MITSUBISHI ELECTRIC
Heating and Cooling

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for a greener tomorrow

HOW it WORKS

Ductless Split Sounds

This document provides information to help differentiate normal operational sounds from sounds indicating malfunction. Description of acceptable operating sounds can be found in the equipment's install and service manuals. In most cases, acceptable operational sounds are unnoticeable and intermittent, although, customers with indoor units installed in a quiet environment may experience increased sensitivity to or noise awareness.

Defrost Mode Noise – On defrost initiation, the indoor unit fan stops operating to maintain the indoor temperature during defrost cycle. A momentary hissing noise may be heard when refrigerant flow is reversed (beginning / end of cycle). As flow of refrigerant continues to pass through the coil and pipes refrigerant flow sounds may be audible. Intermittent clicking sounds may also be heard from the indoor unit during a defrost cycle due to mounting of indoor unit or from hairpin assemblies. Wall mounted indoor units are manufactured with rigid plastic hairpin assemblies to meet strict safety standards. These assemblies use clips to maintain position on the coil. During expansion and contraction of the coil these clips pop on and off the coil which may cause a clicking sound.

Low Ambient Temperature Operation Noise - Operation in low ambient temperatures is achieved by optimizing compressor frequency to satisfy indoor temperature set points. Customers may hear refrigerant flow in low ambient temperature operation and transmission of compressor noise from the indoor unit when pipe lengths are less than 16 feet.

Operational Noise - Burbling sounds may be heard if outside air infiltrates through the drain hose when building pressure is negative i.e., ventilation fans. This sound may also be heard from the indoor unit when outside air blows into the drain hose. Ticking sound may be heard if an optional i-See sensor is installed on the indoor unit. i-See Sensor motor operation may be noticeable and recognizable as short and sequential ticks. Disabling the sensor is easily done via the remote control (see Operating Instruction manual).

In situations where abnormal operational sounds are heard, MESCA recommends referencing the install manual to confirm the installation was performed correctly. Start by confirming the following:

- Minimum 16 feet of piping from indoor to outdoor unit requirement. Line sets with less than minimum requirement may transfer noises from outdoor to indoor unit.
- Indoor unit mounted securely to a flat wall. Vibration may cause audible noise, fan motor or bearing damage.
- Minimum hole diameter requirement. Refrigerant pipes can transfer mechanical sounds to the building if hole diameter for the line set is less than the minimum requirement or inappropriately sealed.
- Sufficient indoor and outdoor unit clearances. Clearances that are less than the requirement will increase defrost time and compressor speeds. Additionally, enclosures or partial enclosures around the outdoor unit can act as an amplifier for condenser noise.
- Vertically coiled refrigerant line set. Vertical coils will act as an oil trap leading to compressor and refrigerant flow noises. Operating a compressor with insufficient oil return will cause compressor noise and failure.
- Always follow correct pressure test and evacuation methods. Incorrect procedures may cause contamination of refrigerant system causing compressor noise and failure. Air in refrigerant causes high operational pressures and noises. Moisture will contaminate the oil causing compressor noise and failure.