

Job Name: \_\_\_\_\_

Drawing Reference: \_\_\_\_\_

Schedule No. \_\_\_\_\_

### OVERVIEW OF CITY MULTI CONTROLS NETWORK (CMCN)

- Consists of TG-2000 integrated system software, G-50A/GB-50A centralized controllers, timers, remote controllers and BMS interfaces.
- TG-2000 integrated system software supports up to 40 G-50A/GB-50A centralized controllers (licensed for PC software features) for a maximum of 2,000 units from a single PC.
- G-50A centralized controller operates up to 50 indoor units with optional control via a field supplied PC with licensed software.
- GB-50A centralized controller operates up to 50 indoor units via a field supplied PC with licensed software.
- ON/OFF Controller (PAC-YT40ANRA) provides on/off control for 16 individual groups (for a maximum of 50 units).
- Schedule Timer (PAC-YT34STA) provides system schedule control (on/off, operation mode (cool or heat), set temperature, permit/prohibit of remote controller functions (on/off, operation mode selection, set temperature).
- Group System Controller (PAC-SF44SRA) provides system control (on/off, operation mode (Cool, Heat, Dry, Fan, Auto-R2 only), set temperature, permit/prohibit of remote controller functions (on/off, operation mode selection, set temperature), fan speed, and air flow direction of up to 50 indoor units.
- Remote controllers consist of Deluxe MA, Simple MA, Wireless MA, and ME.
- LonWorks® and BACnet® interfaces also available.
- Interlocking of LOSSNAY ERV units for control via the G-50A/GB-50A centralized controllers.

### EXTERNAL HEATER ADAPTOR (PAC-YU24HT) SPECIFICATIONS

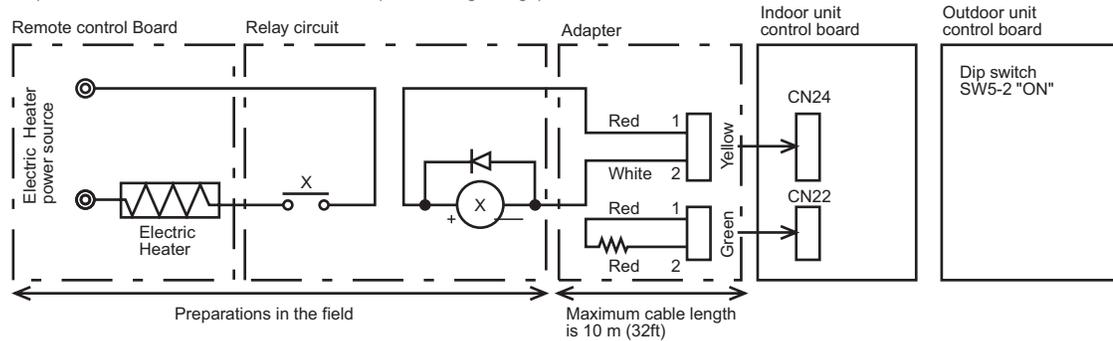
The external header adaptor (PAC-YU24HT) connects to CN24 on the indoor unit for control of external heat by the CITY MULTI Controls Network

- Coil Voltage: 12 Vdc
- Power Consumption: 0.9 W or less
- Maximum Distance: 32 feet (10 meters)
- Wire Size: 16 to 22 AWG

Notes:

# Model: PAC-YU24HT

A basic connection method is shown. Please refer to the service manual for details.  
(i.e. interlocked operation with the electric heater with the fan speed setting on high)



For relay X use the specifications given below

Operation coil  
Rated voltage : 12VDC  
Power consumption : 0.9W or less

\* Use the diode that is recommended by the relay manufacturer at both ends of the relay coil.

The length of the electrical wiring for the PAC-YU24HT is 2 meters (6-1/2 ft)

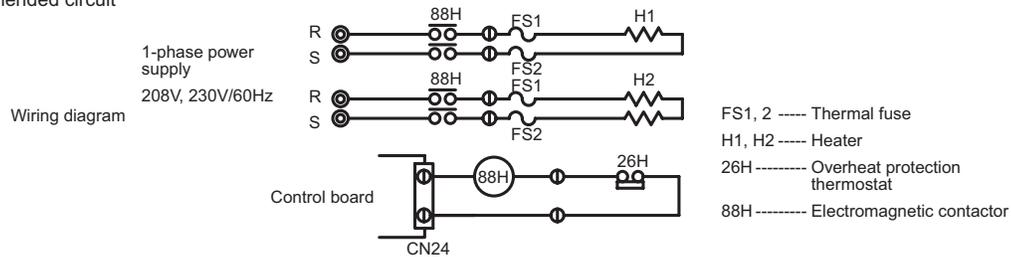
To extend this length, use sheathed 2-core cable.

Control cable type : CVV, CVS, CPEV or equivalent.

Cable size : 0.5 mm<sup>2</sup> ~ 1.25 mm<sup>2</sup> (16 to 22 AWG)

Don't extend the cable more than 10 meters (32ft)

Recommended circuit



- (1) External output cable (with yellow connectors)  
This cable is used to connect the relay circuit that is used for an interlocked operation of indoor unit and electric heater. Connect the cable to connector CN24 on the indoor unit control board.
- (2) Fan speed setting cable with resistance (with green connectors)  
This cable is used to set the fan speed in the defrost mode when running an interlocked operation of indoor unit and electric heater. Connect the cable that corresponds to the selected fan setting to connector CN22 on the indoor unit control board.
  - ① High speed red cable (with a green connector)
  - ② Medium speed white cable (with a green connector)
  - ③ Low speed blue cable (with a green connector)
  - ④ Settin on the remote controller black cable (with a green connector)



Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired ISO 9001 certification under Series 9000 of the International Standard Organization (ISO) based on a review of quality warranties for the production of refrigeration and air conditioning equipment.

ISO Authorization System  
The ISO 9000 series is a plant authorization system relating to quality warranties as stipulated by the ISO. ISO 9001 certifies quality warranties based on the "design, development, production, installation and auxiliary services" for products built at an authorized plant.



Mitsubishi Electric Air Conditioning & Refrigeration Systems Works acquired environmental management system standard ISO 14001 certification.

The ISO 14000 series is a set of standards applying to environmental protection set by the International Standard Organization (ISO).