

WARRANTY

Use only MASTERFLEX precision tubing with MASTERFLEX pumps to ensure optimum performance. Use of other tubing may void applicable warranties.

The Manufacturer warrants this product to be free from significant deviations from published specifications. If repair or adjustment is necessary within the warranty period, the problem will be corrected at no charge if it is not due to misuse or abuse on your part, as determined by the Manufacturer. Repair costs outside the warranty period, or those resulting from product misuse or abuse, may be invoiced to you.

The warranty period for this product is two (2) years from date of purchase.

PRODUCT RETURN

To limit charges and delays, contact the seller or Manufacturer for authorization and shipping instructions before returning the product, either within or outside of the warranty period. When returning the product, please state the reason for the return. For your protection, pack the product carefully and insure it against possible damage or loss. Any damages resulting from improper packaging are your responsibility.

TECHNICAL ASSISTANCE

If you have any questions about the use of this product, contact the Manufacturer or authorized seller.

MASTERflex[®]

(US & Canada only) Toll Free 1-800-MASTERFLEX • 1-800-637-3739

(Outside US & Canada) 1-847-549-7600 • 1-847-381-7050

www.masterflex.com • techinfo@masterflex.com

*EN809 manufactured by:

Cole-Parmer Instrument Company

28W092 Commercial Avenue

Barrington, IL 60010

OPERATING MANUAL

MASTERflex[®] L/S[®]

EASY-LOAD[®] PUMP HEADS



Model No: 07514-10, 07514-12



Model No: 07514-30, 07514-32

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SAFETY PRECAUTIONS



WARNING: PRODUCT USE LIMITATION

This product is not designed for, nor intended for use in patient connected applications; including, but not limited to, medical and dental use, and accordingly, has not been submitted for FDA approval.

NOTE: Use only MASTERFLEX precision tubing with MASTERFLEX pumps to ensure optimum performance. Use of other tubing may void applicable warranties.

WARNINGS: Turn drive off before removing or installing tubing. Fingers or loose clothing could be caught in the rollers.



Stop the drive when changing the tubing or its position in the rotor mechanism (the rotor is partially exposed when the LOADING LEVER is in the open position).

EXPLANATION OF SYMBOLS



CAUTION: Risk of danger. Consult the Operator's Manual for nature of hazard and corrective actions.



CAUTION: Risk of crushing. Keep fingers away from rotor while pump is in operation. Stop pump before loading or unloading tubing.

PUMP FOR LIQUIDS ORIGINAL INSTRUCTIONS

REPLACEMENT PARTS AND ACCESSORIES

A. Main body assembly (occlusion bed with rear bearings).

Pump Head Number	Order Number
07514-30 07514-32	07514-16 07514-17
07514-10 07514-12	07514-16 07514-17

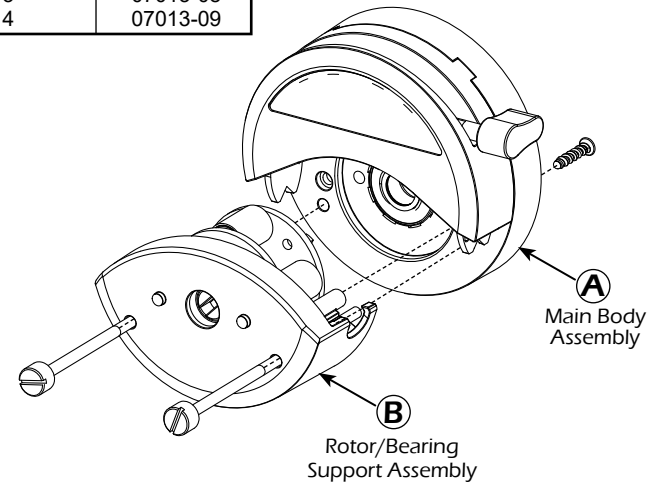
B. Rotor/bearing support assembly.

Pump Head Number	Short Shaft Order Number
07514-10 07514-12	07514-18 07514-19
07514-30 07514-32	07514-18 07514-19

C. Mounting hardware for L/S EASY-LOAD Pump Heads.

Set contains #8-32 screws, washers, and wing nuts (in 2-, 3- and 4-head hardware).

Number of Heads to be Mounted	Stainless Steel Order Number
1	07514-04
2	07013-05
3	07013-08
4	07013-09



MULTI-CHANNEL MOUNTING

L/S EASY-LOAD Pump Heads can be mounted in tandem (up to four) depending upon the torque capabilities of the drive. (See Figure #5.)

Special mounting hardware is required.

See REPLACEMENT PARTS AND ACCESSORIES for mounting hardware.

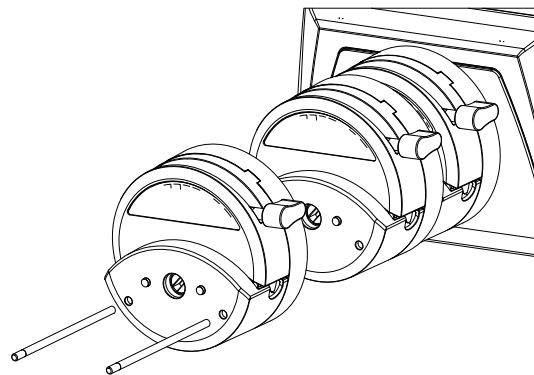


Figure #5. Multi-channel Mounting



CAUTION: DO NOT OVERTIGHTEN SCREWS.

NOTE: The L/S EASY-LOAD Pump Head can be used in any combination with other L/S EASY-LOAD Pump Heads. The longer L/S EASY-LOAD mounting hardware is required (not supplied).

NOTE: The tubing on the inside L/S EASY-LOAD Pump Head(s) can be changed without dismantling the outside Pump Head(s) from the drive.

MAINTENANCE

No lubrication is required for the L/S EASY-LOAD Pump Head.

See REPLACEMENT PARTS AND ACCESSORIES for parts ordering information.

Contact dealer for further repair information.

Cleaning

Use a mild detergent solution to clean the Pump Head. Do not immerse, nor use excessive fluid.

SPECIFICATIONS

Pump Head Number	Pump Material	Occlusion	Open Head Sensor	L/S® Tubing
07514-10 07514-12	PA/SS PA/SS	Fixed Fixed	No No	L/S® 13,14,16, 25,17,18 L/S® 15, 24
07514-30 07514-32	PA/SS PA/SS	Fixed Fixed	Yes Yes	L/S® 13,14,16, 25,17,18 L/S® 15, 24

Typical Flow, Pressure and Vacuum Data:

L/S® Tubing	Flow Rate @1 rpm mL/Rev	Max. Discharge Pressure* psig (bar)
L/S® 13 L/S® 14 L/S® 16	0.06 0.22 0.80	40 (2.7) 40 (2.7) 40 (2.7)
L/S® 25 L/S® 17 L/S® 18	1.7 2.8 3.8	35 (2.4) 20 (1.4) 15 (1.4)
L/S® 15 L/S® 24	1.7 2.8	40 (2.7) 40 (2.7)

*Flow rates will be different depending on tube size, RPM and tube formulation.

Number of rollers:	4
Maximum pump speed (rpm):	600
Nominal torque load-running:	up to 90 oz-in (6.5 kg-cm)
Housing materials:	IXEF 1022
Roller/bearing materials:	Stainless steel (SS)/Sealed stainless steel
Rotor materials:	Stainless steel (SS)
Operating temperature † :	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature:	-49 °F to 149 °F (-45 °C to 65 °C)
Humidity:	0 to 90% (non-condensing)
Dimensions (Ø x D):	
Operating:	Ø4 1/8 in x 2 3/16 in (Ø105 mm x 56 mm)
Open:	Ø4 9/16 in x 2 3/16 in (Ø116 mm x 56 mm)
Weight:	1 lb (0.45 kg)
Noise Level:	<70 dBA @ 1 meter
Compliance (for CE mark):	EN809 (EU Machinery Directive)

INTRODUCTION AND GENERAL DESCRIPTION

This L/S EASY-LOAD® Pump Head when combined with a MASTERFLEX® L/S® drive or compatible system is designed to provide a simple easy-to-use peristaltic pump system. The Pump Head accepts different tubing sizes for a wide range of flow rates. The unique over-center cam design and adjustable tubing retention allows quick tubing changes and greatly reduced maintenance time.

Each pump is supplied complete with a 15 in (38-cm) length of tubing, one single-channel mounting hardware package and this manual. No tools are required to complete installation.

DRIVE COMPATIBILITY AND SETUP

The L/S EASY-LOAD Pump Head is compatible with most MASTERFLEX® L/S® drives with a standard tang interface. Mount the pump head using the 2 screws provided. (See Figure #1.)

TUBE LOADING

1. Be sure the pump drive is turned off.
2. Rotate the lever to the left to open the pump.
3. Load the correct size tubing. Center the tubing between the retainers. (Figure #2)
4. Rotate the lever to the right to close. (Figure #3)
5. Grasp tube ends and lightly tug to pre stretch.

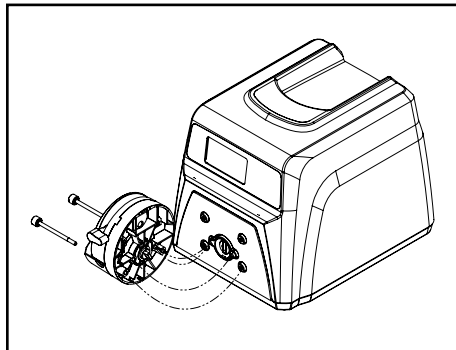


Figure #1. Setup



WARNING: Stop the drive when changing the tubing or its position in the rotor mechanism (the rotor is partially exposed when the LOADING LEVER is in the open position).

NOTE: For optimum tubing life, keep tubing straight where it enters and exits the pump.



Figure #2. Open and Load

TUBE LOADING (CONTINUED)



Figure #3. Close Pump

OPEN HEAD SENSOR

Pump head models 07514-30 and 07514-32 are equipped with an open-head sensor. When mounted on an open-head sensor drive, the sensor will automatically shut down the drive when the pump head is opened.

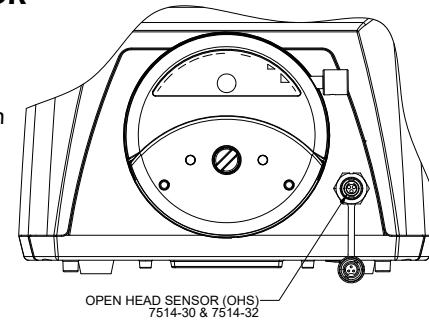


Figure #4. Connecting Sensor

Replacement open head sensor for L/S EASY-LOAD pump heads.

Pump Head Number	Order Number
07514-30, 07514-32	07514-08

