

Application Note 2007: Y-Series Operation

Can Y-Series switch between cooling and heating automatically?

The simple answer is, “No”.

- The Y-Series does not have an AUTO mode. Indoor units connected to a Y-Series only support Heat, Cool, Fan, and Dry modes.
- The outdoor unit will either be in Heating mode, or in Cooling mode.
- The Y-Series outdoor unit can only change between Heating and Cooling if all of the indoor unit modes change to the same mode. There are 3 ways to do this:
 - 1) You can use the AE-200A/EW-50A/TC-24 to change system mode based on Weighted Average, a Representative Group, or by scheduling the change (see below). Scheduling the change for all indoor unit modes is the **simplest** way via web browsers.
 - 2) A dipswitch change on the outdoor unit can be employed to determine system mode based on lowest M-NET addressed indoor unit (see below table).

PUHY-P-T(Y)KMU-A	Function 972 ON
PUHY-P-T(Y)LMU-A	Function 972 ON
PUHY-HP-TJMU-A	SW4-5 ON (only switch OS or OC to set)
PQHY-P-T(Y)LMU-A	Function 972 ON
PUMY-P-NKMU1	SW9-1 ON

- 3) Mode must be changed manually at all the Controllers before the system will change modes. If an indoor unit does not have a controller at all, this method will not work.

**The complicated answer is,
“No, but CMCN can be used to change the system mode.”**

As stated in numbers 1 and 2 above, you can use the CITY MULTI® Controls Network to change system mode based on either a Weighted Average, a Representative Group, or a specific zone.

- The Weighted Average method will factor the capacities and how far the zone temperatures are from setpoint for all the units. The mode that will satisfy the entire system the best will be selected, and all the indoor units should or must be set to that mode.
- A representative group can be selected. When the mode for this zone is changed, all the other zones will be set to the same mode.
- A dipswitch on the outdoor unit can be set. This will allow the zone on the lowest addressed indoor unit to select Auto mode. When this controller changes modes automatically, CMCN will change the mode in all the other indoor units to match.

If some zones will need heating and some will need cooling within a system, or if the system will switch back and forth, CITY MULTI® Y-Series should not be used. An R2-Series system should be used instead.