

Service Manual Industrial Doors

**CHAPTER 4 OPERATORS** 

# 13.2 Radio equipment 433 MHz

The 433 MHz equipment is not available as Spare Parts any more.

All 433 MHz equipment is replaced by the 433-MHz PLUS range. Both systems are compatible.

For programming new equipment on existing installations see next paragraphs.



**CHAPTER 4 OPERATORS** 

# 13.3 Radio equipment 433 MHz PLUS

# About the transmitter

## Shortcut for a door (433-999)

The \* and **#** buttons are used to program a shortcut (1 selection per button) for a specific door.

If you hold down the \* or **#** button when a number is shown on the display for more than three seconds (display flashes) this saves the number as the shortcut.

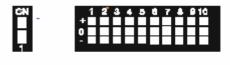


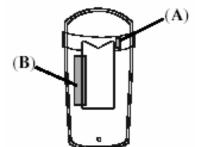
## Switch

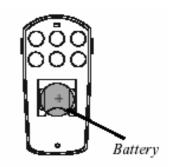
The transmitter must be taken apart to access the **system switch (A)** and **code switches (B)** so that these can be set. The switches are located as shown in the diagram.

#### **Battery replacement**

The transmitter must be taken apart to access the battery. Note that on transmitters with button batteries the plus character should (+) face the plus character marked on the battery holder.









K045625, Battery 3V

**K047196**, Battery for mini-transmitter. (SP) (No picture available)



**CHAPTER 4 OPERATORS** 

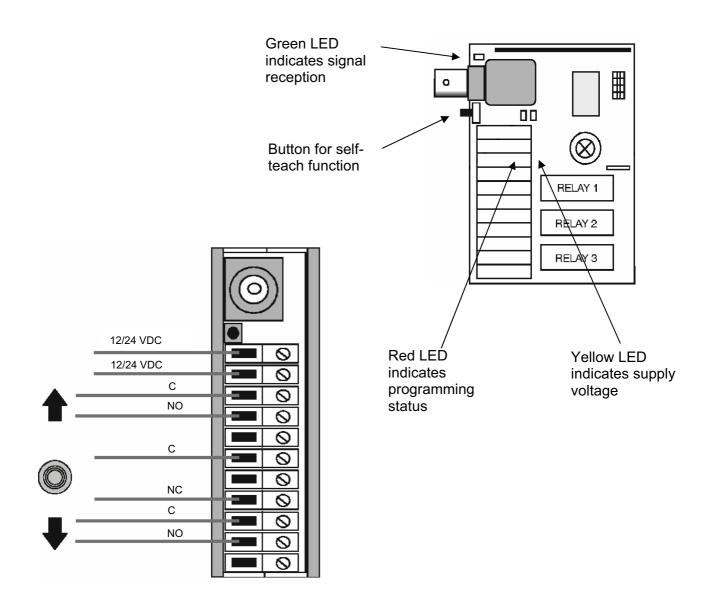
# **About the Receiver**

Receiver 433 MHz PLUS

- Frequency Operating voltage Dimensions Enclosure
- : 433MHz : 12/24DC : 86 x 30 x 58 mm : IP 23, for internal installation.



K039101, Receiver 433 Plus





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## Register a standard code

- Press the self-teach button for at least 300 milliseconds, longest 4 seconds.
- Release the button *Programming mode, red LED comes on*
- Enter the door number, followed by an optional function button (With just the *one-button function* only the door number, with just *up-stop-down function* only the function key) *Red LED flashes*
- The standard code has now been stored *Red LED flashes*

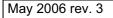
## Register a private code

(= Standard and unique codes)

- Press the self-teach button for at least 300 milliseconds, longest 4 seconds
- Press the button (*longer than 1 second*)
- Private program mode, the red LED comes on
- Enter the door number, followed by an optional function button (With just the *one-button function* only the door number, with just *up-stop-down function* only the function key) *Red LED flashes*
- The private code has now been stored *Red LED double flashes*

## **Erase the programmed codes**

- Press the self-teach button for more than 6 seconds. (*Red LED goes out*)
- All programmed codes are erased.





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To ensure that the remote control system has a long lasting and reliable operation it is very important that the receiver and antenna are mounted correctly. Correctly installed equipment will provide better range and longer lifetime for the system. It will be worthwhile spending a few minutes reading through these instructions.



433-DP Duopole aerial

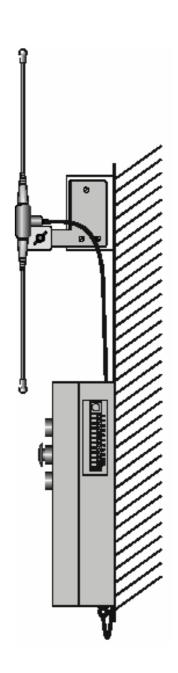
K041765, Arial, duopole 433MHz



K045646, T-conn.for radio 433 MHz Plus



K039114, Wire, f.aerial 10 m



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## **13.4 Programming the transmitters**

433-1	PLUS (K045613)
433-3	PLUS (K045614)
433-999	PLUS (K045619)

The transmitter and receiver are coded together so that they then have a common code.

Program as follows:

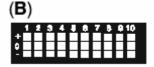
- Check that the transmitter's system switch (A) is in the ON position.
- Set an own code on the transmitter's code switches (B) 1-10.
- Press the self-teach button (C) on the receiver. The red LED comes on (programming mode 6 seconds)
- Press the required door number button (1-15) on the transmitter.

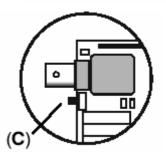
Check that the relay switches when one of the transmitter's buttons is pressed in.



**CHAPTER 4 OPERATORS** 









(**A**)

## Service Manual Industrial Doors

## **Programming the transmitters:**

433-01	PLUS (K045612)
433-06	PLUS (K045615)
433-015	PLUS (K045618)

The transmitter and receiver are coded together so that they then have a common code.

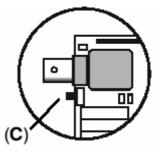
Program as follows:

- Check that the transmitter's system switch (A) is in the ON position.
- Set an own code on the transmitter's code switches (B) 1-10.
- Press the self-teach button (C) on the receiver. The red LED comes on (programming mode 6 seconds)
- Press the required door number button (1-999) and an optional function button (up-stop-down) on the transmitter (approx. 3 seconds).

Check that the relay switches when one of the transmitter's buttons is pressed in.







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# **13.5** Supplementing old 433 MHz installations 1.

Programming the transmitter 433-999 PLUS to an "old" 433receiver and a 433-93 (type truck transmitter) in the existing installation.

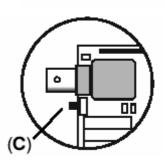
- Set the transmitter's system switch (A) in the **1** position. (off)
- Check that the code switch (B) 9 is in the + (plus) position.
- Set an identical code on the transmitter's three first switched (code switches 1-3) as set on the receiver. (The transmitter's code switches 4-8 and 10 are not used).
- Check that the relay switches when one of the transmitter's button is pressed.



433-999









# 13.6 Supplementing old 433 MHz installations 2.

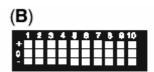
Programming the **PLUS** transmitter 433-1, 433-01 and 433-06 to an "old" 433-receiver and small 433-transmitters) in the existing installation. (Not Robust).

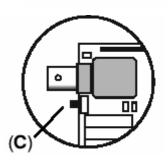
- Set the transmitter's system switch (A) in the **1** position. (off)
- For 433-1 or 433-01 transmitters proceed as follows:
- Set an identical code on the transmitter's code switches (B) 1-4) as set on the existing receiver. Set the code switch 10 to the minus position (5-9 are not used).
- For 433-06 transmitter proceed as follows:
  - Set an identical code on the transmitter's code switches (B) 1-4, as set on the existing receiver. Set the code switch 10 to the minus position (5-9 are not used).
- Check that the relay switches when one of the transmitter's button is pressed.

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433-01 433-03 433-06









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# 13.7 Supplementing old 433 MHz installations 3.

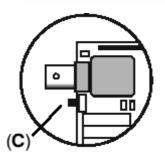
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Programming the **PLUS** transmitter 433-1, 433-01 and 433-06 to an "old" 433-receiver and robust transmitters.

- Set the transmitter's system switch (A) in the **1** 433-01 position. (off)
- For 433-1 or 433-01 transmitters proceed as follows:
- Set an identical code on the transmitter's code switches (B) 1-8) as set on the existing receiver. (9-10 are not used).
- For 433-3 and 433-06 transmitter proceed as follows:
- Set an identical code on the transmitter's code switches (B) 1-4, as set on the existing receiver. (9 is not used)
- Set the code switch **10** to the **minus** or **plus position** depending on the code table used on the other Robust transmitters being used









# **CHAPTER 4 OPERATORS**

# 13.8 Coding tables

Setting the code on the receiver to operate with the "old" 433-06 / 433-10 transmitter switches 1-4 should have the same setting on both the transmitter and receiver.

## Table for 10 Doors

Plus (+) code

Button	T5	Т6	T7	T8
1	0	0	0	+
2	0	0	+	0
3	0	0	+	+
4	0	+	0	0
5	0	+	0	+
6	0	+	+	0
7	0	+	+	+
8	+	0	0	0
9	+	0	0	+
10	0	0	0	0

Minus (-) code

Button	T5	Τ6	Τ7	Т8
1	0	0	0	-
2	0	0	-	0
3	0	0	-	-
4	0	-	0	0
5	0	-	0	-
6	0	-	-	0
7	0	-	-	-
8	-	0	0	0
9	-	0	0	-
10	0	0	0	0

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Setting the code on the receiver to operate with the "old" 433-93 transmitter

Note that the positions A0=D0, B0=E0, C0=F0 Switches 1-3 should have the same settings on both the transmitter and receiver.

## **Table for 93 Doors**

Α							В							С						
"Old"	PLUS	4	5	6	7	8	"Old"	PLUS	4	5	6	7	8	"Old"	PLUS	4	5	6	7	8
A1	101	•	0	0	0	-	B1	201	0	0	0	0	-	C1	301	+	0	0	0	-
A2	102	•	0	0	-	0	B2	202	0	0	0	-	0	C2	302	+	0	0	-	0
A3	103	•	0	0	-	-	B3	203	0	0	0	-	-	C3	303	+	0	0	-	-
A4	104	•	0	-	0	0	B4	204	0	0	-	0	0	C4	304	+	0	-	0	0
A5	105	•	0	-	0	-	B5	205	0	0	-	0	-	C5	305	+	0	-	0	-
A6	106	•	0	-	-	0	B6	206	0	0	-	-	0	C6	306	+	0	-	-	0
A7	107	•	0	-	-	-	B7	207	0	0	-	-	-	C7	307	+	0	-	-	-
AS	108	•	-	0	0	0	B8	208	0	-	0	0	0	C8	308	+	-	0	0	0
A9	109	•	-	0	0	-	B9	209	0	-	0	0	-	C9	309	+	-	0	0	-
A10	110	•	-	0	-	0	B10	210	0	-	0	-	0	C10	310	+	-	0	-	0
A11	111	•	-	0	-	-	B11	211	0	-	0	-	-	C11	311	+	-	0	-	-
A12	112	•	-	-	0	0	B12	212	0	-	-	0	0	C12	312	+	-	-	0	0
A13	113	•	-	-	0	-	B13	213	0	-	-	0	-	C13	313	+	-	-	0	-
A14	114	•	-	-	-	0	B14	214	0	-	-	-	0	C14	314	+	-	-	-	0
A15	115		-	-	-	-	B15	215	0	-	-	-	-	C15	315	+	-	-	-	-
A0	100	•	0	0	0	0	B0	200	0	0	0	0	0	C0	300	+	0	0	0	0
D							F							F						
D "Old"	PLUS	4	5	6	7	8	E "Old"	PLUS	4	5	6	7	8	F "Old"	PLUS	4	5	6	7	8
_	PLUS 401	4	5	6	7	8		PLUS 501	4	5 0	6 0	7	8+	_	PLUS 601	4+	5 0	6 0	7 0	8
"Old"							"Old"							"Old"						
"Old" D1	401	·	0	0	0	+	"Old" E1	501	0	0	0	0	+	"Old" F1	601	+	0	0	0	+
"Old" D1 D2	401 402	:	0	0 0	0 +	+ 0	"Old" E1 E2	501 502	0 0	0 0	0 0	0 +	+ 0	"Old" F1 F2	601 602	+ +	0 0	0 0	0 +	+ 0
"Old" D1 D2 D3	401 402 403		0 0 0	0 0 0	0 + +	+ 0 +	"Old" E1 E2 E3	501 502 503	0 0 0	0 0 0	0 0 0	0 + +	+ 0 +	"Old" F1 F2 F3	601 602 603	+ + +	0 0 0	0 0 0	0 + +	+ 0 +
"Old" D1 D2 D3 D4	401 402 403 404		0 0 0	0 0 0 +	0 + + 0	+ 0 + 0	"Old" E1 E2 E3 E4	501 502 503 504	0 0 0 0	0 0 0 0	0 0 0 +	0 + + 0	+ 0 + 0	"Old" F1 F2 F3 F4	601 602 603 604	+ + + +	0 0 0 0	0 0 0 +	0 + + 0	+ 0 + 0
"Old" D1 D2 D3 D4 D5	401 402 403 404 405		0 0 0 0	0 0 + +	0 + + 0 0	+ 0 + 0 +	"Old" E1 E2 E3 E4 E5	501 502 503 504 505	0 0 0 0	0 0 0 0	0 0 + +	0 + + 0 0	+ 0 + 0 +	"Old" F1 F2 F3 F4 F5	601 602 603 604 605	+ + + +	0 0 0 0	0 0 + +	0 + 0 0	+ 0 + 0 +
"Old" D1 D2 D3 D4 D5 D6	401 402 403 404 405 406		0 0 0 0 0	0 0 + + +	0 + 0 0 +	+ 0 + 0 + 0	"Old" E1 E2 E3 E4 E5 E6	501 502 503 504 505 506	0 0 0 0 0	0 0 0 0 0	0 0 + +	0 + 0 0 +	+ 0 + 0 + 0	"Old" F1 F2 F3 F4 F5 F6	601 602 603 604 605 606	+ + + +	0 0 0 0 0	0 0 + + +	0 + 0 0 +	+ 0 + 0 + 0
"Old" D1 D2 D3 D4 D5 D6 D7	401 402 403 404 405 406 407		0 0 0 0 0 0	0 0 + + +	0 + 0 0 +	+ 0 + 0 + 0 +	"Old" E1 E2 E3 E4 E5 E6 E7	501 502 503 504 505 506 507	0 0 0 0 0 0	0 0 0 0 0	0 0 + + +	0 + 0 0 +	+ 0 + 0 + 0 +	"Old" F1 F2 F3 F4 F5 F6 F7	601 602 603 604 605 606 607	+ + + + +	0 0 0 0 0 0	0 0 + + +	0 + 0 0 +	+ 0 + 0 + 0 +
"Old" D1 D2 D3 D4 D5 D6 D7 D8	401 402 403 404 405 406 407 408		0 0 0 0 0 0	0 0 + + + + 0	0 + 0 0 + + 0	+ 0 + 0 + 0 + 0	"Old" E1 E2 E3 E4 E5 E6 E7 E8	501 502 503 504 505 506 507 508	0 0 0 0 0 0 0	0 0 0 0 0 0	0 0 + + + 0	0 + 0 0 + + 0	+ 0 + 0 + 0 + 0	"Old" F1 F2 F3 F4 F5 F6 F7 F8	601 602 603 604 605 606 607 608	+ + + + + + + +	0 0 0 0 0 0	0 0 + + + 0	0 + 0 0 + + 0	+ 0 + 0 + 0 + 0
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9	401 402 403 404 405 406 407 408 409		0 0 0 0 0 + +	0 0 + + + 0 0	0 + 0 0 + + 0 0	+ 0 + 0 + 0 +	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9	501 502 503 504 505 506 507 508 509	0 0 0 0 0 0 0 0	0 0 0 0 0 + +	0 0 + + + 0 0	0 + 0 + + 0 0	+ 0 + 0 + 0 + 0 +	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9	601 602 603 604 605 606 607 608 609	+ + + + + + + + +	0 0 0 0 0 + +	0 0 + + + 0 0	0 + 0 + + 0 + 0	+ 0 + 0 + 0 + 0 +
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9 D10	401 402 403 404 405 406 407 408 409 410 411 412		0 0 0 0 0 + +	0 0 + + + 0 0	0 + 0 0 + + 0 0 +	+ 0 + 0 + 0 + 0 + 0	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9 E10	501 502 503 504 505 506 507 508 509 510	0 0 0 0 0 0 0 0 0	0 0 0 0 0 + +	0 0 + + + 0 0	0 + 0 + + 0 + 0 +	+ 0 + 0 + 0 + 0 +	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9 F10	601 602 603 604 605 606 607 608 609 610	+ + + + + + + + + + + + + + + + + + + +	0 0 0 0 + + +	0 0 + + + 0 0	0 + 0 + + 0 0 + + 0 0 +	+ 0 + 0 + 0 + 0 + 0
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11	401 402 403 404 405 406 407 408 409 410 411	· · · ·	0 0 0 0 0 + + + +	0 0 + + 0 0 0	0 + 0 0 + + 0 0 + +	+ 0 + 0 + 0 + 0 + 0 +	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11	501 502 503 504 505 506 507 508 509 510 511	0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 0 + + + +	0 0 + + + 0 0 0	0 + 0 0 + + 0 0 + +	+ 0 + 0 + 0 + 0 + 0 +	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11	601 602 603 604 605 606 607 608 609 610 611	+ + + + + + + + + + + + +	0 0 0 0 0 + + + +	0 0 + + + 0 0 0	0 + 0 0 + + 0 0 + + + +	+ 0 + 0 + 0 + 0 + 0 + 0 +
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12	401 402 403 404 405 406 407 408 409 410 411 412	· · · ·	0 0 0 0 0 + + + + +	0 0 + + 0 0 0 0 0 +	0 + 0 0 + 0 0 + + 0 0 + + 0	+ 0 + 0 + 0 + 0 + 0 0 + 0	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12	501 502 503 504 505 506 507 508 509 510 511 512	0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 + + + + +	0 0 + + + 0 0 0 0 +	0 + 0 + + 0 0 + + 0 0 + + 0	+ 0 + 0 + 0 + 0 + 0 + 0 0 + 0	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12	601 602 603 604 605 606 607 608 609 610 611 612	+ + + + + + + + + + + + + + + + + + + +	0 0 0 0 + + + + +	0 0 + + + 0 0 0 0 0 +	0 + 0 + + 0 0 + + 0 0 + + 0	+ 0 + 0 + 0 + 0 + 0 + 0 0 + 0
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13	401 402 403 404 405 406 407 408 409 410 411 412 413 414 415	· · · ·	0 0 0 0 + + + + + +	0 0 + + 0 0 0 + + + + 0 0 0 + + + +	0 + 0 0 + 0 0 + + 0 0 + + 0 0	+ 0 + 0 + 0 + 0 + 0 + 0 +	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13	501 502 503 504 505 506 507 508 509 510 511 512 513	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 + + + + + + +	0 0 + + + 0 0 0 0 0 + +	0 + 0 + + 0 0 + + 0 0 + + 0 0	+ 0 + 0 + 0 + 0 + 0 + 0 + 0 +	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13	601 602 603 604 605 606 607 608 609 610 611 612 613	+ + + + + + + + + + + + + + + + +	0 0 0 0 + + + + + + +	0 0 + + + 0 0 0 0 0 + +	0 + + 0 + + 0 0 + + 0 0 + + 0 0	+ 0 + 0 + 0 + 0 + 0 + 0 + 0 +
"Old" D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14	401 402 403 404 405 406 407 408 409 410 411 412 413 414	· · · ·	0 0 0 0 + + + + + + + +	0 0 + + + 0 0 0 + + + +	0 + 0 + + 0 0 + + 0 0 + + 0 0 +	+ 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0 +	"Old" E1 E2 E3 E4 E5 E6 E7 E8 E9 E10 E11 E12 E13 E14	501 502 503 504 505 506 507 508 509 510 511 512 513 514	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 0 0 + + + + + + +	0 0 + + + 0 0 0 0 + + +	0 + 0 + 0 + 0 + + 0 0 + +	+ 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0	"Old" F1 F2 F3 F4 F5 F6 F7 F8 F9 F10 F11 F12 F13 F14	601 602 603 604 605 606 607 608 609 610 611 612 613 614	+ + + + + + + + + + + + + + + + + + +	0 0 0 0 + + + + + + + +	0 0 + + 0 0 0 0 + + +	0 + 0 + + 0 0 + + 0 0 + + 0 0 +	+ 0 + 0 + 0 + 0 + 0 + 0 + 0 + 0



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# 13.9 Radio equipment 869 MHz

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- New ergonomic design with high quality
- Easy to install easy programming
- Safe with secure data transmission
- Each transmitter is supplied with a **unique** code
- The receiver can manage **100 unique codes** (AGM: 500 unique codes)
- The receiver is programmed via the handheld transmitter
- Possibility to operate up to 999 doors
- Robust

## **Battery replacement**

The transmitter must be taken apart to access the battery. Note that on transmitters with button batteries the plus character should (+) face the plus character marked on the battery holder.

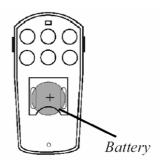
## About the transmitter

Shortcut for a door (869-999)

The \* and **#** buttons are used to program a shortcut (1 selection per button) for a specific door.

If you hold down the \* or **#** button when a number is shown on the display for more than three

Seconds (display fl ashes) this saves the number as the shortcut.





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# 13.10 Transmitters in the 869MHz program

Transmitter 869-1 K047181 with function buttons

Up - Stop - Down.

Transmitter 869-3 K047182

with function buttons Up - Stop - Down. For 3 doors.

Transmitter 869-01 K047180 with One button function. For 1 door.

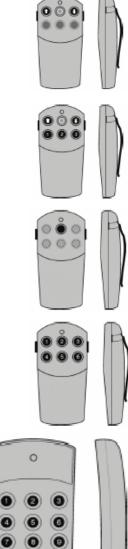
Transmitter 869-06 K047183 with One button function. For 6 doors.

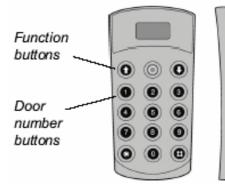
Transmitter 869-015 K047184 with One button function. For 15 doors.

Transmitter 869-999 K047185 with function buttons Up - Stop - Down. For up to 999 doors.



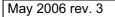
For latest info see Spare Parts Catalogue







( D) ( D)



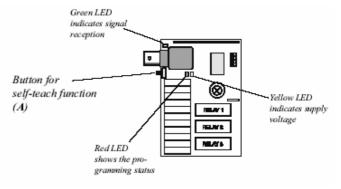


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# 13.11 Receivers in the 869MHz program

## **DIN Receiver 869**

Up to 100 unique codes (transmitters)



Frequency:	869 MHz
Operating voltage:	12/24V AC/DC
Dimensions:	86 x 30 x 58 mm
Enclosure:	IP 23, for internal
installation	

## WR Receiver 869



Frequency: 869 MHz Operating voltage: 12/24V AC/DC Dimensions: 120 x 103 x 44 mm Enclosure: IP 65, for external installation

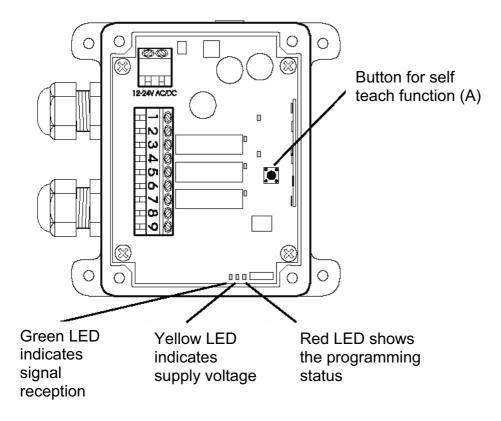


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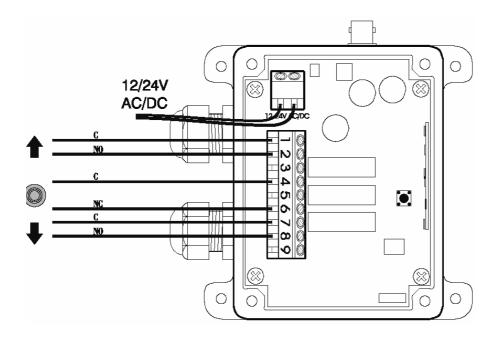
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# WR Receiver 869



# WR 869 / AGM WR 869





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## **AGM WR Receiver 869**

- Frequency: 869 MHz
- Operating voltage: 12/24V AC/DC
- Dimensions: 120 x 103 x 44 mm
- Enclosure: IP 65, for external installation
- AGM WR Receiver 869 is used together with an Onebutton transmitter and/or with a transmitter with Up-Stop-Down functions.

## Programming the AGM WR Receiver

The receiver can be programmed to accept up to 500 different transmitters, where each transmitter has its own unique ID-code. It is recommended to keep a log of transmitter serial numbers that have been programmed into the receiver and on which position. It could also be useful to log which user has access to which transmitter.

For programming the ID codes see document **K046727**, *RADIO* 869MHz Installation & Programming

	am Erase	Up Down		
$\bigcirc$			$\bigcirc$	