AD3

Plug-On Transmitter

AD3 Axient Digital Plug-On Transmitter Quick Start Guide
Version: 1.1 (2020-G)

Table of Contents

AD3
Plug-On Transmitter

WARNING

- Battery packs may explode or release toxic materials. Risk of fire or burns. Do not open, crush, modify, disassemble, heat above 140°F (60°C), or incinerate.
- Follow instructions from manufacturer
- Only use Shure charger to recharge Shure rechargeable batteries
- WARNING: Danger of explosion if battery incorrectly replaced. Replace only with same or equivalent type.
- Never put batteries in mouth. If swallowed, contact your physician or local poison control center
- Do not short circuit; may cause burns or catch fire
- Do not charge or use battery packs other than Shure rechargeable batteries
- Dispose of battery packs properly. Check with local vendor for proper disposal of used battery packs.
- Batteries (battery pack or batteries installed) shall not be exposed to excessive heat such as sunshine, fire or the like
- Do not immerse the battery in liquid such as water, beverages, or other fluids.
- Do not attach or insert battery with polarity reversed.
- Keep away from small children.
- Do not use abnormal batteries.
- Pack the battery securely for transport.

⚠	**WARNING** If water or other foreign objects enter the inside of the device, fire or electric shock may result. Do not attempt to modify this product. Doing so could result in personal injury and/or product failure.
⚠	**CAUTION** Never disassemble or modify the device, as failures may result. Do not subject to extreme force and do not pull on the cable or failures may result. Keep the microphone dry and avoid exposure to extreme temperatures and humidity.

Note: Use only with the included power supply or a Shure-approved equivalent.

AD3 Axient Digital Plug-On Transmitter

The Shure AD3 plugs onto any microphone to transmit wireless audio to compatible Axient Digital AD4D and AD4Q receivers. Supporting both conventional AA and Shure SB900-series rechargeable battery options, the AD3 features a lightweight, rugged, metal chassis that resists sweat, moisture, and debris.

Full Guide Online

Visit www.shure.com for information, resources, and the full version of the product guide.

Included Components

AA alkaline batteries (2)	80B8201
USB-A to USB-C cable	95A39299
Zipper bag	95D2313
Pouch with belt clip	95A44910

Optional Accessories

SB900B rechargeable lithium-ion battery	SB900B

AD3 Transmitter Overview

① Display

View menu screens and settings. Press any control button to activate the backlight.

② Infrared (IR) port

Align with the receiver IR port during an IR Sync for automated transmitter tuning and setup.

③ Control buttons

Use to navigate through parameter menus and to change settings.

④ Power switch

Hold the X button to power the unit on or off.

⑤ Enter button

Press to enter menu screens and confirm menu changes.

⑥ Power LED

- Green = Unit is powered on
- Red = Low battery, or battery error

⑦ Audio LED

Red, yellow, and green LEDs indicate average and peak audio levels.

The LED will turn red when the limiter is engaged.

⑧ USB-C port

Supplies power or charges Shure rechargeable battery. LED indicates charging status when connected to a power supply.

- Red = Charging
- Green = Full charge
- Yellow = Not charging

⑨ Battery compartment

Requires two AA batteries or Shure rechargeable battery.

⑩AA battery adapter

Use to secure AA batteries. Remove when using a Shure rechargeable battery.

⑪ XLR connector

Connection point for wired microphones, cables, and boom poles, among other things.

⑫ Locking ring

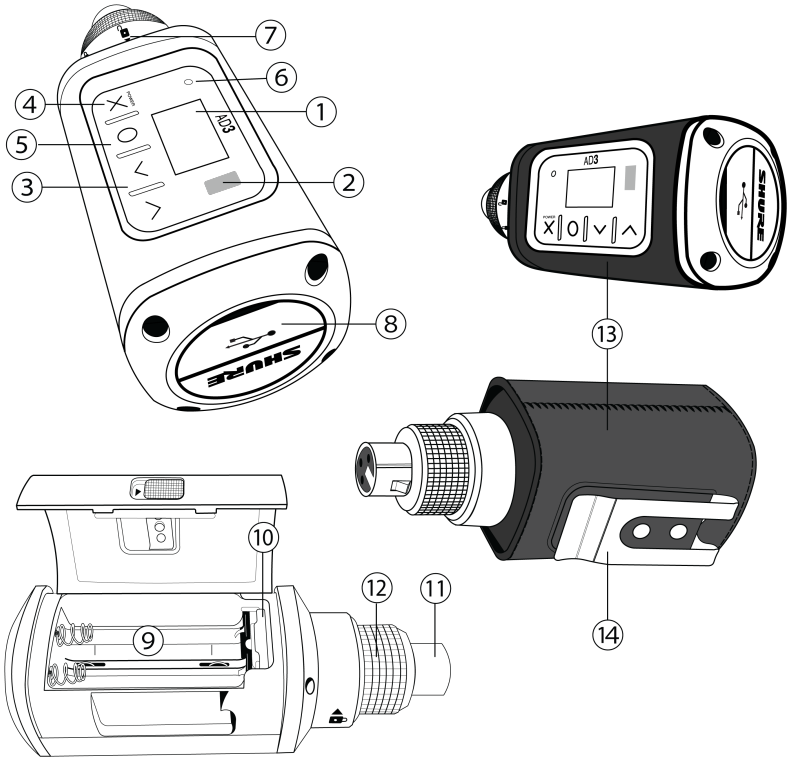
To release the XLR connector, turn the ring counterclockwise and push in.

⑬ Pouch

Provides additional grip and protection for the transmitter.

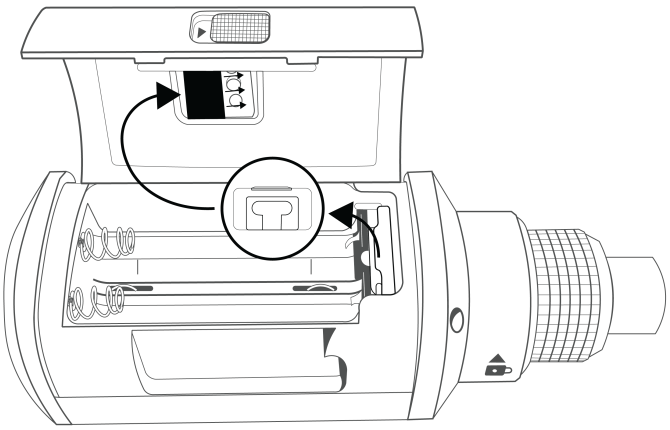
⑭ Belt clip

Holds transmitter and microphone securely for hands-free carrying.



Setup

1. Open the battery door to install the batteries.
   - **AA batteries:** Use the AA adapter as shown below. Important: Set the AA battery type for more accurate readings.
   - **Shure rechargeable battery:** Remove the AA adapter.

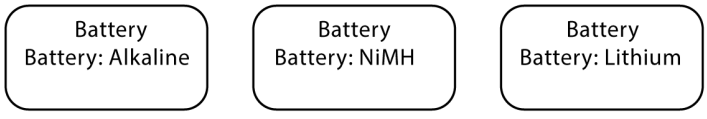


2. Press and hold X to turn on the transmitter.
3. Select the appropriate input pad or boost to avoid overloading the audio input our add boost to low-output sources: `Audio` > `Pad`
   - -12 dB: Use with high output sources, such as line levels and point-to-point applications.
   - Off (default): Use with typical microphones.
   - +12 dB: Use with low output sources.

Setting the AA Battery Type

If using an AA battery, set the battery type for more accurate readings.

1. Navigate to Utilities and select Battery.
2. Use the ▼▲ buttons to select the installed battery type:
   - Alkaline = Alkaline
   - NiMH = Nickel Metal Hydride
   - Lithium = Lithium Primary
3. Press O to save.

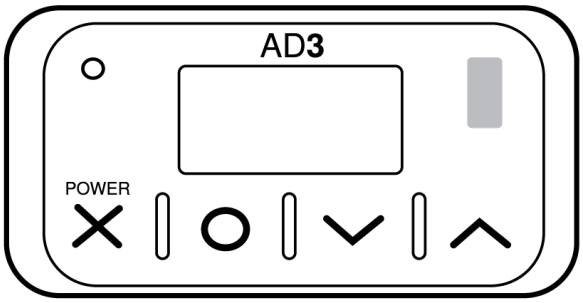


Power Over USB

When not using batteries, power the transmitter through the USB C port on the bottom of the unit.

The USB port can simultaneously power the transmitter and charge Shure rechargeable batteries.

Transmitter Controls

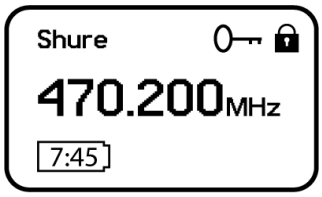


X	Hold to power on and off or exit a menu without saving changes.
O	Enter menu or save changes.
∨∧	Scroll menus and parameter values.

Tip: Hold the ∧ button while powering on to enter safe start mode.

Home Screen Display

Use the arrow buttons to select one of the following choices:

Name **Frequency Setting** **Group (G) and Channel (C)** **Device ID**	
	Battery runtime in hours and minutes or bar display
	Encryption enabled
	Transmitter locked
STD	Standard Transmission Mode
HD	High Density Transmission Mode

Locking the Interface

Lock transmitter interface controls to prevent accidental or unauthorized changes to parameters. The lock icon appears on the home screen when a lock is enabled.

1. Use the `Utilities` > `Locks` menu and choose from the following options:
   - None: The controls are unlocked
   - Power: The power switch is locked
   - Menu: The menu parameters are locked
   - All: The power switch and menu parameters are locked
2. Press O to save.

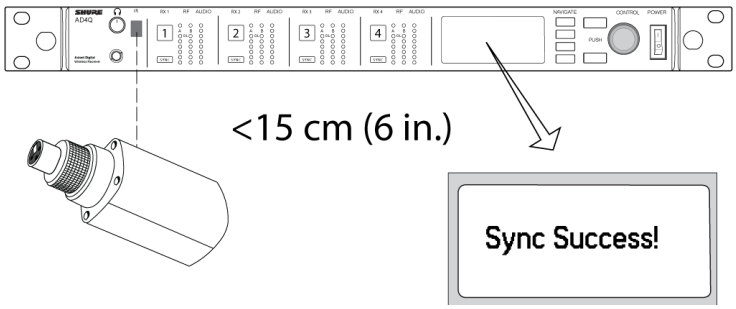
Tip: To quickly unlock the transmitter menu, press O and select None.

IR Sync

Use IR Sync to form an audio channel between the transmitter and receiver.

Note: The receiver band must match the band of the transmitter.

1. Select a receiver channel.
2. Tune the channel to an available frequency using group scan or manually turn to an open frequency.
3. Power on the transmitter.
4. Press the SYNC button on the receiver.
5. Align the IR windows between the transmitter and the receiver so that the IR LED illuminates red. When complete, Sync Success! appears. The transmitter and receiver are now tuned to the same frequency.



Note: Any change to the encryption status on the receiver (enabling/disabling encryption) requires a sync to send the settings to the transmitter. New encryption keys for the transmitter and receiver channel are generated on every IR sync, so to request a new key for a transmitter, perform an IR sync with the desired receiver channel.

Specifications

Mic Offset Range

-12 to 21dB (in 1 dB steps)

Battery Type

Shure SB900 series Rechargeable Li-Ion or LR6 AA batteries 1.5 V

Battery Runtime

@ 10 mW

Shure SB900B	> 8 hours
alkaline	> 7 hours

Dimensions

126 mm x 44.5 mm x 44.5 mm (5.0in. x 1.8in. x 1.8 in.) H x W x D

Weight

Without Battery	240 g (8.0 oz.),
with AA batteries	263 g
with Shure rechargeable battery	280 g

Housing

Cast Metal

Operating Temperature Range

-10°C (-14°F) to 50°C (122°F)

Storage Temperature Range

-40°C (-40°F) to 74°C (165°F)

Audio Input

Connector

3-pin female XLR

Configuration

balanced

Impedance

Pad -12 dB	26.64 kΩ
0 dB	6.64 kΩ
Boost 12 dB	6.64 kΩ

Maximum Input Level

1 kHz at 1% THD

Pad -12 dB	21 dBV
0 dB	9 dBV
Boost 12 dB	-3 dBV

Preamplifier Equivalent Input Noise (EIN)

System Gain Setting ≥ +20

-115 dBV, A-weighted, typical

Phantom Power

+48 V(7 mA maximum), +12 V(15 mA maximum)

High Pass Filter

Two-pole (12 dB per octave), cut off frequency selectable from 40 to 240 in 20 Hz increments

RF Output

Antenna Type

Dipole

Impedance

50 Ω

Occupied Bandwidth

<200 kHz

Channel-to-Channel Spacing

Standard Mode	350 kHz
High Density Mode	125 kHz

Modulation Type

Shure Axient Digital Proprietary

Power

2 mW, 10 mW, 35 mW

Frequency Bands and Transmitter RF Power

Band	Frequency Range (MHz)	RF Power (mW)***
G53	470 to 510	2/10/35
G54	479 to 565	2/10/20
G55†	470 to 636*	2/10/35
G56††	470 to 636	2/10/35
G57	470 to 616*	2/10/35
G62	510 to 530	2/10/35
G63	487 to 636	2/10
H54	520 to 636	2/10/35
K53	606 to 698*	2/10/35
K54 △	606 to 663**	2/10/35
K55	606 to 694	2/10/35

Band	Frequency Range (MHz)	RF Power (mW)***
K56◇	606 to 714	2/10/35
K57△	606 to 790	2/10/35
K58	622 to 698	2/10/35
L54	630 to 698	2/10/35
P55	694 to 703, 748 to 758, 803 to 806	2/10/35
R52	794 to 806	2/10
JB	806 to 810	2/10
X51	925 to 937.5	2/10
X55	941 to 960	2/10/35
X56†††	960 to 1000	2/10/35

*with a gap between 608 to 614 MHz.

**with a gap between 608 to 614 MHz and a gap between 616 to 653 MHz.

***power delivered to the antenna port.

†operation mode varies according to region. In Brazil, High Density mode is used. The maximum power level for Peru is 10mW.

††Limited to 10mW for Vietnam.

†††Only in UK; F-variant only

△Output power limited to 10 mW above 608 MHz.

◇Korea defines power as conducted (ERP) which is 1dB less then declared in table.

低功率電波輻射性電機管理辦法

第十二條

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。 第十四條

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

เครื่องโทรคมนาคมและอุปกรณ์นี้มีความสอดคล้องตามมาตรฐานหรือข้อกำหนดทางเทคนิคของ กสทช.

K55 606-694 MHz

Country Code Code de Pays Codice di paese Código de país Länder-Kürzel	Frequency Range Gamme de frequences Gamme di frequenza Gama de frecuencias Frequenzbereich
A, B, BG, CH, CY, CZ, D, DK, EST, F	*
FIN, GB, GR, H, HR, I, IRL, IS, L, LT	*
M, N, NL, P, PL, RO, S, SK, SLO, TR	*
all other countries	*

* This equipment may be capable of operating on some frequencies not authorized in your region. See Licensing Information.

G56 470-636 MHz

Country Code Code de Pays Codice di paese Código de país Länder-Kürzel	Frequency Range Gamme de frequences Gamme di frequenza Gama de frecuencias Frequenzbereich
A, B, BG, CH, CY, CZ, D, DK, EST, F	*
FIN, GB, GR, H, HR, I, IRL, IS, L, LT	*
M, N, NL, P, PL, RO, S, SK, SLO, TR	*
all other countries	*

* This equipment may be capable of operating on some frequencies not authorized in your region. See Licensing Information.

K57 606-790 MHz

Country Code Code de Pays Codice di paese Código de país Länder-Kürzel	Frequency Range Gamme de frequences Gamme di frequenza Gama de frequencias Frequenzbereich
A, B, BG, CH, CY, CZ, D, DK, EST, F	*
FIN, GB, GR, H, HR, I, IRL, IS, L, LT	*
M, N, NL, P, PL, RO, S, SK, SLO, TR	*
all other countries	*

* This equipment may be capable of operating on some frequencies not authorized in your region. See Licensing Information.

LICENSING INFORMATION

Licensing: A ministerial license to operate this equipment may be required in certain areas. Consult your national authority for possible requirements. Changes or modifications not expressly approved by Shure Incorporated could void your authority to operate the equipment. Licensing of Shure wireless microphone equipment is the user's responsibility, and licensability depends on the user's classification and application, and on the selected frequency. Shure strongly urges the user to contact the appropriate telecommunications authority concerning proper licensing, and before choosing and ordering frequencies.

Australia Warning for Wireless

This device operates under an ACMA class licence and must comply with all the conditions of that licence including operating frequencies. Before 31 December 2014, this device will comply if it is operated in the 520-820 MHz frequency band.
WARNING: After 31 December 2014, in order to comply, this device must not be operated in the 694-820 MHz band.

No user-operated control of power, frequency, or other parameters are available beyond those specified in this operating manual.

Please follow your regional recycling scheme for batteries, packaging, and electronic waste.

Certifications

Certified under FCC Part 15 and FCC Part 74.

Certified by ISED in Canada under RSS-210.

FCC ID: DD4AD3G57, DD4AD3K54, DD4AD3X55. **IC:** 616A-AD3G57, 616A-AD3K54.

Meets essential requirements of the following European Directives:

- WEEE Directive 2012/19/EU, as amended by 2008/34/EC
- RoHS Directive EU 2015/863

Note: *Please follow your regional recycling scheme for batteries and electronic waste*

This product meets the Essential Requirements of all relevant European directives and is eligible for CE marking.

Hereby, Shure Incorporated declares that the radio equipment is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: http://www.shure.com/europe/compliance

Authorized European representative:
Shure Europe GmbH
Headquarters Europe, Middle East & Africa
Department: EMEA Approval
Jakob-Dieffenbacher-Str. 12
75031 Eppingen, Germany
Phone: +49-7262-92 49 0
Fax: +49-7262-92 49 11 4
Email: EMEAsupport@shure.de

Information to the user

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and the receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Canada Warning for Wireless

This device operates on a no-protection, no-interference basis. Should the user seek to obtain protection from other radio services operating in the same TV bands, a radio licence is required. For further details, consult Innovation, Science and Economic Development Canada's document Client Procedures Circular CPC-2-1-28, Voluntary Licensing of Licence-Exempt Low-Power Radio Apparatus in the TV Bands.

Ce dispositif fonctionne selon un régime de non_brouillage et de non_protection. Si l'utilisateur devait chercher à obtenir une certaine protection contre d'autres services radio fonctionnant dans les mêmes bandes de télévision, une licence radio serait requise. Pour en savoir plus, veuillez consulter la Circulaire des procédures concernant les clients CPC_2_1_28, Délivrance de licences sur une base volontaire pour les appareils radio de faible puissance exempts de licence et exploités dans les bandes de télévision d'Innovation, Sciences et Développement économique Canada.

This device operates on frequencies shared with other devices. Consult the Federal Communications Commission White Space Database Administration website to determine available channels in your area prior to operation.

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

1. This device may not cause interference.
2. This device must accept any interference, including interference that may cause undesired operation of the device.

L’émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d’Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L’exploitation est autorisée aux deux conditions suivantes :

1. L’appareil ne doit pas produire de brouillage;
2. L’appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d’en compromettre le fonctionnement.