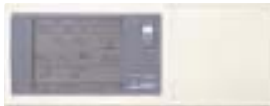


# MJ 103 - MJ 180

Centralized Controllers  
used for City Multi



The MJ-103 is the smallest of the centralized controllers and has been designed to offer multiple group control. With a maximum of 16 indoor units being controllable within any single group (thermal zone), the MJ-103 can control and monitor up to a maximum of 50 indoor units. The MJ-103 can take the place of individual remote controllers offering the same level of monitoring and control. Alternatively, the MJ-103 can operate as a centralized control point while continuing to allow either full or limited local control via the remote controllers.

The MJ-180 controller incorporates a touch sensitive colour LCD display as the operator's interface. This controller can be configured to operate and monitor up to 200 indoor units. The modular design of the City Multi system supports the build up of system controllers. In this particular instance, the MJ-180 can act as the centralized control in the building. Individual floor monitoring can be achieved using separate MJ-103 controllers while still allowing for general or selected local control via remote controllers.

**MJ-103 CENTRALIZED CONTROLLER - ADDITIONAL FEATURES AND BENEFITS.**

ITEM		CENTRALIZED CONTROLLER - MJ-103
Control Units	Max No of indoor Units	Up to 50 indoor units can be connected.
Operations	On/Off	Run and Stop operation for each individual group.
	Mode Selection	Switches between Cool/Dry/Auto/Fan/Heat. Operation mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems only.
	Temperature Setting	Sets the group's temperature control. Cool/Dry: 19°c - 30°c, Heat: 17°c - 28°c, Auto 19°c - 28°c
	Fan Speed Setting	4 Speed - Low/Mid-1/Mid-2/High, 2 Speed Low/High
	Air Flow Direction	Air Flow angles: 100° - 80° - 60° - 40°, plus fully modulating
	Timer Operation	Maximum 3 Time Sequences with 3 Start/Stop times per Day for all Groups can be allocated.
	Permit/Prohibit Function	Individual prohibit operations for each remote controller function (Run/Stop, Temperature Setting, Mode Selection and Filter Reset) can be activated.
	Indoor Return Air Temperature	Displays the measured intake temperature from each group.
	Error Indication	Displays error 4-digit code and the affected unit address. An error log is held showing the last 64 date stamped alarms.
	Test Run Function	Allows each unit within the group to operate in test mode.
	Ventilation Interlock	Allows the group to be interlocked with an heat recovery Lossnay unit.
	External Input/Output	Hardwired connections are available for:- Level Signal - Batch Start/Stop, Batch Emergency Stop Pulse Signal - Batch Start/Stop, Enable/disable local R/C Outputs :-Start/Stop Status, Error/Normal Status
	Power Supply	The PAC-SC34KUA power supply unit is recommended when the system is utilising the MJ103 centralized controller.

**MJ-180 CENTRALIZED CONTROLLER - ADDITIONAL FEATURES AND BENEFITS.**

ITEM		CENTRALIZED CONTROLLER - MJ-180
Control Units	Max No of indoor Units	Up to 100 indoor units can be connected with the standard configuration. This can be expanded to 200 units if a further two wall mounted Gateway units are added.
	Number of Indoor Units per group	1 to 16
	System Controllers per Group	Maximum of 4 including both remote controllers and system controllers
Operations	On/Off	Run and Stop operation can be performed by the complete building, entire floor or each individual group.
	Mode Selection	Switches between Cool/Dry/Auto/Fan/Heat. Operation mode will vary depending on the indoor unit. Auto mode is available with only R2 and WR2 systems.
	Temperature Setting	Sets the group's temperature control. Cool/Dry: 19°c - 30°c, Heat: 17°c - 28°c, Auto 19°c - 28°c
	Fan Speed Setting	4 Speed - Low/Mid-1/Mid-2/High 2 Speed Low/High (Depending on Indoor Unit)
	Air Flow Direction	Air Flow angles: 100° - 80° - 60° - 40°, plus fully modulating
	Permit/Prohibit Function	Individually prohibit operations for each remote controller function (Run/Stop, Temperature Setting, Mode selection and Filter Reset) can be activated.
	Filter sign reset	The filter dirty sign can be reset for the complete building, entire floor or each individual group
	External signal Inputs	Provide Emergency Stop interlock, Remote On/Off operation and Permit/Prohibit R/C operation.
Monitoring	On/Off	Its possible to view the On/Off status of entire floor on an individual group bases.
	Operating status (by floor)	Individual group -On/Off status, Time Schedule status, Alarm status and filter dirty indication, can be viewed .
	Operating Status(by group)	On/Off status, Temperature setting, Operational mode, Fan Speed, Permit/Prohibit status and filter dirty indication can be viewed on an individual group bases.
	Error Indication	Displays error 4-digit code and the affected unit address. An error log is held showing the last 200 date stamped alarms.
	Filter Sign	Displays any unit with a filter dirty indication.
Schedule	Off Timer	Switches the selected group(s) Off at any pre-set time during a daily cycle, this function can be performed on the complete building, entire floor or an individual group.
	Weekly Schedule	Its possible to operate a weekly schedule for the complete building, entire floor or individual group. Each weekly schedule can be built-up from 12 user-definable daily schedule with each daily schedule comprising up to a maximum of 6 sessions. Each session can be defined with associated temperature, mode
	Exception Day Schedule	Its possible to set up to a maximum of 50 exception days in the year. Exception days can be assign for the complete building, entire floor or individual group.
Settings	Current Time	Set and adjust current date and time.
	Prohibit Items	Prohibit remote controller functions for the complete building, entire floor or individual group.
Monitoring	Faults	Display up to the most recent 200 malfunction errors.
Data Backup	Current time	Information will be battery backed up to a maximum of 35 days
	Schedules	Information will be battery backed up to a maximum of 35 days
	Operations Prohibits	Information will be battery backed up to a maximum of 35 days
	Malfunction Log	Information will be battery backed up to a maximum of 35 days
	Connection Information	Information will be battery backed up to a maximum of 35 days
External Inputs/Outputs	External Input	Emergency Stop/Normal, On/Off and Remote control prohibit/permit.
	External Output	Common Status - initiated when any unit is operating. Common Fault - initiated when any unit is in a fault condition.

