BALDWIN BOXALL
LEADING THE WAY TO SAFETY

RPVS & RPAIV

Installation Instructions

Manual name: RPVS & RPAIV

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This equipment has been designed and manufactured to conform to both CE & UKCA requirements

Failure to use the equipment in the manner described in the product literature will invalidate the conformity.

A "Declaration of Conformity" statement and a "Declaration of Performance" is available on request.

Amendment Record ____ v
Proprietary Notice ____ v
Safety Information ____ vi
Comments ____ vi

Introduction

RPVS & RPAIV Room Panels ____ 1
Controls & Connections ____ 2
RPVS Channel Selector & Volume Control - - - - - - - - - - - - - - - - 2
RPAIV Input Module & Volume Control - - - - - - - - - - - - - - - - - 3
Technical Specification ____ 4
RPVS - Source Selector & Volume Control - - - - - - - - - - - - - - - - 4
RPAIV - Audio Input Panel & Volume Control - - - - - - - - - - - - - - - 4

Installation & Commissioning

RPVS Installation ____ 5
RPP1 Optional Cover ____ 5
RPVS USB Configuration ____ 6
RPAIV Installation ____ 6
RPP2 Optional Cover ____ 6

AMENDMENT RECORD

Change Note Number	Nature of Amendment	Date of Amendment
NA	Issue 1: Initial Issue	July 2012
ECR4411	Issue 2: Add UKCA	Dec 2021

PROPRIETARY NOTICE

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Safety Information

Personnel who install, maintain or repair this equipment must read the safety information below before starting work.

Voltages in excess of 30 Volts RMS or 50 Volts DC are considered Hazardous and in certain circumstances can be lethal.

If Functional Testing, Maintenance, or Repair is to be completed with the Mains Power (and/or battery backup) connected then this should only be undertaken by personnel who are fully aware of the danger involved and who have taken adequate precautions and training.

This Manual contains Warnings, Cautions and Notes.

Warnings describe potential threats to health or life, e.g.

WARNING

Before attempting to remove this component, ensure the Mains Power Supply and Battery Backup have been disconnected.

Cautions describe potential threats to the equipment, e.g.

CAUTION

Notice must be taken of all cautions.
If a Caution is ignored the equipment may be damaged.

Notes are statements that are useful to the user in the context of a particular section of the manual, e.g.

NOTE: Do not speak into the microphone until the "Speak Now" LED is illuminated.

Comments

Comments regarding the content of this manual are welcome and should be addressed to hello@baldwinboxall.co.uk.

1 Introduction

1.1 RPVS & RPAIV Room Panels

The RPVS & RPAIV Room Panels allow local control of the Public Address system with different features depending on the unit in use.

The main features of the two units are as follows:

RPVS - single gang volume control and channel source selector using RS485 serial data to communicate with BVRD2M/4.

RPAIV - double gang dual audio (microphone & music) input panel with volume controls.

Both units can be fitted with robust brushed Stainless Steel covers to protect the controls when not in use.
The RPVS utilises the RPP1cover while the RPAIV utilises the RPP2 cover.

1.2 Controls & Connections

1.2.1 RPVS Channel Selector & Volume Control

Figure 1.1 — RPVS Front Panel Controls

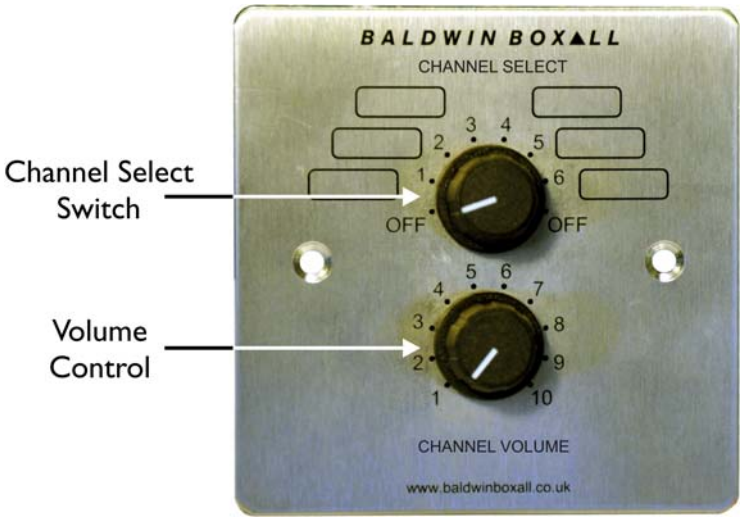
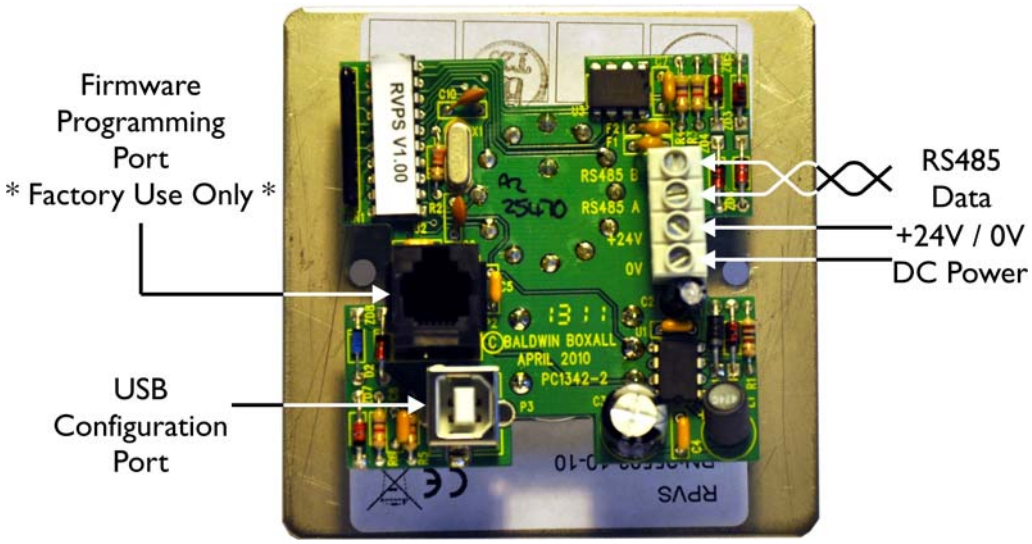


Figure 1.2 — RPVS Rear Panel Connections



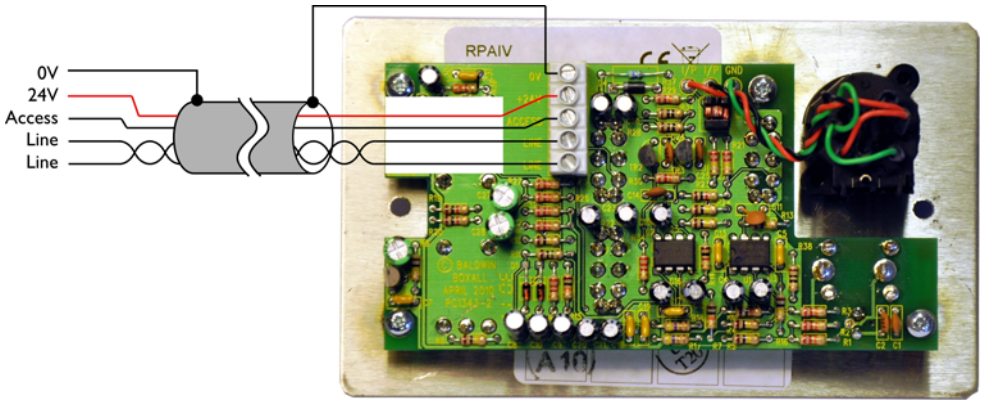
Note: The RPVS communicates using RS485 data.
It is not necessary to use screened cable for the connection between the RVPS and the BVRD2M.

1.2.2 RPAIV Input Module & Volume Control

Figure 1.3 — RPAIV Front Panel Controls & Connections

Ident	Description
1	Mic Input (XLR or 1/4" Jack Plug) Balanced Line
2	Mic Input Sensitivity (High - 500uV, Low - 150mV)
3	Music Input (2 x Phono or 3.5mm Stereo Jack Plug)
4	Input Access Switch (Switch to ON if required)
5	Auto Fade Switch (Mic overides music)
6	Mic Input volume control
7	Music Input volume control

Figure 1.4 — RPAIV Rear Panel Connections



Note: The RPAIV sends an audio signal to the BVRD2M. It is recommended to use screened cable for the connection between the RPAIV and the BVRD2M.

1.3 TECHNICAL SPECIFICATION

1.3.1 RPVS - Source Selector & Volume Control

RS485 Interface	Baud Rate & Protocol selectable via software
DC Supply	+24V DC @ 10mA
Weight	Approx 0.15Kg
Mounting Detail	Single Gang Deep Backbox
RPP1 Dimensions	(H) 94mm (W) 91mm (D) 25mm
RPP1 Weight	0.25Kg

1.3.2 RPAIV - Audio Input Panel & Volume Control

Mic Input	**Low Sensitivity**	**High Sensitivity**
Nominal I/P Level	150mV	500uV
Nominal O/P Level	800mV (0dB)	800mV (0dB)
Max I/P Level	3V	55mV
Max O/P Level	8V (+20dB)	8V (+20dB)
Freq Response	20Hz - 12KHz (-3dB)	20Hz - 12KHz (-3dB)
Signal / Noise Ratio	Better than -55dB	Better than -55dB
Music Input		
Nominal I/P Level	150mV	
Nominal O/P Level	775mV (0dB)	
Max I/P Level	3V	
Max O/P Level	8V (+20dB)	
Freq Response	30Hz - 20KHz (-3dB)	
Signal / Noise Ratio	Better than -60dB	
DC Supply	+24V DC @ 15mA	
Weight	Approx 0.25Kg	
Mounting Detail	Double Gang Deep Backbox	
RPP2 Dimensions	(H) 94mm (W) 151mm (D) 25mm	
RPP2 Weight	0.38Kg	

2 Installation & Commissioning

2.1 RPVS Installation

The RPVS allows the operator to control the volume in the local zone, and select the audio source from one of six inputs on the EVAS rack.

Connections should be made as shown in Figure 1.2 on page 2.

The unit should be mounted in a single gang, deep back-box.

2.2 RPP1 Optional Cover

If the optional cover (RPP1) is required then it should be mounted in between the backbox and the front panel of the RPVS (as shown on the cover of this manual) and secured with the two mounting screws.

2.3 RPVS USB Configuration

The RPVS configuration is set using the USB port and RPVSUSB configuration software.

A comprehensive "Help File" for the software is located in the installation directory of the configuration software.

NOTE: The RPVS must be connected to the 24V DC supply to enable the unit to be configured.

NOTE: A maximum of three RPVS units can be connected to a single RS485 port. Each RPVS unit must be given a different channel number and poll rate to ensure correct operation.

2.4 RPAIV Installation

The RPAIV allows the operator to connect a Microphone and / or Music source to the system and control the volume of these in the local zone.

Connections should be made as shown in Figure 1.4 on page 3.

2.5 RPP2 Optional Cover

If the optional cover (RPP2) is required then it should be mounted in between the backbox and the front panel of the RPAIV (as shown on the cover of this manual) and secured with the two mounting screws.