

Huayong 2P100A

Huayong Double Power Automatic Transfer Switch 2P100A Instruction Manual

1. INTRODUCTION

This manual provides essential information for the safe and effective installation, operation, and maintenance of your Huayong Double Power Automatic Transfer Switch (ATS) 2P100A. Please read this manual thoroughly before installation and operation to ensure proper function and to prevent potential hazards. Keep this manual for future reference.

2. PRODUCT OVERVIEW

The Huayong Double Power Automatic Transfer Switch is designed to automatically switch between a primary (city) power supply and a backup power supply when the primary source becomes unavailable or unstable. This ensures continuous power to critical loads, enhancing reliability and safety.

Key Features:

- **Superior Quality:** The switch housing is constructed from flame-retardant material, offering flame resistance, ruggedness, and corrosion resistance. It features all-copper silver point contacts for excellent conductivity and high connection efficiency.
- **Automatic Transfer:** When the city power supply is abnormal, the backup power supply activates immediately. Upon restoration of city power, the switch automatically reverts to the primary source.
- **Fast Switching:** Designed for rapid power transfer with a switching time of less than 50ms.
- **Application:** Specifically designed for home track TV installation and suitable for Pz30 distribution boxes.
- **Wide Range of Applicable:** Suitable for use in residential neighborhoods, commercial buildings, shopping malls, hospitals, and schools.



Figure 2.1: Front view of the Huayong 2P100A Automatic Transfer Switch, showing the selector switch and power indicators.

3. SAFETY INFORMATION

WARNING: Installation and maintenance of this device involve high voltage electricity. Improper installation or handling can result in serious injury, death, or property damage. Always adhere to local electrical codes and safety regulations.

- Installation must be performed by a qualified electrician or authorized service personnel.
- Ensure all power sources are disconnected and locked out before performing any installation, wiring, or maintenance.
- Verify correct wiring connections to prevent short circuits or improper operation.
- Do not operate the switch if it appears damaged or if any components are missing.
- The coil can work normally at 85%-110% of the rated working voltage. Too low input voltage may cause the coil to overheat and burn out.
- Keep children and unauthorized personnel away from the installation area.

4. SPECIFICATIONS

Table 4.1: Huayong 2P100A ATS Dimensions and Weight

Parameter	Value
Model	High current 2P100A
Length	15 cm
Width	13.5 cm
Height	11.5 cm
Volume	2328.750 cm ³
Weight	1250 g (2.76 lbs)
Rated Current	100A
Poles	2P
Switching Time	< 50ms
Operating Voltage Range	85%-110% of rated voltage

Note: Dimensions and weight are approximate and may vary slightly.

5. SETUP AND INSTALLATION

IMPORTANT: Installation must be performed by a qualified electrician in accordance with all national and local electrical codes.

5.1 Pre-Installation Checklist:

- Ensure the ATS rating matches your electrical system requirements.
- Verify that all necessary tools and safety equipment are available.
- Confirm that both primary and backup power sources are completely de-energized and locked out.

5.2 Mounting:

Mount the ATS securely within a suitable electrical enclosure (e.g., Pz30 distribution box) in a dry, well-ventilated area, away from direct sunlight, moisture, and excessive heat. Use appropriate fasteners to secure the device to a stable surface.



Figure 5.1: Side view of the Huayong 2P100A ATS, illustrating mounting brackets and terminal connections.

5.3 Wiring:

Refer to the wiring diagram provided with the product for specific connection details. General wiring steps include:

1. Connect the primary (city) power supply to the designated 'Common Power Supply' terminals.
2. Connect the backup power supply (e.g., generator) to the designated 'Backup Power Supply' terminals.
3. Connect the load circuits to the 'Load' terminals of the ATS.
4. Ensure all connections are tight and secure. Double-check all wiring against the diagram before restoring power.



Figure 5.2: Top-down view of the Huayong 2P100A ATS, highlighting terminal blocks for wiring connections.

6. OPERATING INSTRUCTIONS

The Huayong ATS features both automatic and manual operation modes.

6.1 Automatic Mode:

- Set the selector switch on the front panel to the 'Automatic' position.
- In this mode, the ATS will continuously monitor the primary power supply.
- If the primary power fails or becomes unstable, the ATS will automatically transfer the load to the backup power supply.
- Once the primary power is restored and stable, the ATS will automatically transfer the load back to the primary power supply.

6.2 Manual Mode:

- Set the selector switch on the front panel to the 'Manual' position.
- In manual mode, the power transfer is controlled by the user.

- Use the directional handle to manually switch between the primary and backup power sources as needed. Follow the 'Direction' arrow for proper operation.
- **CAUTION:** Ensure that the backup power source is stable and ready before manually transferring the load to it.

6.3 Indicator Lights:

The ATS is equipped with indicator lights (e.g., 'Common power supply', 'Backup power supply') to show which power source is currently active or available. Consult the product labeling for specific indicator meanings.

7. MAINTENANCE

Regular maintenance helps ensure the longevity and reliable operation of your ATS. Always disconnect all power sources before performing any maintenance.

- **Periodic Inspection:** Annually inspect the ATS for any signs of physical damage, loose connections, or corrosion.
- **Cleaning:** Keep the ATS free from dust and debris. Use a dry, soft cloth for cleaning. Do not use liquid cleaners.
- **Terminal Check:** Periodically check all wiring terminals to ensure they are tight and secure. Loose connections can cause overheating and potential hazards.
- **Functional Test:** Periodically test the automatic transfer function by temporarily disconnecting the primary power supply to ensure the switch transfers to backup power and back again when primary power is restored.

8. TROUBLESHOOTING

If you encounter issues with your ATS, refer to the following troubleshooting guide. For problems not listed here or if issues persist, contact a qualified electrician or the manufacturer.

Table 8.1: Troubleshooting Guide

Problem	Possible Cause	Solution
ATS does not transfer power automatically.	<ol style="list-style-type: none"> 1. Selector switch in 'Manual' mode. 2. Primary or backup power supply issue. 3. Control circuit fault. 	<ol style="list-style-type: none"> 1. Set switch to 'Automatic'. 2. Check power sources and circuit breakers. 3. Consult a qualified electrician.
No power to load after transfer.	<ol style="list-style-type: none"> 1. Both power sources are off. 2. Loose wiring connections. 3. Internal fault in ATS. 	<ol style="list-style-type: none"> 1. Verify both power sources are active. 2. Check and tighten all wiring connections (with power off). 3. Contact a qualified electrician.
ATS overheats.	<ol style="list-style-type: none"> 1. Loose connections. 2. Overload. 3. Low input voltage to coil. 	<ol style="list-style-type: none"> 1. Check and tighten all connections. 2. Ensure load does not exceed ATS rating. 3. Verify input voltage is within 85%-110% of rated voltage.

9. WARRANTY AND SUPPORT

For warranty information, please refer to the documentation provided at the time of purchase or contact your seller directly. Huayong products are designed for reliability, but in case of any issues, professional assistance is recommended.

For technical support or service inquiries, please contact the retailer or manufacturer through their official channels.