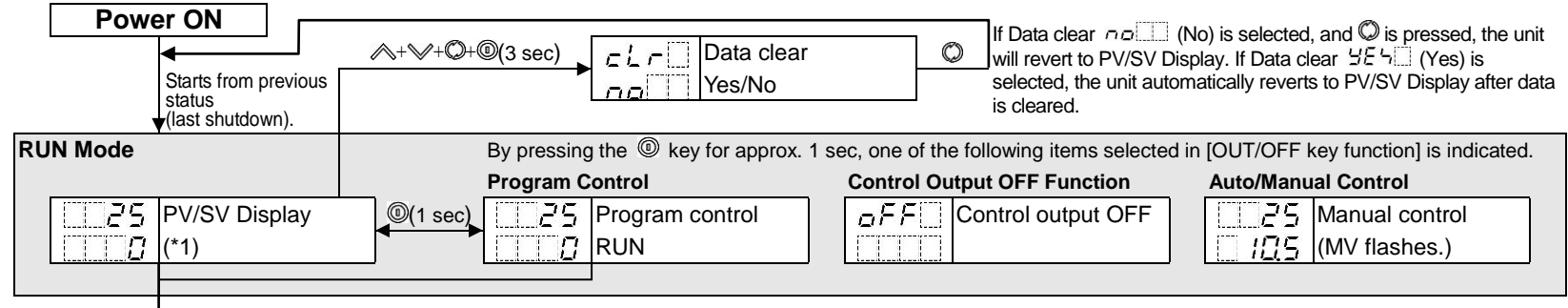


14. Key Operation Flowchart

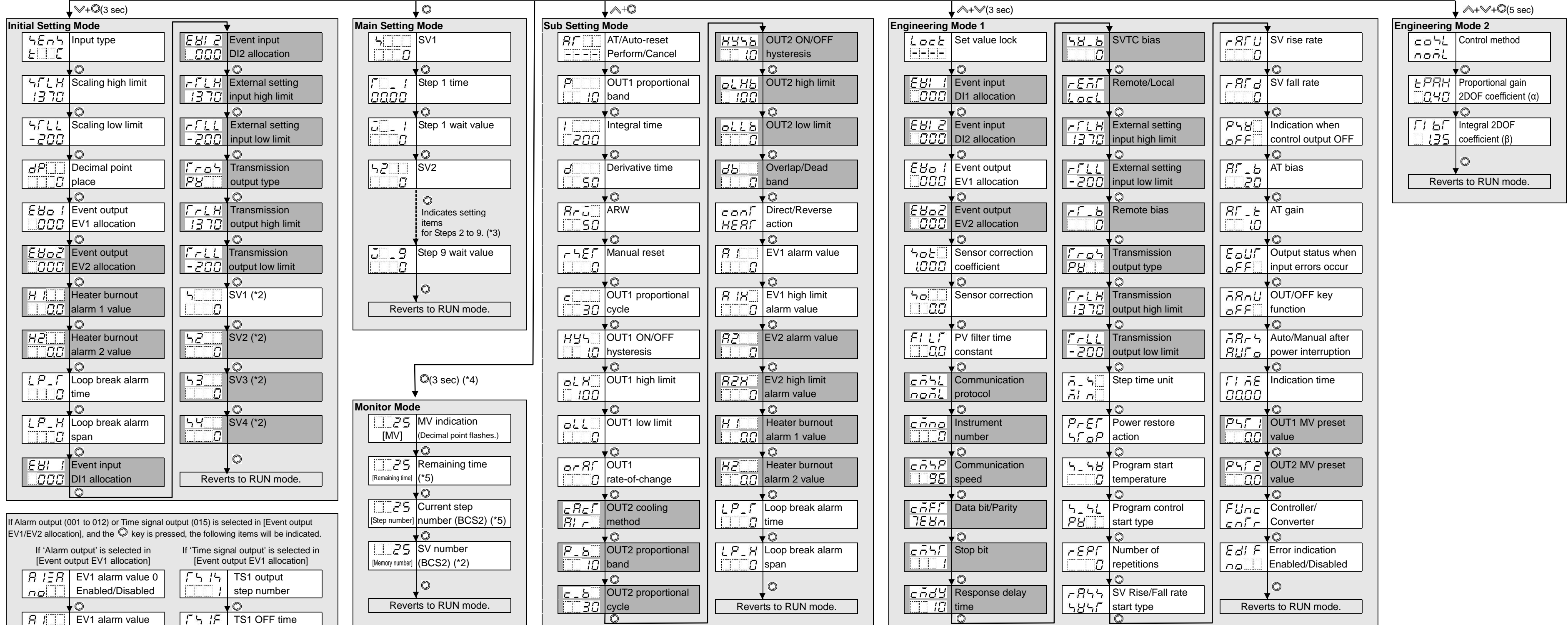


About Setting Item

- Upper left: PV Display: Indicates setting characters.
 - Lower left: SV Display: Indicates factory default.
 - Right side: Indicates the setting item.
- (*)1 If 'Program control' is selected in [OUT/OFF key function], the unit enters Standby mode (Program control waiting).
- (*)2 Not available if 'Program control' is selected in [OUT/OFF key function].
- (*)3 If the option is ordered, and if 'Set value memory' is selected in [Event input DI1/DI2 allocation], setting items SV2 to SV4 are available.
- If 'Program control' is selected in [OUT/OFF key function], SV2 to SV9, Steps 1 to 9 time, Steps 1 to 9 wait value are available.
- (*)4 The unit cannot proceed to Monitor mode if it is in Standby of Program control.
- (*)5 Available only when 'Program control' is selected in [OUT/OFF key function].

Key Operation

- $\Delta + \nabla + \odot + \text{key}$ (3 sec): Press and hold Δ , ∇ , \odot , (in that order) for approx. 3 sec.
- $\nabla + \odot$ (3 sec): Press and hold the ∇ , \odot keys (in that order) together for approx. 3 sec.
- $\Delta + \odot$: Press and hold the Δ , \odot keys (in that order) together.
- $\Delta + \nabla + \odot$ (3 sec): Press and hold the Δ , ∇ , \odot keys (in that order) together for approx. 3 sec.
- $\Delta + \nabla + \odot + \text{key}$ (5 sec): Press and hold the Δ , ∇ , \odot keys (in that order) together for approx. 5 sec.
- Set (or select) each item with the Δ or ∇ key, and register the value with the \odot key.
- $\nabla + \odot$: If the \odot key is pressed, the unit proceeds to the next item, illustrated by an arrow.
- Pressing \odot key moves back to the previous item.
- To revert to RUN mode, press and hold the \odot key for approx. 3 sec while in any mode.
- To revert to RUN mode, press and hold the \odot key for approx. 3 sec while in any mode.
- If 'Control output OFF function' is selected in [OUT/OFF key function], the unit will enter Control output OFF status. If 'Auto/Manual control' is selected, the unit will enter Manual control status. If 'Program control' is selected, the unit will enter Program control RUN or Standby mode.



If Alarm output (001 to 012) or Time signal output (015) is selected in [Event output EV1/EV2 allocation], and the \odot key is pressed, the following items will be indicated.

If 'Alarm output' is selected in [Event output EV1 allocation]	If 'Time signal output' is selected in [Event output EV1 allocation]
$R12R$ EV1 alarm value 0 Enabled/Disabled	$F414$ TS1 output step number
$R1H$ EV1 alarm value	$F41F$ TS1 OFF time
$R1H4$ EV1 alarm high limit alarm value	
$R1d4$ EV1 alarm hysteresis	
$R1L4$ EV1 alarm delay time	
$R1L4$ EV1 alarm Energized/De-energized	

By pressing the \odot key, the unit moves to the item after [Event output EV1 allocation].

If Alarm output (001 to 012) or Time signal output (015) is selected in [Event output EV2 allocation], read EV2, TS2 for EV1, TS1.

Δ Input type	$F1F$ T -328.0 to 752.0 F	003 H/L limits alarm	$4E4$ Enabled	$4B$ SV transmission	$noAL$ Shinko protocol	Remote/Local	Output status when input errors occur
Δ K -200 to 1370 °C	$n1F$ N -328 to 2372 F	004 H/L limits independent	EV1/EV2 alarm Energized/De-energized	$8B$ MV transmission	$noAR$ Modbus ASCII	$LoCL$ Local	oFF Output OFF
Δ K -200.0 to 400.0 °C	$PL2F$ PL-II 32 to 2534 F	005 H/L limit range alarm	$noAL$ Energized	dB DV transmission	$noAR$ Modbus RTU	$REnt$ Remote	oN Output ON
Δ J -200 to 1000 °C	$CL2F$ C(W/Re5-26) 32 to 4199 F	006 H/L limit range independent	$reB4$ De-energized	AT/Auto-reset Perform/Cancel	$noAR$ Modbus protocol (JC command allocation)	$ni n$ Hours:Minutes	oFF Control output OFF
Δ R 0 to 1760 °C	$JP1F$ JPt100 -328.0 to 932.0 F	007 Process high alarm	Event input DI1/DI2 allocation	$REnt$ AT Perform	$noAR$ Modbus ASCII (JC command allocation)	$4Ec$ Minutes:Seconds	$noAL$ Auto/Manual control
Δ S 0 to 1760 °C	$PT1F$ Pt100 -328 to 1562 F	008 Process low alarm	000 No event	$R14$ AT on startup Perform	$noAR$ Modbus RTU (JC command allocation)	$4oP$ Power restore action	$Pr o$ Program control
Δ B 0 to 1820 °C	$JP1F$ JPt100 -328 to 932 F	009 High limit with standby	001 Set value memory	$REnt$ Auto-reset Perform	$noAR$ Modbus RTU (JC command allocation)	$4oP$ Stop	$Pr o$ Auto/Manual after power interruption
Δ E -200 to 800 °C	$420R$ 4 to 20 mA -2000 to 10000	010 Low limit with standby	002 Control ON/OFF	OUT2 cooling method	$noAR$ Communication speed	$4oP$ Suspend (on hold)	$Pr o$ Automatic control
Δ T -200.0 to 400.0 °C	$020R$ 0 to 20 mA -2000 to 10000	011 H/L limits with standby	003 Direct/Reverse action	$R1 r$ Air cooling	95 9600 bps	$4oP$ Program start temperature	$Pr o$ Manual control
Δ N -200 to 1300 °C	018 0 to 1 V -2000 to 10000	012 H/L limits with standby independent	004 Preset output 1 ON/OFF	$o1L$ Oil cooling	192 19200 bps	$4oP$ Program control start type	$Pr o$ Controller/Converter function
Δ PL-II 0 to 1390 °C	018 0 to 1 V -2000 to 10000	013 Heater burnout alarm output	005 Preset output 2 ON/OFF	WR Water cooling	384 38400 bps	$4oP$ Number of repetitions	$Pr o$ Controller
Δ C(W/Re5-26) 0 to 2315 °C	018 0 to 5 V -2000 to 10000	014 Loop break alarm output	006 Auto/Manual control	Direct/Reverse action	$7E8n$ Data bit/Parity	$4oP$ SV start	$Pr o$ Converter
Δ PT100 -200.0 to 850.0 °C	018 1 to 5 V -2000 to 10000	015 Time signal output	007 Remote/Local	$HEnt$ Reverse action	$7E8n$ Stop bit	$4oP$ SV Rise/Fall rate start type	$Pr o$ Error indication Enabled/Disabled
Δ JPt100 -200 to 500.0 °C	018 0 to 10 V -2000 to 10000	016 Output during AT	008 Program control Run/Stop	$CoAL$ Direct action	$7E8n$ Instrument number	$4oP$ Program start temperature	$Pr o$ OUT1 MV preset value
Δ PT100 -200 to 850.0 °C	018 0 to 10 V -2000 to 10000	017 Pattern end output	009 Program control Holding/Not holding	Set value lock	$7E8n$ Communication speed	$4oP$ Program control start type	$Pr o$ OUT2 MV preset value
Δ K -328 to 2498 °F	018 1 digit after decimal point	018 Output by communication	010 Program control Advance function	$LoCL$ Lock 1	$7E8n$ Data bit/Parity	$4oP$ Number of repetitions	$Pr o$ Controller/Converter
Δ K -328.0 to 752.0 °F	018 2 digits after decimal point	019 Heating/Cooling control relay contact output (for EV2 only)	011 Integral action Holding	$LoCL$ Lock 2	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ Error indication Enabled/Disabled
Δ J -328 to 1832 °F	018 3 digits after decimal point	EV1/EV2 alarm value 0 Disabled/Enabled	012 Transmission output	$LoCL$ Lock 3	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ Disabled
Δ R 32 to 3200 °F	018 Event output EV1/EV2 allocation	no Disabled	$Pr o$ PV transmission	$LoCL$ Lock 4	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ Enabled
Δ S 32 to 3200 °F	018 No event			$LoCL$ Lock 5	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ Control method
Δ B 32 to 3308 °F	018 High limit alarm			$LoCL$ Lock 5	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ Usual PID
Δ E -328 to 1472 °F	018 Low limit alarm			$LoCL$ Lock 5	$7E8n$ Instrument number	$4oP$ Number of repetitions	$Pr o$ 2DOF PID

