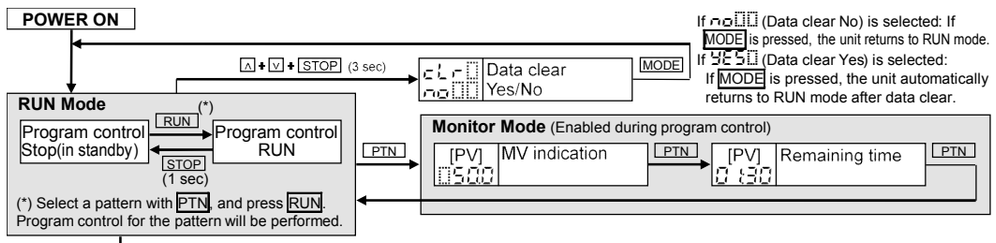
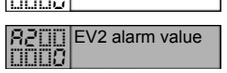
PCB1 Key Operation Flowchart



● About Setting Item



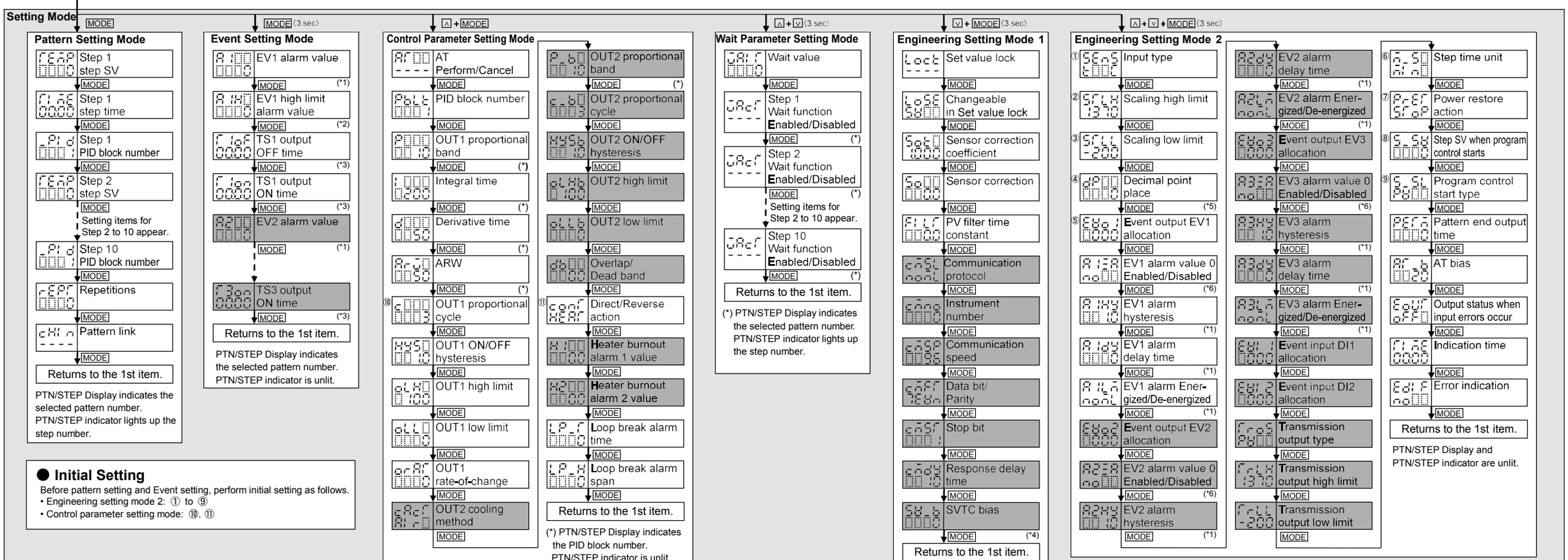
Upper left: PV Display: Indicates setting characters.
Lower left: SV Display: Indicates factory default.
Right side: Indicates setting items.

Shaded setting items are optional, and appear only when the options are ordered.

- (*1) Available when 001 (High limit) to 012 (H/L limits with standby independent) are selected in [Event output EV□ allocation].
- (*2) Available when 004 (H/L limits independent), 006 (H/L limit range independent) or 012 (H/L limits with standby independent) is selected in [Event output EV□ allocation].
- (*3) Available when 015 (Time signal output) is selected in [Event output EV□ allocation].
- (*4) Available when SV digital reception (Shinko protocol) is selected in [Communication protocol].
- (*5) Available when direct current or DC voltage input is selected in [Input type].
- (*6) Available when 001(High limit) to 012 (H/L limits with standby independent) – except [007 (Process high) and 008 (Process low)] – are selected in [Event output EV□ allocation].

● Key Operation

- Use ∧ and ∨ for settings, and register the settings with MODE or DISP.
- MODE: Moves to the next item, illustrated by an arrow.
- DISP: Moves back to the previous item (Opposite to MODE).
- MODE (3 sec): Press MODE for approx. 3 seconds.
- ∧+MODE: Press ∧ and MODE (in that order) together.
- ∧+∨ (3 sec): Press ∧ and ∨ (in that order) together for 3 seconds.
- ∨+MODE (3 sec): Press ∨ and MODE (in that order) together for 3 seconds.
- ∧+∨+MODE (3 sec): Press ∧, ∨ and MODE (in that order) together for 3 seconds.
- ∧+∨+STOP (3 sec): Press ∧, ∨ and STOP (in that order) together for 3 seconds.
- RST: Returns to RUN mode from any setting items.



● Initial Setting

Before pattern setting and Event setting, perform initial setting as follows.
- Engineering setting mode 2: ① to ⑨
- Control parameter setting mode: ⑩, ⑪

Pattern link		Loc5	Lock 5	Stop bit		rTC F	R	32 to 3200 °F	0000	3 digits after decimal point	0020	Heating/Cooling control output •	Power restore action	
----	Pattern link Disabled	Changeable in Set value lock		0001	1 bit	STC F	S	32 to 3200 °F	Event output EV1 to EV3 allocation		• Available only for Event output EV2 allocation		SToP	Stops after power is restored
cHin	Pattern link Enabled	SV00	Step SV + Step time	0002	2 bits	bTC F	B	32 to 3308 °F	0000	No event	EV1 to EV3 alarm value 0 Enabled / Disabled		conT	Continues after power is restored
AT Perform / Cancel		SVEV	Step SV + Step time + EV□ alarm value	Input type		ETC F	E	-328 to 1472 °F	0001	High limit alarm	no00	Disabled	HoLd	Suspends after power is restored
----	AT Cancel	Communication protocol		tC K	K	-200 to 1370 °C	rTD F	T	-328.0 to 752.0 °F	0002	Low limit alarm	YES0	Enabled	Program control start type	
AT00	AT Perform	noAL	Shinko protocol	tD C	K	-200.0 to 400.0 °C	nTC F	N	-328 to 2372 °F	0003	H/L limits alarm	EV1 to EV3 alarm Energized / De-energized		PV00	PV start
OUT2 cooling method		SHT0	SV digital transmission (Shinko protocol)	JTC C	J	-200 to 1000 °C	PL2F	PL-II	32 to 2534 °F	0004	H/L limits independent alarm	noAL	Energized	PVr0	PVR start
Air0	Air cooling	SHTr	SV digital reception (Shinko protocol)	rTC C	R	0 to 1760 °C	cTC F	C(W/Re5-26)	32 to 4199 °F	0005	H/L limit range alarm	rEVS	De-energized	SV00	SV start
oiL0	Oil cooling	Modbus ASCII mode		STC C	S	0 to 1760 °C	Pt F	Pt100	-328.0 to 1562.0 °F	0006	H/L limit range independent alarm	Event input DI1, DI2 allocation		Output status when input errors occur	
WAT0	Water cooling	AodA	Modbus RTU mode	bTC C	B	0 to 1820 °C	JPtF	JPt100	-328.0 to 932.0 °F	0007	Process high alarm	0000	No event	oFF0	Output OFF
Direct / Reverse action		Modr		ETC C	E	-200 to 800 °C	PrTF	Pt100	-328 to 1562 °F	0008	Process low alarm	0001	Pattern number selection	on00	Output ON
REAr	Reverse control action	Communication speed		rTD C	T	-200.0 to 400.0 °C	JPtF	JPt100	-328 to 932 °F	0009	High limit with standby alarm	0002	Direct / Reverse action	Error indication	
cool	Direct control action	0096	9600 bps	nTC C	N	-200 to 1300 °C	420A	4 - 20 mA	-2000 to 10000	0010	Low limit with standby alarm	0003	Program control RUN / STOP	no00	Disabled
Step 1 to 10 Wait function Enabled / Disabled		0192	19200 bps	PL2C	PL-II	0 to 1390 °C	020A	0 - 20 mA	-2000 to 10000	0011	H/L limits with standby alarm	0004	Program control Holding / Not holding	YES0	Enabled
----	Disabled	0384	38400 bps	cTDC	C(W/Re5-26)	0 to 2315 °C	0 1A	0 - 1 V	-2000 to 10000	0012	H/L limits with standby independent	0005	Program control Advance function		
USE0	Enabled	Data bit / Parity		PrTC	Pt100	-200.0 to 850.0 °C	0 5A	0 - 5 V	-2000 to 10000	0013	Heater burnout alarm output	Transmission output type			
Set value lock		8non	8 bits / No parity	JPtC	JPt100	-200.0 to 500.0 °C	1 5A	1 - 5 V	-2000 to 10000	0014	Loop break alarm output	P V00	PV transmission		
----	Unlock	7non	7 bits / No parity	PrTC	Pt100	-200 to 850 °C	0 10A	0 - 10 V	-2000 to 10000	0015	Time signal output	SV00	SV transmission		
Loc1	Lock 1	8EVn	8 bits / Even	JPtC	JPt100	-200 to 500 °C	Decimal point place			0016	Output during AT	MV00	MV transmission		
Loc2	Lock 2	7EVn	7 bits / Even	bTDF	K	-328 to 2498 °F	0000	No decimal point		0017	Pattern end output	Step time unit			
Loc3	Lock 3	8odd	8 bits / Odd	tD F	K	-328.0 to 752.0 °F	0000	1 digit after decimal point		0018	Output by communication command	Hn0	Hours : Minutes		
Loc4	Lock 4	7odd	7 bits / Odd	JTDF	J	-328 to 1832 °F	0000	2 digits after decimal point		0019	RUN output	SEc0	Minutes : Seconds		