



CDx

(BALANCED DIAPHRAGM)

SERVICE PROCEDURE

This CDx Product Service Procedure conveys a list of components and service procedures that reflect the CDx as it was configured at the time of this writing (10/7/02).

It also contains Supplemental Information intended to assist the Authorized Oceanic Regulator Service Technician who is servicing a CDx configured with older components.

CDx BALANCED DIAPHRAGM FIRST STAGE

CONTENTS

TROUBLESHOOTING	3
DISASSEMBLY PROCEDURE	4
REASSEMBLY PROCEDURE	7
FINAL ADJUSTMENT	10
ENVIRONMENTAL KIT REASSEMBLY	11
PARTS LIST AND EXPLODED VIEW DIAGRAM	12
SUPPLEMENTAL INFORMATION	13

GENERAL PROCEDURES

REFER TO	DOC. 12-2202
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SPECIFICATIONS

Torques

P/N 6564	Yoke Retainer	23 to 25 ft-lbs
P/N 4544-300	DIN Filter Retainer	120 to 140 in-lbs
*If the DIN Filter Housing has a hex machined into the Inner Bore, increase DIN Filter Retainer torque to 16 to 18 ft-lbs.		
P/N 6565	DIN Filter Housing	16 to 18 ft-lbs
P/N 3462	HP Port Plug	35 to 40 in-lbs
P/N 3463	LP Port Plug	35 to 40 in-lbs
P/N 6586	Receiver	80 to 100 in-lbs
P/N 6580	End Cap	20 to 22 ft-lbs
P/N 6583	Environ. End Cap	20 to 22 ft-lbs
HP Hose into First Stage Body		35 to 40 in-lbs
LP Hose into First Stage Body		35 to 40 in-lbs
Inflator Hose into First Stage Body		35 to 40 in-lbs

Intermediate Pressure

Preferred	138 to 142 psi
Acceptable	137 to 143 psi

TOOLS REQUIRED

Standard Tools

Inch Pounds Torque Wrench
Foot Pounds Torque Wrench
5/32" Hex Key Socket
1/4" Hex Key Socket
1/2" Open End Wrench
9/16" Open End Wrench
5/8" Open End Wrench
13/16" Open End Wrench
1" Open End Wrench
1/4" Hex Key (for DIN model)
5/16" Hex Key
3/8" Drive Socket
Soft Jawed Vise

Specialty Tools

P/N 40.2302 Christo-Lube MCG111 - 2 oz
P/N 40.6671 End Cap Tool Kit
P/N 40.9311 Filter Circlip Pliers
P/N 40.9315 Intermediate Press. Gauge
P/N 40.9520 O-ring Tool Kit

CDx BALANCED DIAPHRAGM FIRST STAGE

TROUBLE SHOOTING		
SYMPTOM	POSSIBLE CAUSE	TREATMENT
* Restricted airflow and inhalation resistance through complete system.	<ol style="list-style-type: none"> 1. Cylinder valve not completely opened. 2. Cylinder valve requires service. 3. CONE FILTER (4,12) is contaminated. 	<ol style="list-style-type: none"> 1. Open valve completely. 2. Connect Regulator to a different Cylinder. 3. Replace with new and perform a complete service.
* Air leakage detected from beneath the ADJUSTMENT CUP (36), inside the END CAP (33).	<ol style="list-style-type: none"> 1. END CAP (33,38) is loose. 2. DIAPHRAGM (30) is worn or damaged. 3. Seating surface inside BODY (28) is damaged. 	<ol style="list-style-type: none"> 1. Tighten END CAP (33,38) onto BODY (28), using prescribed torque value in Reassembly Procedure. 2. Replace with new. 3. Replace BODY (28) with new.
* Air leakage detected from RECEIVER (22).	<ol style="list-style-type: none"> 1. RECEIVER O-RINGS (23,24) are damaged or worn. 2. Seating surface inside the BODY (28) is damaged. 3. Seating surface on the RECEIVER (22) is damaged. 	<ol style="list-style-type: none"> 1. Replace with new. 2. Replace with new. 3. Replace with new.
* Insufficient intermediate pressure.	<ol style="list-style-type: none"> 1. END CAP (33,38) is loose. 2. First stage improperly adjusted. 3. DIAPHRAGM SPRING (34) is weakened or damaged. 4. Seating surface of BODY (28) beneath DIAPHRAGM (30) is damaged. 	<ol style="list-style-type: none"> 1. Tighten END CAP (33,38) onto BODY (28), using prescribed torque value in Reassembly Procedure. 2. Readjust according to the procedure specified in Final Adjustment Procedure. 3. Replace with new. 4. Replace BODY (28) with new.
* Excessive intermediate pressure/Intermediate pressure creeps.	<ol style="list-style-type: none"> 1. First Stage improperly adjusted. 2. HP SEAT (27) is damaged or worn. 3. HP SEAT O-RING (25) is damaged or worn. 4. Seating surface of HP SEAT (27), or RECEIVER (22), or BODY (28) or its Orifice Cone is damaged. 5. RETAINING SPRING (26) is weakened or damaged. 	<ol style="list-style-type: none"> 1. Readjust according to Final Adjustment Procedure. 2. Replace with new. 3. Replace with new. 4. Replace with new. 5. Replace with new.

DISASSEMBLY PROCEDURE

△ NOTE: Be sure to check and record the intermediate pressure and perform the Leak Detection Test outlined in the Initial Inspection Procedures (Doc. 12-2202) prior to disassembling the Regulator. Review the Troubleshooting Section on page 3 to gain a better idea of which internal parts may be worn, and to better advise your customer of the service that is needed.

1. Before disassembling the First Stage, remove the low pressure Hoses with a 9/16" open end wrench, the high pressure Hose(s) with a 5/8" open end wrench, and the low pressure inflator hose with either a 9/16" or 1/2" open end wrench. Remove all remaining PORT PLUGS (18, 20) with a 5/32" hex key.

2. Remove and inspect the O-RING(S) now visible on all these items for any signs of decay. If found, discard the O-RING(S).

△ CAUTION: It is important to remove the RECEIVER (22) end components first to avoid damage of the HP Seat Cone located inside the BODY (28).

3. Using 1/4" hex key, turn the RECEIVER (22) in a counter clockwise direction to remove it from the BODY (28) (Fig. 1).

4. Remove the HP SEAT (27) from the RECEIVER (22). Discard the HP SEAT, regardless of condition, and DO NOT attempt to reuse.

5. Remove the RETAINING SPRING (26). Using a magnifier, closely examine the SPRING for any signs of corrosion, cracks, or other damage. Discard if found and DO NOT attempt to reuse.

6. Using care not to scratch or damage the RECEIVER (22), remove the HP SEAT O-RING (25) from inside the RECEIVER. Discard, regardless of condition, and DO NOT attempt to reuse (Fig. 2).

7. Remove and inspect the RECEIVER O-RINGS (23,24*) for any signs of decay. Discard if found.

* Refer to Supplemental information on page 13.

8. With the use of a penlight and a magnifier, closely examine the Seating Surface of the Orifice Cone inside the BODY (28) for any signs of damage (Fig. 3). If found, discard the BODY and DO NOT attempt to repair or reuse.

△ NOTE: Perform step 9 only if an Environmental Kit has been installed. Perform step 10 only if an Environmental Kit has NOT been installed

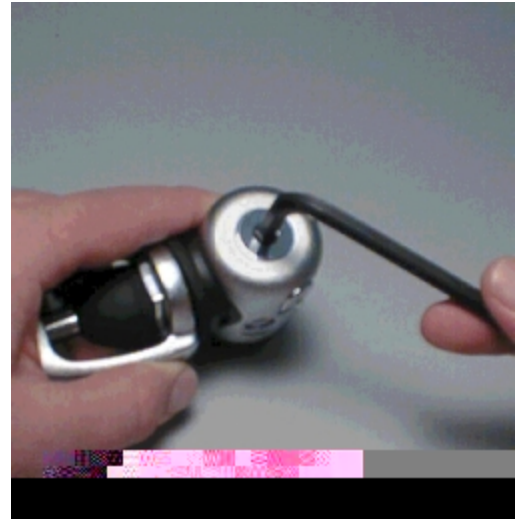


Fig. 1

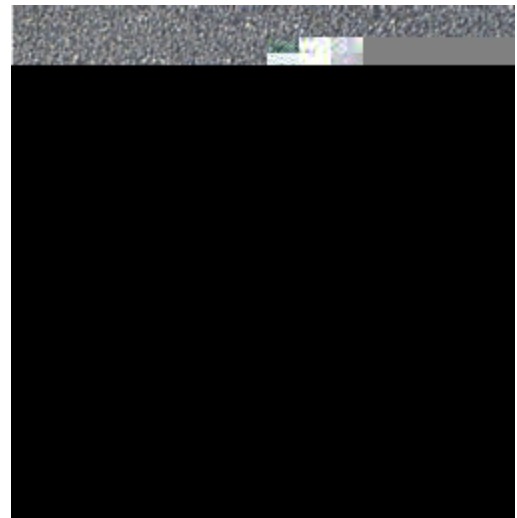


Fig. 2

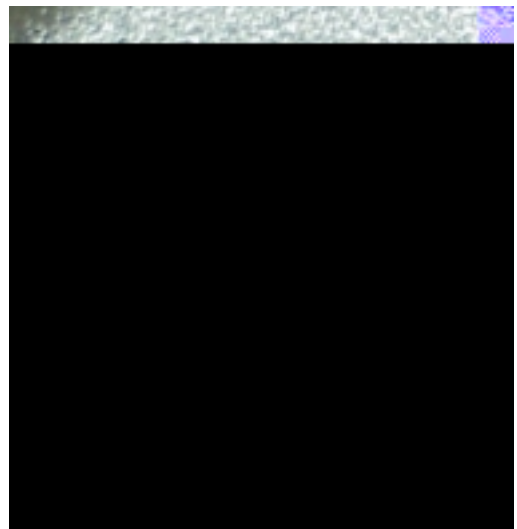


Fig. 3

CDx BALANCED DIAPHRAGM FIRST STAGE

9. Environmental Kit Disassembly:
 - A. Turn the ENVIRONMENTAL CAP (41) counter clockwise by hand to loosen and remove.
 - B. Gently peel the Lip of the ENVIRONMENTAL DIAPHRAGM (40) away from the Rim of the END CAP (38) and lift out to remove. Examine the condition of the DIAPHRAGM (30), checking for any signs of wear, distortion, corrosion, or perforation. Discard if found.
 - C. Turn the First Stage Diaphragm side down and remove the TRANSFER PISTON (39). Check for any signs of wear, distortion, or corrosion. Discard if found.
10. Lift the END CAP BOOT (37) away from the END CAP (33) using your fingers. DO NOT use tools.
11. Using a 5/16" hex key, turn the ADJUSTMENT CUP (36), counter clockwise to remove (Fig. 4).
12. Remove the SPRING WASHER (35) and DIAPHRAGM SPRING (34). Inspect both for any signs of wear or distortion. Discard if found.
13. Secure the First Stage in a soft-jawed or well padded vise and apply a 3/8" socket drive wrench with CDx Hook/Wrench Link (from End Cap Tool) to the END CAP (33, 38). Turn the END CAP counter clockwise to remove from the BODY (28) (Fig. 5). Lift out the DIAPHRAGM PLATE (32) and DIAPHRAGM WASHER (31), and inspect for signs of wear or distortion. Discard if found.

⚠ CAUTION: Tighten the vise only as needed to hold the First Stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

14. Using a 5/32" hex key, install HP PORT PLUGS (18) into the open HP Ports, and LP PORT PLUGS (20) into all but one of the LP Ports. Check to ensure that 1 of the 4 LP Ports is open, and all other Ports are sealed. Tighten the YOKE SCREW (1) to ensure that the PROTECTOR CAP (16) is securely sealed over the YOKE RETAINER (6). For DIN models, place the PROTECTOR CAP securely over the DIN FILTER RETAINER (9) and DIN COUPLER WHEEL (11).

⚠ CAUTION: DO NOT attempt to remove the DIAPHRAGM (30) with the use of a metallic instrument. Doing so will seriously damage the brass Seating Surface of the BODY (28).

15. Remove the DIAPHRAGM (30) from the BODY (28) by covering the Receiver opening in the BODY with the palm of your hand and directing short blasts of low pressure air through the open LP Port (Fig. 6). Lift the DIAPHRAGM out carefully and discard, regardless of its condition, and DO NOT attempt to reuse it.
16. Remove the BUTTON/PIN (29) and inspect for signs of wear or distortion. Discard if found.



Fig. 4



Fig. 5

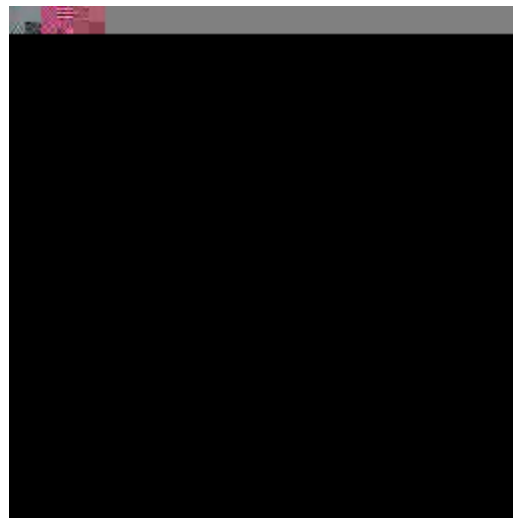


Fig. 6

CDx BALANCED DIAPHRAGM FIRST STAGE

17. Remove all PORT PLUGS (18, 20) with a 5/32" hex key. Remove and inspect the PORT PLUG O-RINGS (19, 21) for any signs of decay. Discard if found.

NOTE: For units received with Yoke Connectors perform step 18Y. For those with DIN Connectors perform step 18D.

18Y. Yoke Connector Disassembly:

A. Remove the YOKE SCREW (1) from the YOKE (2)

B. Secure the BODY (28) in a soft jawed or well padded vise and apply a thin wall, or modified, 1" open end wrench to the YOKE RETAINER (6). Using firm steady force, turn the YOKE RETAINER counter clockwise to remove. DO NOT use impact to loosen.

CAUTION: It is important that the wrench is properly seated over the entire hex portion of the YOKE RETAINER to prevent any damage to the part (Fig. 7).

CAUTION: Tighten the vise only as needed to hold the First Stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

C. After removing the YOKE RETAINER (6), remove the YOKE (2), PROTECTOR CAP (8), and SADDLE (17) and set these aside. Remove and discard the YOKE RETAINER O-RING (7), and DO NOT attempt to reuse.

D. Using Internal Circlip Pliers, remove the RETAINING CLIP (3) that retains the CONE FILTER (4). The CONE FILTER should drop out freely into your hand. Discard, and DO NOT attempt to reuse. Remove the FILTER O-RING (5) and discard, regardless of its condition, and DO NOT attempt to reuse it.

18D. DIN Connector Disassembly:

A. Secure the First Stage in a soft-jawed or well padded vise, with the DIN Connector facing up. Apply a 1/4" hex key to the FILTER RETAINER (9) and loosen in a counter clockwise direction to remove (Fig. 8). See Supplemental Information on page 13. Remove the DIN FACE O-RING (8) and inspect for any signs of decay, discard if found. Remove the RETAINER O-RING (10) and discard, regardless of its condition, and DO NOT attempt to reuse it.

CAUTION: Tighten the vise only as needed to hold the First Stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

B. Lift the COUPLER WHEEL (11) straight off the DIN FILTER HOUSING (14) and set aside. Remove the PROTECTOR CAP (16) and set aside. Apply a 13/16" open end wrench to the flange at the Base of the DIN FILTER HOUSING (Fig. 9). Using firm, steady force, loosen in a counter clockwise direction to remove. DO NOT use impact to loosen.



Fig. 7



Fig. 8



Fig. 9

CDx BALANCED DIAPHRAGM FIRST STAGE

⚠ CAUTION: It is important that the wrench is deep enough to seat entirely over the Flange to avoid any damage to the Seating Surface.

C. After removing the DIN FILTER HOUSING (14) from the BODY (28), turn it over and tap lightly to drop out the DIN CONE FILTER (12). Remove the FILTER O-RING (13) and FILTER HOUSING O-RING (15). Discard the FILTER and both O-RINGS and DO NOT attempt to reuse them.

19. Inspect the SADDLE (17), checking for any signs of damage or distortion. Discard if found.

REASSEMBLY PROCEDURE

⚠ NOTE: Prior to reassembly, it is necessary to inspect all parts, both new and those that are being reused. Check to ensure that O-rings are clean and supple, and that every part and component has been thoroughly cleaned.

⚠ WARNING: Use only genuine Oceanic parts, subassemblies, and components whenever assembling Oceanic products. DO NOT attempt to substitute an Oceanic part with another manufacturer's, regardless of any similarity in shape, size, or appearance. Doing so may render the product unsafe, and could result in serious injury or death of the user.

⚠ NOTE: For units received with Yoke Connectors perform step 1Y, for those with DIN Connectors perform step 1D.

1Y. Yoke Connector Reassembly:

A. Install the FILTER O-RING (5) into the YOKE RETAINER (6), at the base of the Filter Cavity in the BODY (28). (Fig. 10)

B. Install the CONE FILTER (4) into the YOKE RETAINER (6) and install the RETAINING CLIP (3) into the Groove above it, using Internal Circlip Pliers (Fig. 11).

⚠ NOTE: Close examination of the RETAINING CLIP will show that one side is slightly rounded and the other is flat. Install with the flat side facing out of the YOKE RETAINER to ensure greater holding strength.

C. Lubricate and install the RETAINER O-RING (7) into the Groove on the End.

D. Insert the threaded End of the YOKE RETAINER (6) through the YOKE (2), facing opposite the End that holds the YOKE SCREW (1). Place the PROTECTOR CAP (16) and the SADDLE (17) onto the YOKE RETAINER, with the flat side mating to the Base of the YOKE (Fig. 12).

E. Secure the BODY (28) in a soft jawed or well padded vise, with the threaded HP Inlet Bore facing straight up.

⚠ CAUTION: Tighten the vise only as needed to hold the first stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

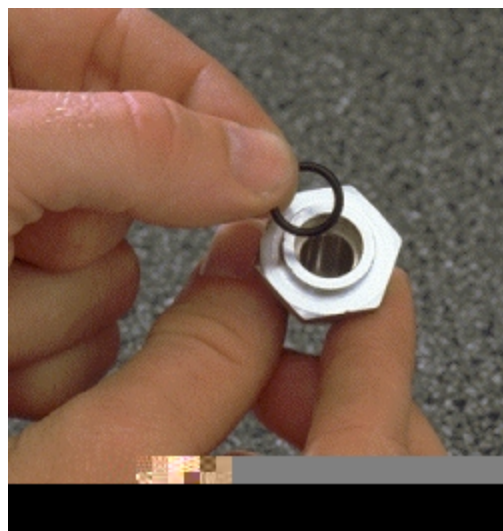


Fig. 10

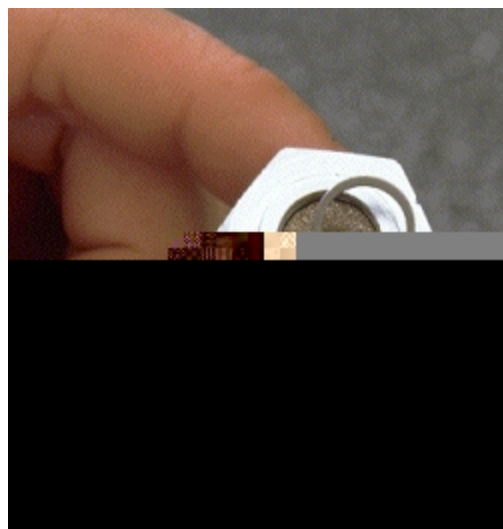


Fig. 11



Fig. 12

CDx BALANCED DIAPHRAGM FIRST STAGE

E. Holding the YOKE RETAINER (6), YOKE (2), PROTECTOR CAP (16), and SADDLE (17) together between your thumb and forefinger, mate the YOKE RETAINER into the BODY (28), so that the Threads seat properly. Hand tighten in a clockwise direction until secure (Fig. 13). Using a thin-wall, or modified, 1" open end wrench that is properly seated over the entire Hex Portion of the YOKE RETAINER, tighten it **to a torque of 23 to 25 ft-lbs.**

G. Install the YOKE SCREW (1) into the YOKE (2).

1D. DIN Connector Reassembly:

A. Lubricate and install the DIN FILTER HOUSING O-RING (15) into the Groove on the End of the DIN FILTER HOUSING (14).

B. Insert the threaded End of the DIN FILTER HOUSING (14) through the flat Side of the SADDLE (17).

C. Secure the BODY (28) in a soft jawed or well padded vise, with the threaded HP Inlet Bore facing straight up.

⚠ CAUTION: Tighten the vise only as needed to hold the First Stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

D. Install the DIN FILTER HOUSING (14) into the BODY (28) so that the Threads seat properly, and hand tighten in a clockwise direction until secure. Using a thin-wall, or modified, 13/16" open end wrench that is properly seated over the entire Seating Surface of the Filter Housing Flange, tighten **to a torque of 16 to 18 ft-lbs.**

E. Lubricate and install the FILTER O-RING (13) into the DIN FILTER HOUSING (14), at the Base of the Filter Cavity. Install the DIN CONE FILTER (12) into the FILTER HOUSING.

F. Install the PROTECTOR CAP (16) and the DIN COUPLER WHEEL (11) down over the Stem of the DIN FILTER HOUSING (14), with the Threaded End facing up.

G. Lubricate and install the DIN FACE O-RING (8) and RETAINER O-RING (10) onto the DIN FILTER RETAINER (9).

H. Insert the Threaded End of the DIN FILTER RETAINER (9) through the DIN COUPLER WHEEL (11) into the DIN FILTER HOUSING (14), and tighten until secure. Apply a 1/4" hex socket and tighten **to a torque of 16 to 18 ft-lbs (if the DIN FILTER HOUSING has a hex machined into its Inner Bore) or 120 to 140 in/lbs (if it does not have the hex).**

2. Place the Stem of the BUTTON/PIN (29) directly into the Center Hole in the BODY (28), ensuring that it enters without any restriction (Fig. 14).

3. Position the new DIAPHRAGM (30) flat, directly over the opening of the BODY (28). Gently push the Edges of the DIAPHRAGM down inside the Internal Threads of the BODY, one Thread at a time. Rotate the BODY while doing this, to facilitate an even seating of the DIAPHRAGM. Closely inspect to ensure it is well seated at the Base of the Threads (Fig. 15).



Fig. 13



Fig. 14

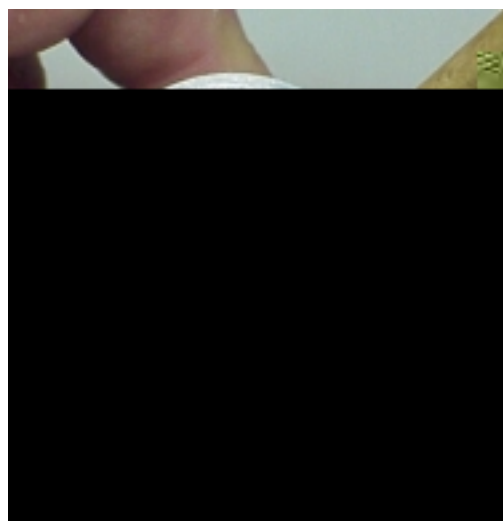


Fig. 15

Read the Caution on the next page.

Doc. 12-2204-r03 (10/7/02)

CDx BALANCED DIAPHRAGM FIRST STAGE

⚠ CAUTION: DO NOT force the DIAPHRAGM into the BODY in a manner that will damage either the Lip or Surface of the DIAPHRAGM, or the Threads of the BODY. The use of a sharp instrument, such as a screwdriver, is to be strictly avoided.

4. Place the DIAPHRAGM WASHER (31) into the BODY (28) on top of the DIAPHRAGM (30) with the Collar facing up.
5. Lay the DIAPHRAGM PLATE (32) into the Center of the DIAPHRAGM (30), with its Flat Surface against the DIAPHRAGM.
6. Thread the END CAP (33, 38) into the BODY (28), turning clockwise by hand until secure.
7. Secure the BODY (28) in a soft jawed or well padded vise, and using CDx Hook/Wrench Linkk (from End Cap Tool) and a foot-pounds torque wrench, tighten the END CAP (33, 38), into the BODY to a torque of 20 to 22 ft-lbs (Fig. 16).



Fig. 16

⚠ CAUTION: Tighten the vise only as needed to hold the First Stage secure, and DO NOT overtighten. Doing so will result in permanent damage, rendering it inoperable.

8. Apply a very light film of lubricant (Christo Lube MCG #111) to both Ends of the DIAPHRAGM SPRING (34), and place it on the DIAPHRAGM PLATE (32).
9. Place the SPRING WASHER (35) directly onto the Upper End of the DIAPHRAGM SPRING (34) and install the ADJUSTMENT CUP (36) into the END CAP (33, 38). Using a 5/16" hex key, turn the ADJUSTMENT CUP clockwise until only two Threads are showing.
10. Lightly lubricate and install the RECEIVER O-RINGS (23,24*) onto the RECEIVER (22) and the HP SEAT O-RING (25) into the Inner Bore of the RECEIVER. Lightly lubricate the threads of the RECEIVER.

* Refer to Supplemental information on page 13.

11. Apply a very light film of lubricant to both ends of the RETAINING SPRING (26) and the lower 1/4" of the HP SEAT Shaft (27). Install the RETAINING SPRING onto the end of the RECEIVER (22).
12. Carefully guide the shaft of the HP SEAT (27) so that it passes through the RETAINING SPRING (26) and into the SEAT O-RING (25) in the Inner Bore of the RECEIVER (22). (Fig. 17)
13. Hold the BODY (28) at a slight angle, so that you may see the Stem End of the BUTTON/PIN (29) protruding through the center of the machined Orifice Cone. Insert the RECEIVER/HP SEAT Assembly directly into the center of the opening in the BODY (28) and carefully guide the center opening of the HP SEAT (27) onto the BUTTON/PIN. Ensure the BUTTON/PIN enters directly into the opening of the HP SEAT without any restriction (Fig. 18).

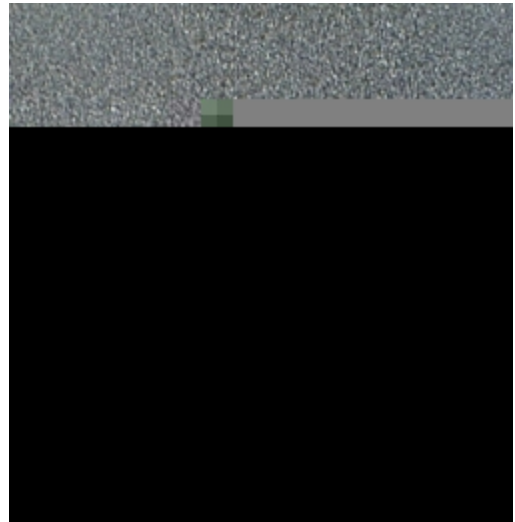


Fig. 17



Fig. 18

Doc. 12-2204-r03 (10/7/02)

CDx BALANCED DIAPHRAGM FIRST STAGE

⚠ CAUTION: Improper alignment of the **BUTTON/PIN (29)** and the **HP SEAT (27)** during installation will result in damage to the **Seating Surface of the HP SEAT**, requiring its replacement.

14. While holding the **BODY (28)** secure, turn the **RECEIVER (22)** clockwise to engage the Threads and using a 1/4" hex key socket, tighten the **RECEIVER** into the **BODY** to a torque of **80 to 100 in-lbs.**

15. Lubricate and install **PORT PLUG O-RINGS (19, 21)** onto the **PORT PLUGS (18, 20)**. While holding the **BODY (28)** secure, install the **PORT PLUGS** into the **BODY**, tightening clockwise with a 5/32" hex key socket to a torque of **35 to 40 in-lbs.**

16. Lubricate and install all Hose O-rings onto Hoses and install the Hoses into the **BODY (28)**. While holding the **BODY** secure, tighten the **LP Second Stage Hose(s)** clockwise with a 9/16" open end wrench, the **HP Hose(s)** with a 5/8" open end wrench, and the **LP Inflator Hose(s)** with either a 9/16" or 1/2" open end wrench, to a torque of **35 to 40 in-lbs.**

⚠ CAUTION: Be certain **NOT** to install any **Low Pressure Hose** into a **High Pressure Port** using an adaptor.

⚠ NOTE: Perform step 16 only if an **Environmental Kit** has **NOT** been installed.

17. Ensuring proper alignment and secure placement, install the **END CAP BOOT (37)** onto the **END CAP (33)** (Fig. 19).



Fig. 19

FINAL ADJUSTMENT

1. Connect a recently calibrated Intermediate Pressure Test Gauge to a Low Pressure Hose, and connect the First Stage with Second Stage and Low Pressure Test Gauge to a pure breathing gas source of 3000 PSI. Slowly open the supply valve to pressurize the Regulator, and purge the Second Stage several times.

2. Adjust the intermediate pressure, if necessary, to read 138 to 142 PSI by turning the **ADJUSTMENT CUP (36)** clockwise to increase the pressure or counter clockwise to decrease it (Fig. 20).

⚠ NOTE: Turn the **ADJUSTMENT CUP** no more than 1/8 of a turn at a time, pausing to purge the **Second Stage** several times to gain an accurate reading of the intermediate pressure before adjusting further.

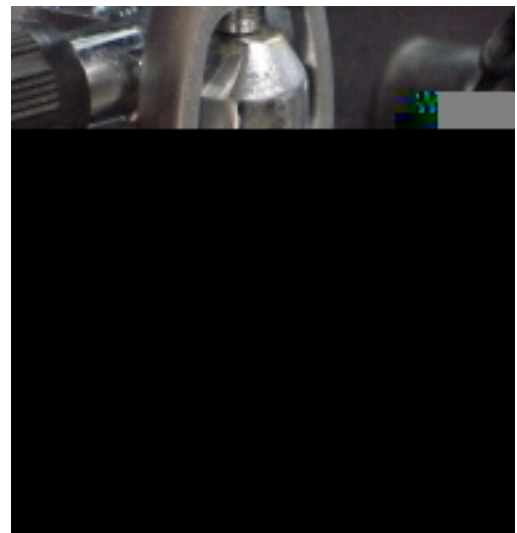


Fig. 20

CDx BALANCED DIAPHRAGM FIRST STAGE

△ **NOTE:** Ensure that the intermediate pressure holds stable at 138 to 142 PSI, and does not creep or fluctuate after the Second Stage has been purged several times. If creeping is detected, refer to the Troubleshooting Section on page 3 to determine possible cause and treatment.

△ **NOTE:** Perform the following steps only if an Environmental Kit is being installed.

ENVIRONMENTAL KIT REASSEMBLY

1. Insert the TRANSFER PISTON (39) into the ENVIRONMENTAL END CAP (38) (Fig. 21).
2. Turn the air supply off and bleed off intermediate pressure. Insert the ENVIRONMENTAL DIAPHRAGM (40) over the Top of the ENVIRONMENTAL END CAP (38) with the thin Perimeter Seal facing down. Ensure that the Perimeter Seal is seated completely into the circular Groove in the ENVIRONMENTAL END CAP (Fig. 22).
3. Thread the ENVIRONMENTAL CAP (41) onto the ENVIRONMENTAL END CAP (38), being very careful to avoid cross threading, and tighten clockwise by hand until secure. DO NOT use tools to tighten.
4. Turn on the air supply and purge the Second Stage several times, and check once more to ensure proper intermediate pressure of 138 to 142 psi.

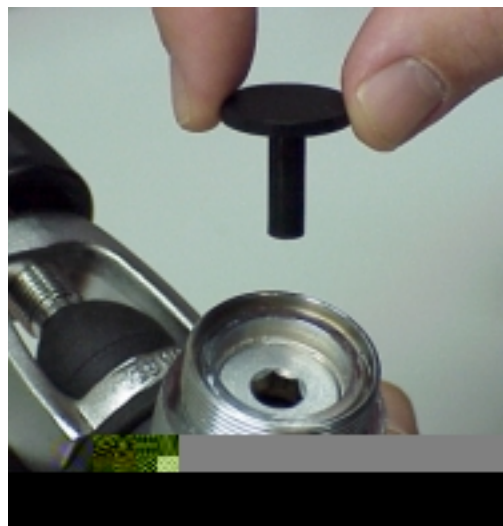


Fig. 21



Fig. 22

CDx BALANCED DIAPHRAGM FIRST STAGE

Dia. Part

No.	No.	Description
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YOKE VERSION

1c6307.07 SCREW, YOKE (BK)

2c6562YOKE

3c 3530 CLIP, RETAINING

4a 3545 FILTER, CONE

5a 2.013 O-RING, FILTER

6c 6564 RETAINER, YOKE

7a 2.011 O-RING, RETAINER

DIN VERSION

8a• 6374 O-RING, DIN FACE

9c 45*4-300 RETAINER, DIN FILTER

10a• 2.012 O-RING, RETAINER

11c 6559 WHEEL, DIN COUPLER

12a• 4546 FILTER, DIN CONE

13a• 2.011 O-RING, FILTER

14c 6565 HOUSING, DIN FILTER

15a• 2.011 O-RING, FILTER HOUSING

YOKE AND DIN VERSIONS

16c 6560 CAP, PROTECTOR (BK)

17c 6585 SADDLE

18c 3462 PLUG, HP PORT

19c 3.904 O-RING, HP PORT PLUG

20c 3463 PLUG, LP PORT

21c 3.903 O-RING, LP PORT PLUG

22c 6678 RECEIVER (see Supplemental Information)

Dia. Part

No.	No.	Description
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23c 6508 O-RING, RECEIVER OUTER

24c 2.015 O-RING, RECEIVER INNER (note 1)

25a• 6498 O-RING, HP SEAT

26c 6512 SPRING, RETAINING

27a• 6490 SEAT, HP

28c 6677 BODY (see Supplemental Information)

29c 6576 BUTTON/PIN

30a• 6574 DIAPHRAGM

31a• 6777 WASHER, DIAPHRAGM

32c 6450 PLATE, DIAPHRAGM

33c 6580 CAP, END

34c 6717 SPRING, DIAPHRAGM

35b 6524 WASHER, SPRING

36c 6518 CUP, ADJUSTMENT

37c 6581.02 BOOT, END CAP

40.4045.99.1 KIT, ENVIRONMENTAL

38c 6583 CAP, ENVIRONMENTAL END

39c 6516 PISTON, TRANSFER

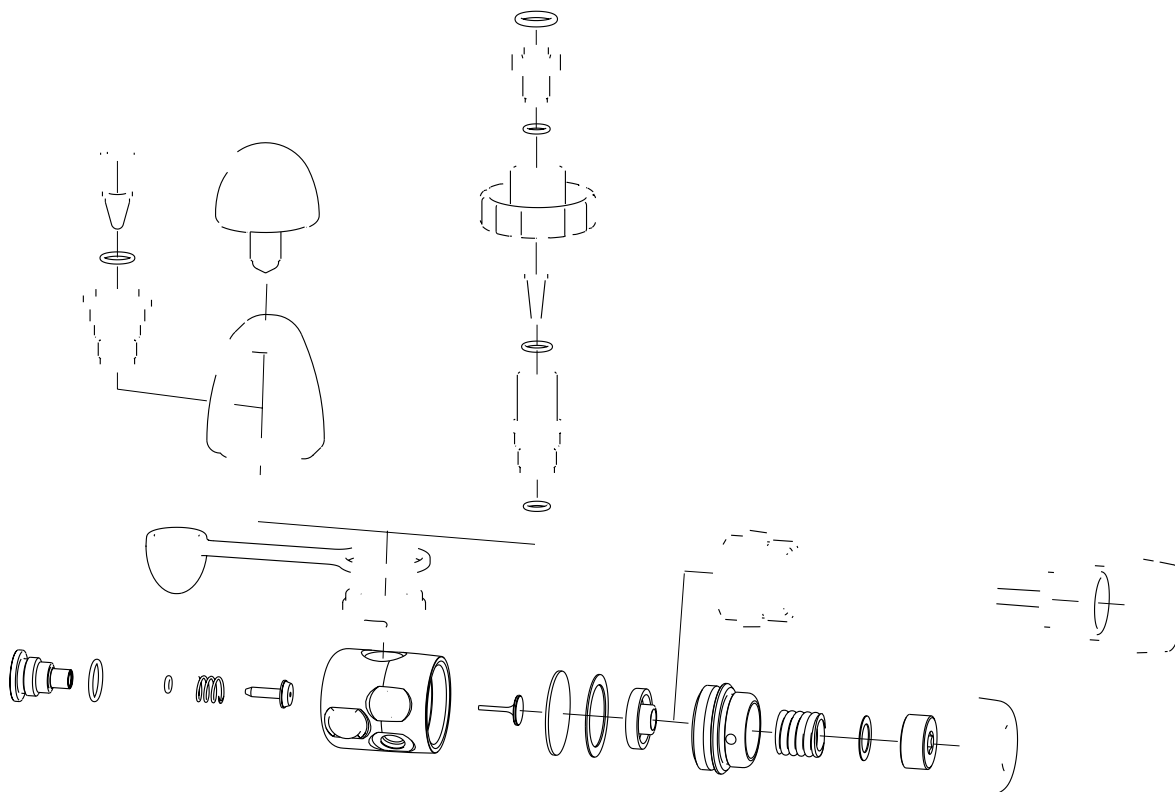
40c 6511 DIAPHRAGM, ENVIRONMENTAL

41c 6584 CAP, ENVIRONMENTAL

SERVICE PARTS KITS

40.6131 KIT, YOKE CONNECTION SERVICE PARTS
(Includes all **Bold** items.)

40.6132 KIT, DIN CONNECTION SERVICE PARTS
(Includes all • items)



SUPPLEMENTAL INFORMATION

Due to design enhancements that have been made since the CDx was originally released, the unit being serviced may not have the same components previously described.

The intent of this Supplemental Information is to assist the Oceanic Regulator Service Technician with identification of previous component parts and provide guidelines for their reuse or replacement.

The exploded view diagram on page 12 can be used as a reference for older units.

DIN FITTING

In the event that the complete DIN Fitting comes off the First Stage when the DIN FILTER RETAINER is being removed during Disassembly (step 18D, page 6), it will be necessary to disassemble the Fitting to replace the FILTER.

If the DIN FILTER HOUSING has a hex machined into the end opening of the Inner Barrel, hold the HOUSING with a 7/32" hex key and remove the DIN FILTER RETAINER using a 1/4" hex key.

If the DIN FILTER HOUSING does not have a hex machined into the end opening of the Inner Barrel, insert a flat blade screwdriver into the opening to hold the HOUSING and remove the DIN FILTER RETAINER using a 1/4" hex key. If the HOUSING becomes damaged, it must be replaced.

Dia. Part No. 22 - RECEIVERcurrent p/n 6678

- Identified by a mill mark that encircles the Hex Fitting.
- Compatible with other new BODY (p/n 6677) only.

older p/n 6573

- Identified by its polished chrome appearance. Does not have a mill mark around the hex Fitting.
- Compatible with other older parts. Can be used with BODY (p/n 6572).
- Replacement with the newer part is required when the BODY is replaced with p/n 6677.

Dia. Part No. 24 - RECEIVER INNER O-RINGcurrent p/n - none

- Not required with newer RECEIVER (p/n 6678).

older p/n - 2.015, 6508

- Required with older RECEIVER (p/n 6573).

Dia. Part No. 28 - BODYcurrent p/n - 6677

- Identified by not having a hole drilled between the two LP Ports.
- Compatible with newer RECEIVER (p/n 6678) only.

older p/n - 6572

- Identified by a hole drilled between the two LP Ports.
- Compatible with older RECEIVER (p/n 6573).
- Replacement with the newer part is required when the RECEIVER is replaced with p/n 6678.

SUPPLEMENTAL INFORMATION (CONTINUED)

Dia. Part No. 29 - BUTTON/PINcurrent p/n 6576 (schedule c)

- Identified by its solid stainless steel appearance.
- Compatible with other old and new parts.

older p/n - same (schedule c)

- Identified by its brazed appearance
- Replacement with the newer part is required when service is performed or any other time this part is found.

Dia. Part No. 31 - DIAPHRAGM WASHERcurrent p/n 6540 (schedule a)

- Must be used with DIAPHRAGM PLATE p/n 6777
- Compatible with other old and new parts.

older p/n - none**Dia. Part No. 32 - DIAPHRAGM PLATE**current p/n 6777 (schedule c)

- Identified by its black plastic appearance.
- Must be used with DIAPHRAGM WASHER p/n 6540
- Compatible with other old and new parts.

older p/n 6577 (schedule c) - SPRING PAD

- Identified by its metal appearance.
- Replacement with the DIAPHRAGM WASHER p/n 6540 and DIAPHRAGM PLATE p/n 6777 is required.

Dia. Part No. 34 - DIAPHRAGM SPRINGcurrent p/n 6717 (schedule c)

- Identified by its chrome polished appearance (electro polished).
- Compatible with other old and new parts.

older p/n - 6513 (schedule c)

- Identified by its dull steel appearance.
- Replacement with the newer part is not required.
- Compatible with other old parts only.

NOTE: Either SPRING (p/n 6717 or p/n 6513) can be used in the CDx.