

Commercial VRF Maintenance Checklist

Daikin VRV • Mitsubishi City Multi • LG Multi V • Use it to specify a programme, or to check what your contractor actually does.

Site	_____	Date	_____	Technician	_____
System / make	_____	Outdoor unit model	_____	Indoor unit count	_____

Outdoor unit

Where the expensive failures begin. Rooftop siting accelerates all of it.

	Check	Standard / record	Prevents	Value / notes
☐	Coil condition and cleaning Remove obstructions, brush larger debris, soak with approved cleaner and rinse from the inside out. Straighten bent fins.	Rinse from inside out; note oil traces (leak indicator)	Daikin E3 / Mitsubishi 1302	
☐	Fan operation, bearings, obstruction Free rotation, no play in bearings, guard intact. Wind back-driving is a recognised cause of premature rooftop fan failure.	—	Daikin E7 / Mitsubishi 4116	
☐	Clearances and airflow path Confirm nothing has been built, stored or screened near the unit since the last visit.	—	Daikin E3 / Mitsubishi 1302	
☐	Cabinet seals and moisture ingress Panels, gaskets and cable entries. Water reaching internal electronics is a leading cause of board failure.	—	LG CH52 / Mitsubishi 6602	
☐	Electrical terminations and contactors Looseness, corrosion, heat discoloration. Contactor contacts checked for pitting.	—	Mitsubishi 4102 / LG 50	
☐	Supply voltage and phase balance Measured at the unit, at rest and under load. All three phases present and balanced.	Record all three phases	Mitsubishi 4220 / LG 50	
☐	Compressor current draw Compared against specification. Elevated draw is the earliest measurable sign of wear or of a system fighting a condition.	Record actual vs spec	Mitsubishi 4240 / Daikin L8	
☐	Equipment mounts and frame Verify mounts have not loosened and the frame is undamaged.	—	—	

Refrigerant circuit

Widest cost range on the system. Caught early these are repairs, not recharges.

	Check	Standard / record	Prevents	Value / notes
☐	Verify airflow before charge testing Charge cannot be assessed meaningfully without adequate airflow established first.	Minimum 300 cfm per ton before charge testing	—	
☐	Charge verified against design Both directions. Undercharge starves the compressor; overcharge raises pressure continuously.	Subcool / superheat within approx. 5F of OEM target	Daikin U0 / Mitsubishi 1500	

	Check	Standard / record	Prevents	Value / notes
☐	Leak inspection at joints and branches Long pipe runs with many joints. Always check for leaks after any service work on the circuit.	—	Daikin U0 / Mitsubishi 1301	
☐	Superheat and subcooling recorded Superheat drifting low is the warning that liquid may be returning to the compressor.	Record values, not pass/fail	LG 150 / Mitsubishi 1102	
☐	Operating pressures logged One reading tells you little. A year of readings shows a system drifting out of spec.	High and low side, with ambient	Daikin E3 / Daikin E4	
☐	Expansion valve operation verified A valve not metering correctly imitates a refrigerant shortage on gauges.	—	Daikin E4 / LG 150	
☐	Refrigerant records updated Quantities added or recovered logged. Required for compliance at commercial charge volumes.	Log kg added / recovered	—	

Indoor units

Individually minor. Collectively the largest source of avoidable call-outs.

	Check	Standard / record	Prevents	Value / notes
☐	Condensate drain lines cleared The single most preventable VRF fault. Lines block gradually and silently, then overflow above a tenant ceiling.	Clear, do not merely inspect	Daikin A3 / Mitsubishi 2502 / LG CH04	
☐	Drain pump operation and current draw Pumps accumulate a great many running hours and fail gradually.	—	Mitsubishi 2502 / LG CH04	
☐	Float switch and connector The protection that stops an overflow. A loose connector removes it silently.	Reseat and function test	Mitsubishi 5701	
☐	Drain pan inspected for standing water Standing water indicates a drainage problem regardless of whether a fault has been raised.	—	—	
☐	Filters inspected and replaced Restricted airflow degrades capacity and efficiency across every zone affected.	—	—	
☐	Indoor coil condition Fouling reduces heat transfer and washes debris into the drain pan.	—	—	
☐	Fan operation and noise Bearing wear in ceiling units is usually reported as a comfort complaint.	—	—	
☐	Sensors verified A sensor reading wrongly makes the system control on bad data and can trigger unrelated faults.	—	Mitsubishi 5101-5116 / Daikin J3 / J5	

Heat recovery and branch controllers

Heat recovery systems only. Routinely skipped because the boxes sit in ceiling voids.

	Check	Standard / record	Prevents	Value / notes
☐	Communication with outdoor unit verified If the branch controller stops responding, refrigerant cannot be routed and zones receive the wrong mode.	—	LG 204	
☐	Branch controller sensors checked These sit on the BC controller rather than the outdoor unit and are commonly missed entirely.	—	Mitsubishi 5101-5116	
☐	Pipe detection map validated Confirms the system still knows which indoor unit is on which port. Invalidated by any board replacement.	Re-run after any PCB change	LG 200	
☐	Valve operation confirmed The mechanism that actually delivers simultaneous heating and cooling.	—	—	

Controls and communication

Cheap to check. Highest-frequency fault category on every platform.

	Check	Standard / record	Prevents	Value / notes
☐	Communication terminals inspected M-NET and RS-485 terminations checked for looseness and corrosion across the run.	Check polarity on RS-485	Mitsubishi 6607 / Daikin U4 / LG CH05	
☐	Addressing verified against installed equipment Confirms nothing has been added, moved or replaced without the configuration following it.	—	Mitsubishi 6600 / LG 200	
☐	Central controller connection confirmed Losing it costs scheduling, setbacks and fault visibility, usually unnoticed.	—	LG 242	
☐	Schedules and setbacks confirmed applied Control strategies stop quietly and consumption rises with no fault raised.	—	—	
☐	Capacity and field settings checked Especially after any board replacement, where settings frequently do not carry across.	—	Daikin PJ / Mitsubishi 7100 / LG 51	

Fault history and documentation

The part almost nobody does, and what makes maintenance predictive rather than cosmetic.

	Check	Standard / record	Prevents	Value / notes
☐	Full fault history downloaded and reviewed Including faults that cleared themselves. Intermittent faults indicate a component degrading.	—	—	
☐	Preliminary codes reviewed specifically Mitsubishi raises many faults twice. The preliminary code is the early warning nobody reads.	e.g. 1600 before 1500, 4340 before 4240	Mitsubishi 1102 / 1302 / 4240	
☐	Measurements recorded year over year A reading is data. A trend is a diagnosis.	—	—	
☐	Configuration and settings documented So the next board replacement does not lose them.	—	Daikin PJ	

Notes and recommendations

How to use this checklist

Record values, not ticks. A checklist that only confirms something was looked at has little value on the second visit. Pressures, current draw, superheat and subcooling are only useful compared against last time.

Frequency depends on the building. Most commercial VRF programmes run quarterly or twice yearly, with filters attended more often. How critical the building is, how many indoor units there are, and how demanding the environment is for rooftop equipment all move that.

Branch controllers are not optional. On heat recovery systems they carry their own sensors and the pipe detection map. They sit in ceiling voids, which is exactly why they get skipped.

Diagnostic software is gated. Daikin, Mitsubishi and LG each restrict the tools needed to read a system properly. A contractor without certification on your platform is working blind, however thorough the visit looks.

Fault references map to our commercial VRF fault library, which documents what each code means for your building, how urgent it is and what it typically costs: losangelesheatingandair.com/commercial/vrf/error-codes/

Compiled from manufacturer service documentation for Daikin VRV, Mitsubishi City Multi and LG Multi V, together with California Quality Maintenance program standards. Measurable values are general guidance only — always work to the figures on your equipment's rating plate and the manufacturer's published specification for your specific model. This checklist is a scoping aid for building owners and facility managers, not a repair procedure.

Los Angeles Heating & Air — certified on Daikin, Mitsubishi and LG VRF platforms. We service systems we did not install. Next business day commercial service.