JHYOSSTHI 2Pin

JHYOSSTHI 2-Pin Magnetic Pogo Pin Connector User Manual

Model: 2Pin

1. Introduction

This manual provides essential information for the proper use, installation, and maintenance of your JHYOSSTHI 2-Pin Magnetic Pogo Pin Connector. Please read this manual thoroughly before using the product to ensure optimal performance and safety.

The JHYOSSTHI 2-Pin Magnetic Pogo Pin Connector is designed for reliable electrical connections in various electronic devices. It features a compact design, superior materials, and gold-plated contacts for excellent conductivity and durability.

Image 1.1: Overview of the JHYOSSTHI Magnetic Pogo Pin Connectors. This image displays various configurations of the magnetic pogo pin connectors, highlighting their compact design and the gold-plated pins.

2. Product Features

- **Miniature Size:** Compact design with a pitch of 2.5mm, suitable for space-constrained applications.
- **Superior Materials:** Constructed with high-temperature and corrosion-resistant materials for enhanced durability.
- **Excellent Conductivity:** Spring-loaded pins ensure reliable connectivity and electrical performance.
- **Gold-Plated Contacts:** Gold plating on spring pins improves mechanical performance, wear resistance, and extends service life.
- **Magnetic Connection:** Features a polarized magnetic connection, ensuring correct orientation and secure attachment.

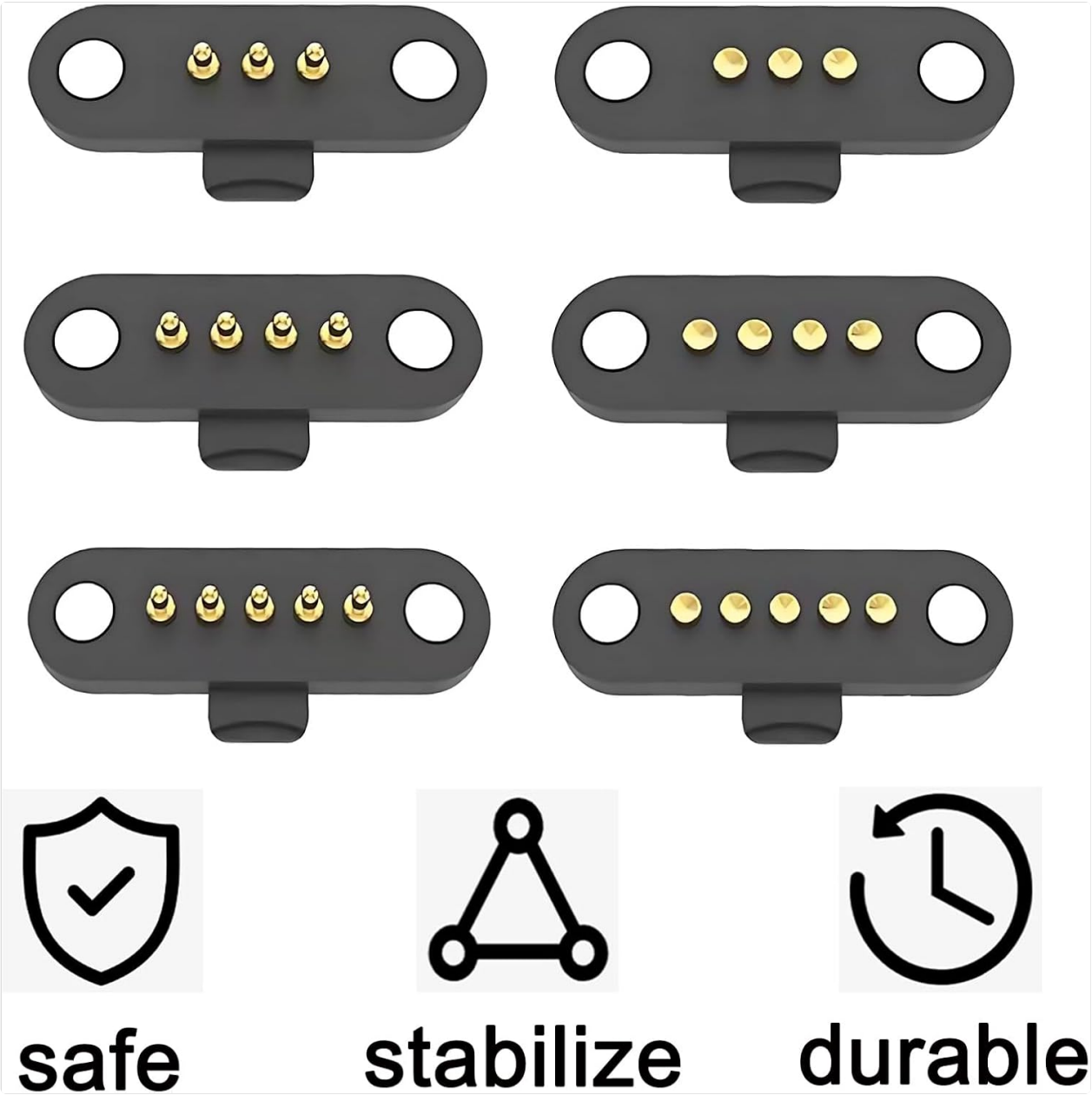

Image 2.1: Key features of the JHYOSSTHI Magnetic Pogo Pin Connector. This graphic illustrates the product's attributes such as safety, stability, and durability.

3. Specifications

Table 3.1: General Product Specifications

Attribute	Value
Model	2Pin
Pitch	2.5mm
Connector Gender	Male-to-Female
Package Dimensions	1.58 x 1.54 x 0.67 inches
Item Weight	0.353 ounces (10 Grams)
Manufacturer	JHYOSSTHI

Table 3.2: Detailed Technical Specifications

Attribute	Value
Housing Material	PA9T (High-temp engineering nylon)
Barrel Material	Brass C3604
Plunger Material	Brass C3604
Spring Material	SUS304
Magnet Material	NdFeB
Barrel Plating	3μ” Au over 50μ”~80μ” Ni
Plunger Plating	3μ” Au over 50μ”~80μ” Ni
Magnet Plating	Zinc plated
Rated Current & Voltage	DC 12V; 1A
Contact Resistance	50mΩ maximum at working height
Insulation Resistance	1,000MΩ minimum
Dielectric Withstand Voltage	500VAC for 1 minute
Force	60g ± 20g at working height
Durability	10,000 cycles minimum
Withstanding High Temperature	Up to 280°C
Operational Temperature	20°C to 70°C

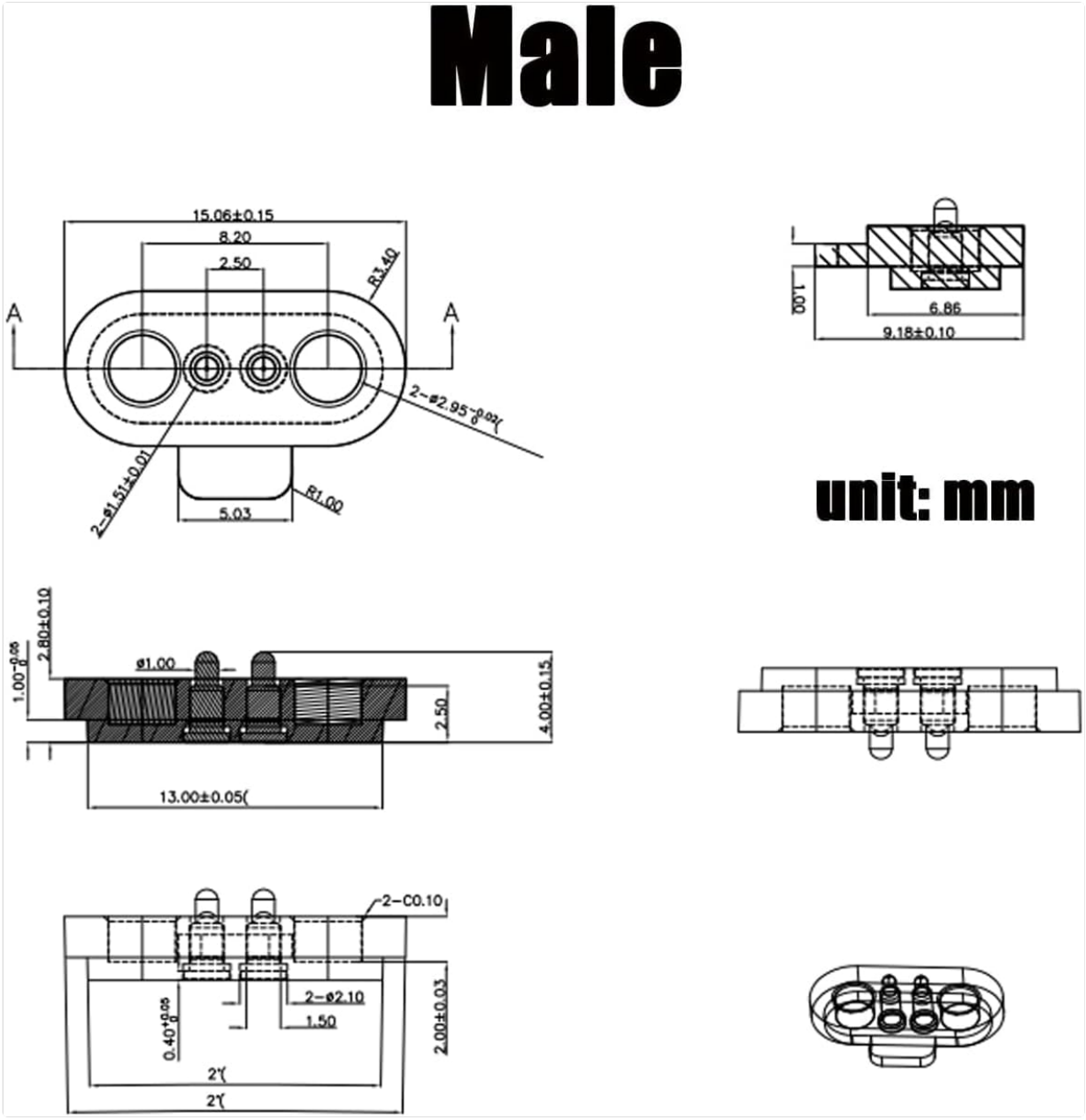

Image 3.1: Dimensional drawing for the male connector. This diagram provides precise measurements in millimeters for integration into designs.

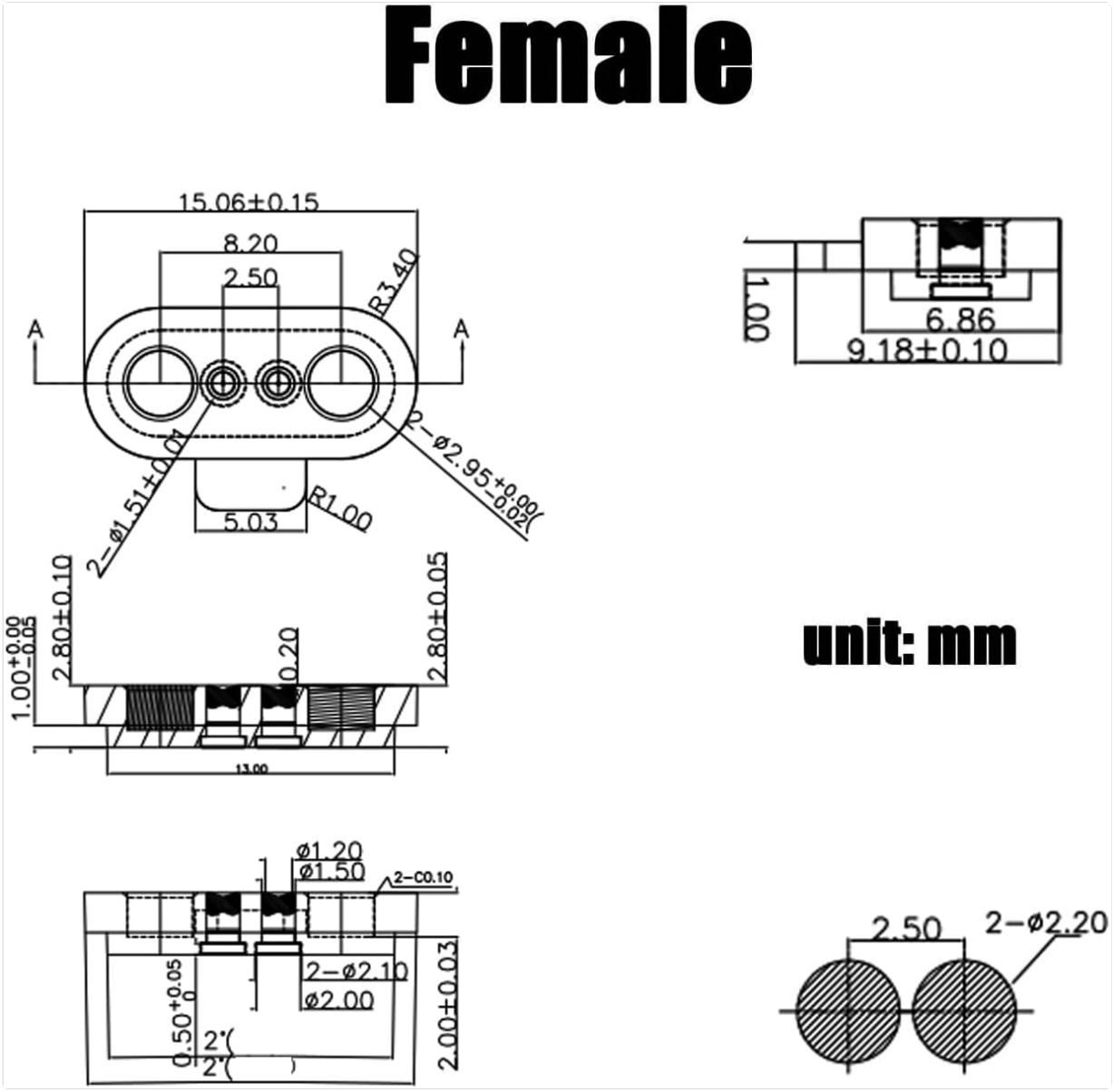

Image 3.2: Dimensional drawing for the female connector. This diagram provides precise measurements in millimeters for integration into designs.

4. Setup and Installation

The JHYOSSTHI Magnetic Pogo Pin Connectors are designed for integration into custom electronic projects. Proper installation involves soldering the connectors to a circuit board or wires.

4.1 Soldering Instructions

1. **Preparation:** Ensure your soldering iron is at an appropriate temperature (e.g., 300-350°C for lead-free solder). Use fine-tip tweezers or a fixture to hold the connector securely.
2. **Tinning:** Apply a small amount of solder to the tip of your soldering iron and then to the pads or wires you intend to connect to the pogo pins.
3. **Connection:** Carefully align the connector's through-holes with your PCB pads or wires. Apply the heated soldering iron tip to the pin and the tinned pad/wire simultaneously, allowing the solder to flow and create a strong electrical and mechanical bond.
4. **Heat Management:** The connector housing is made of high-temperature PA9T plastic (withstanding up to 280°C), which helps prevent melting during typical soldering operations. However, minimize direct heat exposure to the plastic housing and avoid prolonged contact with the soldering iron.

5. **Inspection:** After soldering, visually inspect each joint for proper coverage and absence of cold joints or solder bridges.

Note: If you are new to soldering, practice on scrap components first. Ensure good ventilation and use appropriate safety gear.

5. Operation

Operating the JHYOSSTHI Magnetic Pogo Pin Connector is straightforward due to its magnetic design.

1. **Alignment:** Bring the male and female connector halves close to each other. The internal magnets will assist in aligning the connectors correctly.
2. **Connection:** The connectors will snap together automatically once they are in close proximity and correct orientation. The magnetic polarization ensures that the connection can only be made in one specific way, preventing incorrect pin assignments.
3. **Disconnection:** Gently pull the two connector halves apart to disconnect. The magnetic force is strong enough to maintain a secure connection during normal use but allows for easy separation when needed.

6. Maintenance

To ensure the longevity and reliable performance of your magnetic pogo pin connectors, follow these maintenance guidelines:

- **Keep Contacts Clean:** Periodically inspect the gold-plated pogo pins and contact pads for any dust, dirt, or debris. Use a soft, dry cloth or a cotton swab lightly dampened with isopropyl alcohol to clean the contact surfaces. Ensure the connectors are completely dry before re-connecting.
- **Avoid Physical Damage:** Do not apply excessive force when connecting or disconnecting. Avoid dropping the connectors or exposing them to sharp objects that could bend or damage the pogo pins.
- **Storage:** When not in use, store the connectors in a clean, dry environment, away from extreme temperatures and corrosive substances.

7. Troubleshooting

If you encounter issues with your JHYOSSTHI Magnetic Pogo Pin Connector, consider the following troubleshooting steps:

- **No Connection/Intermittent Connection:**
    - Ensure the male and female connectors are fully engaged and properly aligned. The magnetic force should pull them together securely.
    - Check for any foreign objects (dust, lint, metal shavings) on the pogo pins or contact pads. Clean as described in the Maintenance section.
    - Inspect the pogo pins for any signs of bending or damage. Damaged pins may not make proper contact.
    - Verify the integrity of your soldered connections to the connector. Cold joints or poor solder can lead to intermittent contact.
- **Weak Magnetic Attraction:**
    - Ensure there are no metallic obstructions between the two connector halves.
    - Confirm that you are attempting to connect the correct male and female pairs.

8. Typical Applications

The JHYOSSTHI Magnetic Pogo Pin Connector is versatile and suitable for a wide range of precision electronic products due to its reliable connection and compact size.

- Semiconductor devices
- Mobile phones and accessories
- Communications equipment
- Automotive electronics
- Smart watches and wearables
- Headphones and charging cases
- Handheld terminals
- Medical equipment
- Beauty instruments

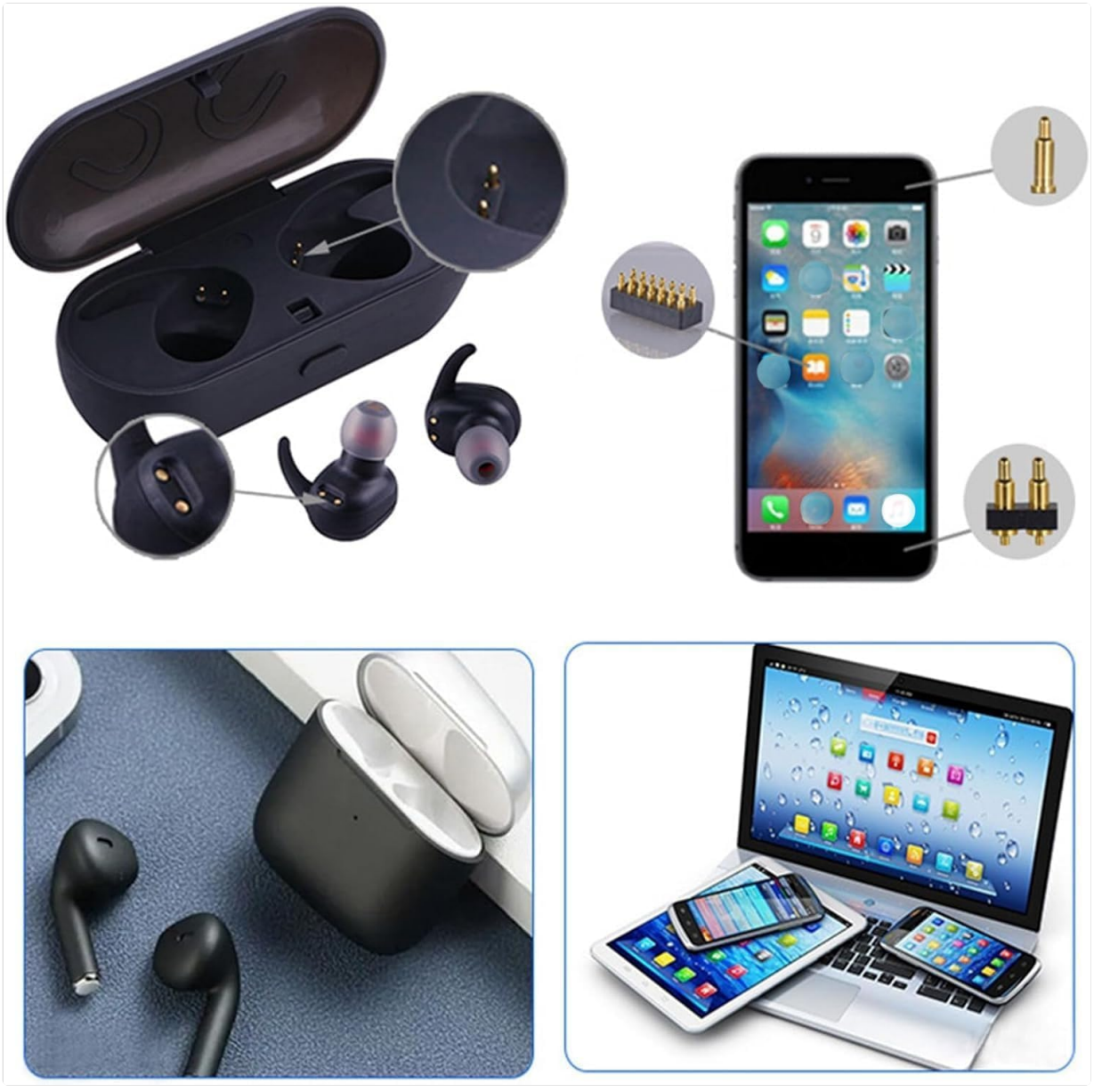

Image 8.1: Examples of devices using magnetic pogo pin connectors. This image shows the connectors integrated into earbuds and a smartphone, illustrating their use in charging and data transfer.

Image 8.2: Diverse applications for magnetic pogo pin connectors. This image highlights various products such as smartwatches, mobile phones, medical equipment, headphones, handheld terminals, and beauty instruments where these connectors can be utilized.

9. Warranty Information

For warranty details regarding your JHYOSSTHI 2-Pin Magnetic Pogo Pin Connector, please refer to the purchase documentation or contact the seller directly. Warranty terms typically cover manufacturing defects under normal use conditions.

10. Customer Support

If you have any questions, require technical assistance, or need further support regarding your JHYOSSTHI product, please contact your point of purchase or the manufacturer directly through their official channels. Provide your product model (2Pin) and any relevant purchase information when seeking support.