

# **aceline**

## User Manual

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TV Antenna  
2009

# Contents

- Intended Use.....3**
- Safety Precautions .....3**
- Specification .....4**
- Package Contents.....4**
- Assembly .....5**
- Installation Methods ..... 7
- Coaxial Cable Connection ..... 7
- Impact of TV Tower Location on Antenna Performance..... 8
- Digital Channel Support ..... 8
- Checking Antenna Direction on TV ..... 9
- Troubleshooting Guide.....10**
- Rules and Conditions for Installation, Storage, Transportation, Sale  
(Distribution), and Disposal..... 10**
- Warranty Information ..... 11**
- Additional Information..... 11**

## Dear Customer,

Thank you for choosing our products.

We are pleased to offer you appliances and devices designed and manufactured to the highest standards of quality, functionality, and design. Before using the device, please read this manual carefully. It contains important information regarding your safety, as well as recommendations for the proper use and care of the product. Please keep this manual in a safe place and use it as a reference guide during future operation of the product.

## Intended Use

A TV antenna is a device designed to receive analog and digital TV signals.

## Safety Precautions

- The device must be operated at temperatures from -40 °C to +60 °C and relative humidity not exceeding 60%.
- Protect the device from open flames, such as lit candles.
- During a thunderstorm, do not touch the device or its cable.
- This device is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the device.
- This device is not intended for commercial use.
- Connect all connectors according to the diagram provided in this manual.
- Always observe the polarity (+/-).

### CAUTION:

- The manufacturer cannot guarantee quality reception of TV programs in areas with insufficient TV signal coverage, or if the antenna is incorrectly installed and/or adjusted. Lack of reception in such cases does not constitute grounds for declaring the antenna faulty.
- Reception of digital television signals is only possible when DVB-T2 broadcasts are available. Before using the antenna, make sure that digital terrestrial broadcasting is available in your region (area, district). Before connecting to a TV or tuner, make sure these devices are disconnected from the power source.
- Unsatisfactory quality of DVB-T2 digital signal reception due to insufficient signal level, operation in an interference zone, at the edge of, or outside the reliable coverage area (including due to terrain, landscape, and buildings) is not a defect of the device.

## Specification

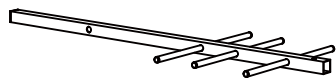
- Model: 2009.
- Trademark: Aceline.
- Gain: UHF 30 dBi.
- UHF range: 470–862 MHz.
- Impedance: 75  $\Omega$ .
- Placement: outdoor.
- Power supply: antenna connector 5 V.
- Scope of application: Domestic.

## Package Contents

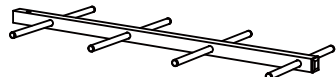
- Antenna.
- Cable.
- User manual.

# Assembly

Remove the antenna and mounting kit from the packaging. Make sure the following parts are included:



Antenna housing × 1



Antenna housing × 1



Mounting bracket × 2



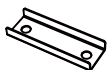
Flat head screw × 2



Reflector × 2



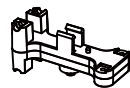
Dipole × 1



Mounting bracket × 2



Square head screw × 1



Dipole base × 1



Support bracket × 1

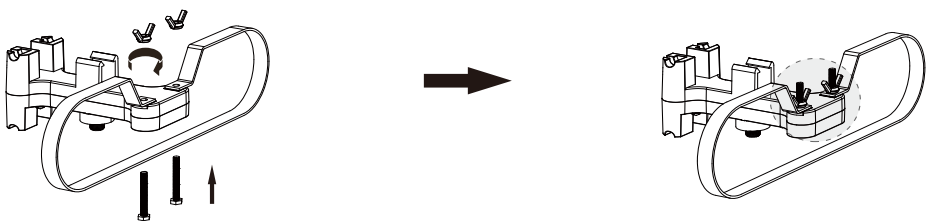


Wing nut × 7

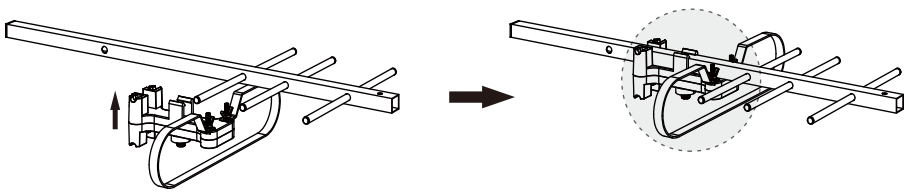


Power supply × 1

## Step 1: Installing the Dipole

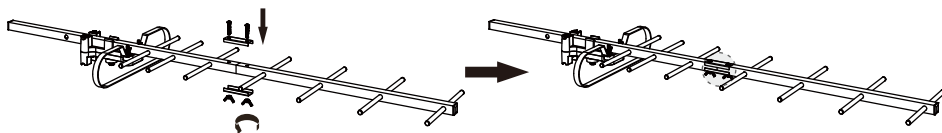


## Step 2: Installing the Dipole Base

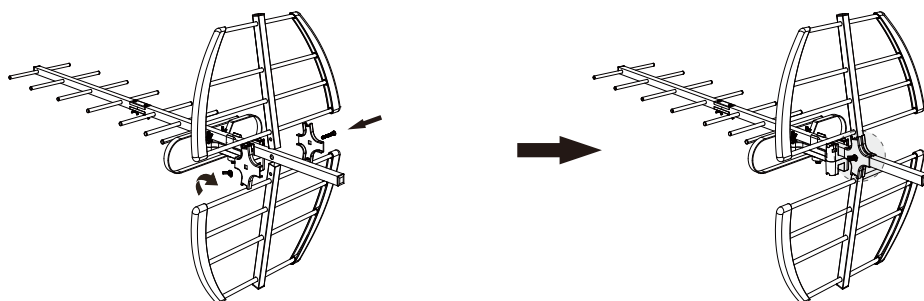


### Step 3: Assembling the Housing

Connect the two housing parts as shown in the figure below:

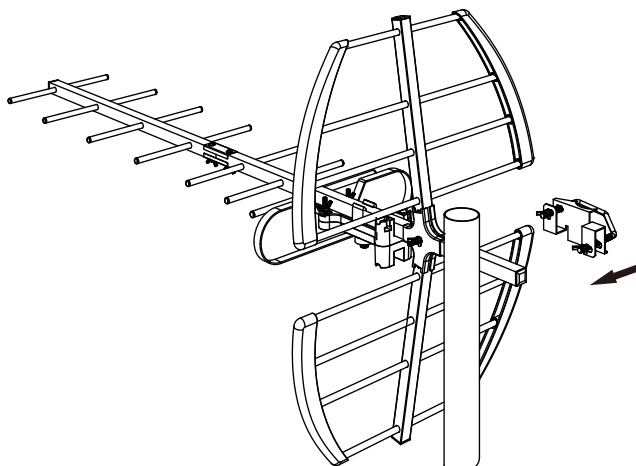


### Step 4: Installing the Reflector

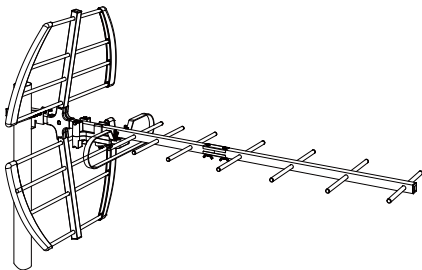


### Step 5: Installing the Toothed Mounting Bracket

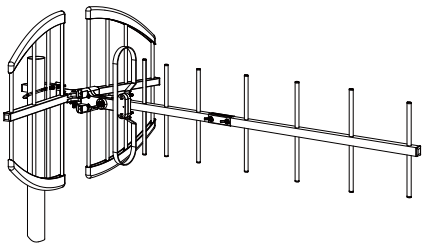
Place the toothed mounting bracket onto the antenna, attach the antenna to the mast, and tighten the wing nut.



# Installation Methods

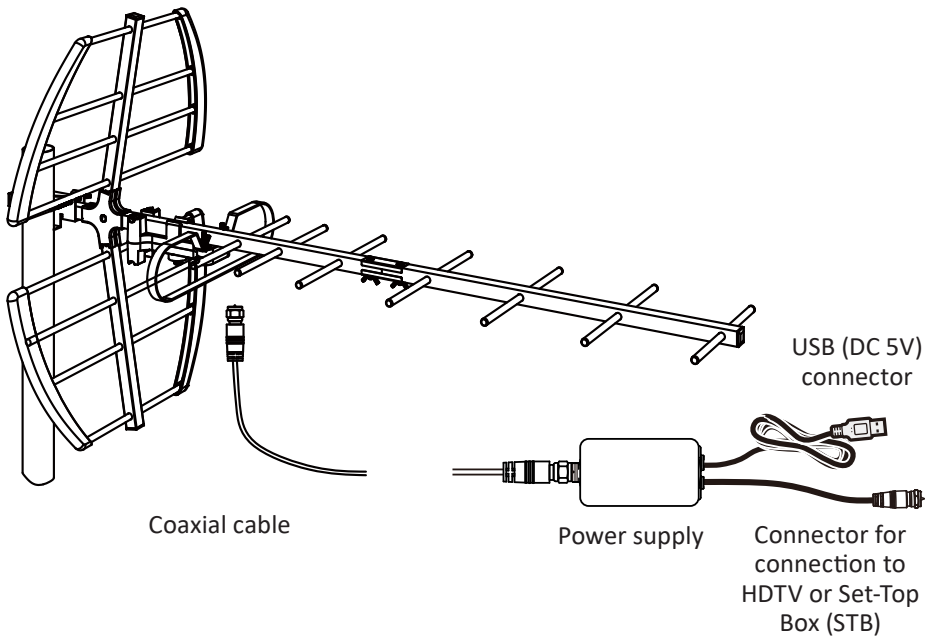


Horizontal



Vertical

## Coaxial Cable Connection



# Impact of TV Tower Location on Antenna Performance

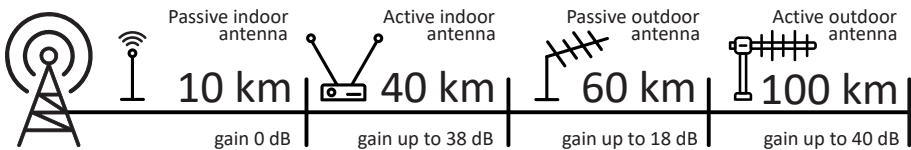
The distance from your home to the TV tower is one of the most important factors affecting signal reception quality. Different distances require different types of antennas:

- Short distance (up to 20 km): If the tower is nearby, even a passive indoor antenna will work well. The signal will be strong and stable.
- Medium distance (20–50 km): At this distance, an active indoor antenna or a passive outdoor antenna with a signal amplifier may be required.
- Long distance (over 50 km): When located far from the tower, it is recommended to use an active outdoor directional antenna with an amplifier. It is important to orient the antenna correctly toward the TV tower for optimal reception.

In addition to distance, other factors affect signal quality:

- Terrain: Mountains, hills, and tall buildings can obstruct the signal.
- Weather conditions: Rain, snow, and fog can weaken the signal.
- Electromagnetic interference: Household appliances, reinforced concrete, Wi-Fi routers, and power lines can create interference that degrades reception quality.

## Antenna Range Diagram



## How to Identify a TV Tower

- Height and shape: TV towers are usually very tall structures. The higher the tower, the greater the coverage radius. They can reach several hundred meters in height and often have a lattice metal structure.
- Antennas: Numerous antennas of various shapes and sizes are mounted on the towers.
- Location: TV towers are typically built on elevated terrain or high buildings to ensure maximum signal coverage. In cities and large settlements, they are often found in designated areas.
- Fencing and restrictions: TV towers are often surrounded by fences and warning signs prohibiting unauthorized access. This is due to safety requirements.
- Flashing lights: To prevent collisions with aircraft, TV towers are usually equipped with flashing lights visible at night.
- Color: Towers are typically painted in red and white.
- Support equipment: Near the towers, you may notice technical buildings and generators that keep the equipment operational.

## Digital Channel Support

To determine whether your TV supports digital television (DVB-T, DVB-T2, or similar standards), follow these steps:

- Check your TV specifications in the user manual or on the manufacturer's website. Your TV should support DVB-T, DVB-T2, ATSC, or other digital standards.

- Turn on the TV and go to the settings menu. In the “Channels” or “Tuner” section, try performing an “Auto-scan.” If the menu offers a digital TV option (sometimes labeled as “DTV”), your TV supports digital channels.
  - Look for markings and stickers on your TV. Some TVs have stickers indicating digital TV support. Look for labels such as “DVB-T2,” “ATSC,” etc.
  - Contact a sales representative or a home appliance specialist. They can tell you for sure whether your TV supports digital television.
  - Connect an external antenna and try scanning for channels using the auto-scan function. If your TV finds and displays digital channels properly, it supports digital television.
- Note:** If the TV does not support digital TV, you will need to connect a TV tuner to the TV and then connect the antenna to the tuner to boost the signal. The antenna cable plugs into the tuner, which converts the received signal into a format suitable for the TV. The decoded signal is then transmitted to the connected TV, allowing you to watch digital TV.

## Checking Antenna Direction on TV\*

- The antenna will receive the signal better if it is pointed toward the TV tower/re-lay station. To do this, monitor the signal strength and quality from the antenna: on the TV tuner remote, press the “INFO” button. Press the button several times.
- Two bars should appear on the TV screen: “Signal Level” and “Signal Quality.”
- To achieve maximum values for these parameters, rotate the antenna every 5 seconds and check whether the numbers on the screen change.

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\* Does not work on Smart TVs.

# Troubleshooting Guide

| Issue                         | Solution                                                                                                                              |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| No signal                     | Make sure digital TV broadcasting in the DVB-T2 standard is available in your region and that you are within the signal coverage area |
| Image freezes                 | Weak signal. Try moving or reorienting the antenna to improve signal strength and quality                                             |
| No image                      |                                                                                                                                       |
| Audio drops out or is missing |                                                                                                                                       |

## Rules and Conditions for Installation, Storage, Transportation, Sale (Distribution), and Disposal

- The installation and mounting conditions for the device are described in the “Assembly” section of this user manual.
- The device must be stored in its original packaging, on heated premises, both at the manufacturer’s and at the consumer’s sites. The ambient temperature should be between +5 °C and +40 °C, and the relative humidity should not exceed 80% (non-condensing). The storage area must be free from aggressive contaminants (e.g., acid or alkali vapors) that could cause corrosion.
- The device must be transported in a dry place.
- The device requires careful handling. Protect it from exposure to dust, dirt, impact, moisture, fire, and other hazards.
- Sale or distribution of the device must be carried out in accordance with local legislation.
- Disposal of this device must be carried out in accordance with local waste recycling regulations. By ensuring proper disposal of this product, you help prevent potential harm to the environment and human health resulting from uncontrolled waste disposal and promote the sustainable reuse of material resources. For more detailed information on collection and disposal points for this product, please contact your local municipal authorities or household waste collection service.
- If a device malfunction is detected, immediately contact an authorized service center or dispose of the device.

## Warranty Information

The manufacturer guarantees the device will function properly throughout the warranty period and be free from defects in materials and assembly. The warranty period commences on the date of purchase and applies to new products only. Warranty service includes free repair or replacement of defective parts that fail during the warranty period, provided the failure is not caused by consumer misuse and the product is operated in accordance with the user manual. Repairs or part replacements shall be performed at authorized service centers.

**Warranty Period:** 12 months

**Service Life:** 24 months

For the up-to-date list of authorized service centers, please visit:

<https://www.dns-shop.ru/service-center/>

## Additional Information

**Manufacturer:** Shenzhen Tuko Technology Co., Ltd

2 floor, Plant 2, YouCheng industrial area, Anlan Avenue No. 9-201, Zhangkengjing Community, Guanhu Street, Longhua District, Shenzhen, Guangdong, China

Made in China.

Product specifications, information and appearance are subject to change without prior notice, for quality improvement of our products.

**aceline**