TESmart HKS801-EB23-USBK

TESmart 8X1 HDMI KVM Switch (Model HKS801-EB23-USBK) Instruction Manual

1. Introduction

The TESmart 8X1 HDMI KVM Switch allows control of up to eight HDMI-enabled computers from a single console, consisting of one USB keyboard, one USB mouse, and one monitor. This device supports resolutions up to 3840x2160 at 30Hz and includes features such as USB 2.0 ports, EDID emulation, and multiple switching methods for enhanced usability in various environments, including enterprise and rackmount setups.

2. Package Contents

Verify that all items listed below are present in your package. If any items are missing or damaged, please contact TESmart support.

- 1 x 8X1 HDMI KVM Switch
- 8 x 5ft KVM Cables (HDMI+USB)
- 1 x IR Remote Control (AAA batteries not included)
- 1 x IR Receiver Cable
- 1 x DC 12V Power Adapter
- 2 x Rack-ears
- 1 x User Manual
- 1 x 3 Pins connector (For RS232)

Image: The package contents include the KVM switch, KVM cables, IR remote, IR receiver cable, power adapter, rack-ears, user manual, and RS232 connector.

3. Hardware Overview

The TESmart 8X1 HDMI KVM Switch features a robust design with various ports and indicators for efficient operation. Familiarize yourself with the front and rear panels.

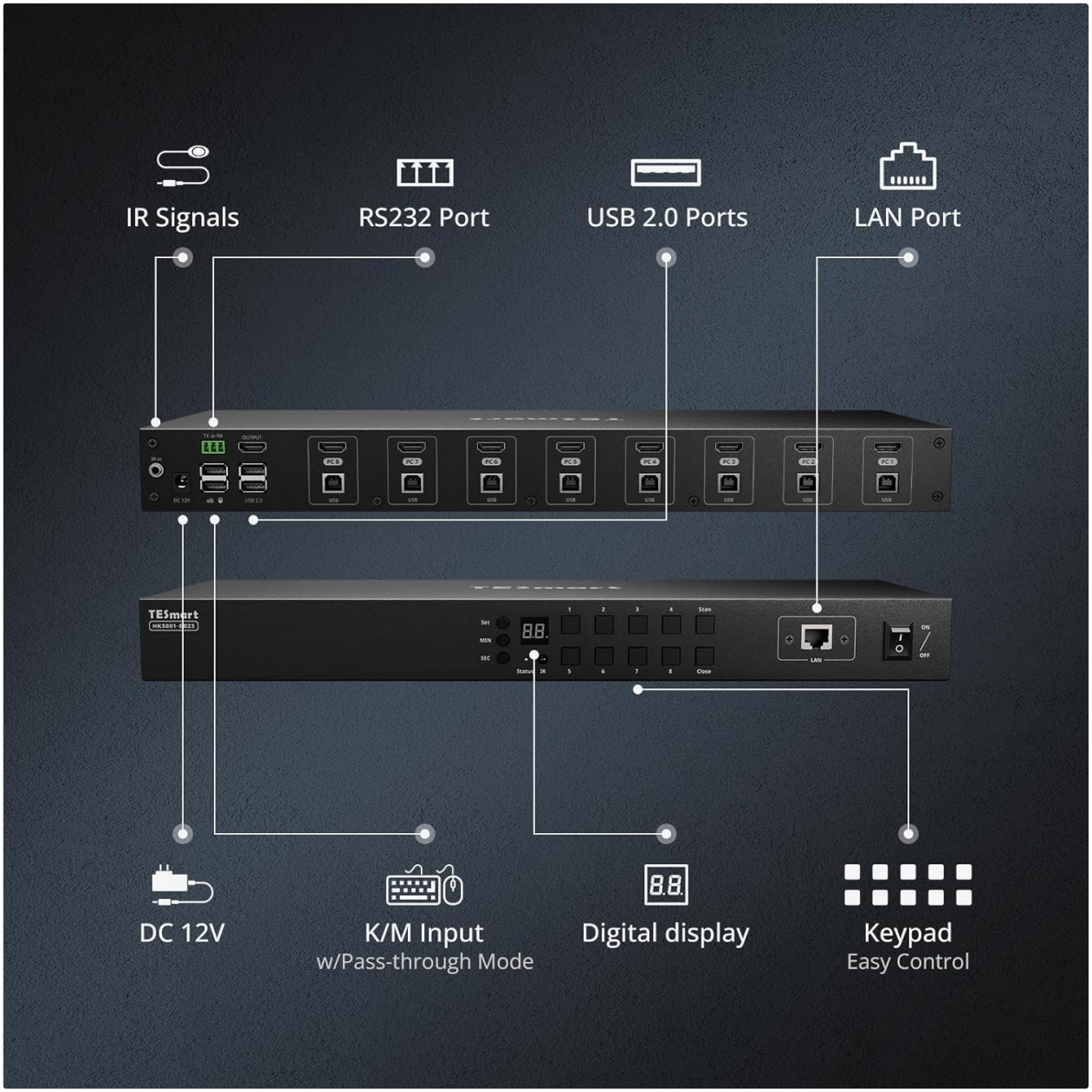

Image: Diagram showing the front panel with digital display, keypad, K/M input, and power switch, and the rear panel with DC 12V input, IR signals port, RS232 port, USB 2.0 ports, LAN port, and HDMI input/output ports.

Front Panel

- **Digital Display:** Shows the currently selected input port.
- **Keypad:** Buttons for direct port selection (1-8) and other functions like Set, MIN, SEC, Status, IR, Scan, and Close.
- **K/M Input:** Dedicated USB ports for keyboard and mouse connection, supporting pass-through mode.
- **Power Switch:** On/Off control for the device.

Rear Panel

- **DC 12V:** Power input port.
- **IR Signals:** Port for connecting the IR receiver cable.
- **RS232 Port:** For serial control.
- **USB 2.0 Ports:** Additional USB hub ports for connecting peripherals like barcode scanners or USB drives.
- **LAN Port:** For IP control.
- **PC 1-8 HDMI Inputs:** HDMI and USB-B ports for connecting up to 8 computers.

- **Output HDMI:** HDMI port for connecting to a monitor.

4. Setup and Installation

Follow these steps to properly install and connect your KVM switch.

1. **Power Off Devices:** Ensure all computers and the monitor are powered off before beginning installation.
2. **Connect Monitor:** Connect your monitor to the KVM switch's **Output HDMI** port using an HDMI cable.
3. **Connect Keyboard and Mouse:** Connect your USB keyboard and mouse to the dedicated **K/M Input** USB ports on the front panel of the KVM switch.
4. **Connect Computers:** For each computer (PC 1-8), connect an HDMI cable from the computer's HDMI output to the corresponding **PC Input HDMI** port on the KVM switch. Simultaneously, connect a USB-A to USB-B cable from the computer's USB port to the corresponding **PC Input USB-B** port on the KVM switch.
5. **Connect Peripherals (Optional):** If using additional USB devices (e.g., USB drive, barcode scanner), connect them to the **USB 2.0 Hub Ports** on the rear panel.
6. **Connect IR Receiver (Optional):** If using the IR remote, connect the IR receiver cable to the **IR Signals** port on the rear panel and place the receiver in a location with a clear line of sight to where you will use the remote.
7. **Connect RS232/LAN (Optional):** For RS232 or IP control, connect the appropriate cables to their respective ports on the rear panel.
8. **Power On:** Connect the DC 12V power adapter to the KVM switch and then plug it into a power outlet. Power on the KVM switch, then your monitor, and finally your computers.

Image: Visual guide illustrating the connection of 8 PCs to the KVM switch and then to a single monitor, highlighting HDMI and USB connections.

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Video: A detailed setup guide demonstrating the connection process for the 4K HDMI 8 Port KVM Switch.

5. Operating Instructions

The KVM switch offers multiple methods for switching between connected computers.

Switching Methods

You can switch between input sources using any of the following methods:

- **Front Panel Buttons:** Press the corresponding numbered button (1-8) on the front panel to switch to that input.
- **Keyboard Hotkeys:** Double-click the **Right CTRL** key, then press a number key (1-8) to switch to the desired input. A beep sound confirms the switch.
- **Mouse Wheel Switching:** Press the mouse wheel button twice to cycle through the input computers in sequence.

- **IR Remote Control:** Use the provided IR remote to select input sources directly.
- **RS232 Commands:** Send serial commands via the RS232 port for programmatic control.
- **IP Commands:** Control the KVM switch over a network using IP commands via the LAN port.

Image: Visual representation of the six switching methods: Hotkey, Front Panel Button, IR Remote Control, Mouse Wheel Switching, RS232 Port Control, and LAN Port Control.

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Video: Demonstration of multi-switching control methods for the TESmart 8X1 HDMI KVM Switch.

Auto Detect Mode

The KVM switch can automatically detect and switch to an active input source. When a new PC is turned on, the display will automatically switch to that PC's screen without manual intervention.

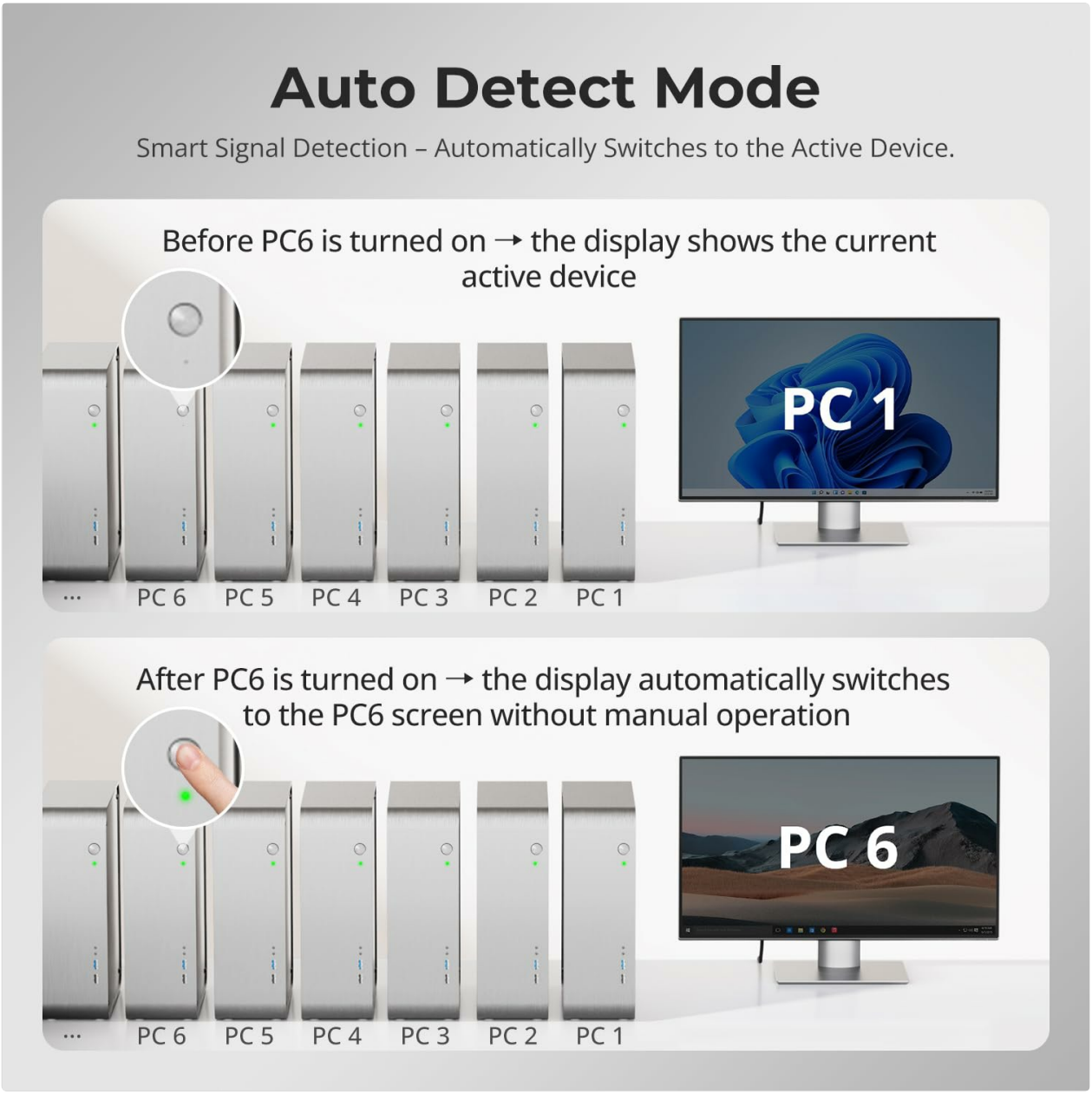

Image: Before PC6 is turned on, the display shows the current active device. After PC6 is turned on, the display automatically switches to PC6 without manual operation.

Hot Plug Functionality

Devices connected to the KVM switch can be added or removed without needing to power off the KVM switch or the connected PCs. This feature allows for flexible system management.

Image: An input (PC 3) is shown being connected to the KVM switch, and the display automatically recognizes and switches to it, demonstrating hot plug and auto detect mode.

Accidental Input Prevention

The KVM switch includes a feature to lock the screen, audio, and controls with a single button. Pressing the [0/Close] button on the front panel turns off the HDMI display to reduce power consumption. Pressing it again turns the HDMI display back on. When locked, hotkeys and remote controls are also disabled.

Image: A cat is shown near the keyboard, illustrating the need for accidental input prevention. The KVM's front panel with the 'Close' button is highlighted, indicating how to lock controls.

6. EDID Emulation

The KVM switch incorporates EDID emulators in each input port. This feature ensures that connected PCs always receive correct display information, preventing display settings from changing or windows from rearranging when switching between input ports. This maintains a consistent desktop layout and prevents screen flicker.

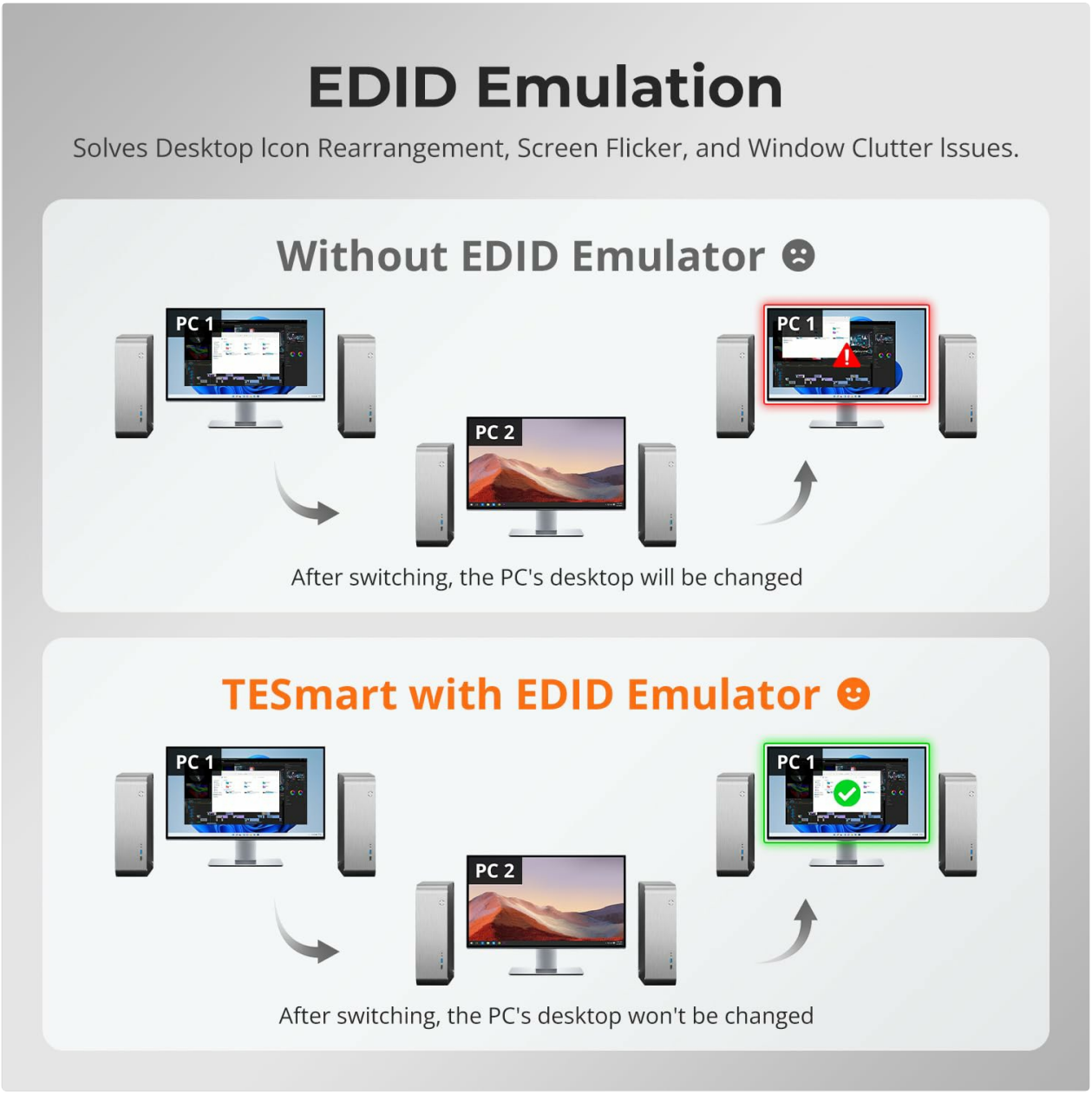

Image: A comparison showing how desktop icons and window positions can be disrupted without EDID emulation after switching, versus remaining stable with TESmart's EDID emulator.

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Video: Explanation of TESmart's EDID feature to prevent screen flicker and window reset when switching inputs.

7. Technical Specifications

Feature	Specification
Model Number	HKS801-EB23-USBK
HDMI Inputs	8
HDMI Output	1
Max Resolution	4K@30Hz (3840x2160@30Hz)
USB Ports	USB 2.0 (for K/M and hub)
Switching Methods	Front Panel, Hotkey, Mouse Wheel, IR Remote, RS232, IP Control

EDID Emulation	Yes
Hot Plug Support	Yes
Auto Scan	Yes
Power Source	DC 12V Power Adapter
Color	Black

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Video: An explanation of resolution and refresh rates supported by TESmart KVM switches.

8. Maintenance

To ensure the longevity and optimal performance of your TESmart KVM switch, follow these maintenance guidelines:

- **Cleaning:** Use a soft, dry cloth to clean the exterior of the device. Avoid using liquid cleaners or aerosols, as they may damage the unit.
- **Ventilation:** Ensure the KVM switch is placed in a well-ventilated area to prevent overheating. Do not block any ventilation openings.
- **Cable Management:** Keep cables organized and free from kinks or excessive bends to prevent signal degradation or damage.
- **Power Supply:** Use only the provided DC 12V power adapter. Using an incorrect power supply can damage the device.
- **Firmware Updates:** Check the official TESmart website periodically for any available firmware updates. Follow the instructions provided with the update carefully.

9. Troubleshooting

If you encounter issues with your KVM switch, refer to the following common problems and solutions:

- **No Display on Monitor:**
  - Ensure all HDMI cables are securely connected between the KVM switch, monitor, and computers.
  - Verify that the KVM switch is powered on and the correct input source is selected.
  - Try connecting the computer directly to the monitor to confirm the computer's video output is functional.
  - Check the monitor's input source settings.
- **Keyboard or Mouse Not Responding:**
  - Ensure the keyboard and mouse are connected to the dedicated K/M USB ports on the front panel.
  - Try connecting the keyboard and mouse directly to the computer to confirm they are functional.
  - Restart the KVM switch and the connected computers.
  - Some specialized keyboards/mice with extra features may require direct connection or specific drivers. Try a standard keyboard/mouse to isolate the issue.
- **Screen Flicker or Window Rearrangement:**
  - This KVM switch features EDID emulation to prevent these issues. Ensure all connections are

stable.
    - If the issue persists, try updating the graphics drivers on your computers.

- **Remote Control Not Working:**
    - Ensure AAA batteries are correctly installed in the IR remote control.
    - Verify the IR receiver cable is securely connected to the KVM switch and has a clear line of sight to the remote.
    - Check if the accidental input prevention feature is active (indicated by the 'Close' button light). If so, deactivate it.
- **Auto Scan Not Functioning:**
    - Ensure the auto scan feature is enabled (refer to the full user manual for specific instructions on enabling/disabling scan modes).
    - Verify that the connected computers are properly powered on and sending a video signal.

10. Warranty and Support

TESmart provides a 3-year warranty service and technical support for this product. For warranty claims or technical assistance, please contact TESmart customer service through the following methods:

- **Online Support:** Visit the official TESmart website for FAQs, troubleshooting guides, and contact information.
- **Email Support:** Contact TESmart customer service via email for detailed inquiries.
- **Amazon Messaging:** If purchased through Amazon, you can reach TESmart support via the Amazon messaging system by navigating to your order details and selecting 'Ask a question' to the seller.

Image: Icon representing 24/7 technical support availability.

Please retain your proof of purchase for warranty validation.