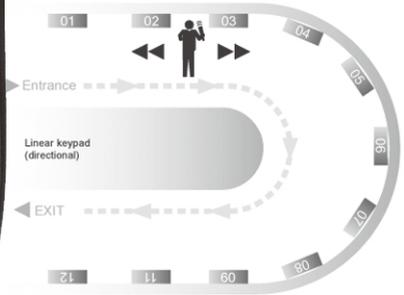
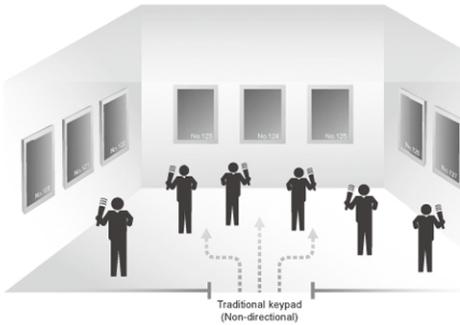




# AT-300

## Audio Guide



[ User Manual ]

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, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Notice: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**IMPORTANT NOTE:** To comply with the FCC RF exposure compliance requirements, no change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

#### FCC INFORMATION

The Federal Communication Commission Radio Frequency Interference Statement includes the following paragraph:

The 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 instruction, may cause harmful interference to radio communication. However, there is no grantee 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 receiver.
- Connect the equipment into 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

# Preface

Thank you for the purchase of Audio Guide AT-300. This user manual contains comprehensive instructions and operation of the unit, please read it over before your use for the first time.

## Features

- High fidelity DSP technology, offering up to 80 hours stereo audio playback with built-in 8GB memory card.
- Access audio content through built-in speaker or external earphone jacks. 2 earphone jacks available for couple or kids and parents.
- Backlit display and keypad for ease of use.
- Raised dot 5 for visual impaired people.
- Chargeable. Audio Guide can be recharged with chargers. Each charge can run operation up to 12 hours.
- Fast audio content update through Audio Master and Audio Guide Uploader.

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## AT-300 Model line



(Standard)

- AT-300
- AT-300iD
- AT-300TG
- AT-300MT



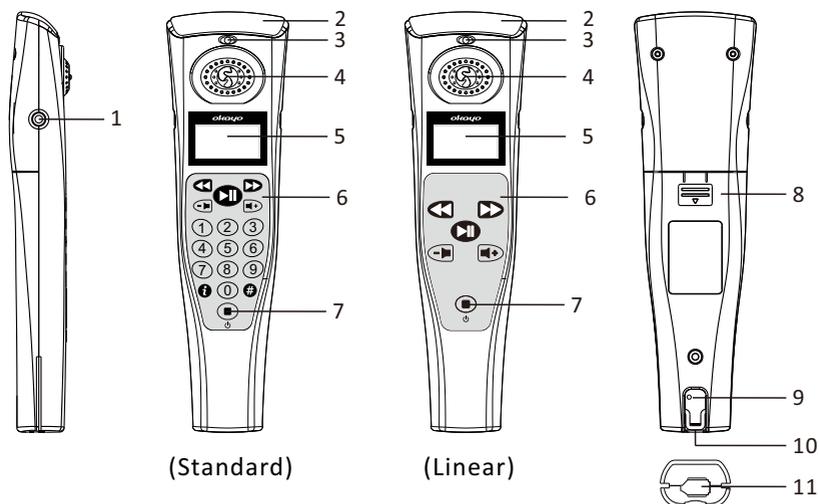
(Linear)

- AT-300L

### AT-300 Model line

function model	IR Infrared trigger	LOOP Anti-theft	RFID tag	RF Radio Frequency	TGS Tour Guide Mode	AV Sync
AT-300	V	V				V
AT-300L	V	V				V
AT-300iD	V	V	V			V
AT-300TG	V	V		V	V	V
AT-300MT	V	V		V	V	V

## AT-300 Audio Guide



- |                       |                      |                                  |
|-----------------------|----------------------|----------------------------------|
| 1. Earphone jack      | 5. OLED screen       | 9. Rest button                   |
| 2. Triggering module  | 6. Keypad            | 10. Strap hanger                 |
| 3. Charging indicator | 7. Power/Stop button | 11. Uploading/Charging connector |
| 4. Inbuilt speaker    | 8. Battery door      |                                  |

### Illustration

#### 1. Earphone jack, stereo, 3.5 mm

1 or 2 headphones are valid for more than 1 user.

#### 2. Triggering module

In addition to inbuilt IR triggering mode, various triggering options (RFID/RF/GPS) are offered respectively upon demands.

RF/TGS or RFID modules are optional:

- With RFID module, the model name is AT-300iD. AT-300iD works correspondently with iD-200RFID tags.
- With RF/TGS module, the model name is AT-300TG. AT-300TG works correspondently with RT-200RF trigger.

#### 3. Charging indicator

When charging, red light indicates the device is charging. Green light indicates fully charged, and red light flashing or no light on indicates battery anomaly.

#### 4. Inbuilt speaker

Users can listen to audio commentaries through the inbuilt speaker. However, this function will be disabled when the player connects with headphones.

#### 5. OLED display

Provide device information and playing track.

## 6. Keypad

- 1** **2** **3** Numeric buttons    Play & Pause    Volume up  
**4** **5** **6** for audio tracks    Fast forward, next track    Volume down  
**7** **8** **9**  
**0**    Fast backward, previous track

NOTE: 2 auxiliary buttons,  and  , are designed for further information and will be updated by organizers.

## 7. Power/Stop button

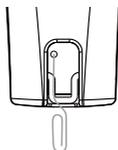
- To power on: press power button for about 1 second.
- Shut down: To shut down the device, press the button for 10 seconds, and once you hear beeping sound twice and OLED display off, the device shuts off.
- Stop: During playing the audio, press the button to stop playing.  
Clear: To erase the incorrect numbers input, press the button to clear the numbers.

## 8. Battery door

If the inbuilt battery is failed, open the battery door for replacement.

## 9. Rest button

Press to reset to default.



## 10. Strap hanger

For strap.

## 11. Uploading/Charging connector

This port will be connected with uploaders/chargers for either uploading or recharging.

- Update mode:  
When connect the device to PC, the default mode is update mode.
- Charging mode:  
When connected to a PC, press  to switch to charging mode. When displays  , the device is in charging mode.  
When device inserted to the charger,  indicates the device is properly charging.

## Operation

### Power ON/OFF

Press and hold power button  for 1 second until a beep to power on. Press and hold the button for 10 seconds until an OFF sign shown in display and beeps twice to power off. (\* Alarm is still working even audio guide is off.)

### Auto Power OFF

When audio guide is not operated for 30 minutes (factory default), it will switch off automatically. (\* Alarm is still working.)

\* The default is set to 30min.

## Language selection

Language folders are coded under number 951 ~ 982, and the default setting is folder 951. The language setting reset to default 951 when inserted to the charger.

To select language folders, there are 3 methods:

- When the audio guide is removed from the charger and auto turned on, you may select language by pressing  or , and press  to confirm.
- Press 993#, and press  to enter language selection menu.
- Press language folder number plus #, then press  to switch to the designated language.

## Manual Play and Auto Play

There are two ways to activate a picked audio content – manually or automatically.

- In manual mode, the audio content shall be activated with a 4-digit number code and play . (Number code is available from 0001 to 9999, 951 ~ 1024 cannot be used.)
- Auto triggering: The device auto triggers to play the track when you enter the trigger range. The played track number displays on the screen and its code.

## Delete Number Code

When a wrong number code is entered, simply press STOP key  to delete it and then enter correct number code again.

### Battery and Charge

Once the battery is running low, battery signal flashes on the screen and shuts off in 20 seconds.

### Alarm

When alarm is triggered, audio guide will make loud beeping sound. The audio guide will be locked and can't be operated as the result. Please press and hold # key and then press M key to reset to default status. When audio guide is released from alarm status, it can be operated as usual.

\* Useful tips: use alarm trigger LT-200 to reset to default status or restore audio guide by putting in charger.

### Triggering options

- Infrared trigger(Built-in function)  
Works with IT-200, please refer to page 10 ~ 11 for more detail.
- RFID trigger (For AT-300iD)  
Works with RFID tag, please refer to page 14 for more detail.
- RF trigger(For AT-300TG)  
Works with RT-200RF, please refer to page 12 ~ 13 for more detail.

## AT-300 Audio Guide

### AV synchronization

Works with all model, please refer to page 7 ~ 8 for more detail.

### Tour guide system mode

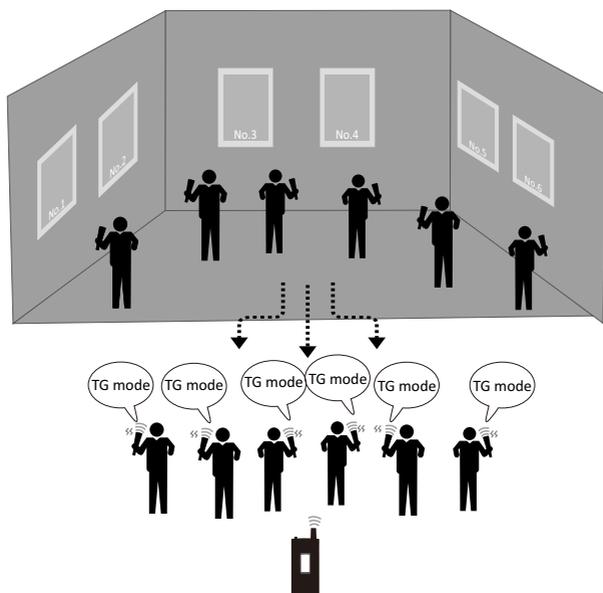
How to switch to tour guide system mode?

1. Press number 0 for 3 seconds.
2. Or, press 1000# then .
3. Or, trigger by AT-300MT.

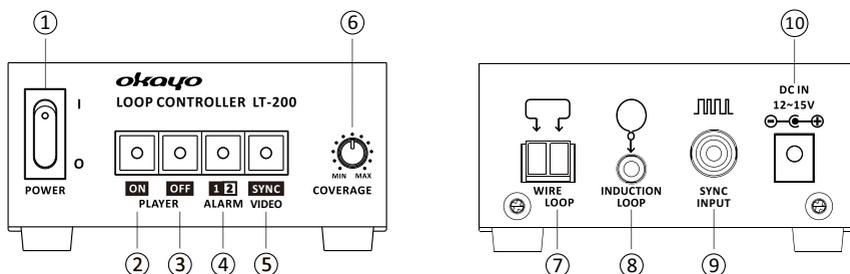


### Tour guide system mode operation

1. Manually adjust with  or  from channel 0 to channel 99.
2. To confirm channel, press , or the channel locks in 3 seconds.
3. The channel number remains same channel after shuts off or standby mode.
4. Press keypad 1 for 3 seconds to switch to AG mode.
5. It can also be triggered by AT-300MT signal to switch to AG mode.



2.4G Digital Tour Guide System



- ① Power switch
- ② Player ON button
- ③ Player OFF button
- ④ Alarm 1/2 button
- ⑤ AV sync
- ⑥ Coverage range
- ⑦ Loop antenna connection
- ⑧ Induction loop connection
- ⑨ AV sync input
- ⑩ DC-in

## ■ Operation

### Installation

- Connect power supply with the device.
- Build a triggering zone with supplied loop wire (please refer to installation example).
- Switch power on and set a desired triggering function.

### Triggering Function

PLAYER **ON** : Press and hold **ON** for 2 seconds until LED lights in RED to activate. This function will force every audioguide within triggering range to power ON.

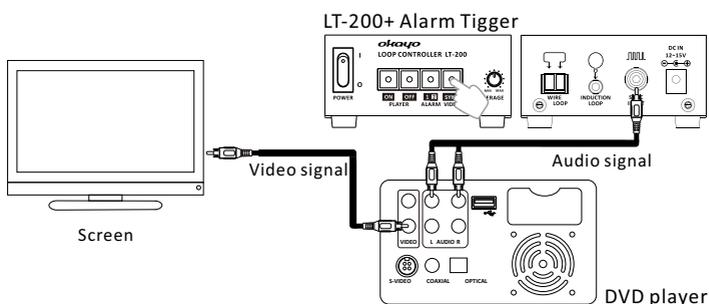
PLAYER **OFF** : Press and hold **OFF** for 2 seconds until LED lights in RED to activate. This function will force every audioguide within triggering range to power OFF.

ALARM **1 2** : Press and hold **1 2** for 2 seconds until LED lights in RED to activate. This function will force every audioguide within triggering range to beep.

VIDEO **SYNC** : Press 2 seconds to activate the function.

## AV sync installation

1. Confirm the video is edited as follow.
  - 1-1 Isolates the sound wave and save as MP3 format.
  - 1-2 Upload the MP3 files to audio guide according to the language tracks.
  - 1-3 Run SWG program, and create code signal. Please refer to SWG user's manual.
  - 1-4 Use video editing program such as Windows Movie Maker, and take the code signal and the original video and combine them into MP4 format file, and rename is same as the language track.
2. Set up LT-200+ as follow



Illustration

## Loop layout

Please use the cable that LT-200+ included to make best performance on loop layout. Use up the cables to achieve the best result. (PVC cable 20AWG (20/0.18)).

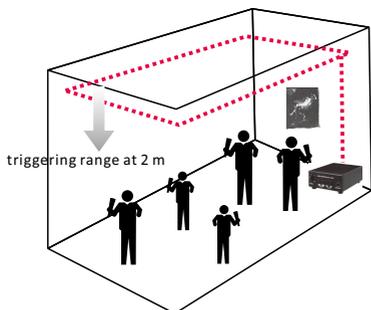
### Loop layout installation

- For massive range, please use loop cable to connect to (7), and you may adjust the range with (6).
- For limited range, please use loop to connect to (8), and you may adjust the range with (6).

■ Example for antenna layout

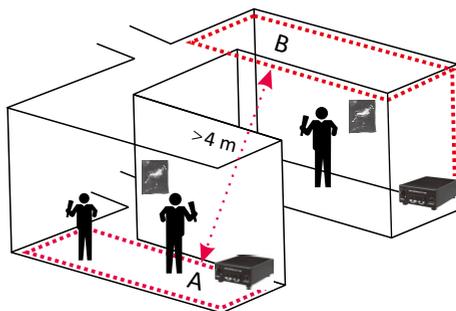
※ In case two loop controllers are operated in same area, make sure each set of antenna shall be kept away at least 4 meters or more.

I. Single set antenna layout

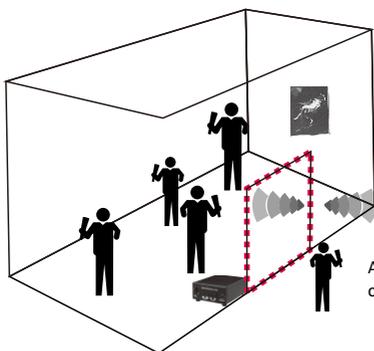


II. Multiple sets antenna layout

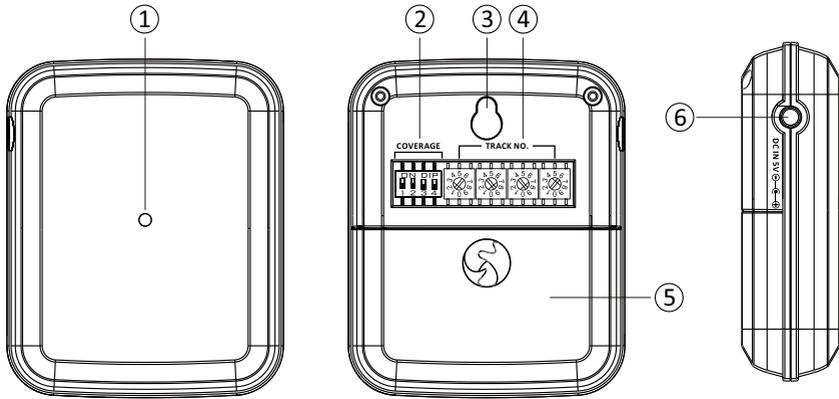
Antenna A and B shall keep away from each other for at least 4 meters.



■ Example for allocation of antenna and alarm trigger



Audioguide will beep when it comes close to alarm trigger within 2 meter.



- ① Power indicator
- ② Coverage range
- ③ Hanging hole
- ④ Track number setup
- ⑤ Battery door
- ⑥ DC input socket

## ■ Operation

### Power On

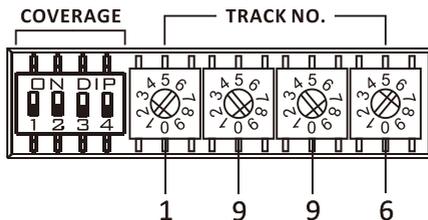
Any DIP switch (2) moves to ON position will turn this device on. Power indicator (1) will light up for 2 seconds and then off. Indicator will blink every 2 seconds when device is working.

### Power OFF

When all DIP switches (2) move to OFF (downward) position, the device will be turned off.

### Track Number Setting

Tracking number is set by (4) rotary switches, from left hand side to right hand side. Every single IR trigger can activate one tracking number only. An example (1996) is shown as below.



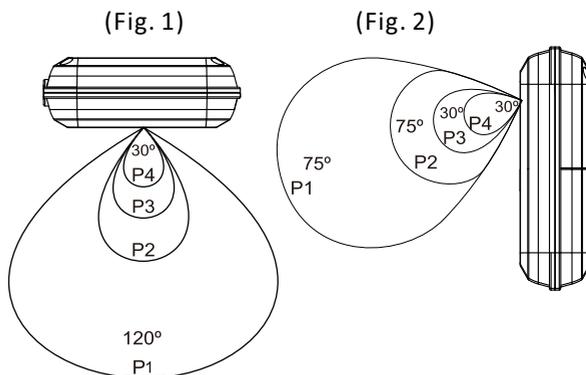
## COVERAGE setting

Set a desired IR triggering range with DIP switch.

A table below gives all possible settings and respective functions.

DIP	Status	Power
	OFF	OFF
	ON	P1
	ON	P2
	ON	P3
	ON	P4

## IR signal coverage on application



P1 (Max coverage) > P2 > P3 > P4 (Min coverage)

## Power Supply

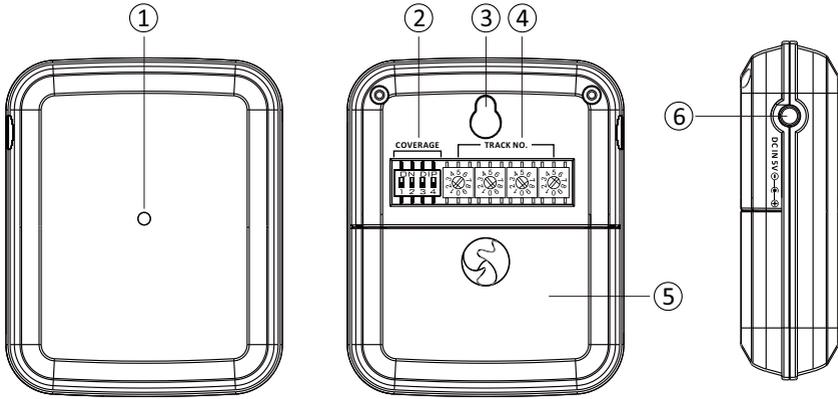
Insert 2 AA batteries or connect with factory supplied power adapter (5V / 1A).

※ Adapter can't charge battery. When battery and adapter are employed at the same time, this IR trigger will consume energy from adapter only.

## Power Indicator

- Indicator blinks in Green = sufficient battery energy or adapter employed.
- Indicator blinks in Red = low battery

※ RT-200 works only with AT-200RF and AT-300TG.



- ① Power indicator
- ② Coverage range
- ③ Hanging hole
- ④ Track number setup
- ⑤ Battery door
- ⑥ DC input socket

## ■ Operation

### Power On

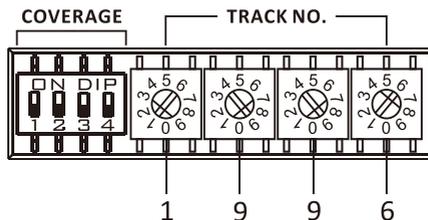
Any DIP switch ② moves to ON position will turn this device on. Power indicator ① will light up for 2 seconds and then off. Indicator will blink every 2 seconds when device is working.

### Power OFF

When all DIP switches ② move to OFF (downward) position, the device will be turned off.

### Track Number Setting

Tracking number is set by ④ rotary switches, from left hand side to right hand side. Every single RF trigger can activate one tracking number only. An example (1996) is shown as below.



## COVERAGE setting

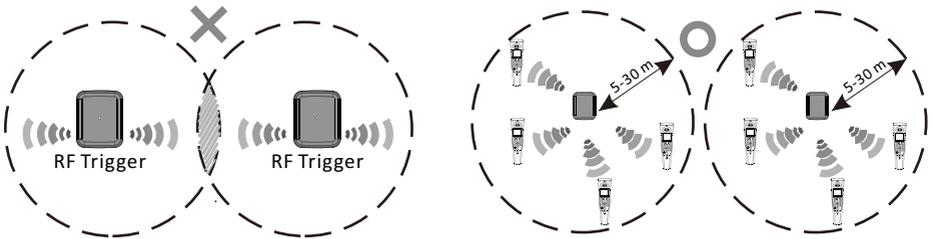
Set a desired RF triggering range with DIP switch. A table below gives all possible settings and respective functions.

DIP	Status	Power
	OFF	OFF
	ON	P1
	ON	P2
	ON	P3
	ON	P4

P1 (Max coverage) > P2 > P3 > P4 (Min coverage)

## Example for RF trigger allocation

- ※ In case two RF triggers are operated in same area, make sure they are kept away in good range from each other.
- ※ Triggering range depends on power setting and ambient environment.



## Power Supply

Insert 2 AA batteries or connect with factory supplied power adapter (5V / 1A).

- ※ Adapter can't charge battery. When battery and adapter are employed at the same time, this RF trigger will consume energy from adapter only.

## Power Indicator

- Indicator blinks in Green = sufficient battery energy or adapter employed.
- Indicator blinks in Red = low battery

※ RFID tag works only with AT-300iD.



RFID Tag

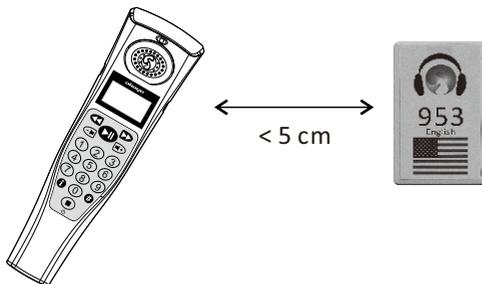
#### ■ How to operate

##### RFID (Proximity) Tag

Each tag can be programmed with one number code, from 0000 ~ 9999, through RFID tag writer (optional). Following tips of number code are helpful to plan your audio tour.

#### Auto Triggering

Get audio guide close to RFID tag to obtain an audio number code automatically. The audio guide will play accessed audio track automatically. Triggering range in 5 cm is ideal.



#### iD-200P tag writer

Place RFID tag on the writer and connect to USB with PC to operate. For more detail please refer to iD-200P manual.



## Caution / Troubleshooting

### Caution

1. Prevent external impact force or dropping.
2. Prevent using in high temperature environment.
3. Prevent using in moisture environment.
4. Only use the battery supplied by supplier.
5. Do not use any chemical detergent for cleaning, and only clean by soft dry clothing.
6. For first time use, please charge more than 8 hours. Also, charge the device at least once per month.

### Troubleshooting

To remain with warranty coverage, please do not disassemble the device unless instructed to.

Here are the self-diagnose you could try when facing problems.

If the steps do not help you to resolve the problem, please contact your supplier.

1. No display
  - Check if battery is properly installed and powered.
  - Turn on the device as instructed to.
2. No sound
  - Adjust the volume.
  - If you are using an earphone, please make sure it is properly connected.
  - Check the installed content is properly installed.
3. Use the reset button to reboot the device.

# Specification

## AT-300 Audio Guide System

### Audio parameters

Audio format	High quality audio compression
Bandwidth	50 Hz - 18 kHz
Dynamic range	95 dB
Distortion	< 0.1%
Speaker	Built-in 0.5W @ 8 Ω
Earphone output	3.5 mm Jack x 2 (stereo)

### General parameters

OLED display	1.3 inch (Blue Color 128 x 64)
Memory capacity	8 GB
Automatic triggering	IR, RFID and RF / TGS
Alarm	Anti-theft system
Number of languages	Max. 32
Number of messages	Max. 990 x 32
Operating temperature	-10 °C ~ +50 °C
Battery	3.7 V, 1200 mAh Li-Polymer battery
battery life	14 hours
Power consumption	85 mA
Dimensions (DxWxH)	29.6 x 55.3 x 200 (mm)
Weight	165g (with battery)

## LT-200+ Alarm Trigger

Modulation	ASK 100%
Required power	12-15 V / 3.3 A
Triggering coverage	about 2 m (line-of-sight)
PLAYER ON	enable audioguide to power ON
PLAYER OFF	enable audioguide to power OFF
ALARM 1 / 2	different beeping sound
VIDEO <b>SYNC</b>	AV synchronization function
Ambient temp.	-10 °C ~ +50 °C
Dimensions (DxWxH)	117 x 88 x 44 (mm)
Weight	385g

# Specification

## RT-200 RF Trigger

Frequency	2402- 2480 MHz
Modulation	FSK
Required power	5 Vdc / 1 A
Battery	2 AA
Battery autonomy	> 90 days (at any triggering coverage)
Coverage	P1 → 30 M
	P2 → 20 M
	P3 → 10 M
	P4 → 5 M
Tracking number	0001-9999
Power consumption	< 4 mA (Max)
Ambient temp.	-10 °C ~ +50 °C
Dimensions (DxWxH)	23 x 65 x 80 (mm)
Weight	43 g (without battery)

## IT-200 IR Trigger

Wave length	940 nm
Required power	5 Vdc / 1 A
Battery	2 AA
Battery autonomy	> 90 days (at any triggering coverage)
Coverage	P1 → 10 M
	P2 → 4.5 M
	P3 → 3 M
	P4 → 1.5 M
Tracking number	0001-9999
Power consumption	< 10 mA (Max)
Ambient temp.	-10 °C ~ +50 °C
Dimensions (DxWxH)	23 x 65 x 80 (mm)
Weight	46 g (without battery)







**okayo**<sup>®</sup>  
The sound option

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