

사용설명서

COMPU-SONIC UF-4500



SECHANG INSTRUMENTS

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.....



(가)

가

()



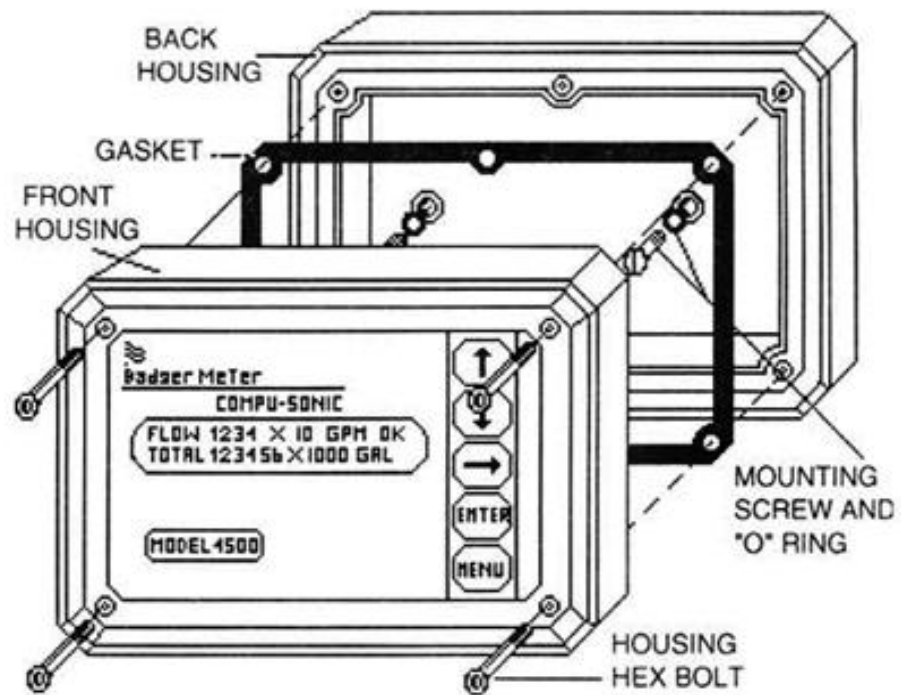
4500 NEMA 4X,
1/4-20 x 3/4 inch 2 O 1/4-20 x 3/4 inch 2 가

4500
O

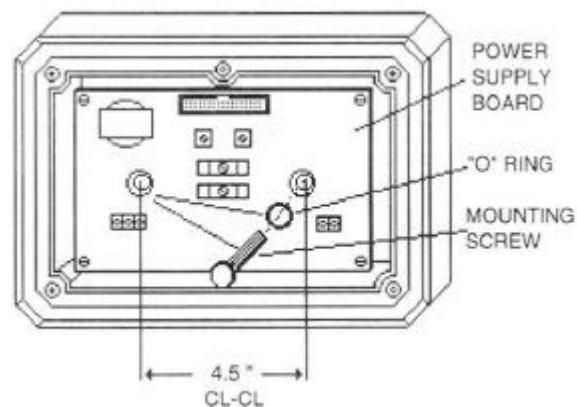
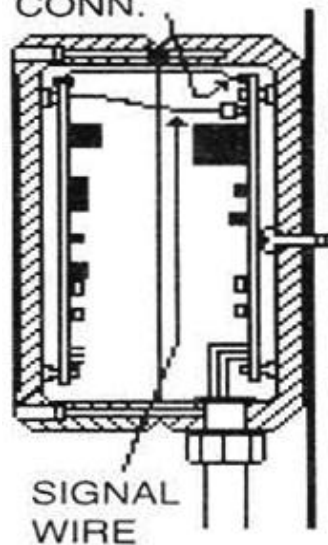
4 5/32 (2-1).

:
() 가 (2-2).

4.5 inch (2-3)
O 3/8 inch
() 가 ()



RIBBON CABLE CONN.



115 230 VAC
. AC

. AC

가

1000



.....

SECHANG INSTRUMENTS

.....

3. 1-1/8"

4. 3/4"

5. 1/2"

() TB4 1 2
1 , TB4

2 ,

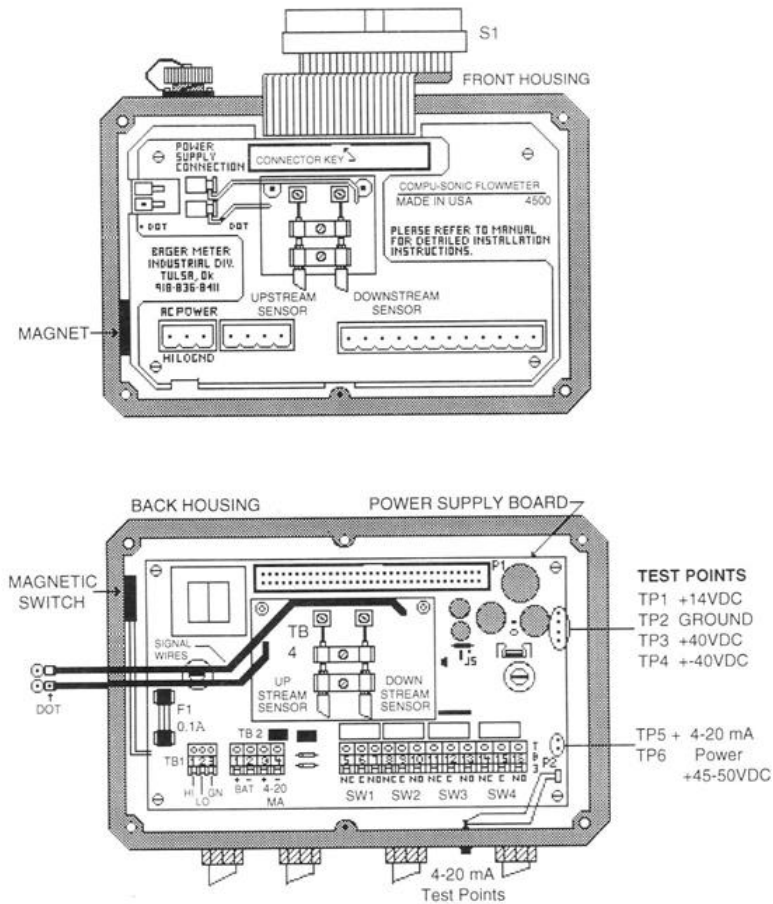
2-6 () ,

S1 () P1

()

. 4

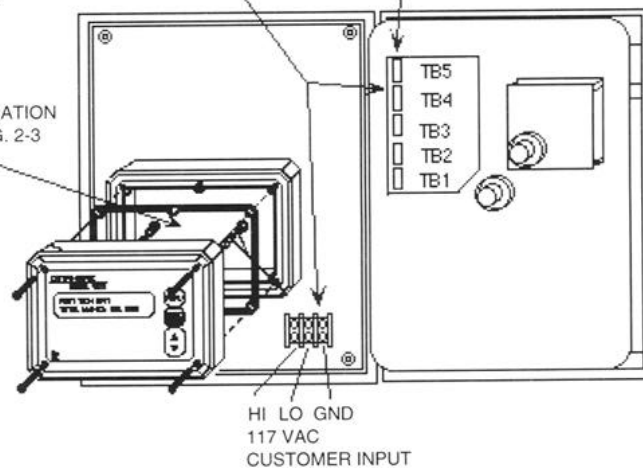
[2-7], [2-8] 3000+ 가
4500

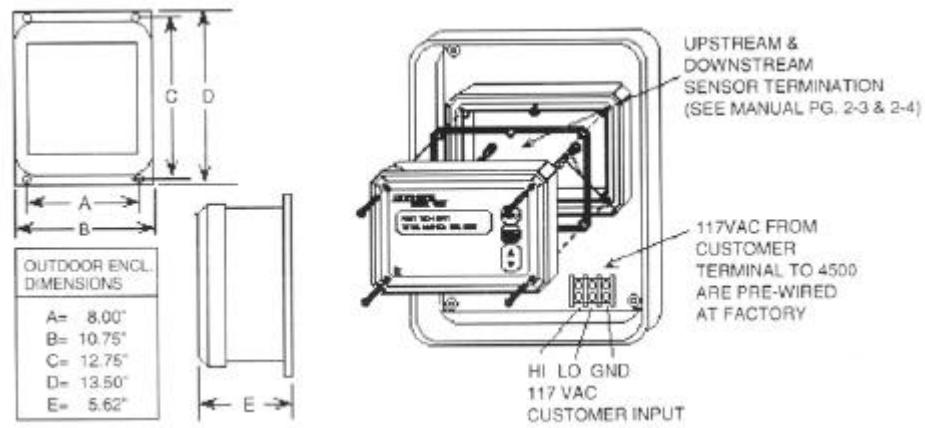


117VAC FROM CUSTOMER TERMINAL TO 4500
AND RECORDER TERMINALS AND 4-20 MADC
SIGNAL FROM 4500 TO RECORDER ARE PRE-WIRED
AT THE FACTORY

RECORDER ACCESSORY OUTPUTS
SEE RECORDER MANUAL PG. 4

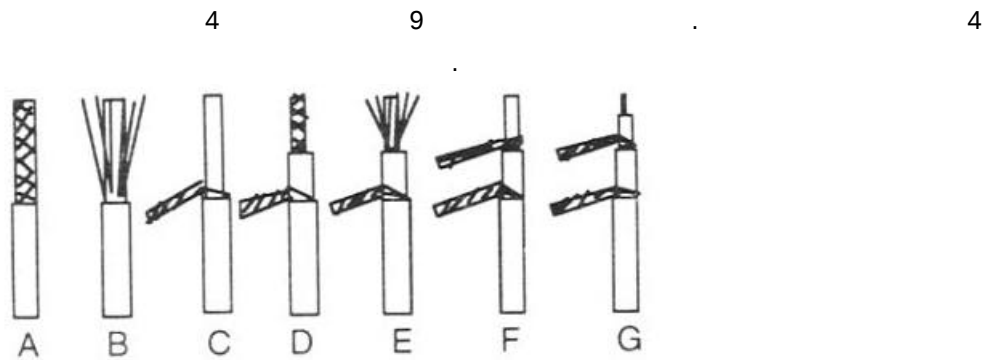
UPSTREAM &
DOWNSTREAM
SENSOR TERMINATION
(SEE MANUAL PG. 2-3
& 2-4)



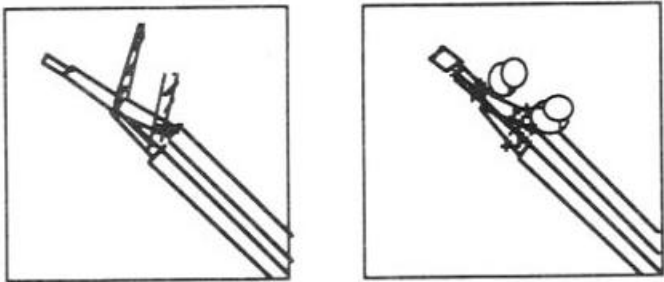


triax

* cap crimp (18-12) 4
 * center conductor cap crimp (22-14) 2
 * 1
 * 2
 crimp



2
 A
 B
 C
 D
 E
 F
 1
 1/2



18

1

multimeter

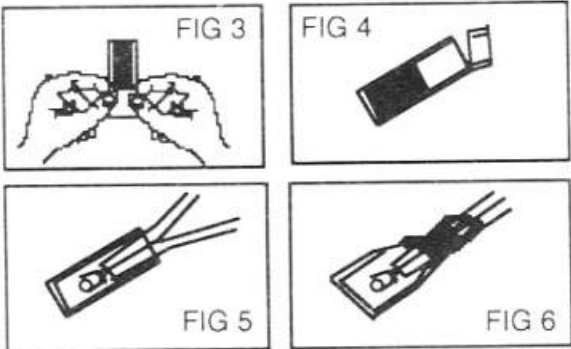
, cap crimp , 2

OK 가

"OFF"

scotchlok

- 1.
- 2.
- 3. 가 (3)
- 4. 가
- 5. 24-30
- 6. (4)
- 7.
- 8. 가



[3, 4, 5, 6]

triax

3M scotchlok #3570

cyclohexene 2

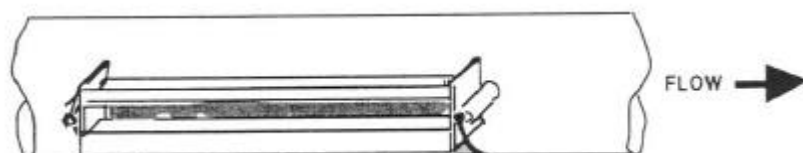
cyclohexene 2

가

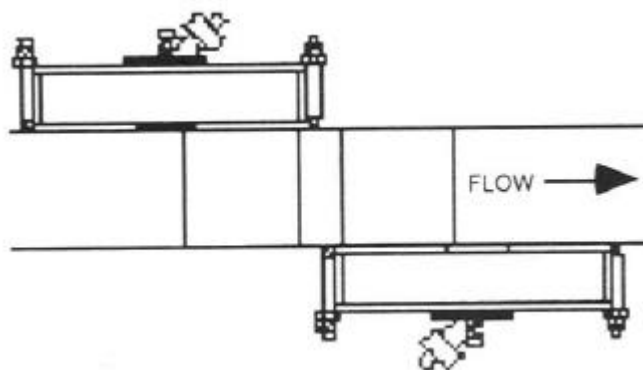
10

4500

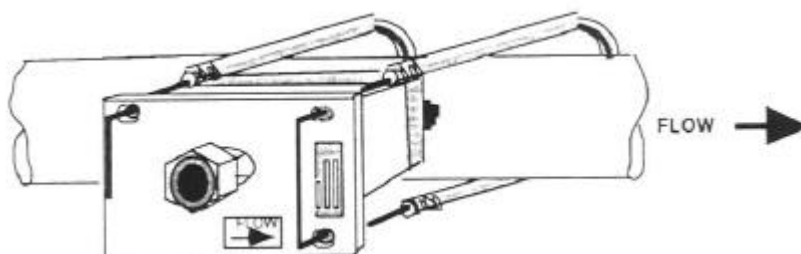
V-shot



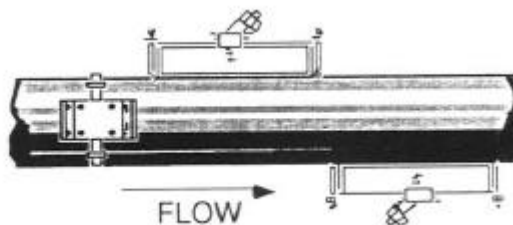
Z-shot

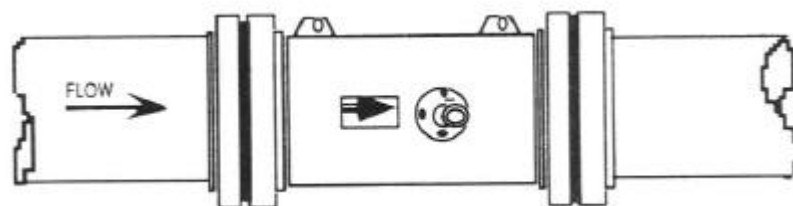


2

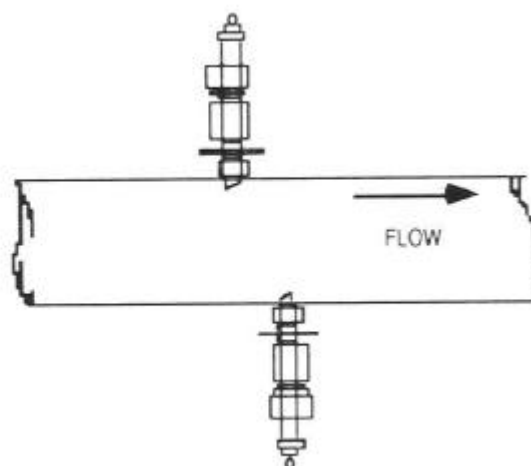


Hi-temp

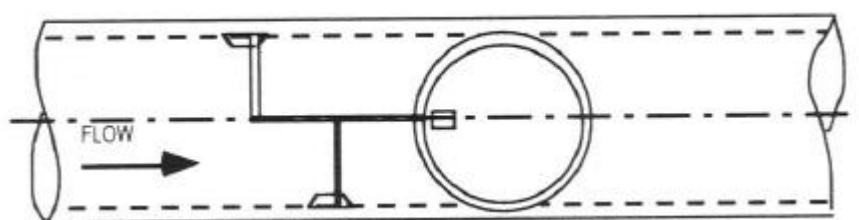




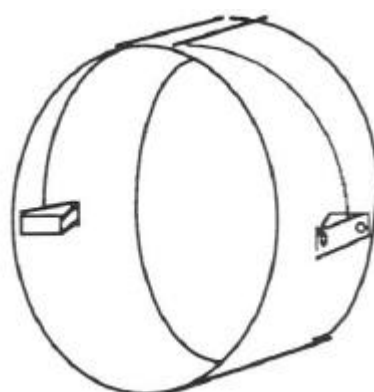
HS3 'hotshot'



instream



hoop

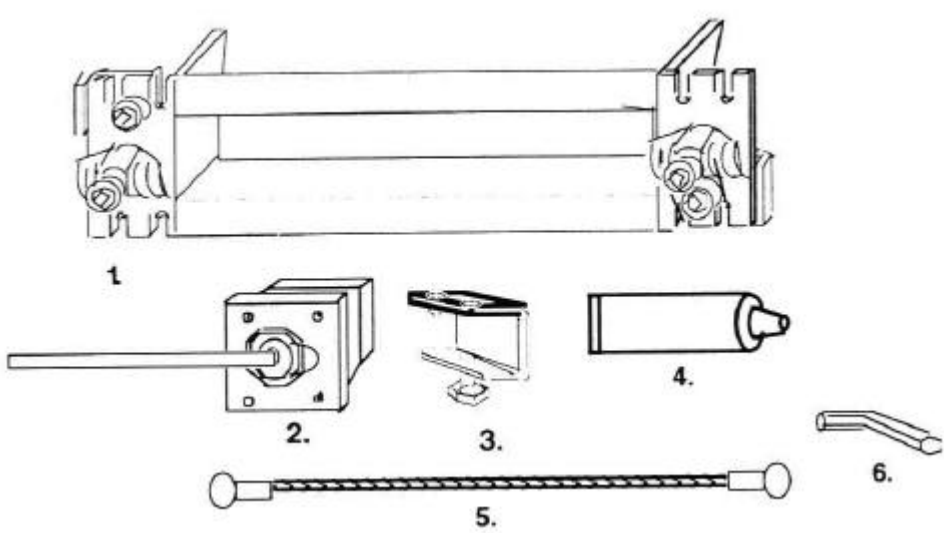


4500

3 가

7	A, B, C	35	G
14	D	42	H
21	E	49	I
28	F	56	J

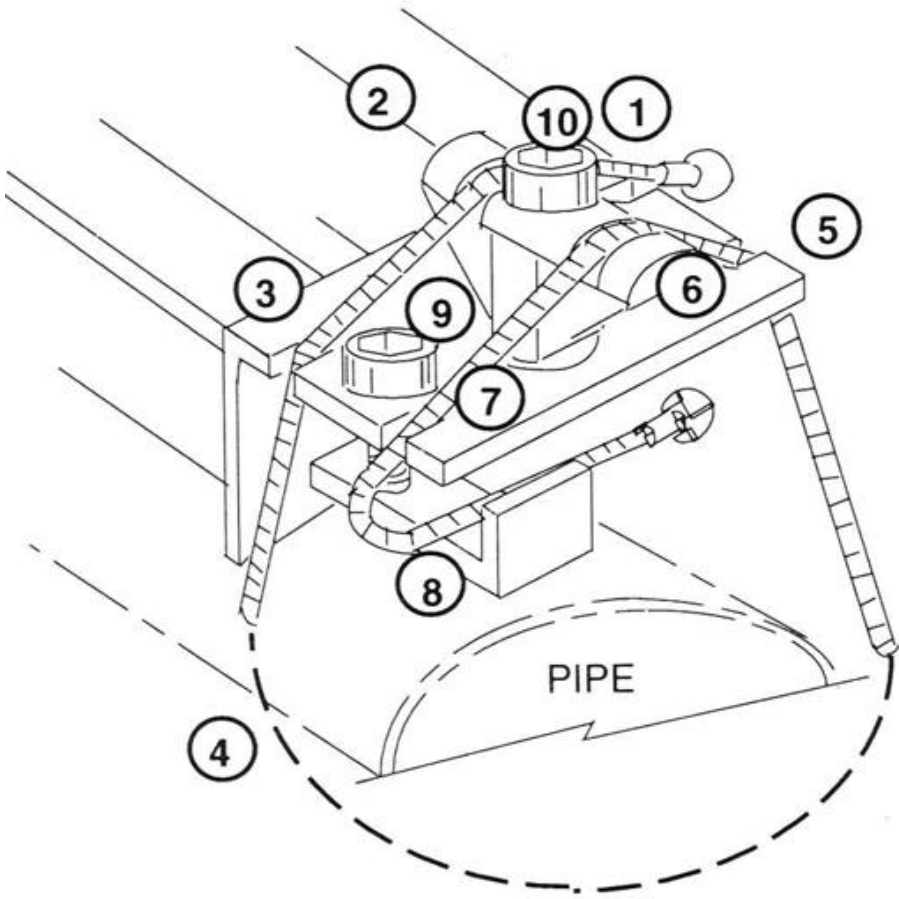
4000 V-shot



1	304 S/S	1
2	W/100 FT.	2
3	7/16	4
4	()	1
5	1/8" ()	2
6		1

:

()



1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

(9)

(9)

가

(10)

(4)

PVC

(2)

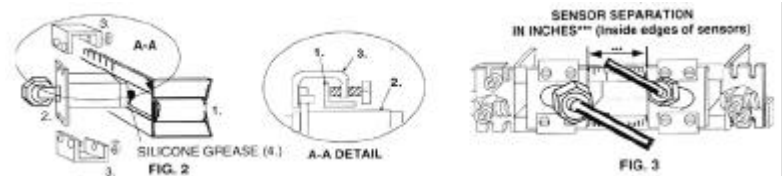
(1)

()

3

(3)

A-A



IOM

가

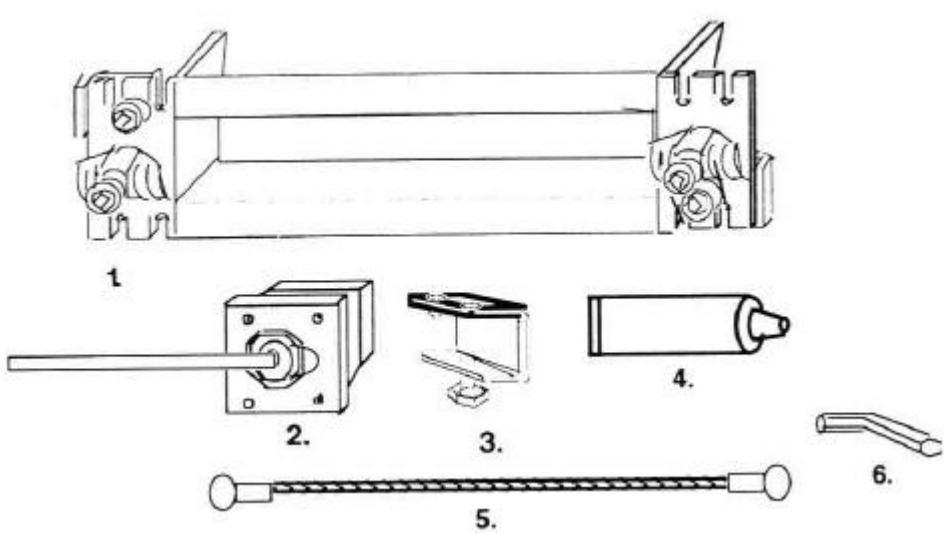
“Offset #.### Inches”

0

(3)

IOM

4000 Z (B)



1	304 S/S	2
2	W/100FT,	2
3	7/16	4
4	()	1
5	1/8" ()	4
6		1
7	()	1

:

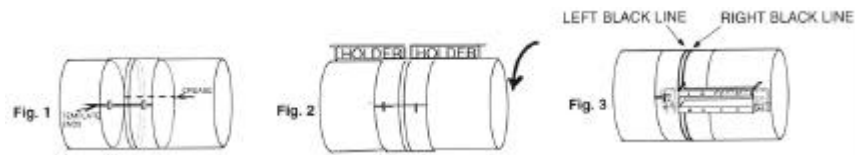
(shellac :

)

(7)



(1).

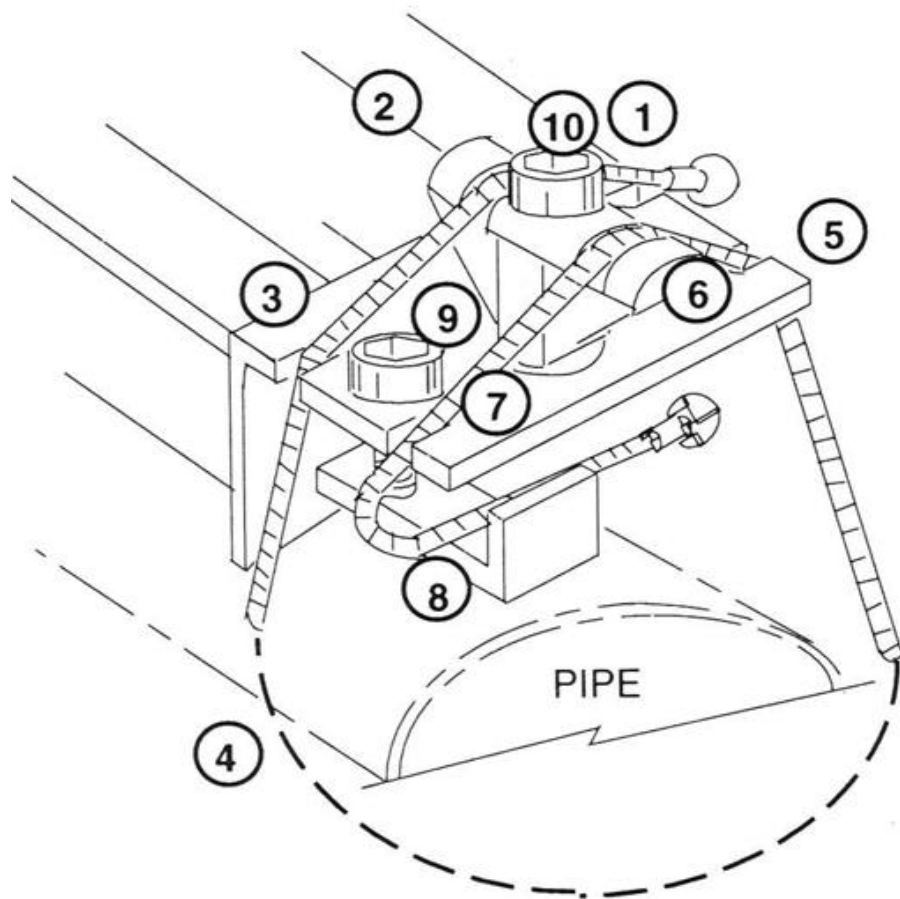


(1)

가
2, 3).

(
가

(2, 3).



()

1.

2.

3.

4.

(9)

- 5.
6. (9)
- 7.
- 8.
- 9.

10. 가
- (10)

- (1) PVC (2)
- (3) 4 A-A

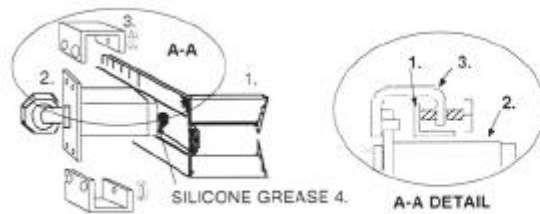


FIG. 4

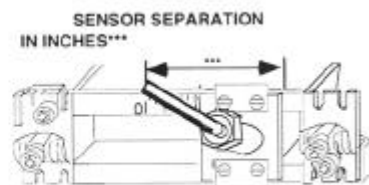
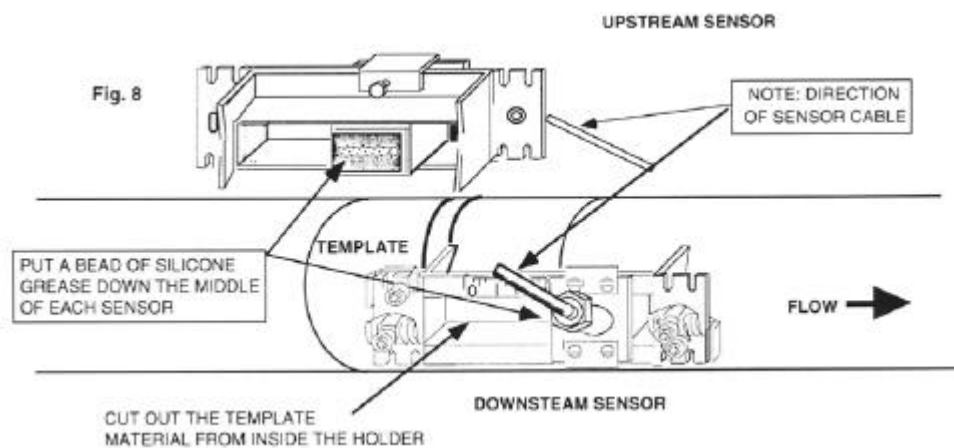


FIG. 5

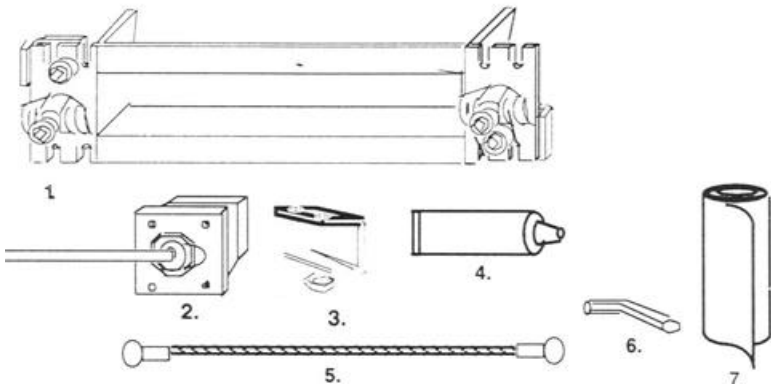
- IOM 가
- "Case-B Offset #.### Inches"

- "0"
- 2 1/2
- (3).

IOM



- 4000 Z (C-J)



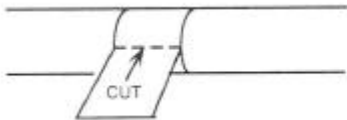
1	304 S/S	2
2	W/100FT,	2
3	7/16	4
4	()	1
5	1/8" ()	4
6		1
7	()	1

:

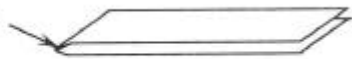
(shellac :

)

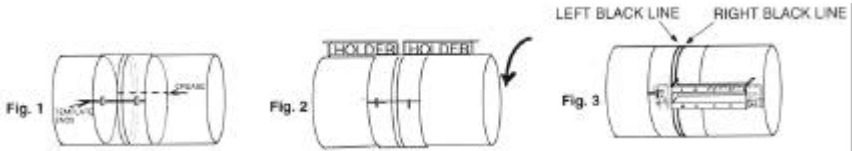
(7)



CREASE



(1).



(1)

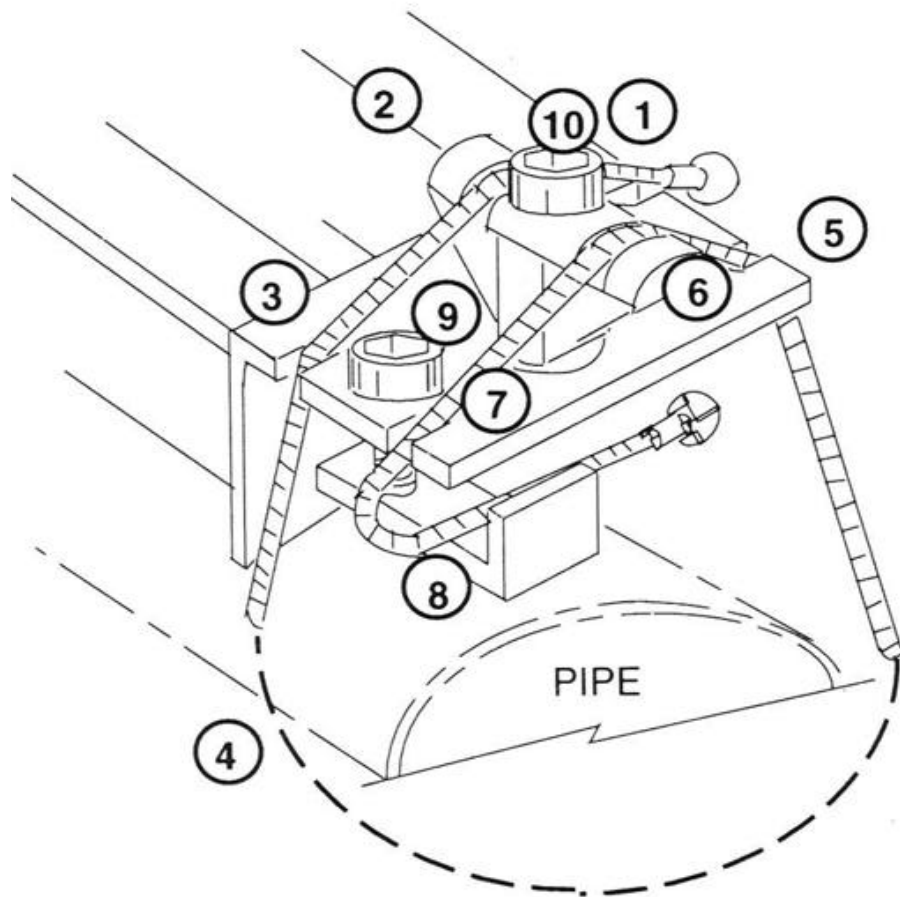
가

2, 3).

(

가

(2, 3).



()

1.

2. (9)

3.

4.

5.

6. (9)

7.

8.

9.

10. 가

(10)



FIG. 4

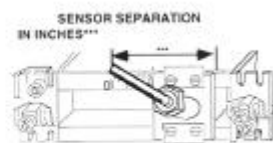
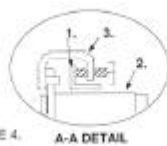
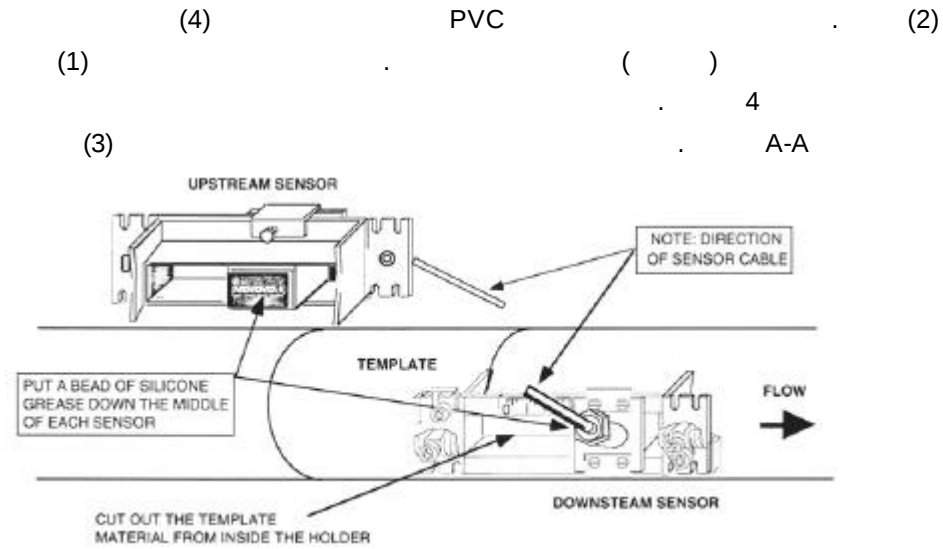


FIG. 5



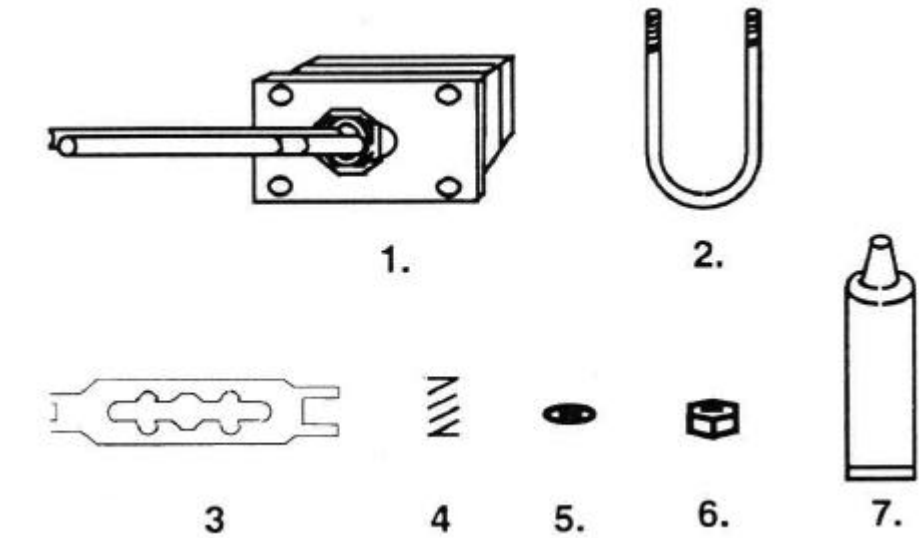
IOM 가

“Case GJ Offset #.### Inches”

”0“ 2 1/2 (3).

IOM

4000, 2



1	2	1
2	U	2
3	7/16 X 1/2	1
4		4
5		4
6	1/2-13 S/S	4
7	()	1

.....

:

(4) PVC 가 (1
(1) U (2) (5), (4), (5)
) U (6) U U

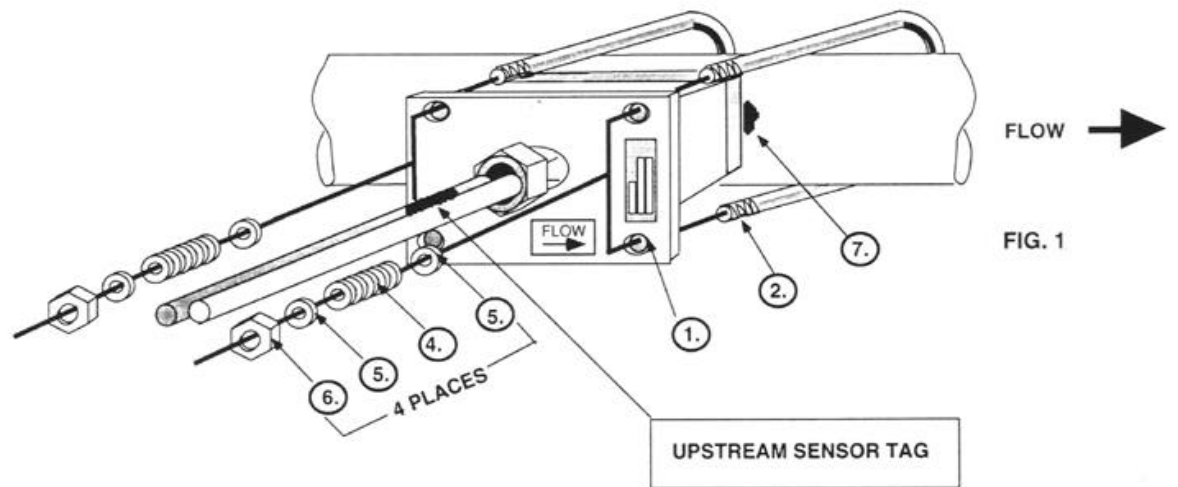


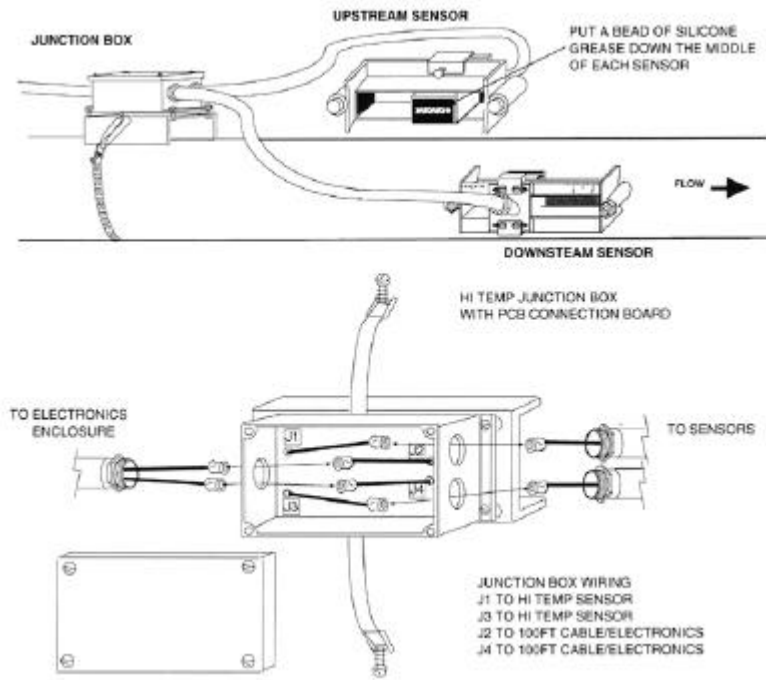
FIG. 1

가

(6) 0.75 (19mm)

4000

:



1.

2.

3.

4. BNC J1, J3

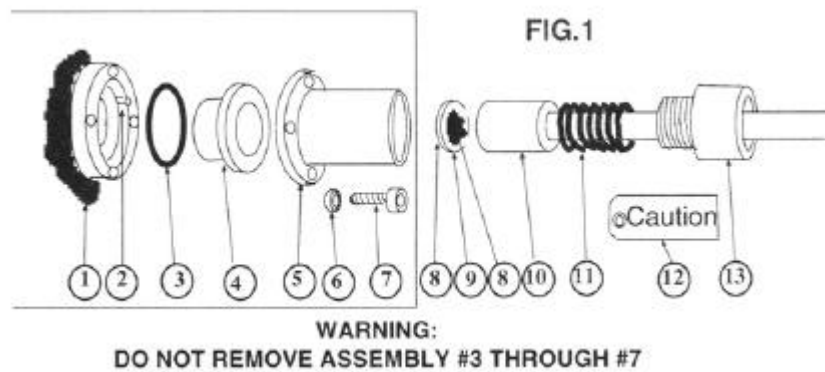
5.

6. BNC 100ft (30.4m) BNC J1, J2

7.

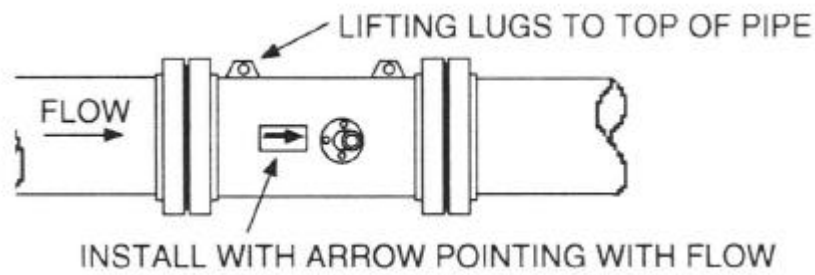
8. 4500 IOM

4000

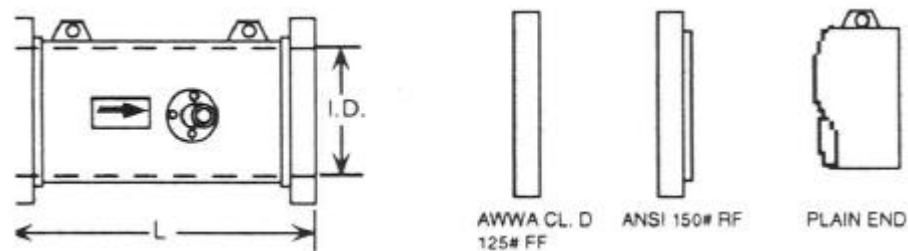


3 - 7

- 1.
- 2.
- 3. O
- 4.
- 5.
- 6. (4)
- 7. (4)
- 8.
- 9.
- 10.
- 11.
- 12.
- 13.



가 가 . ()



L = (:)

	3	4	6	8	10	12	14	16	18	20	24	30	36	42	48
"L"	12	12	12	14	15	18	21	24	27	30	36	30	36	42	48

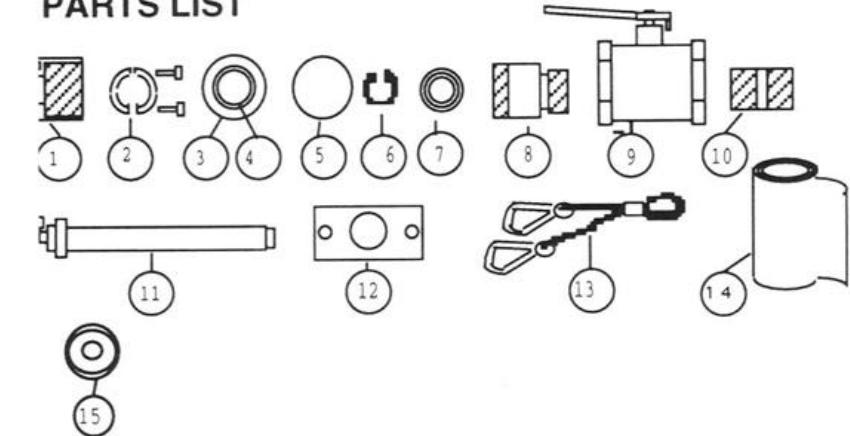
- 1. (13)
- 2. (13)
- 3. (11) (10)가 (5)
- 4. (4)
- 5. : 6" ()
- 6. (111 ,) 1/32"

7. : 가 , (7)

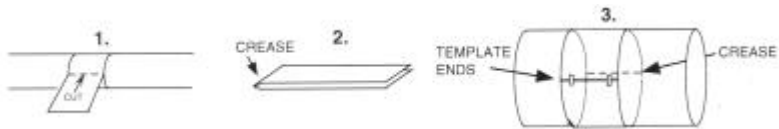
8. .(1)

4000 HS3

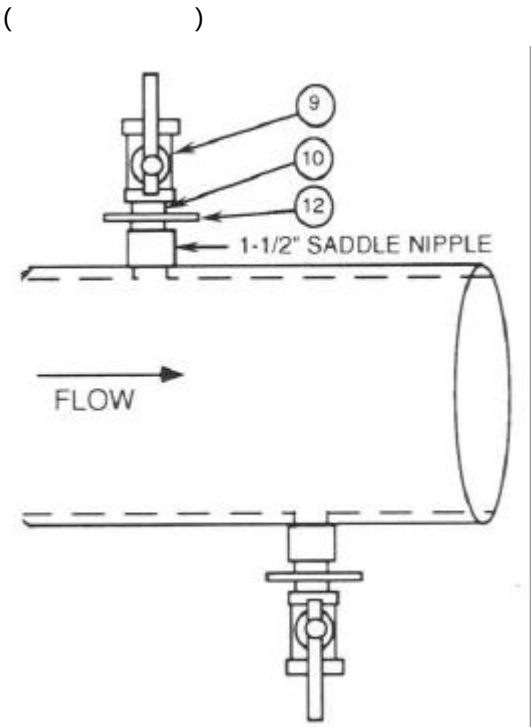
PARTS LIST



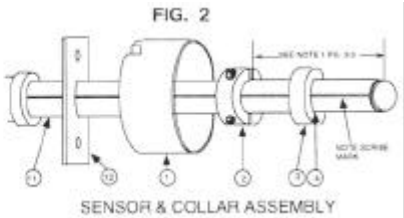
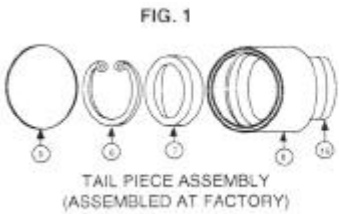
1	BRZ	2	9	BRZ	2
2		2	10	1-1/2"	2
3		2	11	W/100'	2
4	O 1.287 X 2.7	2	12		4
5	O 2.112 X 2.318	2	13		4
6	2	2	14		1
7		2	15		1
8		2			



가 1-1/2" (4).



- 1.
- 2. (10)
- 3. (12)
- 4. (9)
- 5. (TAPPING) (1-1/2").
- 6. 1.38" ()
- 7. () ,



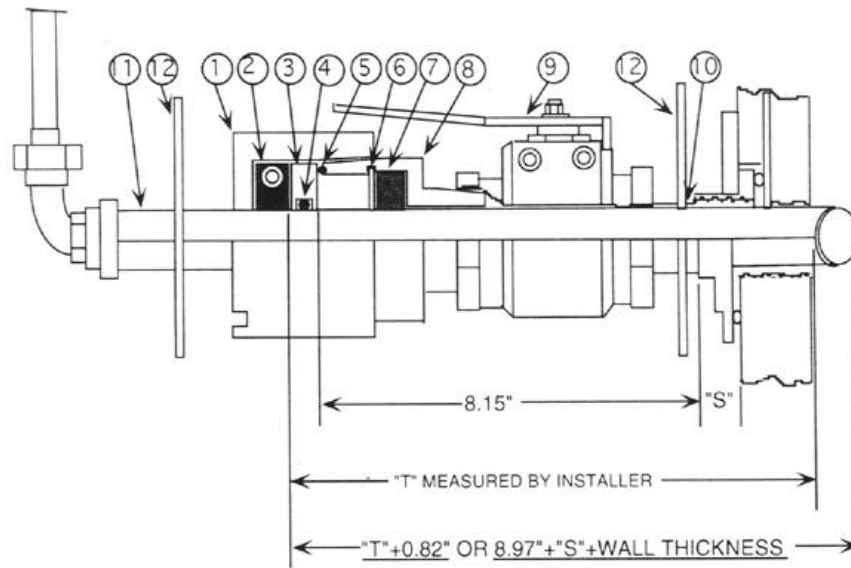


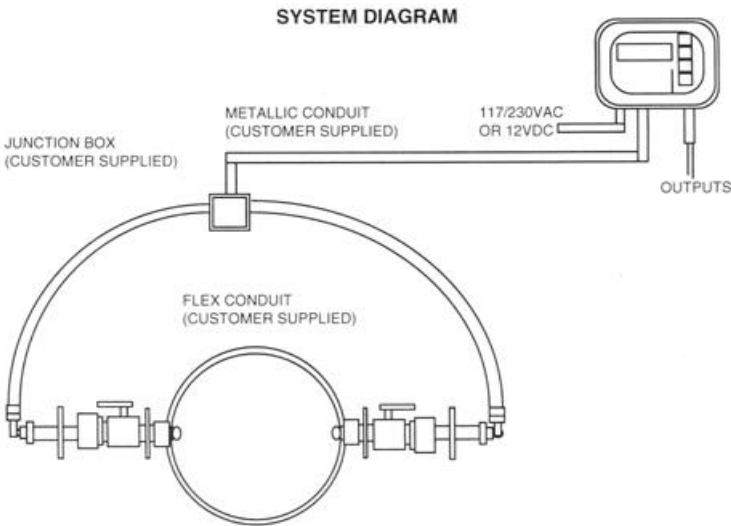
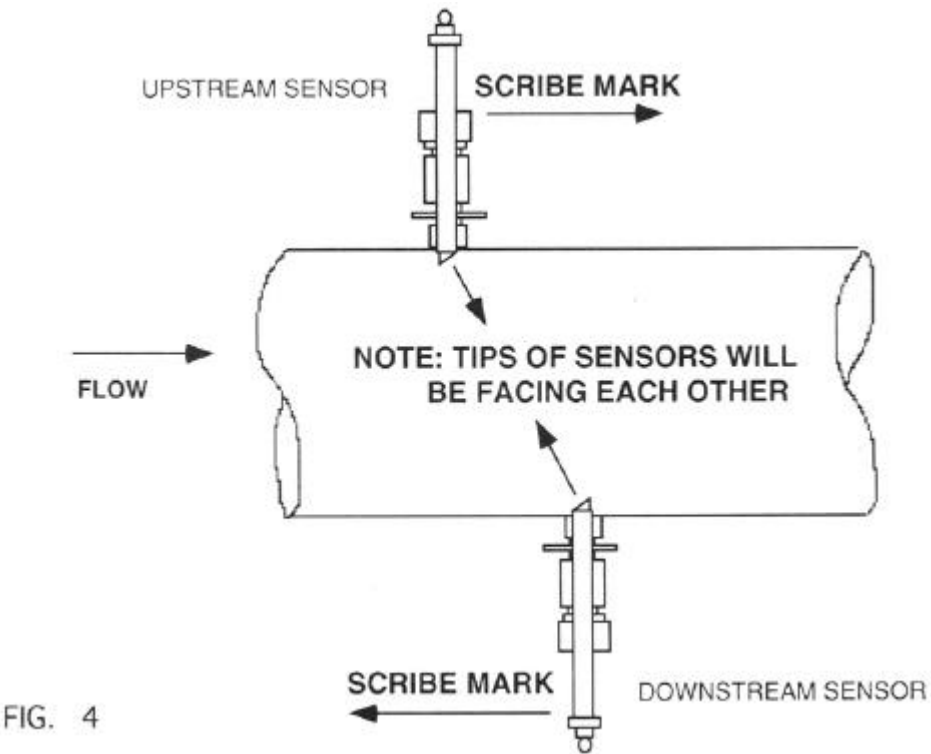
FIG. 3

S =

T =

1 :

1. (1, 5, 6, 7, 8) (9) .
2. BRZ (11) (2) .
3. (2) , 가 가
4. O (3,4) (2)
5. 가
6. (7) , 가
7. () (3)가 (5, 8) O
8. (1) (8) 1/16"
- 9.



4000 instream

instream

가

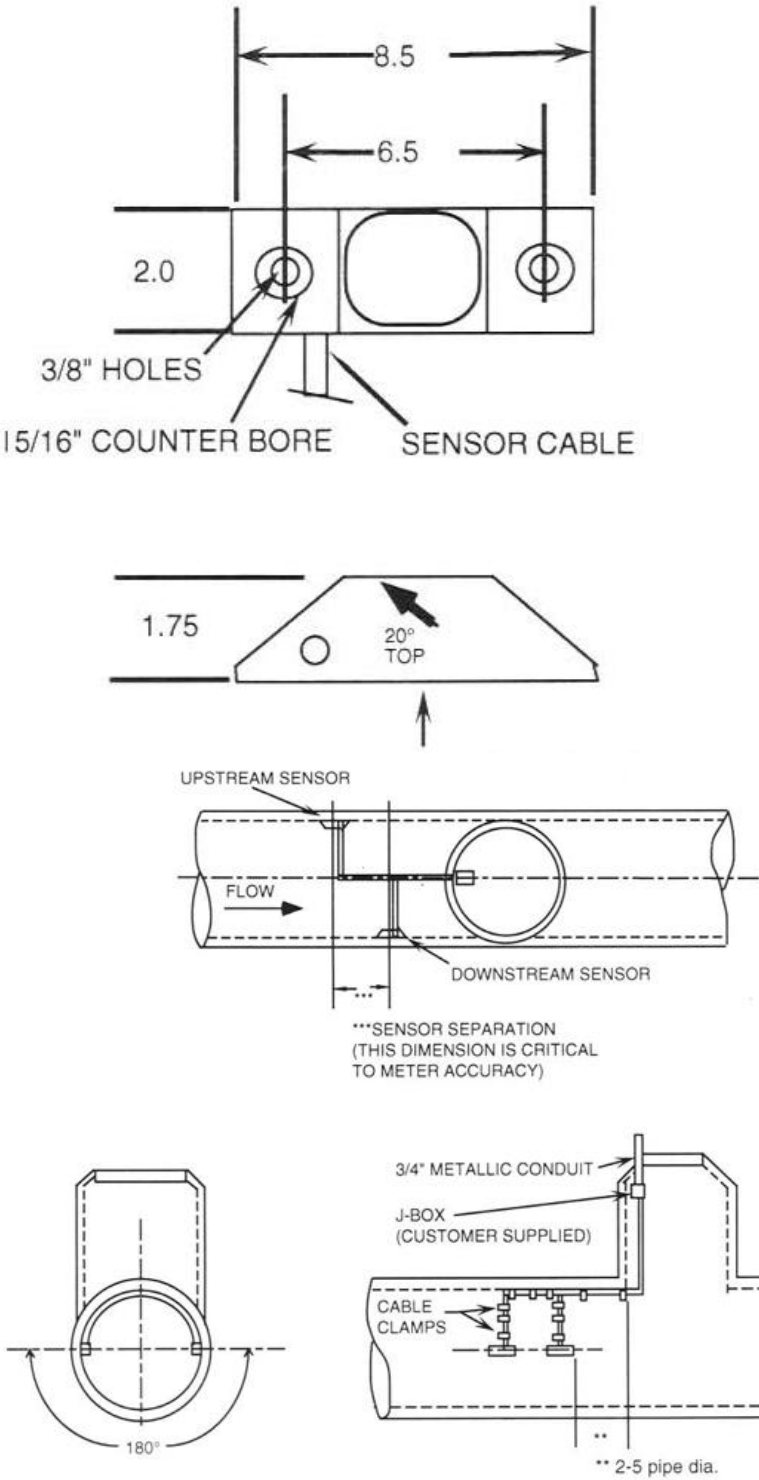
가

PVC , 50 ft

Belden triax

=_____ inches.

4500



4000

4500

.....

(2).

2
4500

1.

2. 1 . 8-32 ()
()

가 , Bellville ,

3.

2-5 2
3 가 90 , 270

4.

가

5.

"C"

"C"

가

가

"C"

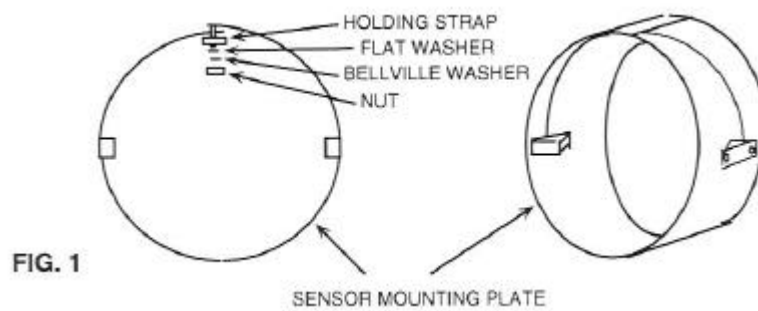
가

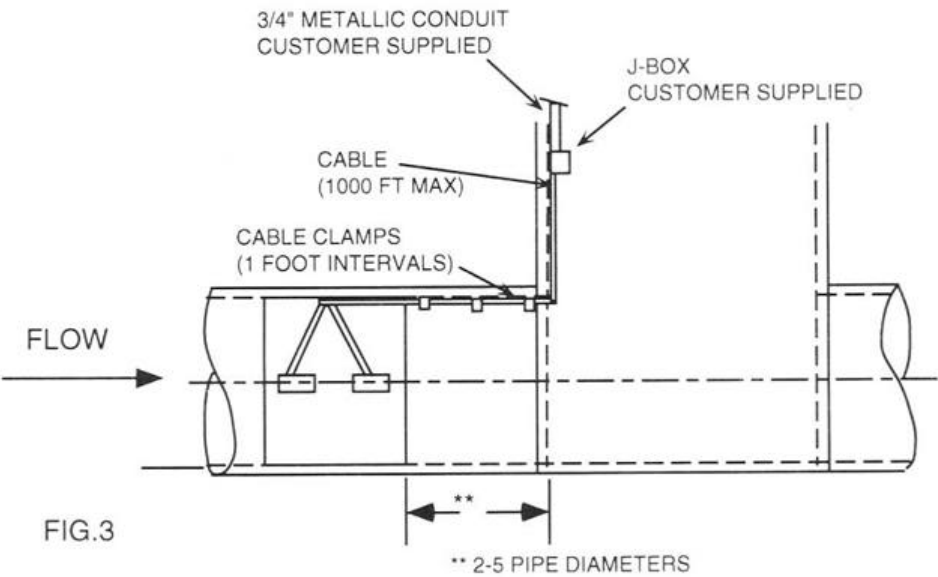
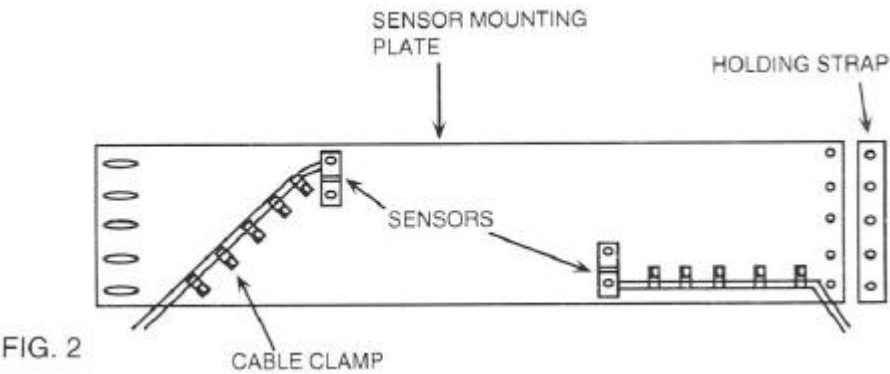
"C"

6.

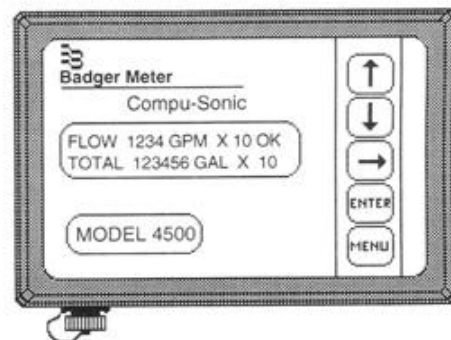
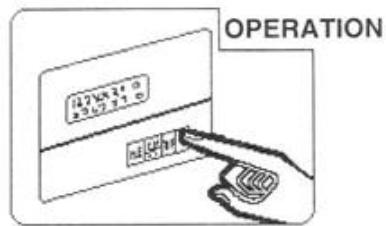
3

7.





.....



4500

2 x 24 ' LCD , 4-20 mADC , 4
RS232

4500

[MENU]

[MENU]

Status Mode() Calibration Mode()

Status(), Calibraion()

[MENU] Calibration() [MENU]

가

[MENU]

가

0000

()

3-5 3X
OK가

FLOW 3480 GPM X 10 OK
TOTAL 458932 GAL X 1000

, FLOW 가
가

F , R

FLOW F 3480 GPM X 10 OK
TOTAL 458932 GAL X 1000 F

가

[MENU]

가

4500

가 , [MENU]

PRESS UP FOR CALIBRATION
PRESS DOWN FOR STATUS

Measurement Data
Press UP to Activate

ZOF = 0000 NOR = BE38
DEL = A9C2 T12 = 02C4

, ZOF , NOR , DEL
, T12

ERR = 0000 AGC = 25024F
SIG: □ □ □ □ □ □ □ □

ERR, AGC
SIG .

automatic gain control ,

AGC 16

9F, 10

Self Test
Press UP to Activate

SELF TEST
TRANSMIT: <<PASSED>>

	PASSED	FAILED
--	--------	--------

가

SELF TEST
RECEIVER: <<PASSED>>

가, PASSED

D FAILED

가 .

EEPROM

EEPROM 가

가

Short'

T12 Long'

SELF TEST
EEPROM: <<PASSED>>

EEPROM

"TESTING" "PASSED"

"FAILED"

SELF TEST
***** Completed *****

Flow Simulation
Press UP to Activate

, 4-20 mA

FLOW 0000 GPM X 10 SM
Badger Meter Inc.

SM 가

[MENU]

, 2500 GPM

2

5

0250

'X 10'

2500 GPM

[MENU]

[MENU]

4500

- 4-20 mA Calibration - (4-20mA)
- Meter Rescale -
- Meter Factor -
- Zero Offset -
- Totalizer -
- Response Time -

- Failure Mode -
- Integrator Configuration -
- Remote Tot Configuration -
- Set Point Configuration - ,
- Relay Configuration - 4
- Security ID -

가 [MENU]

PRESS UP FOR CALIBRATION
PRESS DOWN FOR STATUS

SECURITY ID
Input 4 dlgit Id - - - -

4500

, , . 4 가

4-20mA Calibration
Press UP to Activate

4-20mA

4-20mA Calibration
ZERO WORD = 2300

4mA . 4-20mA

. 4-20mA

. ZERO WORD

4-20mA Calibration
SPAN WORD = AD00

20mA . 4-20mA

. SPAN WORD

Meter Rescale
Press UP to Activate

Meter Rescale
Full Scale 9000 X 10

(20mA).

, , 9000 10000
, , 0
, 'x 10' 10000
1000
, 가
, 가

: 4-20mA 4-20mA

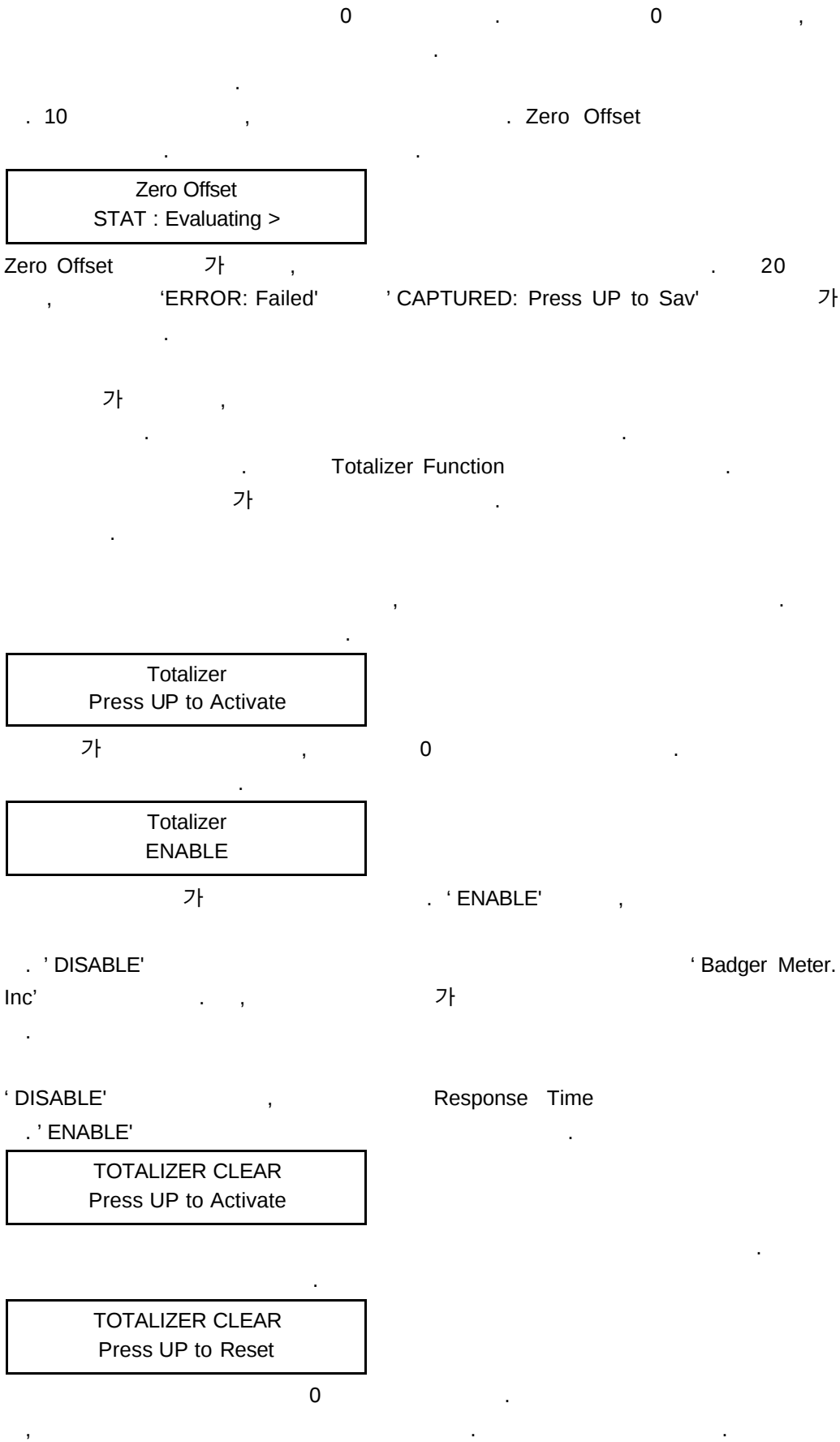
Meter Factor
Press UP TO Activate

4500

Meter Factor
Meter Factor = 1.000

0.800 1.200
, 5.6%
, 1.056
1.000
5.6% 0.947(1/1.056)
, 9
, 4
, 7 [MENU]

Zero Offset
Press UP to Activate



Response Time
Press UP to Activate

Response Time
Response Const : 007

1-7
1 = 2 , 2 = 4 , 3 = 8 , 4 = 16 , 5 = 32 ,
6 = 64 , 7 = 128

Failure Mode
Press UP to Activate

(Zero, Full Scale, Hold Last Reading). Zero 3 4mA
Full Scale 20mA Hold Last Reading

Failure Mode
FAIL TO : ZERO _

(Zero, Full Scale, Hold Last Reading)

Integrator Configuration
Press UP to Activate

Integrator

Contact Integrator
0001 X 1000 GAL

10,000 가 1000
1
0

Integrator Pulse Width
ON FOR 0002 X 0.010 SEC

50 1000 1
0002 0005 , 0.050 / 0.010 = 5.
5

Remote Tot Configuration
Press UP to Activate

가

Remote Tot Pulse Width
ON FOR 0005 X 0.010 SEC

80 1000 1
0005 0008 , 0.080 / 0.010 = 8.
8

Set Point Configuration
Press UP to Activate

SETPOINT = 01
ON AT 00.0% OFF AT 00.0%

dead band 1
ON OFF , ON
OFF 90% , ON 90.0 10% dead band
OFF 80.0 가 OFF

SETPOINT = 02
ON AT 00.0% OFF AT 00.0%

2 1

RELAY CONFIGURATION
Press UP to Activate

4 가

RELAY ASSIGNMENT
RELAY 01 => NONE

1

- NONE -
- DIR -
- TX -
- LOS -
- EEPRM - EEPROM
- TOTL -
- CINT -
- PNT#1 - #1
- PNT#2 - #2

2 , 3 , 4 . 1 . 4

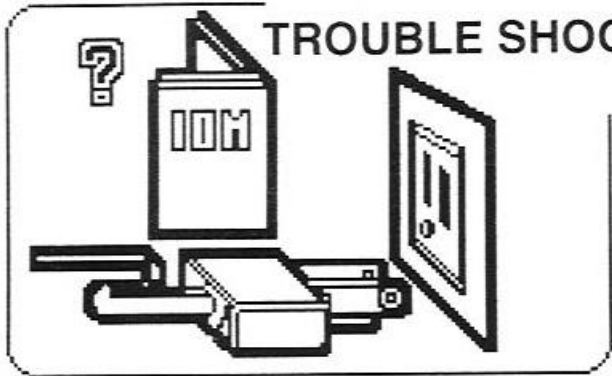
SECURITY ID
Press UP to Activate

가

SECURITY ID
Input 4 Digit Id 0000

16 , 1-9, A-F

[MENU]



. IOM

, 가

가

XXXX

가

가

, XXXX 0000
OK 가 .

가

OK가

CM - 가

.....

NOR - 16 , %
 DEL - 16 , %
 T12 - 100 1 16
 ERR -
 AGC - 16
 (9F, 10)

4500 , 가

4500 ,
 4500

() ()
 5-1 , 4-20mADC
 O

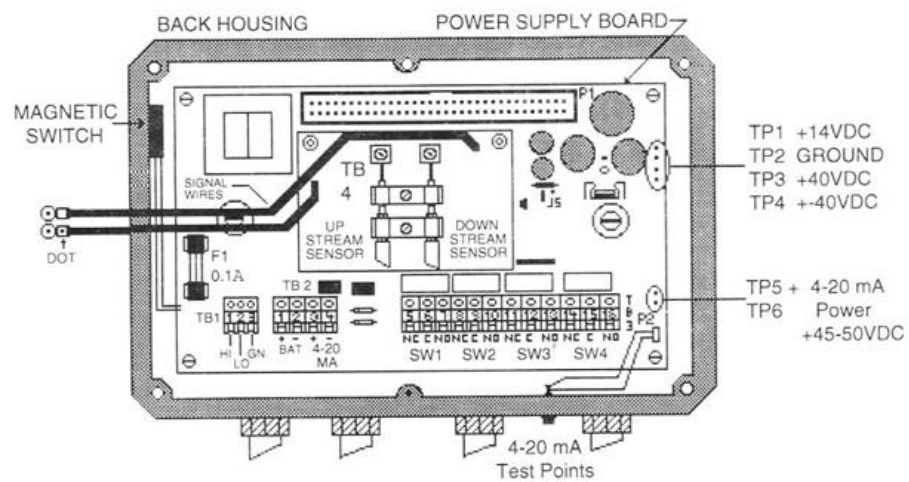


FIGURE 5-1

4500 가

(1)

1 3 5-2 ()

5000 +/- 5%

10,000 +/-

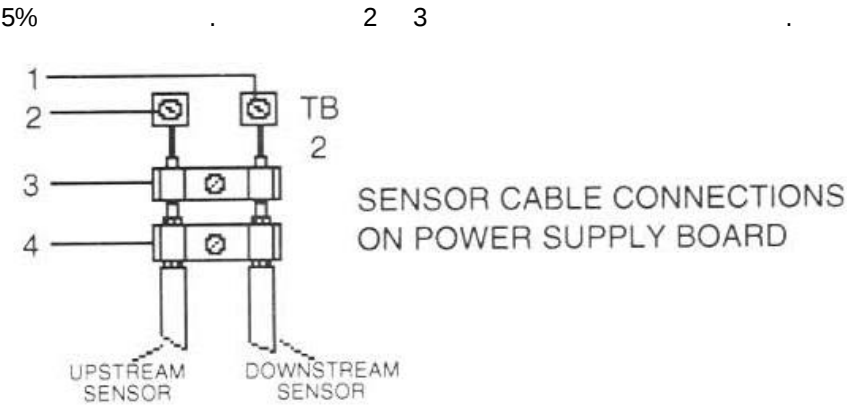
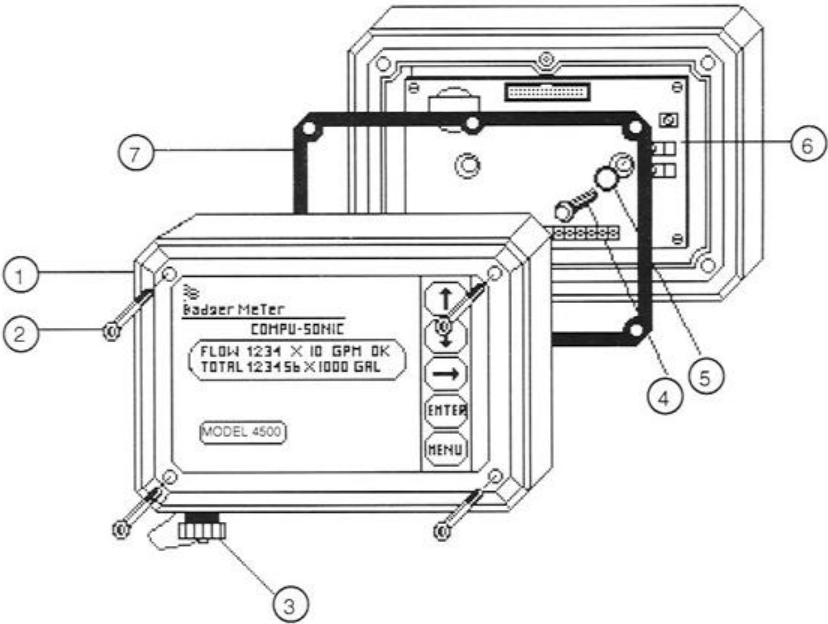
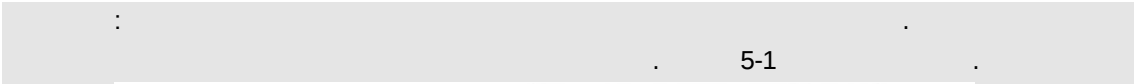


FIGURE 5-2

3 4

1 4 2 4

(2)



+14VDC () 1, 2 14 VDC

SECHANG INSTRUMENTS

.....

+/- 2 가 .

+40VDC

() 2, 3

.

40 VDC

+/- 1 가 .

-40VDC

() 2, 4

.

4-20

() 5, 6

.

AC

, 45 - 50 VDC

.

.....

.....

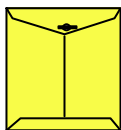


Ultrasonic Flowmeter 4500



1 : 1998 8 18

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Bader Meter Inc.



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364-38

TEL : 332-7511 ()

FAX : 332-5912 ()

ID :

e-mail : sechang@sechang.com

Internet Website : <http://www.sechang.com>

