



Dove Lighting Systems, Inc.

I . Q . 192

OWNER'S MANUAL

DOVE SYSTEMS
3563 Sueldo Street, Suite E
San Luis Obispo, California 93401
(805) 541-8292
dove@dovesystems.com
www.dovesystems.com/dove

IQ192MAN.WPD Ver. 1.2 05-06-97

RECEIVING YOUR EQUIPMENT

As soon as you have received your equipment, open the boxes and examine the contents. If the equipment in the carton does not agree with your order or the packing slip, contact the factory immediately and we will be happy to help you. If any damage is noted, contact the carrier immediately to file a claim for damages. You can be sure that when the equipment left the factory it was in good condition, thoroughly tested, and properly packed.

FEATURES

The I.Q.192 is a twelve channel lighting control console with standard DMX-512 output. AMX-192 and 0 to +10VDC analog outputs are optional. A special *hold mode* gives it the capabilities of a two scene console. The console has a grandmaster, two submasters, and twelve channel sliders. It can softpatch up to 192 dimmers. There are four modes of operation: play; hold; assign; and patch.

SET-UP AND CONNECTION

Proper connection of electronic lighting control equipment is very important. The I.Q.192 has been designed to make it as simple as possible. The I.Q.192 must be connected to the dimmer pack through a control cable. The cable uses five pin XLR connectors for standard DMX control. Four pin XLR and DB15 connectors are used on units with optional AMX and 0 to +10VDC outputs. See page 7 for a hookup diagram.

In DMX and AMX systems, dimmer packs are hooked to the controller in series: the cable runs from the controller to the first pack, from the first pack to the second pack, and so on. In 0 to +10VDC systems, the cable may split and fan out to several packs.

The I.Q.192 requires a power input of +12 to +15VDC. This is usually made through a power supply adapter included with the unit. Also it may be made through pin 13 of the DB15 on units so equipped.

When the unit is properly wired it may be energized and tested (very important!):

1. Press the button under the mode window until a red "1" appears in the window.
2. Press the button under the slider labeled "A" until a red "0" appears in the window.
3. Press the button under the slider labeled "GM". The red "0" will wink out and on again.
4. Press the button under the mode window until a red "P" appears in the window.
5. Push the faders labeled "GM", "A", and "B" up to the tops of their slots.
6. One by one, run the sliders labeled "1" through "12" up and down and watch the lights.

Although there are only twelve channels, the I.Q.192 sends data for 192 DMX or AMX dimmers. Channel 1 sends data to dimmers 1, 13, 25, and so on. These assignments, called

a softpatch, may be changed. See page 3 for instructions.

OPERATION

The four modes of operation are selected via the mode pushbutton below the display. The mode determines the functions of the buttons. The slide controls are active in all modes except the *hold mode*. The display window indicates which mode the unit is in: **P** for play; **H** for hold, **A** for assign, and a number (e.g. **1**) for patch mode. Press the mode button to cycle through the modes.

Play Mode

Play mode is identified by a "P" in the display window. The dimmers come up in proportion to the levels of the channel sliders. The dimmers may be assigned to different channels in *patch* mode (see below.) The buttons act as bumps; when a bump button is pressed, the level for that slide control goes to full. When the button is released, it returns to the slider setting.

The grandmaster and submasters are proportional master controls. The outputs of the submasters and channels are in proportion to the level of the grandmaster; the outputs of the channels are in proportion to the levels of the submasters. Channel and submaster assignments may be changed in *assign* mode (see below.)

Hold Mode

Hold mode is identified by an "H" in the display window. In this mode, the output levels being sent to the dimmers are frozen, allowing the user to set up the next "look" on the sliders. After the new levels are set, the user may initiate a timed fade, a manual fade, or step immediately to the new scene. This is called "two scene" operation.

A timed fade is begun by pressing one of the channel buttons. The fade time corresponds to the channel number: pressing the channel 5 button starts a 5 second fade. The LED indicator for that channel will light, showing the fade in progress. The fade time may be changed during a fade simply by pressing a different channel button. Pressing the grandmaster will finish the fade immediately. The console will return to play mode and the indicator LED will go off when the fade is complete.

A manual fade is accomplished using the grandmaster slider. After setting the new channel levels, bring the grandmaster slider down all the way to zero. The LED indicator under the Grandmaster will light, indicating that the fader is active. Bring the slider to full at the desired rate. When the slider reaches full, the indicator will go out and the console will return to the play mode.

To step immediately to the new channel levels, press the button for the grandmaster or either submaster. The console will execute the new look and return to the play mode.

Assign Mode

Assign mode is identified by an "A" in the display window. The assign mode is used to assign channels to submasters or to the grandmaster. It is also used to assign submasters to the grand master. Channels and submasters may be independent, too. The level of the grandmaster determines the levels of the submasters and channels that are assigned to it. The levels of the submasters determine the levels of the channels that are assigned to them. Each channel may be assigned to *only one* submaster or grandmaster slider.

Press and hold the grandmaster bump button. Any LED that lights up indicates a slider that is assigned to it. With the grandmaster button held down, press any bump button with an unlit LED to assign that slider to the grandmaster. Press any bump button with a lit LED to remove it from the grandmaster. Release the grandmaster bump button.

Press and hold either submaster bump button. Any channel LED that lights up indicates a channel that is assigned to the submaster. If that submaster is assigned to the grandmaster, the grandmaster LED lights up, too. With the submaster button held down, press any unlit channel bump button to assign that channel to that submaster. Press any lit channel bump button to remove it from the submaster. If the grandmaster LED is lit, press the grandmaster bump to take the submaster off the grandmaster. If the grandmaster LED is unlit, press the grandmaster bump to put the submaster on it. Release the submaster bump button.

Press and hold any channel bump button. Any submaster or grandmaster bump button LED that lights up indicates that the channel is assigned to it. With the channel bump held down, press any submaster or grandmaster bump button to assign the channel to it. Press any bump button with a lit LED to remove the channel from that submaster or grandmaster. Now the channel is independent.

Remember that any channel may be assigned to only one submaster or grandmaster. Adding a channel to a submaster will take it off another.

Patch Mode

The Patch Mode is identified by a number (1) in the display window. Any channel may control more than one dimmer. Any dimmer from 1 through 192 may be patched (assigned) to any one channel. The number in the window indicates the dimmer that is being patched. Most likely, one of the channel bump buttons will be lit also. If no bump buttons are lit, the dimmer is unassigned. To change the patch for the dimmer indicated in the

display window, simply press the button for the desired channel. The indicator LED for that channel will light to confirm the new patch. Note that the LED for any other channel will go out.

The dimmer number is changed by using the submaster buttons. The A button scrolls the number down. The B button scrolls the number up. The number range is 0 to 192. Numbers 1 to 192 are for dimmers. 0 is used for a special purpose, the default patch.

The default patch sets dimmer 1 to channel 1, dimmer 2 to channel 2, etc. The patch "wraps around" so that dimmer 13 is also on channel 1, dimmer 14 is also on channel 2, dimmer 25 is also on channel 1, and so on. Setting the default patch is done by displaying the number zero (0) in the display window and pressing the grandmaster button. The number zero (0) winks out and on again.

AFTER THE SHOW (SAVING DATA)

With the houselights or worklights on, run down the grandmaster, submasters, and all channel faders. Cut the power source to the controller. *All patch and assignment data is automatically saved in flash memory.* It is not necessary to reload the patch performance after performance.

IN CASE OF TROUBLE

The I.Q.192 is simple and reliable. In the event that things do go wrong, there are a few possibilities to check before a trip to the factory for repairs. **The most common problem occurs when some lights do not come on at all or come up on the wrong channel: this is almost certainly due to incorrect patch assignments and may be fixed by loading the default patch.**

If lights don't come on:

1. Check the power to the console. The display should have at least one character lit in red at all times. Examine the power supply adapter for damage and be sure it is getting power from a known good source. If the power comes from the dimmers through the DB15 connector, be sure that it is +12 to +15VDC on pin 13 and that control common is connected on pin 15.
2. Check the softpatch and submaster / grandmaster assignments.
3. Check the power to the dimmers. Be sure that the loads are plugged in. Check that all test switches and breakers are set properly. Look at the fuses.

4. Examine the control cables. Check that they are continuous, undamaged, and wired correctly. Be suspicious of splitters, adapters, and junctions. Ring them out to be sure.

5. Check that the dimmers are set for the correct control input.

If lights flicker, pulse, bounce, throb, ghost, work backwards, fade out, or crosstalk:

1. Put in a DMX termination plug. Try an opto-isolator.

2. Swap cables and circuit cards one by one to see if the problem follows the part.

3. Examine the console for signs of abuse or damage, particularly the sliders. Sliders that feel gritty are responsible for flickering on that channel.

4. Examine the control cables. Check that they are continuous, undamaged, and wired correctly. Be suspicious of splitters, adapters, and junctions. Ring them out to be sure.

5. Check the power input wiring on the dimmer packs.

6. Check the load output wiring.

Dove Systems technicians are generally available between 8AM and 5PM Pacific time for phone support at (805)541-8292. Please have a specific description of the problem, preferably from personnel who were on-site at the time. If at all possible, bring the telephone into the theatre and have the equipment at hand.

Do not open the unit for examination. Dove Systems cannot provide phone support, replacement parts, or schematics for component-level testing. The I.Q.192 is a microcontroller based product running proprietary software. Unauthorized repair on this product shall void the warranty, and the buyer may be charged for subsequent factory repair, even if the product is defective.

If it is necessary to send the unit to the factory, please ship it freight prepaid, with a note describing the specific complaint. Include the shipping address, a daytime telephone number, and the date the unit is required back. It is helpful to call the factory beforehand for a Return Materials Authorization (RMA) number. **VERY IMPORTANT: PLEASE ENCLOSE A NOTE DESCRIBING THE PROBLEM--EVEN IF YOU HAVE CONTACTED THE FACTORY BY PHONE.**

Send to: Service Dept
 Dove Systems

3563 Sueldo Street, Suite E
San Luis Obispo, California, 93401
Phone: (805)541-8292

LIMITED WARRANTY

The manufacturer agrees that its products shall be free from defects in material or workmanship over a period of one year from date of shipment from the factory. Said warranty will not apply if equipment is used under conditions of service for which it is not specifically intended. The manufacturer is not responsible for damage to its apparatus through improper installation, physical damage, or poor operating practice.

If any device is found unsatisfactory under the warranty, the buyer should notify the manufacturer, and after receipt of shipping advice, buyer may return it directly to Dove Systems, San Luis Obispo, CA, shipping prepaid. Such equipment will be replaced or put in proper operating condition, free of all charges except transportation. The correction of any defects by repair or replacement by the manufacturer shall constitute fulfillment of all obligations to the purchaser. Manufacturer does not assume responsibility for unauthorized repairs to its apparatus, even though defective.

Manufacturer shall not be liable for any consequential damage in case of any failure to meet the conditions of any warranty of shipping schedule, nor will claims for labor, loss of profits, repairs, or other expenses incidental to replacement be allowed.

No other representation, guarantees or warranties, expressed or implied, are made by the manufacturer in connections with the manufacture and sale of its equipment. This warranty is non-transferable and applies to the original buyer only.

Copyright Dove Systems 1995

Connector Outputs

1. The DMX output is on a female 5 pin XLR connector. 2. Some units may include an optional AMX output on a male 4 pin XLR connector.

<u>Pin#</u>	<u>Function</u>
1	Common
2	DMX Data -
3	DMX Data +
4	No Connection
5	No Connection

<u>Pin#</u>	<u>Function</u>
1	Common
2	Clock +
3	Analog
4	Clock -

3. Some units may include an optional 0 to +10VDC output on a female DB15 connector. Power may also be supplied through this connector.

<u>Pin#</u>	<u>Function</u>
1	Channel 1
2	Channel 2
.	.
.	.
11	Channel 11

<u>Pin#</u>	<u>Function</u>
12	Channel 12
13	+15VDC in
14	No Connection
15	Common

If power is not available from the dimmer pack, it may be supplied by a wall transformer. There is a 2.1mm x 5.5mm coaxial power connector for this purpose. The center pin is positive. The outer shell is common. The wall transformer should output 15VDC +/- 20%. The input voltage can be as low as 8VDC, for DMX units only.

