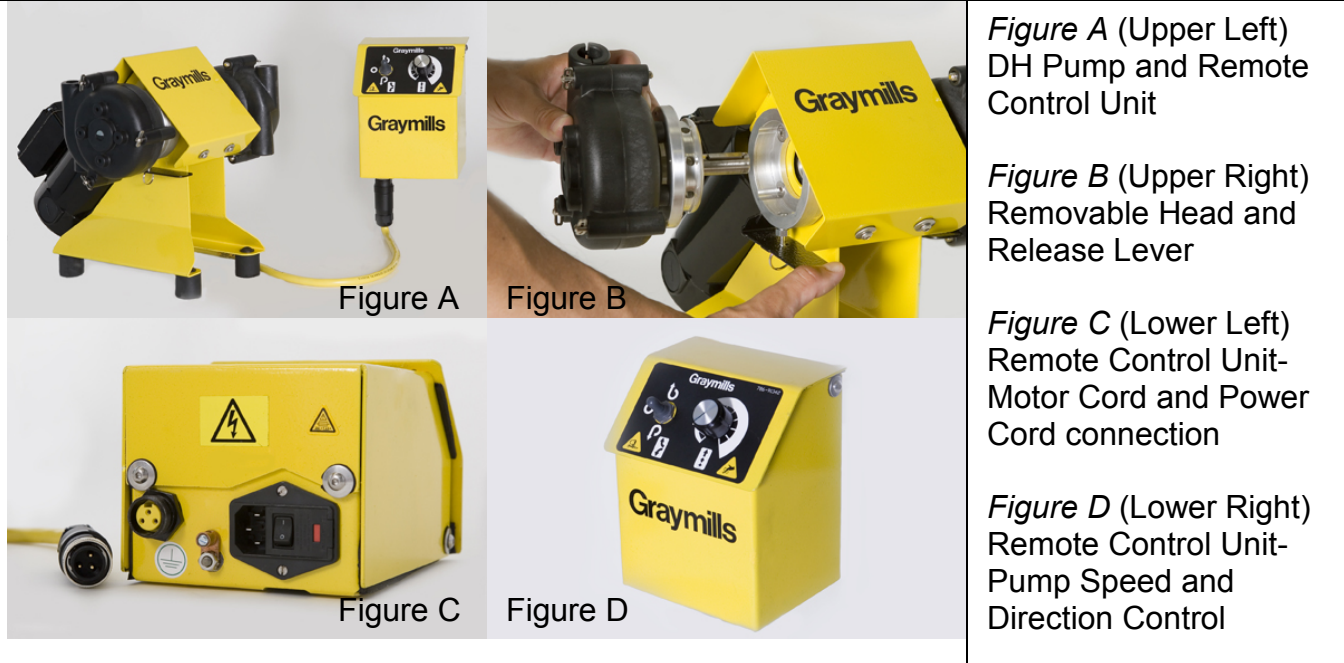


# Addendum to Operating Manual for Dual Head PERISTALTIC INK PUMPS

795-09456-B 01-2011

NOTE: This “addendum” to the **Operating and Maintenance Instruction (OMI) #795-09456** is intended for use with Dual Head Peristaltic Ink Pumps. All users of the Dual Head must first review OMI #795-09456 for complete instructions regarding general peristaltic pump safety, operation and installation. All instructions contained here apply to unique characteristics of the Dual Head Peristaltic Ink Pump only



**SAFETY-**Do Not operate pump without both Pump Heads installed on the motor housing. Both Pump Heads must be properly and securely installed on the pump for safe operation.

#### CAUTION-

- Pump Heads must be fully inserted into motor’s hollow shaft and spring pin must be fully engaged into mated aluminum adapter.
- DO NOT depress Release Lever while pump is in operation. Stop pump before pushing release lever.
- DO NOT attempt to remove, rotate or make any adjustments to Pump Heads while pump is in operation.

#### WARNING-

- Disconnect power supply to the Remote Control unit before making any connections, adjustments or performing service work
- The Dual Head Pump has two head sizes: PQS and PQL. The pump motor will accept either pump head size, but the remote control unit is factory set for one specific model. Do not drive PQS heads with a PQL control unit, or drive a PQL head with a PQS control unit.
- DO NOT disconnect motor or power cord while pump is in operation.
- DO NOT plug motor cord into any other device except the model specific Remote Control unit.
- DO NOT use the Remote Control unit to power or drive any other device.

#### OPERATING VOLTAGES

- PQL-DV-DH, PQS-DV-DH DC Motor 115/230VAC 50/60 Hz 1 Phase. Voltage selection is done automatically. No settings or switches to change.

## ABOUT Dual Head PERISTALTIC PUMPS

The Dual Head Peristaltic Ink pump can be used to supply and draw back ink/fluid to one print deck, supply the same ink/fluid to two different decks, or supply different ink/fluids to two different decks.

The Dual Head Peristaltic pump includes a hollow shaft pump motor (with female adapters and cord), two pump heads (PQL or PQS) with male adapters, remote control unit, mounting frame and power cord. The remote control unit is connected to the pump motor with a motor cord. (*Left* in Figure C, above) The power cord is plugged into the remote control unit (*Right* in Figure C, above) and supplies 110 or 240VAC power. The remote control unit automatically senses the voltage and is ready to operate. Once the pump motor cord is plugged into the underside of the remote control unit and pump heads are properly installed, the system is ready to pump.

*The Remote Control unit is not splash-resistant, and therefore cannot be mounted in areas where fluid spills can damage or disable the unit. The unit is designed to be mounted on a vertical surface with the switch and cord receptacle facing down.*

*The pump and motor unit is splash-resistant under normal usage. DO NOT immerse the pump in fluids. Contact a Graymills representative about mounting options for the pump and accessories, including stands, filters, mixers and pails.*

**The Dual Head pump is offered in two models: PQS and PQL. The pump motor will accept either pump head size, but the remote control unit is factory set for one specific model. Do not drive PQS heads with a PQL control unit, or drive a PQL head with a PQS control unit.**

- For complete information about roller and hose, see the OMI #795-09456.

## OPERATING PUMP

### *Turning On*

See *Figure C*, above, showing power switch location on Remote Control Unit base.

### *Changing Pump Direction*

Specifics of switch operation for speed and direction control are in OMI #795-09456.

Like all peristaltic pumps, stopping the Dual Head will not allow lines above the pump to gravity drain because the rollers in the peristaltic pump head keep the hose partially closed after the motor is stopped. It may be necessary to remove or rearrange hoses, particularly if both lines are going to a single deck, in order for the deck to drain.

### *Fusing for the PQL-DV-DH and PQS-DV-DH Model*

For 115 and 230VAC pump operation, use two (2) fuses, Part #780-91518 (5 x20mm, 5.0 Amp, 250VAC, Type FST, Slow Blow)

## PUMP HEAD Removal/Installation

Installing or Removing a complete Pump Head, Male Adapter and Hose assembly with another of same.

For both PQS and PQL Dual Head Peristaltics, the following:

- Stop pump and disconnect power supply.
- Press Release Lever and remove current Pump Head Assembly from motor.
- Ensure one large key is in the short shaft keyway of the new Pump Head Assembly.
- Align this key with keyway of hollow shaft in motor and press Pump Head assembly into motor. If necessary rotate Pump Head slightly until key and keyway align.
- Press Release Lever and continue pressing Pump Head assembly into motor to close the gap between two mating Adapters.
- Rotate and Lock Pump Heads as desired.
- Remove pressure from Release Lever to allow spring pin to engage with Male Adapter. Rotate and pull on Pump Head to ensure it is properly secured and will not pull off.
- Pump Head Assembly is now ready for operation

## SERVICING PUMP

### PUMP HEAD ADAPTER REPLACEMENT

To attach new adapter to pump head in case of damage to adapter

For Dual Head Peristaltics, the following:

- Stop pump and disconnect power supply.
- Press Release Lever and remove Pump Head Assembly from motor.
- Unscrew and pivot three Quick Release screws and remove outside half of Pump Head.
- Unscrew four (4) cap screws to remove old Male Adapter from inside Pump Head.
- Attach new Male Adapter onto the shaft side of new Pump Head Assembly with four(4) cap screws.
- Place one large key into the short keyway of the Shaft.
- Align this key with keyway of hollow shaft in motor and press Pump Head assembly into motor.  
If necessary rotate Rotor Assembly slightly until key and keyway align.
- Press Release Lever and continue pressing Pump Head assembly into motor to close the gap between two mating Adapters.
- Remove pressure from Release Lever to allow spring pin to engage with Male Adapter.  
Rotate and pull on Pump Head to ensure it is properly secured and will not pull off.
- Ensure o-ring is on the shaft.
- Install new hose and secure with outside Pump Head and three Quick Release Screws.
- Pump Head Assembly is now ready for operation.

### PUMP HEAD REPLACEMENT

For replacing a cracked or split plastic pump half, please see the instructions in the OMI #795-09456.

## REPLACEMENT PARTS LIST

Description	Small Peristaltic PQS-DV-DH	Large Peristaltic PQL-DV-DH
Replacement Pump Head Only	401-35349-78	401-36347-78
Replacement Head Assembly	PQS-DH	PQL-DH
Replacement Head Assembly with Adapter	PQS-ADH	PQL-ADH
Motor	397-91472	397-91472
Motor Brush (2 Req'd)	743-92537	743-92537
Male Adapter (one/head)	539-39187-31	539-39187-31
Female Adapter (two/motor)	539-39191-31	539-39191-31
O-Ring replacement kit (12 pieces)	C-37515	C-37514
Hose 3/8" ID x 5/8" OD (50 ft)	729-90598-50	
Hose 5/8" ID x 7/8" OD (50 ft)		729-90597-50
Ball Bearings (two/head)	760-09251	760-09256
Swivel Lock Fastener (three/head)	402-34971	402-34971
Key, 1/8" sq. x 9/16" long.	758-08118-81 (two/head)	
Key, 3/16" sq. x 7/8" long.	758-09258 (one/head)	758-09258 (three/head)
Double Barb Fitting- 3/8" x 3/8"	730-09310	
Double Barb Fitting- 5/8" x 5/8"		730-09309
Fuse 5.0 Amp(two/Remote Control)	780-91518	780-91518
Boot Rubber for Toggle Switch	770-08481	770-08481
Lever-Hand Release	623-39192-35	623-39192-35
Retractable Pin	756-91475	756-91475

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