ARF18
6523 & 6524
User Guide

DECLARATION OF CONFORMITY

according to ISO/IEC Guide 22 and EN45014

Manufacturer's name: **ADEUNIS R.F**.

Manufacturer's address   Parc technologique PRE ROUX IV
283 rue Paul Louis NEEL
38920 CROLLES - FRANCE

declares that the product

Product Name: ARF18
Product Number(s):   ARF6523B
Product options:

conforms to the RTTE Directive 99/5/EC :

EMC   : conformity is proven by compliance to the standard EN 301489
according to the requirements of EMC Directive 89/336/EEC.

Safety   : conformity to the standard EN 60950 according to the requirements of Low
Voltage Directive 73/23/EEC.

Radio   : conformity is proven by compliance to harmonized standard
EN 300220 covering essential radio requirements of the RTTE
directive.   .

Notes   :- Conformity has been evaluated according to the procedure
described in Annex III of the RTTE directive.
- The use of the spectrum is harmonized by the fact that the product
never falls in one of the restrictions listed in appendix 3 (Annex 1,
band E) of the CEPT recommendation 70-03.
- Receiver class (if applicable) : 2.
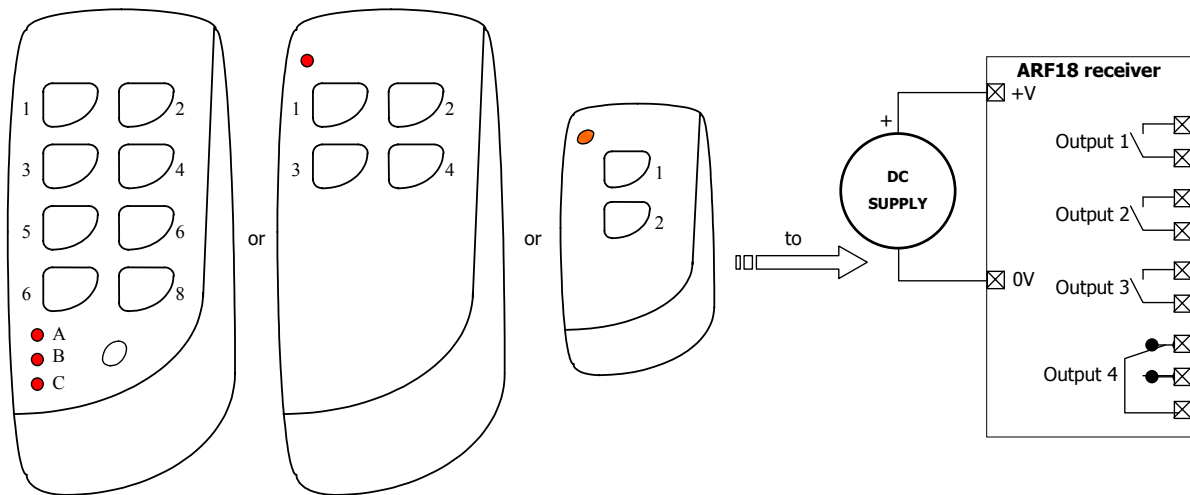
Crolles, April 4th, 2001

VINCENT Hervé / Quality manager

PRESENTATION

The ARF6523 receiver controls 4 relays according to orders sent by ARF18 range remote controls.

It is a one-way system, the system behaves as 4 links: output 1 corresponds to input 1, output 2 to input 2 etc.

The link between remote control and receiver is only effective after a learning phase.

The products are available either in board version to be integrated in an assembly, or standalone in an IP65 housing.

PRODUCT INSTALLATION

The ARF6523D receivers are fixed by the fixing lugs onto the top (antenna) and bottom (stuffing box) parts of the housing. Any operation (drilling…) performed on the housing makes it lose its IP65 tightness rating.

Remove the two stainless steel screws (A and B) and take the bottom part off to access the power supply terminal blocks and contacts.


Remove the screws from the part with stuffing box (A)
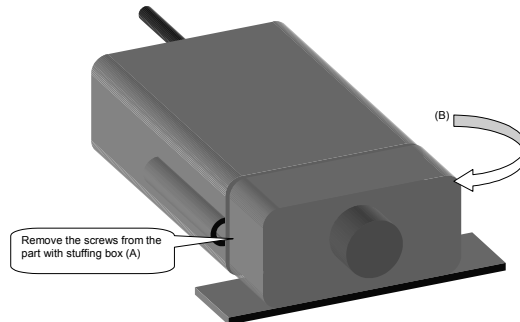
- **Supply voltage**

Cut the voltage supply, then wire the power supply up to the screw terminals marked + and -.

DC voltage supply
Maximum 30 V
Minimum 15 V

DC voltage supply
Maximum 24 V
Minimum 9 V
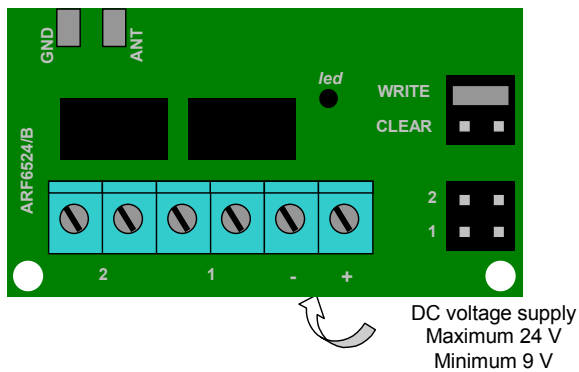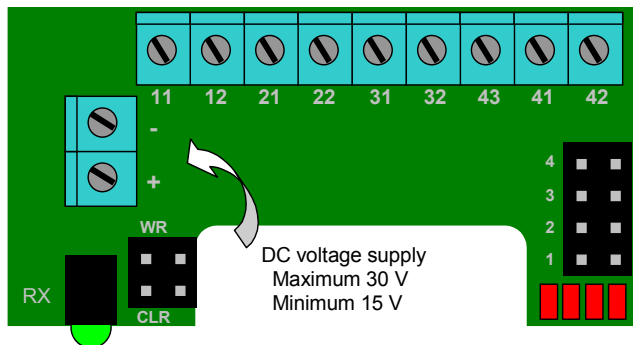
- **<u>Dry contact connection</u>**

The ARF6523 receiver has 3 relays with a single NO contact and one relay with NO and NC contacts. These relays are designed to cut 12A / 230V. Independently from one another the relays can operate in bistable mode (position change at each transmission) or monostable mode (closed during the transmission receipt time).

The presence of a strap sets the corresponding relay to bistable mode
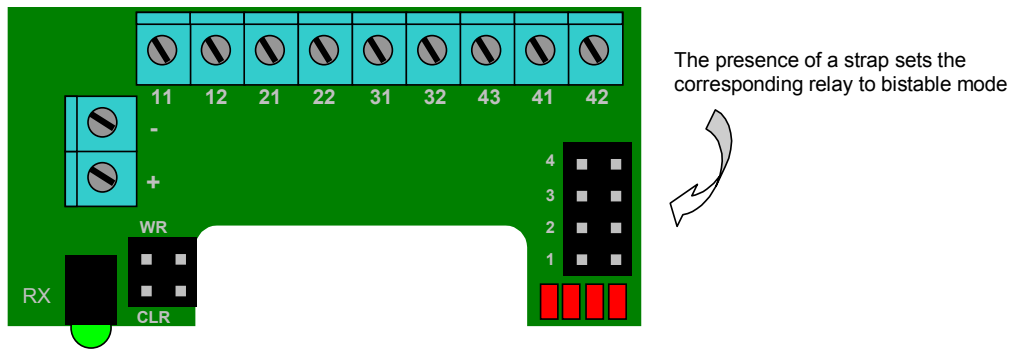
Wiring example:
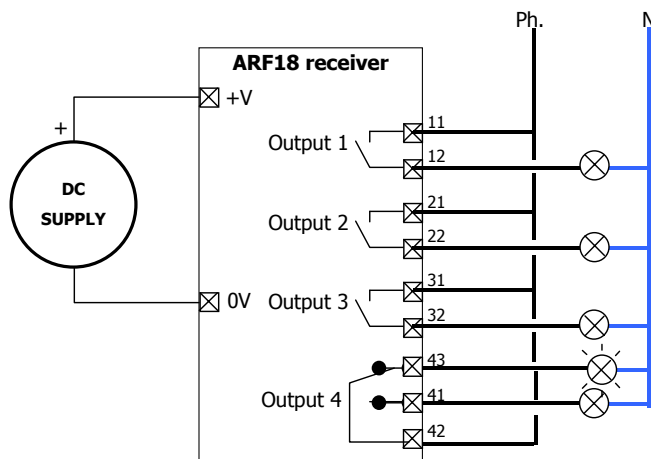
The ARF6524 receiver has 2 relays with a single NO contact. These relays are designed to cut 62.5 VA with a maximum current of 1A.

4-RELAYS RECEIVER LEARNING

It is recommended for this operation not to supply power the contacts from the mains.

Power up the receiver, the RX led flashes twice, (notifying that there is no transmitter associated to the receiver).

Take the remote controls that are to be associated to the receiver. Up to 16 remote controls (all types together) can be associated to a single receiver. Several receivers can respond to the same remote control.

- **2-button and 4-button remote controls association**
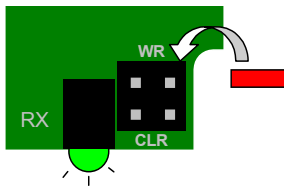
1. Power up the receiver (DC voltage) and remove all the jumpers from the 4 * 2-point strip on the right and set a jumper on the WR position. The RX led must be ON.

2. Press a key on the remote control (for about 10 seconds), the RX led blinks.

3. Remove the WR jumper, the RX led must be OFF ➔ the product is functional (when a valid frame is received (associated key pressed), the RX led blinks).

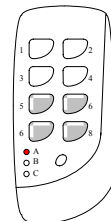- **8+1 button remote control association**

This 24-channel remote control enables controlling up to 6 receivers (depending of the jumper position during the learning phase, as described hereafter):
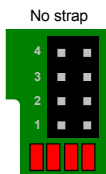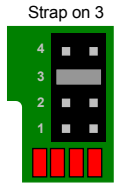

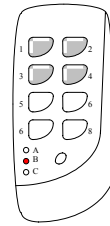The relay 1 will be associated to the button A1, 2 to A2, … and 4 to A4
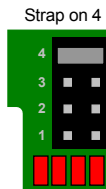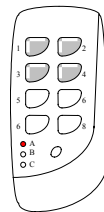
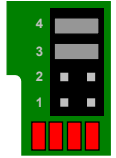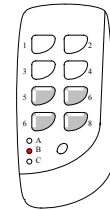The relay 1 will be associated to the button A5, 2 to A6, … and 4 to A8

Strap on 3

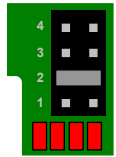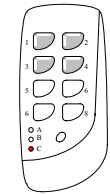The relay1 will be associated to the button B1, 2 to B2, … and 4 to B4

Straps on 3 and 4

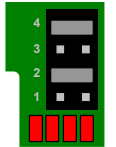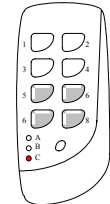The relay 1 will be associated to the button B5, 2 to B6, … and 4 to B8

Strap on 2

The relay 1 will be associated to the button C1, 2 to C2, … and 4 to C4

Straps on 2 and 4

The relay 1 will be associated to the button C5, 2 to C6, … and 4 to C8

1. Set the jumpers (as described above) for associating the expected keys

2. Set a jumper on the WR position. The RX led must be ON.

3. Press a key on the remote control (for about 10 seconds), the RX led blinks.

4. Remove the WR jumper, the RX led must be OFF ➔ the product is functional (when a valid frame is received (associated key pressed), the RX led blinks).

- **4 relays memory clear**

To delete the content of the receiver memory, set a jumper on the CLR position:
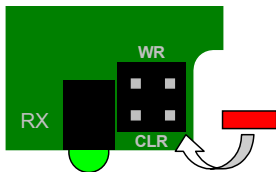
1. Maintain the jumper (for about 10 seconds), the RX led flashes. The receiver memory is cleared.

2. Remove the CLR jumper, the led is double flashing (notifying that there is no transmitter associated to the receiver).

2-RELAYS RECEIVER LEARNING

It is recommended for this operation not to supply power the contacts from the mains.

Power up the receiver, the RX led double flashing (notifying that there is no transmitter associated to the receiver).

Take the remote controls that are to be associated to the receiver. Up to 16 remote controls (all types together) can be associated to a single receiver. Several receivers can respond to the same remote control.

- **2-button and 4-button remote controls association**
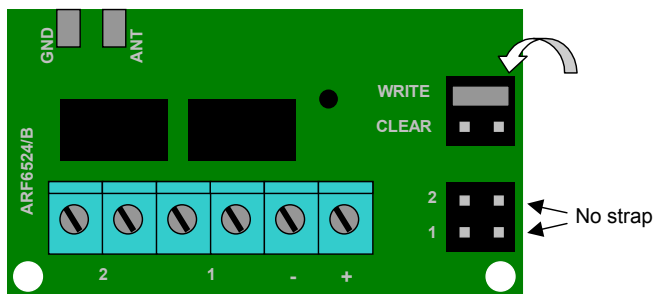
1. Power up the receiver (DC voltage) and remove all the jumpers from the 2 * 2-point strip on the right and set a jumper on the WRITE position. The RX led must be ON.

2. Press a key on the remote control (for about 10 seconds), the RX led blinks.

3. Remove the WRITE jumper, the RX led must be OFF ➔ the product is functional (when a valid frame is received (associated key pressed), the RX led blinks).

- **8+1 button remote control association**

This 24-channel remote control enables controlling up to 2 receivers (depending of the jumper position during the learning phase, as described hereafter):

The relay 1 will be associated to the button A1, 2 to A2

Strap on 2
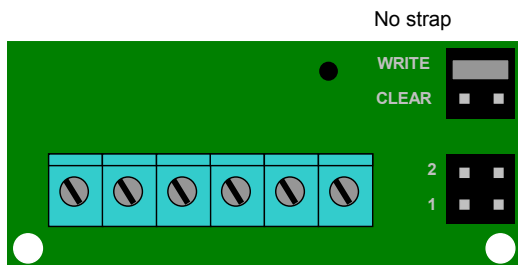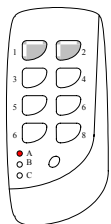
The relay 1 will be associated to the button C1, 2 to C2

1. Set the jumpers (as described above) for associating the expected keys
2. Set a jumper on the WRITE position. The RX led must be ON.
3. Press a key on the remote control (for about 10 seconds), the RX led blinks.
4. Remove the WRITE jumper, the RX led must be OFF ➔ the product is functional (when a valid frame is received (associated key pressed), the RX led blinks).
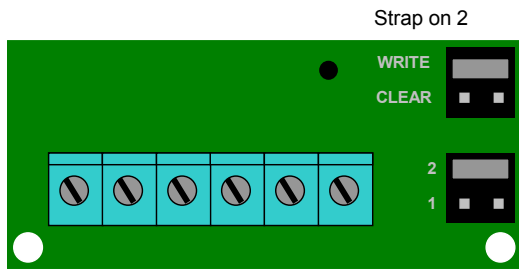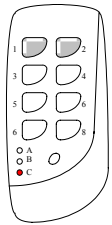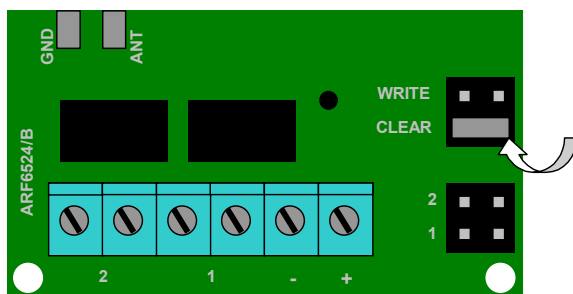
NB: The learning must be done by pressing one of the grey buttons.

- **2-relay memory clear**

To remove the content of the receiver memory, set a jumper on the CLEAR position:

1. Maintain the jumper (for about 10 seconds), the RX led flashes. The receiver memory is cleared.
2. Remove the CLEAR jumper, the led is double flashing (notifying that there is no transmitter associated to the receiver).

ANTENNA WIRING

In daughter board version, an antenna has to be added to achieve correct communication between the products.

This antenna should be a wire with a length of ¼ wave i.e. about 17 cm. This length is that which has to extend outside the housing if the latter is metallic.

This antenna can be located remotely using a coaxial cable with its braid stripped over the last 17 centimetres.
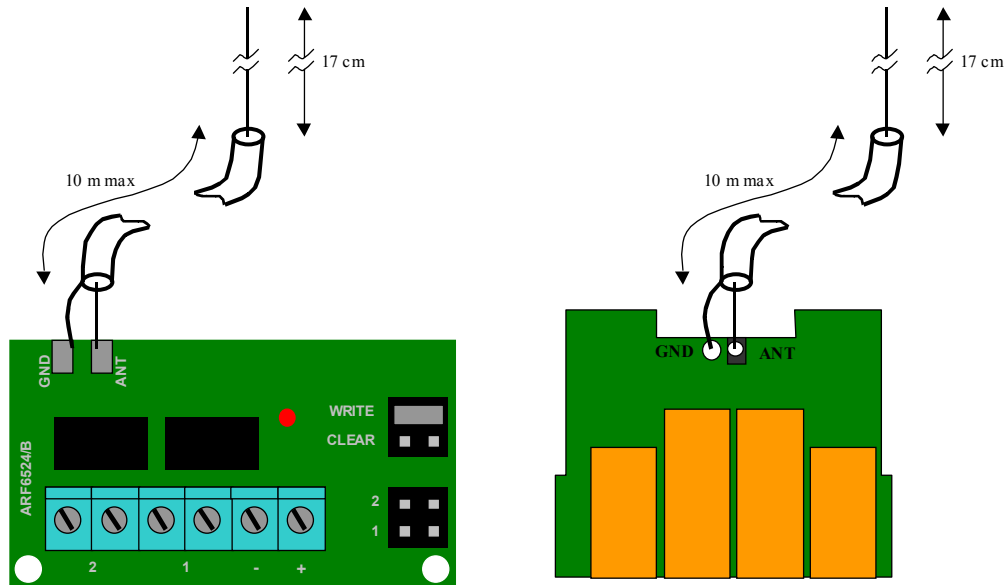
TECHNICAL DATA

- Operating temperature: -20°C to +70°C

- Power supply: 15 to 30 V_{DC} (4 relays)

   9 to 24 V_{DC} (2 relays)

- Connection by M3 screw terminal block: 1.5 / 2.5 mm²

	ARF6523x receiver	ARF6524A receiver
	AM frequency 433.9 MHz	AM frequency 433.9 MHz
Sensitivity	better than 1.2 µV	better than 1.2 µV
	3 COM / NO relays + 1 COM / NO / NC relay	2 COM / NO relays
Consumption	20 mA excluding output	12 mA excluding output
Consumption	130 mA including output	75 mA including output
Breaking capacity	230V I_{max} 12 A	62,5VA I_{max} 1A
Dimensions	Board: 65 x 90 x 25mm Ip65 box: 104 x 300 x 35	Board: 57 x 35 x 25mm
Distance between fixing points	4 holes diam 4 to 92 x 61mm	4 holes to 26.7 x 49.5mm

Product references

- ARF6523A: 4-relays receiver daughter board
- ARF6523B: 4-relays receiver in IP65 housing
- ARF6524A: 2-relays receiver daughter board
- ARF6141A: 2-button remote control
- ARF6142A: 4-button remote control
- ARF6143A: 8-button 24-channel remote control
- ARF03: Antenna kit for the ARF6523 in board version