Fuji Electric

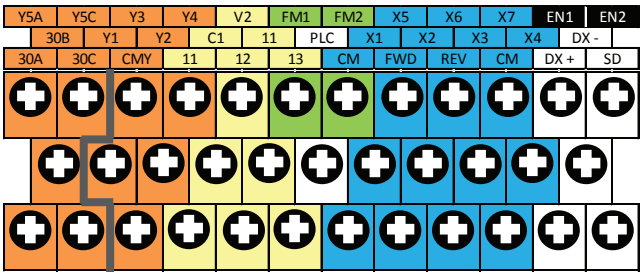
Innovating Energy Technology

FRENIC-HVAC Quick Reference Guide

FRENIC-HVAC Multi-Function Keypad

A. Run status indicator.
B. Overload Warning Indicator.
C. Alarm indicator.
D. Running direction.
E. Local Remote status monitor.
F. Main programmable Operation Monitor display.
G. Run/Stop Fault Status.
H. 2 additional programmable Operation Monitor displays.
I. Date and Time display.
J. Program button.
K. Menu navigation arrow keys.
L. Alarm reset and previous screen key.
M. Set key for storing changes.
N. Remote and Local toggle and help button.
O. Local mode control operators.

Control Card Terminals



Orange = Outputs, Yellow = Analog Inputs, Blue = Digital Inputs

- FWD, Rev, plus 7 Digital inputs.
  Configurable for Source or Sink.

Item		Min.	Max.
Operating Voltage (Sink)	ON level	0V	2V
	Off level	22V	27V
Operating Voltage (Sink)	ON level	22V	27V
	Off level	0V	2V

- 2 0-10VDC analog inputs.
- 4-20mA analog input.
- 4 Transistor outputs.

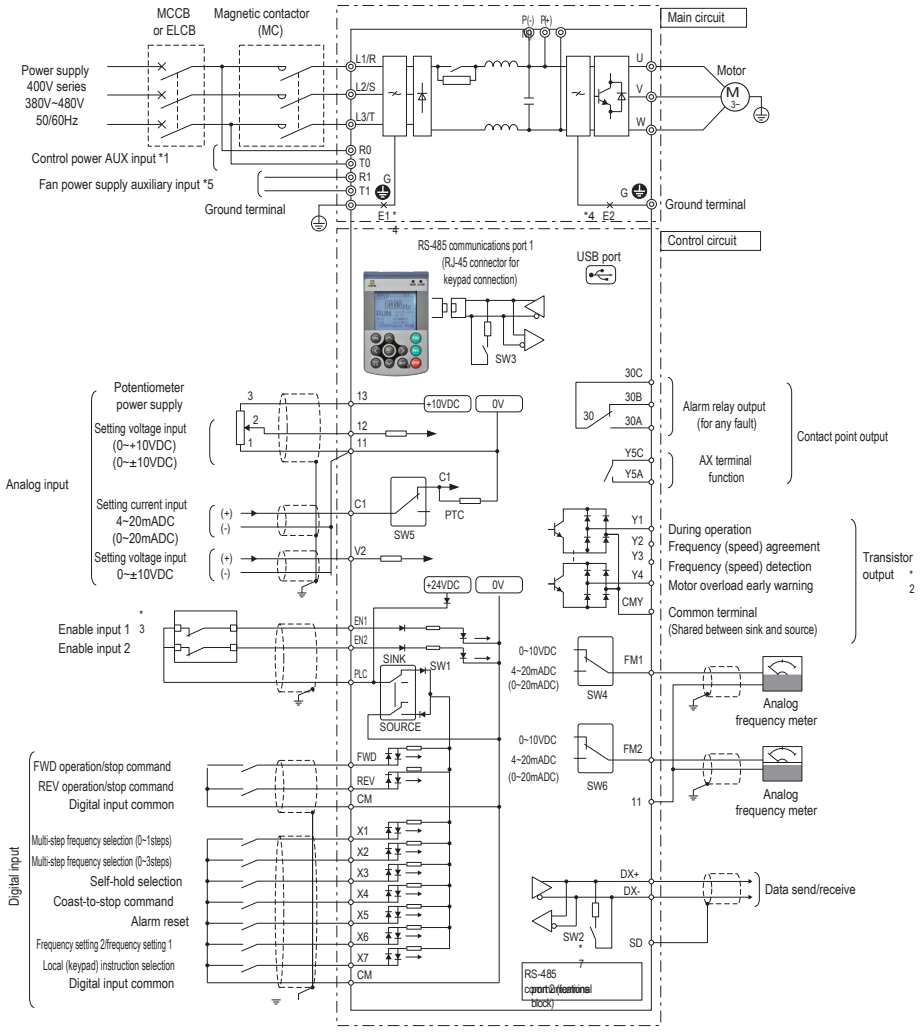
Item		Max.
Operating	ON level	2V
Voltage	Off level	27V
Maximum Current at on.		50m A

- 2 0-10V or 4-20mA analog outputs.
- Form A contact relay
  - o (250VAC 0.3A, cosØ=0.3), (48VDC, .5A).
- Form C contact relay
  - o (250VAC 0.3A, cosØ=0.3), (48VDC, .5A).
- 24VDC max 200mA DC output power.
- 10VDC output power for potentiometer.
- 2 Source only, safe torque off Enable Inputs.
- RS-485 wiring connections.

Other Control Terminal

- RJ-45 keypad connection port.
- USB Type B connection port when using USB keypad (TP-E1U).
- 3 Option card expansion ports.

FRENIC-HVAC Control Wiring



*1) To retain an alarm output signal ALM issued on inverter's programmable output terminals by the protective function or to keep the keypad alive even if the main power has shut down,
connect these terminals to the power supply lines. Even without power supply to these terminals, the inverter can run.
*2) Terminals [Y1] to [Y4] (transistor outputs) support both SINK and SOURCE modes.
*3) When the Enable function is not to be used, short-circuit terminals [EN1] and [PLC] and terminals [EN2] and [PLC] using jumper wires. For opening and closing the hardware circuit between terminals [EN1] and [PLC] and between [EN2] and [PLC], use safety components such as safety relays and safety switches. Be sure to use shielded wires exclusive to terminals [EN1] and [PLC] and terminals [EN2] and [PLC]. (Do not put them together with any other control signal wire in the same shielded core.)
*4) Usually there is no need to do anything regarding the EMC filter.
When the leakage current due to the built-in EMC filter causes problems with the power supply system, removing screws from terminals [E1] and [E2] may improve the problem.
Note that doing so the effect of the EMC filter is lost, and therefore the inverter is no longer compliant with the EMC standards. To remove those screws, consult your Fuji Electric representative.
*5) Normally there is no need to connect it. Must be connected if inverter is supplied from regenerative PWM converter (RHC Series) or from DC power supply.

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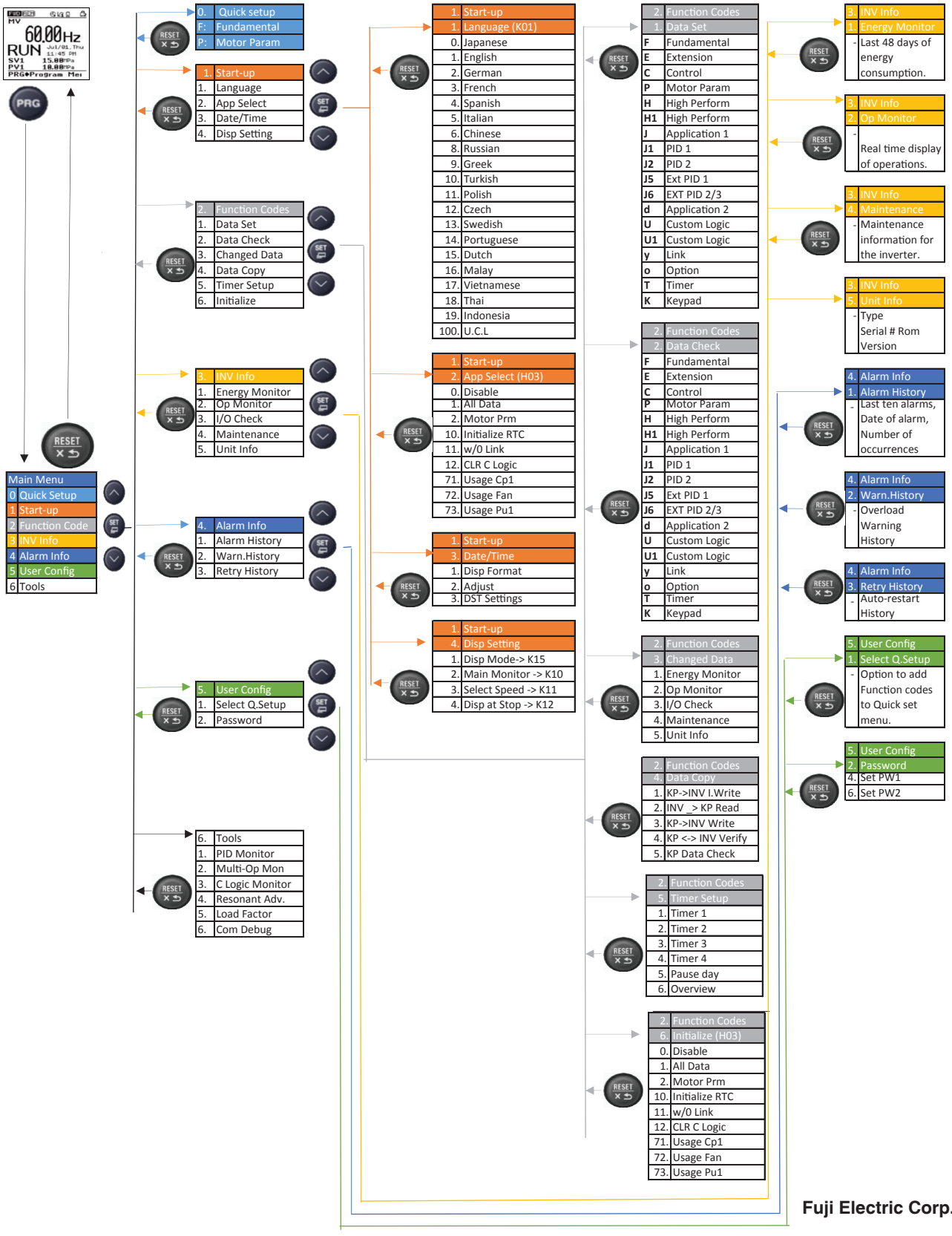
Quick Start Menus



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