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# RHB-350 Scaler Receiver Quick Start Guide

Thank you for purchasing the Luxi Electronics® RHB-350 scaler receiver. Please read through this manual before using the product.

How the product functions: This product must be used with Luxi THB-350 or a compatible HDBT transmitter with POC or POE turned off; failure to turn it off may cause damages and void warranty. Please refer to the "Video signal path" and "Audio signal path" sections in the right column of the specs on page 4 of the THB-350 quick start guide for details.

Power options: This product draws power from an external 24 V power supply sold separately (Luxi P/N 69-008-01). Do NOT plug the power supply connector into any other connectors; this could cause permanent damages to the product and void the warranty.

Captive screw plug termination: The captive screw plugs for power, audio, RS-232 and contact controls are supplied with the unit. Separate the wires about 1" (2.5 cm) long; strip off the wire insulation precisely 3/16" (5 mm) from the end. Identify the positive and negative leads for power; Luxi power supply has a white stripe on the positive wire. If not sure, use a multi meter to verify.
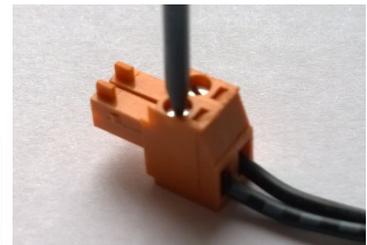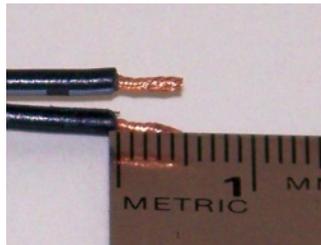
Mounting options: Luxi has the under desk mount (Luxi P/N 78-002-01) or the MediaHub table tanks sold separately; the product also fits many other mounting hardware from Extron, Middle Atlantic, etc. Only use the type 4-40, 3/16" (5 mm) long screws supplied with the mounting hardware to screw onto the product. Wrong type of screw could strip the threads; too long screw could touch and short the internal circuit, cause permanent damages to the product and void the warranty.
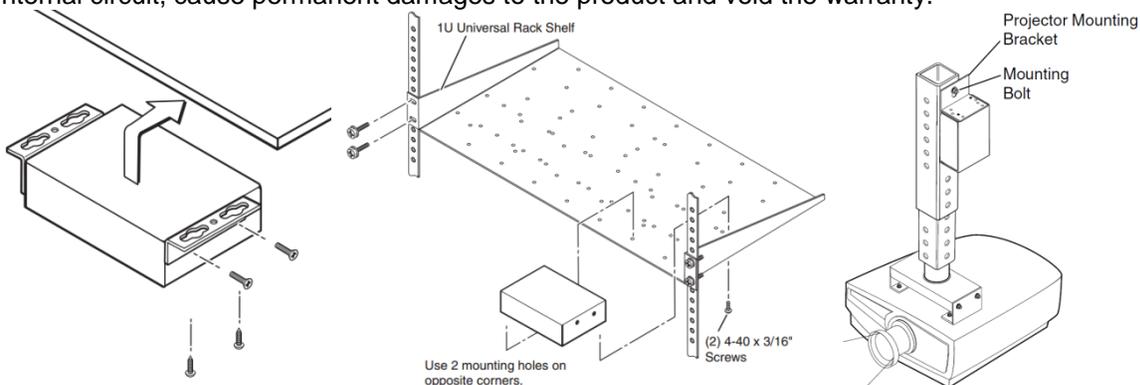
RS-232 controls: All functions are controlled by RS-232. The RS-232 port on the RHB-350 is a duplicated port of the connected THB-350. See the RS-232 Setup Guide on Luxi website for more information: http://luxielectronics.com/attachments/File/Luxi_RS-232_setup_guide.pdf. See THB-350 quick start guide for RS-232 commands.

Display power controls: THB-350 has the configurable display power control feature to enable fully automated system operations without any operator or 3rd party control devices. THB will send a display power off command via RS-232 ports of both THB-350 and RHB-350 with a set delay time (1 to 60 minutes) after the last input signal disappears; and will send a display power on command as soon as the first input signal detected, and will automatically select that input. The switcher uses one RS-232 port to connect both external host (optional; only required for setup) and display in parallel with the display in "listening" mode only (only display's Rx pin connected). Here's the wiring diagram:

Ext host		THB-350		RHB-350		Display
Rx	-------------	Tx		Tx	-------------	Rx
Tx	-------------	Rx	Via Cat6	Rx	NC	NC
Ground	-------------	Ground		Ground	-------------	Ground
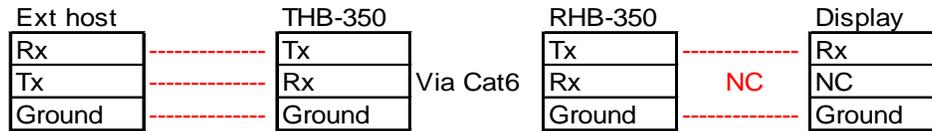
NC = Not Connected

Use the "2{xxx}R" and "1{yyy}R" commands listed in next page to setup the display power on and off commands respectively, then use the "1*zR" command to enable the display power control feature while setting the power off delay time at "z" minutes. Use "0R" command to disable the display power control feature. Once setup finished, the external host is not needed for daily operations. The system reset command "r" will not erase the stored display power on and off commands, but will disable the display power control feature (factory default).

Support: Please contact your reseller directly for local support; or Luxi using the contact info in the header. See Luxi website for additional and more updated documents.

Product Specifications	Part Number: 74-037-01
HDBT Rx	Model: RHB-350 (Rx)
Product Image	**Product Drawing**

Features and Benefits (for the matching THB-350)

> Universal interface, compatible with all source signal formats
> World's smallest high performance all purpose signal converter, scaler, switcher, splitter, mixer, HDCP compliant
> VGA, HDMI, DP input, auto switch or front panel, RS-232, contact controllable with discrete input LED indications
> Configurable display power controls via RS-232 enables fully auto operation systems without any 3rd party controller
> Independent analog audio input, can be coupled with any video input, mixed with audio de-embedded from HDMI or DP outputs to bal/unbal analog output, or embedded to HDMI
> Dual mirrored outputs, HDBT for big screen/projector and HDMI for local monitor, with or without OSD or screensaver, enable monitor sleep/wake up (energy saving)
> Unique RS-232 controlled picture zoom (out) adjustments
> HDBT output sending signals up to 70 m (235') with POC
> RS-232 selectable video resolutions of common 16:9, 16:10, 4:3 or pixel to pixel modes
> High efficiency fanless design for ultimate reliability
> Rack mountable, under-table mountable, above-projector mountable metal enclosures

Package

One piece in one color cardboard box; with captive screw plugs and quick start guide
no power supply

Box size: 5.9" x 4.8" x 1.1" (15.0 x 12.2 x 2.8 cm)
Weight: package, 0.63 lb (0.29kg); product, 0.49 lb (0.22kg)
30-pc box size: 12.4" x 11.6" x 9.5" (31.5 x 29.5 x 24 cm)
30-pc box weight: 21 lb (9.6 kg)

Connections

Input connectors: 1 HDBT
Output connector: 1 HDMI
Power connector: 2-pin 3.5 mm captive screw receptacle
Control connectors: (1) 3-pin RS-232

Other Related Products

Power supply, 100-240 V in on US plug,
24 V out, P/N 69-008-01

Under desk mount, P/N 78-002-01

HDBT Tx, P/N 74-040-01,
model THB-350

Mechanical

Enclosure material: steel
Enclosure size: 4.29" x 1.00" x 3.00" (10.9 x 2.5 x 7.6 cm)

Electrical

Video output resolution presets: 720p, 1080p, 1280x800
  1920x1200, 1024x768, 1280x960, 1600x1200, pixel to pixel
HDBT input: up to 70 m (235') with Cat6 cable; POC 24 V

Controls: Front panel button toggle thru all 3 inputs
  RS-232 on 3-pin 3.5 mm captive screw, 9600/8-N-1
  Contact port on 4-pin 3.5 mm captive screw, discrete pin for
  each input, dual function (switch to select, LED for indication)
Power consumption: 24 V DC, up to 1 A
Optional power supply: Not included. Luxi 69-008-01
  Auto switching 100-240 V AC input on US plug, 24 V DC
  1 A max on bare wires, wall ward type, UL, PSE, CE, FCC
Mounting: Not included. Luxi under desk mount 78-002-01
  compatible with several Extron and Middle Atlantic mounts
Regulatory compliance
  Safety: CE, cUL, UL (power supply only)
  EMI/EMC: CE, FCC Class A
MTBF: 30,000 hours
Warranty: 3 years parts and labor