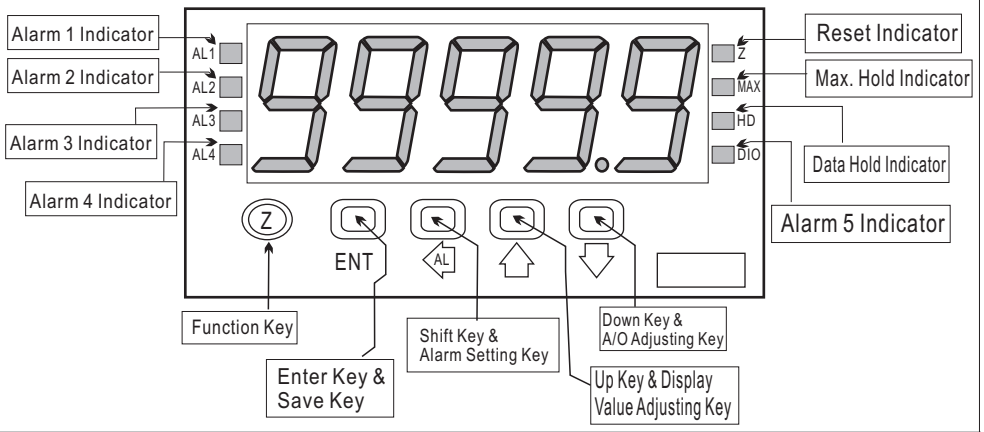
LM5 — 5 DIGITAL MICRO-PROCESS METER with 5 ALARMS / SIMULATION OUTPUT — MANUAL

✻ Please understand key indicators & functions at the first operation.

FRONT PANEL & KEY FUNCTIONS



Key Name	Symbol	Descriptions
Function Key	Ⓩ	1. Press this key to enable the Z key function & the relative indicator is light; press this key again to disable the Z key function & the relative indicator is dark.
Enter Key & Save Key	ENT	1. In the measuring status, press this key can enter to parameter pages. 2. In the parameter setting, press this key can save the value & go to next parameter.
Shift Key & Alarm Setting Key	◁AL	1. In the measuring status, press this key for 3 sec can enter to alarm setting page (The selecting digit will be flashed) 2. In the parameter setting , press this key can move the cursor left.
Up Key & Display Value Adjusting Key	△	1.In the measuring status, press this key for 3 sec can enter to display value adjustment of "ZERO" & "SPAN" 2. In the parameter setting, press this key can increase the digits.
Down Key & A/O Adjusting Key	▽	1. In the measuring status, press this key for 3 sec can enter to analog output adjustment. 2. In the parameter setting , press this key can decrease the digits.

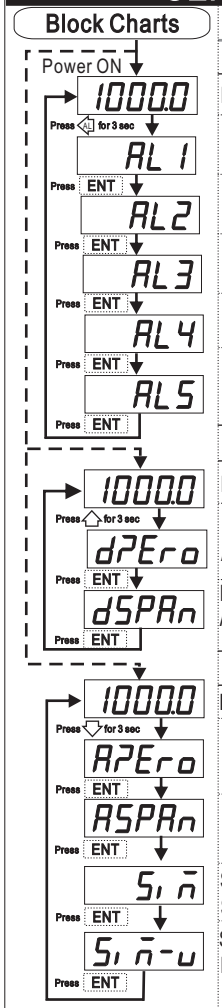
**1. The following block charts are parameters codes, parameter codes & parameters will alternate flashing if the parameters can be modified.

2. To modify the parameters, please press ◁AL △ ▽, and press **ENT** to save the parameter after the modification.

3. Please don't forget the new pass code after modification.

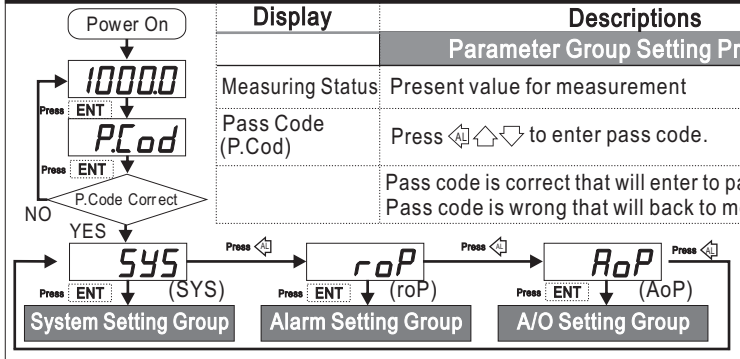
4. In any pages, press △ & ▽, or don't press any keys for 2 minutes that will back to measuring status.

GENERAL MODE OPERATING PROCEDURES

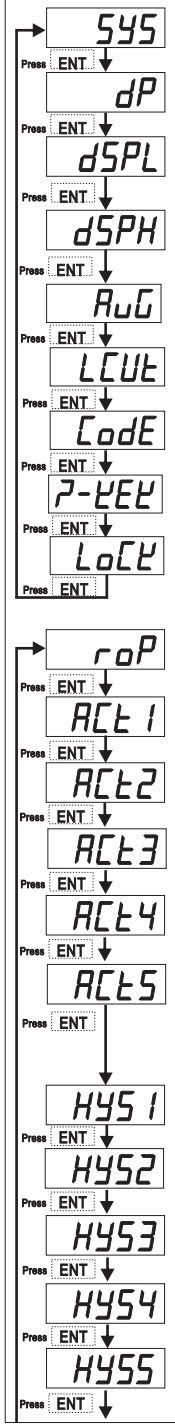


Display	Descriptions	Default
	Alarm Setpoint	
Measuring Status	Present value for measurement	
Alarm 1 Setpoint (AL1)	Press ◁AL △ ▽ to modify alarm 1 setpoint.	00000
Alarm 2 Setpoint (AL2)	Press ◁AL △ ▽ to modify alarm 2 setpoint.	00000
Alarm 3 Setpoint (AL3)	Press ◁AL △ ▽ to modify alarm 3 setpoint.	00000
Alarm 4 Setpoint (AL4)	Press ◁AL △ ▽ to modify alarm 4 setpoint.	00000
Alarm 5 Setpoint (AL5)	Press ◁AL △ ▽ to modify alarm 5 setpoint.	00000
	Display: "ZERO" & "SPAN" Adjustment	
Measuring Status	Present value for measurement.	
Display Zero Adjustm ent (dZEro)	Press ◁AL to select adjusting speed rate, press △ ▽ to modify the zero value. PS: To use this function to adjust the real zero value.	00000
Display Span Adjustment (dSPAn)	Press ◁AL to select adjusting speed rate, press △ ▽ to modify the span value. PS: To use this function to adjust the real span value.	00000
	Analog Output: "ZERO" &"SPAN" Adjustment	
Measuring Status	**The following steps are only available for analog output.**	
A/O Zero Adjustment (AZEro)	Press ◁AL to select adjusting speed rate, press △ ▽ to modify the A/O zero. PS: To use this function to adjust the real A/O zero.	00000
A/O Span Adjustment (ASPAn)	Press ◁AL to select adjusting speed rate, press △ ▽ to modify the A/O span. PS: To use this function to adjust the real A/O span.	00000
Simulation Output Setting (SiM)	Press △ ▽ to select simulation output off(NO)or on(YES)	no
Simulation Output Percent Setting(SiM-v)	Press ◁AL △ ▽ to modify simulation output percent (-100~+100%)	00000

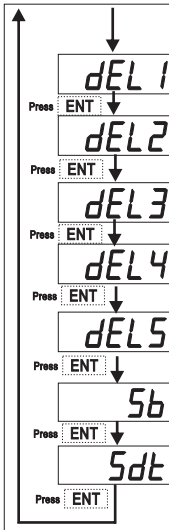
PROGRAMMING MODE OPERATING PROCEDURES

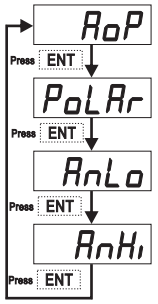


Display	Descriptions	Default
	Parameter Group Setting Procedures	
Measuring Status	Present value for measurement	
Pass Code (P.Cod)	Press ◁AL △ ▽ to enter pass code.	00000
	Pass code is correct that will enter to parameter groups. Pass code is wrong that will back to measuring status.	



Display	Descriptions	Default
System Setting Page (SYS)	**System Setting Group Procedures**	
Decimal Point Setting (dP)	Press ▲ ▼ to select decimal point (0, 1, 2, 3, 4). EX: if the value shows "0.00" that means the decimal point is 2 digits.	Customers specify
Display Low Scale Setting (dSPL)	Press AL ▲ ▼ to modify display low scale for the input signal zero value. EX: If the input signal is 4~20mA; 4mA is shown display 0.00, this parameter must be set for 000.00.	Customers specify
Display Hi Scale Setting (dSPH)	Press AL ▲ ▼ to modify display high scale for the input signal span value. EX: If the input signal is 4~20mA; 20mA is shown display 100.00, this parameter must be set for 100.00.	Customers specify
Display Average Setting (AvG)	Press AL ▲ ▼ to modify display average (1~99). PS: Please use this function for stable display value when input signal is unstable.	00005
Display Low Cut Setting (LCUt)	Press AL ▲ ▼ to modify display low cut to 0 (0~99).	00000
Pass Code Setting (CodE)	Press AL ▲ ▼ to modify pass code (0~19999). PS: Please don't forget the new pass code after modification.	00000
Z Key Functions Setting (Z-KEY)	Press ▲ ▼ to select Z key functions AZ, MAX or HD	AZ
Key Lock Setting (LoCK)	Press ▲ ▼ to lock the keys, using key lock function only can view the parameters, but cannot modify any values. PS: no (unlock) ,YES ("ENT" unlock , others lock).	no
	Alarm Setting Group Procedures	
Alarm Setting Page (roP)	**The following steps are only available for alarm output.**	
Alarm 1 (ACt1) – Alarm 5 (ACt5) — Alarm Action Setting	Press ▲ ▼ to modify alarm value that is ≧(Hi) or <(Lo) for alarm action. PS: 1. There are 5 alarms output standard. 2. Press **ENT** to save the value and go to the next parameter. Press ▲ ▼ to modify alarm value that is ≧(Hi) or <(Lo) or (ERROR) for alarm action. Error status: ioFL, -ioFL, doFL, -doFL, AdEr, and input signal is under -12.5% of input range.	Hi
Hysteresis 1 (HYS1) – Hysteresis 5 (HYS5) — Alarm Hysteresis Setting	Press AL ▲ ▼ to modify the value, when alarm runs lower or higher display value (depends on alarm action). Alarm setpoint ± this value (0~999) will turn off the alarm. PS: 1. There are 5 alarms output standard. 2. Press **ENT** to save the value and go to the next parameter.	00000





Display	Descriptions	Default
Delay Time 1 (dEL1) – Delay Time 5 (dEL5) — Alarm Run Delay Setting	Press AL ▲ ▼ to modify the value, when the display value reach the alarm value that need to wait for this time (0~99 sec) for alarm action. PS: 1. There are 5 alarms output standard. 2. Press **ENT** to save the value and go to the next parameter.	00000
Alarm Start Band Setting (Sb)	Press AL ▲ ▼ to modify the value (-99~+99), if the display value don't over this range; the alarm will not be act.	00000
Alarm Start Band Time Setting (Sdt)	Press AL ▲ ▼ to modify the value (0~99 sec), if the display value reach alarm start band value; the alarm will be act after this value (sec).(The function is used with "Sb" function.)	00000
	A/O Setting Group Procedures	
A/O Setting Page (AoP)	**The following steps are only available for analog output.**	
A/O Polarity Setting (PoLAr)	Press ▲ ▼ to select output for positive or negative pole. PS : Voltage output ,NO: positive pole output (0~+10V) YES: positive & negative pole output (-10~+10V)	no
A/O Low Scale Setting (AnLo)	Press AL ▲ ▼ to adjust A/O low scale to correspond to the display value (programmable). EX : A/O is 0~10V, the display is 10.0 to output 0V, this value must be set for 10.0.	00000
A/O Hi Scale Setting (AnHi)	Press AL ▲ ▼ to adjust A/O hi scale to correspond to the display value (programmable). EX : A/O is 0~10V, the display is 90.0 to output1 0V, this value must be set for 90.0.	99999

Error Code of Self-Diagnosis

Display	Descriptions
ioFL	Input signal is over 120% of input range.
-ioFL	Input signal is under -20% of input range.
AdEr	Input signal is over 180% of input range or meter error.
doFL	Input signal is over display range (99999)
-doFL	Input signal is under display range (-19999)
E-00	EEPROM reading/writing suffers the interference (about 1 million times).

**Please check the wiring connection is correct first, if the problem still exist, please return the meter to the factory.

Remark: 1. There are 3 parameter groups of "System Setting Group(SYS)", "Alarm Setting Group(roP)", "Analog Output Setting Group (AoP)" for modification.
2. Press AL to select each group page, and press **ENT** to enter each group or parameter page for modification or saving the parameters.
3. Some of optional functions of parameter pages still exist, but the functions are disable.