

## LUR652E-LUR65EW

## **INSTALLATION/OWNER'S MANUAL**

Indoor/Outdoor 2-Way Rock Speaker



#### Welcome

Congratulations on your purchase of the Dual Rock Speaker. A high level of design experience and engineering went into creating the Dual Rock speaker. With the rugged look of weathered granite, the Dual Rock 2-way speakers are extremely versatile and are perfect when placed in areas ranging from indoor use like terrariums and interior gardens to back yards, patios and pool or spa settings.

These weather resistant loudspeakers are made of the most durable components including fiber-reinforced poly resin composite enclosures to achieve a product which will resist rain, hail, sleet, coastal environments and snow, but still appear natural and inconspicuous. You will find that the materials used in the Dual Rock are also superior in resisting sun fade and water marks. The Rock speaker was specifically designed to look and sound great for seasons to come.

### **Important**

Although the Rock speakers are designed to resist weather and withstand unfriendly environmental conditions, there are precautions you should take to optimize the long-term life and performance of your Dual Rock speakers. Keep soil, debris and woodchips from covering the speaker grille. If debris accumulates on the grille, it can easily be rinsed away with a garden hose using low water pressure. Do not spray water directly into the face of the grille. Avoid placing the speakers where the grille area will come in direct contact with sprinklers. If you desire to rinse the speaker surface, then direct the spray of water at a 45 degree angle away from the grille, again using low water pressure.

Yard chemicals constitute another element that can prematurely shorten the speaker's life. Fertilizers, weed control sprays and many other chemicals commonly used in the yard can potentially cause damage to the rubber and silicone speaker components of the Rock.

# LUR652E-LUR65EW INSTALLATION

## Sound Coverage and Speaker Placement

The Dual ROCK speaker is sold separately, as many outdoor installations have multiple zones. It is assumed for the purpose of this manual that the Rock speakers will be installed using a minimum of two speakers. When deciding on the placement of your Dual ROCK speakers, allow for a total coverage area of approximately 100 to 450 sq.ft. per pair of Rock speakers. This is an estimate based on the ambient noise levels of a typical outside patio or yard and your personal listening level. If you are using your speakers in a high noise area where your sound coverage requirement is influenced by high automobile traffic noise or located in close proximity to a heavily industrialized urban area; or If you desire music over a physically large area, it is best to have a larger number of speakers playing at low volumes, rather than a few speakers playing at high volumes. Multiple pairs of speakers placed in strategic locations within your coverage area can be a fundamental solution when designing an outdoor system that requires large coverage.

Ideally, you should place the speakers as close to the primary listening area and audio source as possible. The volume of the speaker decreases rapidly as it is moved further from the listener. Keep in mind that wire must be run to the location of the speakers. Patios, walls, and other features in your yard may be difficult to get around when wiring your speakers, so properly planning your design is important. Measure twice, dig once.

The grilles are not designed or intended to be removed. Do not remove the grilles from your Rock speakers. There are no user serviceable parts behind the grille and removal will damage the speaker.

#### **CONNECTIONS - WIRE RUNS**

Each Dual ROCK speaker has a two-conductor speaker wire surrounded by a cable sleeve exiting the bottom of the speaker. The LUR652E has typical speaker leads in this location. The LUR65EW model is designed with 50 feet of environmental rated wire already attached. Regardless of the model purchased, any connection to the speaker should be of a similar gauge wire (cable) running from the speaker location to your audio system.

Dual does not supply speaker wire or cable accessories separately at this time. If you are installing the LUR652E, you may wish to purchase certified direct burial cables (environmentally rated speaker wire) and/or a watertight burial box which also works well for the purpose of protecting your connection. Burial cable or wire rated for in ground installation is available at most hardware stores and home improvements outlets.

The cable or wire can be run either directly beneath the speaker into the ground, or you can use the notch on the bottom edge of the speaker to exit the cable out the rear for hard surface installations. When attaching the cable to the speaker, it is critical that a high quality connection be achieved. Poor connections will lead to corrosion, possible loss of signal and/or a decline in audio performance.

When possible, try to reduce the distance of your speaker from the audio source to achieve the best audio results. The optimum run should be no longer than 50 feet for the most favorable results. Runs longer then 50' are common, but may require additional installation steps. Please ask your Dual dealer or a professional contractor if you have questions regarding long wire runs. Dual recommends larger wire of 12 or 14 gauge for speaker wire runs longer then 50 feet.

#### **CONNECTIONS - POLARITY**

Caution: Do not attempt to connect the speakers to any source, amplifier or receiver that is turned on. Be sure the receiver is off prior to connecting the speakers.

Parallel or series wiring is commonly acceptable for the Dual ROCK speakers to gain correct amplifier loading. Avoid series wiring your Dual speakers with any other speaker type or brand.

In phase installations will take special care to connect the speaker wire runs in phase using the correct polarity.

Polarity - Speaker wires are marked for polarity consistency so that you can determine the positive and negative identity of the individual wires within the molded pair insulation. Polarity is shown by either a color stripe on the insulation, by ridges molded into one side of the insulation, the color of the insulation case around the wire, or by the color type or colors of the wires/wire itself (copper or silver).

Important: In order to maintain correct polarity, always connect speaker wire using the positive(+) terminal on the receiver to the positive (+) wire, and the negative (-) terminal on the receiver to the negative (-) wire.

For a typical audio installation, all speakers in a system will be connected with the same respective polarity. The speaker connections are located on the bottom of the Dual ROCK speaker.

For best results, crimp or solder the wires together using heat shrink to seal each individual conductor. After the individual conductors are sealed, seal over the pair with another layer of heat shrink.

Connection Tip: You may also use twist nuts specially designed for outdoor applications. These twist nuts have a silicone core inside the nut head and coat the connection once attached. These special nuts are not included but are widely available.

#### **Troubleshooting**

If you hear obvious distortion from the speakers, immediately lower the volume level of your receiver. Those sounds often indicate that either the receiver or the speaker is being over driven, and damage can result in playing your source material (music-CDs-DVD-MP3) at high volume levels for prolonged periods of time. You should also avoid turning the bass or treble controls fully up and using your "Loudness button" when the volume level is at or above normal listening levels.

#### Loudness Button

The Loudness button on most receivers is designed to add depth when your system is being used for background music or at very low volume.

#### **Unnatural Sounds**

Distorted or unnatural sound can indicate poor connections, defective electronics, damaged source material or speaker failure. If only one of your speakers has poor sound quality, check the speaker wire and audio connections.

#### Swapping Speaker Locations

That doesn't fix the problem? Try putting each speaker in place of one another (swapping). If the sound remains poor on the suspect speaker after swapping location and the distortion moves with the speaker to the new location, the speaker may be the problem. If the distortion remains in the original location then the problem is elsewhere in your audio system or speaker wiring. You must have proof of purchase to receive warranty service.

#### For Your Records

Please keep your original sales receipt and be prepared to provide this receipt in the event you require service, as your original receipt is considered the best proof of purchase and indicates the date you purchased your Dual product.

Dual Model _	
Dealer Name	
Dealer Phone	
Purchase Date	1

Note: You may want to keep your original sales receipt or a photo copy with this installation/owner's manual.

## LUR652E-LUR65EW LIMITED WARRANTY



## **Limited Two-Year Warranty**

This warranty gives you specific legal rights. You may also have other rights which vary from state to state.

Dual Electronics Corp. warrants this product to the original purchaser to be free from defects in material and workmanship, under normal conditions, for a period of two years from the date of the original purchase.

Dual Electronics Corp. agrees, at our option, during the warranty period, to repair any defect in material or workmanship or to furnish an equal new or renewed product in exchange without charges, subject to verification of the defect or malfunction and proof of the date of purchase.

During the Two-Year Warranty Period: For Two Years from the date of purchase, your product will be replaced with a new, renewed or comparable product (whichever is deemed necessary) if it becomes defective or inoperative. This is done without charge to you. Replacement products are warranted for the balance of the original warranty period.

Who is covered? This warranty is extended to the original retail purchaser for products purchased and used in the U.S.A.

What is covered? This warranty covers all defects in material and workmanship in this product. The following are not covered: installation/removal costs, damage resulting from accident, misuse, abuse, neglect, product modification, improper installation, incorrect line voltage, unauthorized repair or failure to follow instructions supplied with the product, or damage occurring during return shipment of the product.

#### What to do?

#### If purchased within the USA:

- 1. Before you call for service, check your operating instruction booklet. A slight adjustment of any custom controls discussed in your instruction booklet may save you a service call.
- 2. If you require service during the warranty period, you must carefully pack the product (preferably in the original package) and ship it by prepaid transportation with proof of the purchase date from the retailer to the Return Center address listed below.
- Please describe your problem in writing and include your name, a return UPS shipping address (P.O. Box not acceptable), and a daytime phone number with your shipment.
- 4. DUAL will pay the return shipping charges if the product is returned to an address within the 48 contiguous states.

Dual Electronics Corp. Attn: Returns Center 21318 64th Ave. South Kent, WA 98032 U.S.A. Toll Free: 1-866-626-7863

#### If purchased outside the USA:

Please return the unit to original place of purchase for warranty service.

Exclusion of Certain Damages: This warranty is exclusive and in lieu of any and all other warranties, expressed or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose and any obligation, liability, right, claim or remedy in contract or tort, whether or not arising from the company's negligence, actual or imputed. No person or representative is authorized to assume for the company any other liability in connection with the sale of this product. In no event shall the company be liable for indirect, incidental or consequential damages.



Dual Electronics Corp. 21318 64th Ave. South Kent, WA 98032 Toll Free: 1-866-626-7863

www.dualav.com ©2005 Dual Electronics Corp.