Installation guide for:

- Wireless Receiver and Cable (MIFH1)
- Remote Controller (MRCH1)
- Portable Central Controller (MCCH1)
- Outdoor Air Sensor (MOS1)

**DISCONNECT POWER BEFORE BEGINNING INSTALLATION.** Can cause electrical shock or equipment damage.

**Must be installed by a trained, experienced technician.** Read these instructions carefully. Failure to follow these instructions can damage the product or cause a hazardous condition.

**Installation at a glance**

This document covers linking and installation procedures for the Mitsubishi Split-Zoning Ductless and Ducted Systems' RedLINK™ control devices and accessories.

Before you begin, you must attach the cable to the CN105 connector on the indoor unit control board, then follow the steps in this document.

Remote controllers are linked to specific indoor units. Each indoor unit must have a dedicated remote controller and wireless receiver.
Install batteries in wireless devices

Install batteries in all devices. Make sure batteries are inserted properly (see polarity marks on the devices).

Remote Controller

Install 2 fresh AA batteries

Install quick reference card

Portable Central Controller (optional): Install 3 fresh AA batteries

Outdoor air sensor (optional): Install 2 fresh AA lithium batteries

Install cable and receiver

1 Before mounting indoor unit, connect cable to the 5-pin CN105 connector on the control board in the indoor unit.

2 Mount indoor unit. Route cable to preferred location of the wireless receiver.

3 Route cable through hole in base of wireless receiver and attach to 5 pin connector on receiver board.

4 Push the excess cable back through the indoor unit or behind the wireless receiver. Do not cut or modify the cable. Use zip tie connections on back of receiver if needed.

5 Mount wireless receiver next to the indoor unit (see below) or in a remote location. Mount in the orientations shown. Do not block vents.
Link all devices to wireless network

1. Remove cover from wireless receiver.
2. Verify POWER light is solid green.
3. Press and release the CONNECT button.
4. If CONNECT light does not flash, another receiver or RedLINK wireless adapter may be in wireless setup mode. Exit wireless setup at the other device.

POWER LED
Solid Green: Powered and communication is established.
Slow Flashing Green (1 flash/second): Receiver is powered.
Wait approximately 30 seconds for communication to be established between the wireless receiver and the indoor unit. Check cable connection if flashing does not stop after 30 seconds.
Fast Flashing Green (5 flashes/second): Error in communication between wireless receiver and the indoor unit. Check cable connection.

CONNECT LED
Flashing Green: In wireless setup mode.
Solid Green: RedLINK communication is established.
Yellow: Please wait.
Red: RedLINK device is not communicating.
Flashing status light times out after 15 minutes of inactivity. Press CONNECT again if necessary.

Link remote controller to wireless network

Press ▲ or ▼ to change the name or location of this zone, then press NEXT.
Example: 67 = Meeting Room
See complete zone list on page 8.

Press CONNECT to establish a link to the wireless network.
If E0 or E1 appears, see error codes on page 10.

After a brief pause, the confirmation screen at left should be displayed to verify that the wireless connection has been established.
Press DONE to display the home screen.
Link Portable Central Controller to RedLINK™ network (optional)

1. Make sure the CONNECT light on the wireless receiver is flashing.
2. Press CONNECT at the Portable Central Controller. There will be a short delay as the Portable Central Controller seeks a signal from the wireless network.
3. When the screen displays "Connected," press DONE.
4. Press NO at the next screen to save and exit. (Or press YES and repeat steps 1-4 to link another receiver.)

Make sure the CONNECT light on the wireless receiver is flashing.
Press and release the CONNECT button on the back of the sensor.
Check remote controller to verify that the outdoor sensor is working. After about 15 seconds, the remote controller should display outdoor temperature and humidity.

If E1 appears, see error codes on page 10.

The linking procedure may time out if there is no keypress within 15 minutes. To begin again, press and hold the blank space (or arrow, if present) in the lower right corner of the screen until the display changes (about 3 seconds).

Link outdoor sensor to RedLINK™ network (optional)
Exit wireless setup

Press and release the CONNECT button at the wireless receiver to exit wireless setup (light should stop flashing and remain solid). Replace cover on wireless receiver.

Note: The wireless receiver will automatically exit wireless setup after 15 minutes of inactivity.

Note: If installing more than one receiver, you must exit wireless setup before installing remote controller and additional receiver.

4 Customize remote controller (installer setup)

Follow the steps below to begin installer setup. At each function screen, press ▲ or ▼ to change the setting as desired, then press NEXT to advance to the next function screen.

See tables on pages 6-8 for a description of options for each function.

To begin, press and hold the FAN and ▲ buttons until the display changes. "WAIT" will be displayed for up to 40 seconds.

Press DONE to save & exit.
**Installer setup tables**

Default settings for Setup functions 101-128 are automatically determined by the HVAC equipment. It may take up to 40 seconds to enter setup, and 30 seconds to exit setup.

<table>
<thead>
<tr>
<th>Setup function</th>
<th>Settings &amp; options (factory default in bold)</th>
</tr>
</thead>
</table>
| 101 Unit automatically restarts after power outage | 1 OFF  
2 ON  
3 Not Supported |
| 103 Ventilation Air | 1 Not Supported  
2 IDU does not intake outdoor air through LOSSNAY  
3 IDU does intake outdoor air through LOSSNAY |
| 104 Power Voltage | 1 230V  
2 208V  
3 Not Supported |
| 105 Auto energy-savings operation | 1 ON  
2 OFF  
3 Not Supported |
| 107 Change Filter Duration | 1 100 Hours  
2 2500 Hours  
3 OFF |
| 108 Auto Fan (speed setting) | 1 Quiet  
2 Standard  
3 High Ceiling |
| 109 No. of Air Outlets (PLA only) | 1 4 directions  
2 3 directions  
3 2 directions |
| 110 High Performance Filter Installed | 1 NO  
2 YES  
3 Not Supported |
| 111 Airflow Direction Settings | 1 No Vanes (or Vane #3 for PLA)  
2 Vane #1 Setting (typically kept at the default setting)  
3 Vane #2 Setting (typically kept at the default setting) |
| 115 Indoor Unit Coil Frost Prevention Temperature | 1 36 °F (2 °C)  
2 37 °F (3 °C)  
3 Not Supported |
| 117 Defrost Control | 1 Standard  
2 High Humidity  
3 Not Supported |
| 123 Airflow Oscillate Mode | 1 Not Available  
2 Available  
3 Not Supported |
| 124 Heating Mode Temperature Offset | 1 ON  
2 OFF  
3 Not Supported |
| 125 Thermal Off Fan Operation (Heat Mode) | 1 Extra Low  
2 Stop  
3 Selectable Fan Speed |
| 127 Thermal Off Fan Operation (Cool Mode) | 1 Selectable Fan Speed  
2 Stop  
3 Not Supported |
| 128 Display System Error | 1 ON  
2 OFF  
3 Not Supported |
## Installer setup tables

<table>
<thead>
<tr>
<th>Setup function</th>
<th>Settings &amp; options (factory default in bold)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>134</strong> Central Controller (AG-150 or similar) Present</td>
<td>0 Not Installed 1 Installed</td>
</tr>
<tr>
<td><strong>136</strong> Residential/Commercial</td>
<td>1 Commercial 0 Residential</td>
</tr>
<tr>
<td><strong>138</strong> Permanent Hold Lock (Non-programmable)</td>
<td>0 OFF (Programmable) 1 ON (Non-programmable)</td>
</tr>
<tr>
<td><strong>139</strong> Fahrenheit/Celsius Display</td>
<td>0 Fahrenheit 1 Celsius</td>
</tr>
<tr>
<td><strong>140</strong> Commercial Override Duration</td>
<td>3 3 Hours 0 OFF 1–12 1–12 Hours</td>
</tr>
<tr>
<td><strong>142</strong> System Type</td>
<td>0 Heat &amp; Cool (Heat Pump) 1 Cool Only</td>
</tr>
<tr>
<td><strong>144</strong> System Changeover</td>
<td>1 System Changeover (Auto, Heat, Off, Cool) 0 Manual Changeover (Heat, Off, Cool) 2 System Changeover Only (Auto Only) 3 System Changeover Single Setpoint - only with AG-150 or similar (Auto, Heat, Off, Cool)</td>
</tr>
<tr>
<td><strong>145</strong> System Changeover Deadband Value</td>
<td>3 3 °F (2 °C) 2–8 2–8 °F (1.5–4.5 °C)</td>
</tr>
<tr>
<td><strong>146</strong> Drying Mode</td>
<td>0 OFF 1 ON</td>
</tr>
<tr>
<td><strong>148</strong> Schedule Format</td>
<td>0 5-2 1 5-1-1</td>
</tr>
<tr>
<td><strong>150</strong> Optimal Start</td>
<td>1 ON 0 OFF</td>
</tr>
<tr>
<td><strong>152</strong> Scheduled Off</td>
<td>0 Not Shown *See page 9 for feature information 1 Shown</td>
</tr>
<tr>
<td><strong>154</strong> Power Off Timer (&quot;Sleep Timer&quot;)</td>
<td>0 Not Shown 1 Resume operation at next scheduled period 2 Permanently Off until user changes System mode</td>
</tr>
<tr>
<td><strong>160</strong> Full Lockout</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>162</strong> Lockout On/Off</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>164</strong> Lockout System Mode (Heat, Cool, Auto, Drying)</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>165</strong> Lockout Fan Mode</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>166</strong> Lockout Setpoint</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>168</strong> Lockout Set Clock/Day/ Schedule</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td><strong>170</strong> Max Heat Setpoint</td>
<td>90 90 °F (32 °C) * Subject to HVAC Equipment 40–89 40 to 89 °F (4.5 to 31.5 °C)</td>
</tr>
<tr>
<td><strong>172</strong> Min Cool Setpoint</td>
<td>50 50 °F (10 °C) * Subject to HVAC Equipment 51–99 51 to 99 °F (10.5 to 37 °C)</td>
</tr>
<tr>
<td><strong>173</strong> Sensing Location</td>
<td>1 Sense at Remote Controller 0 Sense at Indoor Unit</td>
</tr>
<tr>
<td><strong>174</strong> Indoor Temperature Display Offset</td>
<td>0 0 °F (0 °C) -3 to 3 °F (-1.5 to 1.5 °C)</td>
</tr>
</tbody>
</table>
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</thead>
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<tr>
<td>176 Outdoor Temperature Display Offset</td>
<td>0 0 °F (0 °C)  -5 to 5 °F (-2.5 to 2.5 °C)</td>
</tr>
<tr>
<td>178 Outdoor Humidity Display Offset</td>
<td>3 0% 0 15% 1 10% 2 -5% 4 5% 5 10% 6 15%</td>
</tr>
<tr>
<td>192 Zone Name</td>
<td>52 THERMOSTAT 34 MASTER BED 1 BASEMENT 35 MEDIA ROOM 2 BATHROOM 36 MUSIC ROOM 3 BATHROOM 1 37 NURSERY 4 BATHROOM 2 38 OFFICE 5 BATHROOM 3 39 OFFICE 1 6 BEDROOM 40 OFFICE 2 7 BEDROOM 41 PANTRY 8 BEDROOM 2 42 PLAYROOM 9 BEDROOM 3 43 POOL ROOM 10 BEDROOM 44 PORCH 11 BOAT HOUSE 45 REC ROOM 12 BONUS ROOM 46 SEWING ROOM 13 COMPUTER ROOM 47 SPA 14 DEN 48 STORAGE ROOM 15 DINING ROOM 49 STUDIO 16 EXERCISE ROOM 50 SUN ROOM 17 FAMILY ROOM 51 THEATER 18 FIREPLACE 52 THERMOSTAT 19 FOYER 53 UPPER LEVEL 20 GAME ROOM 54 UTILITY ROOM 21 GARAGE 55 WALK IN CLOSET 22 GREAT ROOM 56 WINE CELLAR 23 GUEST ROOM 57 WORKSHOP 24 GYM Commercial Names 25 KID'S ROOM 64 CONFERENCE RM 26 KITCHEN 65 DRESSING ROOM 27 KITCHEN 1 66 MACHINE ROOM 28 KITCHEN 2 67 MEETING ROOM 29 LAUNDRY ROOM 68 OPEN AREA 1 30 LIBRARY 69 OPEN AREA 2 31 LIVING ROOM 70 SERVER 1 32 LOWER LEVEL 71 SERVER 2 33 MASTER BATH 72 STOCK ROOM</td>
</tr>
<tr>
<td>194 Wireless Setup</td>
<td>1 Remote controller is connected to wireless system 0 Disconnect Remote controller from wireless system</td>
</tr>
<tr>
<td>198 Reset Schedule to Factory Defaults</td>
<td>0 No 1 Yes</td>
</tr>
<tr>
<td>199 Reset Installer Setup to Factory Defaults</td>
<td>0 No 1 Yes</td>
</tr>
</tbody>
</table>
Special functions

Commercial Override (Setup Function 140): Allows an employee during an unoccupied period to temporarily activate an occupied temperature. Each press of HOLD extends the occupied temperature out 1 hour (or as installed).

Optimal Start (Setup Function 150): Allows the remote controller to “learn” how long the equipment will take to reach programmed temperature settings, so the temperature is reached at the scheduled time.

Scheduled Off (Setup Function 152): Allows the user to schedule a period where the split-zoning system is completely off and resumes operation at the next scheduled period.

Power Off Timer (Setup Function 154): Allows user to schedule indoor unit completely off for one instance:

Follow Schedule Option: indoor unit will resume operation at the next scheduled period.

Permanently Off Option: indoor unit will remain off indefinitely until the user changes the system mode.

Installer test

Follow the procedure below to test for proper operation.

To begin, press and hold the ▲ and ▼ buttons until the display changes (about 3 seconds).

System test number System status

02 Wireless test
0 Off
1 Test radio signal (after a brief pause, screen displays 5-10 to show signal strength; 5 or higher recommended)

50 Cool/Heat test
0 Off
1 Cool
2 Heat

70 Configuration Data 1
(remote controller)
71 Software revision number (major revisions)
72 Software revision number (minor revisions)
73 Configuration identification code (major)
74 Configuration identification code (minor)
75 Production configuration date code (week)
76 Production configuration date code (year)

80 Configuration Data 2
(remote controller)
81 Software revision number (major revisions)
82 Software revision number (minor revisions)
83 Software revision number (build revisions)

90 Configuration Data 1
(wireless receiver)
91 Software revision number (major revisions)
92 Software revision number (minor revisions)
93 Software revision number (build revisions)

95 Configuration Data 2
(wireless receiver)
95 Software revision number (major revisions)
96 Software revision number (minor revisions)
97 Software revision number (build revisions)
Mount remote controller & outdoor sensor

1. Separate the wallplate from the remote controller.

2. Mount the wallplate using the included screws and anchors 5 feet from the floor on an interior wall. If the remote controller is configured to sense indoor temperature, mount in the same room as the indoor unit.
   - Drill 3/16” holes for drywall.
   - Drill 7/32” holes for plaster.

3. Snap the remote controller to the wallplate on the wall.

Outdoor sensor (optional)

Mount the sensor on a vertical exterior wall, at least 6 inches below any overhang. Choose a location protected from direct sunlight.

RedLINK™ error codes

E0 27  Verify device temperature is within operating range. If within range for at least 30 minutes and problem persists, replace Remote Controller.

E0 91  Communication was established between wireless receiver and the indoor unit, but communication has been lost for 10 minutes. Check cable connection. Try replacing the cable.

E1 29  Attempting to connect incompatible wireless devices.

E1 34  Low signal strength. Move wireless device to a different location and try again.

E1 38  Make sure Connect light on wireless receiver is flashing and you are 2+ feet away from wireless receiver.

E1 54  Indoor unit does not support wireless receiver.

For full list of error codes, please refer to your equipment's technical service manual.
Replacing system components

Note: Only use Mitsubishi Electric components or other designated components for installation. Failure to comply may damage the product or cause a hazardous condition.

Remote Controller
To replace a remote controller, install batteries and follow the procedures on page 3 to link it to the wireless network. If necessary, modify settings as needed (see tables on pages 6–8).

Portable Central Controller & outdoor sensor
To replace a Portable Central Controller or outdoor air sensor, install batteries and follow the procedures on page 4 to link it to the wireless network.

Wireless receiver
After installing a new wireless receiver, you must re-set the remote controller and Portable Central Controller to communicate with the new equipment, as described below.

At the remote controller:
1. Press and hold the FAN and ▲ buttons for 3 seconds until display changes. "WAIT" will be displayed for up to 17 seconds.
2. Press NEXT until Function 194 is displayed (wireless setup).
3. Press ▼ to change Function 194 setting to 0 (disconnect from old wireless receiver).
4. Follow the procedures on page 3 to link to new wireless receiver.

At the Portable Central Controller:
1. Press and hold the blank space (or arrow if present) in the lower right corner of the screen until the display changes (about 3 seconds).
2. Press REMOVE, then YES to disconnect from old wireless receiver.
3. Follow the procedure on page 4 to link to new wireless receiver.

Removing all wireless devices:
1. Press and hold the CONNECT button on the wireless receiver for 10 seconds.
2. To reconnect, see procedure on page 3.
FCC Compliance Statement (Part 15.19) (USA only)
This device complies with Part 15 of the FCC Rules. 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.

FCC Warning (Part 15.21) (USA only)
Changes or modifications not expressly approved by the party responsible for compliance could void the user’s authority to operate the equipment.

FCC Interference Statement (Part 15.105 (b)) (USA only)
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. 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 of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/TV technician for help.

Wireless receiver, remote controller and outdoor sensor
To comply with FCC and Industry Canada RF exposure limits for general population/uncontrolled exposure, the antenna(s) used for these transmitters must be installed to provide a separation distance of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

Portable Central Controller
This portable transmitter with its antenna complies with FCC and Industry Canada RF exposure limits for general population/uncontrolled exposure. This device must not be co-located or operating in conjunction with any other antenna or transmitter.

Section 7.1.5 of RSS-GEN
Operation is subject to the following two conditions:
1. this device may not cause interference, and
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Specifications & replacement parts

Operating Ambient Temperature
Remote Controller: 32 to 120° F (0 to 48.9° C)
Portable Central Controller: 32 to 120° F (0 to 48.9° C)
Wireless receiver: -40 to 165° F (-40 to 73.9° C)
Outdoor air sensor: -40 to 140° F (-40 to 60° C)

Operating Relative Humidity
Remote Controller: 5% to 90% (non-condensing)
Portable Central Controller: 5% to 90% (non-condensing)
Wireless receiver: 5% to 95% (non-condensing)
Outdoor air sensor: 0% to 100% (condensing)

Physical Dimensions (height, width, depth)
Remote Controller: 3-9/16 x 5-13/16 x 1-1/2 inches (91 x 147 x 38 mm)
Wireless receiver: 6-7/16 x 3-1/4 x 1-5/16 inches (164 x 82.5 x 34 mm)
Outdoor air sensor: 5 x 3-1/2 x 1-11/16 inches (127 x 89 x 43 mm)
Portable Central Controller: 6-1/4 x 3-1/8 x 1-5/8 inches (158.2 x 79.9 x 42 mm)

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