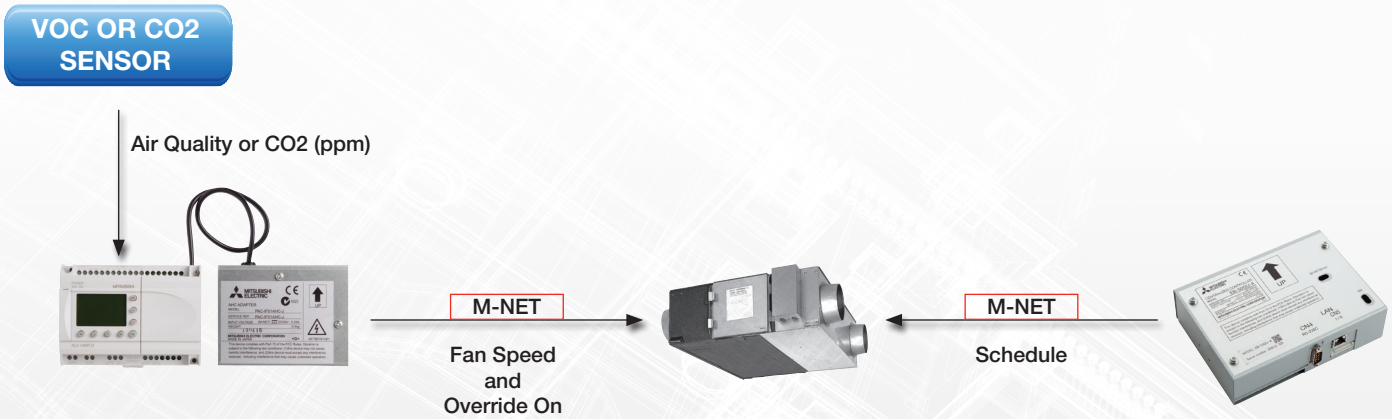
MITSUBISHI ELECTRIC
COOLING & HEATING

AdvancedHVAC Controller Application

Ventilation Control / Using Lossnay®



APPLICATION SUMMARY

This application controls the outside air intake through the Lossnay® energy recovery ventilator (ERV) based on space CO2/VOC levels and centralized controller schedule to achieve optimum indoor air quality with maximum efficiency. The Lossany units are scheduled to be ON only when the building is occupied. If the Lossnay ERV is scheduled OFF while the space is unoccupied, and the AdvancedHVAC controller detects high levels of space CO2/VOC, the AdvancedHVAC will turn the Losnnay ERV ON. Also, The Lossnay fan speed is changed based on the CO2/VOC levels to minimize the amount of energy the indoor air handling unit requires to keep the space temperature at setpoint.



Small to medium office buildings are perfect applications for demand ventilation with the AdvancedHVAC controller.

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Controls Sequence of Operation

The Lossnay ERV units shall be turned ON and OFF based on a schedule configured by the building operator in the CITY MULTI® Central Controller. If, during the unoccupied period, the CITY MULTI Controls System detects high levels of space CO2/VOC, the Lossnay ERV will turn ON to provide fresh air to the space.

Once on, the CITY MULTI Controls System will control the Lossnay ERV fan speed to provide optimal indoor air quality. If space CO2/VOC levels rise above the adjustable setpoint, the Lossnay ERV fan will be commanded to High speed. If space CO2/VOC levels fall below the setpoint, minus the deadband, the Lossnay ERV fan will be commanded to the Low speed.

I/O Summary

Point Description	M-NET Points				Hardware Points			
	Digital Output	Digital Input	Analog Input	M-NET Value	Digital Output	Digital Input	Analog Output	Analog Input
Space CO2/VOC								X
Lossnay ON/OFF	X							
Lossnay Fan Speed				X				

This application requires start up by factory authorized personnel. The application will be purchased and installed by others. A factory authorized person will start up and program the AdvancedHVAC controller. Please contact Mitsubishi Electric Cooling & Heating Professional Solutions Group for pricing and availability.

Model Number: AHA-04-A

Part Number	Qty	Description	Manufacturer
DC-A2IO	1	AdvancedHVAC IO Controller	Mitsubishi Electric
PSMN-40A24DS	1	120VAC - 24VDC 40A Power Supply	FDI
BA/BS3XVOC10-H210-Z	1	VOC Airquality Sensor	BAPI

Model Number: AHA-04-B

Part Number	Qty	Description	Manufacturer
DC-A2IO	1	AdvancedHVAC IO Controller	Mitsubishi Electric
PSMN-40A24DS	1	120VAC - 24VDC 40A Power Supply	FDI
BA/BS4-ACD10-BNK	1	CO2 Sensor	BAPI

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