



国环绿源  
GUOHUAN

# M2682271I

ITEM NUMBER: GHLY-024, GHLY-040

## Owner's Manual

Instructions for Assembly, Testing, Operation, Servicing, and Storage

**Diaphragm Pump:** For use with non-potable liquids such as water-based other liquids\*\*

### WARNING

**READ and UNDERSTAND the Owner's Manual completely before using this pump.**  
Assemble, test, and use only in accordance with the Owner's Manual instructions.

**WEAR personal protective gear when operating, cleaning, and servicing the pump.**

**Any Questions, Comments, Problems, or Parts Orders**  
***Call GHLY Product Support 023-62318206***



**Table of Contents**

**Installation**  
    Step One: Mounting..... 3  
    Step Two: Plumbing.....3

**Troubleshooting..... 4**

**Specifications..... 5**

**Parts Breakdown – Exploded Views..... 6**

# Installation

## Step One: Mounting

- This pump is self-priming.
- The pump should be located in an area that is dry and provides adequate ventilation.

### CAUTION

**DO NOT** locate the motor near low temperature plastics or combustible material. The surface temperature of the motor may exceed 250°F [121 °C].

- The pump may be mounted in any horizontal position. If mounting the pump vertically, the pump head should be in the down position so that in the unlikely event of a leak, fluid will not enter the motor.
- Secure the rubber feet. **DO NOT** compress the feet, doing so will reduce their ability to isolate vibration/noise. (Note: fasteners are not included.)

## Step Two: Plumbing

- See table below for port size and recommended hose sizes.
  - Remove shipping plugs from pump ports.
  - Use plastic male NPT (Tapered pipe thread) fittings to connect flexible high-pressure tubing to the NPT ported pumps.
  - Use NorthStar quick connect fittings to connect flexible high pressure tubing to the quick connect ported pumps.
  - To insert quick connect fittings, lubricate O-ring with water and twist fitting while inserting into pump port.

Pump Model	Ports	Minimum inlet hose size	Minimum outlet hose size
GHLY-024	3/8" Female NPT	1/2" (13mm) Inside diameter	3/8" (9.5mm) Inside diameter
GHLY-040	3/8" Female NPT	1/2" (13mm) Inside diameter	3/8" (9.5mm) Inside diameter

### NOTE:

- In some cases, the ports may require a suitable thread sealer applied sparingly. **DO NOT** over-tighten; maximum torque is 45 in.-lb [5 N-m].
- Tubing should be compatible with the spraying fluid. At least 18" [450mm] length is suggested to minimize stress on the fitting/ports and reduce noise. Allow for the shortest possible tubing route and avoid sharp bends that may kink over time.
- Installation of a 50-mesh strainer is recommended to prevent foreign debris from entering the system. Failures due to foreign debris are not covered under the warranty.

**NOTE:** Restrictions on the inlet may cause a loss in performance. Inlet pressure must not exceed 30 psi [2.1 bar]

- If a check valve is installed in the plumbing, it must have a cracking pressure of no more than 2 psi [.14 bar].

### CAUTION

Sealers and Teflon tape may act as lubricant causing cracked housings or stripped threads due to over tightening. Care should be used when applying sealers; it may enter the pump inhibiting valve action, causing no prime or no shut-off. Failures due to foreign debris are not covered under the warranty.

## Troubleshooting

If the pump has been used previously, it must be prepared BEFORE EACH SUBSEQUENT USE.

### WARNING

Read instructions below carefully for inspecting and preparing the pump.

Damaged or clogged equipment could result in leaks.

Leaks could result in injury to the operator or bystanders from chemical exposure, or cause damage to the environment.

#### Important safety rules:

- **Power off.** Make sure all power is OFF before cleaning, inspecting, or servicing the pump.
- **Guards / shields.** Make sure all guards and shields are replaced after servicing the pump.
- **Replacement parts.** If a part needs replacement, only use parts that meet the manufacturer's specifications. Replacement parts that do not meet specifications may result in a safety hazard.

PROBLEM	CAUSE	SOLUTION
Pump will not turn on	Bad electrical connection	Check battery connections
	Short in wires	Check condition of wires
	Fuse blown	Replace fuse
	Locked drive	Replace diaphragm assembly
	Faulty pressure switch	Replace pressure switch assembly
	Incorrect voltage	Check voltage ( $\pm 10\%$ )
Pump will not prime	Out of product	Refill supply container
	Inlet air leak	Tighten fittings/ Replace cracked fittings
	Inlet/ Outlet tube restriction	Remove restriction
	Incorrect voltage	Check voltage ( $\pm 10\%$ )
	Clogged intake valves	Remove obstruction
	Clogged intake tube	Remove obstruction
Low pressure/ flow	Inlet air leak	Tighten fittings/ Replace cracked fittings
	Worn diaphragm	Replace diaphragm assembly
	Worn valves	Replace valve plate assembly
	Inlet/ Outlet tube restriction	Remove restriction
	Incorrect voltage	Check voltage ( $\pm 10\%$ )
	Clogged intake valves	Remove obstruction
Pump leaks	Loose fasteners	Tighten fasteners
	Pump seals degraded	Replace pump head assembly
	Leak in diaphragm	Replace diaphragm assembly
Pump cycles while not spraying	Leak in the system	Tighten leaking hose clamps/ fittings
	Faulty pressure switch	Replace pressure switch assembly
	Incorrect voltage	Check voltage ( $\pm 10\%$ )
Rough operation	Air trapped in system	Purge the air from the system
	Flexible mounting surface	Mount pump on rigid surface
	Loose pump head	Tighten fasteners
	Compressed base feet	Decompress base feet
	Rigid plumbing	Plumb pump with flexible plumbing

## Specifications

Model Number	Electrical connection	Maximum amp draw	Maximum flow	Maximum pressure	Ports	Overall dimensions	Weight
GHLY-024	24V DC	5Amps	1.5 GPM [5.7 LPM]	70 PSI [4.8 bar]	3/8" Female NPT	9"x 4"x 4" [230mm x 102mm x 102mm]	4.9 lbs. [2.22 kg]
GHLY-040	24 VDC	8 Amps	2.2 GPM [8.3 LPM]	70 PSI [4.8 bar]	3/8" Quick connect	9"x 4"x 4" [230mm x 102mm x 102mm]	4.9 lbs. [2.22 kg]

### Component Materials\*

Pump Head..... Polypropylene, Viton®, Stainless Steel  
 Diaphragm..... Santoprene™  
 Valves..... Viton®, Polypropylene

\*Before using any chemical, check to ensure the chemical is compatible with all materials in the system.

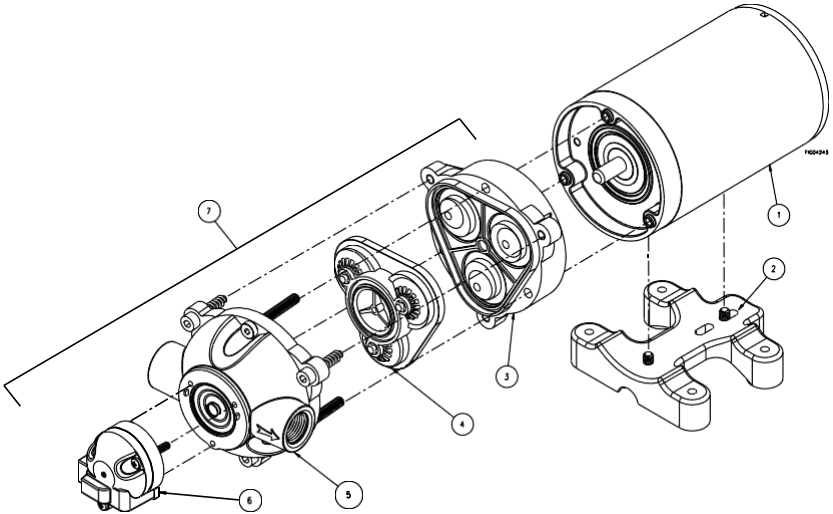
The noise emissions from this product do not exceed 70 dB(A).

#### Note:

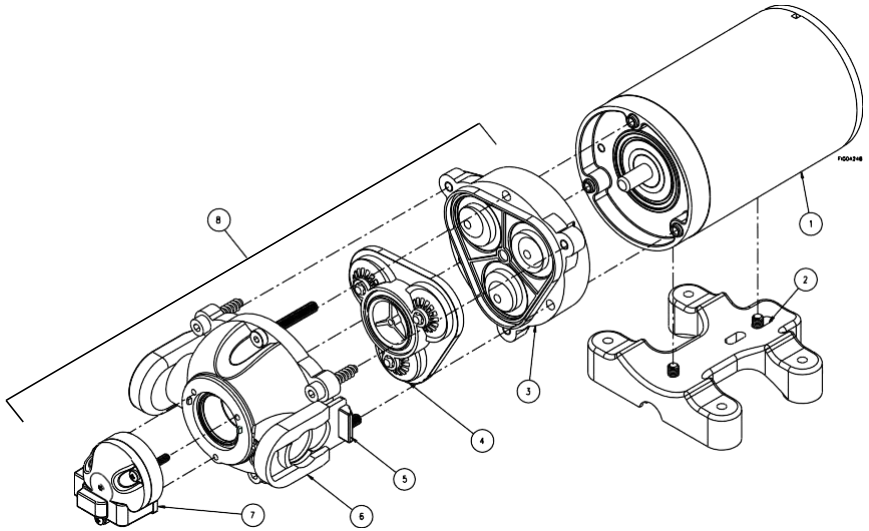
The pump is not compatible with bleach, chlorine or ice control chemicals. Also, pumping any petroleum based fluid (gasoline, diesel, kerosene, oil) will severely damage the pump.

The manufacturer reserves the right to make improvements in design and/or changes in specifications at any time without incurring any obligation to install them on units previously sold.

## Exploded View – GHLY-024 –

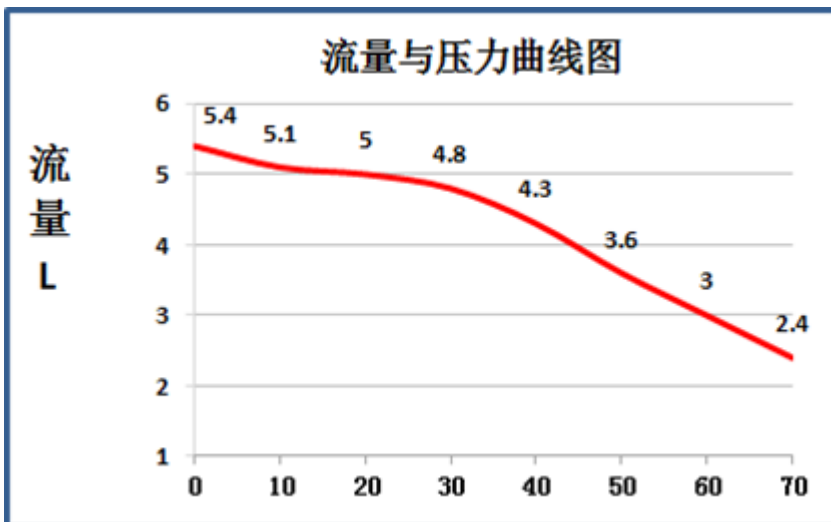
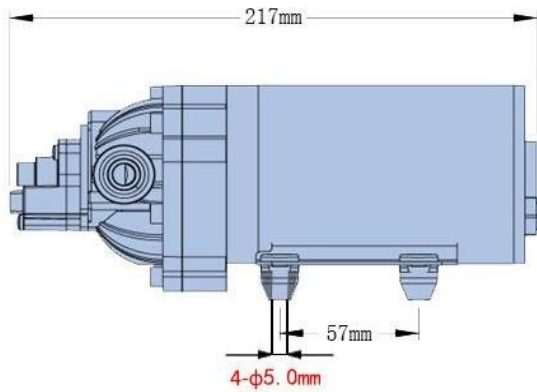
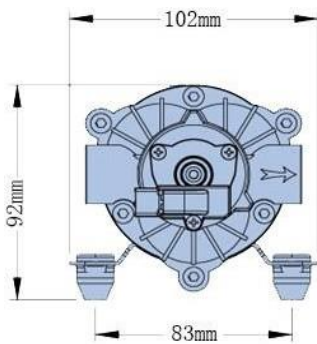


Ref#	Part#	Description	Qty
1	800129	Motor assembly	1
2	800428	Base plate assembly	1
3	794988	Diaphragm assembly	1
4	794989	Valve plate assembly	1
5	786983	Upper housing assembly	1
6	786953	Pressure switch assembly	1
7	A2682271	Complete pump head assembly	1
N/A	787381	Replacement fuse	1



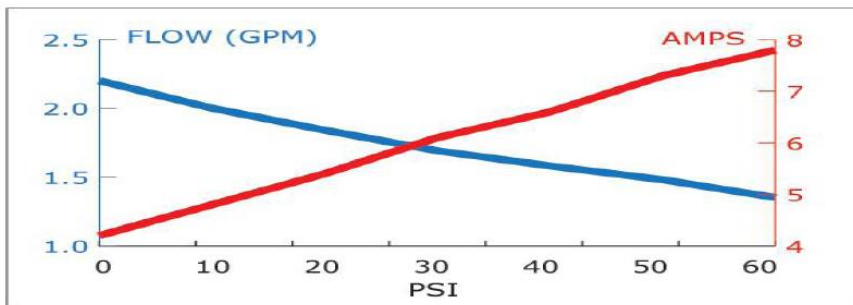
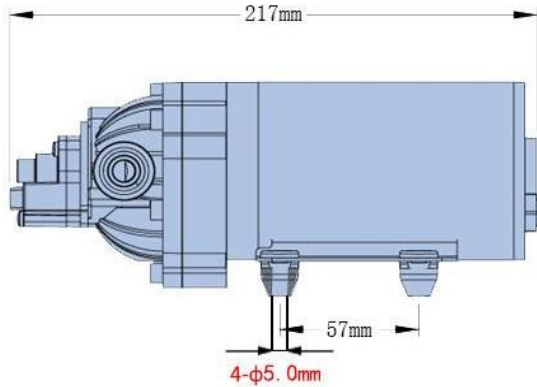
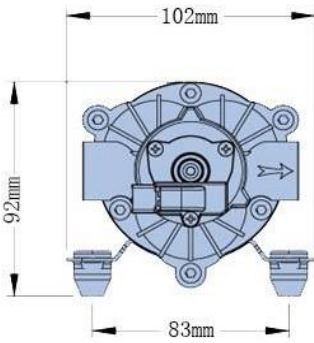
Ref#	Part#	Description	Qty
1	800132	Motor assembly	1
2	800428	Base plate assembly	1
3	794988	Diaphragm assembly	1
4	794989	Valve plate assembly	1
5	787015	Quick connect clip	2
6	787011	Upper housing assembly	1
7	786953	Pressure switch assembly	1
8	A2682272	Complete pump head assembly	1
N/A	787381	Replacement fuse	1

**隔膜泵- GHLY-024**  
**Demand Diaphragm Pump with Quick-Connect Ports — 1.5 GPM @ 70 PSI**



Key Specs	
主要参数	
Item#	GHLY-024
产品编号	GHLY-024
Manufacturer's Warranty	
质保期	
12 months	
自出售日期1年	
Ship Weight	5.0 lbs/2.27kg
单重	5.0 lbs/2.27kg
Power Supply	24V DC
Flow (GPM)	1.5
Pressure (PSI)	70
Amps	5
Max. Inlet Pressure (PSI)	
最大压力 (PSI/Mpa)	
70psi/0.48Mpa	
Lift (ft.)	10ft./3.048m
吸程	10ft./3.048m
Self-Priming	自吸Yes
Dimensions L x W x H (in./mm)	
泵体尺寸(in./mm)	
8.53 x 4.02x 3.64(217x102x92)	
Mounting Base L x W (in.)	
底板联接尺寸(in./mm)	
2.25 x 3.19(57x81)	
Inlet Port (in.)进水接头	
3/8 公螺纹接头	
3/8 Female NPT	
Outlet Port (in.)出水接头	
3/8 公螺纹接头	
3/8 Female NPT	

**隔膜泵- GHLY-040**  
**Demand Diaphragm Pump with Quick-Connect Ports — 2.2 GPM @ 70 PSI**



Key Specs	
主要参数	
Item#	GHLY-040
产品编号	GHLY-040
<b>Manufacturer's Warranty</b>	
质保期	
12 months	
自出售日期1年	
Ship Weight	5.0 lbs/2.27kg
单重	5.0 lbs/2.27kg
Power Supply	24V DC
Flow (GPM)	2.2
Pressure (PSI)	70
Amps	8
Max. Inlet Pressure (PSI)	
最大压力 (PSI/Mpa)	
70psi/0.48Mpa	
Lift (ft.)	10ft./3.048m
吸程	10ft./3.048m
Self-Priming	自吸Yes
Dimensions L x W x H (in./mm)	
泵体尺寸(in./mm)	
8.53 x 4.02x 3.64(217x102x92)	
Mounting Base L x W (in.)	
底板联接尺寸(in./mm)	
2.25 x 3.19(57x81)	
Inlet Port (in.)进水接头	
3/8 公螺纹接头	
3/8 Female NPT	
Outlet Port (in.)出水接头	
3/8 公螺纹接头	
3/8 Female NPT	