



## IMPORTANT INFORMATION

Information provided in this manual is used for the installation of the radio remote control on the machine and for its maintenance.

Information provided in this manual allows to disable, enable and set some radio remote control's functions that may have impacts on the risk assessment related to the radio remote control.

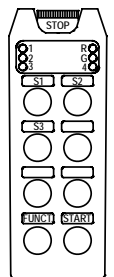
Information provided in this manual cannot be used and performed by people who are not competent and responsible for this matter.

Those who use this information must have been trained about the radio remote control and its risks by Autec's personnell or by people authorized by Autec.

Autec srl cannot be held liable for responsibilities resulting from the modification of these functionalities.

## AIR SERIES

Back-up unit (with PAIR 1.0)





# General Section

## General instructions

This manual aims at providing information to enable, disable and modify the features of Autec Air series' radio remote controls.

This manual and the "user manual" need to be fully read and understood by those who decide upon and/or modify the radio remote control's features.

Contact Autec if any of the instructions and/or warnings provided in this manual are not clear.

No part of this manual may be reproduced, in any form or by any means, without written permission of Autec (including recording and photocopying).

All operations described in this manual must be carried out by qualified technicians who are suitably trained with respect to the relevant norms and laws.

As for instructions and warnings regarding the machine where the radio remote control is to be installed, follow the instructions given in the machine's manual.

## Symbol conventions

This manual contains two symbols that highlight special indications.

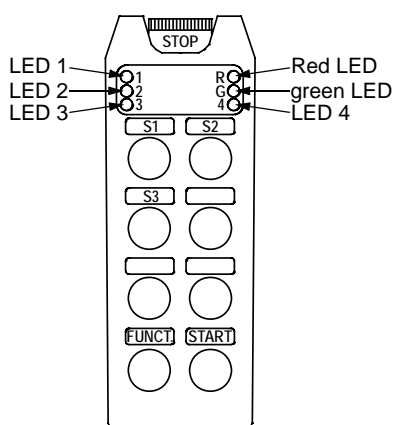


This symbol marks all extremely important indications and information: if they are not respected, this may result in critical danger for people or property.



This symbol identifies all texts in the manual that shall be read carefully.

## Caption



Signals	
	LED is off
	LED blinks once in a second
	LED blinks twice in a second
	LED blinks three times in a second
	LED is steady on
	LED repeats 1 blink and an off phase
	LED repeats 2 blinks and an off phase
	LED repeats 3 blinks and an off phase
	LED repeats 4 blinks and an off phase
	LED repeats 5 blinks and an off phase

Pushbuttons	
	pushbutton is released
	pushbutton pressed to first step
	pushbutton is pressed

# BACK-UP UNIT

## (with PAIR 1.0)

In radio remote controls consisting of one transmitting unit and one receiving unit, when the transmitting unit cannot be used any more it is possible to replace it with a back-up unit by performing the PAIR 1.0. procedure  
The back-up transmitting unit is identical to the radio remote control's transmitting unit.  
The back-up unit is marked with a label on the battery cover reading "BACK-UP UNIT".

The PAIR 1.0 procedure is used to match a transmitting unit with a receiving unit.

**The PAIR 1.0 procedure can only be performed if the radio remote control's transmitting unit cannot be used any more (being broken, lost, damaged), that is to say, only in case of maintenance or replacement.**



**WARNING** This procedure can only be used for radio remote controls consisting of a transmitting unit and a receiving unit.  
**This procedure cannot be used to share the control of a receiving unit among different transmitting units: if it is used for that purpose, the machine where the radio remote control is used will result non-compliant (ref. IEC 60204-1 and IEC 60204-32).**

### Warnings



**WARNING** Specific competence and caution are required to carry out the PAIR 1.0 procedure: only those who are aware of risks deriving from the use of the system "machine + radio remote control" can perform this procedure.



**WARNING** As required by standards IEC 60204-1 (§9.2.7.4) and IEC 60204-32 (§9.2.7.5), the PAIR 1.0 procedure ensures that one single transmitting unit is enabled to control the machine at a specific moment.  
Hence, a receiving unit can only be controlled by the last transmitting unit that performed the PAIR procedure. After performing the PAIR procedure, the transmitting unit that was previously paired cannot control the machine any more.



**WARNING** Before pairing the back-up unit with a receiving unit, those who perform the PAIR 1.0 procedure must do the following:  
- store the transmitting unit to be replaced in an inaccessible place  
- inform all persons involved that this unit cannot control the machine any more.  
This way, operators won't have doubts on which unit is to be used.



**WARNING** As required by standard IEC 60204-32, each radio remote control is uniquely identified through a serial number ("SERIAL N."). The "SERIAL N." is provided in the identification plate in the two units that compose the radio remote control. For this reason, in case of replacement move the battery cover from the replaced transmitting unit to the back-up unit, so that the transmitting unit shows the same "SERIAL N." as the paired receiving unit.  
Autec cannot be held liable if the battery cover, where the "SERIAL N." is reported, is not moved to the back-up unit.



If it were not possible to use the battery cover of the replaced transmitting unit or if the identification plate were damaged and/or not readable, write the "SERIAL N." indelibly.  
If it were not possible to use the battery cover of the replaced transmitting unit or if the identification and technical data plates were damaged and/or not readable, contact Autec.



**WARNING** After performing the PAIR procedure, test the system "machine+radio remote control" and make sure that the back-up unit is paired with the right receiving unit. Also make sure that the commands sent correctly match with the actions performed by the machine (in particular the STOP command).

## Introduction to the PAIR 1.0 procedure

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The PAIR procedure is used to match a transmitting unit with a receiving unit.

Before performing the PAIR 1.0 procedure, do the following:

- In the data sheet related to the receiving unit you want to pair, look up the "PAIR" section under "FACTORY SETTINGS" and check that it reads "1.0".
- Make sure that the transmitting unit has not already been paired with any receiving unit; in case it is, perform the UNPAIR procedure (see the document "Menu of Transmitting Unit (MTU)", which is also available in Autec's website).
- Make sure that the transmitting unit is set on the same frequency band as the receiving unit. The frequency band is selected by DIP 1 on the transmitting unit's battery housing and DIP 1 on the receiving unit. These DIPs shall be set in the same way.



With the PAIR procedure, PIN START UP, PIN CODE and SWITCH OFF are restored to factory settings. If those settings have been modified (as recorded in the technical data sheet), restore them as shown in the document "Menu of Transmitting Unit (MTU)", which is also available in Autec's website.



A single transmitting unit can be paired endless times with the same receiving unit, whereas each receiving unit can be paired with up to 15 different transmitting units.

It is not possible to perform the PAIR 1.0 with AIR series radio remote controls with Serial Number lower than GA01560 and back-up transmitting units with "MANUF. DATE 2011": please contact Autec if this is the case.

## PAIR 1.0

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The PAIR 1.0 SERIAL procedure saves in the transmitting unit the "SERIAL N." of the receiving unit you want to pair. This way the possibility of pairing the unit with an undesired receiving unit is avoided, without the need to open the receiving unit.



**WARNING** The pairing may occur even when the transmitting unit is placed in enclosed spaces or is out of sight (e.g. the transmitting unit and receiving unit are not in the same working environment or are separated by walls). Therefore, do not perform this procedure if the receiving unit is out of sight, as it is important to follow the correctness of the pairing step by step.



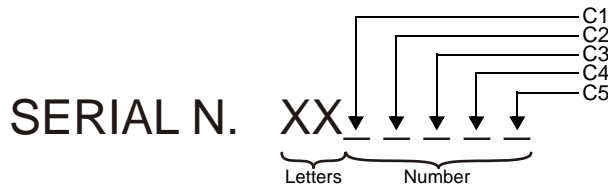
**WARNING** Pay particular attention when entering the "SERIAL N.". If a wrong "SERIAL N." is entered, the transmitting unit may get paired with an undesired receiving unit if this is in its working range (even though the pairing in this case has very low probabilities to happen).

To perform the PAIR 1.0 procedure, do the following:

1. Note down the "SERIAL N." corresponding to the receiving unit you want to use for the PAIR procedure (see page 4).
2. Save the number (excluding the first two letters) that forms the "SERIAL N." in the transmitting unit (see page 4).
3. Pair the transmitting unit with the desired receiving unit (see page 5).
4. Make sure that the transmitting unit is paired with the desired receiving unit (see page 5).

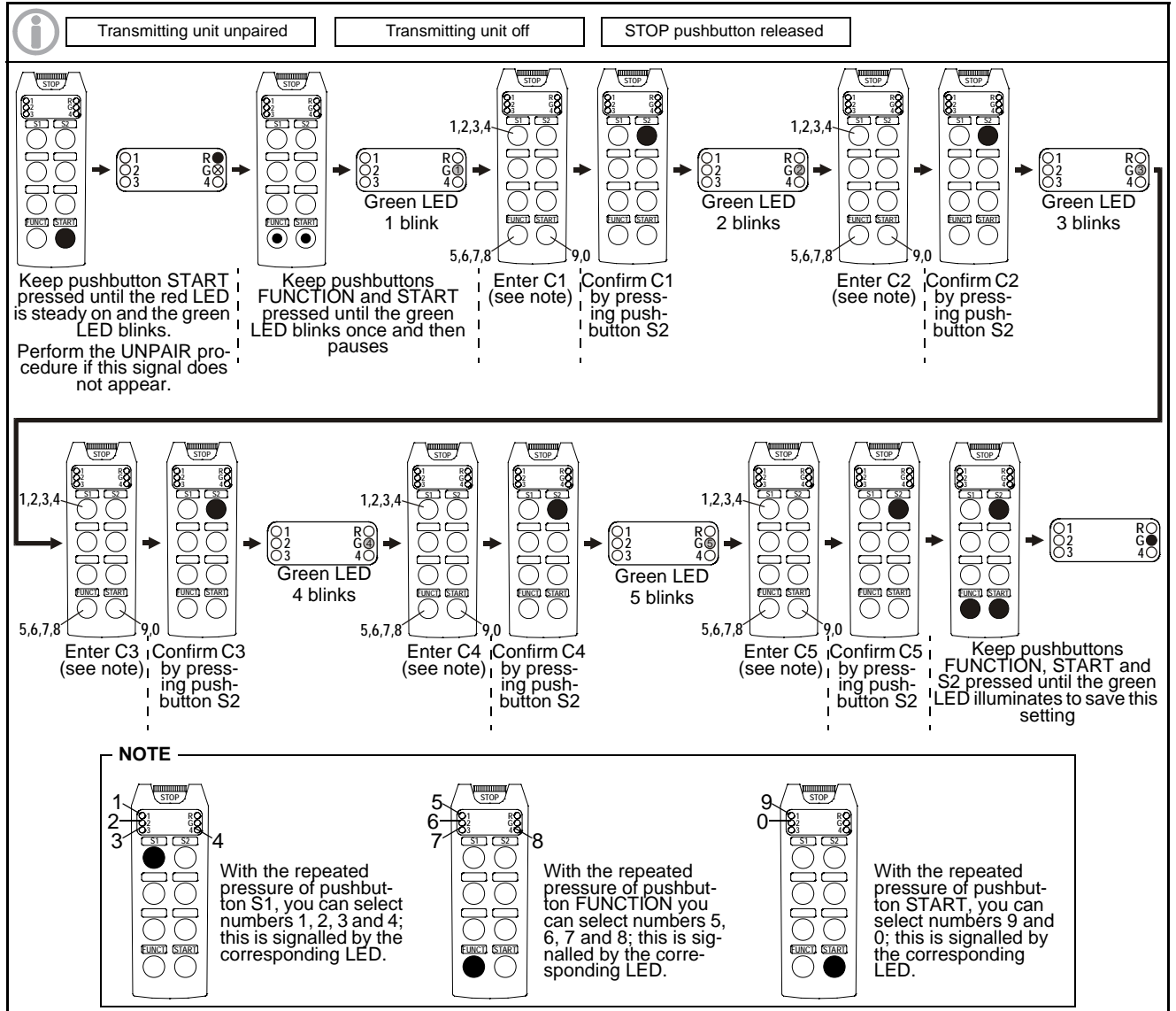
**Finding the "SERIAL N."**

The "SERIAL N." is present on the identification plate (or in the address key) of the receiving unit you want to pair.



**Saving the "SERIAL N."**

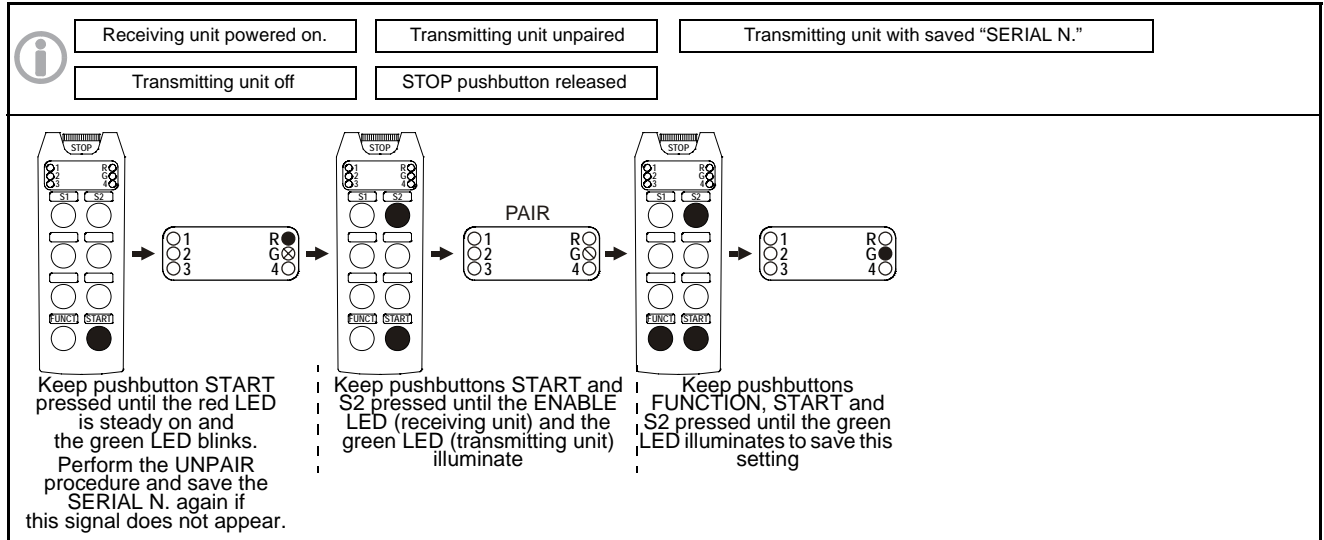
To save the number that forms the "SERIAL N." in the transmitting unit, perform the following procedure with the transmitting unit unpaired, switched off and with the STOP pushbutton released.



### Pairing the units

**WARNING** To avoid that the transmitting unit pairs with an undesired receiving unit if a wrong SERIAL N. is entered, check if other Air series receiving units are present within the radio remote control's working range. If that is the case, it is recommended to remove power supply from all units that are not involved in the pairing procedure before performing the procedure itself.

To pair a transmitting unit with a receiving unit, perform the following procedure with the receiving unit powered on, the transmitting unit not paired, switched off, with the SERIAL N. saved and with the STOP pushbutton released.



### Checking pairing

To make sure that the transmitting unit is paired with the desired receiving unit, start up the radio remote control and check LED signals in the transmitting unit and the **ENABLE LED** signal in the receiving unit.

Transmitting unit	Receiving unit	PAIRING	
The green LED blinks slowly.	The <b>ENABLE LED</b> is off.	<b>WRONG</b> 	The transmitting unit has been paired with an undesired receiving unit because a wrong "SERIAL N." has been saved.  <b>This situation is highly dangerous, so immediately press the STOP pushbutton<sup>a</sup>.</b>
The green LED blinks. The red LED is on.	The <b>ENABLE LED</b> is off.	<b>FAILED</b>	The transmitting unit has not been paired with any receiving unit. You need to repeat the <b>PAIR 1.0</b> procedure.
The green LED blinks slowly.	The <b>ENABLE LED</b> blinks.	<b>SUCCEEDED</b>	The transmitting unit has been paired with the desired receiving unit.

- a. If the transmitting unit is paired with a receiving unit that is not the desired one, do the following:
- 1 restore the receiving unit that has been paired by mistake: perform the **UNPAIR** (this procedure deletes the "SERIAL N." that has previously been saved); then perform the **PAIR** procedure with the transmitting unit that was originally paired with this receiving unit;
  - 2 finally perform the **UNPAIR** procedure and repeat the **PAIR 1.0** procedure with the desired transmitting unit.

