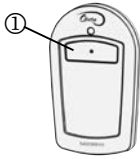
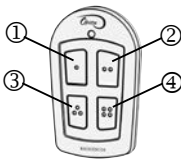
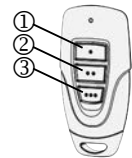


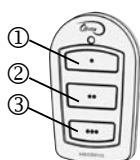




Rolling Code Transmitters - Series "100"

Specifications and Programming Instructions

➤ Transmitter Programming: RADIOEM101, RADIOEM102, RADIOEM103, RADIOEM104

The Opera Brand Transmitters can be used as either a 1-Door x 3-Button Transmitter or as a Multiple-Door Transmitter (Commercial Sequence or SBC). Commercial Sequence or SBC settings depend on the operator programming settings. The Transmitters can be re-programmed as needs change. Replacement Battery: 1x CR2032 (3V).

Transmitter	Modes and Functions	Transmitter Programming
 <p>RADIOEM101</p>	<p>1-Door 1-Button Transmitter ⁽¹⁾</p> <p>1. OPEN / STOP / CLOSE → Only Button</p>	<p>No initial programming is required.</p> <p>The Transmitters are ready to be matched to the Receiver of your choice, refer to section Transmitter to Operator Matching (Pairing), p. 3.</p>
 <p>RADIOEM104</p>	<p>4-Door 4 x 1-Button Transmitter ⁽¹⁾</p> <p>1. DOOR #1 → Top Left Button 2. DOOR #2 → Top Right Button 3. DOOR #3 → Bottom Left Button 4. DOOR #4 → Bottom Right Button</p> <p>⁽¹⁾ Each button acts separately as a 1-Button Transmitter.</p> <p>Commercial Sequence or SBC Programming depends on the Operator Settings, please refer to the Commercial Sequence or SBC Programming instructions, p. 4).</p>	
 <p>RADIOEM102 Mini Key Chain</p>	<p>1-Door 3-Button Transmitter (Factory default for RADIOEM103SD)</p> <p>1. OPEN → Top Button 2. CLOSE → Middle Button 3. STOP → Bottom Button</p>	<p>1. Press and HOLD Buttons ① and ③ for 5 sec. The RED LED will  BLINK. You have 15 sec. to complete the configuration or you will need to restart.</p> <p>2. Release Buttons ① and ③.</p> <p>3. Press Button ①.</p> <p>4. The RED LED will stop  blinking. Programming is now complete.</p>
 <p>RADIOEM103 Single Door (SD) / Multiple Door (MD)</p>	<p>3-Door 3 x 1-Button Transmitter ⁽¹⁾ (Factory default for RADIOEM102 & RADIOEM103MD)</p> <p>1. DOOR #1 → Top Button 2. DOOR #2 → Middle Button 3. DOOR #3 → Bottom Button</p> <p>⁽¹⁾ Each button acts separately as a 1-Button Transmitter.</p> <p>Commercial Sequence or SBC Programming depends on the Operator Settings, please refer to the Commercial Sequence or SBC Programming instructions, p. 4).</p>	<p>1. Press and HOLD Buttons ① and ③ for 5 sec. The RED LED will  BLINK. You have 15 sec. to complete the configuration or you will need to restart.</p> <p>2. Release Buttons ① and ③.</p> <p>3. Press Button ③.</p> <p>4. The RED LED will stop  blinking. Programming is now complete.</p>




Rolling Code Transmitters - Series "100"

Specifications and Programming Instructions

➤ Transmitter Programming: RADIOEM144

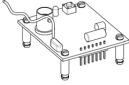


The RADIOEM144 Rolling Code Transmitter can be used to control up to 144 doors with Open / Close / Stop function. Two rotary dials (Letters: A to L) and (Numbers: 1 to 12) permit for a proper door selection. The Transmitter can be re-programmed as needs change. Replacement Battery: 2x AA (1.5V).

Transmitter	Modes and Functions	Transmitter Programming
 RADIOEM144	<p>Multiple Door (up to 144 doors) 3-Button Transmitter</p> <ol style="list-style-type: none"> 1. OPEN → Top Button 2. CLOSE → Middle Button 3. STOP → Bottom Button 	<p>No initial programming is required.</p> <p>This Transmitter is ready to be matched to the Receiver of your choice, refer to section Transmitter to Operator Matching (Pairing), p. 3.</p>

➤ Transmitter to Operator Matching (Pairing)

The On-Board Radio Receiver **RADIORE101**, featuring Rolling Code Technology, is factory installed on all operators equipped with an Electronic Control Board **BOARD 070** since November 2013.

The Series 100 Transmitters are compatible with the **RADIORE101** Receiver, as well as the on-site installation kits **RADIOKIT004/005** (operators prior to November 2013) and the External Radio Receivers **RADIORE901/901A/901B**. The Series 100 Transmitters are also compatible with **RADIORE102**, except for RADIOEM103SD and RADIOEM144.

Compatible Receivers			
 RADIORE101 (ECB BOAR070) / RADIOKIT004 (RADIOKIT005) (On-site Installation Kits)	 RADIORE901/901A (RADIORE900/900A)	 RADIORE901B (RADIORE900B)	 RADIORE102 (not compatible with RADIOEM103SD and RADIOEM144)




➤ Matching the Transmitter to the On-Board Radio Receiver RADIORE101 or to the External Universal Radio Receivers RADIORE901/901A/901B

Note: For RADIORE102, consult TN1028 for pairing instructions.



To MATCH the Transmitter to the Receiver:

Once the Transmitter has been correctly programmed according to instructions found on p. 1-2, select the Receiver of choice, refer to Figure 1 or Figure 2 and follow the steps below:

For RADIOEM101/102/103/104:

1. HOLD the Receiver's **LEARN** button until the **LED BLINKS**  for approx. 2 sec. (frequency of 1 sec. ON / 1 sec. OFF).
2. **To program in 3-Button Mode:** On the Transmitter, HOLD any button until the Receiver's **LED** stops blinking .
3. **To program in 3 x 1-Button Mode:** On the Transmitter, HOLD the desired button that you want programmed until the Receiver's **LED** stops blinking .

For RADIOEM144:

1. Adjust the Transmitter's rotary dials to the desired positions to permit for the proper door selection.
2. HOLD the Receiver's **LEARN** button until the **LED BLINKS**  for approx. 2 sec. (frequency of 1 sec. ON / 1 sec. OFF).
3. On the Transmitter, HOLD any button until the Receiver's **LED** stops blinking .

Note: You can match 1-Button, 3-Button, 4-Button AND 144-Door Transmitters with the same Receiver. Mix and match any of the Series 100 Transmitters accordingly for your application (ordered separately). One Receiver will accept up to 50 Transmitters.

To DELETE ALL Transmitters from the Receiver's Memory:

1. HOLD the Receiver's **LEARN** button until the **LED BLINKS**  for approx. 10 sec. (frequency of 1/3 sec. ON / 1/3 sec. OFF).

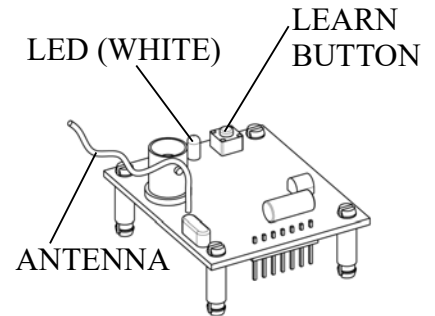


Figure 1 - RADIORE101
(ECB BOARD070 /
RADIOKIT005)

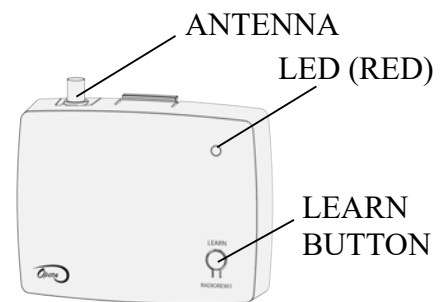


Figure 2 - RADIORE901
(RADIORE901A/901B)



Rolling Code Transmitters - Series "100"

Specifications and Programming Instructions

➤ Commercial Sequence or SBC Programming (Optional)

Modes	Functions	Programming (on operator's ECB)
Commercial Sequence - 1-Button	<p>OPEN / CLOSE → Button</p> <p>Door is CLOSED: - Click Button → Door OPENS FULLY</p> <p>During UPWARD Travel: - Click Button → Nothing happens</p> <p>Door is OPENED: - Click Button → Door CLOSES FULLY</p> <p>During DOWNWARD Travel: - Click Button → Door reverses and OPENS FULLY</p> <p>Door is STOPPED: - Not possible in this mode. Door is either FULLY OPENED or FULLY CLOSED.</p>	<p>Standard default mode.</p> <ol style="list-style-type: none"> 1. Door is in fully CLOSED position. 2. On ECB, verify if the close limit switch is activated (CLOSE LED is ON). 3. On ECB, set selector switch on 9 = SBC. 4. On ECB, press "STOP" button. 5. On ECB, select run mode (1, 4, or 5).
<p>Single Button Control (SBC)</p> <p>Available with the Electronic Control Board (ECB) only.</p> <p>Alternating Sequence</p>	<p>OPEN / STOP / CLOSE → Button</p> <p>Door is CLOSED: - Click Button → Door OPENS</p> <p>During UPWARD Travel: - Click Button → Door STOPS</p> <p>Door is STOPPED: - Click Button → Door CLOSES</p> <p>During DOWNWARD Travel: - Click Button → Door STOPS</p> <p>Door is STOPPED: - Click Button → Door OPENS</p> <p>Note: If the door is STOPPED for more than 2 minutes, the next movement will be UPWARD regardless of the previous movement.</p>	<ol style="list-style-type: none"> 1. Door is in fully CLOSED position. 2. On ECB, verify if the close limit switch is activated (CLOSE LED is ON). 3. On ECB, set selector switch on 9 = SBC. 4. On ECB, press "OPEN" button. 5. On ECB, select run mode (1, 4, or 5).

FCC and ISED

This device complies with Part 15 of the FCC Rules and Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

WARNING: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules and Industry Canada ICES standards. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: (1) Reorient or relocate the receiving antenna. (2) Increase the separation between the equipment and receiver. (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. (4) Consult the dealer or an experienced radio/TV technician for help.

For further information, please consult the operator's Installation & Instruction Manual or contact our Technical Support Department at **1-800-361-2260**.