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861 Quick Start Guide
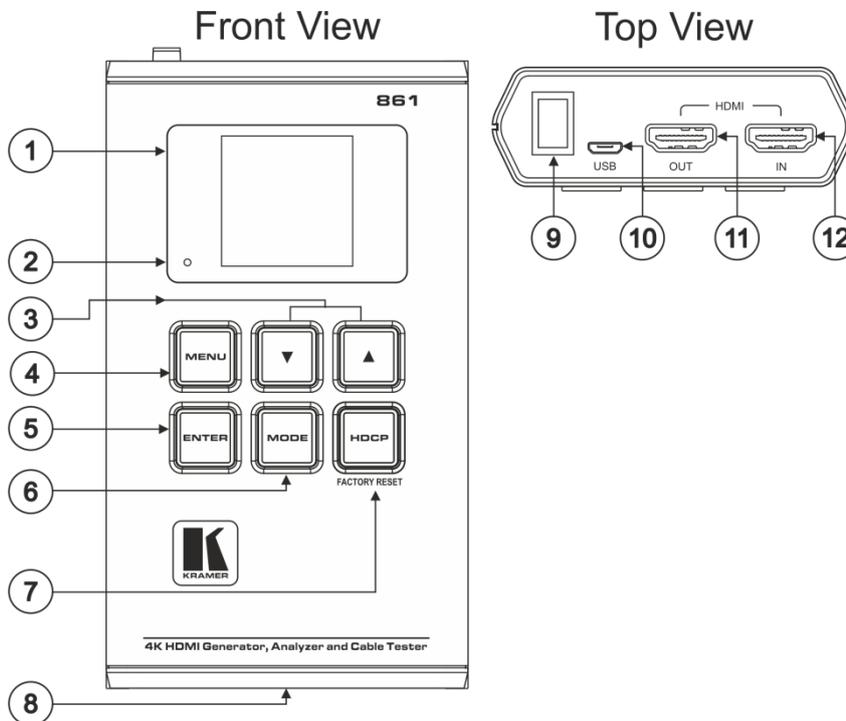
This guide helps you install and use your **861** for the first time.

Go to **www.kramerav.com/downloads/861** to download the latest user manual and check if firmware upgrades are available.

Step 1: Check what's in the box

☑ **861** 4K HDMI Generator, Analyzer and Cable Tester   ☑ 1 Belt pouch for the **861**   ☑ 1 Lithium battery

☑ 1 C-HM/HM/PICO/BK-3 HDMI cable   ☑ 1 Quick start guide   ☑ 1 USB mirco-B to USB type-A cable

Step 2: Get to know your Product

#	Feature	Function
1	OLED Display	Displays the selected function of the current operation mode. The status lines at the top show the current operational mode (Analyzer, Pattern, or Cable Test), USB port mode (power or control), power status, and mode-specific detection details. The menu or signal analysis data appears below.
2	Battery Charging LED	Lights red when a USB power source is connected and is charging the battery. When device is not in use for a while, LED slowly flashes red to indicate that the device entered the power saving mode (when not receiving power via USB). Press any key to turn the display back on.
3	Up and Down Arrow Buttons	Press to move up and down or adjust selections within menus.
4	MENU Button	Press to exit to previous menu steps and to return to the main menu screen.
5	ENTER Button	Press to confirm a selection or go to the next menu level. In the Analyzer and Pattern modes, press and hold for about 2 seconds to turn the audio on or off.
6	MODE Button	Press to switch between Analyzer mode, Pattern mode, and Cable Test mode. In the Analyzer mode, press and hold for about 2 seconds to toggle the input's hot plug trigger. In the Pattern mode, press and hold for about 2 seconds to enable or disable the output's AV Mute function.

P/N: 2900-300960QS   Rev: 2

#	Feature	Function
7	HDCP (FACTORY RESET) Button	Press to toggle between supported HDCP versions (1.4, 2.2) or to disable HDCP. In the Analyzer mode, this changes the HDCP versions that are supported by the input port. In the Pattern mode, this changes the HDCP that is required by the output port. The button's outline lights according to the HDCP state and the current version that is supported: Red (HDCP 1.4), blue (HDCP 2.2), off (HDCP disabled) or flashing (HDCP authentication failed). Press and hold while powering the device to reset it to its factory default settings.
8	Battery Compartment	Stores the rechargeable battery (supplied with the unit).
9	Power Button	Press to turn the unit on or off.
10	Micro-B USB Connector	Use to power the unit and charge the battery, upgrade the firmware or control the device (via RS-232 commands).
11	HDMI OUT Connector	Connect to an HDMI acceptor (for example, a display).
12	HDMI IN Connector	Connect to an HDMI source (for example, a media player, game console or set-top box).

Step 3: Powering the 861

You can power **861** by connecting the USB port to a power source via a USB cable or use the rechargeable battery.

When using the battery, before operating **861** via its battery for the first time, insert the battery, and connect the USB charger cable to a power source to charge until the battery is full ▭. (It is recommended to charge for at least 5 hours before operating with the battery for the first time).
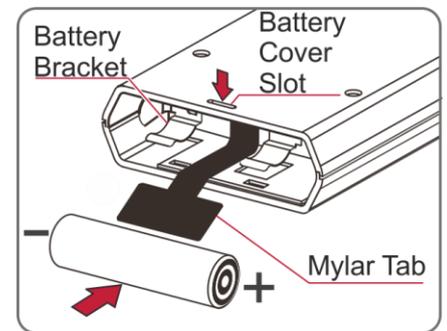
To insert the battery:

1. Use a small screwdriver to press down the slot on the rear lower side of the device to pop out the battery housing cover.
2. Turn the device face-down and pull out the Mylar tab.
3. Place the battery in its correct position,over the tab, and insert it into the battery housing until it sits securely on the battery brackets.
4. Click back the battery housing cover.

To charge the battery:

Connect the USB charger cable to a power source and charge the battery until it is full.

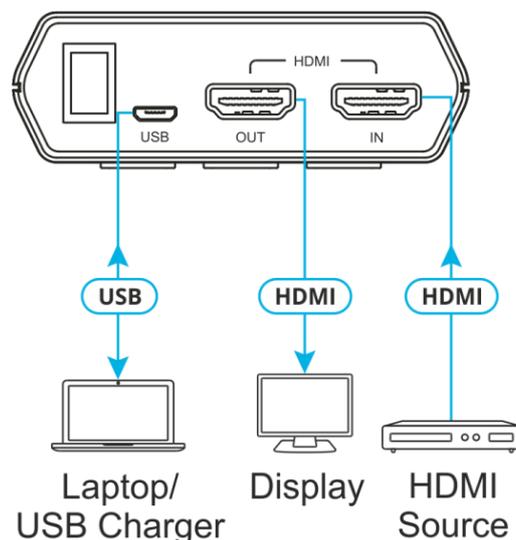Operation time with a full battery is typically >5 hours.

Step 4: Connect the input and output

Always switch OFF the power on each device before connecting it to your **861**. For best results, we recommend that you always use Kramer high-performance cables to connect AV equipment to **861**.
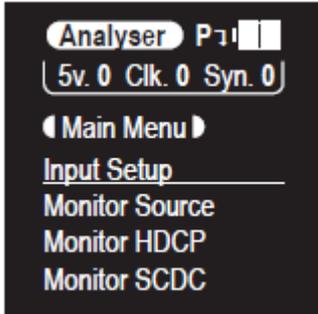
Step 5: Operate 861

Before using **861** for the first time, remove the clear plastic stickers over the keys and the OLED window.

861 includes three operation modes. Each mode appears on the OLED display. The title displays the operation mode. The status line appears underneath the title and the menu below the status line.

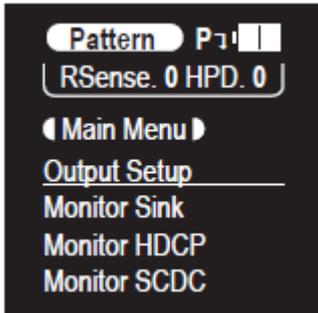Switch power on and click **MODE** to cycle through the operation modes:

Analyser Mode:

The status line displays the 5V, TMDS clock, and sync detection state of the connected source (1 = detected, 0 = not detected).

Menu items:
Input Setup
Monitor Source
Monitor HDCP (HDCP v1.4)
Monitor HDCP (HDCP v2.2)
Monitor SCDC
Video Timing
Audio Timing
Packet
EDID Analyzer
EDID Emulator
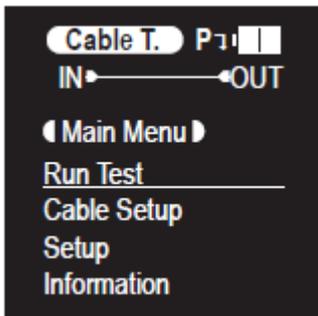EDID Copy Sink
EDID Burn Sink
Setup
Information

Pattern Mode

The status line displays the RxSense and Hot-plug detection state of the connected display (1 = detected, 0 = not detected).

Menu Items:
Output Setup
Monitor Sink
Monitor HDCP (Output HDCP v1.4)
Monitor HDCP (Output HDCP v2.2)
Monitor SCDC
Audio Output
EDID Analyzer
EDID Emulator
EDID Copy Sink
EDID Burn Sink
HDR Emulator
Setup
Information

Cable Test Mode

The status line displays a cable connection graphic.

Menu Items:
Run Test (Enter-Start/Stop)
Cable Setup
Setup
Information

Operate 861 via:

- Front panel buttons.
- Remotely via the Kramer **861** Controller Windows-based application software.
- Remotely, by RS-232 serial commands transmitted by a PC.

RS-232 Protocol			
Baud Rate:	115,200	Parity:	None
Data Bits:	8	Flow Control:	None
Stop Bits:	1		

Technical Specifications

Input	1 HDMI	On a female HDMI connector
Output	1 HDMI	On a female HDMI connector
Port	1 USB	On a female Micro-B connector
Video	Bandwidth	600MHz/18Gbps
	Max Resolution	4K UHD @60Hz (4:4:4, 8-bit)
	Supported Resolutions	480p – 4K@60Hz (4:4:4, 8-bit)
	Compliance	HDMI 2.0 and HDCP 1.4, 2.2
Audio	Output Support	LPCM 2.0, 5.1, and 7.1
Power	Source	5V, 2.1A USB Power
	Consumption	4.7W
Cooling	Convection Ventilation	
Environmental Conditions	Operating Temperature	0° to +40°C (32° to 104°F)
	Storage Temperature	-20° to +50°C (-40° to 158°F)
	Humidity	20% to 90%, RH non-condensing
Regulatory Compliance	Safety	CE, FCC
	Environmental	RoHs, WEEE
	ESD Protection	Human body model: ±12kV (Air Discharge), ±8kV (Contact Discharge)
Enclosure	Type	Metal
General	Net Dimensions (W, D, H)	8cm x 14cm x 2.7cm (3.2" x 5.5" x 5")
	Shipping Dimensions (W, D, H)	24.8cm x 18.8cm x 5.4cm (9.8" x 7.4" x 2.1")
	Net Weight	0.3kg (0.7lbs)
	Shipping Weight	0.6kg (1.3lbs) approx.
Accessories	Included	1 USB mirco-B to USB type-A cable, 1 C-HM/HM/PICO/BK-3 cable, lithium-ion 3.6V/3200maH rechargeable battery
Specifications are subject to change without notice at www.kramerav.com		