EQ RC34 Automatic Reservoir DP

IDH 2830690

Operating Manual

Table of Contents

1 Please Observe the Following

1.1 Emphasized Sections

⚠ **Warning!**

Refers to safety regulations and requires 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:**

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

1.2 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.

⚠ Do not expose the connecting cable to heat, oil, or sharp edges.

⚠ Make sure the Unit stands stable and secure.

⚠ Use only original equipment replacement parts.

⚠ Always disconnect the power supply before servicing the unit.

⚠ Observe general safety regulations for the handling of chemicals such as Loctite® adhesives and sealants. Observe the manufacturer's instructions as stated in the Safety Data Sheet.

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

1.3 Unpacking and Inspection

Carefully unpack the Loctite® EQ RC34 Automatic Reservoir DP and examine the items contained in the carton. Inspect the unit for any damage that might have occurred in

transit. If such damage has occurred, notify the carrier immediately. Claims for damage must be made by the consignee to the carrier and should be reported to the manufacturer.

1.4 Packing List

- EQ RC34 Automatic Reservoir DP x 1
- Equipment Manual x 1
- Reservoir Tank Fitting: ¼ inch NPT x ¼ Inch Tubing x 1
- Bottle Holder x 1
- ¼" NPT to 6 mm inlet supply line connector x 1
- Anti-Bubbler Fitting and Tubing Kit x 1
- Tank Cord x 1
- Bottle spacer disc x 1

1.5 Features

- Modular design allows user to build suited application process.
- Operational with semi-automatic and automatic controllers.
- Dual Point product level sensor for process controls.
- Integrated solenoid vent valve.

1.6 Field of Application (Intended use)

The Loctite EQ RC34 Automatic Reservoir DP is equipped with an analogue low level sensor that sends an electronic signal to a Loctite brand controller and is typically integrated into a dispensing system that consist of a dispensing valve and one of these controllers; LOCTITE® controller 97102, 97152 or RC15. The adhesive can be applied directly from the original 250ml, 500gram, 1 liter, and 2 kg adhesive packages.

With the EQ RC34 Automatic Reservoir DP, anaerobic, UV Curing and cyanoacrylate adhesive can be dispensed.

The capacity of the EQ RC34 Integrated DP Reservoir is:

-500 gr. bottle for CA Products
-250 ml bottle for Anaerobic
-Bottle with a Φ124mm and a height of 250mm
-1 lb. bottle
-1 Liter bottle
-2kg bottle

2 Description

2.1 Theory of Operation

The original LOCTITE® bottle is inserted into the EQ RC34 Automatic Reservoir DP. The closed reservoir is supplied with regulated, pressurized air from the LOCTITE® controller 97102, 97152 or RC15. As long as the dispensing valve is open, pneumatic pressure on the surface of the fluid in the original LOCTITE® bottle transports the product through the product line.

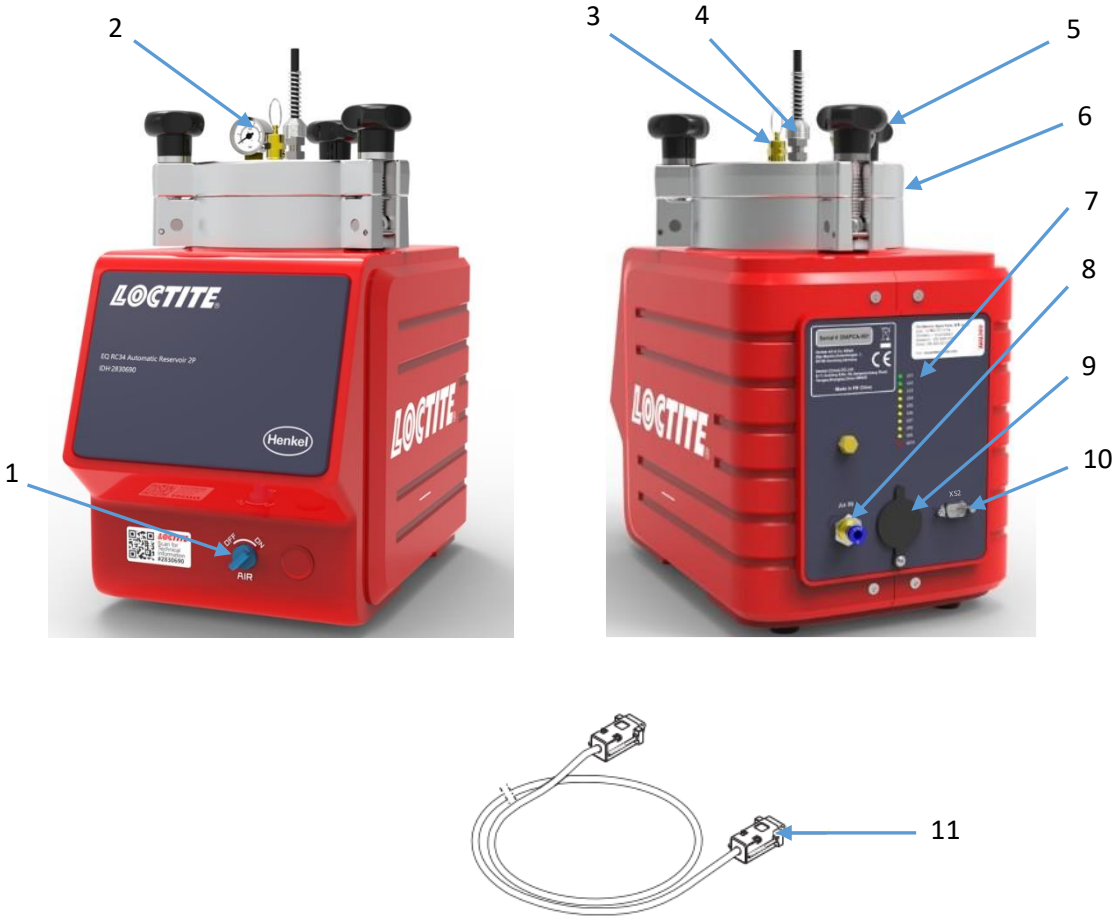
☞ Notice:

When connected to a controller 97102, 97152 or RC15, the automatic reservoir is automatically pressurized when the controller is switched on and automatically depressurized when the controller is switched off.

The depressurizing valve (1) must be in the valve position (pressurize). No "empty" error message can be present.

The EQ RC34 Automatic Reservoir DP includes a dual point low level sensor that detects when the level of fluid inside the bottle within the reservoir is in the "refill" and "empty" condition. This sensor should be connected directly to a Loctite controller (97102, 97152 or RC15) which provides the warning information and signals, Alternatively, the Low level sensor can be connected to an external PLC or controller.

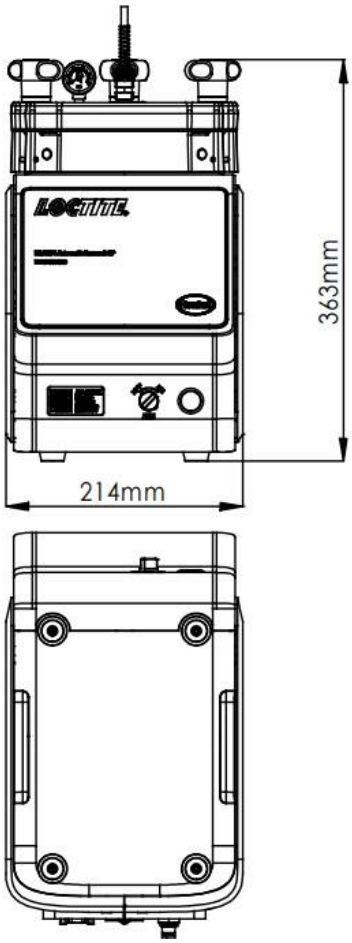
2.2 Operating Elements and Connections

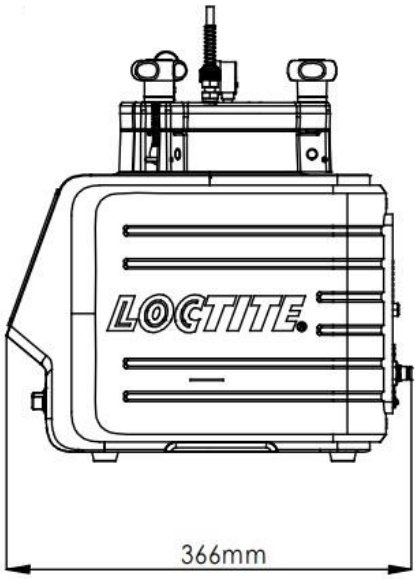


1. Air Pressure ON/OFF Switch
2. Tank Pressure Gauge
3. Valve Pressure Relief
4. Reservoir/Feedline Fitting
5. Reservoir Knob x 3
6. Reservoir Lid
7. Low level LED indicators
8. Pneumatic Connection P in
9. Low Level Sensor
10. Low Level Connector XS2
11. Tank cord

3 Technical Data

Dimensions (L x H x W):	214x363x366 mm
Total weight: Kg (lbs.)	4 (8.8)
Internal control voltages:	24VDC
Pneumatic Supply:	Clean, dry air not to exceed 116 psi (8bar). and filtered with a maximum of 10 micron.
Pneumatic hose size:	External dia. 6mm$^{+0.05}_{-0.10}$
Operating Temperature:	+10 ° C to +40 ° C (+50 ° F to +104 ° F)
Storage Temperature:	- 10 ° C to +60 ° C (+14 ° F to +140 ° F)





4 Installation

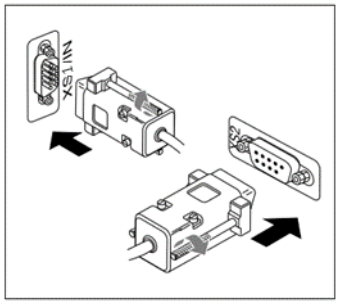
! Before using the equipment for the first time check it carefully for signs of external damage. If any shipping damage is found DO NOT USE THE EQUIPMENT – return it to your supplier immediately.

4.1 Environmental and Operating Conditions

- Keep product feedline as short as possible. The shorter the feedline the smaller the specific resistance and lower the dispensing pressure can be. Avoid kinking of the feedline.
- Use flexible pneumatic hoses and Loctite supplied product feedlines to prevent unnecessary loads on the fitting and to ensure compatibility.
- Keep all fittings tight.
- No direct sunlight; no UV light.
- No condensing humidity.
- Avoid direct contact with water.

4.2 Connecting the Unit

- Use only the cable and hose sets supplied.
- Connect the regulated air pressure supply from the reservoir P in (8) to pneumatic connection P out on the controller.
- Connect the tank cord to the 9 pin D-sub connector XS2 (10) located on the rear panel of reservoir as well as to socket XS2 on the controller.



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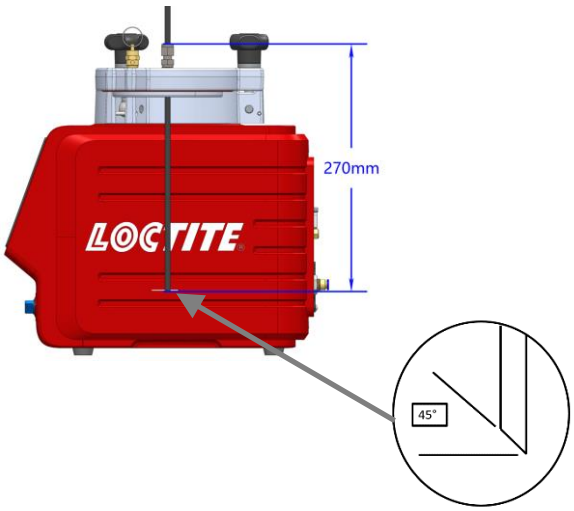
- Insert feedline through the reservoir lid to the dimension shown below. Alternatively use the reference line shown on the housing to set the feedline length. Cut the end of the feedline at an angle as shown below.



- Connect dispensing valve.
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4.3 Filling and Refilling the Product Reservoir

⚠ Warning!

Never fill the product directly into the reservoir!

The pneumatic and safety devices would become clogged and therefore ineffective!

⚠ Warning!

Before loosening the reservoir locking knobs (5), the EQ RC34 Automatic Reservoir DP must be depressurized (pressure-free)!

When dispensing cyanoacrylate and an empty signal is shown, refill the product reservoir immediately, since air in the product line results in curing of the product!

The reservoir is depressurized when the depressurizing valve (1) is in “OFF” position and pressure gauge (2) indicates no pressure.

- Loosen the reservoir knobs and remove the lid.
- Check that there is no condensed moisture at the bottle or the sensor surface.
- Place the bottle in the bottle holder (see the right figure).
- Check that the product bottle inserted in the bottle holder is pressed again the level sensor.
- Insert the product feedline into the bottle and put on the lid.
- Uniformly tighten the reservoir knobs by hand.
- Set the depressurizing valve (1) to “ON” position (pressurize).
- On the controller 97102, switch the reservoir to active with the button . On the controller 97152, switch the reservoir to active with button .

5 Operation

5.1 First Operation

The EQ RC34 Automatic Reservoir DP is depressurized when the power switch on the controller 97102, 97152 or RC15 is switched to the O (OFF) position or the tank pressure gauge indicates no pressure.

In any case:

- Set the depressurizing valve (1) to position (depressurize).
- Check that the dispensing valve is connected correctly according to the instruction manual.

Inserting the Product Bottle

Follow procedure as described in section 4.3.

5.2 Adjust the Level Sensor

☞ **Notice:**

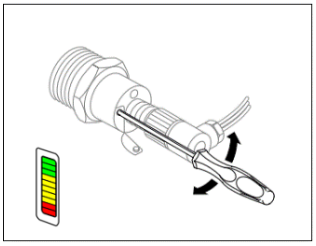
The level sensor is set in manufacturing and can be adjusted according to the type of product used, the size of the bottle, and orientation of the basket with spacers if required. If small bottles are used the supplied Bottle spacer disc can be placed in the base of the reservoir to raise the height of the bottle to reduce the residual adhesive in the bottle when low level is used.

Before adjusting the Level Sensor

- Connect the tank cord to the equipment connector XS2 (10) on the reservoir as well as to socket XS2 on the controller.
- Empty a bottle of the product you use.
- Leave as much residue in the bottle as is required in order to prevent air getting into the product feed line.
- Insert the product bottle. For small bottles use the bottle holder. For 250ml product bottle, pay attention to ensure the bottle is aligned with the level sensor.
- Check that the product bottle inserted into the bottle holder is pressed against the level sensor. Only then the correct adjustment of the level sensor is possible.

Procedure to Adjust the Level Sensor:

- Switch on the power switch of the controller 97102, 97152 or RC15 to supply the reservoir with voltage 24 VDC.
- Remove the cap from the level sensor.
- If you have inserted a prepared bottle, then turn electrician's screwdriver to the point, when at least the upper of the two red LED's illuminates. This is observed on the LED indicator (7) on the rear panel.
- To check the adjustment, insert a full bottle and one of the green LED's has to illuminated. Insert the empty bottle and the adjusted red LED has to illuminate. The adjustment is then correct.
- Put the plastic cap back.



☞ **Notice:**

The correct adjustment is exactly the point when the sensor switches “OFF”.

Do not go beyond that point!

- Check this adjustment with a full bottle and an empty bottle again, if it is correct.
- Remove the empty product bottle.

6 Application Hints

As with all adhesives, performance depends on conditions of use. Suggestions or recommendations contained herein are for guidance only since actual conditions of use are outside the supplier’s control.

6.1 Shutdown for Longer Periods of Non-use (>recommended idle time)

- Disconnect the pneumatic supply from the unit.
- Clean the product hose and dispensing valve.

Recommended maximum idle times for different products are shown below:

Adhesive	**Maximum idle time for dispensing Systems**
Anaerobic	2 weeks
Cyanoacrylate	1 week
UV-acrylate	2 weeks
Acrylate	1 week
Epoxy	2 weeks
Activator	n.a.
Primer	n.a.

6.2 Returning to Operation after Longer Periods of Non-use

- Reconnect the pneumatic supply to the unit.
- Check the installation according to Chapter 4.
- Return to operation according to Section 5.1.

7 Troubleshooting

⚠ Before proceeding with any repair or maintenance operation disconnect the EQ RC34 Automatic Reservoir DP from the main air supply.

Malfunction	**Possible Cause**	**Corrective**
Pressurized air escapes between reservoir housing and reservoir lid.	Reservoir Knob is not tightened.	Tighten the reservoir knob.
	O-ring leaks.	Grease or renew the O-ring.
Pressurized air escapes at the product connection 4.	Union nut on the product connection 4 not tightened.	Carefully tighten the union nut.
Air bubble in the product	Product reservoir is empty.	Refill product reservoir (see section 4.3).
	Dispensing valve not correctly connected or defective.	Check the dispensing valve (see instruction manual for dispensing valve).
	Product reservoir pressure is too high.	Lower pressure, longer dispensing time.
Too little product.	Dispensing pressure inadequate.	Increase the dispensing pressure on the controller.
	Air supply pressure inadequate.	Increase the air supply pressure.
	Malfunction of the dispensing valve.	Check the dispensing valve, see operating instructions of the dispensing valve.
No product.	Product reservoir is empty.	Refill the product reservoir (Section 4.3)
	Product reservoir is not switched on.	Set the depressurizing valve to  pressurize.
	Reservoir (product reservoir) is not active.	Controller 97102: Press  Controller 97152: Press  Controller RC15: Press 
	Product reservoir defect.	Henkel Service.

8 Care and Maintenance

8.1 Care

-Occasionally the O-ring at the reservoir lid should be lubricated with silicone grease. This will prolong the life of the O-ring.

☞ **Notice:** Clean hands after application of grease to ensure surfaces to be bonded are clean.

-Clean the sensor surface as required.

-Both the bottle surface and the sensor surface must be free of condensed moisture!

8.2 Cleaning

-Prior to extended idle times or when changing of the product type, clean the product hose and the dispensing valve.

-Loosen reservoir locking knobs (5) and remove the reservoir lid (6).

-Clean product residue from the outside of the feedline hose.

-Remove the product bottle and insert a container with approx. 0.5 liter of cleaning agent.

-Put on the reservoir lid (6) and uniformly tighten the reservoir locking knobs (5).

-Operate the dispenser continuously until dry air streams out of the dispensing valve (see operating instructions for the dispensing valve).

-Remove the empty cleaning agent container.

8.3 Maintenance

-Check the reservoir knobs and the product feed line on a regular basis. If there is any sign of cracks, replace them!

-Clean, dry, filtered air must be used. If it is not, the solenoids on the controller will be fouled over time.

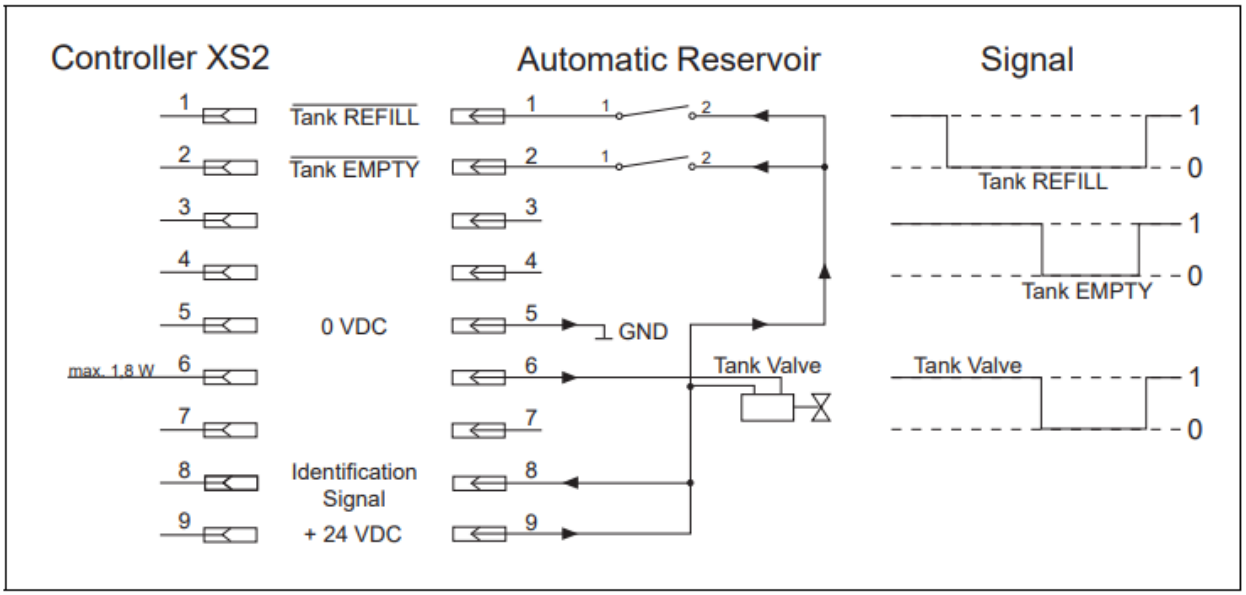
☞ **Notice:** If the required air quality is not achieved, install a Loctite® filter regulator. In the US order a 5 μm filter using Part Number 478603. In Europe or Asia, order a 10 μm filter using Part Number 88649.

9 Accessories and Spare Parts

Item	Description	IDH#
Spare Parts		
1	Reservoir/tube Tank Fitting, ¼ inch NPT x ¼ inch Tubing	360636
2	Tank Cord, 2 m	147521
3	¼ inch O.D. Black PE Teflon Lined feedline Tubing (10mtr/33ft length)	142646
4	Reservoir Lid O-ring	478505
5	Pressure Safety Relief Valve	360462
6	Anti-Bubbler Kit, 2 Adapters & 2 Sleeves	478569
7	Silicone Grease, 6 Gram Tube	88722

10 Diagrams

EQ RC34 Automatic Reservoir DP Pin Connection.



11 Warranty

Henkel expressly warrants that all products referred to in this Instruction Manual for Loctite® EQ RC34 Automatic Reservior DP (hereafter called “Products”) shall be free from defects in materials and workmanship. Liability for Henkel shall be limited, as its option, to replacing those Products which are shown to be defective in either materials or workmanship or to credit the purchaser the amount of the purchase price thereof (plus freight and insurance charges paid therefor by the user). The purchaser’s sole and exclusive remedy for breach of 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 fuses, filters, lights, etc.. No such claim shall be allowed in respect of 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.

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12 Declaration of Conformity

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