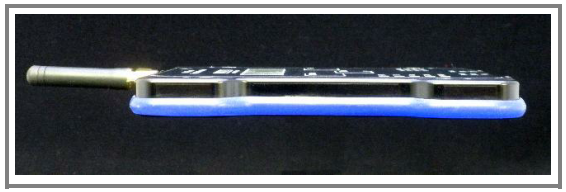

BRADLEY from BR Remote Ltd.
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RD_12

Multi Channel
Radio CCU
Receiver

BRADLEY
www.bradeng.com

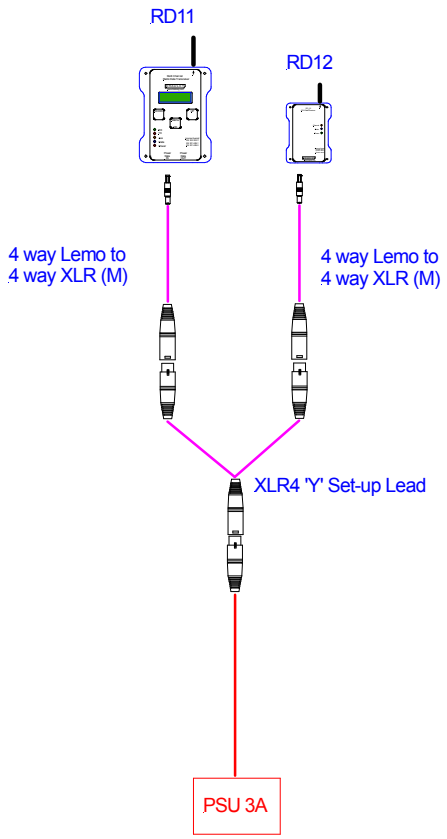
Instructions

Made in the UK

RD - 12
Operating Instructions

Contents

Connecting the RD_11 and RD_12 for configuration



Other Functions

Other functions will become available as customer demand dictates. When available, the units can be returned to BR Remote for upgrades

Specifications

Power: **9 - 24v @ 0.5W max.**

Data In/Out: **RS485**
4,800 baud, 9,600baud, 19,200baud, 38,400baud

Over Air: **4,800baud, 9,600baud or 38,400baud, depending on channel**

Outputs: **RS232, TTL, RS485, RS422**
4,800 baud, 9,600baud, 19,200baud, 38,400baud

Options: **Custom Yagi antenna**
Lens driver modules
Servo driver modules
CCU protocol modules, Sony, Ikegami, Panasonic, Toshiba, JVC,

Dimensions: **88mm x 60mm x 12.7mm**
100 Grams

Connections: **1 x Lemo 4pin, 1 x Lemo 7pin.**

Yagi Antena

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Introduction:

The **RD_12** is a latest generation, multi channel, radio data transceiver. It operates in the license-free 868Mhz band for Europe and other regions, or 915Mhz for USA.

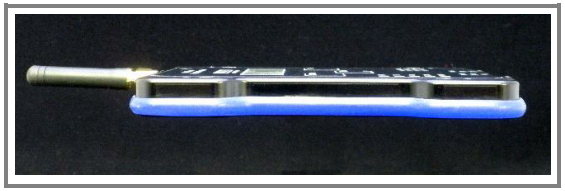
It is very rugged. The case is machined from solid aluminium, anodized, and sealed with a custom silicone seal. Only 12mm thick and fitted with Lemo connectors. All the functions are set via the RD_11 transmitter with no requirement to connect it to a computer for setups.

There are 10 (8 in USA) user selectable channels.

The **RD_12** is designed with 2 main purposes;

1. Radio CCU control for multiple camera types
2. Pan & Tilt controllers

Several professional camera protocols are built-in to the **RD_12**. ***Sony, Ikegami, JVC, Panasonic, Hitachi, S-Bus and Bradley.*** More will be included as demand requires.



It can appear complicated to configure the **RD_12** because several parameters need to be set.

Step 1. Radio Channel
Step 2. Receiver ident (or camera No.)
Step 3. Protocol to use (*Sony, Ikegami, JVC, Panasonic, Hitachi, Bradley,* etc)

You MUST set all these paramters to configure the RD_12

Set up is either over radio or by directly connecting the **RD-12** to the **RD-11** using the supplied set-up cable. If a set-up cable is supplied, use this method. Radio set-up may not function on some versions. Equally, a set-up cable may not function on older versions.

See *Page7* for the cable configuration diagram.

Connections:

INPUT
Data input is either via the 4 pin Lemo connector or over the radio link. A 4 pin Lemo plug is supplied - terminated with an XLR4 connector which can be used for power and data.

Pin 1:	Gnd	Blue
Pin 2:	Data A (RS 485)	Green
Pin 3:	Data B (RS 485)	Yellow
Pin 4:	12v	Red

Power can also be supplied via the 7 pin data data output connector. This enable just 1 single cable to connect to the camera which both supplies power and transfers data for CCU control.

OUTPUT
Outputs are via the 7pin Lemo connector. A 7 pin Lemo plug is supplied, terminated in the customer specified connector. *(Sony, Ikegami, Panasonic, Bradley, S-Bus, generic etc.)*

Pin 1:	Gnd
Pin 2:	Data A (RS 422/485) out, TTL out, S-Bus out,
Pin 3:	Data B (RS 422/485) out
Pin 4:	12v
Pin 5:	Data A (RS 422/485) in
Pin 6:	Data B (RS 422/485) in
Pin 7:	Trigger out

LED Indicators

3 LEDs indicate the status of the unit.

Power: Illuminates when power is applied
RED

Data: Flashes when good data is received and the unit is
BLUE being addressed.

If good data is received but another unit is being addressed this LED will be continuously lit until data is not transmitted.

Channel: This LED indicates the radio channel as a 'group flash' 1 - 10
ORANGE

Configuration

Configuration settings are primarily done via the **RD_11** transmitter unit. The **RD_11** and the **RD_12**. should be linked together with a cable to initiate configuration.

See *Page 7* for a diagram.

Use the ***'Setup RD_12'*** menu in the **RD_11**.

Radio Channel Change

Changing the radio channel can be done via radio or cable link. When using a cable link you do not need to know the original channel of the **RD_12.** For changing over radio, the **RD_11** must be set to the original frequency of the **RD_12** and then the channel changed from the menu. Use the ***'transmit changes'*** option.

Setting the Camera No. of the RD_12

Setting the ident of the **RD_12** is done via the cable link with the **RD_11**.
This can also be done over radio using some controllers which have this functionality.

Setting the Camera protocol

Setting the camera protocol of the **RD_12** is done via the cable link with the **RD_11**.
This can also be done over radio using some controllers which have this functionality.

S-Bus Channel Mapping

Channel 1 - Pan
Channel 2 - Tilt
Channel 4 - Roll
Channel 8 - Zoom
Channel 9 - Focus
Channel 10 - Iris.

Trigger Mode

This is a built-in method of triggering remote equipment such as recorders or lamps etc. It will activate when the '***REC'*** or ***'Tally'*** command is sent from a controller. Pin 7 of the Lemo connector is used for 'Trigger Mode'. 3 types of triggering can be set;

1. 12v output on pin 7 when active.
2. 5v output on pin 7 when active.
3. 'Open collector' grounded when active.

The triggering can be global or ident selective.

Global - All receivers on the channel will activate the trigger when commanded.
Idented - The trigger activates only when the camera ident matches.

Trigger modes are configured using the **RD_11** transmitter.