HARVEY®

RC12: IP-based remote control for audio, lighting and media technology

Operating Manual

www.harvey.audio

Version 1.0

HARVEY®

Table of Contents

1 Introduction

HARVEY RC12 is a freely programmable end-user wall remote control for Ethernet networks. It is compatible to all members of the HARVEY Pro family of audio and media control matrixes. The remote control is supplied exclusively via Ethernet (PoE).

For user interaction the HARVEY RC12 has twelve LED backlit push buttons to control audio levels, invoke DMX commands, or recall scene settings. The twelve push buttons can be labelled. All LEDs are of RGB type and can be programmed with an individual colour scheme and brightness. HARVEY RC12 is completely supported by HARVEY Composer allowing a seamless configuration of complex media scenarios where several remotes in parallel control a system of HARVEY audio matrixes.

Currently, one HARVEY RC12 model exists:

1. HARVEY RC12 US: has a metal faceplate compatible for mounting into standard 2-gang North-American flush-mounted boxes.

This manual shows how to wire, assemble and label the **HARVEY RC12 US** model.

For programming and integration into your audio or control projects please refer to the HARVEY Composer manual.

2 Overview HARVEY RC12-US

RC12-US Specifications

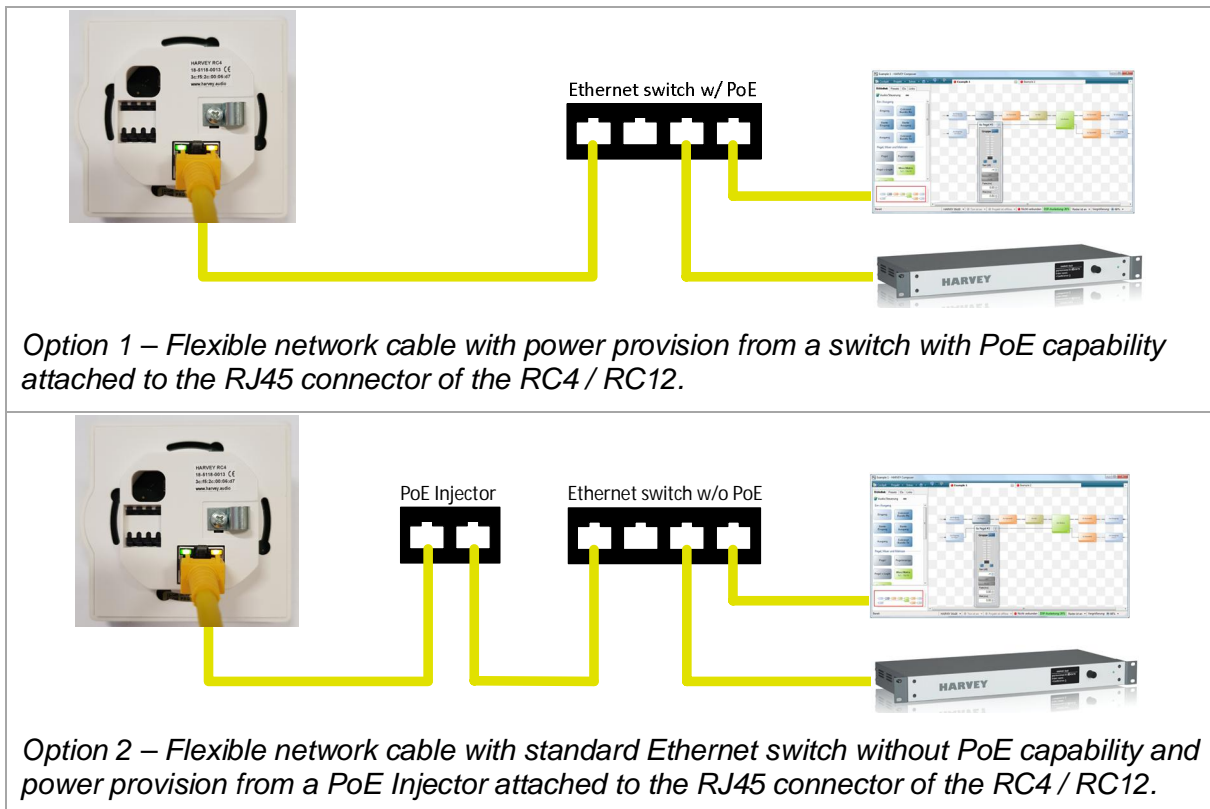|	
Push buttons	12x with integrated RGB LED; brightness and colour freely definable in HARVEY Composer; foil labels can be inserted for push button labelling; functions programmable in HARVEY Composer: preset call, logic control
Data Link	10/100 Mbps Ethernet (100BaseT); standard IP protocol
Ethernet Cable Interface	RJ45 with activity/link/speed LED for standard network cable (e.g. CAT5)
Power Supply	PoE IEEE802.3af Class 3 (12,95 W) Actual power consumption: - nom. <5 W with all LEDs switched on at normal brightness - max. 10 W with all LEDs switched on at maximum brightness RJ45 interface: PoE power provision from IEEE802.3af Ethernet switches (endspan PoE) or alternatively PoE injectors (midspan PoE).
Mounting and Housing	Aluminium front panel designed but not limited to be mounted onto two-gang US flush-mounted boxes. Distance of mounting holes: 1.8125" / 46 mm X 3.281" / 83.3 mm **It is recommended a use a flush-mounted box with a depth of 60 mm to give the CAT cable enough space in the wall.**
Dimensions	Shape of aluminium front panel and electronics: 110 mm x 110 mm x 28 mm, weight 100 g / 0.2 lbs.
Colour	Aluminium anodized; other colours available on request

3 Quick Installation

For full HARVEY RC12 configuration and operation following items are required:

1. Minimum one HARVEY RC12,

2. HARVEY Composer (v2.5.0.0 onwards) installed on a Windows computer,

3. Either
    a. an Ethernet switch capable of delivering Power over Ethernet (PoE) according to IEEE802.3af Class 3 (12.95 W) or
    b. a regular (non-PoE) Ethernet switch in combination with an Ethernet PoE-Injector which is capable of delivering PoE according to IEEE802.3af Class 3 (12.95 W),

4. a HARVEY audio matrix (any HARVEY Pro model).

Wiring

The following three diagrams show all wiring options for *HARVEY RC4* which are in principle identical to HARVEY RC12.

Option 1 – Flexible network cable with power provision from a switch with PoE capability attached to the RJ45 connector of the RC4 / RC12.

Option 2 – Flexible network cable with standard Ethernet switch without PoE capability and power provision from a PoE Injector attached to the RJ45 connector of the RC4 / RC12.

A switch-based power provision (i.e. endspan PoE) is possible both for RJ45 wiring option 1 and for the terminal block wiring option 3.

An injector-based power provision (i.e. midspan PoE) is possible for the RJ45 wiring option 2 only.

Status LED

As soon as the RC12 is powered and connected to the network it indicates its status using the bottom right button illumination.

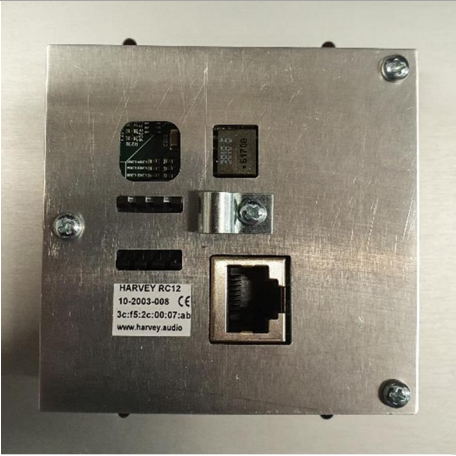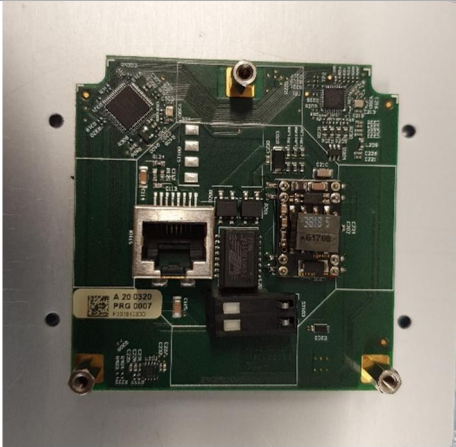

Yellow: RC12 is in self initialization mode[1].

Blue: RC12 has network link and waits for pairing with a HARVEY Pro device.

It leaves the before mentioned two states as soon it is actively paired with a HARVEY project which has been programmed with HARVEY Composer. Please refer to the **HARVEY Composer** operating manual for integrating HARVEY RC12 into your HARVEY projects.

---

[1] Among other things during initialization the RC12 waits for a physical network link. A physical link to the Ethernet network and data activity are indicated at the RJ45 interface on the rear side of the RC12, for both the RJ45 and terminal block wiring option.

4 Instructions for Mounting, Labelling and Wiring

PROCEDURE 1: Follow with the following steps for labelling the twelve push buttons of the RC12.
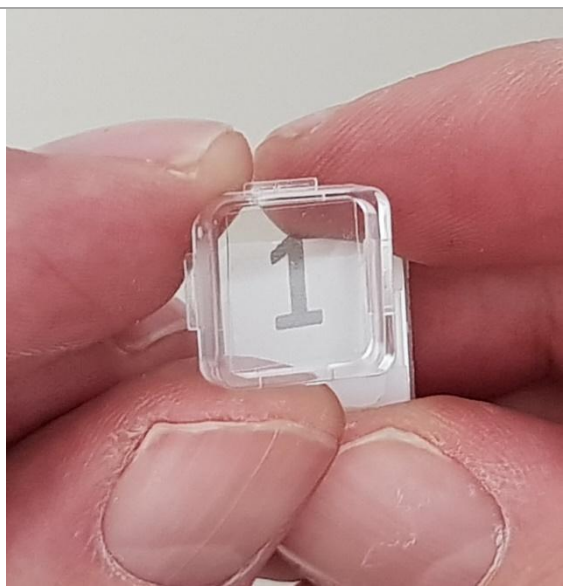
	Remove the three screws that are fixing the metal back plate onto the bolts connected to the circuit board.
	Unscrew the three bolts from the circuit board which are also serving as screws fixing the board to the front plate bolts. **Attention**: Be careful when removing the front plate as the push button caps might fall off. → Turn the RC12 to have the front facing upward *before* lifting the front plate from the circuit board.
	Remove the transparent caps from the buttons wherever labels are to be applied. Optional: You may remove the light guide bodies by gently pulling them from the push buttons if that helps you handling the button caps.

…continuation of PROCEDURE 2 (labelling push buttons):
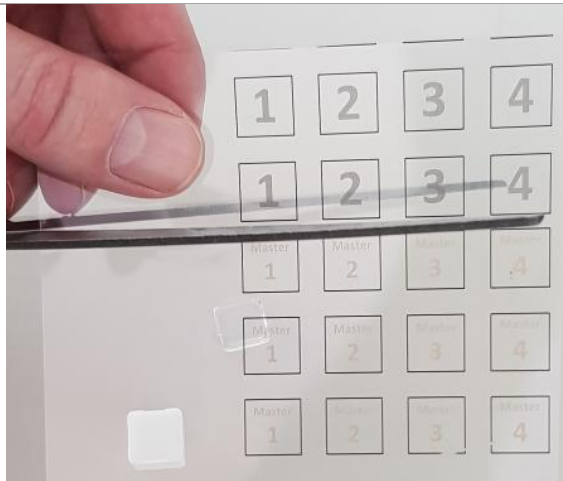
	Good results can be achieved by printing the labels on transparent foil sheets and cutting them with a knife or scissors.
	Put the label into the transparent cap and the cap onto the light guide body.
	Put everything back together.

Finish of PROCEDURE 1 (labelling push buttons).

CONTACT

DSPECIALISTS
Digitale Audio- und Messsysteme GmbH

Helmholtzstr. 2-9L

10587 Berlin

Germany

Phone +49 30 467 805-0
Fax   +49 30 567 805-99

sales@dspecialists.de
www.dspecialists.de

www.harvey.audio