



RoadLoc®

Removable, Reusable Epoxy Anchor

Product Design and Installation Manual



RoadLoc Pte Ltd

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Advice for your Safety

Ensuring all handlers of the product detailed within this installation manual are aware of the potential hazards that could arise while using this product, the guidelines set forth within AS/NZ535 series standards are identified and displayed where appropriate to show the activities potential severity.



Safety Alert Symbol

This symbol is to alert you to potential personal injury hazards. All safety messages that have this image attached shall be followed to ensure injury and death do not occur.



DANGER Symbol

This symbol defines a situation that is hazardous and which, if cannot be avoided, will result in death or serious injury.



WARNING Symbol

This symbol defines a situation that is hazardous and which, if cannot be avoided, could result in death or serious injury.



CAUTION Symbol

This symbol defines a situation that is hazardous and which, if cannot be avoided, may result in minor or moderate injury.



NOTICE Symbol

This symbol defines a situation that could potentially result in non-personal injury. i.e. property damage.



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1. Introduction

1.1. System Overview

The RoadLoc is a removable and reusable epoxy anchor. The RoadLoc can be used in both asphalt and concrete road surfaces. The RoadLoc requires no pre-coating to be removed, and can be installed with any epoxy.

Removal of the RoadLoc anchor can be done with a battery operated impact driver.

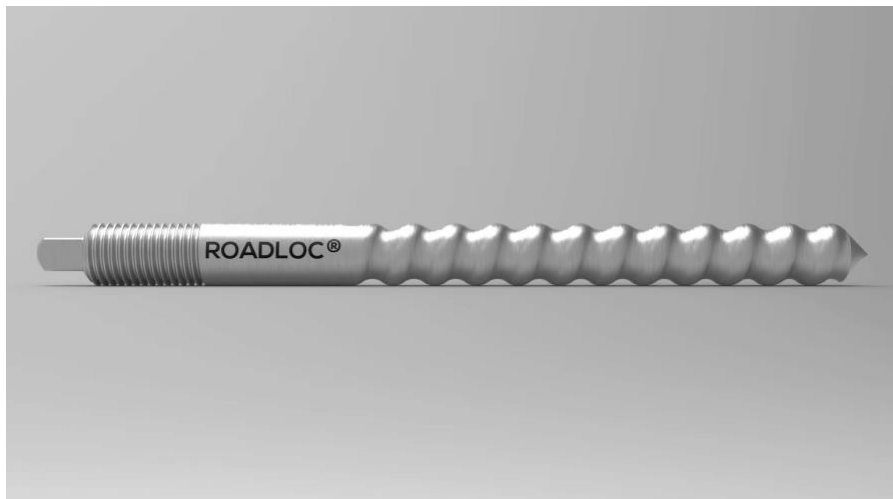


Image 1: RoadLoc

The RoadLoc has completed tensile and shear testing in asphalt and concrete pavement conditions.

1.2. Important Notes

RoadLoc must be installed in accordance with this instruction manual, and in accordance with the anchoring requirements of the product it is being used to anchor.



Incorrect installations can lead to outcomes different from the laboratory certification test outcomes.



2. Design and Performance

2.1. Design

2.1.1. Physical Design

The RoadLoc Removable, Re-usable anchor is an anchor which is designed to be removed with hand tools or battery operated impact drivers, requiring no pre-coating and no post removal special cleaning.

The RoadLoc anchor uses a custom designed insert into epoxy with a square top that allows for easy removal from epoxy.

2.1.2. Tensile & Shear Loading Characteristics

RoadLoc has been extensively tested in both asphalt and concrete pavement conditions in tensile and shear loading.

RoadLoc consistently performs equal or better than standard anchors used for temporary road furniture.

Test reports are available upon request.



WARNING The use of non product approved anchors can result in unknown outcomes upon vehicle impact.

2.2. Anchor Installation

There is one (1) configuration (as described earlier) in which the Defender 70™ System can be installed. This configuration requires the use of ABSORB® crash cushion.

2.2.1. Anchor Hole Dimensions

The tables 1 and 2 below offer a guide for the anchor hole dimensions required for the installation of various sizes of RoadLoc Anchors. These tables are guides only. If the Product manufacturer or Epoxy Supplied have different requirements, the Product manufacturer or Epoxy manufacturers guidelines take precedence.



Product Code	Anchor Diameter (mm)	Anchor Length (mm)	Hole Diameter (mm)	Hole Depth (mm)	Embedment (mm)
RL45-M20-175	20	175	22	145	125
RL45-M20-200	20	200	22	170	150
RL45-M20-300	20	300	22	270	250
RL45-M20-450	20	450	22	420	400
RL45-M24-180	24	180	28	150	130
RL45-M24-200	24	200	28	170	150
RL45-M24-330	24	330	28	300	280
RL45-M24-450	24	450	28	420	400
RL45-M30-300	30	300	34	270	250

Table 1: Metric Hole Diameter & Depth

Product Code	Anchor Diameter (inches)	Anchor Length (inches)	Hole Diameter (inches)	Hole Depth (inches)	Embedment (inches)
RL45-3/4-7	3/4	7	7/8	5-3/4	5
RL45-3/4-8	3/4	8	7/8	6-3/4	6
RL45-3/4-12	3/4	12	7/8	10-3/4	10
RL45-3/4-18	3/4	18	7/8	16-3/4	16
RL45-1-7-1/8	1	7-1/8	1-1/4	6	5-1/4
RL45-1-8	1	8	1-1/4	6-7/8	6-1/8
RL45-1-13	1	13	1-1/4	11-7/8	11-1/8
RL45-1-18	1	18	1-1/4	16-7/8	16-1/8
RL45-1-1/4-12	1-1/4	12	1-1/2	10-7/8	10-1/8

Table 2: Imperial Hole Depth & Diameter

Note: The above tables are not an exhaustive list of available sizes for RoadLoc.

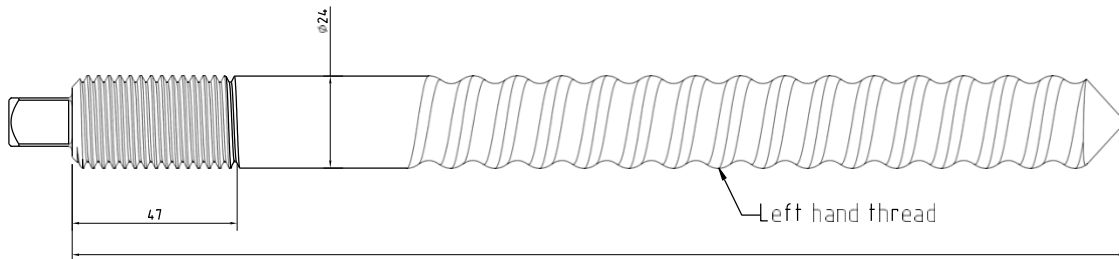


Figure 1: Typical RoadLoc

2.2.2. Epoxy Selection

The selection of epoxy is entirely dependent upon the epoxy required for the specific product being anchored.

RoadLoc can be installed with any epoxy.



WARNING Always refer to Epoxy manufacturers recommendations for all aspects of Epoxy use.



3. Installation Procedure

3.1. Planning

When planning anchor installation:

- How many anchors will be installed in deployment?
- Make sure that installation team has spare drill motors & spare drill bits.
- Plan and prepare for any local impact drilling work requirements.
- Dial before you drill.

3.2. Anchor Preparation

RoadLoc does **NOT** require any pre-coating before installation.

3.3. Hole Drilling & Cleaning

Hole drilling size and depth information can be found in Table 1 for metric and Table 2 for imperial.



Please refer to the epoxy suppliers requirements for hole cleaning before epoxy is applied to the hole.

3.4. Epoxy Application

Please refer to the epoxy suppliers instructions for proper epoxy application.

3.5. Insert RoadLoc

After epoxy is applied to the hole, turn nut onto the RoadLoc anchor as shown in image XX below, add required washer and insert the RoadLoc anchor into the hole.



Image 2: Ready to Install RL

3.6. Tighten Nut

Please refer to the product manufacturer for the required nut tightening specification.

Please refer to the epoxy supplier requirements for curing time before tightening the nut.



3.7. Properly Installed RoadLoc



Image 3: Installed RoadLoc



Image 4: Installed RoadLoc



Image 5: Installed RoadLoc with QuadGuard Crash Cushion

CAUTION

Ensure clearance for Diaphragm Components to slide on monorail

3.8. Recommendations

RoadLoc recommends applying zinc rich paint to the exposed portion of the RoadLoc anchor after installation.

4. Removal Procedure

4.1. Planning

When planning anchor removal:

- How many anchors will be removed?
- Make sure that removal team has spare drill motors & spare square sockets.

4.2. Removal Procedure

The suggested RoadLoc removal method is a square 4-point ½” socket to fit the square top of the RoadLoc.



Image 6: RoadLoc Remover

When removing RoadLoc Anchors, set the Impact Driver to tighten, the anchor is setup with right hand lower ‘thread’ to remove the anchor by ‘tightening’.

NOTICE

Threads are reversed, set Impact Driver to Tighten for removal – Right Hand Rotation

Please refer to [Video Link](#) for typical removal.

If conditions allow then an appropriately sized hand spanner or crescent can be used to remove the RoadLoc.



4.3. Hole Re-instatement

RoadLoc follow local guidance for pavement repair.



5. After Each Use

5.1. Inspection

After each use of RoadLoc, visually inspect the following areas

- Square top – Check are the corners rounded.
- Top threads – Check that a nut spins freely.
- Straightness – Check on flat surface by rolling the anchor.

5.2. Prepare for Storage

Removed anchors should be dipped in a light machine oil and wiped down prior to storage in order to prevent corrosion.



Appendix A Test Summary

Contact RoadLoc for the test summary that pertains to your installation requirements.