



30:1 NITROGEN BOOSTER

MODEL NUMBER ENB-30

INSTALLATION, OPERATION & MAINTENANCE MANUAL

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

PH: 203/878-4648
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Revised October 2003

30:1 NITROGEN BOOSTER
TABLE OF CONTENTS

	PAGE
1.0 INSTALLATION & OPERATION	
1.1 Mounting.....	1
1.2 Connections.....	1
1.3 Start-up.....	1
2.0 MAINTAINENCE	
2.1 Routine maintenance.....	1
2.2 Troubleshooting.....	2
3.0 DRAWINGS ENCLOSED	
3.1 General Arrangement Drawing.....	3
3.1 Exploded view & bill of materials (SHT 1).....	4
3.2 Exploded view & bill of materials (SHT 2).....	5
3.3 Pneumatic schematic.....	6

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.

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.

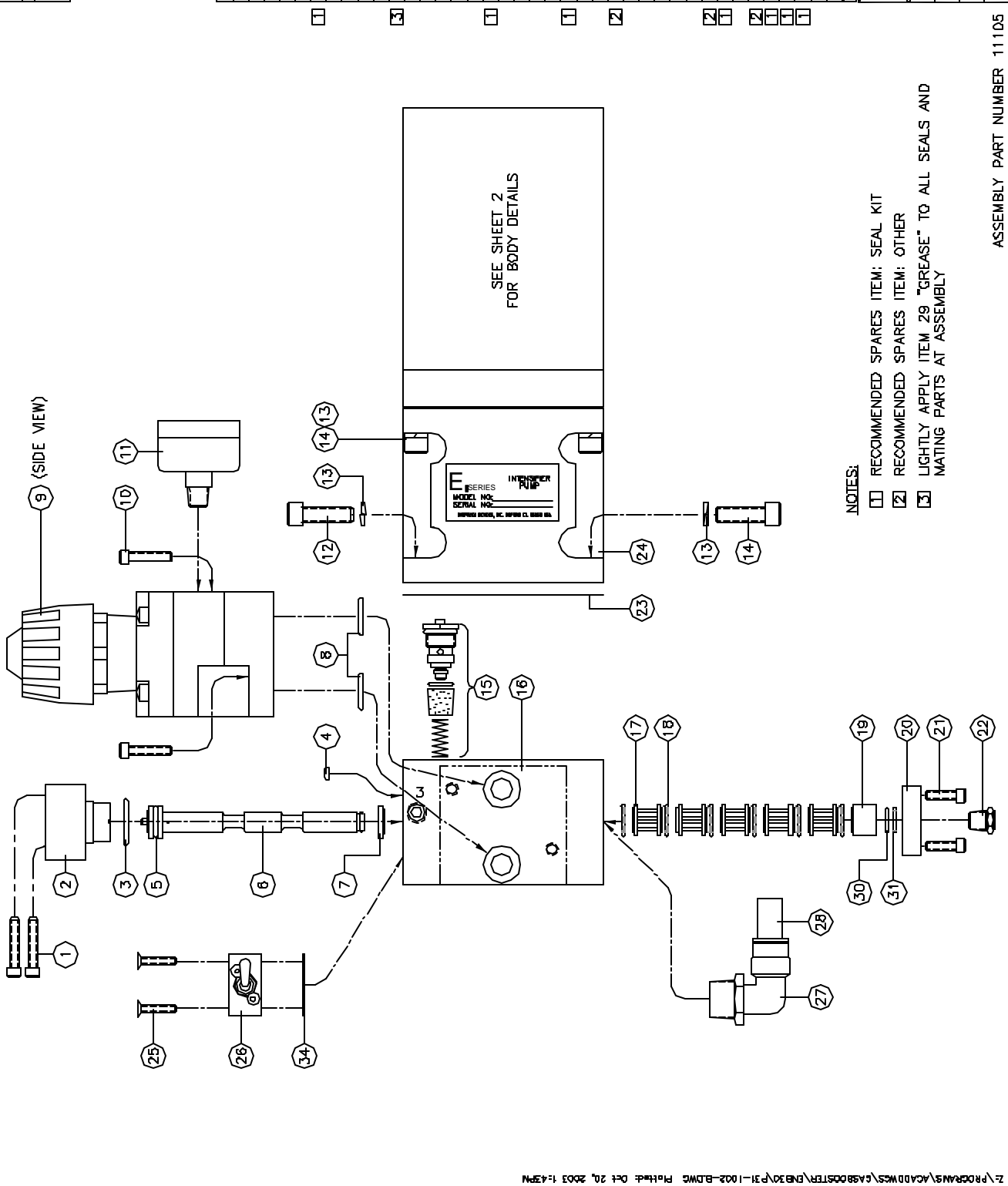
2.2 TROUBLESHOOTING GUIDE: See following table on page 2.

30:1 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.

REV	DESCRIPTION	DATE
A	ADDED 30 & 31 PICTURE CHANGE ITEM 5	10/24/02
B	REMOVED 29 WAS SCREW, HD CAP (10650); 67 WAS 20USCS; 68 WAS SC-012B7; 69 WAS 10.431 (3/8 NPT)	10/7/02



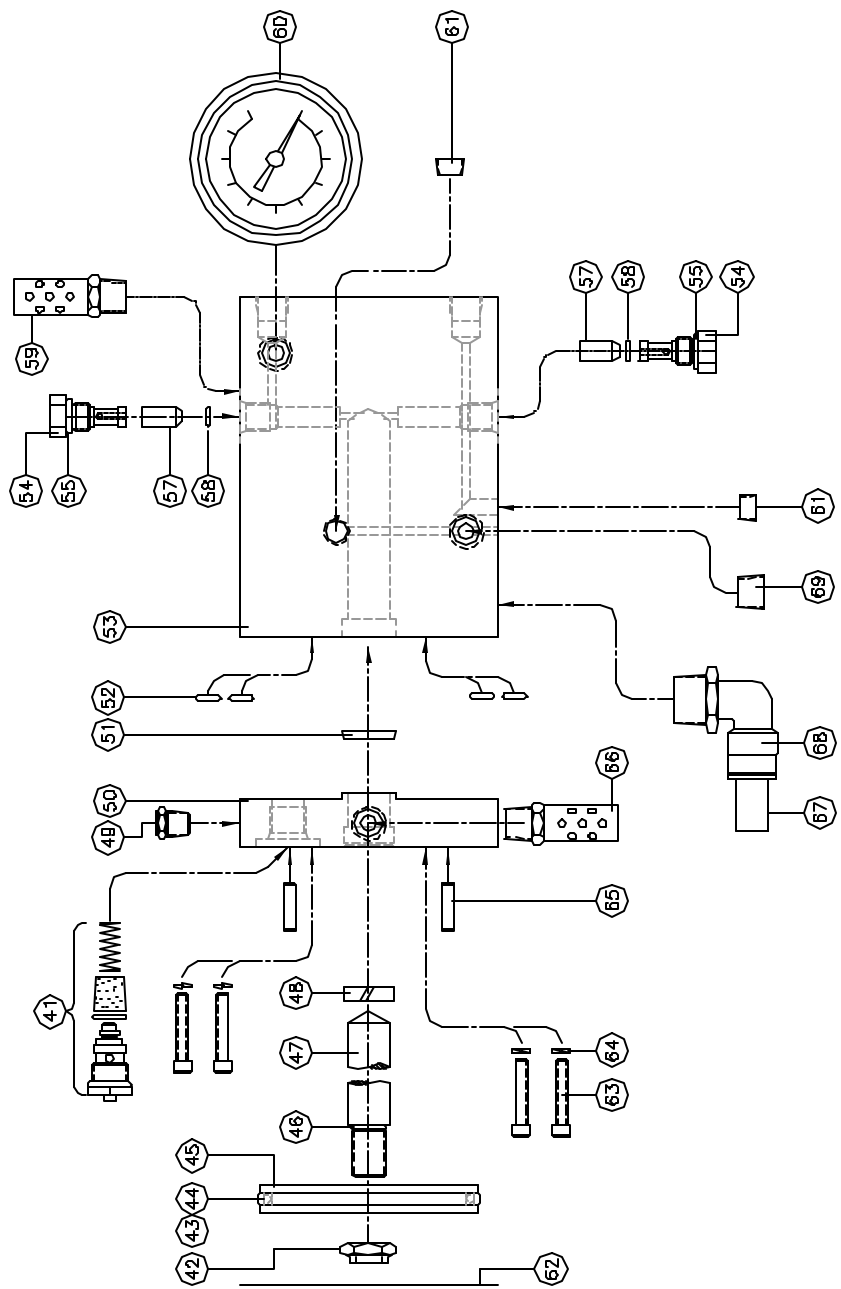
NOTES:
 [1] RECOMMENDED SPARES ITEM: SEAL KIT
 [2] RECOMMENDED SPARES ITEM: OTHER
 [3] LIGHTLY APPLY ITEM 29 "GREASE" TO ALL SEALS AND MATING PARTS AT ASSEMBLY

ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	10298	PILOT CAP
2	1	10298	PILOT CAP
3	1	10298	PILOT CAP
4	1	10298	PILOT CAP
5	1	10298	PILOT CAP
6	1	10298	PILOT CAP
7	1	10298	PILOT CAP
8	1	10298	PILOT CAP
9	1	10298	PILOT CAP
10	2	10-24 x 1.00	SCREW, SOC HD CAP
11	1	10342	AIR GAUGE (0-160 PSI)
12	2	1/4-20 x .88	SCREW, SOC HD CAP
13	1	10015	AIR REG ASSY
14	2	SO-016B7	O-RING
15	1	10017	2-WAY AIR VLV ASSY
16	1	10014	AIR CAP HOUSING
17	5	10273	TEE SEAL
18	6	10629	TEE SEAL
19	1	10269	BUSHING, LONG
20	1	10305	SPOOL CAP
21	2	10-24 x .82	SCREW, SOC HD CAP
22	1	10284	BREATHER, 1/8 NPT
23	1	10334	GASKET, AIR BODY
24	1	10111	BODY, AIR CYLINDER
25	2	M4 x 20	SCREW, FLAT HD
26	1	10743	VALVE, 3-W, TOGGLE
27	2	16520-08-08	FITTING
28	5	NYLON N2	TUBING
29	A/R	WATERPROOF	GREASE
30	1	SO-012	O-RING
31	1	-012	TEFLON BACKUP RING
32			
33			
34	1	10333	GASKET

	INTERFACE DEVICES, INC. 230 DEPOT ROAD MILFORD, CT 06460
SCALE 1/2	TITLE ASSEMBLY, 30:1 BOOSTER
DWG BY: WNI	REF:
DATE: 2/13/02	
SHT: 1 OF 2	DWG NO: P31-1002
	REF: B

ASSEMBLY PART NUMBER 11105

REV	DESCRIPTION	DATE
A	ADDED 30 & 31: PICTURE CHANGE ITEM B	10/24/02
B	4 WAS BUREAU 50 WAS 50-00487 DEL 66 (10490); 67 WAS 21033-30; 68 WAS 50-01287; 69 WAS 10431 (3/8 NPT)	10/7/05



70	1	1/4 NPT	PIPE PLUG
69	1	1/4 NPT	PIPE PLUG
68	REF 6520-DB-08		FITTING
67	1	10429	TUBING
66	1	10429	MUFFLER, 1/4 NPT
65	2	3/16 x .75	DOWEL PIN
64	4	1/4 HI COLLAR	LOCK WASHER
63	4	1/4-20 x 1.00 SOC HD CAP SCR	
62	1	103343	GASKET, AIR BODY
61	3	1/8 NPT	PIPE PLUG
60	1	180 PSI, LIQ FILL	GAUGE, 1/8 NPT, CBM
59	2	10429	MUFFLER, 1/4 NPT
58	2	50-008-9250	O-RING, POLY
57	2	10694	CHECK VALVE (2201)
56			
55	2	50-90487	O-RING, BUNA
54	2	11288	PLUG, CV RETAINER
53	1	10116	BODY
52	7	50-D11B7	O-RING, BUNA
51	1	532240114280S	VARISEAL
50	1	10565	RATIO PLATE
49	2	10284	BREATHER, 1/8 NPT
48	1	GRDA-0825-147	ROD BEARING, TEFLON
47	1	10485	PISTON ROD
46	1	50-90587	O-RING, BUNA
45	1	10479	AIR PISTON
44	1	36GD3375-29	GLYDE RING
43	1	50-23387	O-RING
42	1	1/2-20	FLEXLOC JAM NUT
41	1	10017	2-WAY AIR VLV ASSY

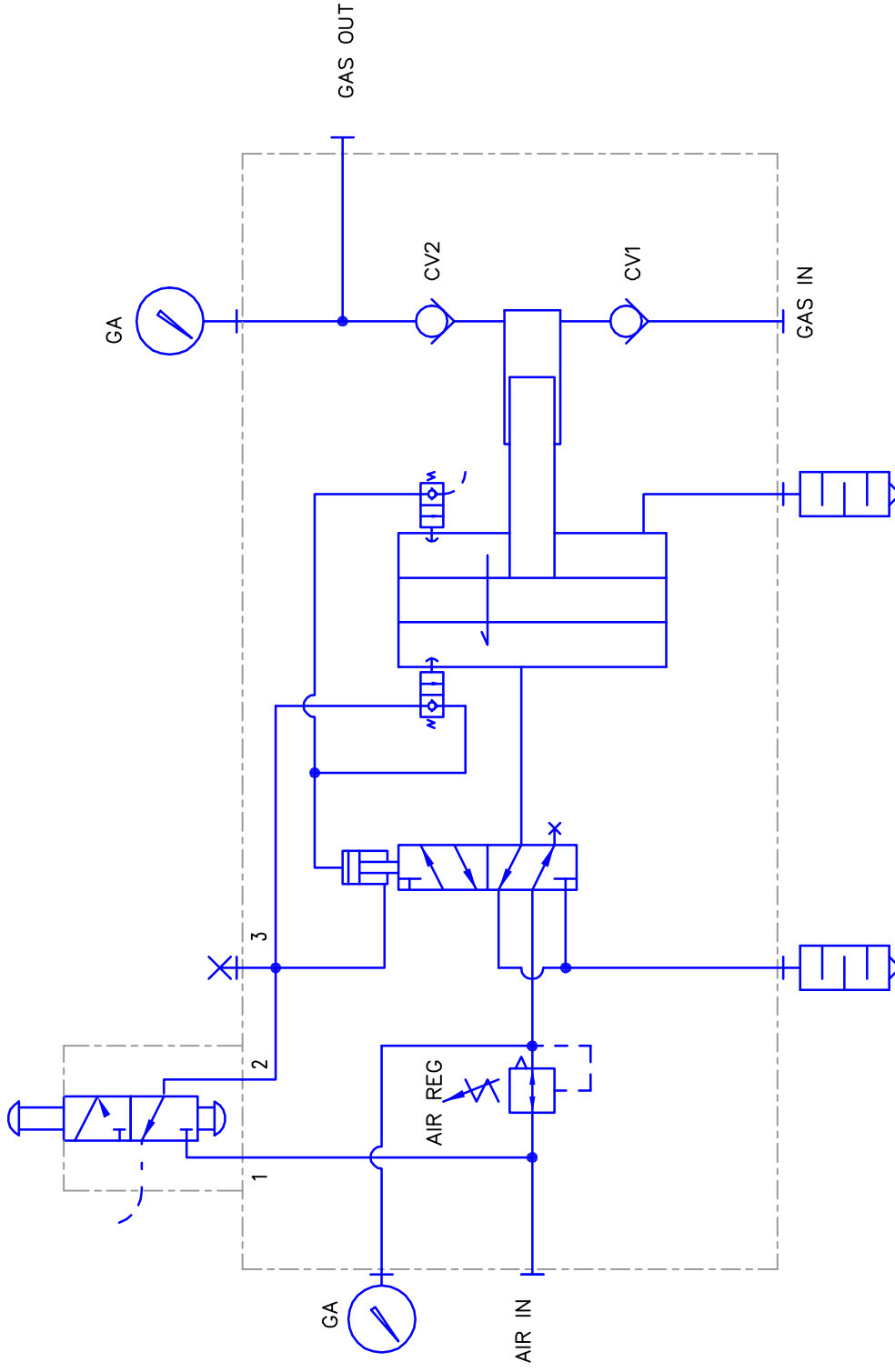
ITEM QTY	PART NUMBER	DESCRIPTION
		INTERFACE DEVICES, INC.
		230 DEPOT ROAD
		NEFORD, CT 06460

SCALE	1/2	TITLE	ASSEMBLY
DWG BY:	WNI		30:1 BOOSTER
DATE:	2/13/02	REF:	
SHT:	2 OF 2	DWG NO:	P31-1002
		REF:	B

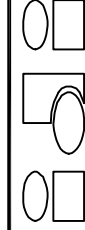
- NOTES:
- 1] RECOMMENDED SPARES ITEM: SEAL KIT
 - 2] RECOMMENDED SPARES ITEM: OTHER
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ASSEMBLY PART NUMBER 11105

PUMP ON/OFF
MANUAL VALVE



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



SCALE: N/A
DWN BY: WNI

DATE: 2/5/02
SHT: 1 OF: 1

TITLE: PNEUMATIC SCHEMATIC,
SINGLE ACTING GAS BOOSTER

REF: EXTERNAL SUPPLY

DWG NO: PS-EAB00X

REV: