



ARANKA

USER MANUAL

APO 96

ORP CONTROLLER

Ver. 1.0





TERMINAL CONNECTION

1	L	POWER 230 LINE
2	N	POWER 230 NEUTRAL
3	E	EARTH
4	-NA-	
5	-NA-	
6	-NA-	
7	NO R2	NORMAL OPEN FOR RELAY 2
8	C R2	COMMON FOR RELAY 2
9	NO R1	NORMAL OPEN FOR RELAY 1
10	C R1	COMMON FOR RELAY 1
11	- 4-20mA CH1	CHANNEL 1 4~20mA OUTPUT NEGATIVE
12	+4-20mA CH1	CHANNEL 1 4~20mA OUTPUT POSITIVE
13	-NA -	
14	-NA -	
15	- NA -	
16	-NA -	
17	-NA -	
18	-NA -	
19	+ mV	ORP SENSOR INPUT POSITIVE [HI]
20	- mV	ORP SENSOR INPUT NEGATIVE [LO]
21	-NA -	
22	-NA -	
23	-NA -	
24	-NA -	
25	-NA -	
26	-NA -	
27	-NA -	
28	-NA -	
29	+ RS 485	RS 485 MODBUS RTU +
30	- RS 485	RS 485 MODBUS RTU -



MODBUS RTU ADDRESS

1	40001	ORP PRESENT VALUE
2	40002	TEMPERATURE PRESENT VALUE
3	40003	ORP SET POINT 1 VALUE
4	40004	ORP SET POINT 2 VALUE
5	40005	POLARITY IN HEX VALUE [+ = 2b, - = 2d]

DECODING MANNER OF MODBUS RTU

IF YOU GENERATE COMMAND FOR ONLY 40001 THE ANSWER WILL COME WITH ALL 5 NOS VALUE.IT WILL OCCUPY 5 NOS HOLDING RESISTERS COMPULSORY.

Example :

you need To Read only ORP The Command is 40001 but for Rest of 40002,40003 40004,40005 you can not use for other readings. for that you have to change id.



SPECIFICATIONS

POWER	: 90~260VAC , 50HZ
RANGE	: -2000~2000mV
RESOLUTION	:1mV
ACCURACY	: $\pm$ 2 mV
DIGITAL OUTPUT	: 5A, 1CO, RELAY
DISPLAY	: SEGMENT LED
BODY	: ABS
OUTER DIMENSIONS	: 96x96x85mm
CUTOUT DIMENSIONS	: 92x92mm

KEY FUNCTION



TO SET pH
CONTROLLING VALUE



TO ENTER MENU



TO INCREASE VALUE &
IT WILL SCROLL 0 TO 9



TO SHIFT DIGIT

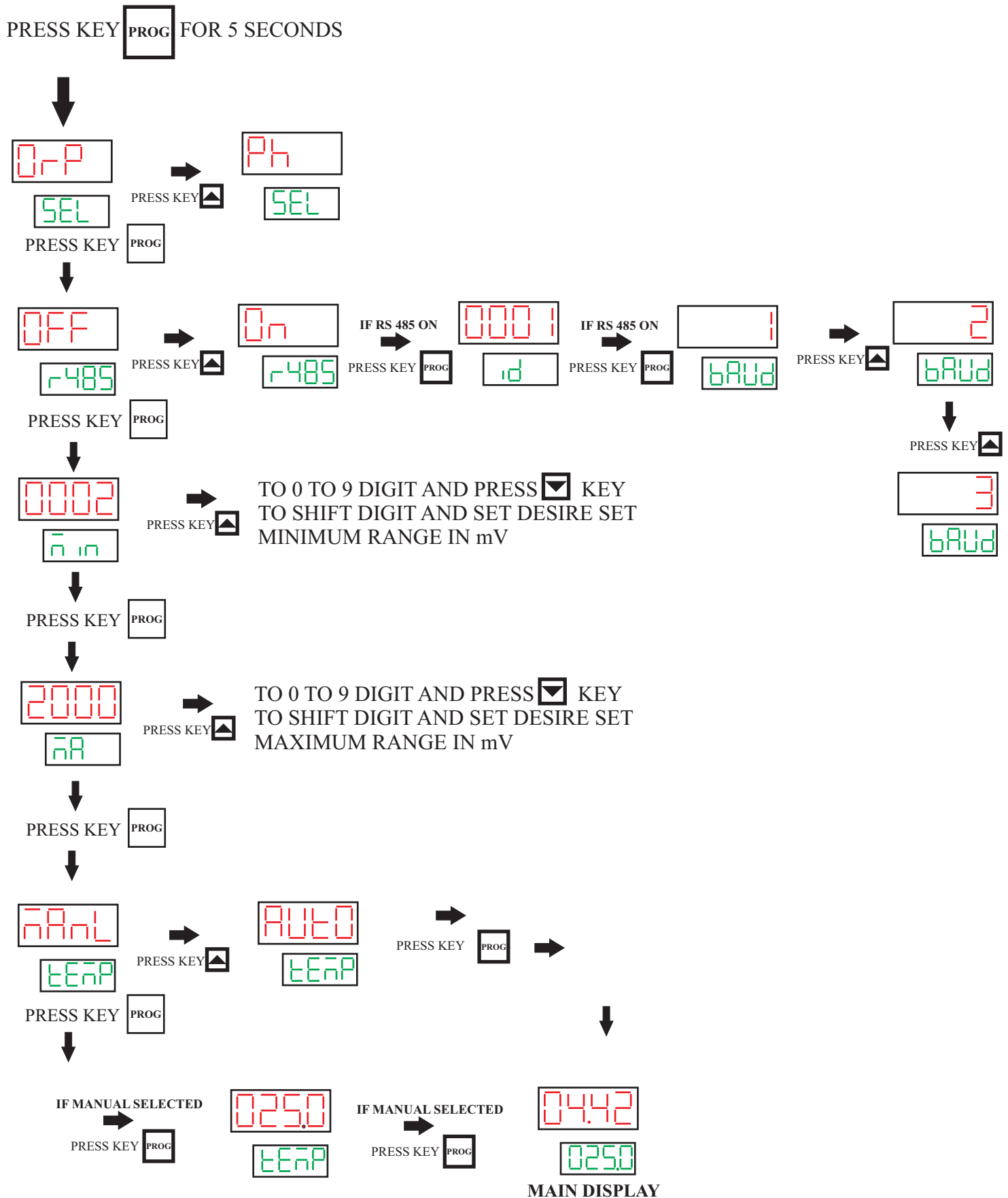


FOR START CALIBRATION



TO SAVE DATA IN CALIBRATION MENU& SET POINT

ORP MENU FUNCTIONS FLOW CHART



ORP MENU FUNCTIONS DESCRIPTION

PH

TO SET AS PH CONTROLLER

SEL

ORP

TO SET AS ORP CONTROLLER

SEL

OFF

TO DISABLE RS 485 COMMUNICATION

RS485

NOTE : IS RS 485 MODEL HAS SELECTED

On

TO ENABLE RS 485 COMMUNICATION

RS485

NOTE : IS RS 485 MODEL HAS SELECTED

0001

INSTRUMENT ID FOR RS 485

ID

NOTE : IS RS 485 MODEL HAS SELECTED

1

INSTRUMENT BAUD RATE 9600 FOR RS 485

BAUD

NOTE : IS RS 485 MODEL HAS SELECTED

2

INSTRUMENT BAUD RATE 14400 FOR RS 485

BAUD

NOTE : IS RS 485 MODEL HAS SELECTED

3

INSTRUMENT BAUD RATE 19200 FOR RS 485

BAUD

NOTE : IS RS 485 MODEL HAS SELECTED

0002

MINIMUM ORP RANGE

min

2000

MAXIMUM ORP RANGE

max



ORP MENU FUNCTIONS DESCRIPTION

TO SELECT MANUAL TEMPERATURE COMPENSATION

TO FEED MANUAL TEMPERATURE COMPENSATION VALUE
IF MANUAL TEMPERATURE COMPENSATION SELECTED

TO SELECT AUTO [FROM SENSOR] TEMPERATURE COMPENSATION



ORP SET POINT FUNCTION

PRESS KEY

0755
SP1-

TO 0 TO 9 DIGIT AND PRESS KEY
TO SHIFT DIGIT AND SET DESIRE SET
POINT TO CONTROL RELAY 1

PRESS KEY

0382
hys1

TO 0 TO 9 DIGIT AND PRESS KEY
TO SHIFT DIGIT AND SET DESIRE SET
HYSTERISIS TO CONTROL RELAY 1

PRESS KEY

COOL
r1

PRESS KEY

HEAT
r1

HEAT FUNCTION WILL SWITCH
RELAY1 OFF IF PRESENT VALUE
WILL LESS THAN SET VALUE

COOL FUNCTION WILL SWITCH
RELAY1 OFF IF PRESENT VALUE
WILL GREATER THAN SET VALUE

PRESS KEY

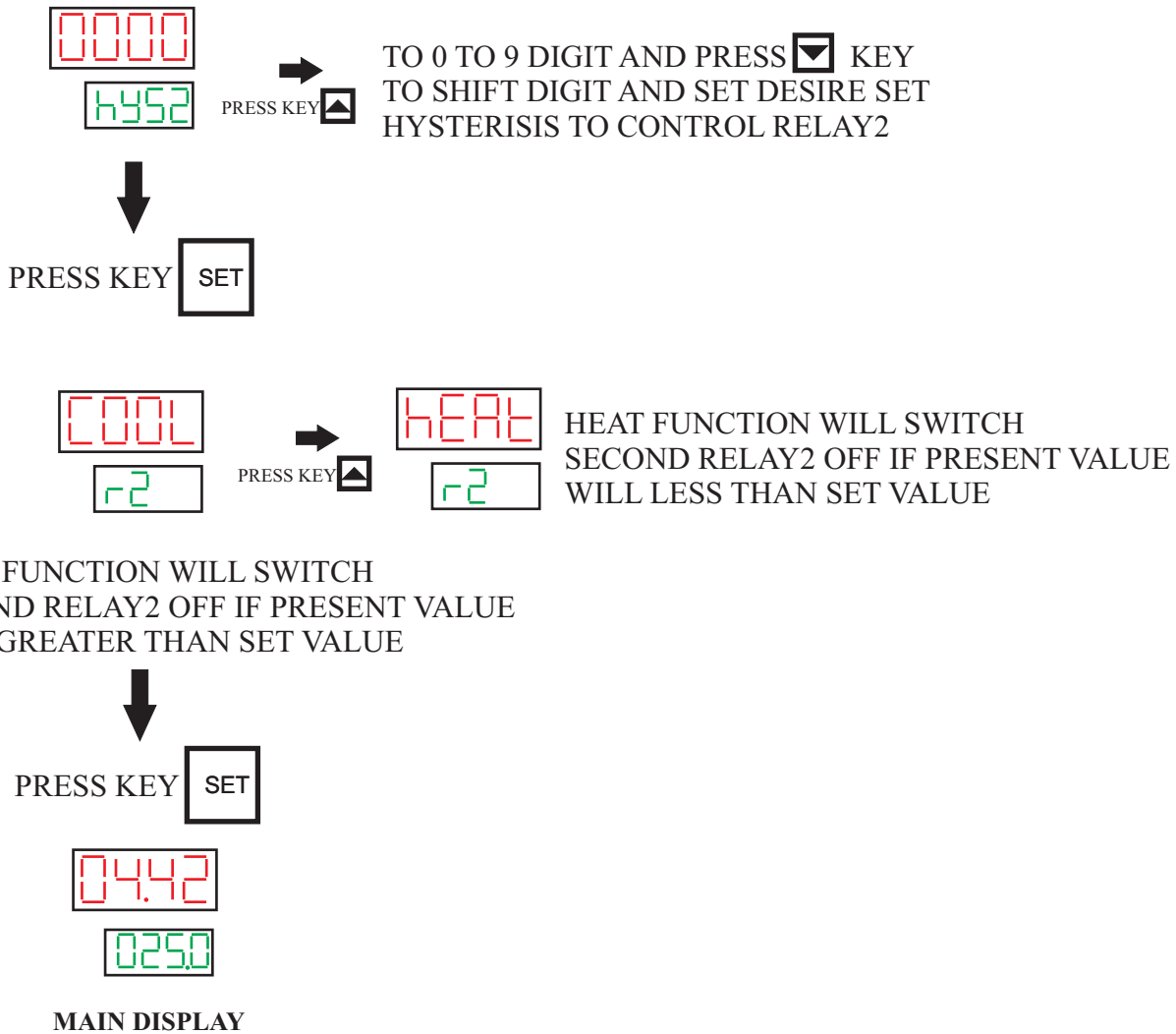
0100
SP2-

TO 0 TO 9 DIGIT AND PRESS KEY
TO SHIFT DIGIT AND SET DESIRE SET
POINT TO CONTROL RELAY 2

PRESS KEY



ORP SET POINT FUNCTION



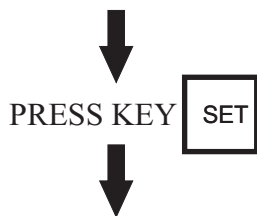


DISPLAY OFFSET FUNCTION

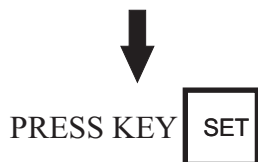
PRESS KEY  +  FOR 5 SECOND



TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT OR CHANGE SIGN OF
MINUS OR PLUS AND SET DESIRE
OFFSET FOR DISPLAY VALUE FOR ORP



TO 0 TO 9 DIGIT AND PRESS  KEY
TO SHIFT DIGIT OR CHANGE SIGN OF
MINUS OR PLUS AND SET DESIRE
OFFSET FOR DISPLAY VALUE FOR
TEMPERATURE



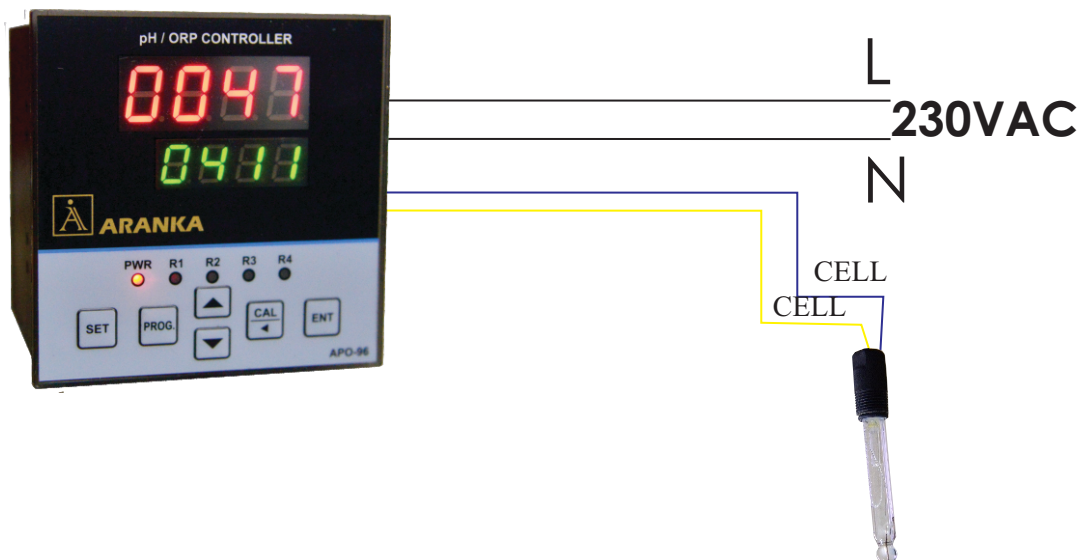
MAIN DISPLAY



ARANKA

Solution
with **Perfection**

WIRING DIAGRAM



SR NO: _____



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