SEROUN

STR--UNIT

HEATER CONTROLLER

.

SEROUN　STR-UNIT

-
- MODEL
-
-
-

3　(3ø)STR-UNIT

-
- OPERATION PANEL　　/
-
-
-

(1ø)STR-UNIT

-
- OPERATION PANEL　　/
-
-
-
-
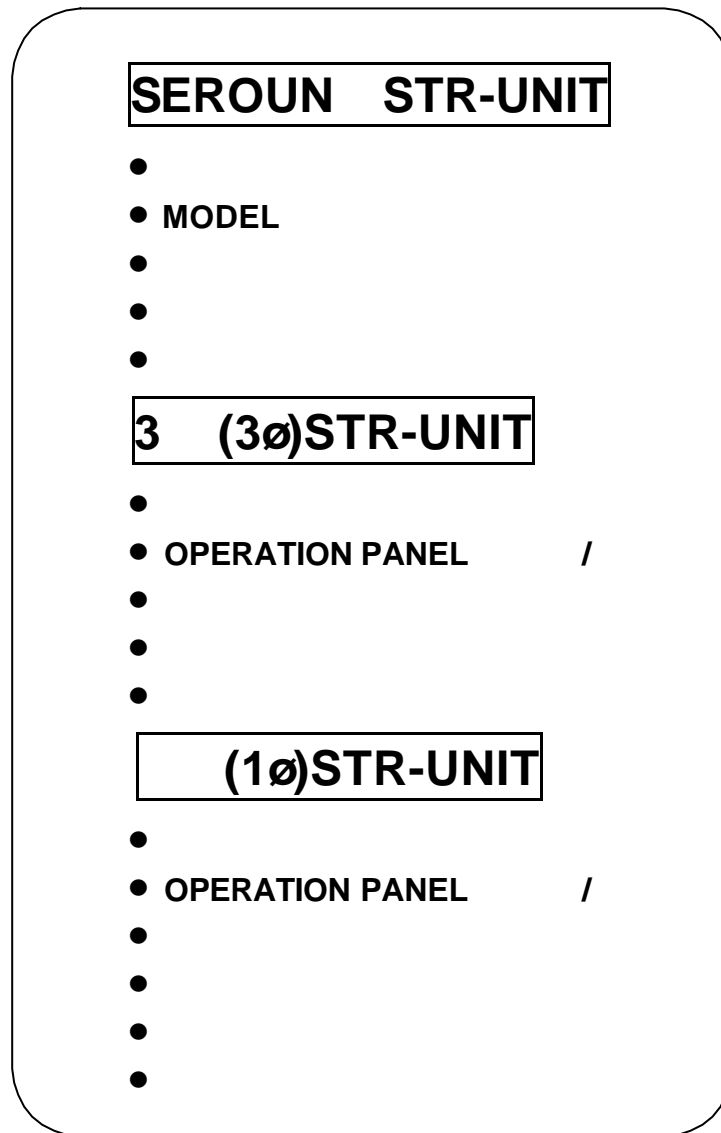
SEROUN STR-UNIT

STR-UNIT

HEATER CONTROL .

.

1. **:** . .
   . ?
   . ?
   . ?

2.
   . PANEL . (FAN)
   . HIGH SPEED FUSE SCR
     .
   . .(30 % S.L LED)
   . UNIT 1 '

3. **STR-UNIT**
   . CONTACT .
   . .
   . PROGRAM .
   . .
   . COMPACT SCR , RIPPLE
     .
   . LOCAL/REMOTE
   OPERATION PARTS .
   . UNIT SENSOR ALARM (
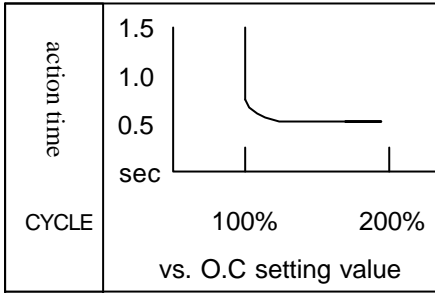   STR-UNIT) @ PANEL FAN .

MODEL

S T R 3 2 2 0 2 0 0

200A (50A:0050)
220V(38:380V, 44:440V)
3 phase(1: 1 phase)
Seroun **T**hyristor **R**egulator
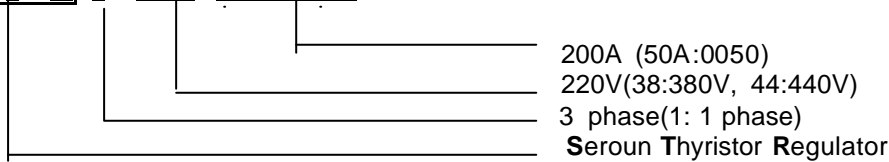
Type	•3 (3∅) STR • (1∅)STR.		:4~20mA @ :1~5V DC B10K .
	Heater control .		0~100%
	3 Unit Unit : 220/380/440V. @		0~100 % ( ).
	50 /60 Hz. @ STR-UNIT		1) 2) 3) 4)
	25, 35, 40, 60, 70, 90, 110, 150, 200, 250 300, 350, 400, 500, 600, 800 1000A		Soft start
	-20~85 [ ], : 90% ( ).		Fan cooling:• 90A • 3 60A
	• Heater • 1 :		earth • 220V: 2000V, •380V/440V: 2500V
	(Local/Remote).		10 M

STR-UNIT

1.

STR-UNIT   (E.O.C.R)
LOADAMP VOLUME   SETTING   . UNIT   SETTING
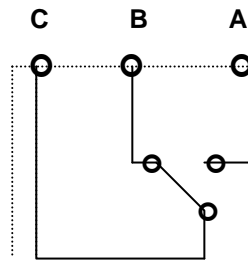   THYRISTOR   GATE   THYRISTOR   OFF
        .   UNIT   PANEL   O.C LED   RELAY
    ALARM   .
@ POWER SWITCH   OFF   RESET BUTTON   .

(cycle display)   **(relay contacts)**

action time	1.5
	1.0
	0.5
	sec
CYCLE	100% 200%

vs. O.C setting value

C   B   A   (   )

@   .: AC 250V 2A

CA	open	close
CB	close	open

@ UNIT   LOADAMP VOLUME
    THYRISTOR   .

2.

UNIT   MAXAMP VOLUME   SETTING
                                .

LOCAL/REMOTE   '

3.   ,
3   UNIT   ,
        UNIT   ,   S.P LED
            S.L LED   .

4. SOFT START   (@   heater   )

(type)   (STR-Unit)   1

.
(T) →   (T) →
@ starting time
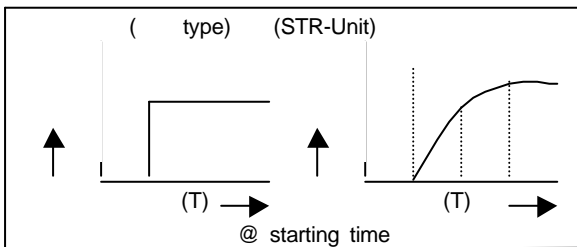
        ON/OFF
        FLICKER   .
        THYRISTOR
            SOFT START TIME   2.5 SEC
                        .

5.   OVER- TEMP.   (3   STR-UNIT   )
UNIT   SENSOR   ALARM   .

STR-UNIT

1.
　.`2 (   ) .
　. UNIT .
　. UNIT case .
　. 1 UNIT .

2.

. UNIT AUTO/HAND SWITCH HAND . . UNIT LOCAL/REMOTE SWITCH LOCAL . . UNIT PW(POWER) SWITCH OFF . . UNIT RUN OPEN . @ , HEATER PANEL POWER SWITCH ON/OFF UNIT RUN .	. MAXAMP VOLUME . . LOADAMP VOLUME 90% @ O.C LED . . HEATER N.F.B ON . . HEATER PANEL B10 K VOLUME UNIT VR .

Note 1 : _____(INTERLOCK   ) SETTING.
　HEATER LOADAMP VOLUME O.C LED
　　. . 10%
　　SETTING .
　　@ mode .
Note 2 : REMOTE UNIT MAXAMP VOLUME

2. : 2 "   "   OPERATION MODE

3.1 HAND-LOCAL OPERATION

. UNIT LOCAL/REMOTE SWITCH LOCAL ,
HAND/AUTO SWITCH HAND
@ , 50A 3 4 (Local
Mode),15 16 (Hand Mode)
.
. UNIT POWER SWITCH ON HEATER
PANEL POWER SWITCH ON .
. UNIT MAXAMP VOLUME
HEATER .
@MAXAMP VOLUME HEATER
1 .
. SETTING .

3.2 HAND-REMOTE OPERATION

. UNIT LOCAL/REMOTE SWITCH REMOTE ,
HAND/AUTO SWITCH HAND
@ , 50A 4 5 (Remote Mode),
15 16 (Hand Mode) .
. 3-1. .
.. B10 K VOLUME HEATER .
(B10 K VOLUME UNIT MAXAMP
VOLUME)
@ HEATER PANEL B10 K VOLUME
3.1 " HAND-LOCAL MODE
.
. SETTING .

3.3 AUTO-LOCAL OPERATION

. UNIT LOCAL/REMOTE SWITCH LOCAL ,
HAND/AUTO SWITCH AUTO
@ , 50A 3 4 (Local
Mode), 14 15 (Auto Mode) .
. 3-1. .
. HEATER PANEL TIC 4~20mA SIGNAL
CABLE UNIT (+,-) .
. UNIT MAXAMP VOLUME HEATER
.
. SETTING .
. HEATER PANEL TIC 4~20A controller
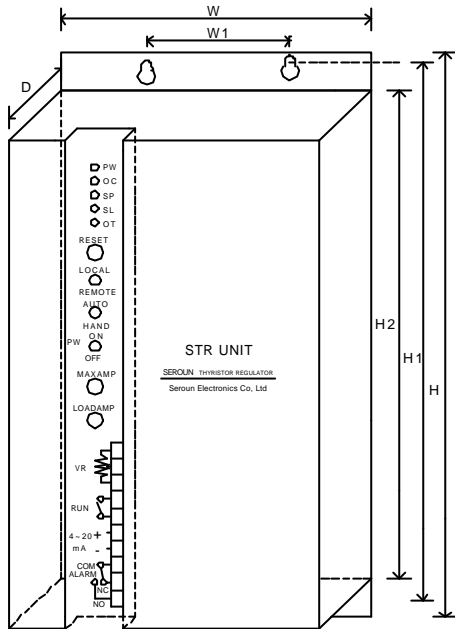
3.4 AUTO-REMOTE OPERATION

. UNIT LOCAL/REMOTE SWITCH REMOTE ,
HAND/AUTO SWITCH AUTO
@ , 50A 4 5 (Remote Mode),
14 15 (Auto Mode) .
. 3-1. .
. HEATER PANEL TIC 4~20mA SIGNAL CABLE
UNIT (+,-) .
. HEATER PANEL B10 K VOLUME
.
@ HEATER PANEL B10 K VOLUME
3.1 " HAND-LOCAL" MODE
.
. SETTING .
. TIC 4~20A controller

: TIC Setting 5 [ ] TIC MAKER INSTRUCTION
AUTO TUNNING .

3   (3ø)STR-UNIT

1.

2.

SIZE (mm) / (A)	H	H1	H2	W	W1	D
25~40	350	320	290	200	120	160
50~70	380	350	320	200	120	225
90~110	410	380	350	220	140	230
130~150	480	450	420	255	200	235
200~250	510	480	450	272	200	250
300~400	560	530	500	307	225	265
450~600	660	630	600	307	225	265
800						

@

OPERATION P ANEL

1. OPERATION PARTS

○ **PW**	Power On-Off LED
○ **OC**	Over-Current LED
○ **SP**	Single Phase LED
○ **SL**	Single Load LED
○ **OT**	Over Temperature ( ) LED
◎ **RESET**	Reset Button
◎ **LOCAL/REMOTE**	Local/Remote switch
◎ **AUTO/HAND**	Auto/Hand switch
◎ **PW ON/OFF**	Power On/Off switch
◎ **MAXAMP**	switch
◎ **LOADAMP**	O.C ( ) alarm switch
	VR : B10KΩ volume
	RUN: On/Off
	4~20Ma : TIC signal 1~5V SIGNAL .
	Alarm : Alarm NC: Normal Close(B) NO: Normal Open(A) COM: Common

2. OPERATION PARTS

. OPERATION PARTS

1) **POWER(PW) LED :** UNIT   PW SWITCH   ON
2) **OVER CURRENT (O.C) LED :**
   2   (HEATER)   ,   EARTH   .
   @2   (HEATER)   LED
3) **SINGLE PHASE (S.P) LED :**
   2   (HEATER)   FUSE   1
   .
4) **SINGLE LOAD (S.L) LED :**
   2   (HEATER)   2   (HEATER)   .
5) **OVER TEMPERATURE (O.T) LED :**
   UNIT   @   FAN
6) **RESET BUTTON :**   LED   BUTTON   .
7) **LOCAL/REMOTE   SWITCH :**
) LOCAL :
     UNIT   MAX.AMP VOLUME   SWITCH.
) REMOTE
     HEATER PANEL   (B10KΩ)   HEATER
     PANEL   TIC4~20mA   SWITCH.
8) **AUTO/HAND   SWITCH :**
) AUTO   : TIC   (4~20mA,   1~5V)   .
) HAND   : UNIT   MAX.AMP VOLUME   .
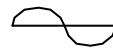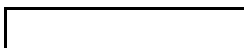9) **PW ON/OFF   SWITCH :** UNIT   SWITCH.
10) **MAX.AMP VOLUME :**   2   TOGGLE   SWITCH.

   (   ) MAX.AMP

   | 100 % | 75 % | 50 % | 25 % | 0 % |

11) **LOADAMP VOLUME :**   ALARM   SETTING   TOGGLE   SWITCH

   .

1) **VR :** HEATER PANEL   UNIT   MAXAMP   .
   . PANEL   (B10KΩ)   .
2) **RUN :** HEATER PANEL   POWER SWITCH   UNIT   ON/OFF
   SIGNAL CABLE   .   UNIT   POWER SWITCH
   OFF   ..
3) **4~20mA :** AUTO   TIC   4~20mA   .
4) **ALARM :** ALARM

1. SINGLE PHASE (S.P) LED

. HIGH SPEED FUSE
1)   (HEATER   ) :
)   100%   (HEATER)   .
)   (U.V.W)   .
)   .
2)   (TRANSFORMER   ) : 1   NOISE

. CONTROL FUSE   :
1) UNIT   CONTROL TRANSFORMER
2) UNIT   FAN
2. OVER CURRENT (O.C) LED
 . LOAD.AMP VOLUME   O.C   .
 .
 .LOADAMP VOLUME
 @ O.C LED   (INTERLOCK).
 @ UNIT   RUN   SOFT START
3. SINGLE LOAD (S.L) LED
 .   30%   .
 . UNIT   C.T (CURRENT TRANSFORMER)
 @ S.P   S.L   LED   .
4.
 .   (HAND)   100 %   AUTO(TIC 4~20mA   )
          UNIT   4~20mA   (+, -)   TIC   .
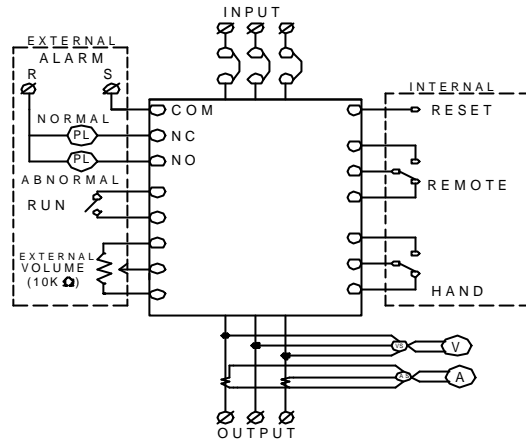 .TIC   SETTING   5
                 . @
 .UNIT   FAN   SCR   .
 .HEATER   SCR   P.C.B
                            .
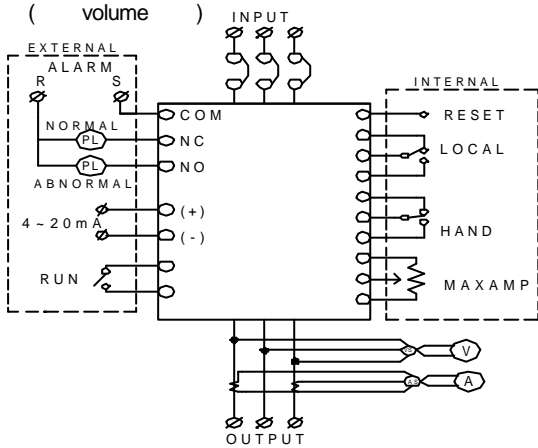**5.** UNIT   (   )   COOLING FAN
                 .

3
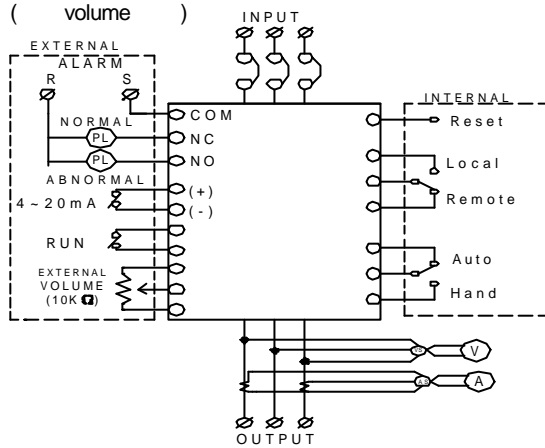
1.　　(ON/OFF TYPE)

(　　volume　　)
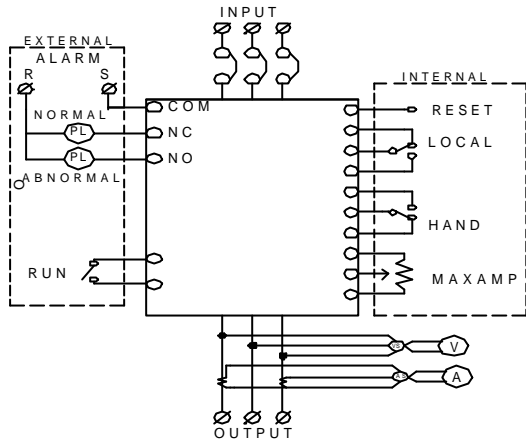
(　　volume　　)

2.　　(4~20mA TYPE)

(　　volume　　)

(　　volume　　)

3　UNIT
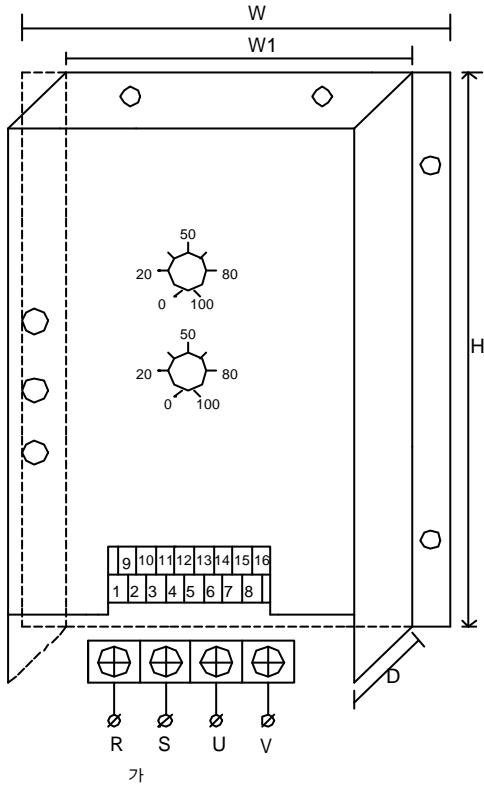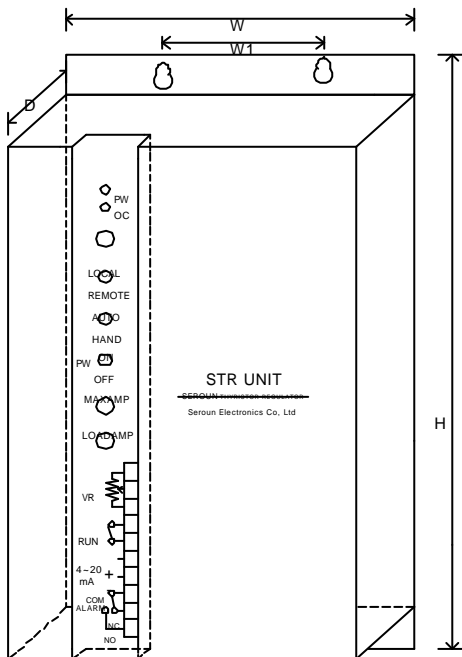

Q2, Q4, Q6

DIODE

(

0　　)　　,
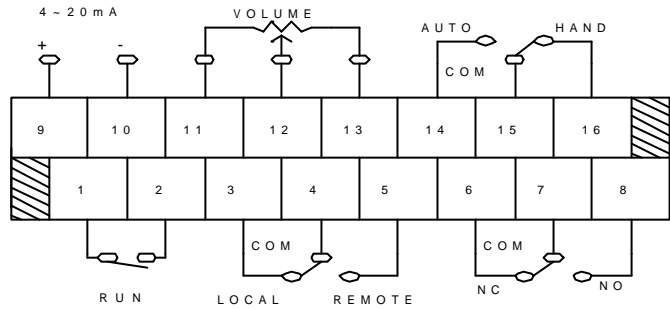
.
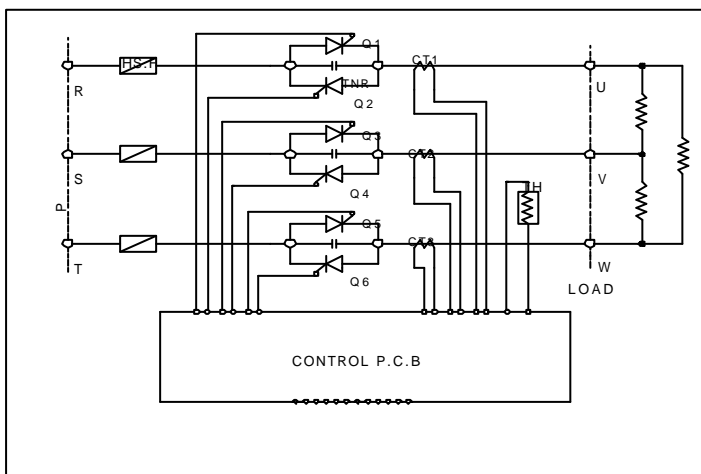
(1 Ø) STR - UNIT

1. 50A

OPERATION PARTS

. R,S : MAIN POWER
. U,V :
. MAXAMP :   SWITCH
. LOADAMP :   SWITCH
. SFT : HEATER   BUTTON
( )
. PWR : POWER   LED
. OC: LED
-RED   :   LED
-GREEN   : -4~20mA
-YELLOW   : HEATER

2. 60A

OPERATION

#. OPERATION

1 : POWER LED(PW)

2 : ALARM
. LED   : O.C
. LED   : 4~20mA
. LED   : HEATER

3 : RESET BUTTON

4 : LOCAL / REMOTE SELECTION SWITCH

5 : AUTO / HAND SELECTION SWITCH

6 : POWER ON / OFF SELECTION SWITCH

7 : MAX AMP VOLUME

8 : LOAD AMP VOLUME

#. TERMINAL BLOCK

: SWITCH   REMOTE   VOLUME

: STR- UNIT POWER RUN

:   CONTOLLER   (4 ~ 20mA)

: ALARM
COM : ALARM COMMON
N O : ALARM A
N C : ALARM B
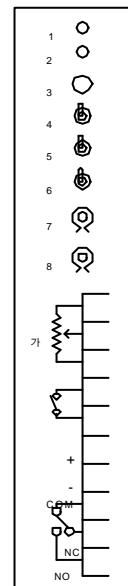
Size(mm) Current(A)	H	W	W1	D
~35	160	126	106	100
~50	205	126	106	100
~80	350	180	120	150
~150	350	185	120	196
200~250	450	210	150	250
300~350	470	240	210	265
400~600	520	240	210	265
800				

OPERATION PARTS   (   )

1. OPERATION PARTS

　. POWER (PW) LED : UNIT   POWER SWITCH   ON   .

　. OVER CURRENT (O.C) LED :
　 2   (HEATER)   EARTH
　 2

　. LOCAL/REMOTE   SWITCH:
　 1) LOCAL :UNIT   MAXAMP VOLUME   SWITCH.
　 @COM   LOCAL   .
　 2) REMOTE :HEATER PANEL   (B10KΩ)
　 HEATER PANEL   TIC4~20mA   SWITCH.
　 @COM   REMOTE   .

　. AUTO/HAND   SWITCH :
　 1) AUTO   : TIC   (4~20mA,   1~5V)   .
　 @COM   AUTO   .
　 2) HAND   : UNIT   MAX.AMP VOLUME
　 @COM   HAND   .

　. MAXAMP VOLUME :   (LOCAL, REMOTE)   TOGGLE SWITCH.

　. LOADAMP VOLUME :   SETTING   TOGGLE SWITCH.

2.

　. VR :   UNIT   .
　 @HEATER PANEL   (B10 KΩ)   .

　. RUN :
　 HEATER PANEL   POWER SWITCH   UNIT   ON/OFF   SIGNAL CABLE
　 .
　 @   60A   UNIT   UNIT   POWER SWITCH   OFF   ,
　 50A   UNIT   ON/OFF   1   2   .

　. 4~20mA : AUTO   TIC   4~20mA   .
　 4~20mA   UNIT   UNIT   LED
　 RELAY   .

　. ALARM : ALARM   .

| STR-UNIT |
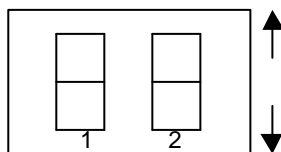
1. UNIT   1   SWITCH   "   " (PHASE CONTROL)   "   "
   (CYCLE CONTROL)   .
　 @
2. UNIT   (   )   2   SWITCH   HEATER   "   /   "   .

@   HEATER   "   "   .
3.   TIC4~20mA   (GREEN LED   )   .   4~20mA   +, -
              UNIT   OPERATION   .
4. HEATER SETTING   20 %   (YELLOW LED   )
5.. 50 HZ   60 HZ   .

┌──────────┐
│   │
└──────────┘

.   (PHASE CONTROL)
  AC   50HZ, 60HZ   60HZ 1/2 CYCLE   8.33ms
   0~180   .   AC   1/2 CYCLE   ,
              8.33ms   0~180   .
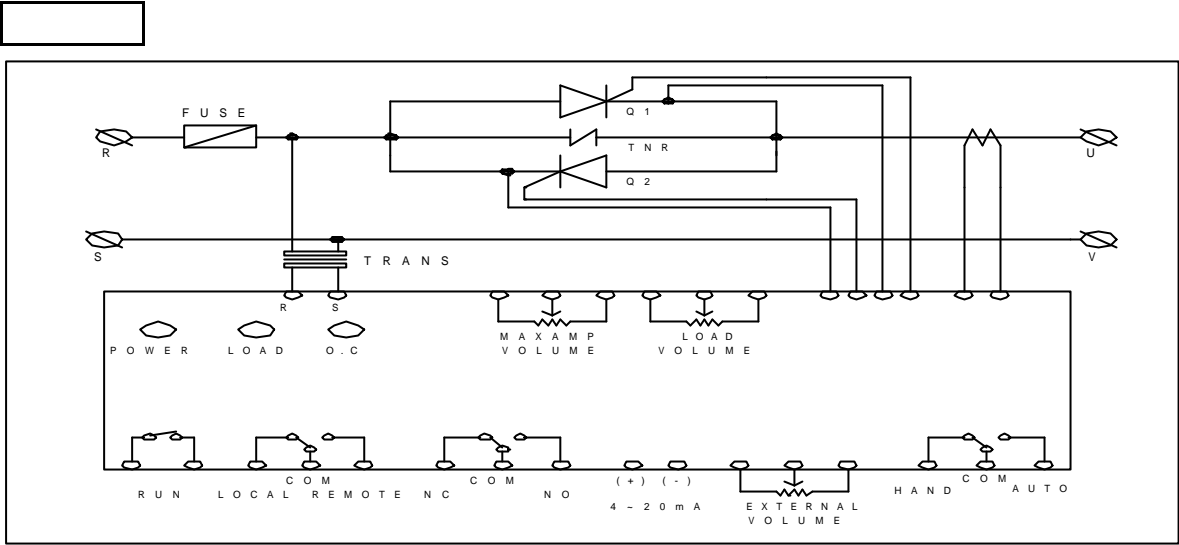   AC   AC

.   (CYCLE CONTROL)
                                                ON/OFF
              .   ON/OFF   AC ZERO   ON
      OFF   NOISE   .
  @   ,   .

┌────────────┐
│   │
└────────────┘

1. **HIGH SPEED FUSE**

   .   (HEATER   ) :
   1)   100%   (HEATER)   .
   2)   (U.V)   .
   3)   .
   . (TRANSFORMER   ) : 1   NOISE

2. **(O.C LED)**

   . GREEN LED **:** 4~20mA
   . RED LED **:**
   1) LOAD.AMP VOLUME   O.C
   2)   .
   3) LOAD.AMP VOLUME   .
     @ O.C LED   .
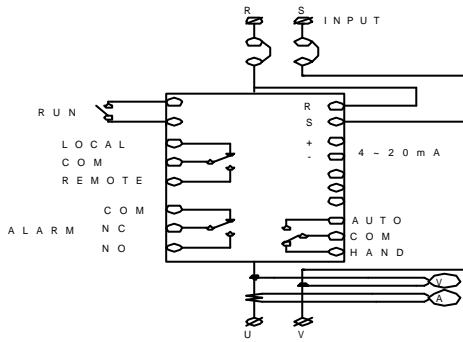   @ UNIT   RUN   SOFT START   .
   . YELLOW LED **:** HEATER   20 %
        .

3.

   . (HAND)   100 %   AUTO(TIC 4~20mA   )
         UNIT   4~20mA   (+, -)   4~20mA   .
   .TIC   SETTING   5
              . @
   .UNIT   FAN   SCR   .
   .HEATER   SCR   P.C.B
                          .

   . OPERATION PARTS   .
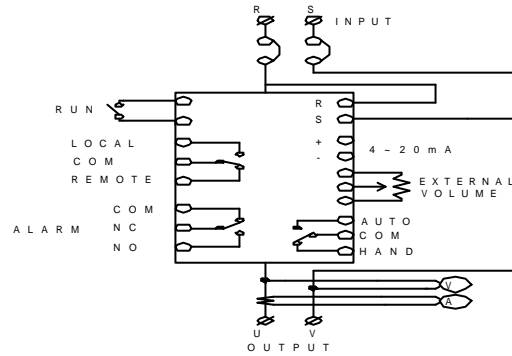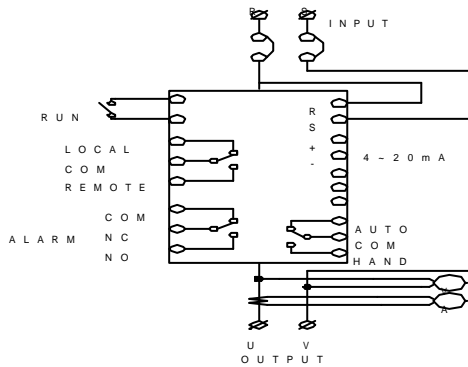   . CONTROL TRANSFORMER   .

. (ON/OFF)

(volume) (volume)

. (4~20mA)

(volume) (volume)