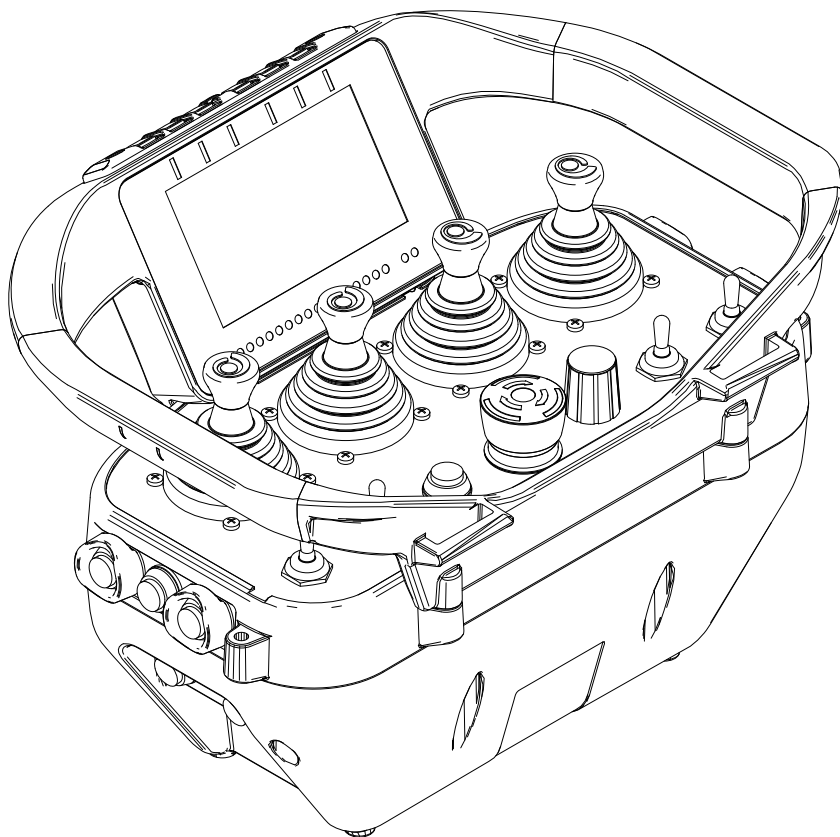


# Instruction Manual for the use and the maintenance of the Radio Remote Control

Original instructions



**Part C: PJM Transmitting Unit with video option**

**DYNAMIC+P SERIES**





# WARNING

**THIS PART OF THE MANUAL CONSISTS OF:** Part C - Information, instructions and warnings for the PJM (Model J9P) 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 AUTEC 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 AUTEC 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 MACHINE MANUFACTURER ON WHICH THE AUTEC RADIO REMOTE CONTROL IS INTENDED TO BE INSTALLED, to perform an in-depth and accurate risk assessment to determine if the Autec Radio Remote Control is suitable for operating a Machine in conditions of safety and operational effectiveness, taking into account the conditions of use, the intended uses and the reasonably foreseeable incorrect ones, so that the installation, maintenance and use of the Autec Radio Remote Control, and all its components, are performed only and entirely in compliance with this Manual and in accordance with all local regulations, safety standards and regulations (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 AUTEC RADIO REMOTE CONTROL AND THE MACHINE OPERATED BY OR THROUGH THE AUTEC RADIO REMOTE CONTROL. ONLY QUALIFIED AND PROPERLY TRAINED PERSONNEL SHOULD BE PERMITTED TO BE IN THE VICINITY OF MACHINE OPERATED BY OR THROUGH THE AUTEC RADIO REMOTE CONTROL.**

**FAILURE TO PROPERLY INSTALL, OPERATE, MAINTAIN AND SERVICE THE AUTEC 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 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"> <li>- General information regarding the series,</li> <li>- directions for risk assessment of the "Machine+Radio Remote Control" system,</li> <li>- warnings for installation of the Radio Remote Control,</li> <li>- warnings for use and maintenance of the Radio Remote Control,</li> <li>- instructions for correct transportation and storage of Radio Remote Control.</li> </ul> |
| B    | Conformity and frequencies  | <ul style="list-style-type: none"> <li>- Operating frequency bands of the Radio Remote Control,</li> <li>- conformity and law references of the Radio Remote Control.</li> </ul>                                                                                                                                                                                                                                         |
| C    | Transmitting Unit           | Description and instructions concerning the Transmitting Unit, including: <ul style="list-style-type: none"> <li>- description of operation,</li> <li>- commands,</li> <li>- light signals,</li> <li>- malfunctions,</li> <li>- additional instructions to the general part.</li> </ul>                                                                                                                                  |
| D    | Receiving Unit              | Description and instructions concerning the Receiving Unit, including: <ul style="list-style-type: none"> <li>- description of operation,</li> <li>- light signals,</li> <li>- malfunctions,</li> <li>- additional instructions to the general part.</li> </ul>                                                                                                                                                          |
| E    | Battery and battery charger | Description, warnings and instructions concerning batteries and battery chargers, including: <ul style="list-style-type: none"> <li>- description of operation,</li> <li>- light signals,</li> <li>- malfunctions,</li> <li>- instructions for the User.</li> </ul>                                                                                                                                                      |

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.

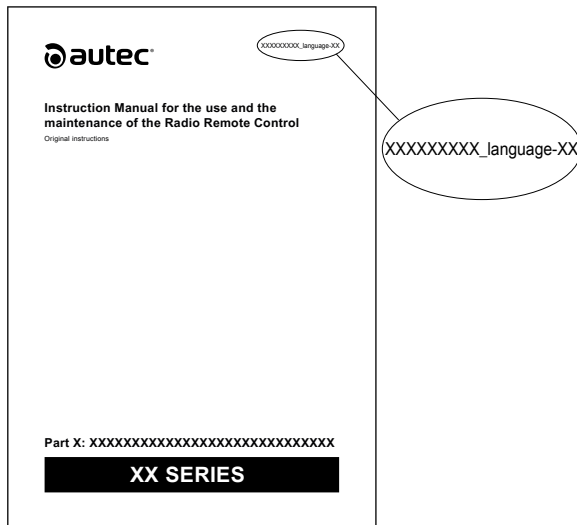
The Manufacturer of the Machine on which the Autec Radio Remote Control is installed, and the Owner and User of the Machine, must make sure that the Instruction Manual and all of its parts are included in the Instruction Manual of the Machine.



The CD attached to each Instruction Manual includes the translations of the Manual.

Act as follows to identify the single Manual parts in the relevant language in the CD:

- 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**
- **Radio link**
- **Active stop**
- **Automatic stop**
- **Manual stop**
- **Passive stop**
- **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/she 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.**

### 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 PJM (Model J9P) Transmitting Unit of an Autec Dynamic+P series' Radio Remote Control.

Autec Dynamic+P 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](http://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](http://www.autecsafety.com).

### **2.5 Technical assistance and spare parts**

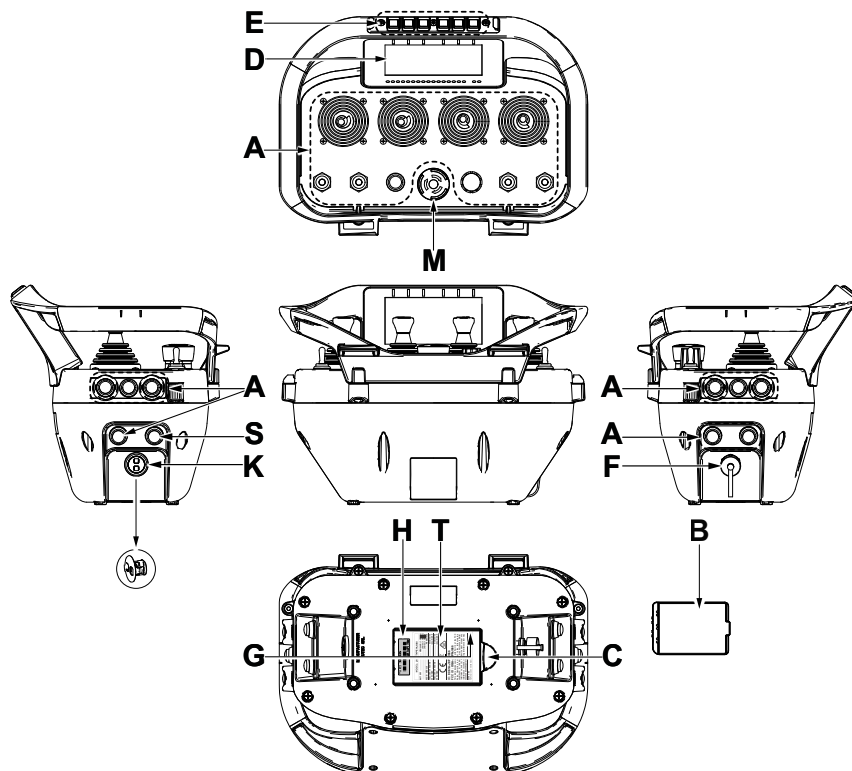
---

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

#### 3.1 Transmitting Unit



|   |                                               |
|---|-----------------------------------------------|
| A | Actuators (joysticks, selectors, pushbuttons) |
| B | Battery                                       |
| C | Battery housing                               |
| D | Display and LEDs                              |
| E | Pushbuttons for display/LED                   |
| F | Connector for cable control (if present)      |
| G | Radio Remote Control identification plate     |

|   |                                        |
|---|----------------------------------------|
| H | Transmitting Unit identification plate |
| K | Power keyswitch                        |
| M | GSS or EMS pushbutton                  |
| S | START pushbutton                       |
| T | Technical data plate                   |

### 3.2 Data Feedback Function

Thanks to the Data Feedback function, the following is available to the User:

- Images filmed by cameras, related to the working area or to specific Machine movements.
- Information and/or signals concerning some specific situations and the movements of the controlled Machine.

The Data Feedback function operates through the display and the LED array on the Transmitting Unit.

|                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br>WARNING | <p><b>During normal operation, pay particular attention to the images shown and to the indications given on the display and/or on the LEDs on the Transmitting Unit: they can be helpful to evaluate the Machine working status, but they do not replace nor exhaust the necessary visual inspections the User needs to carry out so that the Machine operation and movements are performed in safety conditions.</b></p> <p><b>Any image shown and any indication signalled on the display and/or through the LEDs can never be considered or used as a safety signal or for legal metrology.</b></p> <p><b>When operating the Machine, remember that the Radio Remote Control does not cut in autonomously when potential hazardous situations are shown and signalled.</b></p> <p><b>The display does not signal the presence of people, animals or belongings, even if they appear in the cameras' frame, and does not signal the risk of hitting people, animals or belongings.</b></p> |
|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

#### 3.2.1 Operation with display

The display on the Transmitting Unit shows the images filmed by the camera/s.

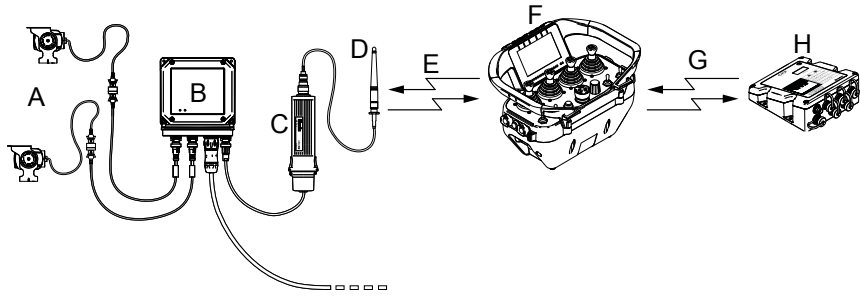
Signal icons, measurements collected from the Machine and their description may be shown too.

The Machine Manufacturer chooses which information is displayed and the way they are displayed (images and/or icons and/or measurements and/or descriptions).

In addition, the battery level and the quality of the radio link may also appear.

Images filmed by the cameras are transmitted to the PAU (Power & Acquisition Unit), that in turn sends them to the Transmitting Unit through the access point.

The instructions and warnings for the cameras, the PAU and the access point are to be found in the corresponding manuals that come with the single devices.



|   |              |
|---|--------------|
| A | Cameras      |
| B | PAU          |
| C | Access point |
| D | Antenna      |

|   |                   |
|---|-------------------|
| E | Wi-Fi connection  |
| F | Transmitting Unit |
| G | Radio link        |
| H | Receiving Unit    |



Images of the cameras and of the access point provided above are for illustrative purposes only.

The Transmitting Unit communicates with the Receiving Unit through a radio link described in “Part A” of the Instruction Manual.

The Transmitting Unit communicates with the access point through Wi-Fi connection.



**The Wi-Fi connection between the access point and the Transmitting Unit, and the radio link between the Transmitting Unit and the Receiving Unit are two independent connections. Therefore, only one of the two connections may be present.**



**The visualization of images filmed by cameras on the display may interrupt in any moment without prior notice due to the interruption of the Wi-Fi connection between the access point and the Transmitting Unit.**

**The Machine Manufacturer, the Installer, the Owner, the User and/or the Maintenance Technician, must make sure that the interruption of the Wi-Fi connection between the access point and the Transmitting Unit can never lead to a hazardous situation in the specific working application.**

|                                                                                                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <br><b>WARNING</b> | <p><b>A delay occurs between the camera filming and the visualization of the filmed images on the display on the Transmitting Unit. This delay cannot be removed or reduced.</b></p> <p><b>Depending on the display configuration set by the Machine Manufacturer or by the Installer, if the Wi-Fi connection between the access point and the Transmitting Unit is interrupted, the last filmed image before the interruption may remain displayed.</b></p> <p><b>The Machine Manufacturer, the Installer, the Owner, the User and/or the Maintenance Technician, must make sure that the delay between the camera image filming and the display of the image on the Transmitting Unit display cannot generate or contribute to generate a hazardous situation in the specific working application.</b></p> |
|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

### 3.2.2 Operation with LED

If the Transmitting Unit has an LED array for the Data Feedback function, specific Machine conditions are signalled if they are illuminated (by way of example: load limits, limit switch). The signalled conditions depend on the settings chosen by the Machine Manufacturer.

## 4 Technical data

|                                                                       |                                |
|-----------------------------------------------------------------------|--------------------------------|
| Power supply                                                          | batteryLPM04                   |
| Antenna                                                               | integrated                     |
| Housing material                                                      | PA 6 (20%fg)                   |
| Protection degree                                                     | IP65 (NEMA 4)                  |
| Dimensions                                                            | 310x220x220mm (12.2x8.7x8.7in) |
| Weight                                                                | 2.5kg (5.5lb)                  |
| Run time at 20°C (68°F)                                               | 5.5h                           |
| 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.

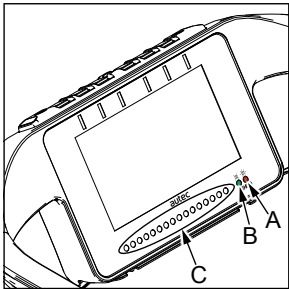
|                                                                                                     |                                                                                                                                |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| <br><b>WARNING</b> | <p><b>The wiring of the Receiving Unit's outputs must always reflect the wiring indicated in the Technical Data Sheet.</b></p> |
|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|

## 6 Plates

| Plate                                     | Position        | Content                                                                                                |
|-------------------------------------------|-----------------|--------------------------------------------------------------------------------------------------------|
| Radio Remote Control identification plate | Battery housing | Radio Remote Control serial number (S/N), QR code and manufacturing year.                              |
| Transmitting Unit identification plate    | Battery housing | Manufacturing year, a QR code and the Transmitting Unit identification number (TU ID)                  |
| Technical data plate                      | Battery housing | Model, Type and main Transmitting Unit technical data, marking and possible Radio Remote Control marks |

7 Light and acoustic warning signals

7.1 Light signals



|   |                                 |
|---|---------------------------------|
| A | Red LED                         |
| B | Green LED                       |
| C | LEDs for Data Feedback function |

The 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 3.2). 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.

Signals provided by the red LED [A] indicate a Radio Remote Control malfunction. The meaning of such signals and possible actions to perform are described in chapter 11.

The meaning of signals provided by the green LED [B], when the red LED [A] is off, are described in the following table.

| Signals                                                                              | Meaning                                                                                                        |
|--------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|
| The green LED is off. The red LED is off.                                            | The Transmitting Unit is off.                                                                                  |
| The green LED blinks fast.<br>The red LED is off.                                    | The Transmitting and Receiving Unit do not communicate.                                                        |
| The green LED repeats the sequence: a blink and a pause. The red LED is off.         | The Radio Remote Control is started and the Units communicate via radio link in the 863-870MHz frequency band. |
| The green LED repeats the sequence: two blinks and a pause. The red LED is off.      | The Radio Remote Control is started and the Units communicate via radio link in the 915-928MHz frequency band. |
| The green LED repeats the sequence: three blinks and a pause.<br>The red LED is off. | The Radio Remote Control is started and the Units communicate via cable control.                               |



The meaning of the green [B] and red [A] LED signals cannot be modified.

## 7.2 Acoustic signals

The Transmitting Unit has an acoustic signal device that activates when:

- The battery is nearly flat.
- The Transmitting Unit has been on for twenty-four hours.
- The Transmitting Unit does not work correctly.
- During the Radio Remote Control start up, the GSS or the EMS pushbutton is pressed or damaged.
- During the Radio Remote Control start-up, the SAFETY command is activated (see Technical Data Sheet).
- During the Radio Remote Control start-up, one of the commands D2-D20 is activated (see Technical Data Sheet).
- During the Radio Remote Control start-up, one of the commands A1-A8 is activated (see Technical Data Sheet).
- During the Radio Remote Control start-up, one of the commands H1-H8 is activated (see Technical Data Sheet).
- During the Radio Remote Control start-up, one of the commands L1-L8 is activated (see Technical Data Sheet).
- During the Radio Remote Control start-up, the battery is flat.

The acoustic signal device activates whenever the red LED [A] illuminates. The meaning of the red LED [A] lighting up and of the activation of the acoustic signal and possible actions to perform are described in chapter 11.



The meaning of the acoustic signals cannot be modified.

## 8 General operating instructions

---

### 8.1 Power keyswitch

---

The Transmitting Unit have a power keyswitch. It can either one of the following:

- Mechanical key (see paragraph 8.1.1).
- M-Key (see paragraph 8.1.2).

The Radio Remote Control cannot work if the power keyswitch is not inserted in the Transmitting Unit.

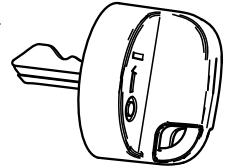
#### 8.1.1 Mechanical key

The mechanical key makes it possible to power the Transmitting Unit.

##### Inserting the mechanical key

Do the following to insert the mechanical key:

1. Insert the mechanical key into its receptacle.
2. Turn the mechanical key clockwise.



##### Removing the mechanical key

Do the following to remove the mechanical key:

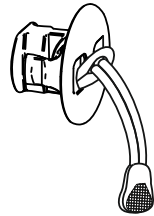
1. Turn the mechanical key anticlockwise.
2. Pull the mechanical key to remove it from its receptacle.

#### 8.1.2 M-Key

The M-Key makes it possible power the Transmitting Unit.

##### Inserting the M-Key

Push the M-Key to the bottom of its housing.



##### Removing the M-Key

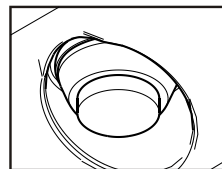
Remove the M-Key from its housing by pulling the lanyard.

## 8.2 START pushbutton

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The START pushbutton is used to:

- start the Radio Remote Control (see paragraph 8.8)
- activate the horn when the Radio Remote Control is started.

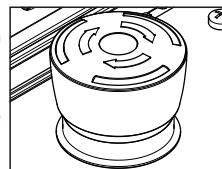


## 8.3 GSS pushbutton

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

- Make sure that the working and usage conditions are safe.
- Turn the GSS pushbutton in the direction show by the arrow (see button) to unlock it.
- Start the Radio Remote Control following the procedure described in paragraph 8.8).



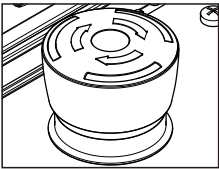
**The GSS pushbutton should be pressed when it is necessary to stop the Machine immediately whenever a dangerous condition occurs.**

**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 EMS pushbutton

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

- Make sure that the working and usage conditions are safe.
- Turn the EMS pushbutton in the direction show by the arrow (see button) to unlock it.
- Start the Radio Remote Control following the procedure described in paragraph 8.8).

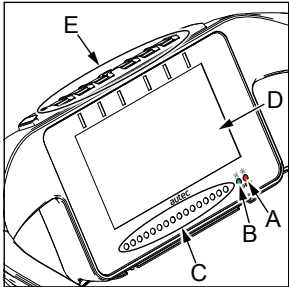


**The EMS pushbutton should be pressed when it is necessary to stop the Machine immediately whenever a dangerous condition occurs.**

**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...).**

8.5 Pushbuttons for display/LED

4.3" display



|   |                                 |
|---|---------------------------------|
| A | Red LED                         |
| B | Green LED                       |
| C | LEDs for Data Feedback function |
| D | Display                         |
| E | Keys                            |

The pushbuttons [E] on the Transmitting Unit are used to interact with the display [D] and the LEDs for Data Feedback function [C].

Functions performed by the pushbuttons [E] are configurable and are decided by the Machine Manufacturer: the User must be properly trained in this respect.

No operation or movement of the Machine shall be connected to the use of the pushbuttons [E].