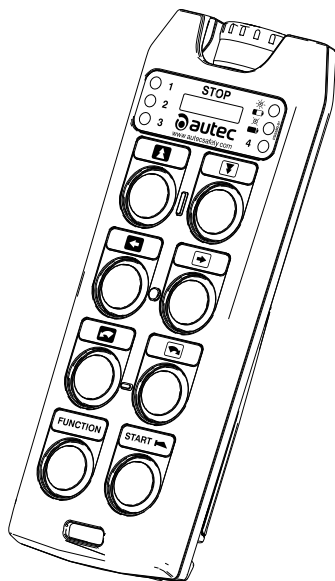


Instruction Manual for the use and the maintenance of the Radio Remote Control

Original instructions



**Part C: A8+ (Model A08 Type LA5AM)
Transmitting Unit**

AIR SERIES



WARNING

THIS PART OF THE MANUAL CONSISTS OF: Part C - Information, instructions and warnings for the A8+ (Model A08 Type LA5AM) Transmitting Unit. The Manual consists of Part A – General, Part B – Conformity and Frequencies, Part C – Transmitting Unit, Part D – Receiving Unit, Part E – Battery and Battery Charger, plus the Technical Data Sheet.

THIS MANUAL, INCLUDING ALL PARTS THEREOF, AND ALL INSTRUCTIONS CONTAINED HEREIN, MUST BE READ CAREFULLY AND UNDERSTOOD BEFORE INSTALLING, USING, MAINTAINING OR REPAIRING THE AUTEK RADIO REMOTE CONTROL.

FAILURE TO READ AND COMPLY WITH ALL APPLICABLE WARNINGS AND INSTRUCTIONS OR ANY ONE OF THE LIMITATIONS NOTED IN THIS MANUAL CAN RESULT IN SERIOUS BODILY INJURY OR DEATH, AND/OR PROPERTY DAMAGE.

THE AUTEK RADIO REMOTE CONTROL IS NOT A STANDALONE PRODUCT AND IS INTENDED ONLY AS A COMPONENT ON A MACHINE:

- **ON WHICH AND WHERE THE USE OF A RADIO REMOTE CONTROL IS APPROPRIATE,**
- **THAT CAN BE OPERATED SAFELY AND IN ACCORDANCE WITH ALL APPLICABLE LAWS, REGULATIONS AND STANDARDS BY SUCH REMOTE CONTROL.**

ACCORDINGLY, IT IS THE RESPONSIBILITY OF THE MANUFACTURER AND OF THE DESIGN PROFESSIONALS OF THE MACHINE ON WHICH THE AUTEK RADIO REMOTE CONTROL IS TO BE INSTALLED, that a full and proper risk assessment is done to determine whether the use and installation of the Autec Radio Remote Control is appropriate for the safe and effective operation of the Machine by a Radio Remote Control in the facility and for the purposes intended, and that the installation, maintenance and operation of the Autec Radio Remote Control and all of its components are done solely and completely in accordance with this Manual, and with all local applicable laws, safety rules and standards (all of the foregoing referred to herein as “Laws, Regulations and Standards”).

With reference to the USA market the Laws, Regulations and Standards include all safety rules and regulations of the Occupational Safety & Health Administration (OSHA) (<http://www.osha.gov>), all federal, state and local laws, regulations and building and electrical codes, and all applicable standards, including but not limited to ANSI Standards.

It is also the responsibility of the Manufacturer and of the design professionals of the Machine on which the Autec Radio Remote Control is to be installed and used to be certain that the structure, condition, organization and markings of the Machine as installed at the facility is appropriate for and will allow for the safe and reliable use and control of the Machine through the Autec Radio Remote Control interface.

IT IS THE RESPONSIBILITY OF THE OWNER AND FACILITY OPERATOR, AND THEIR DESIGN PROFESSIONALS, that the installation, maintenance and operation of the Autec Radio Remote Control and all of its components are done solely and completely in accordance with this Manual, and with all applicable Laws, Regulations and Standards, even local. It is also the responsibility of the Manufacturer of the Machine on which the Autec Radio Remote Control is to be installed and used, and their design professionals, to be certain that the structure, condition, organization and markings of the Machine as installed at the facility is appropriate for and will allow for the safe and reliable use and control of the Machine through the Autec Radio Remote Control interface.

ONLY QUALIFIED AND PROPERLY TRAINED PERSONNEL SHOULD BE PERMITTED TO OPERATE OR USE THE AUTEK RADIO REMOTE CONTROL AND THE MACHINE OPERATED BY OR THROUGH THE AUTEK RADIO REMOTE CONTROL. ONLY QUALIFIED AND PROPERLY TRAINED PERSONNEL SHOULD BE PERMITTED TO BE IN THE VICINITY OF MACHINE OPERATED BY OR THROUGH THE AUTEK RADIO REMOTE CONTROL.

FAILURE TO PROPERLY INSTALL, OPERATE, MAINTAIN AND SERVICE THE AUTEK RADIO REMOTE CONTROL CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE. Refer to this Manual and each of its Parts for further assistance or contact Autec. Autec is not responsible for and shall not be held liable for any installation of the Autec Radio Remote Control not performed by Autec or for any use of the Autec Radio Remote Control not in complete compliance with, and/or not maintained in complete compliance with, all Autec instructions and warnings and all applicable Laws, Regulations and Standards, even local.

Autec is not responsible for and shall not be held liable for any alteration or modification of the Autec Radio Remote Control, or the use of non-Autec components or products used with or incorporated into the Autec Radio Remote Control.

IT IS THE RESPONSIBILITY OF THE OWNER AND FACILITY OPERATOR, AND THEIR DESIGN PROFESSIONALS, to be certain that the Autec Radio Remote Control is properly maintained and serviced at all times in compliance with all Autec instructions and warnings, and with all applicable Laws, Regulations and Standards, even local.

IT IS THE RESPONSIBILITY OF THE OWNER AND FACILITY OPERATOR, AND THEIR OFFICERS, MANAGERS AND SUPERVISORS, to be certain that all Users of the Autec Radio Remote Control and that all Persons who are or will be working with or near the Machine operated by or through the Autec Radio Remote Control are fully and properly educated and trained by qualified Personnel in the proper and safe use of the Autec Radio Remote Control and of the Machine, including without limitation complete familiarity with and understanding of Autec warnings and instructions, and all applicable Laws, Regulations and Standards, even local, and that such Users and other Persons do in fact at all times operate or work with the Autec Radio Remote Control safely and ONLY in compliance with Autec instructions and warnings and with all applicable Laws, Regulations and Standards, even local. FAILURE TO DO SO CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

IT IS THE RESPONSIBILITY OF THE OWNER AND FACILITY OPERATOR, AND THEIR OFFICERS, MANAGERS AND SUPERVISORS, to be certain that the areas in which the Machine operated by or through the Autec Radio Remote Control is located and operates are clearly delineated and marked in accordance with all Autec warnings and instructions, and all applicable Laws, Regulations and Standards, even local, and otherwise sufficient to alert and warn ALL PERSONS that the Machine is operated by or through a Radio Remote Control, and prohibiting any unauthorized access thereto. FAILURE TO DO SO CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

FAILURE TO OPERATE THE AUTEC RADIO REMOTE CONTROL SAFELY AND IN COMPLIANCE WITH AUTEC INSTRUCTIONS AND WARNINGS AND WITH APPLICABLE LAWS, REGULATIONS AND STANDARDS, EVEN LOCAL, AND/OR PERMITTING USERS OR OTHER PERSONS NOT PROPERLY TRAINED IN THE SAFE AND PROPER USE OF THE SYSTEM, OR THE MACHINE ON WHICH IT IS INSTALLED, CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

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1 Information on the use of instructions



Before reading this part of the Manual, you must read and understand the general part (Part A) of the Manual provided with the Radio Remote Control.

1.1 Structure of the Instruction Manual

The Manual for the use and maintenance of Autec Air series Radio Remote Controls consists of different parts, that altogether form the Manual; the Manual must be read carefully, understood and applied by the Radio Remote Control's Owner, User and by all those Persons that, for any reasons, may operate with the Radio Remote Control or with the Machine where it is installed. The following table describes the structure of the Instruction Manual for the use and the maintenance of the Radio Remote Control.


Part	Title	Contents
A	General part	<ul style="list-style-type: none"> - General information regarding the series, - directions for risk assessment of the "Machine+Radio Remote Control" system, - warnings for installation of the Radio Remote Control, - warnings for use and maintenance of the Radio Remote Control, - instructions for correct transportation and storage of Radio Remote Control.
B	Conformity and frequencies	<ul style="list-style-type: none"> - Operating frequency bands of the Radio Remote Control, - conformity and law references of the Radio Remote Control.
C	Transmitting Unit	Description and instructions concerning the Transmitting Unit, including: <ul style="list-style-type: none"> - description of operation, - commands, - light signals, - malfunctions, - additional instructions to the general part.
D	Receiving Unit	Description and instructions concerning the Receiving Unit, including: <ul style="list-style-type: none"> - description of operation, - light signals, - malfunctions, - additional instructions to the general part.
E	Battery and Battery Charger	Description, warnings and instructions concerning batteries and Battery Chargers, including: <ul style="list-style-type: none"> - description of operation, - light signals, - malfunctions, - instructions for the User.

Usage and maintenance instructions are supplemented by the Radio Remote Control's Technical Data Sheet, that:

- describes the Transmitting Unit's configuration,
- indicates the relation between commands sent by the Transmitting Unit and those available on the Receiving Unit.

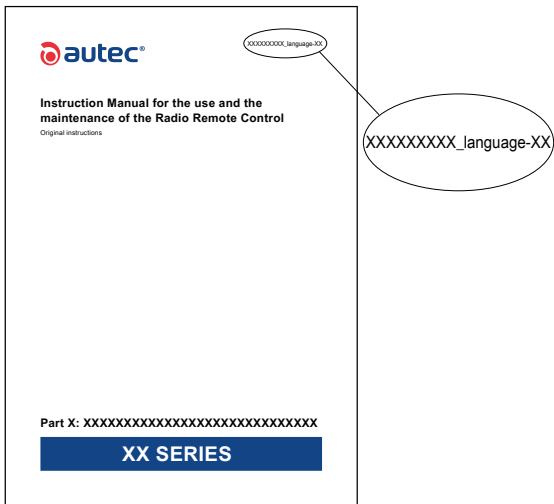
Usage and maintenance instruction as a whole are to be considered as an integral part both of the Autec Radio Remote Control and of the Machine, system, device or Machinery system where the Radio Remote Control is installed.

The Manufacturer of the Machine on which the Autec Radio Remote Control is installed, and the Owner and User of the Machine, must make sure that the Instruction Manual and all of its parts are included in the Instruction Manual of the Machine.


	The CD attached to each Instruction Manual includes the translations of the Manual.
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Act as follows to identify the single Manual parts in the relevant language in the CD:

- identify the correct section depending on the Radio Remote Control serial number,
- choose the desired language,
- select the single parts of the Manual: refer to the code name provided on the cover of each part.



1.2 Caption and terminology

	Contact Autec if any of the instructions, symbols, warnings or images are not clear and understandable, or if you have doubts or questions.
---	---


In this part of the Manual, the terms listed below have the same meaning explained in the corresponding paragraph of the general part (Part A):


- **Unit**
- **Radio Remote Control**
- **Transmitting Unit**
- **Receiving Unit**
- **Machine**
- **Manufacturer**
- **Installer**
- **User**
- **Maintenance Technician**
- **Manual or Instruction Manual**
- **Installation Manual**
- **Person**
- **Owner**

Functions indicated for the Manufacturer, the Installer, the User and the Maintenance Technician may be performed by a single Person, if he/she has the needed competence and undertakes the resulting responsibilities. Each Person must be aware of the instructions contained in the Manual, depending on the activity they carry out.

For example, if a Manufacturer is also the Installer, and/or Maintenance Technician, he must also know and follow the instructions specifically addressed to those Persons. The same applies, for example, if a User is also the Manufacturer and/or the Installer.

1.3 Symbols

	This symbol identifies the parts of text in the Manual that must be read with special attention.
---	--

 WARNING	This symbol identifies the parts of text in the Manual containing warnings, information and/or instructions that are particularly relevant with regards to safety; failure in understanding them may cause hazards for People and/or property.
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1.4 To whom the instructions are addressed

Addressees of instructions are listed in the paragraph with the same title in the general part: please refer to that part.

1.5 Instruction storage

Regulation for the storage of instructions are described in the paragraph with the same title in the general part: please refer to that part.

1.6 Intellectual property

Restrictions connected to intellectual property are described in the paragraph with the same title in the general part: please refer to that part.

2 Brief product presentation

2.1 Series, Radio Remote Control and Unit

The object of this part of the Manual is the A8+ (Model A08 Type LA5AM) Transmitting Unit of an Air series' Autec Radio Remote Control.

Autec Air series' Radio Remote Controls are designed to be used on Machines and provide a command interface to their command and control system, to be used from an appropriate distance and position.

2.2 Conformity with standards

The conformity of Radio Remote Controls with standards and with working requirements and conditions in the single Countries is provided in the related specific part "Conformity and frequencies" (Part B) of the Manual.

2.3 Contacts and useful addresses

The Radio Remote Controls are produced by Autec srl – Via Pomaroli, 65 – 36030 Caldogno (VI) – ITALY.

You can find contacts for Autec, its distributors, dealers and authorized service centres on the website www.autecsafety.com.

2.4 Warranty

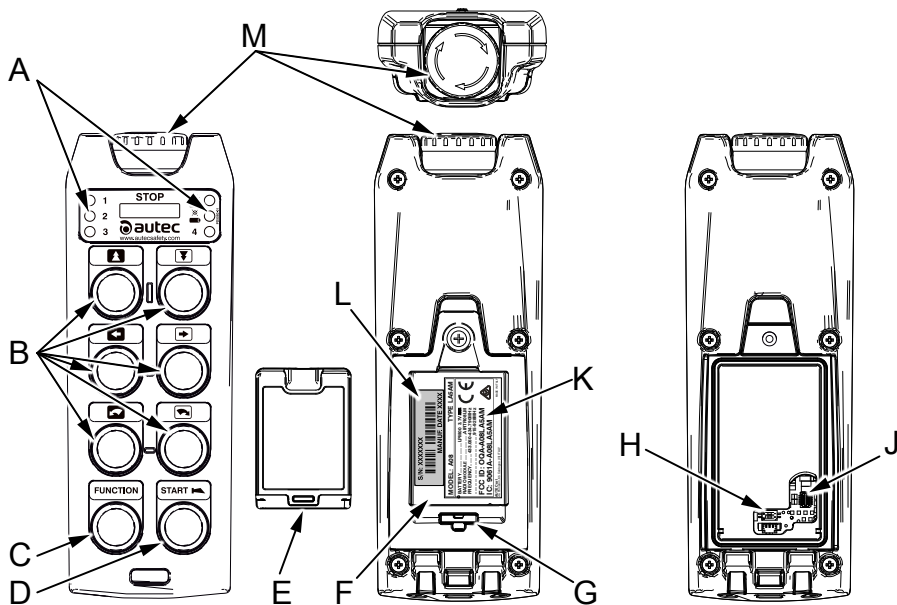
General warranty conditions are indicated both in the relevant sheet provided together with this documentation, and in the specific page on the website www.autecsafety.com.

2.5 Technical assistance and spare parts

If you need technical services and/or spare parts, please refer to contacts provided in the website www.autecsafety.com.

When applying for technical service to Autec, its distributors, dealers and authorized service centres, the Radio Remote Control's serial number is required; you can find it on the identification plate on the Transmitting Unit and/or on the Receiving Unit.

3 Description of the Transmitting Unit



A	LEDs
B	Command pushbuttons
C	FUNCTION pushbutton
D	START pushbutton
E	Battery
F	Battery housing

G	Power keyswitch
H	DIP switches
J	Connector for "ID internal tx memory"
K	Technical data plate
L	Radio Remote Control identification plate
M	STOP pushbutton

4 Technical data

Power supply (battery LPM00)	3.7V==
Antenna	internal
Housing material	PA 6 (20%fg)
Protection degree	IP65 (NEMA 4)
Dimensions	64.5x179x37.5mm (2.54x7.05x1.48In)
Weight	250g (0.55Lb)
Run time at 20°C (68°F)	16h
Maximum altitude (a.s.l.)	2000m
Continuous vibration	0.35mm, 5g (10-150Hz)
Shock	half sine, 11ms, 30g
Fall	2 falls from a height of 1m onto a concrete surface
Power frequency magnetic field immunity according to CEI EN 61000-4-8 ...	up to 300A/m

5 Technical Data Sheet

The Radio Remote Control 's Technical Data Sheet:

- describes the Transmitting Unit's configuration,
- indicates the relation between commands sent by the Transmitting Unit and those available on the Receiving Unit.

The Technical Data Sheet must be filled in, checked and signed by the Installer, who is responsible for correct wiring.

A Technical Data Sheet must always be kept together with this Manual: if you need to use the Technical Data Sheet for administrative purposes (tests, check, etc.), make a copy of it.

	<p>The wiring of the Receiving Unit's outputs must always reflect the wiring indicated in the Technical Data Sheet.</p>
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6 Plates

The following instructions refer to the plates on different types of Radio Remote Controls where the A8+ Transmitting Unit may be used.

6.1 Plates on the A8+ Transmitting Unit in a Radio Remote Control

Plate	Position	Content
Radio Remote Control identification plate	Battery housing	Radio Remote Control serial number (S/N), bar code and manufacturing year.
Technical data plate	Battery housing	MODEL, TYPE and main Transmitting Unit's technical data, marking and possible Radio Remote Control marks.

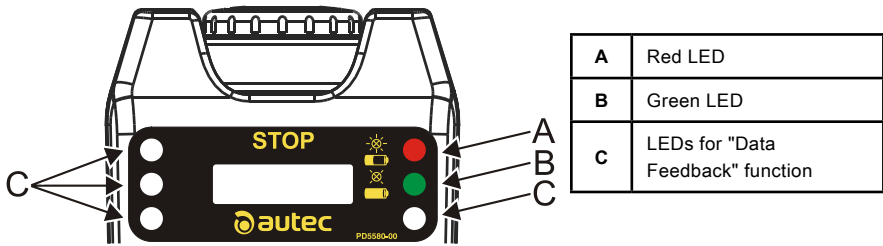
6.2 Plates on the A8+ Transmitting Unit in a "Take & Release" Radio Remote Control

Plate	Position	Content
Radio Remote Control identification plate	Battery housing	Radio Remote Control serial number (S/N), bar code and manufacturing year.
Technical data plate	Battery housing	MODEL, TYPE and main Transmitting Unit's technical data, marking and possible Radio Remote Control marks.



6.3 Plates on the A8+ Transmitting Unit in a "Multi Units" or "Multi Receiver" Radio Remote Control


Plate	Position	Content
Radio Remote Control identification plate	Battery housing	Radio Remote Control serial number (MULTI S/N), bar code and manufacturing year.
Technical data plate	Battery housing	MODEL, TYPE and main Transmitting Unit's technical data, marking and possible Radio Remote Control marks.

7 Light signals




The A8+ Transmitting Unit always has a green LED [B] and a red LED [A] that provide information regarding the Radio Remote Control.

Symbol	Meaning
	This symbol identifies the red LED [A].
	This symbol identifies the green LED [B].

 The meaning of signals provided by the LEDs identified with "C" are explained in the "Data Feedback" function part (see paragraph 8.12). The meaning of LEDs related to the "Data Feedback" function are decided and established by the Machine Manufacturer depending on the Machine's functions for which he wants to receive information.

The meaning of red LED [A] and green LED [B] signals is described in the following tables; possible actions to carry out are given in chapter 11.

 The meaning of the red and green LED signals cannot be modified.

Signal	Meaning
The green LED [B] is off.	The Transmitting Unit is off.
The green LED [B] is lit with a steady light.	The Transmitting and Receiving Unit do not communicate.
The green LED [B] repeats the sequence: two blinks and a pause.	The working range of the remote control has been exceeded for more than 20 seconds.
The green LED [B] repeats the sequence: three blinks and a pause.	The Receiving Unit does not communicate with the transmitting Unit. If the Transmitting Unit communicates with the Receiving Unit, it is possible to send commands.
The green LED [B] blinks fast.	The Transmitting and Receiving Unit communicate. It is only possible to send commands after pressing the START pushbutton.
The green LED [B] blinks slowly (one blink per second).	It is possible to send commands.

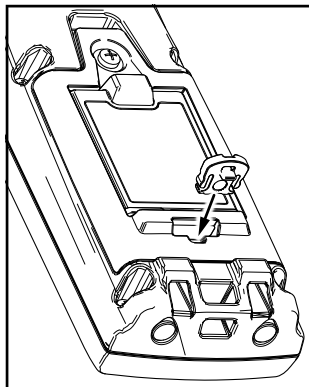
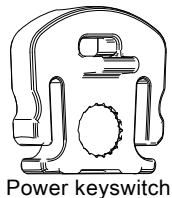
Signal	Meaning
The red LED [A] is off.	The Transmitting Unit works correctly.
The red LED [A] is steady on during start up.	The STOP pushbutton is pressed or damaged.
The red LED [A] blinks twice per second during start up.	At least one of the pushbuttons is pressed or damaged.
The red LED [A] blinks three times per second during start up.	The battery is flat.
The red LED [A] is lit for 2s with a steady light.	The Transmitting Unit does not work correctly.
The red LED [A] blinks slowly (one blink per second).	The battery has a run time of approximately 3h.
The red LED [A] blinks fast.	The battery has a 10min run time.

Signal	Meaning
The green [B] and red [A] LEDs are steady on during start up.	A wrong "ID internal tx memory" has been inserted in the Transmitting Unit, or this is a "BACK-UP UNIT".
The green [B] and red [A] LEDs blink 3 times per second during start up.	"ID internal tx memory" is damaged.
The green LED [B] is lit with a steady light and the red LED [A] blinks two times per second during start up.	The START pushbutton is activated.
The green [B] and red [A] LEDs blink alternating.	30 s left before the Unit automatically switches off.
The green LED [B] repeats the sequence: 3 blinks and a pause, and the red LED [A] is steady on during start up.	The UNPAIR procedure has been carried out.

8 General operating instructions

8.1 Power keyswitch

The Transmitting Unit always has a power keyswitch that allows to power the Unit. The Radio Remote Control cannot work if the power keyswitch is not inserted in the Transmitting Unit.



8.2 START pushbutton

The START pushbutton is used to:

- start the Radio Remote Control (see paragraph 8.7),
- activate the horn when the Radio Remote Control is started.

8.3 STOP pushbutton

When the STOP pushbutton is activated, the Machine stops and the Transmitting Unit switches off. To start the Radio Remote Control again and enable it to control the Machine after the STOP pushbutton has been pressed, you need to:

- make sure that the working and usage conditions are safe,
- pull or turn the STOP pushbutton in the arrow direction (show on the button) to unlock it,
- start the Radio Remote Control following the procedure described in paragraph 8.7.



The STOP pushbutton should be pressed when it is necessary to stop the Machine immediately whenever a dangerous condition occurs.

The Machine Manufacturer and/or the Installer must provide the User with the instructions and warnings concerning possible risks that may originate from the Machine stop (by way of example: movement inertia, swinging load...).

8.4 FUNCTION pushbutton

The function of the FUNCTION pushbutton is decided by the Installer of the Radio Remote Control. The Machine Manufacturer and/or the Installer must provide the user with instructions about the relation between the FUNCTION pushbutton and the corresponding movement on the Machine. The User must be properly trained about this.

8.5 Battery

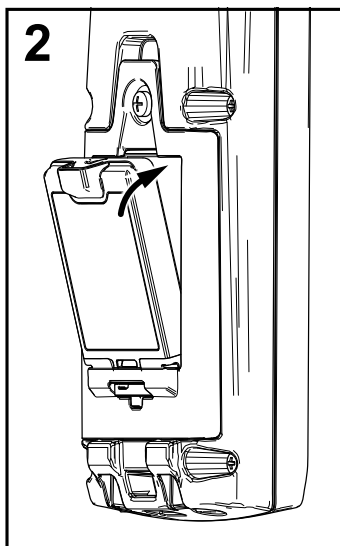
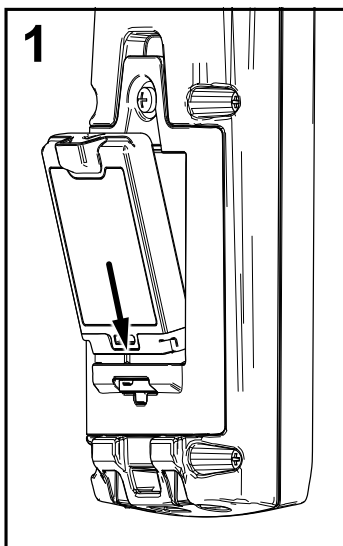


The Air series' Transmitting Units can only be powered by Autec rechargeable batteries.

For any warnings and instructions regarding the battery, see "Part E" in the Instruction Manual.

8.5.1 Battery insertion

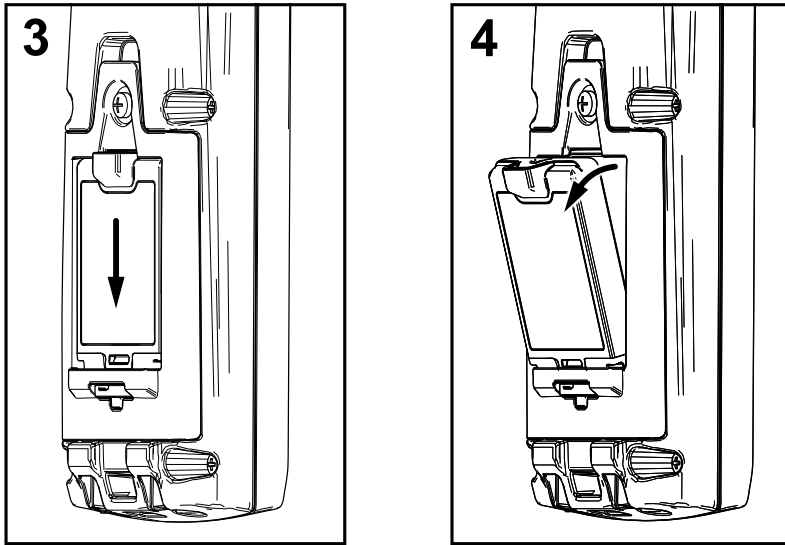
Push the battery towards the contacts on the Transmitting Unit (1) and insert it inside the housing (2).



The battery slides in with no effort and ensures the correct connection of the positive (+) and negative (-) poles only if it is inserted as shown in the above pictures.

8.5.2 Battery removal

Push the battery towards the contacts on the Transmitting Unit (3) and remove it from the housing (4).



When the Transmitting Unit is not in use, remove the battery if possible.

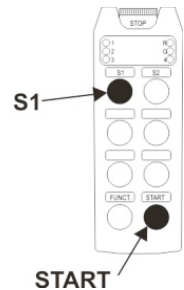
8.5.3 Indication of the battery charge level

Perform the following actions to check the Transmitting Unit's battery charge level:

1. Switch off the Transmitting Unit and make sure that the STOP pushbutton is unlocked.
2. Hold down pushbuttons S1 and START until the 3 LEDs on the left hand side illuminate showing the Unit's charge level (3 illuminated LEDs=maximum charge level). The charge level indication disappears after some seconds.



MAX → MIN



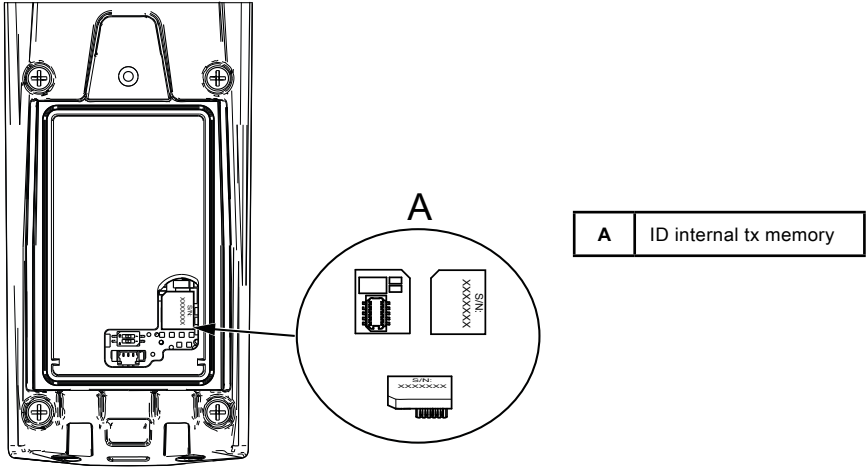
Commands associated to the keys that are activated during the procedure to check the battery charge level are not sent to the Machine.

8.6 ID internal tx memory

The "ID internal tx memory" is a key containing the address that is used to code messages exchanged between the Transmitting Unit and the Receiving Unit.


This key, if present, is inside the Transmitting Unit.

The Technical Data Sheet indicates if the "ID internal tx memory" is present (DIP switch 2 is set in the ON position).




8.7 Starting up the Radio Remote Control

Starting up the Radio Remote Control consists in establishing a radio link between the Transmitting Unit and the Receiving Unit.

 WARNING	<p>The Radio Remote Control start up is protected by means of a power keyswitch to prevent unauthorised use of the machine. If the risk assessment requires further protection during the Radio Remote Control start up, the Machine Manufacturer and/or the Radio Remote Control Installer can enable the PIN code too.</p> <p>Autec will enable the PIN code for the Radio Remote Control start up only upon request by the Machine Manufacturer and/or the Radio Remote Control Installer.</p> <p>To start up the Radio Remote Control, you need to insert the power keyswitch and key in the PIN code (if any) according to the procedures indicated in paragraph 8.7.1 or 8.7.2.</p>
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The PIN code is not a sequence of numbers, but it consists in the sequential activation of pushbuttons.

	<p>Commands associated with the pushbuttons that are activated while typing the PIN code are not sent to the Machine.</p>
---	---

8.7.1 Power keyswitch start up (no PIN code)

When the Receiving Unit is powered on correctly, perform the following procedure:

1. Insert a charged battery in the Transmitting Unit (see paragraph 8.5.1),
2. insert the power keyswitch in the Transmitting Unit,
3. press the START pushbutton and hold it down until the green LED blinks quickly.
4. release the START pushbutton.

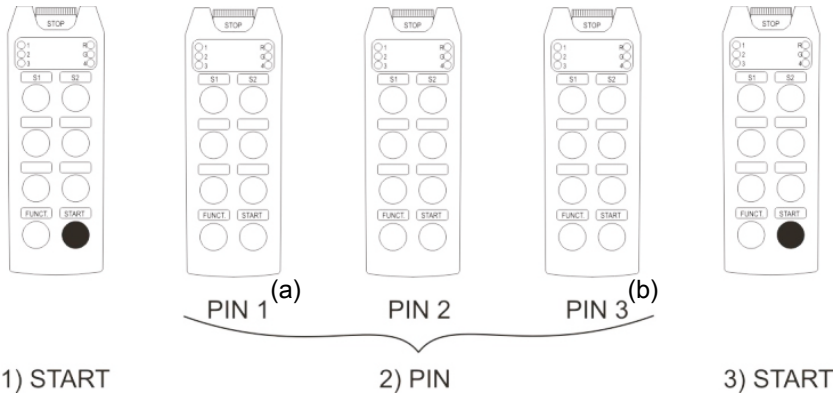
When the green LED blinks slowly, the Radio Remote Control is active and it can send commands and activate the Machine.

8.7.2 Power keyswitch + PIN code start up

When the Receiving Unit is correctly powered on, perform the following procedure; press each pushbutton within 3 seconds after releasing the previous one:

1. Insert a charged battery in the Transmitting Unit (see paragraph 8.5.1),
2. insert the power keyswitch in the Transmitting Unit,
3. press the START pushbutton and hold it down until the green LED illuminates,
4. activate the commands corresponding to PIN code in the correct sequence (PIN 1, PIN 2 and PIN 3 given in the Technical Data Sheet).
 - a. PIN 1 shall not be included in the start up procedure if it coincides with the START pushbutton.
 - b. PIN 3 shall not be included in the start up procedure if it coincides with the START pushbutton.
5. press the START pushbutton and hold it down until the green LED blinks quickly.
6. release the START pushbutton.

When the green LED blinks slowly, the Radio Remote Control is active and it can send commands and activate the Machine.



8.7.3 Procedure to modify the PIN code

If a PIN code is needed for the Transmitting Unit, it can be modified to limit the use of the Radio Remote Control.

To modify the PIN code, perform the following procedure with the Transmitting Unit switched off and the STOP pushbutton released.

1. Press pushbuttons FUNCTION and START and hold them down until the green LED blinks (1 blink per second).
2. Enter the PIN code sequence provided in the Technical Data Sheet.
3. Press pushbutton S1 (see Technical Data Sheet) repeatedly until LED 2 illuminates.
4. Press pushbutton S2 (see Technical Data Sheet) to confirm your selection (green LED blinks twice per second). You can choose the 3 pushbuttons you want to set as PIN code amongst all the pushbuttons on the Unit. If you want to start the Radio Remote Control with:
 - single-pushbutton PIN code: press the START pushbutton as PIN 1 and PIN 3;
 - two-pushbutton PIN code: press the START pushbutton as PIN 1 or PIN 3.
5. Press the pushbutton you want to allocate as PIN 1 (LED 1 and green LED are steady on).
6. Press the pushbutton you want to allocate as PIN 2 (LED 2 and green LED are steady on).
7. Press the pushbutton you want to allocate as PIN 3 (LED 3 and green LED are steady on). PIN code is saved automatically.

8.8 Command activation

When the Radio Remote Control is started, it is possible to activate movements, functions and commands on the Machine by acting on the related pushbuttons, whose functions and symbols are decided by the Manufacturer and/or the Installer. To identify the relation between the pushbuttons and the corresponding Machine movements, the Machine Manufacturer and/or the Installer shall provide relevant instructions and the User shall be properly trained.

8.9 Radio link interruption

When the radio link is incorrect or interrupted, the automatic stop function activates (see paragraph "Control devices" in the Instruction Manual's general part).

The green LED on the Transmitting Unit switches from blinking slowly to blinking fast, steady on, repeats the sequence: two blinks and a pause or three blinks and a pause (see chapter 11).

8.10 Transmitting Unit automatic switch off

The Transmitting Unit automatically switches off when:

- the battery is flat (see paragraph 8.10.1),
- the Radio Remote Control is not used for a certain time (see paragraph 8.10.2).

To start the Radio Remote Control, see paragraph 8.7.

8.10.1 Low battery

The Transmitting Unit indicates if the battery is not sufficiently charged.

- The red LED blinks slowly (one blink per second): the battery has approximately 3h run time from the onset of this signal.
- The red LED blinks fast: the battery has a 10 minute run time from the first signal, after which the Transmitting Unit automatically switches off.

The battery needs to be replaced with a charged one (see paragraph 8.5).

8.10.2 When the Transmitting Unit is not used

If the Transmitting Unit remains started with no enabled commands, it will automatically switch off after a predetermined time frame. This time frame is specified in the Technical Data Sheet (SWITCH-OFF).

Before the Transmitting Unit switches off automatically, the green and red LEDs blink alternating for 30 seconds.

When acting on any of the pushbuttons, the time set for the automatic switch off will be set to zero.



Setting or removal of the automatic switch off time (SWITCH-OFF) is done by Autec and decided by the Machine Manufacturer or by the Installer, depending on the operation and functions they need on the Machine.

8.11 Switching off the Transmitting Unit



Switch off the Transmitting Unit when not actively using the Radio Remote Control to operate the Machine, or when work is otherwise interrupted, even for short periods. Do not leave the load hanging or the Machine in dangerous conditions (even when charging the Unit or changing the battery).

FAILURE TO DO SO CAN RESULT IN SERIOUS BODILY INJURY OR DEATH AND/OR PROPERTY DAMAGE.

Voluntary switch off of the A8+ Transmitting Unit occurs in the following cases:

- when you press deeply and in sequence the START pushbutton and immediately afterwards the FUNCTION pushbutton, until the red LED illuminates;
- when you remove the power keyswitch;
- when battery is removed (see paragraph 8.5.2);
- when the STOP pushbutton is pressed.

8.12 "Data Feedback" function

The User receives information and/or signals concerning some particular situations and the movements of the controlled Machine by means of the "Data Feedback" function.

The "Data Feedback" function works with LEDs: specific Machine conditions (e.g. load limits, limit switch) may be signalled by the illumination of the LEDs. The signalled conditions depend on the settings chosen by the Person who installed the Radio Remote Control on the Machine. Pay particular attention to LED indications during normal Radio Remote Control operation: they can be helpful to evaluate the Machine's working status.



Any information signalled by LEDs for the "Data Feedback" function can never be considered or used as a safety signal or for legal metrology.

When operating and moving the Machine, remember that the Radio Remote Control does not intervene autonomously when potential hazardous situations are signalled.





If the green LED repeats the sequence "three blinks and a pause", there is no information and/or signals coming from the "Data Feedback" function. In this case, bring the Transmitting Unit closer to the Receiving Unit until the green LED blinks slowly.

8.13 BACK-UP UNIT

If the Transmitting Unit cannot be used, it can be replaced with a Transmitting Unit called "BACK-UP UNIT"; you need to ask for it to Autec.

It is identical to the Unit that can no longer be used; the only difference is the presence of the plate "BACK-UP UNIT" on the battery cover.

 WARNING	<p>Set DIP switch 2 in the "BACK-UP UNIT" as shown in the Technical Data Sheet.</p> <p>If no "ID internal tx memory" is present in the Transmitting Unit that can no longer be used, perform the PAIR procedure to pair the "BACK-UP UNIT" with a Receiving Unit (the Technical Data Sheet shows which PAIR procedure to use).</p> <p>If an "ID internal tx memory" is present in the Transmitting Unit that can no longer be used, move it to the "BACK-UP UNIT" and perform the address saving procedure described below.</p>
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 WARNING	<p>As required by standard IEC 60204-32, each Radio Remote Control is uniquely identified through a serial number. Therefore, upon replacement of the Unit, the serial number of the Transmitting Unit to be replaced must be marked on the "BACK-UP UNIT", so that all Units belonging to the Radio Remote Control will show the same serial number.</p> <p>Autec cannot be held responsible if the serial number of the Transmitting Unit to be replaced has not been marked on the "BACK-UP UNIT".</p>
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Address storage

Perform the following procedure with fully charged battery, power keyswitch and "ID internal tx memory" in the "BACK-UP UNIT":

1. press the START pushbutton and hold it down until the green and red LEDs light up.
2. wait until the green LED blinks slowly;
3. within 3 seconds, activate in sequence the pushbuttons corresponding to PIN 1, PIN 2 and PIN 3 that compose the PIN code given in the Technical Data Sheet.

If the PIN code is incorrect, the red LED illuminates and the Transmitting Unit switches off. In this case, the storage procedure shall be repeated.

If the PIN code is correct, the green LED turns steady on and the Transmitting Unit switches off: this indicates that the address has been stored in the "BACK-UP UNIT". It is now possible to start the Radio Remote Control and control the Machine with the "BACK-UP UNIT" Transmitting Unit.


9 Instructions for the User

The chapter "Instructions for the User" in "Part A" of the Instruction Manual contains the warnings for the use that add to those provided in this chapter. Therefore, please refer to that part of the Manual.

The following instructions refer to general usage situations for the A8+ Transmitting Unit, and indicate how people should or should not behave when using the Unit: these do not cover any possible risk situation and/or drawback that may depend on specific applications of Autec Radio Remote Controls.

However, instructions given in the following paragraphs do not replace nor complete the instructions that must be provided to the User by the Manufacturer of the Machine where an Autec Radio Remote Control (to which the A8+ Transmitting Unit belongs) is installed.

9.1 Usage restrictions

 WARNING	<p>If the Radio Remote Control User wears electronic devices (by way of example: pacemaker, implantable cardiac defibrillator, hearing aids), the Transmitting Unit must be kept at least 15 cm away from those devices when in use.</p> <p>Do not expose the A8+ Transmitting Unit to strong magnetic fields, as they may affect the correct operation of the Unit (its immunity level is provided in chapter 4).</p> <p>The A8+ Transmitting Unit with external, removable battery must NOT be converted into a Transmitting Unit with internal, non removable battery.</p>
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9.2 User behaviour

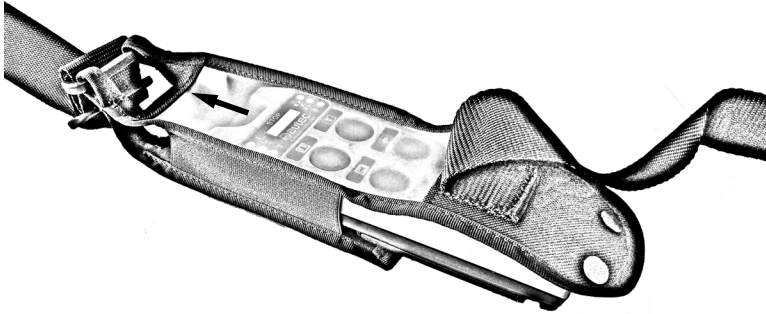
Besides the instructions contained in the General Part (Part A) of the Instruction Manual, when using the A8+ Transmitting Unit, the User must:

- observe and comply with all instructions and warnings provided by the Machine Manufacturer;
- observe and comply with all instructions and warnings provided by the Installer;
- observe and comply with all instructions and warnings provided by the Person responsible for the Machine commissioning or making the Machine available for work;
- observe and comply with all instructions and warnings provided in the Radio Remote Control Manual;
- observe and comply with all applicable Laws, Regulations and Standards, even local.

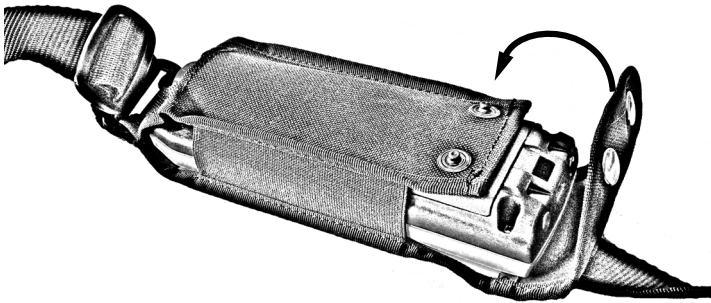
- follow and put into practice the working instructions he received, and/or those he must be aware of because of his work and his tasks;
- avoid using the Radio Remote Control if he has not been properly trained and prepared, and if he has not been qualified for its use by the Person responsible for the work;
- make sure that the Transmitting Unit and the Receiving Unit are whole and work perfectly;
- make sure that the Machine reacts correctly to the commands activated by the Autec Radio Remote Control;
- not perform any operation if the tests mentioned in the previous two points did not give positive results;
- make sure that the Radio Remote Control operation and the consequent Machine movement occur in safety conditions, to prevent hazards to people and/or property;
- adopt the necessary caution to avoid that the Machine operation causes dangerous situations of any type; to this end, the User's physical and health status shall be taken into account too;
- avoid leaving the Transmitting Unit unattended or in such a condition that it may be damaged, tampered with, operated by people who are not qualified or by the movement of people and/or objects (by way of example due to: fall, movement, contact);
- operate the Transmitting Unit by holding it correctly in his hands, so that he can activate the Machine movements correctly and in safe conditions and monitor its light signals;
- keep at a safe distance from any risk situations originating from the use of the Machine where the Autec Radio Remote Control is installed;
- avoid doing anything else while using the Radio Remote Control, such as, by way of example, operate other Machines and/or other devices, eat and/or drink, use communication devices (phone, radio phone, etc.), keyboards, computers, IT devices or AV equipment, or carry out any other action that may pose the User in the situation not to be able to correctly control the Transmitting Unit and/or the Machine;
- activate immediately, and anyway in safe conditions, the stop devices available on the Transmitting Unit and/or on the Machine, in case dangerous situations occur, even if they do not depend on the use of the Machine;
- use the Transmitting Unit in such a way as to avoid contact with objects and/or People, fall and loss of control.
- use the Transmitting Unit with supports such as belts, pouches and the like, which are provided with the Radio Remote Control.
- not modify or tamper with the Transmitting Unit, its components and/or its commands; not modify the indications and/or meaning and/or abbreviations and/or symbols and/or original stickers on the Transmitting Unit's panel.

9.3 Pouch with belt

The A8+ Transmitting Unit always comes with a pouch with belt: the User must insert the Unit in the pouch as explained in the figures below.



1



2



3



The User must wear the Radio Remote Control with the pouch with belt as shown in the photo below, to avoid its fall, loss, loss of control, accidental contact and improper use.



If the Transmitting Unit and the pouch with belt are used in a different way from the one described in the above mentioned figure, this constitutes improper use and may lead to damage to the Transmitting Unit, to the User, to people and/or property.



Replace the pouch with belt if it is damaged or worn.

10 Maintenance

Instructions for correct Radio Remote Control maintenance are described in the chapter "Maintenance" included in "Part A" of the Instruction Manual. Therefore, please refer to that part of the Manual.

11 Malfunction signalled by the Transmitting Unit

The table below lists malfunctions that are signalled by LEDs on the Transmitting Unit and the solution to those malfunctions.

If the problem persists after attempting the suggested solution, contact the support service of the Machine Manufacturer.

Signals	Possible reason	Solutions
The green LED is lit with a steady light or it repeats the sequence: three blinks and a pause.	The Transmitting and Receiving Unit do not communicate.	Bring the Transmitting Unit closer to the Receiving Unit until the green LED blinks quickly (if the signal doesn't change, check that the Receiving Unit is powered). Then press the START pushbutton and hold it down until the green LED blinks slowly.
The green LED repeats the sequence: two blinks and a pause.	The working range of the Radio Remote Control (see paragraph "Technical data" in the general part of the Instruction Manual) has been exceeded for more than 20 seconds.	Bring the Transmitting Unit closer to the Receiving Unit. Then press the START pushbutton and hold it down until the green LED blinks slowly.
The green LED blinks fast.	Temporary loss of radio link.	Press the START pushbutton and hold it down until the green LED blinks slowly.
The green LED blinks slowly (one blink per second).	The Receiving Unit may not work correctly.	See "Malfunctions signalled by the Receiving Unit" in Part D of the Manual.
The red LED is steady on during start up	The STOP pushbutton is pressed or damaged.	Unlock the STOP pushbutton.

Signals	Possible reason	Solutions
The red LED blinks twice per second during start up.	At least one of the pushbuttons is pressed or damaged.	Bring the pushbuttons to the rest position.
The red LED blinks three times per second during start up.	The battery is flat.	Replace the battery with a charged one.
The red LED is steady on for two seconds during start up.	The Transmitting Unit does not work correctly.	Contact the support service of the Machine Manufacturer.
The green and red LEDs are steady on during start up.	A wrong "ID internal tx memory" has been inserted in the Transmitting Unit.	Use the correct "ID internal tx memory".
	You're using a "BACK-UP UNIT" with the "ID internal tx memory" of the Transmitting Unit that has been replaced.	Store the address in the "BACK-UP UNIT" (see paragraph 8.13).
The green and red LEDs blink three times per second during start up.	"ID internal tx memory" is damaged.	Contact the support service of the Machine Manufacturer.
The green LED is lit with a steady light and the red LED blinks two times per second during start up.	The START pushbutton is activated.	release the START pushbutton.
The green LED repeats the sequence: 3 blinks and a pause, and the red LED is steady on during start up.	The UNPAIR procedure provided in the document "Menu of Transmitting Unit (MTU)" has been carried out.	If the Transmitting Unit has an "ID internal tx memory", perform the ALIGNMENT procedure. If the Transmitting Unit does not have an "ID internal tx memory", perform the PAIR procedure.

12 Decommissioning and disposal

Instructions for correct decommissioning and disposal of Radio Remote Controls are described in chapter "Decommissioning and disposal" in "Part A" of the Instruction Manual. Therefore, please refer to that part of the Manual.



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