

Operating Manual

DXA-SLR

Active XLR Adapter for DSLR Cameras



This operating manual explains the function settings and how to use the adapter to record audio into the camera.



©BeachTek Inc. 2010

Contact Information

Address
BeachTek Inc.
1855 Kirschner Rd.
Suite 230
Kelowna, British Columbia
Canada V1Y 4N7

Phone
416-690-9457

Email
info@beachtek.com

Website
www.beachtek.com



Thank You for Purchasing a BeachTek Product

- Before using this high quality device, please read this guide thoroughly to obtain the highest performance.
- Please contact us if you have any problems or questions.

Description

The BeachTek DXA-SLR is a two-channel, active XLR adapter with built-in preamplifiers for attaching external microphones and other audio gear to any DSLR camera that has a built-in mic jack. It can also be used with any camcorder or other audio recording device that has a mic jack. The DXA-SLR uses exceptionally low noise, wide bandwidth preamplifiers for superb audio.

The DXA-SLR is very easy to set up and use. It allows you to connect a wide variety of audio devices including wireless systems, mixers, sound boards and professional condenser microphones that require 48 volt phantom power to operate. The built-in signal indicators make it easy to verify the proper input levels at a glance while the level controls allow you to adjust the output level for optimum recording. The headphone jack lets you monitor the audio from the adapter during recording, or camera during playback.

A unique feature of the DXA-SLR is the ability to control the wild swings of the Auto Gain Control that plague most cameras. This dramatically reduces noise during quiet moments of recording.

The adapter mounts to the bottom of the camera and can also be mounted to any standard tripod.

Before You Begin

- 1) These instructions refer to the use of this adapter with the DSLR cameras unless otherwise noted.
- 2) Do a few test recordings and check playback on the camera to be sure that the audio is captured as expected. Since there is no headphone jack on most cameras, you cannot monitor what is being recorded by the camera.
- 3) Please read and understand the use of the AGC DSBL feature before using this function.

Supplied Accessories

- 3.5 mm to 3.5 mm output cable
- 3.5 mm to 2.5 mm output cable
- AV Cable

2

Quick Setup Guide

- 1) Mount the DXA-SLR adapter to the camera.
- 2) Connect one of the supplied output cables from the MIC jack on the adapter to the MIC input jack on the camera.
- 3) Connect the supplied AV cable from the MONITOR IN jacks on the adapter to the AV OUT jack on the camera.
- 4) Install a fresh alkaline or lithium battery in the adapter.
- 5) Set the Gain switches on bottom of adapter to HI.
- 6) Set the GROUND switch on bottom of adapter to G2.
- 7) Set the MONITOR switch to XLR.
- 8) Set the LIN/MIC switch to MIC for microphones or LIN for mixers.
- 9) Connect audio sources to the adapter.
- 10) Set the M/S switch to M for mono when using one channel or to S for stereo when using two channels.
- 11) Activate the 48V phantom power for only those microphones that require phantom power to operate.
- 12) Set the AGC DSBL switch to the left for off. Before using this function, please read the information supplied in this manual for a detailed explanation of how this feature works.
- 13) Turn the adapter PWR switch on. The power LED should indicate green.
- 14) Adjust the level controls for each channel so that the LED signal indicators flicker green. Decrease the levels if they turn red.
- 15) Plug your headphones into the PHONE jack on the adapter and adjust the VOLUME control to a comfortable level. Be sure that you hear audio on both channels from the connected devices.
- 16) Do a test recording and playback to ensure that the captured audio is satisfactory.

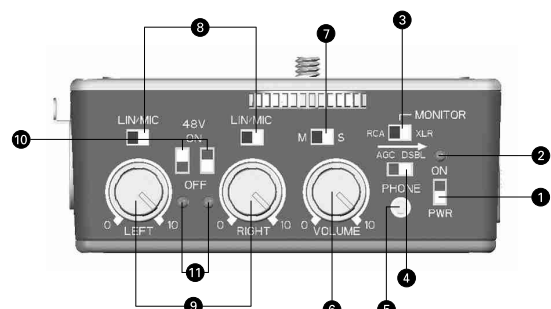
3

Adapter Connectors and Controls

Front Panel

- 1 **PWR Switch**
Main power switch for adapter
- 2 **PWR LED**
Green indicates power on and good battery condition. Red indicates low battery voltage
- 3 **MONITOR Switch**
Selects headphone monitoring from either the microphones during recording, or playback audio from the camera
- 4 **AGC DSBL Switch**
Disables the Auto Gain Control feature in the camera
- 5 **PHONES**
Headphone jack to monitor the audio from microphones or camera

Front Panel

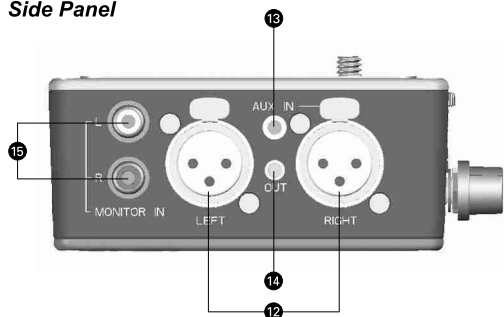


4

- 6 **Volume Control**
Adjusts the headphone volume level
- 7 **M/S Switch**
Selects mono or stereo output mode
- 8 **LIN/MIC Switches**
Selects microphone or line level input on each channel
- 9 **LEFT and RIGHT Controls**
Individual adjustment controls to adjust output levels on each channel
- 10 **48V Switch**
Activates 48 volt phantom power for condenser microphones that require phantom power to operate
- 11 **Signal Indicators**
The LED signal indicators flicker green for good levels or red for overload

5

Side Panel



Side Panel

12 LEFT and RIGHT XLR Inputs

Two balanced XLR inputs attach to professional microphones or other audio gear such as wireless systems or mixers and sound boards

13 AUX IN

Unbalanced input for connecting to a wireless receiver or other device that has a mini-plug output cable

14 OUT

Output jack for connection to the camera

15 MONITOR IN

Input jacks for connecting the AV cable to the camera

6

Bottom Panel

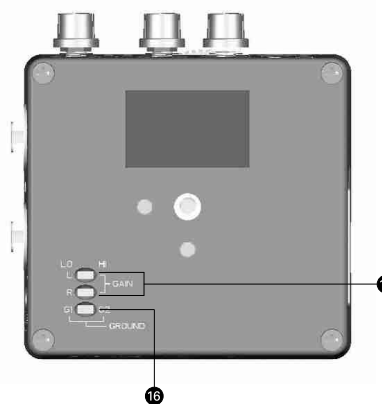
16 Ground Switch

Ground selection switch

17 Gain Switch

Selects LO for unity gain or HI for +15dB boost

Bottom Panel



7

Setup Guide

Battery Installation

- 1) The DXA-SLR operates on one 9 volt battery. We recommend that you use either an alkaline or lithium type battery for the longest operating time.
- 2) To install the battery simply unlatch the drawer by pushing in and up on the front drawer front to release it and slide out. Insert the battery with the "+" positive terminal lined up with the "+" indicator on the battery compartment. Slide the battery drawer closed until it clicks into place.

Mounting and Connecting the Adapter to the Camera

- 1) Line up the mounting bolt on top of the adapter to the tripod hole on the underside of the camera. Carefully turn the adapter mounting knob on the front panel to the right to screw the adapter squarely into the camera. Snug the adapter to the camera, but do not over tighten.
- 2) Use one of the supplied output cables and connect one end to the OUT of the adapter and the other end to the MIC on the camera.
- 3) To monitor audio from the camera during playback, connect the red and white RCA plugs on the supplied AV cable, or the AV cable that came with the camera to the corresponding red and white MONITOR IN jacks on the adapter. Attach the other end to the AV output of the camera.
- 4) You can also mount the adapter to any standard tripod.

8

Initial Setup

- 1) Connect your microphones or other audio gear to the adapter via the XLR inputs or AUX mini-plug input.
- 2) Set the LIN/MIC switch to either MIC when connecting microphones or most wireless receivers, or to LIN when taking a line level feed from a mixer or sound board.
- 3) Set the MONITOR Switch to XLR to monitor the audio from the microphones during recording.
- 4) Set the GAIN switch on the bottom of the adapter to HI. This is the normal setting for most microphones. If you are using very sensitive condenser type microphones, or recording very loud sounds, you may have to set the GAIN switch to LO to prevent distortion.
- 5) Set the GROUND switch on the bottom of the adapter to G2. You may have to change this to the G1 setting for some cameras or camcorders if you detect any unusual noise. You will need to do a test recording and playback to determine the best position for your setup.
- 6) Set the M/S switch to M for mono when using one microphone. Set the unused channel level control fully counter-clockwise to 0 to disable it to prevent noise. When using two microphones, you should normally set the switch to S for stereo to keep each channel separated.
- 7) Set the AGC DSBL switch to the left so that it is deactivated.
- 8) Set the LEFT and RIGHT level controls fully counter-clockwise to 0.

9

- 9) Plug your headphones into the PHONES jack to monitor the audio. Be sure that the VOLUME control is set low to avoid excessively loud audio from damaging your hearing.
- 10) Turn the adapter PWR switch ON. The power LED should light green indicating good battery voltage.
- 11) Activate the 48V phantom power switch for only those microphones that require 48 volt phantom power to operate. Do not activate phantom power for dynamic microphones, condenser microphones that do not operate on phantom power, wireless receivers, mixing boards or any unbalanced device as it may cause damage to both the adapter and connecting device.

10

Basic Operation

After following the above Initial Setup, you should be ready to start recording.

- 1) Use the signal indicators on the adapter to set the proper output levels for recording. Increase the level controls for each channel that is being used so that the signal level LED flickers green. If the indicator turns red, decrease the level so that it flickers green again.
- 2) Adjust the VOLUME control for the headphones to a comfortable listening level.
- 3) Do a test recording and play back the audio from the camera to determine if the captured audio is acceptable. Set the MONITOR switch to RCA to hear the playback audio from the camera.
- 4) The Auto Gain Control (AGC) in the camera will vary the amount of gain depending upon the input signal level. During quiet moments, the AGC will increase the gain, which will also increase the amount of hiss from the camera preamplifiers. See "Using the AGC DSBL Feature" below to reduce this problem.

11

Advanced Operation

Using the AGC DSBL Feature

This switch is a means to disable the wild swings of the Auto Gain Control in the camera. It activates an inaudible tone of 20 kHz to the left channel (when set to STEREO operation) that prevents the Auto Gain Control from increasing the gain to its maximum level. This reduces the hiss that normally occurs when the camera is recording audio during quiet moments. This inaudible tone is recorded by the camera but can be easily filtered out if necessary. You can still use the left channel for recording normal audio at the same time that the AGC DSBL feature is active.

You may also want to record audio only on the right channel and leave the left channel unused for the AGC control signal if this tone presents a problem down the line. In this case, you should set the M/S switch to S for stereo to keep the AGC signal separated from the recorded signal.

Again, it is important that you do a test recording and play back the audio to see if it is acceptable.

12

Features

Inputs

- Two balanced XLR connectors
- One unbalanced mini-jack
- Two RCA inputs for playback monitoring

Outputs

- Unbalanced stereo mini-plug jack for connection to the camera

Headphone Monitor

- Built-in headphone amplifier with volume control
- 3.5 mm phone jack

Auto Gain Control Disable

- Controls the wild swings of the AGC in the camera to reduce hiss

Phantom Power

- Switchable 48 volt phantom power for both channels

Signal Indicators

- Dual color LED's indicate proper signal level for each channel

Gain Switch

- High / Low gain setting for each channel

Level Controls

- Adjusts signal level output on each channel

MIC/LINE Switches

- Allows connections of microphones or mixers for versatility

Low Noise Preamplifiers

- Exceptionally low noise circuitry for superb audio
- Wide-bandwidth for full rich sound

Playback Monitor

- Provides an easy way to monitor audio on playback

Power

- Easily replaceable 9 volt battery
- Low battery indicator

Case

- Sturdy die-cast aluminum enclosure

13

Specifications

Maximum Input Levels	MIC Input setting LO gain: +6 dBu HI gain: -12 dBu
Output Level	Nominal MIC levels
Frequency Response	20 Hz to 20 kHz (+/- 1dB)
Gain	LO gain: 0 dB HI gain: 15 dB
Phantom Power	Dual regulated 48 volt power supplies Current to 14 mA (direct short)
Signal Indicator	Green indicates good output level Red indicates overload
Battery Type	One 9 volt alkaline or lithium battery Recommend rechargeable lithium polymer batteries from iPowerUS www.iPowerUS.com
Battery Duration	3 hours typical with alkaline battery 5 hours typical with lithium battery
Dimensions	4.25" x 4" x 1.75" (L x W x H) (108 mm x 102 mm x 44 mm)
Weight	12 oz (0.34 kg)

Warranty Information

Limited Two Year Warranty

This warranty covers any defects or malfunction in your new BeachTek adapter for two years from date of purchase.

BeachTek will replace or repair any defective or malfunctioning adapter, within the warranty period, at no charge. The warranty does not cover damage resulting from accident, alteration, misuse or abuse. The device must be sent to our service center at your expense.

Should you require service please contact us first before returning the unit to us. Return instructions can be found on our website at www.beachtek.com under the Support option.

Upon receiving the returned adapter it will be inspected and replaced or repaired if found defective. The unit will be shipped back to you within five business days at our expense.