

45:1 NITROGEN BOOSTER

MODEL NUMBER ENB-45

INSTALLATION, OPERATION & MAINTENANCE MANUAL

INTERFACE DEVICES, INC.
230 DEPOT RD.
MILFORD, CT. 06460

PH: 203/878-4648
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45:1 NITROGEN BOOSTER
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1.0 INSTALLATION

1.1 MOUNTING:

The booster comes standard with foot mounting brackets at each end of the pump (for 1/4 inch screws).

The unit may be mounted vertically (wall mount) or horizontally (floor mount).

1.2 CONNECTIONS:

Connect CLEAN AND FILTERED shop air (**150 psi maximum**) to the 1/2" NPT "AIR IN" port on the pump. NO Air Regulator or Lubricator is required.

Connect your gas SOURCE to the 1/4" NPT "IN" port.

Connect your high-pressure circuit to the 1/4" NPT "OUT" port on the pump.

1.3 STARTUP:

Connect the compressed air supply to the pump.

If the unit is supplied with the optional on/off air toggle switch, move it to the "on" position.

Starting with the integral air regulator (on the pump) backed-out all the way, slowly increase the pressure by turning the regulator knob clockwise. The pump will start to cycle and the "OUT" nitrogen pressure will rise. Continue to increase the pressure until the desired nitrogen pressure is obtained.

The pump will stall when circuit pressure reaches your setting. The pump will maintain this pressure even if there is some circuit leakage. At this time check for and fix any circuit leaks since this only causes unnecessary air/nitrogen consumption and wear and tear on the pump.

NOTE: 5,000 PSI may be obtained under the following conditions:

- 1) 115 PSI plus compressed air supply
- 2) 500 PSI minimum nitrogen supply pressure

2.0 MAINTAINENCE:

2.1 ROUTINE MAINTAINENCE:

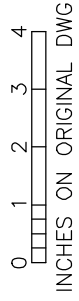
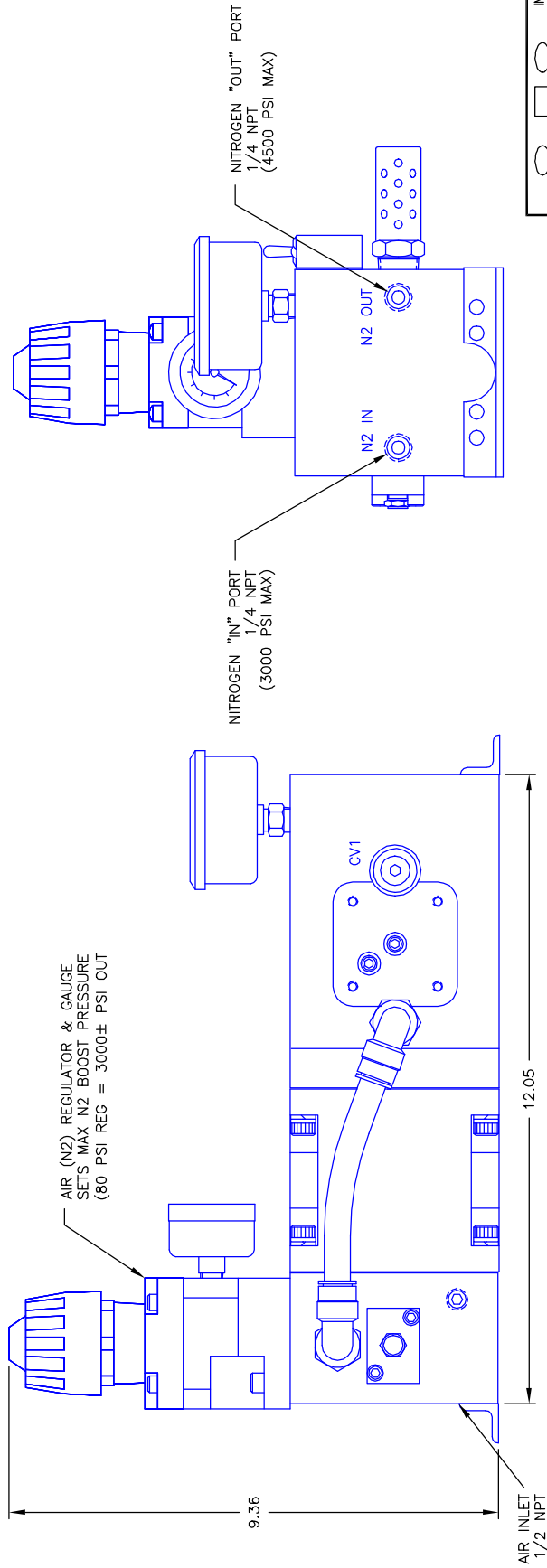
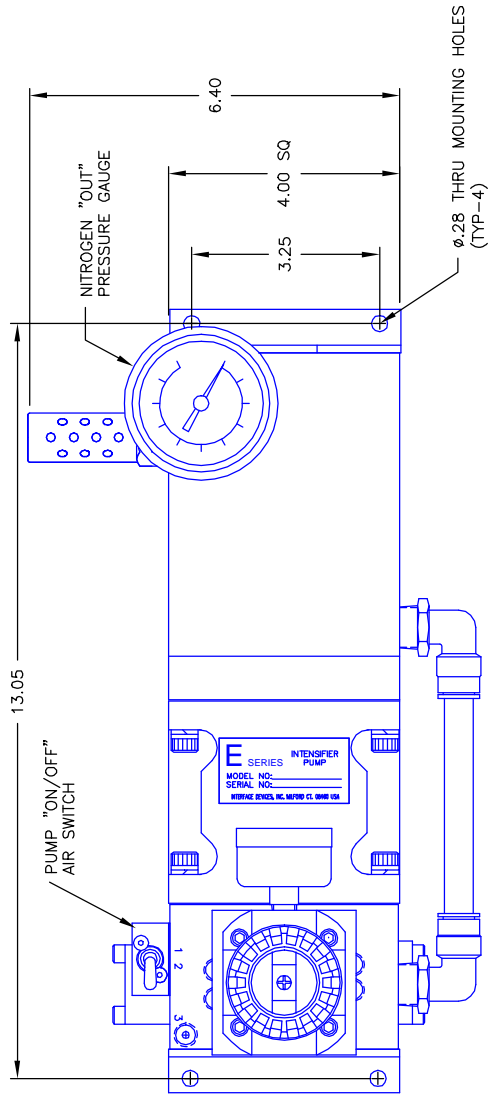
The only routine maintenance required is to re-grease the main air spool and it's six "T-seals" every 6 months.

2.2 TROUBLESHOOTING GUIDE: See following table on page 2.

45:1 NITROGEN BOOSTER TROUBLESHOOTING GUIDE
(Refer to enclosed Exploded View Drawing)

SYMPTOM	PROBABLE CAUSE(S)	REMEDY
Pump will not cycle. (Only regulated nitrogen pressure at output)	No air supply to pump. Pump air regulator set too low.	Look for and fix. Increase setting.
Pump will <u>still</u> not cycle (Only regulated nitrogen pressure at output)	Four-way Air reciprocating valve spool stuck at mid-position. After trying remedy above, spool still sticks:	Disconnect/Reconnect air supply (Re-sets air spool to start position.) Remove 1/8 NPT Breather from spool cap, manually push spool to far end with probe through hole in the Cap. If stuck or requires excessive force, disassemble air valve assembly. Inspect for contamination or mechanical bind. Repair or replace, lubricate seals with water-proof grease.
Pump makes one cycle, then stops.	Faulty "2-way air valve" (Broken, leaks or contaminated).	Repair or replace.
Pump cycles constantly when "dead-headed".	External leak at pump or downstream high pressure circuit. Stuck open or contaminated "Check Valve" cartridge (2 places). Internal leak in pump.	Look for and correct. Clean or replace. Check all dynamic and static seals and gaskets.

For further assistance call INTERFACE DEVICES, INC. at 203/878-4648.



INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460

SCALE: NONE
DWG BK: WNI

DATE: 1/18/99

SHT: 1 OF: 1

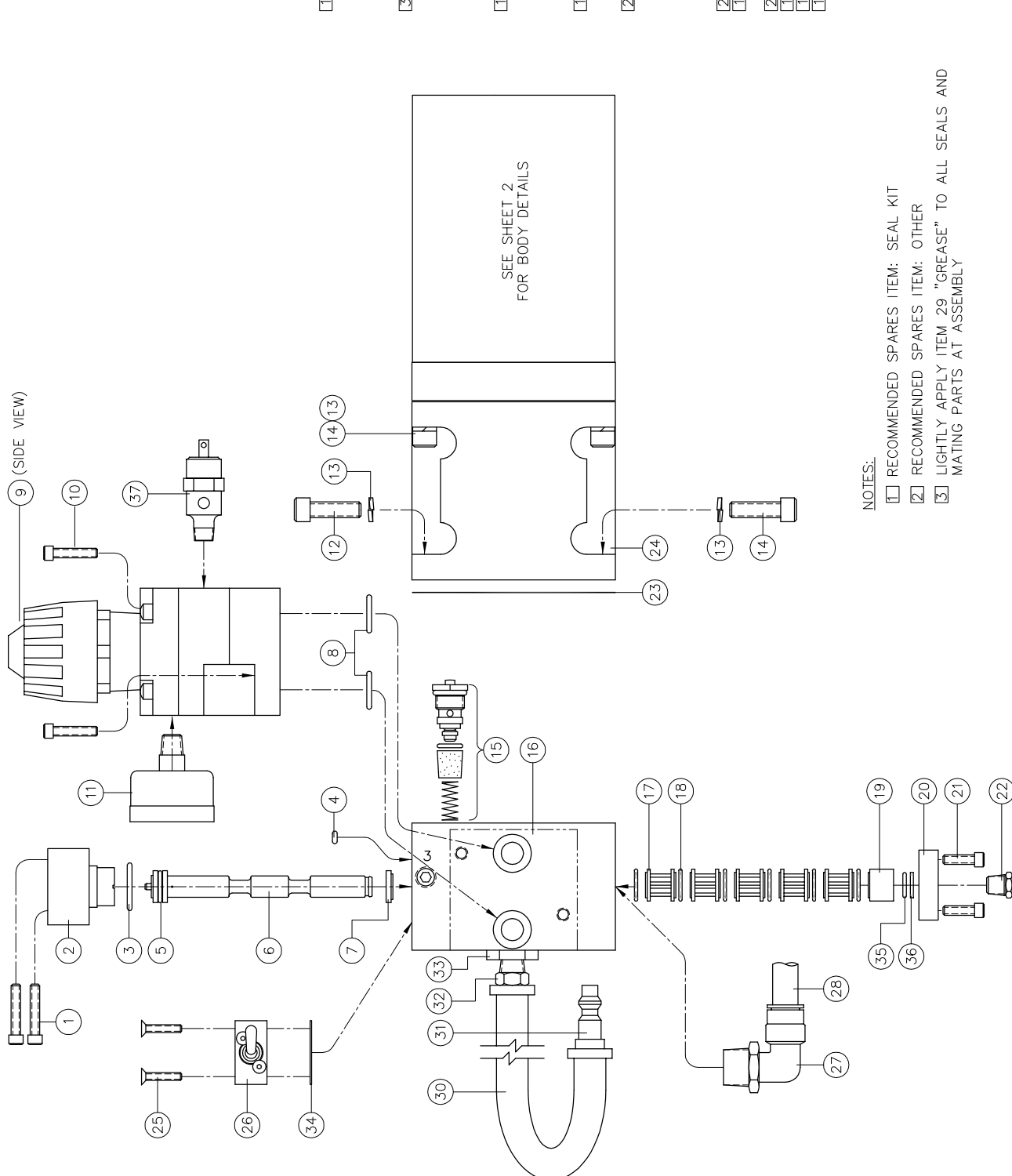
REF:

DWG NO: GA9901181

REF:

TITLE: GENERAL ARRANGEMENT,
NITROGEN BOOSTER, 45:1

REV	DESCRIPTION	BY	DATE
J	ITEM 20 WAS 10305; SEE SHT 2	WNI	3/23/05



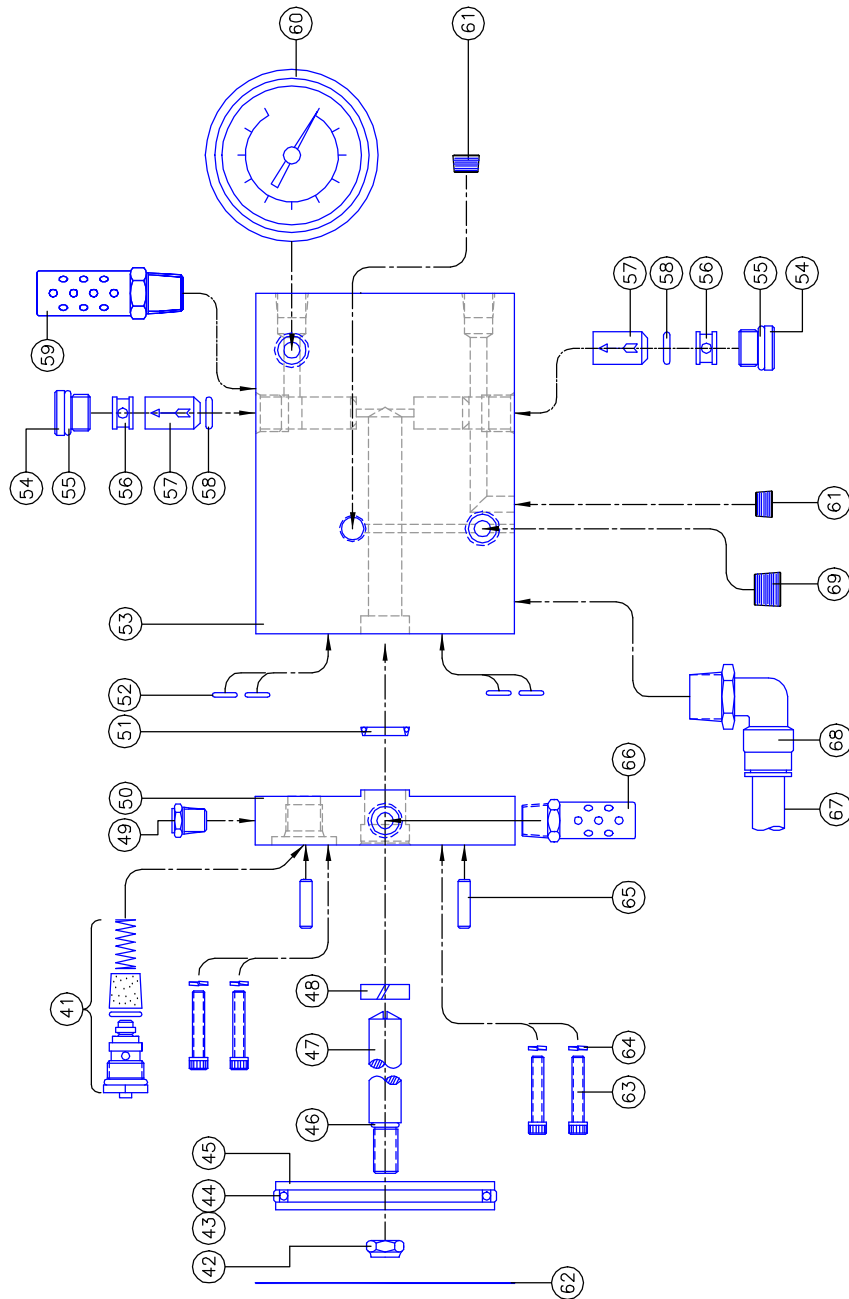
40			
39			
38			
37	1 11236 M04-1006	RELIEF VALVE, 1/8 NPT	
36	1 -012	TEFLON BACKUP RING	
35	1 SO-012 6865	O-RING	
34	1 10333 V04-5001	GASKET	
33	1 1/2 x 3/8 PIR-S	PIPE THD REDUCER	
32	1 30182-6-6	HOSE FITTING, 3/8 NPT	
31	1 H9CP	QD HOSE FITTING	
30	20" 3/8 ID	HOSE, PUSHLOC	
29	A/R	WATERPROOF GREASE	
28	5" NYLON N2	TUBING	
27	2 6520-08-08	FITTING	
26	1 10743 V04-1001	VALVE, 3-W, TOGGLE	
25	2 M4 x 20	SCREW, FLAT HD	
24	1 10111 P12-5202	BODY, AIR CYLINDER	
23	1 10334 P00-5205	GASKET, AIR BODY	
22	1 10264	BREATHER, 1/8 NPT	
21	2 10-24 x .62	SCREW, SOC HD CAP	
20	1 10299 P00-5208	SPOOL CAP	
19	1 10269 P00-5210	BUSHING, LONG	
18	6 10629	TEE SEAL	
17	5 10273 P00-5209	CAGE	
16	1 10004 P12-5201	AIR CAP HOUSING	
15	1 10017 V04-1005	2-WAY AIR VLV ASSY	
14	4 5/16-18 x 1.75	SCREW, SOC HD CAP	
13	8 5/16 HI COLLAR	LOCK WASHER	
12	4 5/16-18 x 1.00	SCREW, SOC HD CAP	
11	1 10342 M04-1004	AIR GAUGE (0-160 PSI)	
10	2 1/4-20 x .88	SCREW, SOC HD CAP	
9	1 10015 P12-1202	AIR REG ASSY	
8	2 SO-016B7	O-RING	
7	1 10271 P00-5212	BUSHING, SHORT	
6	1 10659 P00-5211	AIR SPOOL	
5	1 SO-111CN7	O-RING	
4	1 SO-006CN7	O-RING	
3	1 SO-019B7	O-RING	
2	1 10298 P00-5207	PILOT CAP	
1	2 10-24 x 1.00	SCREW, SOC HD CAP	

NOTES:

- 1 RECOMMENDED SPARES ITEM: SEAL KIT
- 2 RECOMMENDED SPARES ITEM: OTHER
- 3 LIGHTLY APPLY ITEM 29 "GREASE" TO ALL SEALS AND MATING PARTS AT ASSEMBLY

ITEM	QTY	PART NUMBER	DESCRIPTION
INTERFACE DEVICES, INC. 230 DEPOT ROAD MILFORD, CT 06460			
SCALE:	1/2	TITLE:	ASSEMBLY, N2 45:1 BOOSTER
DWG BK:	WNI	REF:	W/N2 SUPERCHARGE REG.
DWG:	9/27/99	DWG NO.:	P32-1001
SHT:	1 OF 2	REV:	J

ASSEMBLY PART NUMBER 11001



ITEM	QTY	PART NUMBER	DESCRIPTION
70	1	1/4 NPT	PIPE PLUG
69	1	6520-08-08	FITTING
68	REF	6520-08-08	TUBING
67	REF	NYLON N2	MUFFLER, 1/4 NPT
66	1	10429	DOWEL PIN
65	2	3/16Ø x .75	LOCK WASHER
64	4	1/4 HI COLLAR	SOC HD CAP SCR
63	4	1/4-20 x 1.00	GASKET, AIR BODY
62	1	103343	PIPE PLUG
61	3	1/8 NPT	PIPE PLUG
60	1	160 PSI, LIQ FILL	GAUGE, 1/8 NPT, CBM
59	2	10431	MUFFLER, 3/8 NPT
58	2	SO-012B7	O-RING, BUNA
57	1	2203-C-3-5	CHECK VALVE
56	1	10600	RETAINER, .31 OAL
55	2	SO-906B7	O-RING, BUNA
54	2	6HP50N-S	HOLLOW HEX PLUG
53	1	10116	BODY
52	7	SO-011B7	O-RING, BUNA
51	1	M10NWR206Z1103	VARISEAL
50	1	10553	RATIO PLATE
49	2	10264	BREATHER, 1/8 NPT
48	1	GR0A-0500-T47	ROD BEARING, TEFLON
47	1	10484	PISTON ROD
46	1	SO-903B7	O-RING, BUNA
45	1	10477	AIR PISTON
44	1	36G03375-29	GLYDE RING
43	1	SO-233B7	O-RING
42	1	3/8-24	FLEXLOC JAM NUT
41	1	10017	2-WAY AIR VLV ASSY

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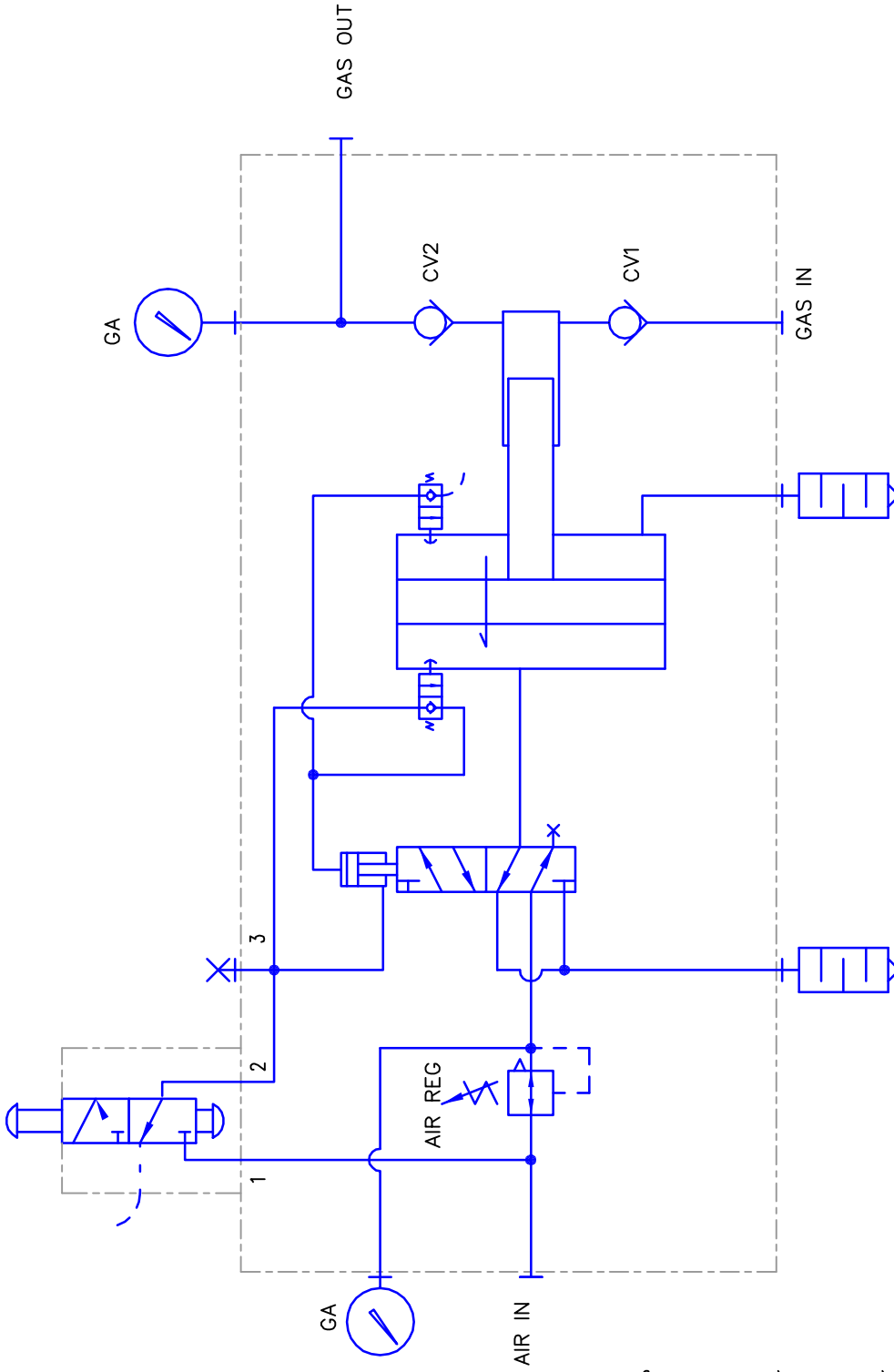
SCALE: 1/2
TITLE: ASSEMBLY,
OWN BR: WNI
45:1 BOOSTER

DATE: 2/13/02
REF:
SHEET 2 OF 2
DWG NO: XA-N2000451
REF:

ASSEMBLY PART NUMBER 11104

- NOTES:
- [1] RECOMMENDED SPARES ITEM: SEAL KIT
 - [2] RECOMMENDED SPARES ITEM: OTHER
 - [3] LIGHTLY APPLY ITEM 29 "GREASE" TO ALL SEALS AND MATING PARTS AT ASSEMBLY

PUMP ON/OFF
MANUAL VALVE



INTERFACE DEVICES, INC.
230 DEPOT ROAD
MILFORD, CT 06460



TITLE: PNEUMATIC SCHEMATIC,
SINGLE ACTING GAS BOOSTER

SCALE: N/A
DWN BY: WNI

DATE: 2/5/02
REF: EXTERNAL SUPPLY

SHT:1 OF:1
DWG NO: PS-EAB00X
REV: