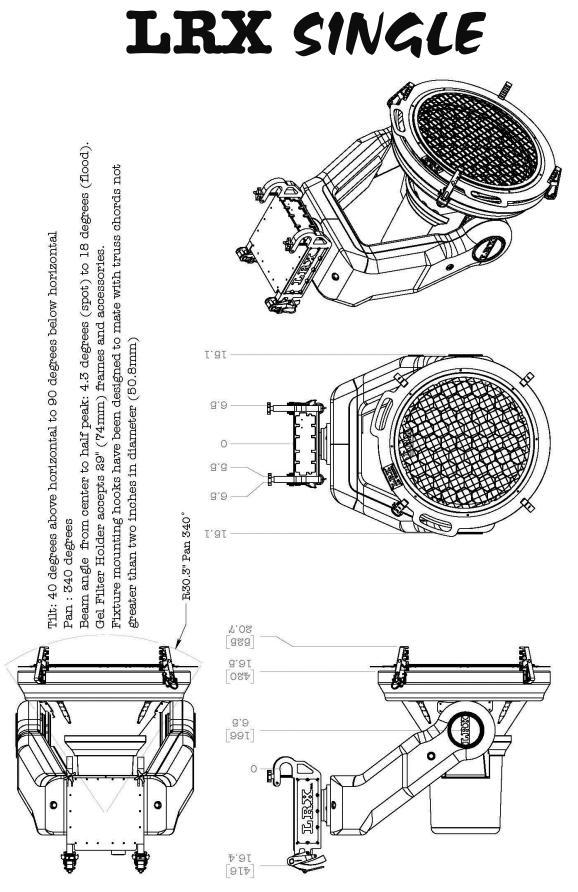
- Input is configured to accept Arri 12/18K connector.
- LRX fixture connector: Cannon part# CB0-28A16PS-A232
- Tungsten mode requires an input connector with tails that mate to local distribution.
  - a. Pin "C" = Line
  - b. Pin "H" = Neutral
  - c. Pin "B" = Ground
- Or see wiring diagram for pin connections.

## Physical

- Tilt: 40 degrees above horizontal to 90 degrees below horizontal
- Pan 340 degrees
- Weight 140 pounds approx..
- Designed to accept 29" diameter filter frames, scrims & etc.
- Fixture mounting hooks have been designed to mate with truss chords not greater than two inches (50.8mm) in diameter

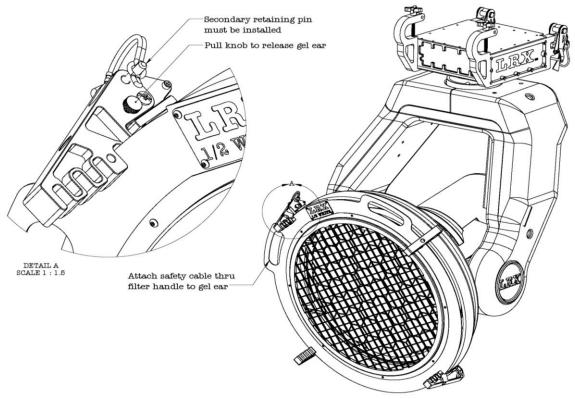
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### FILTER INSTALLATION

- LRX Lighting offers several high quality extreme temperature color correction and diffusion filters. These filters will not burn or change color and should be the first choice.
- LRX Lighting currently stocks:
- <sup>1</sup>/<sub>4</sub> CTO, <sup>1</sup>/<sub>2</sub> CTO & Full CTO
- ½ CTB
- Steel Blue
- Cyan 30 & 60
- 1/4 & 1/2 Plus Green
- <sup>1</sup>/<sub>2</sub> White Diffusion & Full White Diffusion
  - \*\*\*Custom colors can be produced to your specifications\*\*\* \*\*\*Please allow four to eight weeks lead time\*\*\*
- Industry standard gel type color correction or diffusion filters should be placed in the center slot with heat shield placed in the inside slot.
- If a color correction filter and a diffusion filter are both required the color filter should be placed in the outside slot, the diffusion filter placed in the center slot and heat shield in the inside slot. This provides the longest filter life.

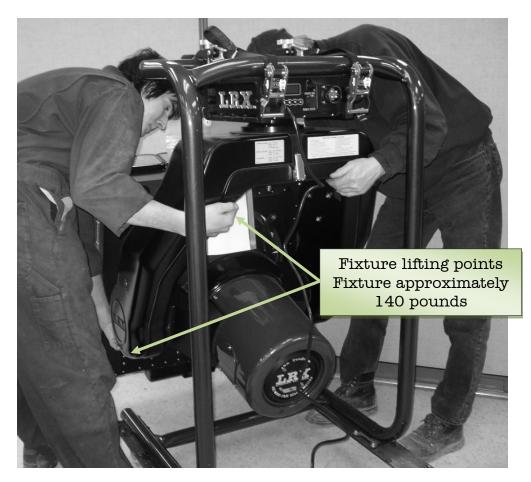


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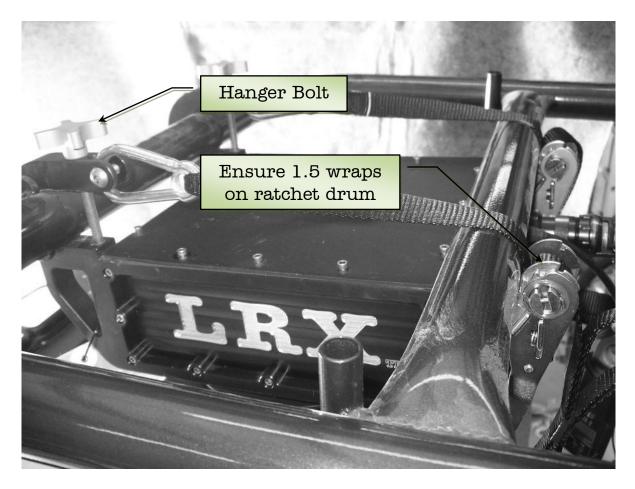
### HANDLING OF FIXTURE

## $\underline{\wedge}$

- Heavy lift, minimum two persons, the weight is approximately 156 pounds.
- Hanging of the fixture creates a number of potential pinch points.
- Use fixture lifting handles provided as well as the yoke tubes.
- If there are any concerns regarding handling please contact your supervisor.
- Ensure hanger bolts are installed immediately after hanging, before the ratchet straps are tensioned.
- Ratchet straps must have a minimum of one and a half wraps around the ratchet drum at all times.
- Removal of shipping case covers require two persons to lift. Always use lifting points to avoid potential pinch points.



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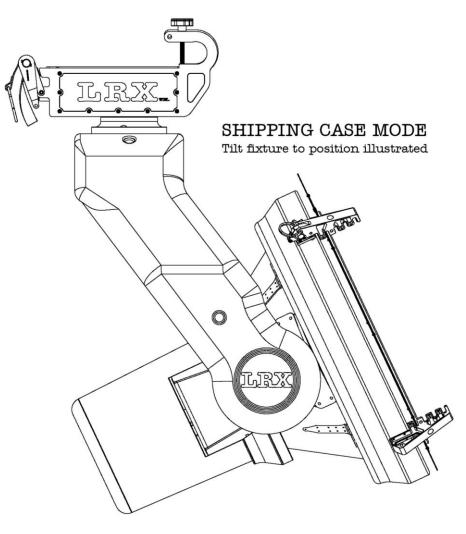


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### **MOUNTING THE LIGHT IN THE SHIPPING CASE**

Re-installing the fixture into the shipping case

- <u>IMPORTANT</u>: Align tilt line-up marks, located on the tilt bearing assembly. See illustration below. Gel frame holder damage could result if forced into position in shipping case.
- Align hanger so that the fixture is pointed straight ahead.
- The fixture should be left in spot position with the socket tightened slightly to prevent the t-handle from turning out during shipping.
- Install onto shipping frame, tighten T-bolts and ratchet straps and ensure there is a minimum of 1.5 wraps on the ratchet drum. See picture below,
- Always store shipping cases in a dry location



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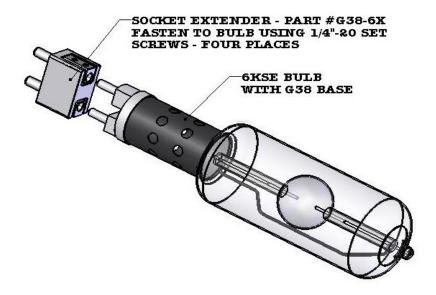
### LAMP INSTALLATION

- A number of hazards exist during lamp installation please refer to safety warnings on page two.
- Follow lamp manufactures instructions regarding use and handling of their product.
- This fixture has more than one power supply. Disconnect all power supplies before installation or removal of the lamps.
- Allow lamps to cool before removing.
- Prior to installing the lamp, check lamp contacts and wire ends for signs of arcing or over-heating. If lamp contacts or wiring appear damaged remove from service.
- Ensure power supply matches lamp type, voltage and wattage.
- The required lamp should be fully seated when installed and firmly locked in place using the lamp lock tool supplied.
- NOTE: the Metal halide lamp manufacturers suggest operating the lamp with the lamp support rod up, as it produces a more stable arc.
- Lamps should be wiped with 99% alcohol and clean paper towels or lint free cloth after installation.
- Clean, close and lock the UV lens.
- Close and secure the lamp lock door.
- Heat shield must always be used in front of the lamp. This provides protection for the lens from rain and also helps to contain the glass fragments in event of lamp breakage.
- Ensure power supply matches lamp type and wattage. The use of dimmers for tungsten lamps is strongly recommended.
- Bringing tungsten lamps to full power without pre-warming the bulb and fixture may break the U.V. lens.
- Check lamp fan for proper operation. When control power is applied to the fixture, the lamp fan will start and run for twenty minutes then shut off. The lamp fan will restart when power is applied to the lamp and run for twenty minutes after power is removed from the lamp. It is very important to leave control power to the lamp after it has been shut off to allow for fan cooling of the lamp and housing. Overheating can damage the lamp and internal components.

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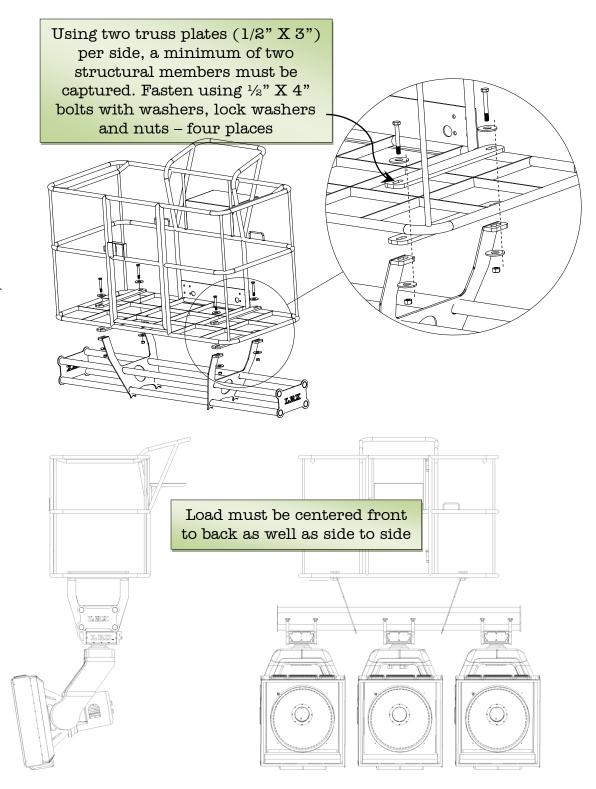
IMPORTANT: When LRX extended 6KSE lamps are not available a socket extender will be required to compensate for the shorter L.C.L. of the standard 6KSE lamp.

Part number - G38-6X



### INSTALLATION OF FIXTURES ON TRUSS OR TELESCOPIC TYPE MAN LIFTS

- THIS FIXTURE MUST BE MOUNTED ON A LEVEL TRUSS.
- Installation structure must be designed and approved to safely carry all anticipated loads.
- It is the user's responsibility and obligation to determine and comply with all applicable laws and regulations.
- The installation and operation of this unit must be carried out by authorized and qualified personnel.
- Hanger bolts in hanger assembly must be installed. Both ratchet straps must be clipped onto their respective anchor point.
- Ratchet straps require minimum of 1.5 wraps on the ratchet to ensure they remain tight.
- Always use approved safety cables secured to a point capable of supporting the total weight of the load.
- All power and data cables <u>must</u> have a strain relief attached.
- When fixtures are mounted in close proximity to each other, care must be taken so that output energy from one fixture is not directed at another fixture or electrical cabling.
- If cable rollers are required refer to "LRX Cable Roller" manual.
- If LRX truss is to be installed, ensure that load is centered and evenly applied to basket. Maximum capacity for LRX truss is 500 pounds evenly distributed.
- Never use damaged or compromised trusses or equipment.
- Follow all lift manufactures guide-lines for load/wind capacities and derating as required. Refer to the aerial equipment operator manuals & special supplement for "Authorized and Trained Set Lighting Technicians and Studio Grips".



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### **TROUBLE SHOOTING GUIDE**

### NO DISPLAY AT REAR OF HANGER ASSEMBLY

- Ensure 120vac power to fixture is live and on a non-dimmed line.
- Remove DMX connectors and inspect contact pins for damage and signs of corrosion
- Inspect 120 volt U ground supply wire for cuts or mechanical damage
- Inspect U ground plug contacts.
- Power switch is on (up position)

### FIXTURE DOESN'T RESPOND TO ANY FUNCTIONS REQUESTED FROM HAND CONTROLLER

- Establish power is correct and display is functioning properly, see above.
- Test with another hand controller if available. If still unresponsive proceed to next step.
- Remove DMX connectors and inspect contact pins for damage and no signs of corrosion. Note all five wires and pins are required to operate hand controller.
- Check hanger display for proper addressing and mode. For use with hand controller the fixture display must show the "F" prefix; not the three digit DMX channel and the display must not be flashing.
- It is important to note that the LRX fixture will not begin responding to a newly selected FIXTURE/DMX address until it has been stored by pressing and holding the store (round icon) button. If the display is flashing, this is a warning that the displayed FIXTURE/DMX address does not match the address that the fixture is currently responding to.
- Plug hand controller directly into fixture, at this point the hand controller should light up and DMX light on the fixture should also light up. At this point if the unit is not operational test with another hand controller.
- Ensure the address at the fixture matches the address on the hand controller.
- If still not operational, place fixture into DMX mode and test with an alternative DMX source.
- Call for service

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TILT, PAN OR FOCUS MOTOR NOT OPERATING CORRECTLY.

Head moves freely without control:

• This may indicate the fixture has received impact and the drive gear has been damaged or drive may have become disengaged.

Head not moving on one axis but other axis is fine

- Test with another hand controller if available. If still unresponsive proceed to next step.
- This may indicate the fixture has received impact and the drive gear has been damaged or drive may have become disengaged.
- Actuate drive function and listen for motor operation. The tilt and pan drive assemblies use a slip clutch inline between the motor and drive gear as a protective measure, this clutch will slip and make a clicking sound once each revolution when driven by the motor, if the clutch has exceeded it preset limits.
- If any of these conditions exist, suspend use of the product and call for service.
- There are no user serviceable parts.

### LAMPS NOT WORKING

### TUNGSTEN MODE LAMP NOT WORKING

- Fixture must have 120VAC at the control input (u ground plug), not a dimmed line and display at the rear of the hanger assembly must be lit.
- Check head extension cables and fixture panel mount connector pins
- Ensure correct lamp input power is available at head cable.
- Power switch at hanger must be in the on position and LED display lit.
- Check that the lamp lock door is closed and door interlock switch is operating.
- Flip power switch on and off and listen for contactor assembly to click in and out.
- Ensure lamp is OK, disconnect power supplies, remove lamp from fixture and perform a visual inspection and check continuity. We have seen lamps that look OK, but the feed wire is broken inside near the base.
- Check socket contacts and wiring.

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### **METAL HALIDE MODE LAMP NOT IGNITING**

- Fixture must have 120VAC at the control input (u ground plug), not a dimmed line and display at the rear of the hanger assembly must be lit.
- Check that the lamp lock door is closed and door interlock switch is operating.
- Flip power switch on and off and listen for contactor assembly to click in and out.
- Check head extension cables and panel mount connector pins (paying particular attention to the small pins are not dislodged or damaged which would cause improper contact.
- Install lamp ensure is properly seated (ceramic against ceramic and the contact tee bolt clamp is tight).
- Test with a ballast (ensure output matches lamp wattage) and a head extension cable that are known to be good.
- Ensure line voltage to ballast input is above 205 VAC when under load.
- Check socket contacts and wiring to socket. Check for signs of overheating contacts or arcing.
- Wet ballasts will need to be placed in a warm dry location and allowed to dry before attempting to use.
- Hot restrike: it is important to note that if the power to the U ground plug is interrupted the lamp will shut off, and will require a fifteen minute cooling cycle. Power should be restated as soon as possible to allow the fans to cool the fixture and lamp.

### TUNGSTEN OR METAL HALIDE LAMP RUNS AND SHUTS OFF AFTER TEN OF MORE MINUTES

- Check lamp cooling fan (not the gel fan) for air flow and obstructions. The air intake is located in the underbody of the yoke on the lamp left side.
- The lamp fan should turn on and run for ten minutes when the control system is first powered on and operate for ten minutes then shut off. The fan will then restart when the lamp is started.
- Check that the lamp lock door is properly closed.
- Check that control system voltage at the fixture is 120 VAC, long cable runs can significantly reduce voltage, thus decreasing fan performance.

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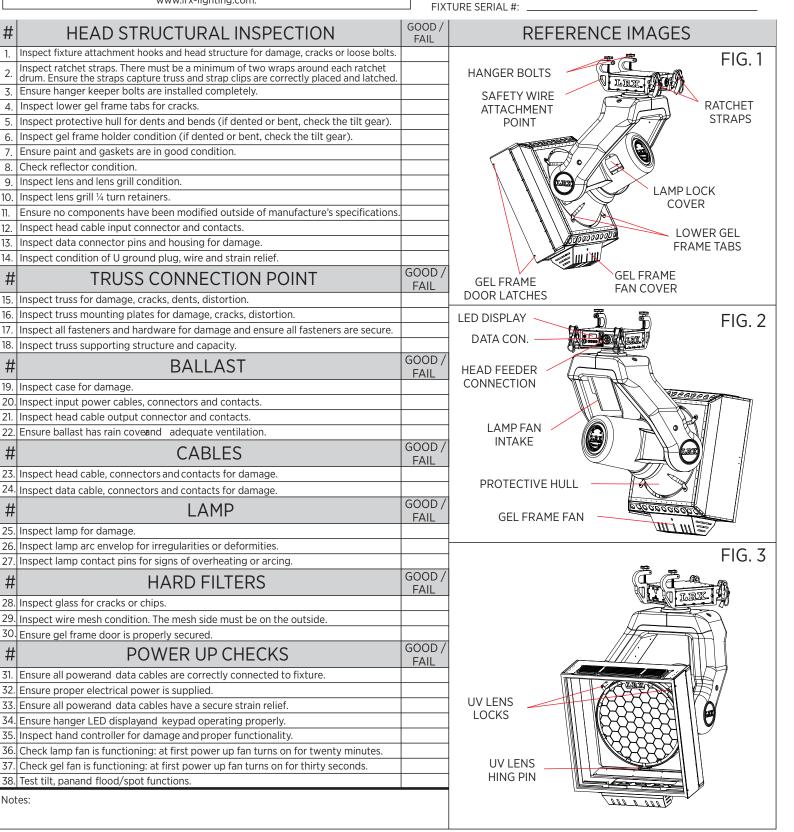
Read and understand LRX Single Manual before proceeding with daily checklist and/or operation of any LRX fixture. Manual available in fixture transport case or online at www.lrx-lighting.com.

## LRX SINGLE DAILY CHECKLIST

CUSTOMER: \_

DATE: \_\_\_

LOCATION: \_\_\_\_\_



Confirm the combined weight of all accessories are within the allowable weight restrictions of the aerial lifting device or supporting structure.

#### INSPECTED BY:

#### SIGNATURE:

IF THE FIXTURE FAILS ANY PART OF THIS INSPECTION, REMOVE POWER, LOCK OUT AND REPORT TO YOUR SUPERVISOR IMMEDIATELY. DO NOT ATTEMPT TO MAKE REPAIRS. ALL REPAIRS TO LRX LIGHTING FIXTURES ARE TO BE PERFORMED BY AN LRX AUTHORIZED DEALER ONLY.