

UCB1
(MIGA-C)

Rev. 1.7 | 11.09.2025

G.I. INDUSTRIAL
HOLDING

DIP Switch SW3 (Configuration)

Sw.	OFF position	ON position
SW3.1	3 Speeds: 3.1 OFF 3.2 OFF	2 Speeds: 3.1 OFF 3.2 ON
SW3.2	1 Speed: 3.1 ON 3.2 OFF	VFS: 3.1 ON 3.2 ON
SW3.3	FC: 2-Pipe AC: Heat pump	FC: 4-Pipe AC: Heat-Cool
SW3.4	FC: Disable heater on 2 nd stage AC: HP in heat	FC: Enable heater on 2 nd stage AC: HP in cool
SW3.5	FC: No floor heating AC HP: No heaters on 2 nd , 3 rd stg. AC HC: Electrical heater (with fan)	FC: Floor heating AC HP: With heaters on 2 nd , 3 rd stg. AC HC: Oil/Gas heater (No fan)
SW3.6	FC: Not in use AC: With compressor delay	FC: Not in use AC: No compressor delay
SW3.7	AC System	FC System
SW3.8	MODBUS	BACnet

DIP Switch SW2 (Configuration)

Sw.	OFF position	ON position
SW2.1	Cool valve On/Off	Cool valve Proportional
SW2.2	Heat valve On/Off	Heat valve Proportional
SW2.3	Without T3 soft start	With T3 soft start
SW2.4	**Master/Slave: Slave	**Master/Slave: Master

** Master/Slave: SW3.8 must be off (Modbus)
Every device (Master and Slaves) should have a unique MAC address.
On/Off state, Mode, Fan speed, Set-Point, Fan on demand, DI3 mode in FC are updated every 60 seconds according to the Master's current values.

Outputs table

DRY (230VAC, 2A)	DO1 (230VAC, 1A)	DO2 (230VAC, 1A)	DO3,4,5 (230VAC, 3A)	DO6 (230VAC, 1A)	DO7, DR7 (230VAC, Dry contact, 1A)	ECM, 0	COOL, 0	HEAT, 0
2-P FC	Pump output (Dry contact)	Cool/Heat valve	Fan On/Off	Electric heater	Fan indication DO3,4,5=ON or VFS>1VDC	Fan proportional (VFS) 0-10VDC	Cool/Heat valve 0-10V	Heat valve 0-10V
4-P AC	Pump on with cool valve	Heat valve	DO3 = High DO4 = Med DO5 = Low	Heat pump	JP1 Pos.A = DO7 230V JP1 Pos.B = DO7, DR7	x	x	x
HC	Compressor 2	Compressor 1						
HP		El. heat (1 st stg) El. heat (3 rd stg)						

Supply 230VAC

"N" out

N L G

T1 0 T2 0 T3 0 ECM 0

T1 Sensor: AC/FC: Return air

T2 Sensor: AC: Deicing in heat FC: Change over

T3 Sensor: AC: Deicing in cool FC: Soft start

AC/FC: Fan proportional (VFS) 0-10VDC See DIP switches SW3.1, SW3.2

Cool and Heat valves 0-10V See outputs table and DIP switches SW2.1, SW2.2

DR7 DO7 DO6 DO5 DO4 DO3 DO2 DRY

SW3 Configuration

SW2 Configuration

SW4

JP1 Pos.A JP1 Pos.B

Fuse 5A

PROGRAM

PWR AL1 AL2 AL3 SYS

ON - End of Line 120Ω

+12V- A1 B1 +12V- DI2 0

Occupancy sensor (Occupied=Open)

Room panel

Shield

Modbus/BACnet, Shielded, Twisted 22AWG

Shield after last unit connected to ground

or Connection between Master and Slaves. (63 slaves max.)

P15 Reading/Modifying registers of MIGA-C (MTS and ALT only)

MODBUS – Use the ▲ and ▼ buttons to select register number, press the [Settings] button to confirm.
Use the ▲ and ▼ buttons to adjust the value of the selected register, press the [Settings] button to confirm.
Use the [Fan] button to return to previous displays.
BACnet – Use the ▲ and ▼ buttons to select object group, press the [Settings] button to confirm.
Use the ▲ and ▼ buttons to select register number, press the [Settings] button to confirm.
Use the ▲ and ▼ buttons to adjust the value of the selected register, press the [Settings] button to confirm.
Use the [Fan] button to return to previous displays.

P16 T2 sensor readings ("–" = not connected)
P17 T3 sensor readings ("–" = not connected)
P18 Enable/Disable commissioning mode
"0" - Disable (default), "1" – Enable
T Amb = 20°C, T2 = 25°C, T3 = 25°C
Short all time delays by 60 (1 Hour = 1 minute)

Emergency mode (IRP-C500 only)
Press and hold the [On/Off] button for more than 10 seconds to activate or deactivate emergency mode. When active: Mode = Auto, Fan speed = Auto, Fan on demand active, Set point for cooling = 24°C, Set point for heating = 22°C

P07 Value of brightness in active state (MTS only)
10...100%, Default: 70%

P08 Not in use

P09 Enable/Disable the "beeper"
"0" – Disable, "1" – Enable (default)

P10, P11, P12, P13 - Not in use

P17, P18, P19 – Programming parameters (MTS-PROG and ALT-PROG only)

P99 Restore defaults - Change the value from "0" to "1"

Advanced technician settings

P11 Current ID of firmware (read only) (MTS and ALT only)

P12 Set baud rate value for MODBUS
MODBUS: 9.6 = 9,600; 19.2 = 19,200; 38.4 = 38,400;
76.8 = 76,800; 11.5 = 115,200
BACnet Auto baud rate ("A")

P13 MAC address of MIGA-C (In order to make a change, P14 must be set to "1")
"S###" - MAC address by DIP switch SW1 on MIGA-C (changeable 0...63)
"E####" - MAC address by panel (changeable 1...127)

P14 MAC address of MIGA-C
If you wish to modify the MAC address through the panel, change P14 from "0" to "1". Press the [Fan] button to return to P13 and modify the MAC address within 60 seconds...

P01 Temperature reading from panel or from MIGA-C
"0" – From MIGA-C, "1" – From panel (default)

P02 Offset for ambient temperature
-6...+6°C/-12...+12°F is displayed, default = 0°C/0°F

P03 Temperature display
0" – Rounded, "1" - One decimal place (default)

P04 Enable/Disable screen dimming
"0" - Disable, "1" – Enable (default)

P05 Time delay before dimming (in minutes) (MTS only)
1...99 minutes ("0" = 10 seconds)

P06 Value of brightness in Dimming state (MTS only)
1.5,10,...90%, Default: 10%

Panel C-500 Technician settings

- From normal display, adjust the set-point temperature to:
 - Technician settings: 10°C
 - Advanced technician settings: 11°C
- The [Settings] button will appear on display.
- Press the [Settings] button for 5 seconds to enter settings.
- Use the [Mode] button to switch to the next parameter.
- Use the [Fan] button to return to the previous parameter.
- Use the ▲ and ▼ buttons to adjust the values.
- Press the [On/Off] button or wait 60 seconds to exit technician settings and return to normal display.

Technician settings

P01 Temperature reading from panel or from MIGA-C
"0" – From MIGA-C, "1" – From panel (default)

P02 Offset for ambient temperature
-6...+6°C/-12...+12°F is displayed, default = 0°C/0°F

P03 Temperature display
0" – Rounded, "1" - One decimal place (default)

P04 Enable/Disable screen dimming
"0" - Disable, "1" – Enable (default)

P05 Time delay before dimming (in minutes) (MTS only)
1...99 minutes ("0" = 10 seconds)

P06 Value of brightness in Dimming state (MTS only)
1.5,10,...90%, Default: 10%

DIP Switch SW4 (End of line)

Sw.	ON	OFF
SW4.1	End of line resistor connected	End of line resistor not connected
SW4.2	Not in use	Not in use

Alarm and Faults

LED	Flashing	Solid
AL1	T1 sensor is disconnected or short (All outputs turn OFF)	-
AL2	DI1 fault (Safety Thermostat Indication – "St" on panel)	T2 sensor is disconnected or short
AL3	DI2 fault (Occ. Sensor contact close - Unoccupied)	T3 sensor is disconnected or short (If SW2.3 = ON)

T2 Change over sensor logic (FC - 2-Pipe configuration)
For FC and 2-Pipe config. (SW3.7 ON and SW3.3 OFF), the heating or cooling outputs will operate based on the selected mode and the T2 temperature:
T2 > 30°C: Heat mode; T2 < 20°C: Cool mode;
20°C < T2 < 30°C: The Valves will be closed and the fan will run according to the fan on demand configuration.

T3 Coil sensor logic (Fan soft-start logic)
For FC configuration in heat, the fan (digital and proportional) will operate depending on T3 temperature, functioning as soft-start sensor:
The Fan will start when T3 > 36°C. The Fan will stop when T3 < 32°C.

One/Two set point configuration
Set by Communication register "One_TwoSetpoints"