

USER'S OPERATING MANUAL FOR DATA LOGGER



VA-logger
(96 X 96)

SPECIFICATIONS:

1.DISPLAY TYPE:
16X2 BLUE WHITE LCD

2.INPUT:

Available Units : Refer table (Table NO.1)

RESOLUTION : 0.1/0.01/0.001/1.

3.RELAY OUTPUT:

Contact Type : N/O,CM,N/C
Contact Rating : 5A @ 250VAC or 30 VDC
Life Expectancy : >5,00,000 operations
Isolation : Inherent

4.FUNCTION:

Output1/Output2 : Alarm outputs

5.POWER SUPPLY:

Supply Voltage : 90-270VAC,50-60hz
Consumption

6.PHYSICAL:

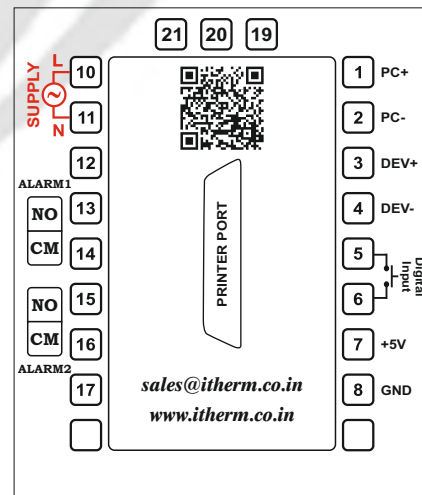
Housing : ABS plastic

7.MEMORY CAPACITY : Up to 2.50lakh records

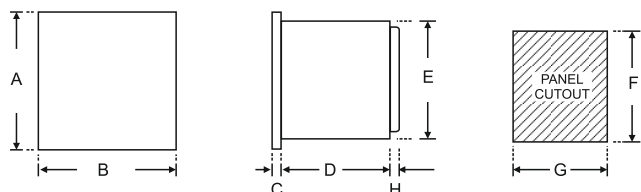
8.PRINTER CONNECTIVITY : Available through RS-485 connector

9.COMMUNICATION :MODBUS protocol is used

BACK PLATE:



DIMENSIONS:









Dim Model	A	B	C	D	E	F	G	H
I-LOG	96	96	8	110	43	44	44	9

INDEX

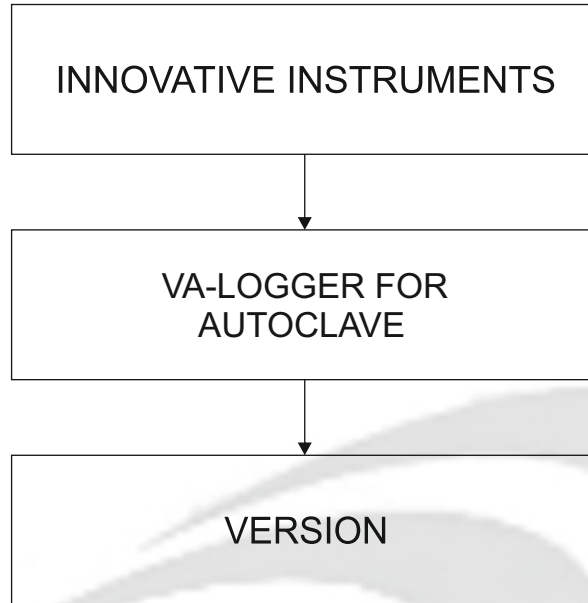
PARAMETER	PAGE NO:
1. Setup	3
1.1 Front Panel Keys	3
1.2 Power On screen	4
1.3 System configuration	5
2. Communication setting	6
2.1 Flow Chart	6
2.2 Description	7
3. RTC setting	8
3.1 Flow Chart	8
4. SCAN devices	9
4.1 Flow Chart	9
4.2 Description	10
5. Data logging	12
5.1 Flow Chart	12
5.2 Description	12
6. Printer Setting	13
7. Memory Status	14
8. Passwod Setting	16
9. Printing Options	17

1. SETUP

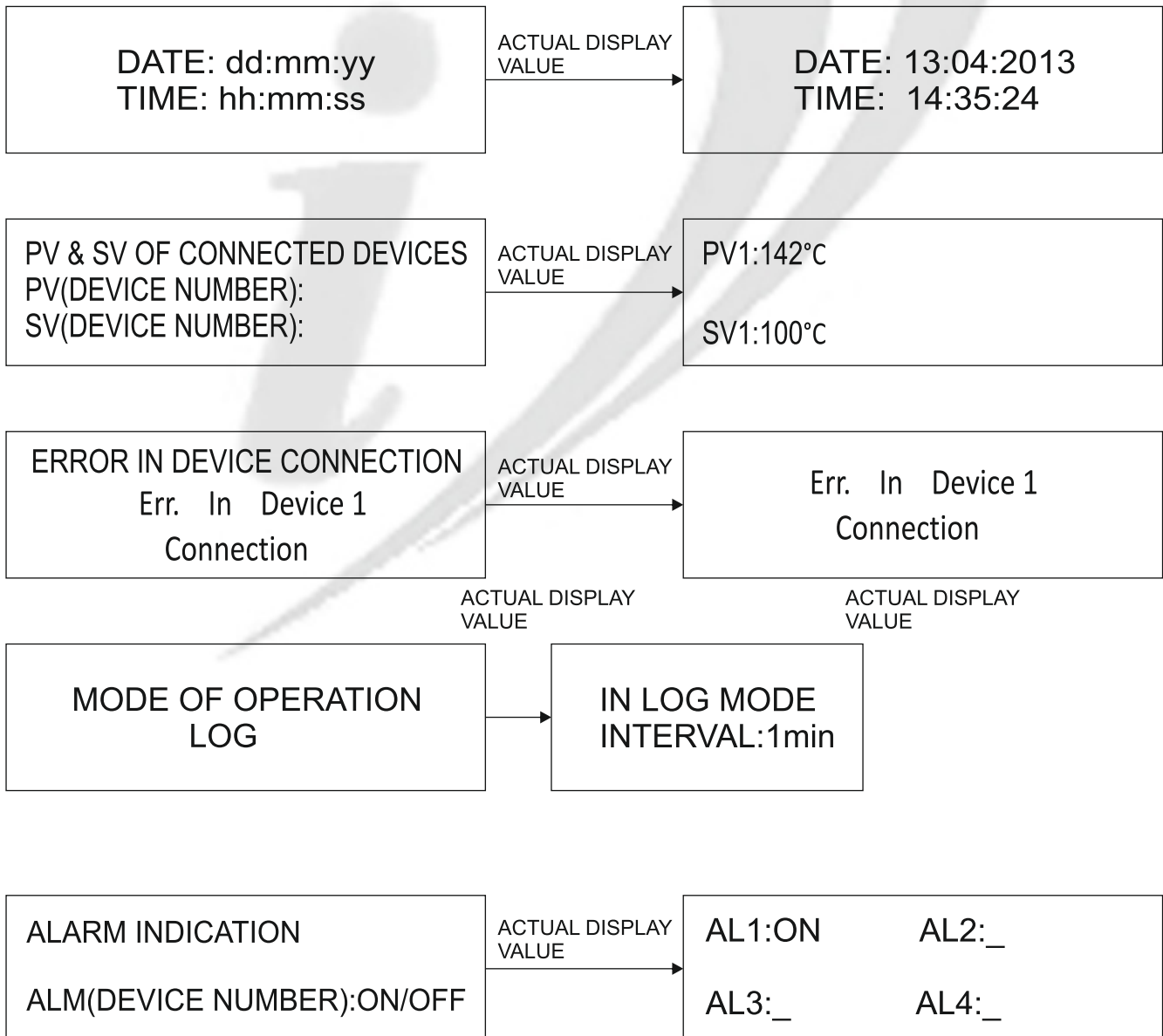
1.1 FRONT PANEL KEYS:

Symbol	Key Name	Use
	SET	It is used to to enter in any menu it is also used to store the changes.
	SHIFT	It is used to shift the cursor and It is also used as a back button
	UP	It is used to scroll up.
	DOWN	It is used to scroll down.
	PRINT	Refer sec.2.5
	BATCH START	It is used to start the batch from front panel of the instrument.

1.2 POWER ON SCREEN

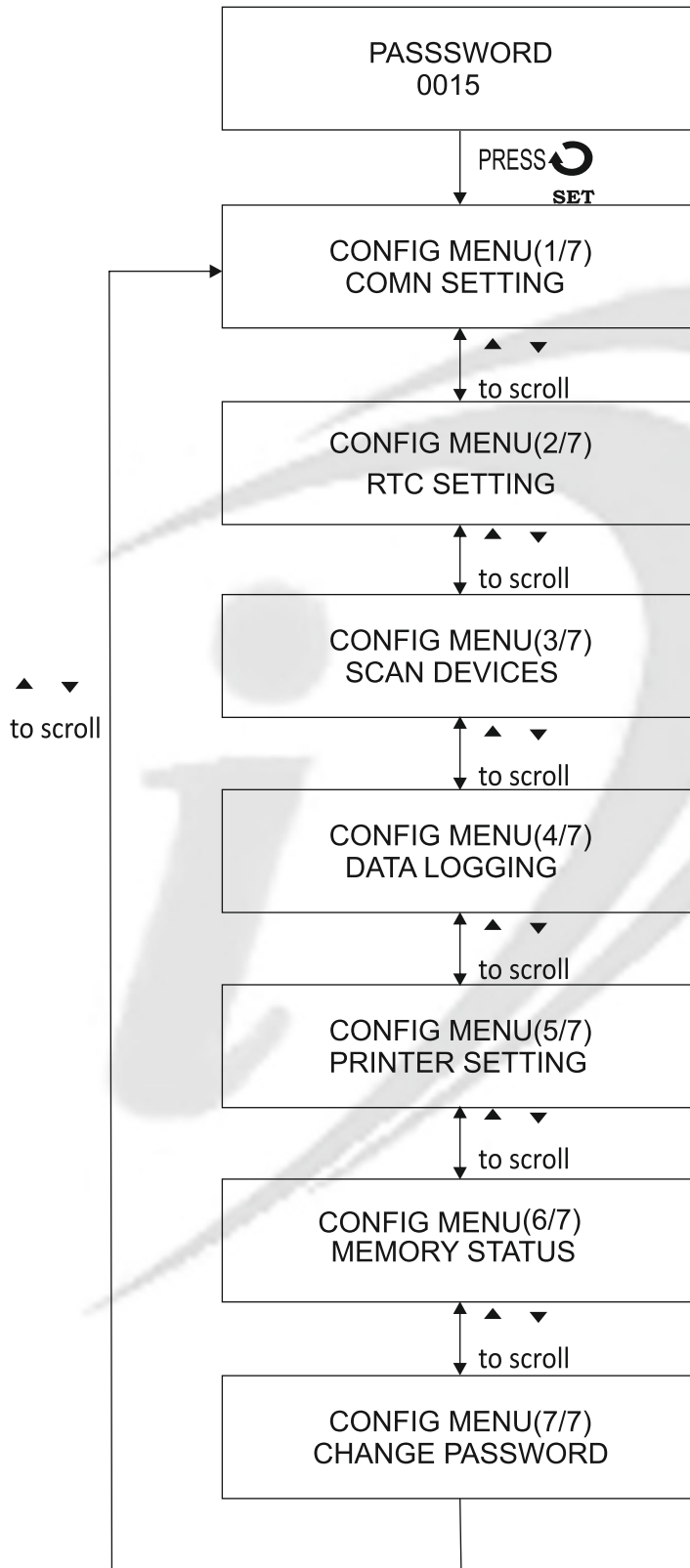


RUN MODE SCREEN



1.3 SYSTEM CONFIGURATION

To Enter in Main Menu press **SHIFT & SET** key simultaneously for 3 seconds
after doing this following screen will appear



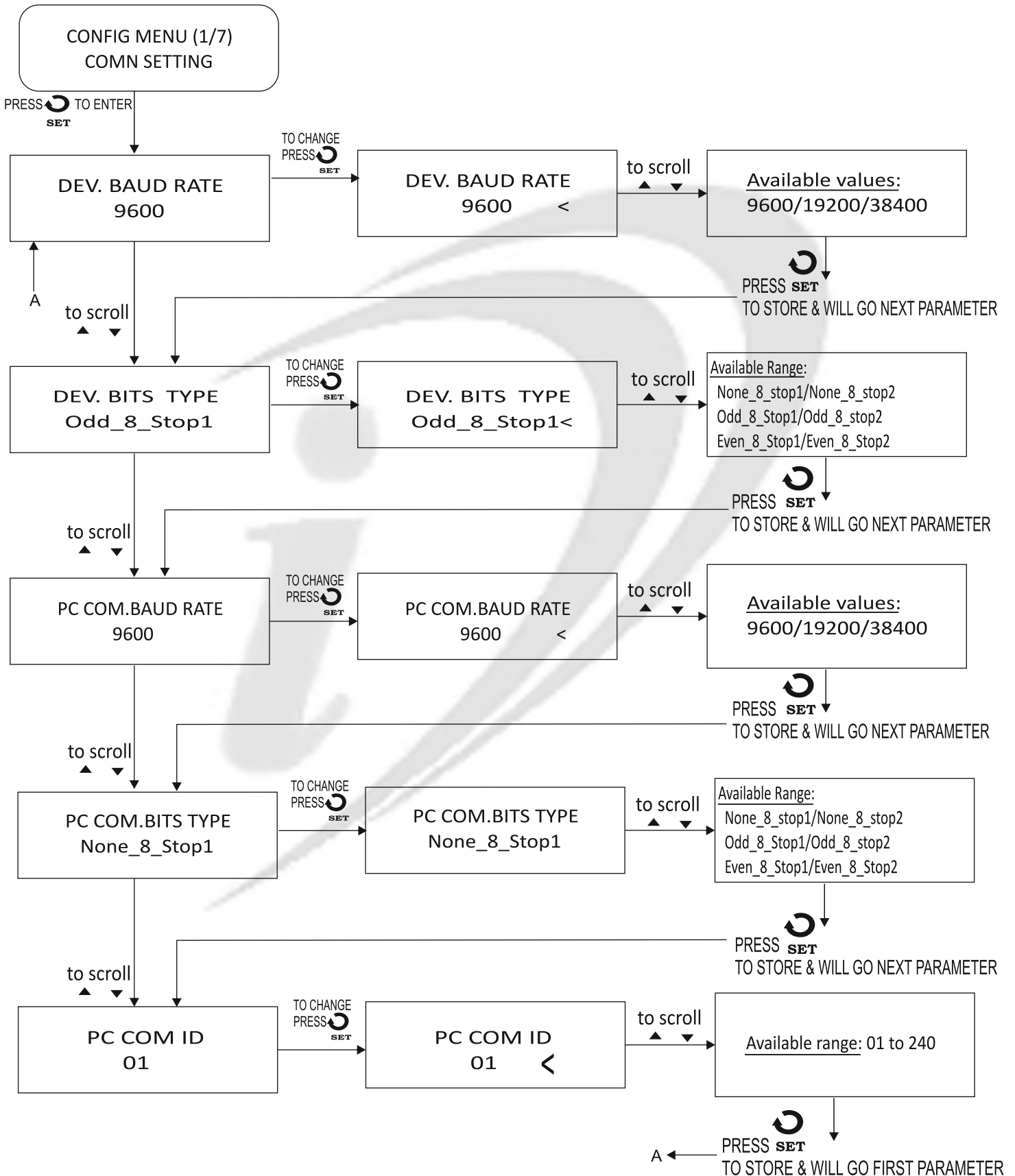
2.1 COMMUNICATION SETTING (Flow Chart)

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this following screen will appear.

Screens with '<' indicates that change is allowable.

If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.

If you want to see/keep the previous value of the parameter then press shift key for 3 seconds so that '<' will get removed.



2.2 COMMUNICATION SETTING(Descripton)

Basically used for the communication setting between devices & data logger and between data logger &PC simultaneuosly. There are different parameters available which are as follow.

Parameter	Description	Range	Default Value
DEV. BAUD RATE	It is used to define Baud rate between Device & Data logger To carry out data transfer.	9600/19200/38400	9600
DEV. BITS TYPE	It is used to define Bit Type between Device & Data logger To carry out data transfer.	None_8_stop1/None_8_stop2 Odd_8_Stop1/Odd_8_stop2 Even_8_Stop1/Even_8_Stop2	Odd_8_stop1
PC COM. BAUD RATE	It is used to define Baud rate between Data logger & PC To carry out data transfer.	9600/19200/38400	9600
PC COM. BIT TYPE	It is used to define Bit Type between Data logger & PC To carry out data transfer.	None_8_stop1/None_8_stop2 Odd_8_Stop1/Odd_8_stop2 Even_8_Stop1/Even_8_Stop2	None_8_stop1
PC COM ID	In this we will define the number of data loggers which are going to be connected with the pc.	0 to 240	01

3.1 RTC SETTING

(Real Time Clock setting)

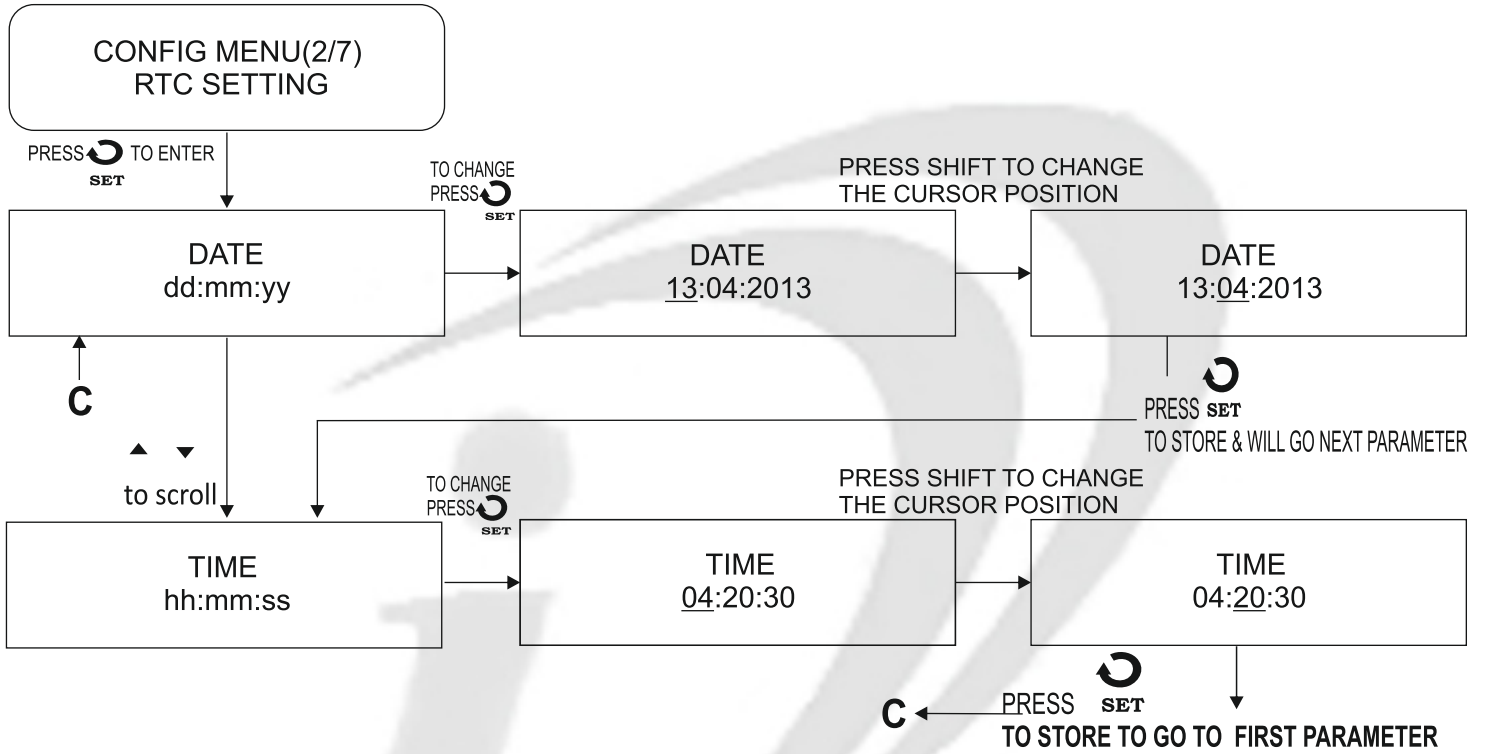
It is used to set date & time in data logger.

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this, following screen will appear.

Screens with '<' indicates that change is allowable.

If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.

If you want to see/keep the previous value of the parameter then press shift some time so that '<' will get removed.



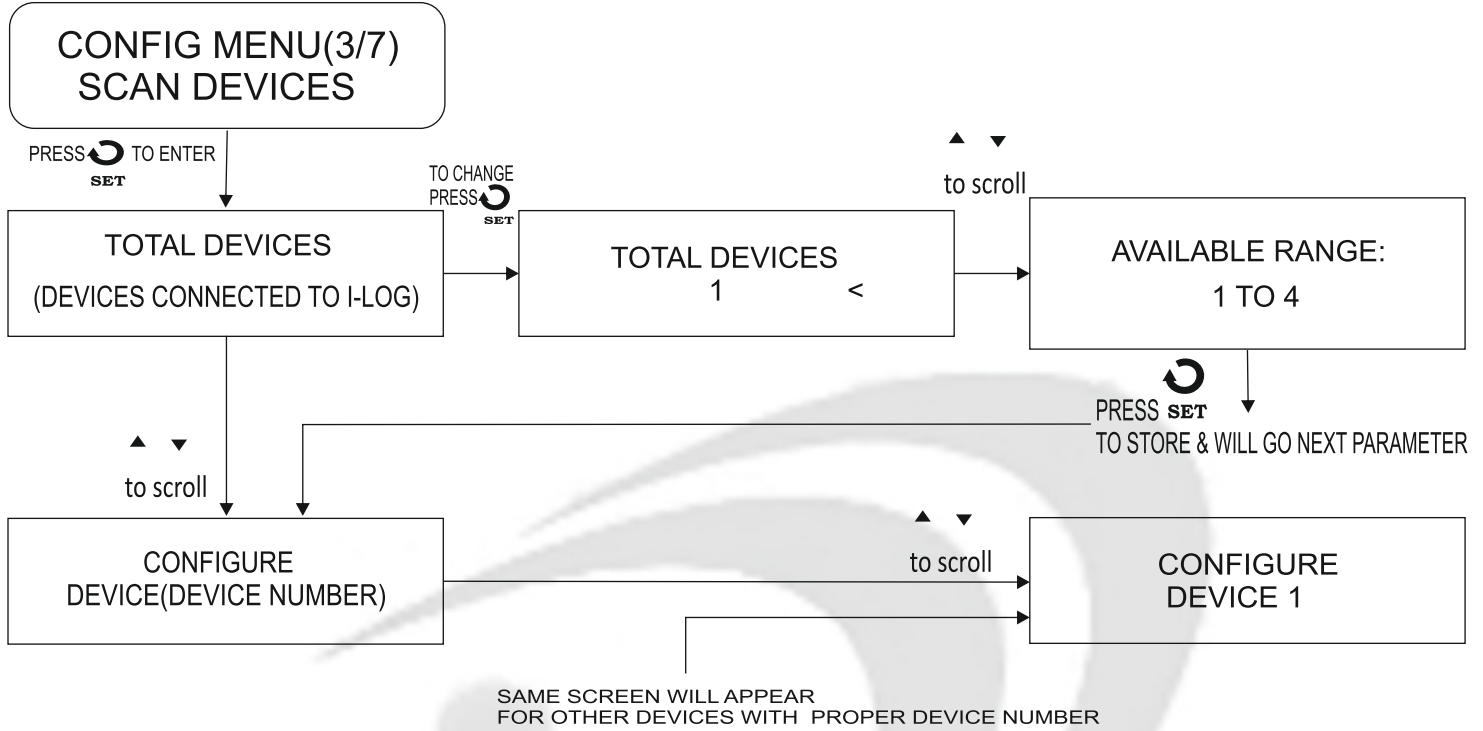
4.1 SCAN DEVICES(Flow Chart)

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this following screen will appear.

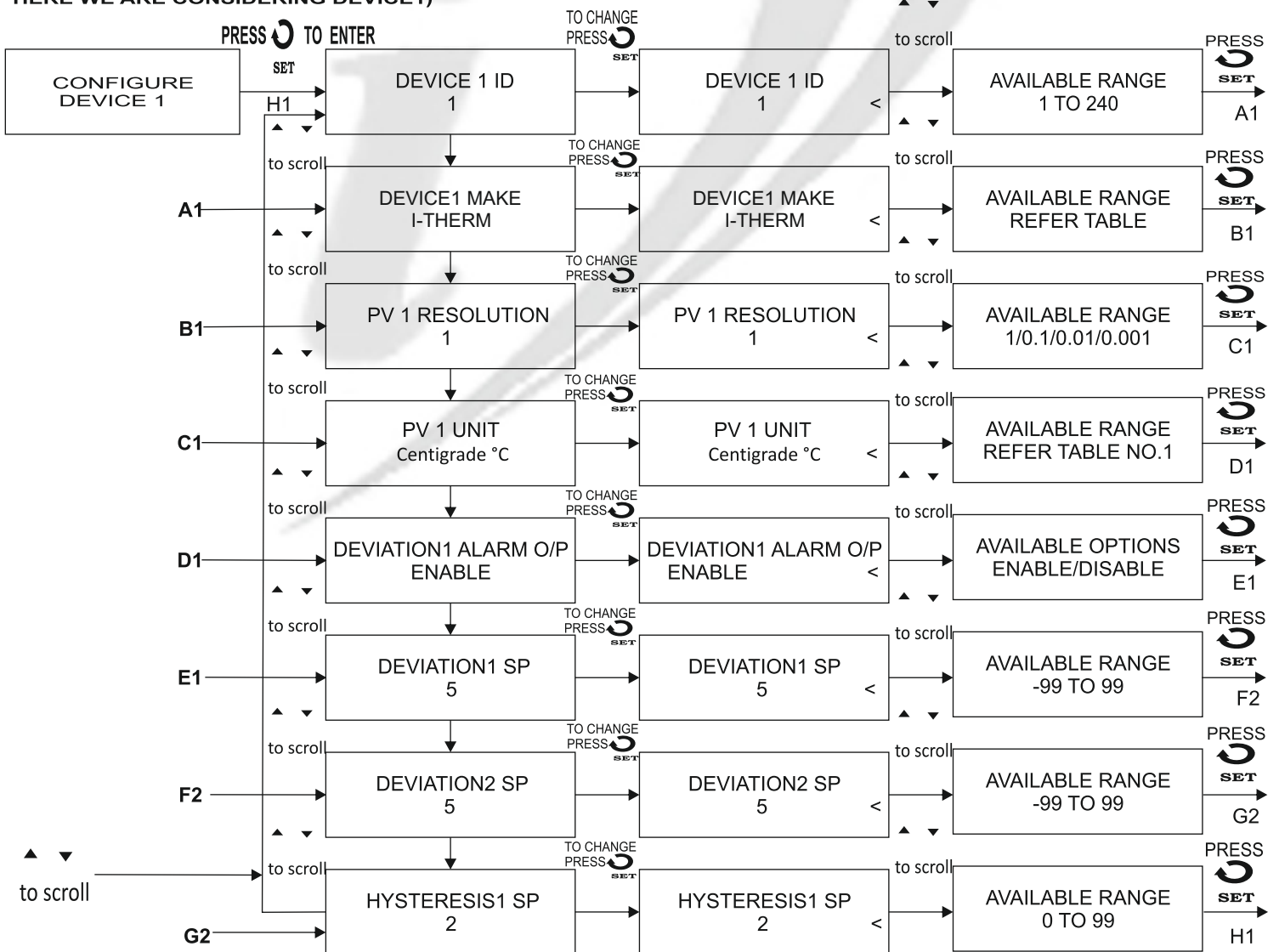
Screens with '<' indicates that change is allowable.

If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.

If you want to see/keep the previous value of the parameter then press shift some time so that '<' will get removed.



(CONFIGURATION PROCESS WILL BE CARRIED OUT IN FOLLOWING MANNER FOR OTHER DEVICES. HERE WE ARE CONSIDERING DEVICE1)



4.2 SCAN DEVICES(DESCRIPTION)

It is used to define number of devices which are connected to the data logger.
The number of devices that can be connected maximum up to 4.

Parameter	Description	Range	Default Value
DEVICE (1) ID	In this we are going to set the device ID of the connected device to data logger for identification of that device.	1 to 240	-
DEVICE (1) MAKE	In this we are going to specify make of the connected device	I-THERM, AIMS-1, AIMS-2	I-THERM
PV (1) RESOLUTION	It is used to set the resolution of the data logger display in order to display exact reading	1/0.1/0.01/0.001	0.1
PV (1) UNIT	It is used to set the unit in data logger in order to display the quantity being measured by the device connected to the logger	Refer Table:1	Centigrade °C
DEV. (1) ALARM O/P	It is used to enable the alarm output.	Enable/Disable	Disable
DEVIATION 1 SP	It is used to provide 1st alarm deviation.	-9.999 to 9999	0
DEVIATION 2 SP	It is used to provide 2nd alarm deviation	-9.999 to 9999	0
HYSTERISIS (1) SP	Depending on the value of the hysteresis alarm will be acknowledged based on the current PV	0.001 to 99	0.1
DEVICE (2) ID	In this we are going to set the device ID of the connected device to data logger for identification of that device.	1 to 240	-
DEVICE (2) MAKE	In this we are going to specify make of the connected device	I-THERM, AIMS-1, AIMS-2	I-THERM
PV (2) RESOLUTION	It is used to set the resolution of the data logger display in order to display exact reading	1/0.1/0.01/0.001	0.1
PV (2) UNIT	It is used to set the unit in data logger in order to display the quantity being measured by the device connected to the logger	Refer Table:1	Centigrade °C
DEV. (2) ALARM O/P	It is used to enable the alarm output.	Enable/Disable	Disable
DEVIATION 1 SP	It is used to provide 1st alarm deviation.	-9.999 to 9999	0
DEVIATION 2 SP	It is used to provide 2nd alarm deviation	-9.999 to 9999	0
HYSTERISIS (2) SP	Depending on the value of the hysteresis alarm will be acknowledged based on the current PV	0.001 to 99	0.1
DEVICE (3) ID	In this we are going to set the device ID of the connected device to data logger for identification of that device.	1 to 240	-
DEVICE (3) MAKE	In this we are going to specify make of the connected device	I-THERM, AIMS-1, AIMS-2	AIMS-1
PV (3) RESOLUTION	It is used to set the resolution of the data logger display in order to display exact reading	1/0.1/0.01/0.001	0.1
PV (3) UNIT	It is used to set the unit in data logger in order to display the quantity being measured by the device connected to the logger	Refer Table:1	Centigrade °C
CHANNEL 1 OFFSET	It is used to provide Mapping Channel 1 Offset Value.	-9.999 to 9999	0
CHANNEL 2 OFFSET	It is used to provide Mapping Channel 2 Offset Value.	-9.999 to 9999	0

Parameter	Description	Range	Default Value
DEVICE (4) ID	In this we are going to set the device ID of the connected device to data logger for identification of that device.	1 to 240	-
DEVICE (4) MAKE	In this we are going to specify make of the connected device	I-THERM, AIMS-1, AIMS-2	AIMS-2
PV (4) RESOLUTION	It is used to set the resolution of the data logger display in order to display exact reading	1/0.1/0.01/0.001	0.1
PV (4) UNIT	It is used to set the unit in data logger in order to display the quantity being measured by the device connected to the logger	Refer Table:1	Centigrade °C
CHANNEL 3 OFFSET	It is used to provide 1st alarm deviation.	-9.999 to 9999	0
CHANNEL 4 OFFSET	It is used to provide 2nd alarm deviation	-9.999 to 9999	0

Table No.1(Available Units):

Options	Description
°C	Degree Centigrade
°F	Degree Farenheit
°K	Degree Kelvin
°EU	Engineering Units
%	Percentage
Pa	Pascals
MPa	Mpascals
KPa	Kpascals
bar	Bar
mbar	Milli bar
psi	PSI
kg/sq.cm	kg/sq.cm
mmH2O	mm water usage
inH2O	inches water gauge
mmHg	mm mecury
Torr	Torr
liter/hr	Litres per hour
liter/min	Litres per minutes
%RH	% Relative Humidity

Options	Description
A	Amps
mA	Milli amps
mV	Milli volts
ohms	Ohms
ppm	Parts per million
rpm	Revolution per Minute
mSec	Milli seconds
Sec	Seconds
min	Minutes
hrs	Hours
PH	PH
%PH	%PH
miles/hr	Miles per hour
mg	Milli grams
g	Grams
kg	Kilo grams
%O2	%O2
%Co2	%Co2
%CP	%Carbon
V	Volts

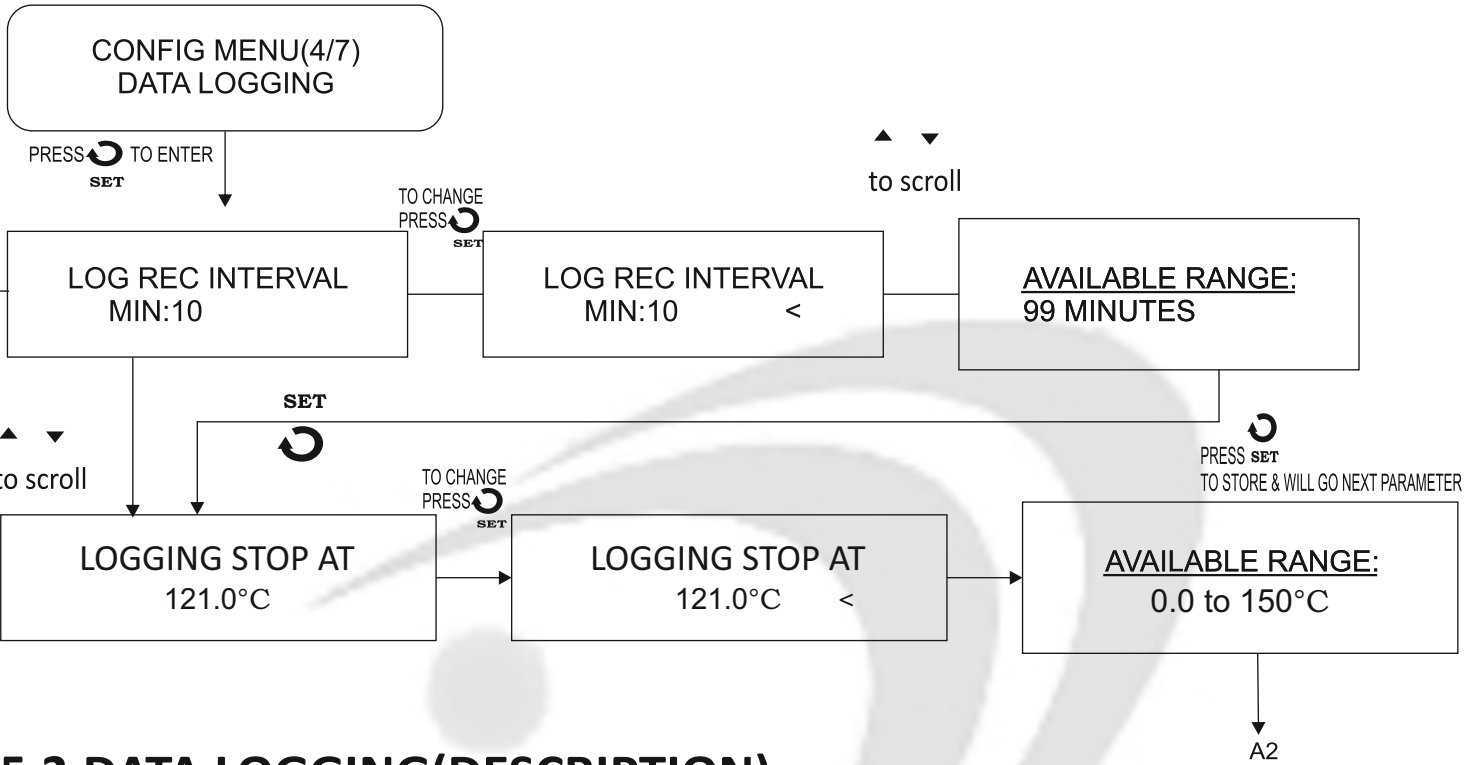
5.1 DATA LOGGING(Flow Chart)

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this following screen will appear.

Screens with '<' indicates that change is allowable.

If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.

If you want to see/keep the previous value of the parameter then press shift some time so that '<' will get removed.



5.2 DATA LOGGING(DESCRIPTION)

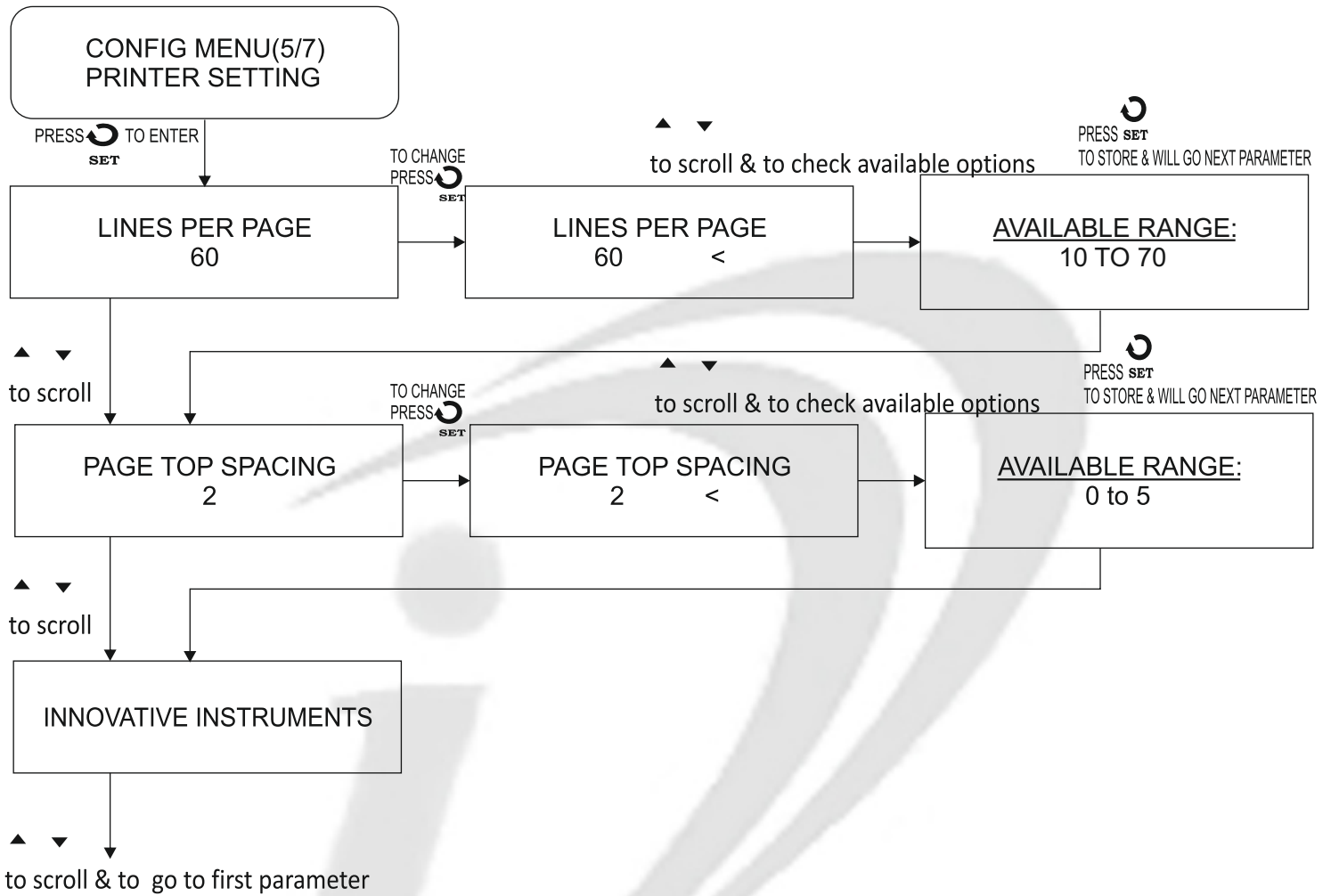
Basically it is used to keep the track of each devices connected. There are two ways in which we are going to keep the track that is Batch and Log. BATCH MODE :In batch we are going to provide the start and end of the batch so that data is going to get logged during that time span only after that no tracking.

LOG MODE: In this we are going to log the data after specified duration of time given by us(user)

Parameter	Description	Range	Default Value
LOG REC INTERVAL (IF ONLY LOG/BATCH-LOG MODE SELECTED)	In this we are going to specify the log recording interval, after every specified interval data will be tracked	1 to 90 minutes	05
LOGGING STOP AT	In this we are going to set stop setpoint after cycle over, if pv value goes below this logging stop value data logging will stop	0.0 to 150°C	121.0°C

6.1 PRINTER SETTING(Flow Chart)

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this following screen will appear.
 Screens with '<' indicates that change is allowable.
 If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.
 If you want to see/keep the previous value of the parameter then press shift some time so that '<' will get removed.



6.2 PRINTER SETTING(DESCRIPTION)

It will provide us options to make use of a printer during the process of data logging based on our convenience. Their are following options

Parameter	Description	Range	Default Value
LINES PER PAGE	In this we are going to specify the number of lines that are going to get printed on the paper	10 to 70	60
PAGE TOP SPACING	In this we are going to specify the line spacing from the top while printing.	0 to 5	2
INNOVATIVE INSTRUMENTS	A name is also going to be printed on the top of the paper that can be any thing which user wants to print.	-	

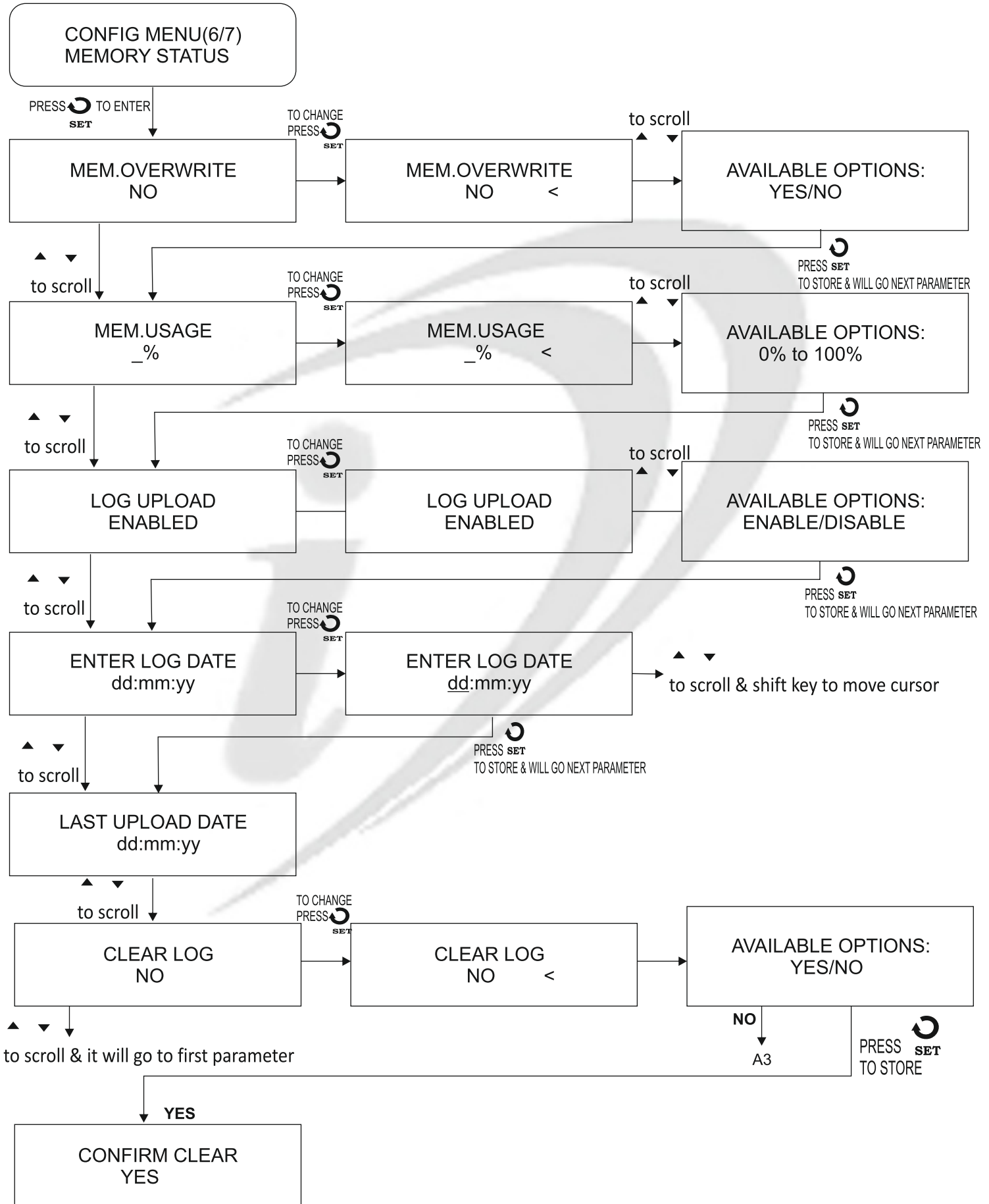
7.1 MEMORY STATUS(Flow Chart)

To Enter in this menu press SHIFT & SET key simultaneously after that enter appropriate password after doing this following screen will appear.

Screens with '<' indicates that change is allowable.

If you just want to see all the settings(Don't want to change) use ▲ ▼ to have a look.

If you want to see/keep the previous value of the parameter then press shift some time so that '<' will get removed.



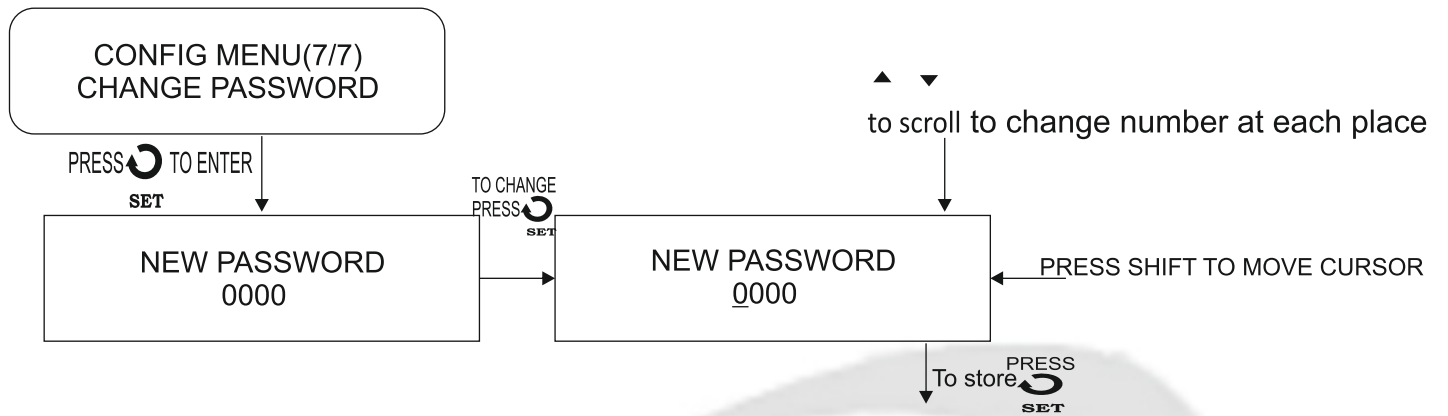
7.2 MEMORY STATUS(DESCRIPTION)

It is used to do some memory settings. Options as follows

Parameter	Description	Range	Default Value
MEM.OVERWRITE	In this we are going to decide whether we are going to overwrite on the given memory or not	YES/NIO	NO
MEM.USAGE	It will specify the overall memory usage in percentage.	0 to 100%	-
CLEAR LOG	It used to delete the stored records	YES/NO	NO
LOG UPLOAD	It will allow data logging.	ENABLE/DISABLE	ENABLE
ENTER LOG DATE	In this we are going to enter date from which we want logged data	dd:mm:yy	-
LAST UPLOAD DATE	It will show date on which last data logging carried out.	dd:mm:yy	-

8 CHANGE PASSWORD

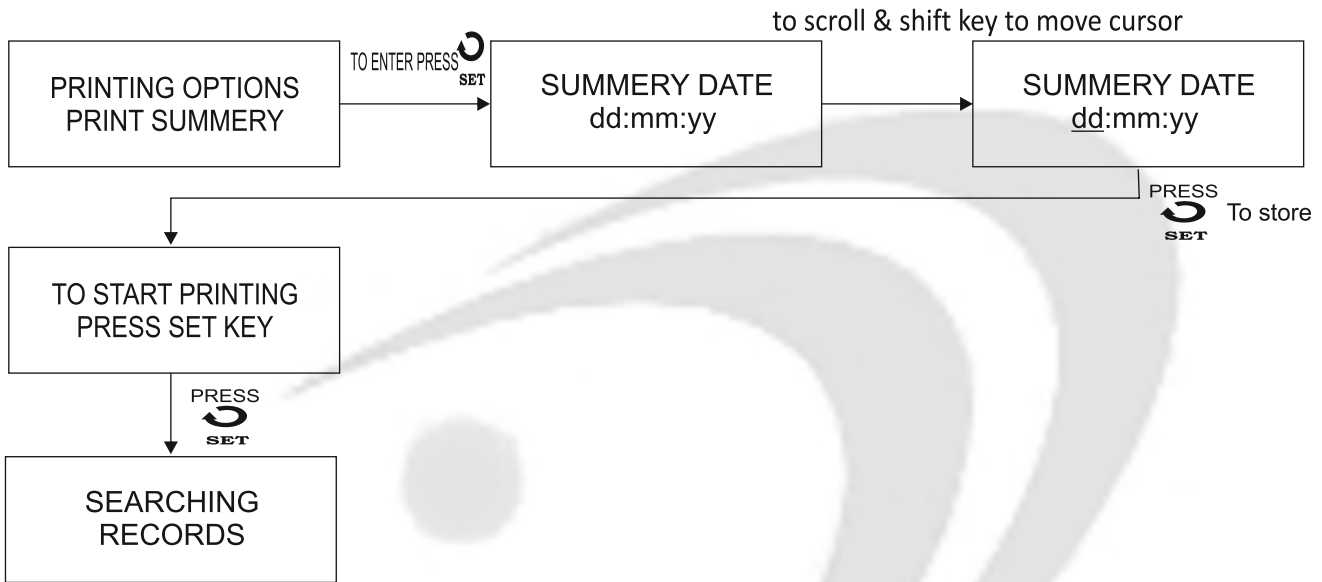
IN THIS WE CAN CHANGE THE PASSWORD WHICH WE NEED TO ACCESS MAIN MENU



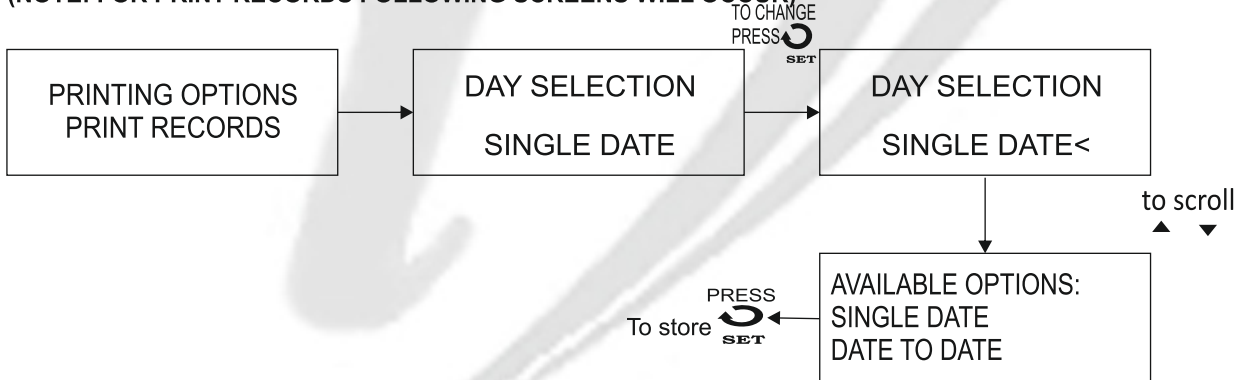
TO ENTER IN THIS MENU PRESS PRINT KEY FOR 3SECONDS



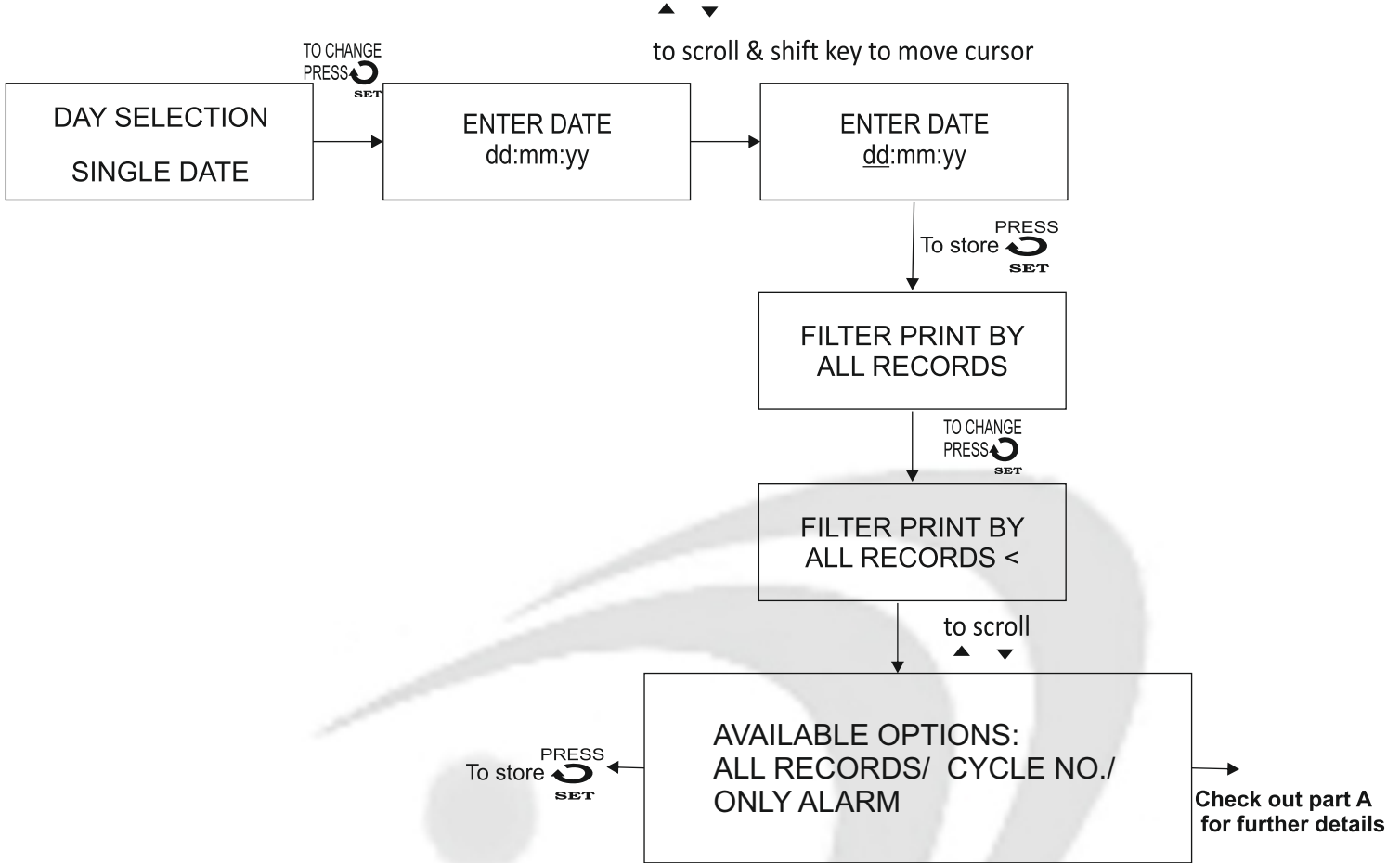
(NOTE: FOR PRINT SUMMERY FOLLOWING SCREENS WILL OCCUR)



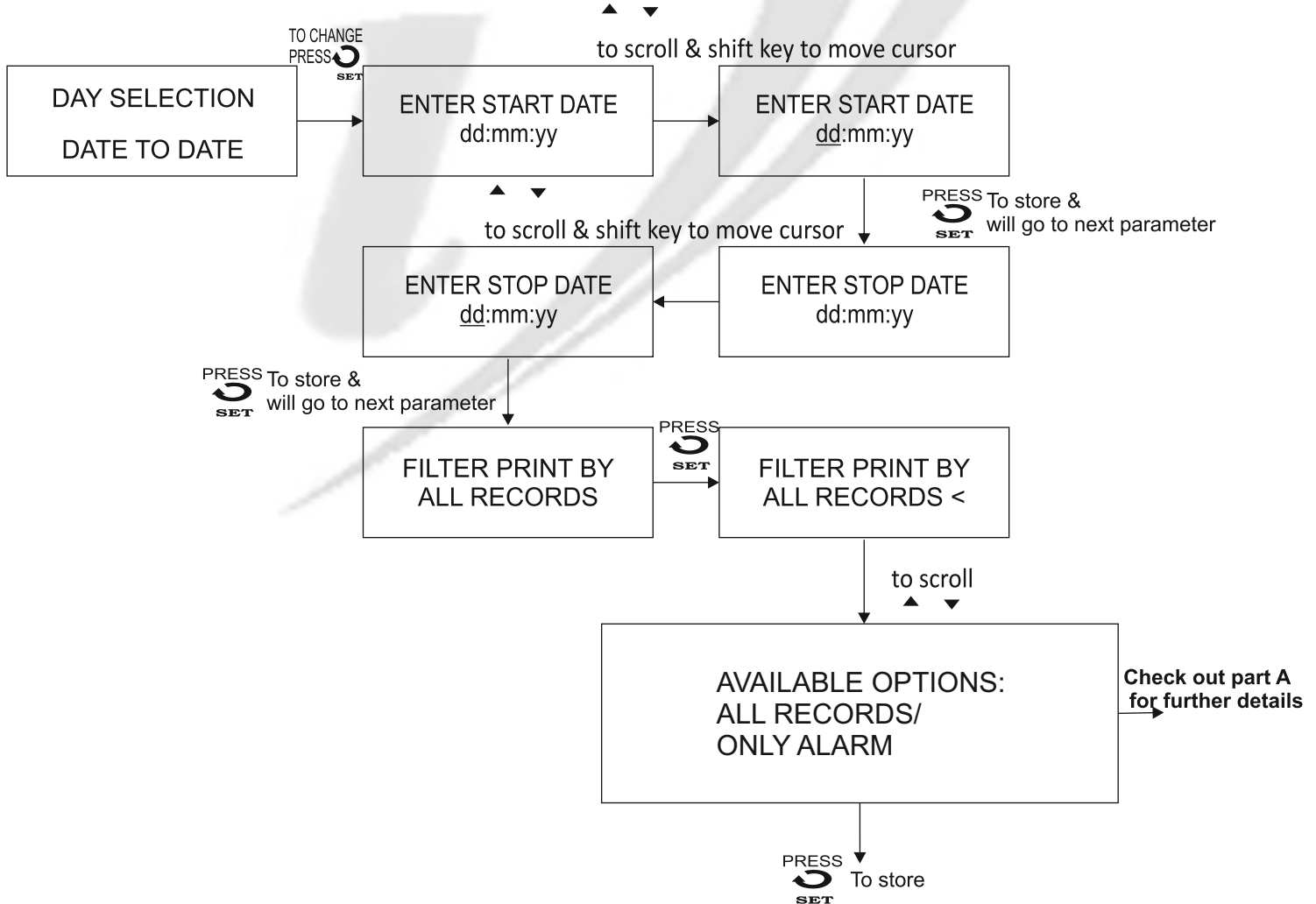
(NOTE: FOR PRINT RECORDS FOLLOWING SCREENS WILL OCCUR)

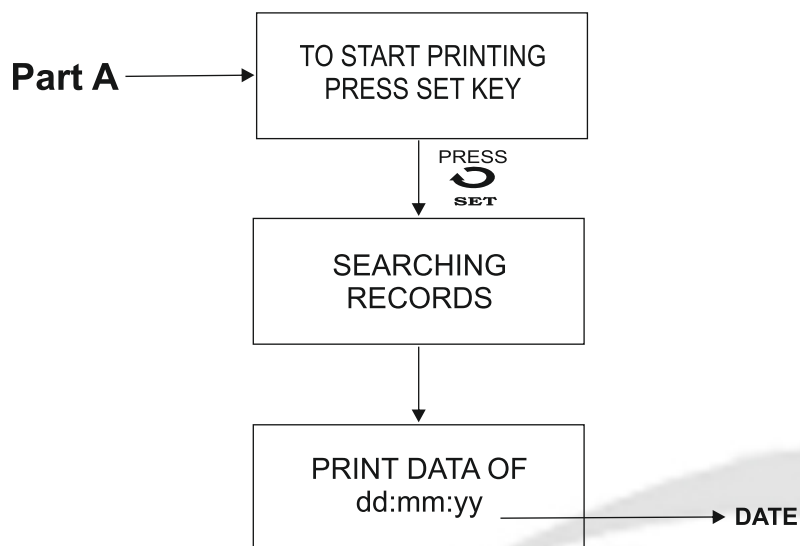


(NOTE: FOR SINGLE DATE OPTION, FOLLOWING SCREEN WILL APPEAR)



(NOTE: FOR DATE TO DATE DAY SELECTION, FOLLOWING SCREEN WILL OCCUR)





HOLD PRINT KEY FOR 3SECONDS YOU WILL COME ACROSS FOLLOWING OPTIONS

Parameter	Description	Range	Default Value
PRINTING OPTIONS	It will provide us facility to print our logged data based.	PRINT SUMMERY PRINT RECORDS	PRINT SUMMERY
PRINT SUMMERY	It will give you overall batch & log occurred on specified date along with their number.	-	-
PRINT RECORDS	It will print all records based on date selection.	SINGLE DATE DATE TO DATE	SINGLE DATE
FILTER PRINT BY	In this we can take prints of our records based on available options.	ALL RECORDS/ CYCLE NO./ ONLY ALARM	ALL RECORDS
ALL RECORDS	It will print all records i.e all the batches ,all records.	-	-
CYCLE NO.	It will print the data for particular cycle no.	-	-
ONLY ALARM	Here we will print only alarm occurances	-	-



Mfgd by: Innovative Instruments & Controls LLP

338, New Sonal Link Service Industrial Premises Co-op Society Ltd,
Building No.2, Link Road, Malad (W), Mumbai - 400064.

Tel: 022-66939916/17/18;

E-mail : sales@itherm.co.in

Website : www.itherm.co.in

