



Relevant instruction manual number: IMR01D03-E□

1. Preface

The SA series has several versions and available functions depend on the version. This manual describes differences in the Initial setting between the SA200 and the SA220. When attempting the initial setting or configuration setup of the SA220, read the **SA200 Initial Setting Manual (IMR01D03-E□)** together with this manual. When reading the **SA200 Initial Setting Manual (IMR01D03-E□)**, replace the “SA200” with the “SA220.”

Major differences

- Sampling time is selectable on the SA220.
- Integrated operating time can be displayed up to 5 digits.
- Peak and Bottom values can be stored and viewed on the SA220.

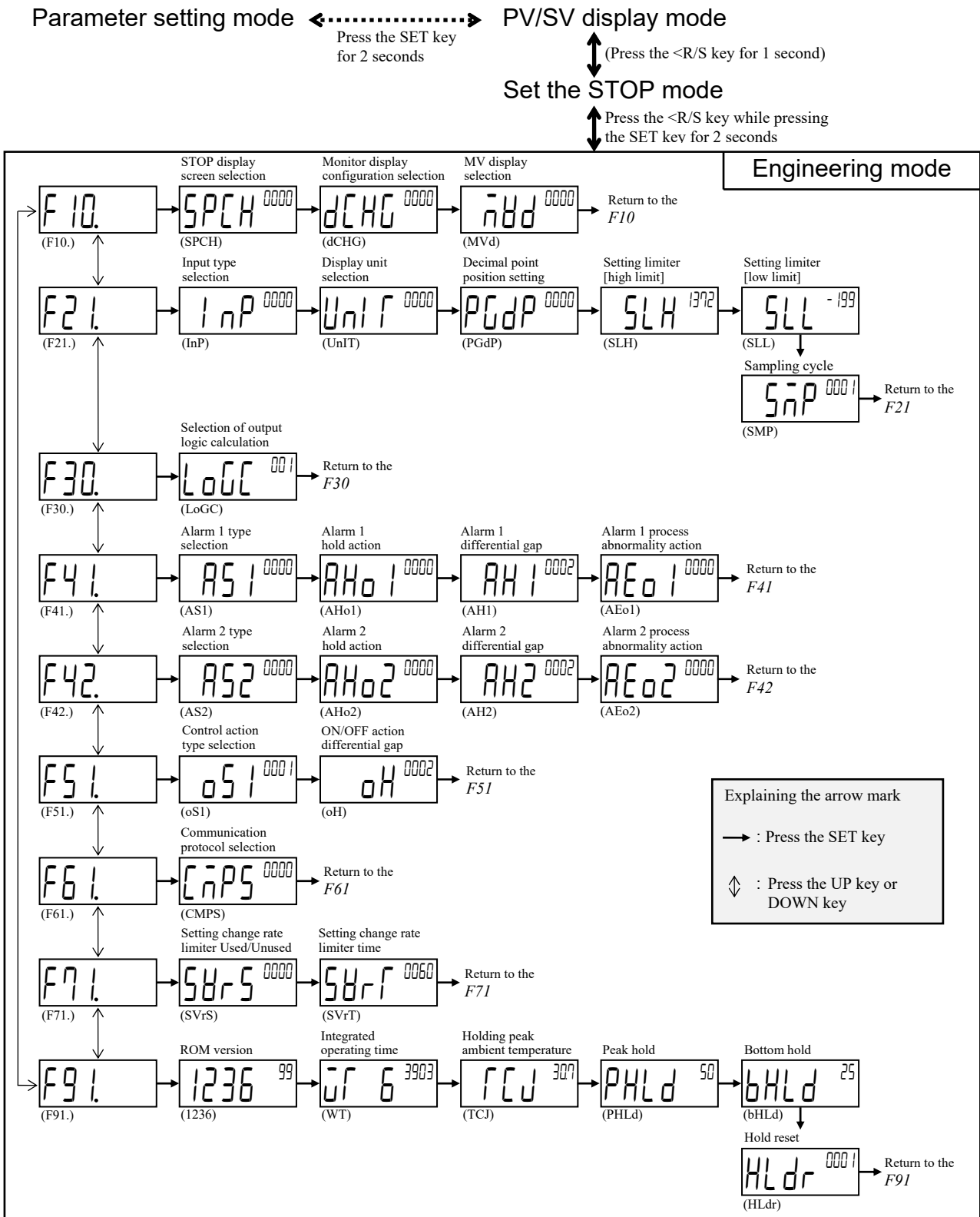
2. Differences from the SA200

The differences are described page by page of the SA200 Initial Setting Manual (IMR01D03-E□).

2.1 Display Flowcharts in Mode

Display flowcharts in engineering mode are shown in the following figure. For the details of engineering mode selection, see 1.1 Transfer to Engineering Mode (P. 1).

■ Display flowcharts



The sampling time of the measured input is selectable on the SA220. The sampling time can be switched between 0.5 and 0.25 seconds. The sampling time parameter is displayed after the SLL (Setting limiter [low limit]) in Function block F21.

(6) SMP (Sampling cycle)

Factory set value: 0001

Set value				Description
			0	250 ms (0.25 seconds)
			1	500 ms (0.5 seconds)
0	0	0		“000□” Fixed

The SA220 has new Peak/Bottom-values related parameters in Function block F91. These parameters are displayed after the TCJ (Holding peak ambient temperature).

Relevant parameters

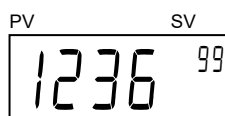
- Peak hold
- Bottom hold
- Hold reset

2.4.9 F91 (Displayed for maintenance information)

(1) 1236 (ROM version displayed)

Display the version of loaded software.

Display example:



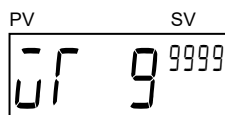
(7) WT (Integrated operating time)

Display Integrated operating time. However, as the integral time is incremented by 1 when the power is turned on or off.

Display range: 0 to 99999

Display resolution: 1 hour

Display example: When the Integrated operating time is 99999 hours



(8) TCJ (Holding peak ambient temperature)

The maximum ambient temperature on the rear terminal board of the SA220 is stored and displayed on the set value (SV) display.

Display range: 0.0 to 999.9

Display resolution: 0.1 °C

Display example: When the maximum ambient temperature is 50 °C

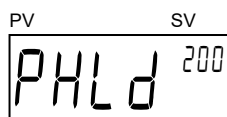


The decimal point position is fixed and cannot be changed.

(9) PHLd (Peak hold)

The peak value (maximum value) of the measured input is stored and displayed on the Set value (SV) display.

Display example: When the Peak hold value is 200 °C



The stored peak value (maximum value) can be reset by the Hold reset (*HLd_r*).



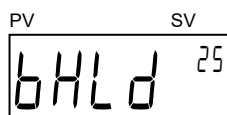
Changing the following parameters may lead to an improper hold value. Perform a hold reset if necessary.

- Input type selection (InP)
- Display unit selection (UnIT)
- Decimal point position setting (PGdP)
- Setting limiter [high limit] (SLH)
- Setting limiter [low limit] (SLL)

(10) bHLd (Bottom hold)

The bottom value (minimum value) of the measured input is stored and displayed on the Set value (SV) display.

Display example: When the Bottom hold value is 25 °C



The stored bottom value (minimum value) can be reset by the Hold reset (*HLd_r*).



Changing the following parameters may lead to an improper hold value. Perform a hold reset if necessary.

- Input type selection (InP)
- Display unit selection (UnIT)
- Decimal point position setting (PGdP)
- Setting limiter [high limit] (SLH)
- Setting limiter [low limit] (SLL)

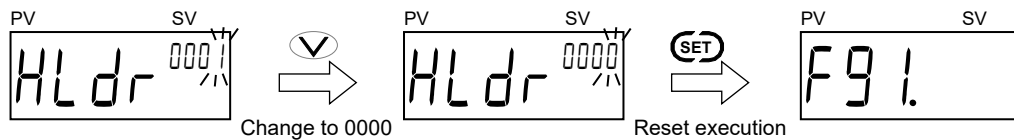
(11) HLdr (Hold reset)

The peak and bottom values stored can be reset. The Peak and the Bottom values can be reset simultaneously in one operation.

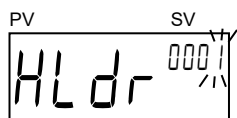
Set value: 0: Hold reset execution

Factory set value: 1

Example of Hold reset execution:



The value will automatically return to "0001" after execution of the Hold reset.



The SA220 has four new communication data as shown in the following table.

■ RKC standard protocol

Name	Identifier	Description	Factory set value	Attribute
Alarm 1 hold action (AHO1)	WA	0: Without alarm hold action 1: To wait only when STOP changes to RUN at power on. 2: To wait again when STOP changes to RUN at power on or set value (SV) is changed.	Note1	

Setting change rate limiter time (SVrT)	TA	1 to 3600 seconds	60	
Sampling cycle (SMP)	TZ	0: 250 ms (0.25 seconds) 1: 500 ms (0.5 seconds)	1	RO *
Peak hold (PHLd)**	HP	Setting limiter [low limit] (SLL) to Setting limiter [high limit] (SLH)	0	RO
Bottom hold (bHLd)**	HQ	Setting limiter [low limit] (SLL) to Setting limiter [high limit] (SLH)	0	RO
Hold reset (HLdr)	HR	0: Hold reset execution The value will automatically return to "1" after execution of the Hold reset.	1	R/W

New communication data

* In STOP mode, it is possible to write (Normal, read only).

** Changing the following parameters may lead to an improper hold value. Perform a hold reset if necessary.

- Input type selection (InP)
- Display Unit selection (UnIT)
- Decimal point position setting (PGdP)
- Setting limiter [high limit] (SLH)
- Setting limiter [low limit] (SLL)

Note1: Factory set value varies depending on the instrument specification.

Note2: TC and RTD inputs: 2 °C [°F] or 2.0 °C [°F]

Voltage/current inputs: 0.2 % of span

Note3: Alarm 2 not provided: 0

Alarm 2 provided: 1

The SA220 has four new communication data as shown in the following table.

■ MODBUS communication protocol

Name	Address	Description	Factory set value	Attribute
Alarm 1 hold action (AHO1)	3CH	0: Without alarm hold action 1: To wait only when STOP changes to RUN at power on. 2: To wait again when STOP changes to RUN at power on or set value (SV) is changed.	Note1	
				
Setting change rate limiter time (SVrT)	44H	1 to 3600 seconds	60	
Sampling cycle (SMP)	45H	0: 250 ms (0.25 seconds) 1: 500 ms (0.5 seconds)	1	RO *
Peak hold (PHLd)	46H	Setting limiter [low limit] (SLL) to Setting limiter [high limit] (SLH)	0	RO
Bottom hold (bHLd)	47H	Setting limiter [low limit] (SLL) to Setting limiter [high limit] (SLH)	0	
Hold reset (HLdr)	48H	0: Hold reset execution The value will automatically return to "1" after execution of the Hold reset.	1	R/W
Undefined	49H ⋮ 4EH	—	—	—

New communication data

* In STOP mode, it is possible to write (Normal, read only).

** Changing the following parameters may lead to an improper hold value. Perform a hold reset if necessary.

- Input type selection (InP)
- Display Unit selection (UnIT)
- Decimal point position setting (PGdP)
- Setting limiter [high limit] (SLH)
- Setting limiter [low limit] (SLL)

Note1: Factory set value varies depending on the instrument specification.

Note2: TC and RTD inputs: 2 °C [°F] or 2.0 °C [°F]

Voltage/current inputs: 0.2 % of span

Note3: Alarm 2 not provided: 0

Alarm 2 provided: 1

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