



DEF TRANSFER SYSTEM

USER MANUAL



9 GPM 120V AC Pump for Transferring Diesel Exhaust Fluid (DEF)

LETTER FROM THE PRESIDENT OF IPA®

My name is Peter Vinci and I am the president of IPA®. I would like to first thank you for your interest in IPA®'s product line and share my commitment to you, our products and our policies. In today's world, we have all experienced the lack of service and consideration demonstrated by many companies after you buy their products. They say whatever they can to make the sale, and then it's like pulling teeth to get any service response out of them. I know this myself first-hand and because of this, I want to be sure that your experience with IPA® meets your expectations and that IPA® never disappoints you with our service or customer response.

To prove my commitment to you, if for any reason you are not happy with one of our products or more importantly, with the response from our customer service or any member of the IPA® team for any reason, I invite you to contact me directly via my e-mail, peter@ipatools.com or call me at 888-786-7899. Your satisfaction is more important to me than the sale itself. We will not be in business for long if we don't make you completely happy with our products and service. I want IPA® to be different and to be known for its quality and service.

With that said, please take a look at our product line. You will see innovative first time products that were created to help you do your job faster and better than before. I would also like to invite you to critique our products. If you can think of a better way to make them or changes that will make them better, then again, please contact me directly and I will be sure to look into it. If you have an innovation and would like some feedback, give me a call.

From all of us at IPA®, we thank you for taking the time to review our product line and wish you and your family the very best of everything.



Peter Vinci
President
IPA®

www.ipatools.com

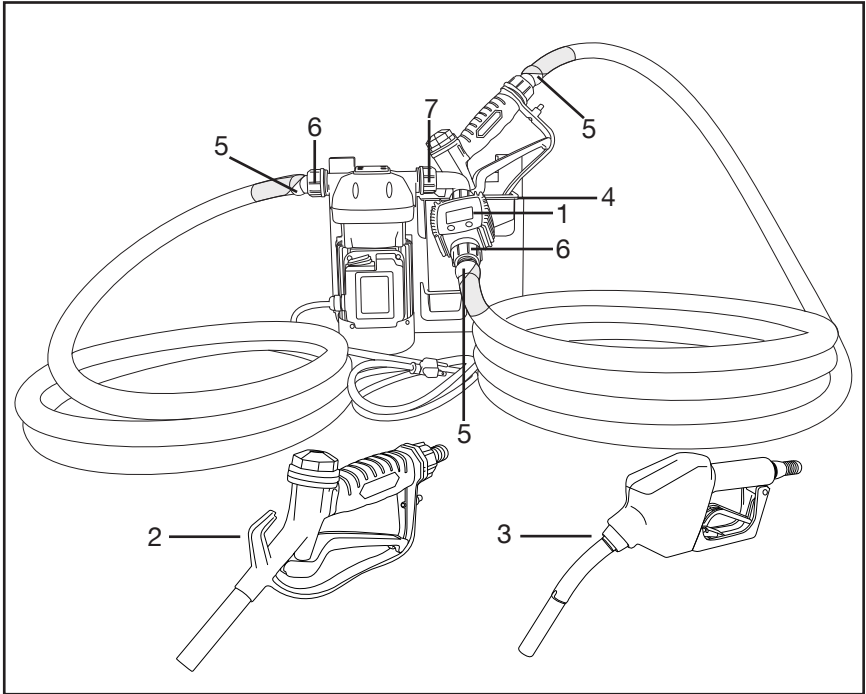
Toll Free: 888-786-7899

Phone: 845-679-4500

Fax: 845-679-4600

DEF TRANSFER SYSTEM PARTS

Fig. 1 - Parts Diagram



#	IPA Part Number	Description
1	9070-DEFMET	Meter
2	9070-DEFNOZ	Nozzle, Manual (#9070, #9070-20)
3	9070-DEFNOZA	Nozzle, Automatic (#9070A, #9070A-20)
4	9070-3	Pump Mount Bracket
5	PFT0058	1" Band Clamp
6	9070-1	Intake Fitting & Meter-Output Fitting
7	9070-2	Output Fitting
	HS-DEFBLK	Hose, 8' (#9070, #9070A)
	HS-DEFCLR	Hose, 6' (#9070, #9070-20, #9070A, #9070A-20)
	HS-DEFBLK	Hose, 20' (#9070-20, #9070A-20)

IMPORTANT SAFETY INSTRUCTIONS

IT IS IMPORTANT TO READ, UNDERSTAND AND FOLLOW ALL SAFETY MESSAGES AND INSTRUCTIONS PRINTED IN THIS MANUAL AND ON THE EQUIPMENT BEFORE OPERATING. IF SAFETY INFORMATION IS NOT HEEDED, DEATH OR SERIOUS INJURY TO THE OPERATOR OR BY-STANDERS MAY OCCUR.

DANGER

Indicates a hazardous situation that if not avoided, will result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

WARNING

Indicates a hazardous situation that if not avoided, could result in death or serious injury. The possible hazards are shown in the adjoining symbols or explained in the text.

CAUTION

Indicates a hazardous situation that if not avoided, may result in minor or major injury. The possible hazards are shown in the adjoining symbols or explained in the text.



POTENTIAL EYE HAZARD: Wear OSHA approved safety glasses.



POTENTIAL SKIN IRRITATION/BURN HAZARD: Wear protective gloves.



POTENTIAL ELECTRIC HAZARD: Electrical energy can cause heat and burn hazards.

OPERATING CONDITIONS

ENVIRONMENTAL CONDITIONS

Temperature: Min. -10°C (14°F) / Max. $+60^{\circ}\text{C}$ (140°F)

Relative Humidity: Max. 90%

ATTENTION! The temperature limits shown apply to the pump components and must be respected to avoid possible damage or malfunction.

ELECTRICAL POWER SUPPLY

The pump must be supplied by a single-phase alternating current line (120V AC at 60 Hz). The maximum acceptable variations from the electrical parameters are:

Voltage: +/-5% of the nominal value; Frequency: +/-2% of the nominal value

ATTENTION! Power from lines with values outside the indicated limits can damage the electrical components.

WORKING CYCLE

The pump is designed for continuous use under maximum back pressure.

ATTENTION! Functioning under bypass conditions is only allowed for brief periods of time (2-3 minutes maximum).

FLUIDS PERMITTED

- Chemical products: diesel exhaust fluid, urea, weak acid and weak alkaline fluid, etc.
- Water

WARNING! For use with permitted fluids only. Do not use to transfer any hard contaminants such as rocks, leaves, etc. This can damage the pump and void the warranty.

WARNING! Do not operate with caps installed or bodily injury can result.

SPECIFICATIONS

Pump Type: Rotary Diaphragm

Pump Req: 120V AC (6.5 Amp)

Flow Rate: 9 GPM

Meter: Digital

Meter Req: CR2 Lithium Battery (Included)

Hanging Bracket: Steel Construction

Weight: 15 lbs.

INSTALLATION

PRELIMINARY INSPECTION

- Check for any damage on the machine that may have occurred during transport.
- Clean the inlet and output openings, removing any dust or residual packing material.
- Make sure that the motor shaft turns freely.
- Check that the electrical specifications correspond to those shown on the identification plate.

ATTENTION! THE MOTORS ARE NOT OF AN ANTI-EXPLOSIVE TYPE. Do not install them where flammable vapors may be present.

CONNECTING

- Before connecting, make sure that the tubing and the suction tank are free of dirt and residue that could damage the pump and its accessories.
- Do not use conical threaded joints that could damage the threaded pump openings if excessively tightened.

Step 1: SUCTION HOSE

Connect the intake hose by the intake fitting to the inlet of the pump.

Step 2: DELIVERY HOSE

Connect the output hose to the output of the pump or flow meter.

Step 3: FLOW METER (Optional)

Connect the flow meter by the elbow to the outlet of the pump.

Step 4: NOZZLE

Connect the dispensing nozzle to the end of the output hose.

DISPENSING

After installation of the pump system is complete, connect the power supply and start dispensing.

ATTENTION! It is the installer's responsibility to use tubing with adequate characteristics. Loosening of the connections (threaded connections, flanging, gasket seals) can cause serious ecological and safety problems. Check all the connections after the initial installation and continue to check them on a daily basis. Tighten the connections if necessary.

HOW TO USE THE METER

INTRODUCTION

Only low viscosity liquids are compatible with the turbine digital meter, namely: diesel exhaust fluid, water/urea solution.

Use of other fluids may cause inaccurate measurements and can damage the meter. Flow Rate: 3-26 GPM. Flow rates outside of this range may be incorrect.

LCD DISPLAY

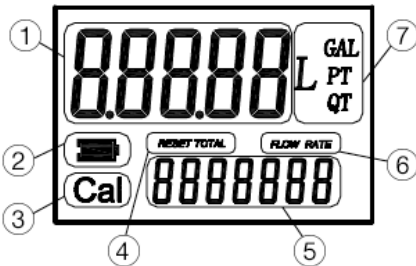
The LCD meter features two numerical registers and various indications displayed to the user only when the applicable function requires.

BATTERY REPLACEMENT

To replace battery, open the cover, remove the plug and replace the battery.

KEY

1. Partial register (four figures with moving comma from 0.1 to 99999) indicates the volume dispensed since the reset button was last pressed.
2. Indication of battery charge.
3. Indication of calibration mode.
4. Indication of resetting present total to zero.
5. Total register.
6. Indication of flow rate mode.
7. Indication of unit of measurement for partial: L = Liters PT = Pints
GAL = Gallons QT = Quarts



(Fig. 2)

USER BUTTONS

The turbine digital meter features two buttons: MENU and RESET. Individually they perform two main functions and together, other secondary functions. The main functions performed are:

RESET key: resetting the partial register and table total.

MENU key: entering instrument calibration mode.

Used together, the two keys permit entering configuration mode.

CHANGING UNIT OF MEASUREMENT

RESET THE PRESENT TOTAL (Fig. 3)

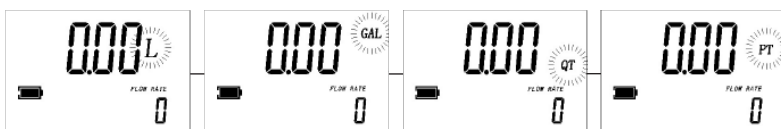
- 1) When the meter is on standby, press the RESET key.
- 2) The display shows all the segments.
- 3) The meter resets the present total.



(Fig. 3)

MEASUREMENT UNIT CHANGE (Fig. 4)

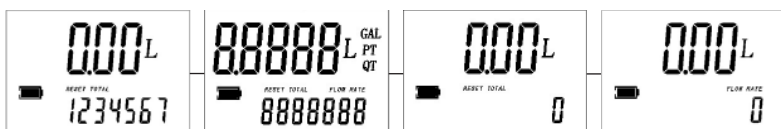
Press MENU and RESET together and hold for five seconds. Zone 7 on the display shows the current unit. Press RESET to choose a different measurement unit and then press MENU to confirm.



(Fig. 4)

RESET THE RESETTABLE TOTAL (Fig. 5)

When the meter is on standby, press the RESET key for two seconds to reset the present total.



(Fig. 5)

CALIBRATION

If you suspect that the meter calibration is incorrect, please contact technical support for detailed calibration instructions at 888-786-7899, or e-mail tech247@ipatools.com.

DAILY USE

- If using flexible tubing, attach the ends of the tubing to the tanks. In the absence of an appropriate slot, solidly grasp the delivery tube before beginning to dispense.
- Before starting the pump, make sure that the nozzle is closed (dispensing nozzle or line valve).
- Turn the ON/OFF switch to ON. The bypass valve allows functioning with the nozzle closed only for brief periods.
- Open the nozzle, solidly grasping the end of the tubing.
- Close the nozzle to stop dispensing.
- When dispensing is finished, turn off the pump.

ATTENTION! Function with the delivery valve closed is only allowed for brief periods (2-3 minutes maximum). After using, make sure the pump is turned off.

MAINTENANCE

All models are designed and constructed to require minimum maintenance. Always bear in mind the following basic recommendations to ensure proper performance:

- On a weekly basis, check that the tubing joints have not loosened to avoid any leakage.
- On a weekly basis, check and keep clean the line suction filter.
- On a monthly basis, check the pump body and keep it clean of any impurities.
- On a monthly basis, check that the electric power supply cables are in good condition.

DISPOSING OF CONTAMINATED MATERIALS

In the event of maintenance or demolition of the machine, do not disperse contaminated parts into the environment. Refer to local regulations for their proper disposal.

PROBLEMS AND SOLUTIONS

Problem	Possible Cause	Solution
LCD: no indication	Bad battery contact	Check battery contacts
Imprecise measurement	Wrong factor	Contact manufacturer
Reduced or zero flow rate	The meter is working below minimum acceptable flow rate	Increase the flow rate until an acceptable flow rate range has been achieved
	Turbine blocked	Clean the turbine
The meter does not count, but the flow rate is correct	Incorrect installation of gears after cleaning	Repeat the reassembly process
	Possible electronic card problems	Contact manufacturer
Motor is not turning	Lack of electric power	Check the electrical connection
The motor turns slowly when starting	Motor problems	Contact manufacturer

DEF Transfer System Selection Chart

FEATURES	#9070	#9070A	#9070-20	#9070A-20
120V AC Pump	✓	✓	✓	✓
Tote Hang Design	✓	✓	✓	✓
Digital Flow Meter	✓	✓	✓	✓
Manual Transfer Nozzle	✓		✓	
Auto Shut-off Nozzle		✓		✓
20 ft. Output Hose			✓	✓

Related Products

DEF Recovery Wand Kit #9071



5 ft. flexible wand with quick disconnect fittings designed to reach the bottom of DEF tanks. (Optional accessory for #9070)

Fuel Transfer & Filtration

Fleet Tank Sweeper® (120V AC) #9049M



A compact, portable fuel transfer and filtration system includes input and output hoses along with special attachments for accessing saddle tanks and 55 gallon drums.

Fuel Tank Sweeper® #9040PN



The industry's leading mobile transfer and filtration platform is geared towards oil service professionals, but versatile enough for a variety of uses.

Industrial Fuel Cleaner and Transfer System #DTP20C



A DC-powered mobile fuel transfer system provides efficient and accurate diesel fuel transfer and filtration in a highly mobile package.

Limited One Year Warranty

DEF TRANSFER SYSTEM

Innovative Products of America® Incorporated has established a Limited One Year Warranty Policy for the DEF Transfer System.

One Year Limited Warranty/Return or Replace Policy: The product is covered for one year from the date of original user purchase under the stipulations of the Standard Warranty.

The product is warranted to be free from defects in workmanship or material. If there is a problem due to workmanship or material defect, Innovative Products of America® Incorporated will repair or replace the product within 24 working hours after it is received by the IPA® Repair Service Center. In the event it is determined that the product has been tampered with, or altered in any way, the warranty is void and all claims against the product will not be honored. The Warranty Repair/Return procedures require that the proof of purchase must be established (either by warranty card from the seller or by point of purchase receipt/invoice) and the manufacturer makes every attempt to return ship the product within three business days from the receipt of the returned product, freight prepaid.

If it has been determined that the tool has been damaged due to misuse, Innovative Products of America® Incorporated will repair the tool at a cost we deem reasonable and these charges will be the responsibility of the user. We truly want you to be happy with our products, so if you have any questions, call us toll-free at 888-786-7899.

SATISFACTION GUARANTEED



Innovative Products of America® Incorporated
234 Tinker Street, Woodstock, NY 12498
888-786-7899 / 845-679-4500 | www.ipatools.com

© 2015 Innovative Products of America®, Incorporated. All rights reserved. This material may not be reproduced, displayed, modified or distributed without prior express written permission of the copyright holder. For permission, contact info@ipatools.com.