

INCUBATOR ACCESSORIES:



NUAIRE, INC.
2100 FERNBROOK LANE, PLYMOUTH, MN 55447-4722
(612) 553-1270
TOLL FREE: (800) 328-3352
FAX (612) 553-0459

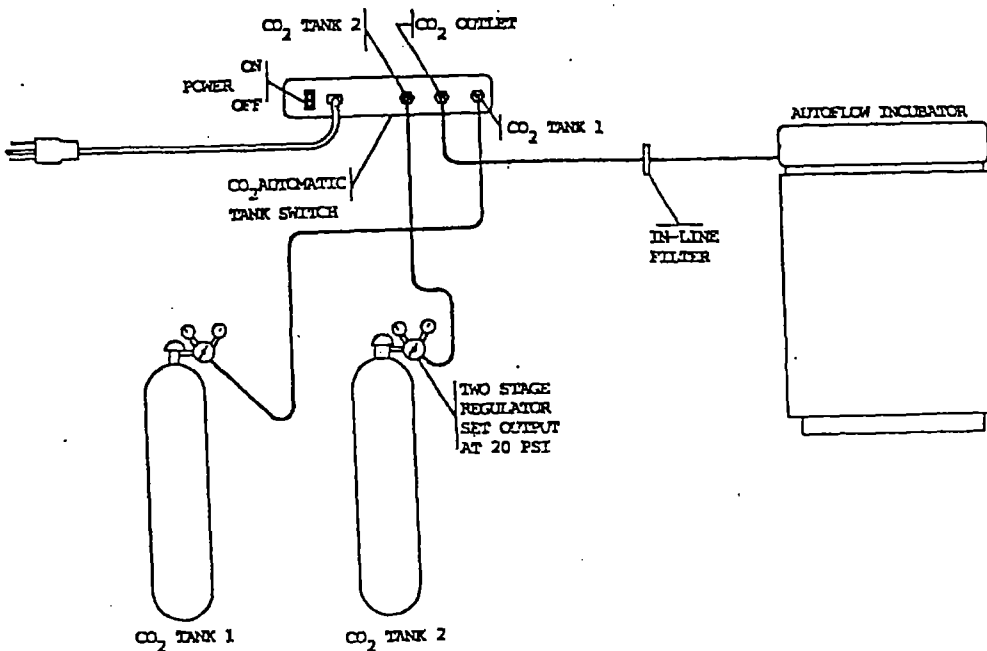
NU-1550/NU-1550E AUTOFLOW AUTOMATIC TANK SWITCH OPERATION & INSTALLATION INSTRUCTIONS

OPERATION

The Autoflow Automatic Tank Switch has been designed to provide reliable service to perform the critical backup CO₂ tank switch for a tissue cell culture incubator. The Autoflow Tank Switch continuously monitors and indicates via the pilot light, the selected CO₂ tank. If the pressure falls below 4 psig, the switch will occur from Tank 1 to Tank 2. During the initial pressure drop, a buzzer will briefly turn on and the indicator light will display Tank 2. This indicates a switch has occurred and Tank 1 should be replaced.

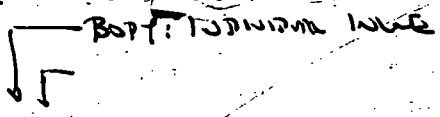
If for some reason, Tank 1 was not replaced and Tank 2 was depleted the switch would occur from Tank 2 to Tank 1 and remain on Tank 1 with the pilot light and buzzer on.

The Autoflow Automatic Tank Switch installation is illustrated below. NOTE: The correct position of the in-line filters and all tubing connections are firmly in place.

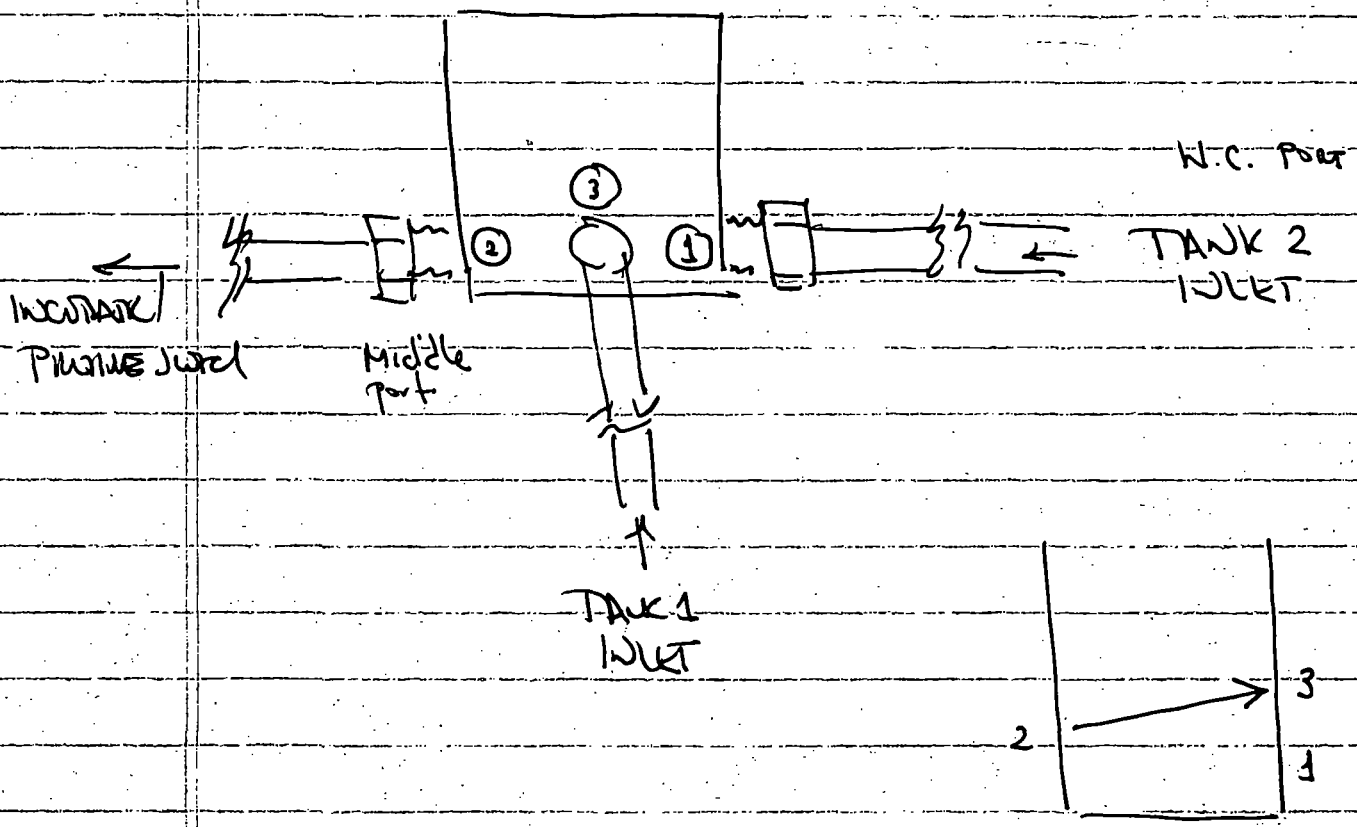


INSTALLATION DIAGRAM

We have NUAIRU NU-1550 AUTOFLW

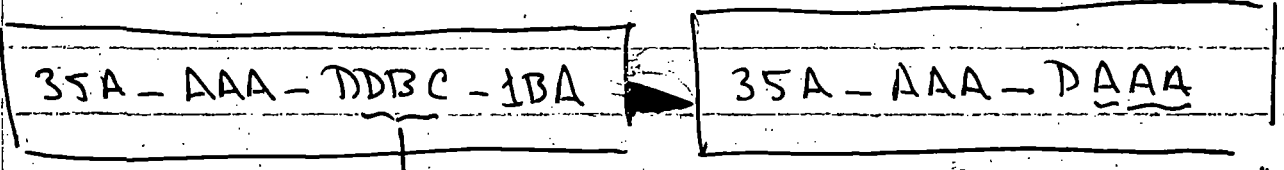


MAC 35A - AAA - DDBC - IBA



IN-UNIT:

SPECIFIED:



120V 18" leads

35A AAA-D UNIVERSAL (NOT N.C.)

DB 12VDC
c 36" lead

- IBA

I low wave round
BA flying leads

Tue 24 Aug '10 Nuair RMA/solenoid replacement for Arnaud

Nuair Inc / 2100 Fernbrook Ln N / Plymouth, MN 55447

1-800-328-3352

<http://www.nuair.com/>

Model NU-1550

(apparently a "CO2 tank switch", similar to DH-C02)

(no information on the NU-1550 is available on-site)

Mfg Date: 06142010

Internal hoses burst, apparently as a result of overpressure (faulty regulator setting) during installation. This condition also appears to have damaged the 3-way solenoid used to switch tanks.

The solenoid is a Mac Valves (<http://www.macvalves.com>)

Model 35A-AAA-DAAA-1BA 5.4 W 3-way valve, rated to

120 psi. Mac valves: 1-800-622-8587

8/30 9AM :

JIM

Sending Solenoid / hose

9/20 10:27 WA.—

Jim Mc

jmcgowan@nuair.com

**TECHNICAL BULLETIN
ACCESSORY INFORMATION**



2100 Fernbrook Lane
Plymouth, MN 55447-4722
U.S.A.

Phone: 763.553.1270
Fax: 763.553.0459
Toll Free: 1.800.328.3352

**AUTOMATIC CO₂ TANK SWITCH (INTERNAL)
OPERATION AND INSTALLATION INSTRUCTIONS
FOR NUAIRE INCUBATOR MODELS NU-5500/E/G (RF337)**

OPERATION

The Automatic CO₂ Tank Switch (internal) has been designed to provide reliable service to perform the critical backup CO₂ tank switch for the DH Autoflow incubator. The Tank Switch continuously monitors the selected tank. If the selected tank is Tank 1, the CO₂ Tank 1 LED will be on. If the selected tank is Tank 2, the CO₂ Tank 2 LED will be on. The pressure switch point is 4 PSIG, so when first tank is depleted and the pressure falls below 4 PSIG, the switch will occur from Tank 1 to Tank 2. At this time, the CO₂ Tank 2 light is on as well as a continuous alarm and indicates a switch has occurred and Tank 1 should be replaced. Turn mode switch to set-up and back to run to clear the audible alarm.

- If for some reason, Tank 1 was not replaced and Tank 2 was depleted, the switch would occur from Tank 2 to Tank 1 and remain switching causing the CO₂ Tank 2 light to blink until a new CO₂ tank is installed.

TOOLS REQUIRED:

Phillips Screwdriver
Small blade Screwdriver
3/8" wrench
Pliers

PARTS INCLUDED IN CO₂ TANK SWITCH KIT:

Tank Switch Valve Assembly (Solenoid Valve, Hose Barbs)
Pressure Switch Assembly (Pressure Switch, Mounting Bracket)
Tubing Assembly (tubing, 'T' Hose Barb)
Misc.: hose clamps, screws, label, tie wraps, bulk head fitting

Drawings Included:

BCD-06707 NU-5500/E/G Electrical Schematic
BCD-06781 Rear Panel Assembly

If any questions arise during installation, please call NuAire Technical Service at 1-800-328-3352 or 763-553-1270.

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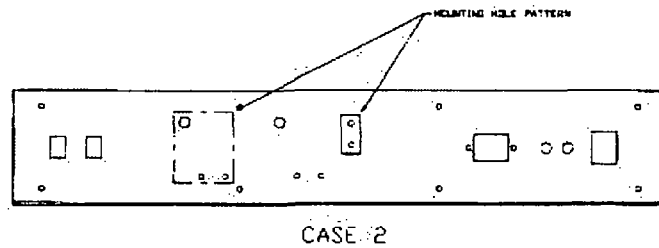
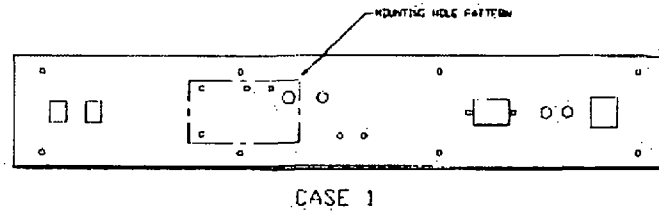
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BCD-06781 Rear Panel Assembly

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REV 2 9/05

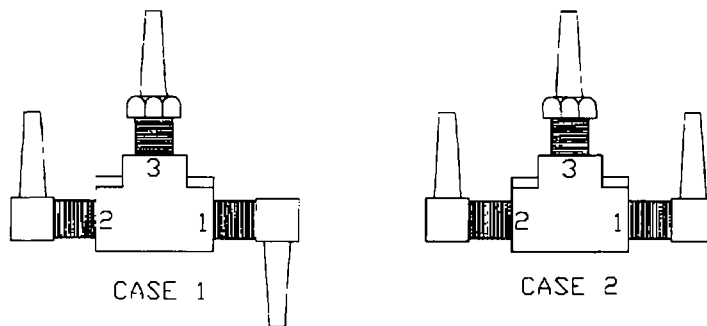
HARDWARE ASSEMBLY PREPARATION

There are two different mounting hole patterns on the back panel that require different hardware preparation and installation instructions. By looking at the back control panel of the unit, compare with enclosed drawings for (5) hole pattern, then follow appropriate instruction.



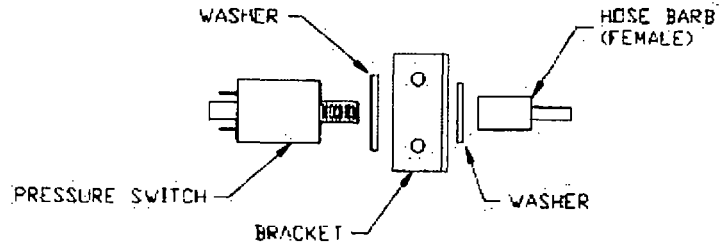
1. Tank Switch Valve Assembly Configuration:

A right angle hose barb orientation (at port 1 of tank switch valve) needs to be adjusted depending on which case. See figure below.



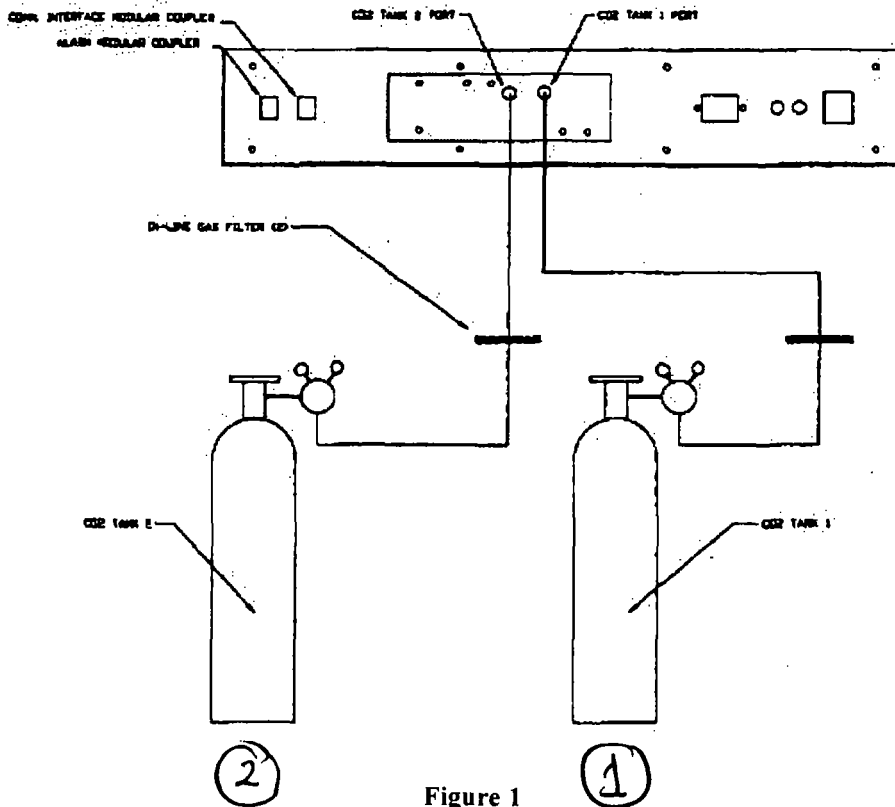
2. Pressure Switch Assembly:

There are two sizes of pressure switch brackets. The bracket with the large flange is used for case 1, and the smaller flange is used for case 2. Depending on which case, use appropriate bracket. Assembly as shown.



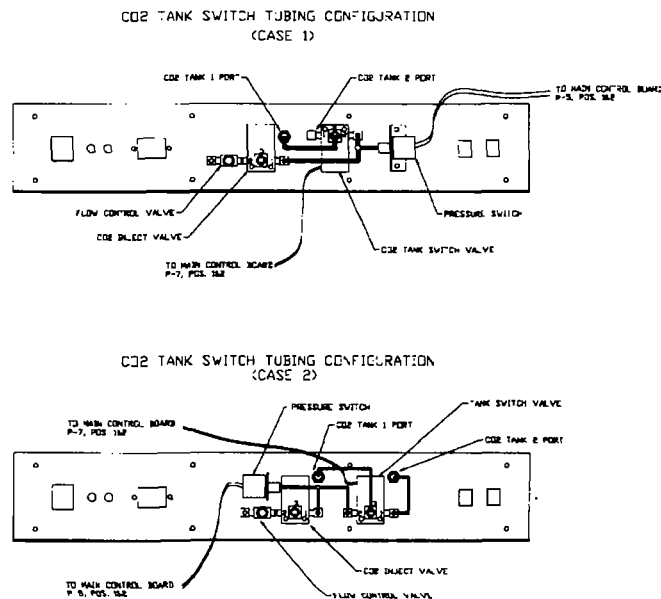
The Automatic Tank Switch internal and external installation instructions are illustrated by the following diagrams. NOTE: The correct position of the inline filters and all tubing and electrical connections are firmly in place.

EXTERNAL INSTALLATION DIAGRAM



INTERNAL CO₂ TANK SWITCH INSTALLATION

1. Remove black plastic hole plugs (5) on the back of rear panel.
2. Install bulk head fitting on rear control panel as CO₂ tank 2 port inlet (for case 2 only, see fig. 2 for location)
3. Install CO₂ tank switch valve assembly to the back of the rear panel using (2) existing holes and secure it with screws provided (see appropriate drawing for location/orientation of valve assembly).
4. Install Pressure switch assembly to the back of rear panel and secure it with screws provided (see appropriate drawing for location/orientation of switch assembly).
5. Locate CO₂ inject valve on the back of rear panel. Disconnect tubing from CO₂ tank 1 port to inlet (port #1) of CO₂ inject valve and connect to port #3 of CO₂ tank switch valve.
6. Attach tubing assembly as shown on figure 2.
7. Locate CO₂ tank switch valve, attach (2) black electrical leads to main control board P-7, position 1 and 2.
8. Locate pressure switch, attach electrical leads (yellow and black) to main control board P-5, position 1 and 2.
9. Neatly tie down electrical wires using existing wire holders, and secure tubing with tie wraps provided.
10. Connect CO₂ supplies to unit (refer to O & M instruction for CO₂ supply connection).
11. Replace top control panel, plug in incubator, turn on power switch.



INTERNAL CO₂ TANK SWITCH INITIAL SETUP

1. In either RUN or SETUP mode, press and hold NUAIRE logo hidden key for 4 seconds to initiate diagnostic mode.
2. Press \uparrow to advance to "opt" menu, then press SEL key.
3. Press SEL key to advance to CO₂ tank 2 enable function. Temperature window displays "2.tn". This function will enable or disable the optional CO₂ tank 2 system. The value display will show "ON" or "OFF" corresponding to the current condition.
4. Press \uparrow to enable CO₂ tank 2 option
5. Press SEL key to advance to CO₂ Default Tank. The temperature window displays "dF.t". This function will designate the default or primary CO₂ tank to be used in the event the system is restarted. This selection is normally made automatically during the tank switch operation.
6. Press either \uparrow or \downarrow to select default tank.
7. Press NUAIRE hidden key twice to exit diagnostic mode.

Note: Refer to NU-5500 Operation Manual, Section 8.8.1.2 for detailed information on internal CO₂ tank switch setting-up and testing.

Warranty

NuAire, Inc., warrants that it will repair F.O.B. its factory or furnish without charge F.O.B. its factory, a similar part to replace any material in its equipment within 12 months after the date of sale if proved to the satisfaction of the company to have been defective at the time it was sold provided that all parts claimed defective shall be returned, properly identified to the company at its factory, charges prepaid. Factory installed equipment or accessories are warranted only to the extent guaranteed by the original manufacturer, and this warranty shall not apply to any portion of the equipment modified by the user. Claims under this warranty should be directed to NuAire, Inc. setting forth in detail the nature of the defect, the date of the initial installation and the serial and model number of the equipment.

This warranty shall not apply to any NuAire product or part thereof which has been subject to misuse, abuse, accident, shipping damage, improper installation or service, or damage by fire, flood or acts of God. If the serial number of this product is altered, removed or defaced as to be illegible, the warranty shall be null and void in its entirety.

The warranty is for the sole benefit of the original purchaser and is not assignable or transferable. Prior to returning any item, for any reason, contact NuAire, Inc. for a Return Authorization Number. This number must accompany all returns. Any product shipped to NuAire without this number will be returned, refused shipment or collect freight.

Shipment

NuAire takes every reasonable precaution to insure that your incubator arrives without damage. Motor carriers are carefully selected and shipping cartons have been specially designed to insure your purchase. However, damage can occur in any shipment and the following outlines the steps you should take on receipt of a NuAire incubator to be sure that if damage has occurred, the proper claims and actions are taken immediately.

Damaged Shipments

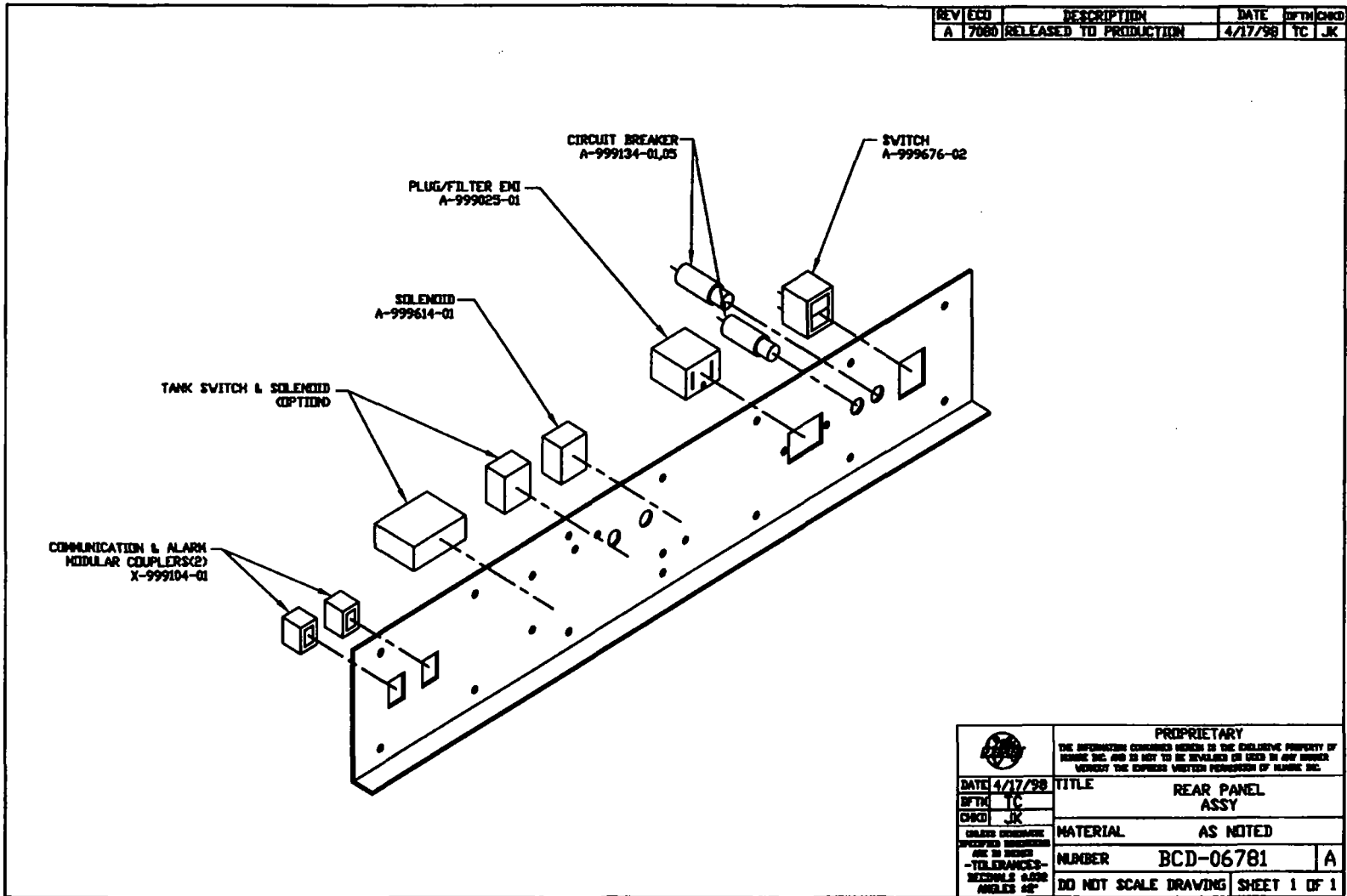
Terms are factory, unless stated otherwise. Therefore, it is important to check each shipment before acceptance.

If there is visible damage, the material can be accepted after the driver makes a notation on the consignee's copy of the freight bill. Then an inspection must be made to verify the claim against the carrier. This inspection is the basis of your filing the claim against the carrier.

If concealed damage is found, it is absolutely necessary to NOTIFY THE FREIGHT AGENT AT ONCE, and request an inspection. Without this inspection, the transportation company may not accept a claim for loss or damage. If the carrier will not perform the inspection, an affidavit must be prepared stating the he was contacted on a certain date and that he/she failed to comply with the request. This along with other papers in the customer's possession will support the claim.

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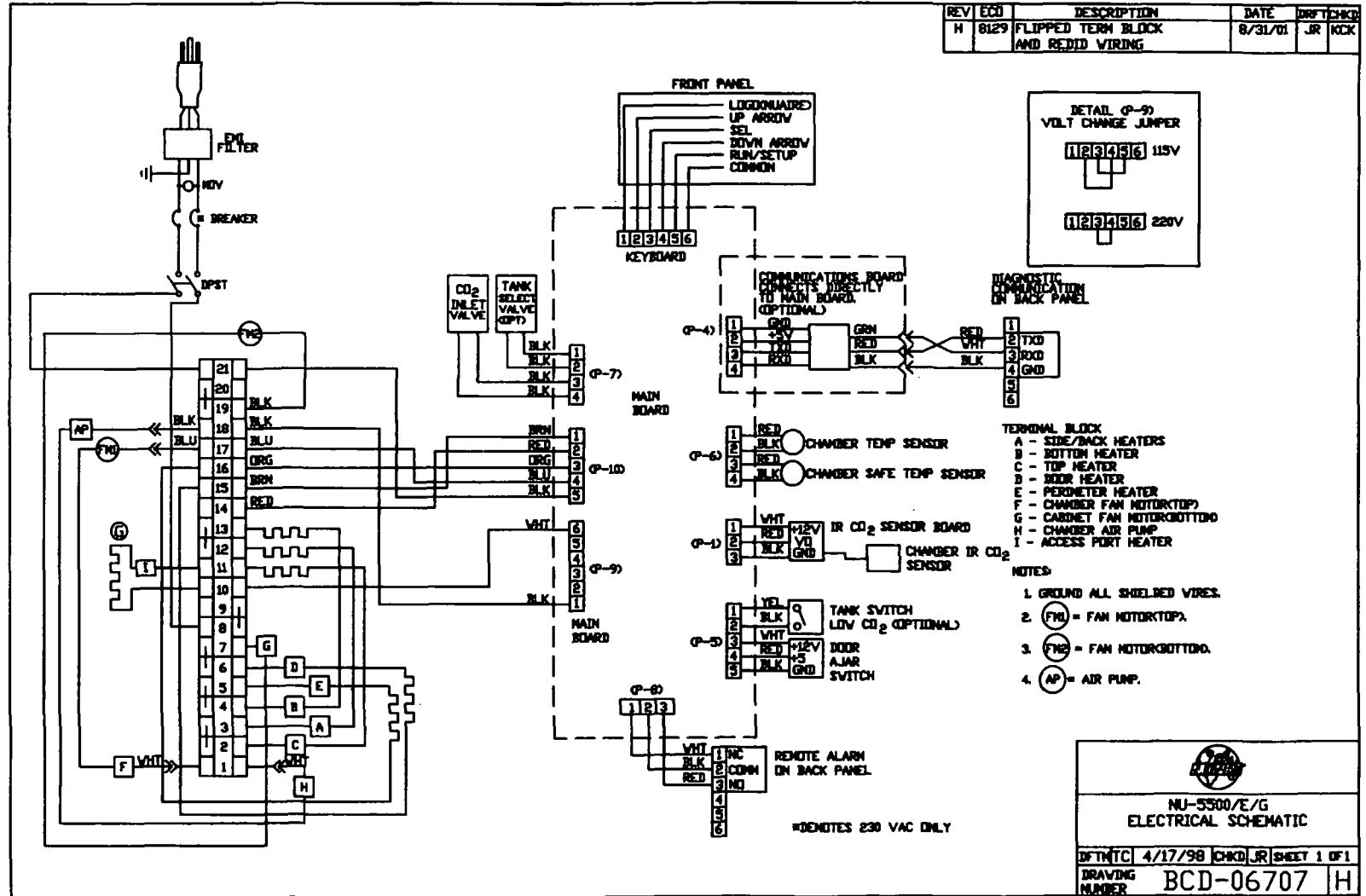


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A	7060	RELEASED TO PRODUCTION	4/17/98	TC JK

PROPRIETARY	
THE INFORMATION CONTAINED HEREIN IS THE EXCLUSIVE PROPERTY OF PERMIE INC. AND IS NOT TO BE REPRODUCED OR USED IN ANY MANNER WITHOUT THE EXPRESS WRITTEN PERMISSION OF PERMIE INC.	
DATE 4/17/98	TITLE REAR PANEL ASSY
BY/CHKD TC JK	MATERIAL AS NOTED
CHKD JK	NUMBER BCD-06781 A
<small> UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES -TOLERANCES- DECIMALS BASE ANGLES 45° </small>	DO NOT SCALE DRAWING SHEET 1 OF 1

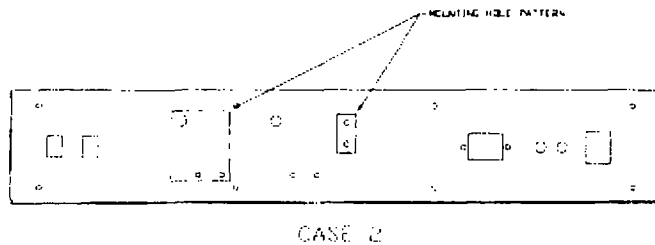
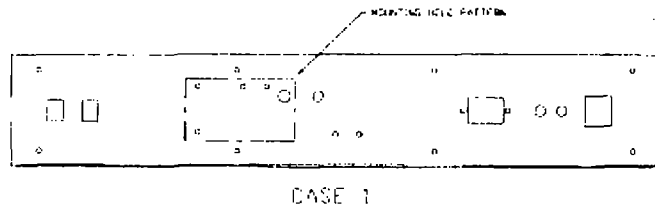
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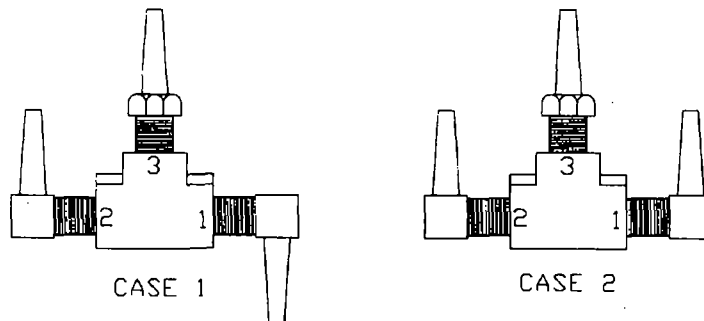
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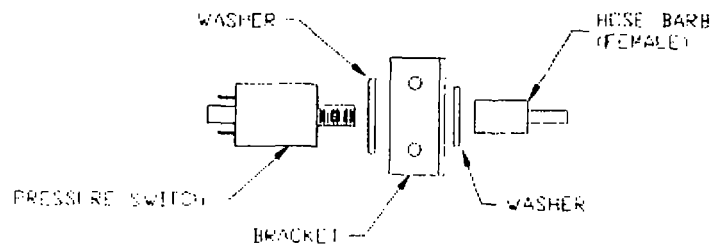
1. Tank Switch Valve Assembly Configuration:

A right angle hose barb orientation (at port 1 of tank switch valve) needs to be adjusted depending on which case. See figure below.



2. Pressure Switch Assembly:

There are two sizes of pressure switch brackets. The bracket with the large flange is used for case 1, and the smaller flange is used for case 2. Depending on which case, use appropriate bracket. Assembly as shown.



The Automatic Tank Switch internal and external installation instructions are illustrated by the following diagrams. NOTE: The correct position of the inline filters and all tubing and electrical connections are firmly in place.

EXTERNAL INSTALLATION DIAGRAM

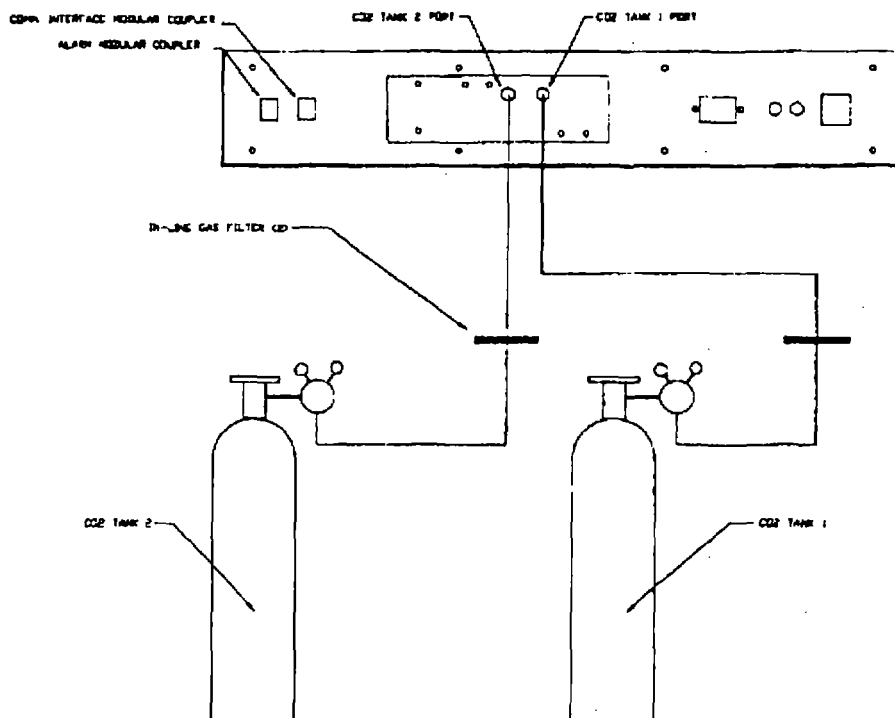
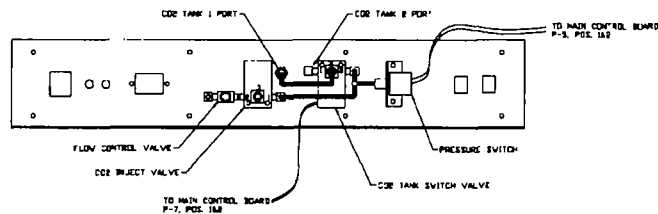


Figure 1

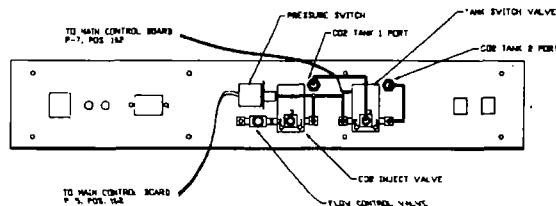
INTERNAL CO₂ TANK SWITCH INSTALLATION

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11. Replace top control panel, plug in incubator, turn on power switch.

CO₂ TANK SWITCH TUBING CONFIGURATION
(CASE 1)



CO₂ TANK SWITCH TUBING CONFIGURATION
(CASE 2)



INTERNAL CO₂ TANK SWITCH INITIAL SETUP

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6. Press either \uparrow or \downarrow to select default tank.
7. Press NUAIRE hidden key twice to exit diagnostic mode.

Note: Refer to NU-5500 Operation Manual, Section 8.8.1.2 for detailed information on internal CO₂ tank switch setting-up and testing.

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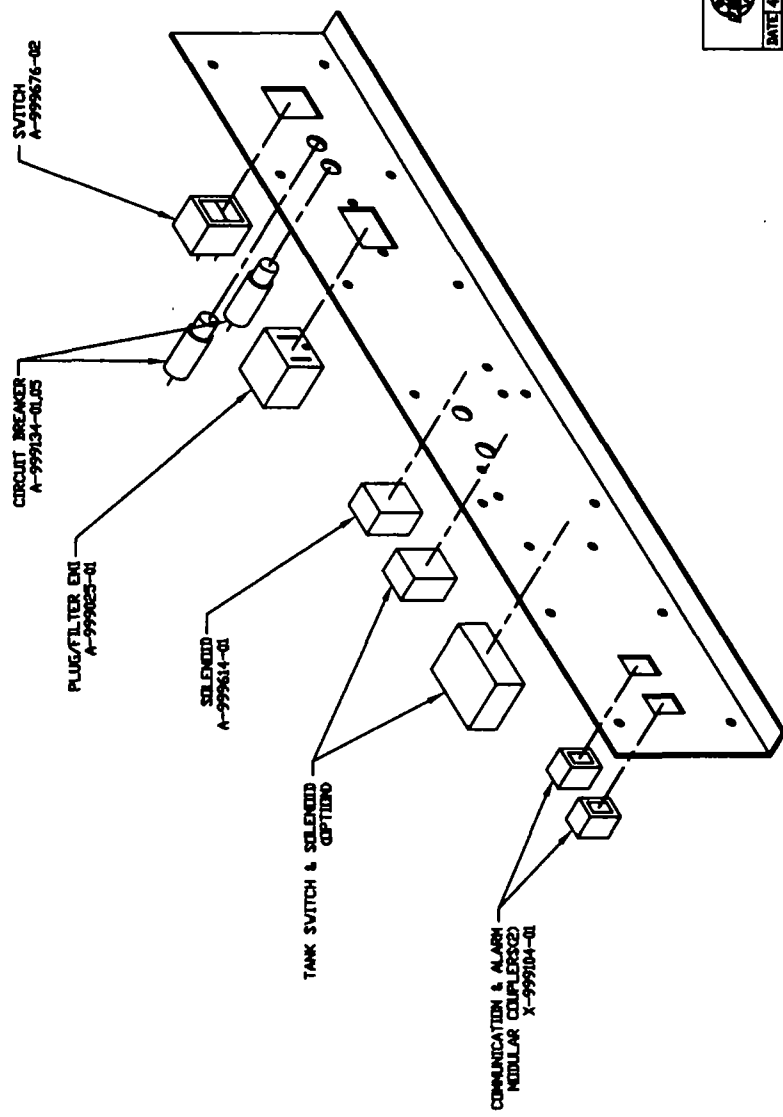
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A	RELEASED TO PRODUCTION	4/17/98	TC JK



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DATE	4/17/98	TITLE	REAR PANEL ASSY
BY	TC	MATERIAL	AS NOTED
CHKD	JK	NUMBER	BCD-06781
CHECKED BY NAME TITLE -FIELD OFFICE- PHONE NO. MAILING NO.		DO NOT SCALE DRAWING SHEET 1 OF 1	