



LOCTITE®

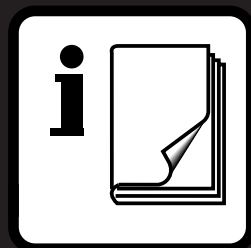
EQUIPMENT

OPERATION MANUAL



**Loctite®
Dial-A-Seal®
Dispensing
System**

998400



Contents

	Page No.
1 Please observe the following	1
1.1 Emphasized Sections	1
1.2 Items Supplied	1
1.3 For Your Safety	2
1.4 Field of Application (Intended Use)	2
2 Description	2
2.1 Theory of Operation	2
2.2 Turret	3
2.3 Product Adjustment Knob	3
2.4 Operating Elements and Controls	4-5
3 Installation	6
3.1 Utility and Space Requirements	6
3.2 Connecting Unit to Shop Air	6
3.3 For Use with 50 ml and 250 ml Product Tubes	6
3.4 For Use with 1 Liter Container	7
4 Dispensing	8
4.1 Filling with 50 ml and 250 ml Tubes	8
4.2 Filling with 1 Liter Container	8
4.3 Operation	9
4.4 Shutdown or Idle Time	9
5 Care and Maintenance	10
5.1 Cleaning	10
5.2 General Maintenance	10-11
5.3 Lubrication	11
6 Trouble Shooting	12
7 Recommended Spare Parts and Accessories	12
8 Warranty	13

1.1 Emphasized Sections

**WARNING!**

Refers to safety regulations and required safety measures that protect the operator or other persons from injury or danger to life.

**CAUTION!**

Emphasizes what must be done or avoided so that the unit or other property is not damaged.

**Notice:**

Gives recommendations for better handling of the unit during operation or adjustment as well as for service activities.

1.2 Items Supplied

Carefully remove the system from its shipping carton and inspect it for any signs of damage. Any damage should be reported immediately to the carrier. Refer to the list of supplied parts below and compare to the contents. Report any missing parts promptly to the Loctite customer service department at 1-800-LOCTITE or 1-800-562-8483.

- (1) Dial-A-Seal® unit
- (1) Stand for holding 1 liter bottle
- (1) Empty 1 liter bottle
- (1) 1 liter bottle cap
- (1) Empty 50 ml tube with dispense cap
- (1) Tube vent
- (2) Elbow fittings
- (1) Feed tube
- (1) Tube adapter
- (1) 50 ml tube adapter
- (1) Operator manual

1

Please observe the following (continued)

1.3 For Your Safety

For safe and successful operation of the unit, read these instructions completely. If the instructions are not observed, the manufacturer can assume no responsibility.

Be sure to retain this manual for future reference.



If chemical products are not properly handled, damage to health can result.

- Observe general safety regulations for the handling of chemicals.
- Observe manufacturer's instructions.
Request a material safety data sheet for the LOCTITE® product used.
- When working with pressurized air, wear protective glasses.



While under warranty, the unit may be repaired only by an authorized Loctite service representative.

1.4 Field of Application (Intended Use)

The Loctite® Dial-A-Seal® dispensing system is a touch-actuated, all-pneumatic applicator for dispensing high-viscosity Loctite® products onto threaded pipe fittings and nipples. A quick-turn turret has cavities for 1/16", 1/8", 1/4", 3/8", 1/2", 3/4", and 1" male pipe threads. It is recommended specifically for applying Pipe Sealant with Teflon® (PST®), Stainless Steel PST®, Vibra-Seal®, and Anti-Seize. The Dial-A-Seal® is fed directly from a 50 ml tube, 250 ml tube, or a one-liter bottle.

2

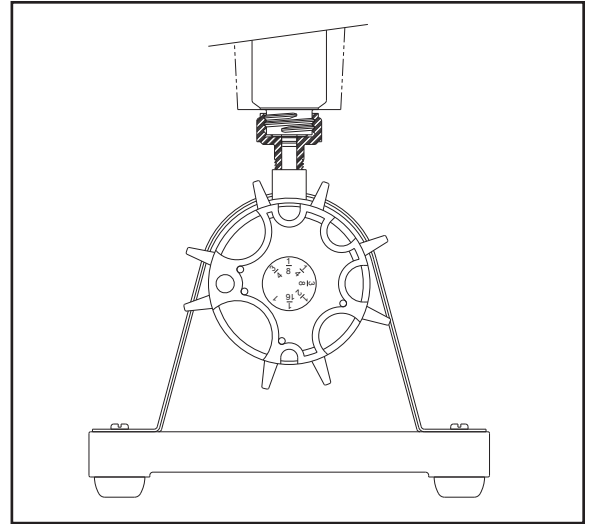
Description

2.1 Theory of Operation

A turret head with a cavity for each size of pipe thread is attached to the output of an air-actuated, positive-displacement pump. The operator merely presses a fitting down into the correct cavity. The downward motion of the turret depresses a switch that actuates the piston pump causing a metered amount of product to be dispensed. When the fitting is removed, the pump will reset, ready for another cycle.

2.2 Turret

The turret has eight (8) positions and may be rotated in either direction. Only the position facing up receives the product being dispensed. Seven (7) positions are formed into cavities designed to receive the pipe sizes as marked on the front surface of the turret. The remaining position has been left blank. Pushing the turret down depresses a switch that activates the dispensing cycle.



2.3 Product Adjustment Knob

The large knob on the rear of the applicator is the product adjustment knob. It is used to set the correct amount of product to be dispensed for each pipe size. The knob is adjusted by matching the line appearing in the window on the cover to an appropriate number. The suggested number or setting for each pipe size is given in Table 1. It is duplicated on the cover below the window.

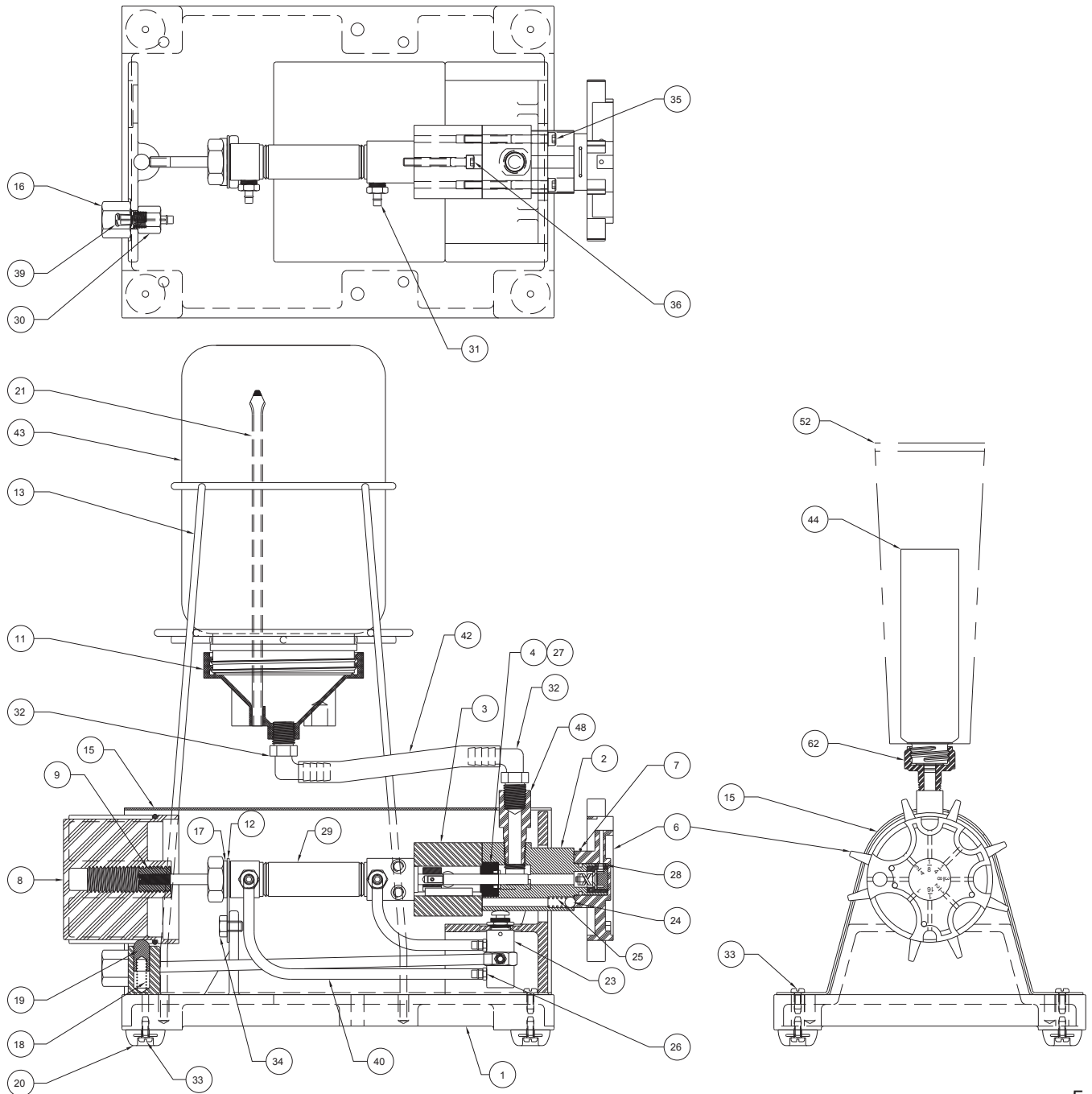
Table 1

Fitting Diameter	Recommend Feed Knob Adjustment
1/16"	0.5 - 1.0
1/8"	0.5 - 1.5
1/4"	1.0 - 2.0
3/8"	1.5 - 2.5
1/2"	2.0 - 3.0
3/4"	2.5 - 3.5
1"	3.0 - 5.0



2.4 Operating Elements and Controls

Item	Part Number	Description
1	998416	Base
2	981606	Chamber
3	998420	Chamber Support
4	981669	Pump Seal Assembly
6	998425	Turret
7	998413	Clip
8	998418	Knob Stroke Adjuster
9	998419	Sleeve Threaded
11	998426	Cap for One-Liter Bottle
12	998427	Hinge
13	998431	Stand for Holding One-Liter Bottle
15	998430	Cover with Artwork
16	994014	Fitting
17	998432	Flat Washer
18	998433	Compression Spring
19	998428	Detent
20	992539	Foot
21	998435	Vent Tube
23	998405	Four-Way Control Valve
24	992830	Ball
25	998409	Spring
26	997367	Tubing Connector
27	998142	O-Ring (Parker #2-017)
28	992581	O-Ring (Parker #2-006)
29	980761	Air, Cylinder, Piston Assembly
30	997511	Tubing Connector
31	998408	Tubing Connector
32	998434	Elbow Fitting
33	997864	Pan Hd. Screw, Self Tap, #8-32x1/2
34	999931	Hex Hd. Cap Screw, 1/4-20x3/8
35	998424	Socket Head Cap Screw
36	997441	Socket Head Cap Screw
39	8900149	Air Flow Restrictor
40	999629	Air Line Tubing - 1.50 feet
42	998442	Feed Tube
43	241142	1-Liter Bottle (Empty)
44	200105	Empty Product Tube
48	999296	Tube Adapter
62	983095	Tube Adapter



3.1 Utility and Space Requirements

Utilities: The system requires filtered (40 micron), lubricated air, 60 psig minimum.

Overall Dimensions: 7.6 inches wide x 12.5 inches long. The overall height of the 50 ml tube version is 12 inches. The height of the one liter bottle version is 16.5 inches.

3.2 Connecting Unit to Shop Air

The Dial-A-Seal® should be placed upon a table or other surface allowing clear access to the turret. The unit may be bolted to the table using the mounting holes in each flange; however, the unit has sufficient weight and stability to be used without permanent fastening. In some cases, it may be desirable to have it completely portable.



Connect shop air (60 psi to 120 psi) to the air in fitting located just under the adjusting knob. The air supply should be filtered, dry, and supplied with an oiler. The fitting provided for this connection is a female 1/4" NPT.

3.3 For Use with 50 ml and 250 ml Product Tubes

The unit has an adapter mounted on the top behind the turret. Product tubes of 50 ml and 250 ml may be screwed directly into this adapter. Before installing a product tube, be sure the tip seal is cut off.



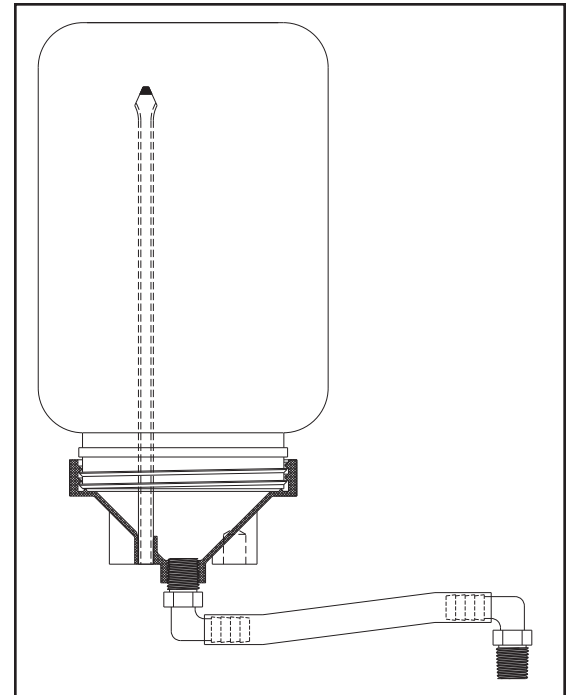
3.4 For Use with 1-Liter Container

The unit can also feed from a 1-liter container. A steel wire rack, elbow fitting, feed tube, and a funnel-shaped container cover are supplied for this conversion.

After initial filling (see section on Filling - page 8), replace the product tube adapter, which is mounted on the top of the unit behind the turret, with the elbow fitting provided. The wire rack is then placed over the unit, with the four (4) legs of the rack fitted into the four (4) holes provided in the flat flange surfaces of the unit. Locate the rack so that the open spaces in the rings face toward the turret.



Taking a fresh 1-liter container of product, remove the cover and replace with a funnel cover provided. Check to see that the vent tube is properly in place (see illustration). Place the 1-liter container with cover down into the rack and connect the feed tube to the elbow fitting.



4.1 Filling with 50 ml and 250 ml Tubes

Screw a fresh tube of product into the adapter. Be sure the product tube is open with the seal cut away. The tube should be seated firmly into the adapter to seal against any air leaks.

Squeeze the tube manually until the pumping chamber is filled. This will be apparent when product appears in the dispensing port at the base of the cavity.

Turn the adjusting knob to the desired setting. See Table 1 (page 3) for calibration. Depress and release the turret several times to assure that the product is flowing properly. Clean the cavity of all waste material.

Once the pump has been initially filled, it can be reprimed rapidly by setting the adjusting knob to a large number and cycling the pump a number of times. The chamber will refill rapidly exhausting any air, which may be trapped.

4.2 Filling with 1-Liter Container

Filling the Dial-A-Seal® for use with the 1-liter container is best accomplished by starting with a 50 ml tube of the product to be used. Follow the same procedure as outlined above for use with tubes.

Some Loctite products are not packaged in a tube. For these products, an empty 50 ml tube is provided. Pour some of the product into this tube, fold over and clamp the open end, and proceed as outlined above. This open tube may also be used as a funnel for cleaning.

4.3 Operation

Once the Dial-A-Seal® is filled, it is ready to operate. Operation is simple. The turret is turned to bring the desired cavity to the “up” position.

Referring to the table printed on the cabinet, locate the size fitting to be coated. Opposite this size number is a calibration number or range of two (2) numbers. Turn the adjustment knob to match the calibration line to the number. The pump will now dispense a correct amount of product for the size used. If it is desired to dispense slightly more or less for a particular size, this is easily adjusted by turning the knob a little at a time. Lower numbers dispense less; higher numbers more.

Place the thread to be coated squarely into the cavity and press down with a firm motion. The pump will dispense a bead of product onto the threads. This bead will be approximately the width of two (2) threads and will extend approximately 1/2 of the circumference. This coverage is sufficient, as the product will cover the entire surface once inserted in its mating part. By rotating the fitting while pressing down, the bead can be extended.

If it is necessary to have the bead extend completely around the thread, this can be accomplished by turning the thread 180° and giving a second application. In this case, it is desirable to adjust for less product per application.

4.4 Shutdown or Idle Time

When the Dial-A-Seal® is in use with Pipe Sealant with Teflon®, it can be left idle for as long as one (1) month with no detrimental effect.



A fast-curing product, such as Stainless Steel Pipe Sealant or air-drying products such as Vibra-Seal® or Dri Loc® 200, should not be left idle more than (5) days.

5.1 Cleaning

During use, excess material may collect in the cavities and on the rear surface of the turret. This should be removed on a regular maintenance schedule with a small brush or rag and a solvent. The turret may be removed for this purpose. Refer to steps #5 and #6 under “General Maintenance” on this page.

For longer idle times, storage, or product change, the pump may be cleaned as follows:

1. Remove any product tube or supply from the pump.
2. Set the adjustment knob to full stroke and operate the dispensing mechanism until no more material is dispensed. A waste cloth placed around the turret will collect the purged product.
3. A quantity of solvent (100 ml to 200 ml) should be pumped through the dispensing mechanism. An ideal funnel for this purpose can be fashioned from an empty product tube by cutting off the crimped end.

Notes:



- Use Loctite® Safety Solvent 755 or Equipment Flushing Solvent (#12121) for cleaning Pipe Sealant with Teflon®, gasketing materials, and other anaerobic products.



- Use warm water for cleaning Vibra-Seal®. The turret may be removed for ease in cleaning.

5.2 General Maintenance

When operated properly, the Dial-A-Seal® will give long, trouble-free service, and require little maintenance service.

If it should be necessary to disassemble the pump to remove hardened material or replace parts, the following procedure should be followed:

Note: Numbers in parenthesis () refer to part numbers on the assembly drawing (Page 5).

1. Disconnect the air supply to the Dial-A-Seal®.
2. Remove the product tube adapter (62) or feed tube elbow from the top of the Dial-A-Seal®.
3. Remove four screws (33) holding the cover (15) to the base (1) and remove the cover.
4. Remove internal air tubing (40) from the two fittings (31) located on the air cylinder (29). It may be necessary to cut the tubing close to the fitting with a sharp knife.
5. Pull the wire clip (7) from the turret (6). The clip is visible on the rear cylindrical surface.
6. Carefully pull the turret (6) forward and remove. Watch for the nylon ball detent (24) and spring (25) on the underside of the chamber and the O-Ring (28) on the upper surface.

7. Unscrew (counter clockwise) the adjusting knob (8) completely and remove.
8. Remove two cap screws (34).
9. The entire pump assembly can now be removed from the base.
10. Remove two cap screws (35) from the chamber (2) and pull the chamber firmly away from the air cylinder (29). The air cylinder piston will be pulled to the forward limit of its stroke during this operation.
11. While holding the chamber (2), insert a 1/4" diameter rod a short distance into the seal (4) and seal retainer (27) and gently rock the seal assembly from side to side, at the same time pulling the seal assembly from the chamber. Remove the seal (4) from its retainer (27). Insert a 4" to 6" length of 1/4" diameter tubing into the chamber through the seal opening until it touches the valve (998437). With a light hammer, tap the tubing until the valve plug (998414) and valve (998437) are removed.

Re-assemble the Dial-A-Seal® in the reverse order.



Note:

Use a new seal and check valve when re-assembling the Dial-A-Seal®. These Parts are available in the Dial-A-Seal® Valve and Seal Kit #998402.



Note:

The air cylinder piston must be extended to its full forward position during re-assembly in order to maintain alignment.

5.3 Lubrication



An air line lubricator should be installed in the air supply. Lubrication is necessary to keep the actuator valve and air cylinder in good operating condition for the life of the pump.

A quality high speed spindle oil, Lubriplate type "O" or equivalent, is recommended.

Problem	Cause	Solution
Dial-A-Seal® does not dispense product and the adjustment knob does not move forward when the turret is depressed.	a. No air supply. b. Low pressure. c. Adjustment knob turned all the way in.	a. Check air supply. b. Air pressure must be at least 60 psi. c. Set adjustment knob to proper setting.
Product does not dispense and the adjustment knob moves forward when the turret is depressed.	a. Product supply empty. b. Blockage in feed line. c. Pumping chamber is air bound. d. Check valve clogged.	a. Replace product tube or container. b. Check feed lines and remove any hardened material. c. Check product feed lines to insure tight seals. Reprime pump. d. Service the pump as described in the maintenance section. Replace the check valve and seal. (Kit #998402)

Part Number	Description
998425	Turret
980761	Air, Cylinder, Piston Assembly
981606	Chamber
998426	Cap - 1 Liter Bottle
983095	Tube Adapter
997569	Silicone Grease (6 ml tube)
998402	Valve and Seal Kit, including 1 - 998437 Check Valve 1 - 981669 Seal Assembly 1 - 998413 Clip 1 - 992581 O-Ring 1 - 998142 O-Ring 1 - 992830 Detent
200105	Empty 50 ml Tube with Dispense Cap
241142	Empty 1 liter Bottle

Henkel expressly warrants that all products referred to in this Operating Manual for the Dial-A-Seal® Dispensing System, 998400 (hereafter called "Products") shall be free from defects in materials and workmanship. Liability for Henkel shall be limited, at its option, to replacing those Products which are shown to be defective either in materials or workmanship or to credit to the purchaser the amount of the purchase price thereof (plus freight and insurance charges paid therefore by the user). The purchaser's sole and exclusive remedy for breach or warranty shall be such replacement or credit.

A claim of defect in materials or workmanship in any Products shall be allowed only when it is submitted in writing within one month after discovery of the defect, or after the time the defect should reasonably have been discovered, and, in any event, within 12 months after the delivery of the Products to the purchaser. This warranty does not apply to perishable items, such as check valve, turret, tubing, fittings, and seals. No such claim shall be allowed in respect to products which have been neglected or improperly stored, transported, handled, installed, connected, operated, used or maintained. In the event of unauthorized modification of the Products including, where products, parts, or attachments for use in connection with the Products are available from Henkel, the use of products, parts or attachments which are not manufactured by Henkel, no claim shall be allowed.

No Products shall be returned to Henkel for any reason without prior written approval from Henkel.

Products shall be returned freight prepaid, in accordance with instructions from Henkel.

NO WARRANTY IS EXTENDED TO ANY EQUIPMENT WHICH HAS BEEN ALTERED, MISUSED, NEGLECTED, OR DAMAGED BY ACCIDENT, OR IF THE SYSTEM IS USED TO DISPENSE ANY LIQUID MATERIAL OTHER THAN LOCTITE PRODUCTS.

EXCEPT FOR THE EXPRESS WARRANTY CONTAINED IN THIS SECTION, HENKEL MAKES NO WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCTS.

ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND OTHER WARRANTIES OF WHATEVER KIND (INCLUDING AGAINST PATENT OR TRADEMARK INFRINGEMENT) ARE HEREBY DISCLAIMED BY HENKEL AND WAIVED BY THE PURCHASER.

THIS SECTION SETS FORTH EXCLUSIVELY ALL OF LIABILITY FOR HENKEL TO THE PURCHASER IN CONTRACT, IN TORT, OR OTHERWISE IN THE EVENT OF DEFECTIVE PRODUCTS.

WITHOUT LIMITATION OF THE FOREGOING, TO THE FULLEST EXTENT POSSIBLE UNDER APPLICABLE LAWS, HENKEL EXPRESSLY DISCLAIMS ANY LIABILITY WHATSOEVER FOR ANY DAMAGES INCURRED DIRECTLY OR INDIRECTLY IN CONNECTION WITH THE SALE OR USE OF, OR OTHERWISE IN CONNECTION WITH, THE PRODUCTS, INCLUDING, WITHOUT LIMITATION, LOSS OF PROFITS AND SPECIAL, INDIRECT, OR CONSEQUENTIAL DAMAGES, WHETHER CAUSED BY NEGLIGENCE FROM HENKEL OR OTHERWISE.



Loctite Americas

1001 Trout Brook Crossing
Rocky Hill, CT 06067-3910

Loctite Corporation

One Northfield Plaza, 5600 Crooks Rd.
Suite 105
Troy, Michigan 48098

Loctite Canada Inc.

2225 Meadowpine Blvd.
Mississauga, Ontario L5N 7P2

Loctite Company de México, S.A. de C.V.

Calzada de la Viga s/n, Fracc. Los Laureles
Loc. Tulpetlac, C.P. 55090
Ecatepec de Morelos, Edo. de México
México

Loctite Brazil

Av. Prof. Vernon Kriebel, 91
06690-11-Itapevi
São Paulo-Brazil

www.loctite.com

Loctite, Dial-A-Seal, Dri-Loc, PST, and Vibra-Seal are trademarks of Loctite Corporation, U.S.A.
Teflon is a registered trademark of E.I. DuPont de Nemours, Co., Inc.
© Copyright 2000. Loctite Corporation. All rights reserved.

Data in this manual is subject to
change without notice.
P/N998444 Rev. G 03/05