

The RDE-MZ6 is a multizone controller and is typically used for floor and zone heating applications. It should only be used in conjunction with RDD100.1RF* or RDE100.1RF* room thermostats/transmitters.

The multizone controller receives wireless signals from the configured RDD100.1RF or RDE100.1RF and then controls the selected zone(s). Each zone can be controlled individually, either without time program (via RDD100.1RF) or with time program (via RDE100.1RF). The controller can handle up to 6 zones (1 to 6). One thermostat can also be paired to multiple zones.

Alternatively, the multizone controller (zone number 6 only output) can be reconfigured for an application using a circulating pump or boiler. This means that the remaining zones 1 to 5 are free to drive the valves and actuators. An internal DIP switch must be operated to activate this feature.

The multizone receiver is equipped with a built-in antenna and operates at a frequency of 433 MHz.

* To be ordered separately (S55770-T319 = RDD100.1RF, S55770-T320 = RDE100.1RF)



- 1** Indication of data transmission and operating state (LED)
- 2** Initialization of wireless communication with transmitter (LEARN button)
- 3** RESET button

How to pair transmitter and RDE-MZ6

Make sure RDD100.1RF or RDE100.1RF (thermostat(s)/transmitter(s)) are on your hands.

Option 1: One transmitter for one zone on RDE-MZ6

Learn Mode + -	<p>To pair one transmitter to one zone, proceed as follows:</p> <p>Transmitter setting:</p> <ol style="list-style-type: none"> 1) On the transmitter, enter the parameter settings (refer to section "Do you want to change parameters?" in RDE100.1RFS or RDD100.1RFS Operating Instructions). 2) Assign the transmitter to the following specific zone and ensure the parameter number is set as follows: Zone no. 1 on transmitter, adjust P19=1 Zone no. 2 on transmitter, adjust P19=2 Zone no. 3 on transmitter, adjust P19=3 Zone no. 4 on transmitter, adjust P19=4 Zone no. 5 on transmitter, adjust P19=5 Zone no. 6 on transmitter, adjust P19=6 <p>RDE-MZ6 receiver setting:</p> <ol style="list-style-type: none"> 3) Power on the receiver. 4) Press and hold the LEARN button of the respective channel/zone you want to learn on RDE-MZ6 for at least 3 seconds, then release it. 5) The red and green LEDs flash alternately on the respective channel/zone to indicate this channel is in learning mode. <p>Initiate learning:</p> <ol style="list-style-type: none"> 6) On the transmitter, enter the parameter settings once again. 7) Proceed to parameter P20. Adjust the value to P20=1 (ON), then confirm. 8) During wireless learning, the LCD displays "rF" and "Lrn". Wait for time out and the transmitter exits the parameter settings. <p>Successful wireless learning:</p> <ol style="list-style-type: none"> 9) The green LED flashes for 10 minutes to indicate that the paired channel has successfully completed wireless learning. <p>Recommendation:</p> <ol style="list-style-type: none"> 10) <i>Additional test to ensure the wireless signal is fine:</i> On the transmitter, change the operating mode by pressing Mode or change the setpoint by pressing + or -. On the paired channel, the green LED should flash for 3 seconds before changing to constantly green. At the same time, observe your radiator, boiler or heater indication (if it has one) to ensure that it changed the operating mode. 11) If step 9 or 10 is working fine, this means you have successfully paired the zone. Repeat the same steps above if you want to pair additional available transmitters individually. <p>Unsuccessful wireless learning:</p> <ol style="list-style-type: none"> 12) If the channel fails to receive wireless data, the red LED starts to flash **. 13) Repeat steps 1 to 10 until pairing is successful. <p>! Note: Always start receiver learning before starting pairing with the transmitter. The units must be placed such that transmitter and received signals have limited external wireless interference. **In normal operation, if a drop in wireless communication occurs due to unforeseeable noise, just leave the receiver and it will recover automatically. The pairs are saved even if there is a power shut down. Communication restarts automatically after several minutes without any user action.</p>
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Option 2: One transmitter for more zones on RDE-MZ6

Learn Mode + -	<p>To pair a single transmitter to more zones on the RDE-MZ6, proceed as follows:</p> <p>Transmitter setting:</p> <ol style="list-style-type: none"> 1) On the transmitter, enter the parameter settings (refer to section "Do you want to change parameters?" in RDE100.1RFS or RDD100.1RFS Operation Instructions). 2) Assign the transmitter to the following specific zone and ensure the parameter number is set as follows: Zone no. 1 on transmitter, adjust P19=1 <p>RDE-MZ6 receiver setting:</p> <ol style="list-style-type: none"> 3) Press and hold LEARN button of the multiple channels/zones you want to learn on RDE-MZ6 for at least 3 seconds, then release them. Example: If you want to assign zone 1, 2 and 3 of the RDE-MZ6 to zone 1 of the transmitter, press zone 1, 2 and 3 LEARN button on the receiver simultaneously. Observe that the LEDs of zone 1, 2 and 3 flash alternately in red and green which means all 3 channels are in learning mode. <p>Initiate learning:</p> <ol style="list-style-type: none"> 4) On the transmitter, enter the parameter settings once again. 5) Proceed to parameter P20. Set the value to P20=1 (ON), then confirm. 6) During wireless learning, the LCD displays "rF" and "Lrn". Wait for time out and the transmitter exits the parameter settings. <p>Summary above: Zone 1 on the transmitter can control zone 1, 2 and 3 of the RDE-MZ6.</p> <p>! Note: To check successful learning, refer to step 9-10 of the previous section.</p>
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How to reset the ID of the zone?

Reset	<p>Reset all zones</p> <p>If the RDE-MZ6 is not in learning mode, press and hold the RESET button for more than 10 seconds to reset all IDs of all 6 zones. 6 green LEDs flash for 5 seconds and then extinguish (recommended for first time setup).</p> <p>Reset one zone</p> <p>Press and hold the RESET button and the respective zone button for more than 10 seconds. This only resets the specific zone. The green LED of the channel flashes for 5 seconds and then extinguishes; the respective zone ID is reset.</p>
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Alternative: Driving the circulating pump/boiler

DIP switch	<p>For this application:</p> <p>Step 1: Operate the DIP switch</p> <p>Power off the RDE-MZ6.</p> <p>Open the cover of the controller and set the DIP switch to position to 1 (ON). This means that zone 6 is now reconfigured for the circulating pump/boiler (default is OFF)</p>																							
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">ON</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;">Switch no.</td> <td style="text-align: center;">1</td> <td style="text-align: center;">2</td> </tr> <tr> <td colspan="6" style="text-align: center;">Application</td> </tr> <tr> <td colspan="3"></td> <td style="text-align: center;">All valves (zone 1 to 6)</td> <td style="text-align: center;">OFF</td> <td style="text-align: center;">OFF</td> </tr> <tr> <td style="text-align: center;">OFF</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;">Pump/boiler (zone 6 only)</td> <td style="text-align: center;">ON</td> <td style="text-align: center;">OFF</td> </tr> </table> <p>Step 2: Making connections</p> <p>Connect zone 1 to zone 5 with valves or actuators.</p> <p>Connect zone 6 to the circulating pump or boiler.</p> <p>Step 3: Learning</p> <p>Power on the RDE-MZ6.</p> <p>Press and hold the RESET button for more than 10 seconds to make a complete reset.</p> <p>To pair zones 1 to 5, follow either option 1 or 2 in the previous section.</p> <p>Zone 6: No pairing is required and the button is disabled.</p> <p>Functionality</p> <p>The output of zone 6 is enabled if either one or more of the remaining zones is turned on. Zone 6 will turn off if all remaining zones are turned off (same as LED indication).</p> <p>Note:</p> <p>Always power off the receiver before operating the DIP switch.</p> <p>Whenever a DIP switch has changed its position, it is highly recommended to make a complete reset and perform wireless learning again.</p>	ON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Switch no.	1	2	Application									All valves (zone 1 to 6)	OFF	OFF	OFF	<input type="checkbox"/>	<input type="checkbox"/>	Pump/boiler (zone 6 only)	ON
ON	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Switch no.	1	2																			
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			All valves (zone 1 to 6)	OFF	OFF																			
OFF	<input type="checkbox"/>	<input type="checkbox"/>	Pump/boiler (zone 6 only)	ON	OFF																			

Controller's LED indication

State of controller	State of LED
Power up (or reset)	All 6 red and green LEDs flash alternately for 5 seconds and then extinguish. Note: If the receiver zone was previously programmed, it will immediately change to constantly red.
Learning mode	The respective zone's red and green LEDs flash alternately.
Successful learning mode	The respective green LED will flash for 10 minutes if controller learning is successful.
Signal ok and output status change	The respective zone's green LED is constantly lit. If the output status changes, the green LED will flash for 3 seconds and then changes back to constantly green.
For boiler or pump configuration	Zone 6: Green LED is lit when relay is energized. Green LED is extinguished when relay is deenergized.
Fail to receive wireless data	If the respective zone of the controller fails to receive wireless data, the red LED will start to flash after 125 minutes. If RDE-MZ6 signal is recovered, it will return to the previous LED state.
Respective zone has no ID	The respective LED is extinguished.