TERM-SEAL
Termite Management Systems

TERMITE-PRO Perimeter Retreatment System

Installation Manual v 3.5 2025

A perimeter re-treatment system for installation at time of construction or at an existing dwelling.

Tested in accordance with AS 3660.3-2014 and when installed as per this installation manual will comply with AS 3660.1 and AS 3660.2 as appropriate.

CODEMARK Australia
Certificate CM40453
CMI CERTIFICATION

AUSTRALIAN MADE AND OWNED

PREFACE

TERMSEAL AUSTRALIA PTY. LTD. is dedicated to the Code-Mark certification program that will ensure continuity in manufacture, and TERM-seal™ accredited installers and their clients are provided with quality products that are to be used in accordance to the installation methods as set out in this manual.

Installations must be recorded on the TERM-seal™ installer work sheet AD014, detailing placement of pipe, length of each run, job number.

No third-party privacy details are required.

The TERMITE-PRO Perimeter Retreatment System has been developed by TERMSEAL AUSTRALIA PTY. LTD. as a perimeter re-treatment system for installation to new buildings at the time of construction or to an existing dwelling.

Tested in accordance with the Code-Mark certification program ensures continuity in manufacture and provide our accredited installers and their clients with a quality system using quality products that are to be used in accordance to the installation methods as set out in this manual.

This System has been researched and developed in Australia using locally available components together with our technology and expertise.

The system is designed to be used as a building perimeter re-treatment system.

The system has been developed to make re-injection times as short as possible by having emitter valves close together which means there is minimal chance of any treated soil gaps between the emitters.

Accreditation Requirements

The TERMITE-PRO Perimeter Retreatment System can only be installed by accredited installers and the accredited installers must comply with the following:

- Demonstrate competency in installing, charging and recharging the TERMITE-PRO Perimeter Retreatment System by way of a questionnaire
- Ensure that installations of the TERMITE-PRO Perimeter Retreatment System are completed according to this Installation Manual.
- Purchase TERMITE-PRO Perimeter Retreatment System fittings and accessories from TERM-Seal Australia, their authorized distributor or agent.

The System Components

Emitter Pipe – Code Aries 16012

The key component of the System is the emitter pipe. We have chosen a polyethylene pipe which will deliver the required volume of termiticide emulsion as quickly and efficiently as possible. The maximum length of pipe run is 30 metres. The emitter spacing is 150mm.

The Pipe Elbow (90°) - Code TPRS47215

The thickness of the pipe means it will not bend to go around corners, a 90° elbow is available for corners. Put ratchet clamps on both ends to secure the pipe.

The Pipe Joiner - Code TPRS47015

Pieces of pipe that need to be joined together can be done so with a joiner fitting.

Be sure to push the pipe fully on, to the middle of the joiner from each side. This will ensure the barbs on the fitting hold the pipe when it is under pressure. Fit ratchet clamps to both sides.

Ratchet Clamps - Code TPRS44345

Ratchet Clamps are used to tighten up all the connections on the emitter pipe so that the connections cannot blow apart when the system is put under pressure during charging or recharging.

End Plugs - Code TPRS47615

End plugs are use at the ends of the emitter pipe run. Used to prevent the termiticide from flowing freely from the end of the pipe thus keeping the emitter pipe under pressure. Fit a ratchet clamp once the pipe is pushed over the barb, to the ring on the fitting.

Valve Boxes – Code TPRS HR606-6SQVB

A valve box is mandatory to protect your re-charge stand pipe. A valve box also makes maintenance easy, you can find the valves much easier & access is clear. (photo is for example only)

Stand Pipe Kit–Code TPRS12140

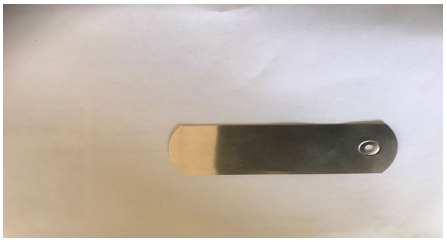
The connection between the emitter pipe and your pump hose is made of a set of fittings which we have designed to minimize the disruption in flow between your pump and the emitter pipe.

The stand pipe kit is supplied assembled and consists of:

1. 25mm threaded plug to secure the pipe end between injections to eliminate debris and insect activity in the pipe.
2. 25mm Female Top'n'Tail fitting (with washer) to connect the injection hose for pumping.
3. 150mm x 25mm diameter pipe with 2 ratchet clamps
4. 25mm elbow
5. 14mm bayonet/25mm threaded fitting for connection to the emitter pipe with one ratchet clamp (the 14mm clamp will be fitted once the emitter pipe is attached to this fitting at the job site)

Pipe Label – Code TL 101

Labels are to be attached to the Stand pipe within the Valve Box to denote the lengths of pipes and any other relevant details. These are used for calculation of termiticide required for future pump ups



Tank, Pumps and Associated Equipment

- Dual tanks one for Termiticide and one for water, with a capacity usually between 100 and 400 litres

- A pump and motor. This can be any appropriate system, but an Australia Petrol Fire Fighter HP15-GP160 by Honda is recommended. Typically shown below, this is a strong reliable pump suitable for both volume and pressure. We recommend that the connection from the pump outlet and the System pump-up point is direct, so that you don't lose pressure or interrupt the flow by running through a hose reel, typically with 50-100 metres of hose on it. A flow meter will help you accurately measure the amount of emulsion put through each line.

- The connection between the motor/pump delivery hose and the valve box, you should have a stop-cock/ball valve fitting to stop the flow, together with a pressure gauge to monitor the pressure. We recommend this pressure should be no more than 40psi (275 kPa); more pressure than this is likely to damage the emitter pipe. This will mean that the pressure at the pump should not exceed 50psi (345 kPa).

Hand Tools

- Stanley knife or shears to cut the poly pipe
- 20 metre measuring tape or measuring wheel
- Hammer, hacksaw
- Steel pegs to hold the pipe in place whilst the concrete is poured
- Multipurpose adhesive tape (duct tape).
- Digging tools such as spade, shovel and pick mattock
- Scissors, pliers
- Broom

The System Installation

The TERMITE-PRO Perimeter Retreatment System has been developed by TERM-Seal Australia as a perimeter re-treatment system only. It is not to be used for full under concrete floor slab installations.

1. Inspect the site and plan the Installation.
   - Where to install the valve box/s should be noted. Consider placing the Valve/pump-up box as close as possible to where you can access the site with your vehicle. This might mean installing the box near the Electrical meter box, for example, so it is close to the driveway.
   - Measure the perimeter length of building. Note that the maximum length of the emitter pipe is 30 metres.
   - Take note of any areas that the finish ground level is above slab height. The builder or home owner may need to be consulted regarding finished ground levels and future concrete areas.
   - Note any limitations that will influence the efficacy of the installation. Again, you will need to consult with the builder or home owner to overcome the limitations.

2. The pipe needs to sit close to the footing at a depth of no less than 80mm and no greater than 150mm. It should be no more than 80mm from the perimeter wall of the building with the emitter holes facing up. This will achieve a treat zone of soil from the surface down to 50mm below the top of the footing as per the requirements of the Australian Standard. The pipe must go against the building foundations.

3. Lay out the emitter pipe and cut to the correct length for each wall. It is advisable to seal of the ends with duct tape so as not to allow foreign object to enter the pipe openings.

4. Starting from the position of the valve box insert the first stand pipe. Attach the stand pipe to the emitter pipe. Push the emitter pipe onto the barbed end all the way and secure with a ratchet clamp.

5. Go to the next corner and fit a 90° elbow. Again, attach both ends of the emitter pipe fully onto the elbow and secure with ratchet clamps.

6. If you have short lengths of emitter pipe, these can be joined together using the joiner fitting. Always use ratchet clamps on either end of the joiner to secure the joiner pipe.

7. Continue linking the emitter pipe until you have reached the maximum distance of 30 metres and install the end plug using a ratchet clamp to secure it to the emitter pipe.

8. Go back to valve box and running in the opposite direction install a second emitter pipe to service the other side of the dwelling as per the steps 4, 5, 6 and 7 above.

9. If the second emitter pipe does not overlap the previously installed emitter pipe by 50mm i.e. the dwelling perimeter is greater than 60 l/metres you will have to install an additional valve box half way between the ends of the originally installed pipes.

10. Install 2 more emitter pipes in either direction and overlap by 50mm to complete the system.

The Site Soil Conditions and Trench Preparation

The type of soil is important. A sandy loam soil will provide a porous material to allow the chemical emulsion to penetrate through but also a soil with some organic matter to bind the active ingredient in the soil. Soils are typically made up of a combination of sand, silt and clay.

Clay soils are poor absorbers of liquid termiticides. If the TERMITE-PRO Perimeter Retreatment System is to be laid into areas of clay-based soils or soil containing building debris or other waste containments, the soil will require replacement with a sandy loam type.

The Type of Termiticides and Their Concentrations

Any chemical approved for use in hand application of termite barriers or Reticulation/Recharge Systems by the Australian Pesticides and Veterinary Medicines Authority (APVMA) may be used in conjunction with TERMITE-PRO Perimeter Retreatment System.

To ensure application complies with AS 3660.1 and AS 3660.2, treatments must be applied according to the manufactures chemical label.

As always, check the product label about whether you can use that product in a system and whether there are any special requirements when using that product in a Reticulation or Retreatment System.

Many labels will say, in the Section about Reticulation Systems, “a certified reticulation system”. Our Certification is the Codemark Certificate of Conformity, which must be followed in conjunction with this manual.

It is the responsibility of the Pest Management Technician (PMT) to ensure the product is used according to label. The PMT is responsible for the treatment and the PMT’s name must be included on the Certificate of Installation as per AS 3660.1 and AS 3660.2.

It is permissible when using the TERMITE-PRO Perimeter Retreatment System to hand spray the trench and backfilled soil as per the chemical label, while installing the pipe (always ensure the emitter holes on the pipe are facing upwards)

Multiply length of the trench by its depth and width to calculate the volume in cubic meters. Most labels require termiticide emulsion to be applied at 100 litres per cubic meters. The amount of concentrate is dependent on the product label.

We strongly recommend you clean your inline filter, before filling your tank and mixing the emulsion. This is to avoid any foreign matter blocking emitter holes.

Once you have pumped all the required volume into the pipe, you should then pump water into the pipe, at a rate of 1.5L/ metre; so, if the line you are pumping is 30 metres long, then you should pump in 45 litres of water. The purpose of the water is to flush the emulsion out of the pipe so, the full required amount of emulsion is injected into the soil.

Initial Treatment

The initial treatment should be applied by hand spraying to the requirements on the registration label. The excavated trench, backfilling and treating the backfill should be applied on the day while the excavated trench is open.

When a pump up of the system is required, it is important only 25mm (1 inch) hose is used.

Subsequent retreatments

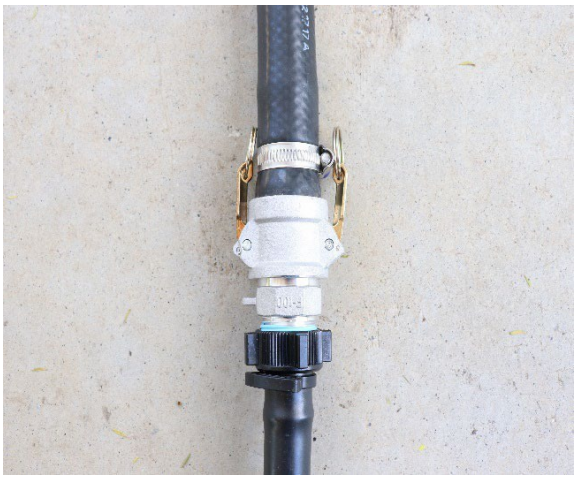
The sequence of making the connection from the pump hose to the stand pipe (it is assumed that there is a 25mm male Camlock fitting on the hose from the pump).

1. Remove the valve box lid to reveal the two injectors stand pipes.

2. Read the valve box labels to ascertain the length of each run. This will ensure that you will mix and deliver the correct quantity of emulsion in each emitter pipe.

3. Clean, if required any foreign material from around the top of the stand pipe thus ensuring that there will be no objects entering the system when you remove the Camlock dust cap.

4. Remove the Camlock dust cap revealing the female Camlock and immediately connect your male Camlock & hose.



5. Begin the injection process. Maintaining the correct pressure will maximize the volume of emulsion throughout the emitter pipe. Only 20mm hose is to be used.
   Replace the dust cap and repeat the process for the second emitter pipe.

6. Once the chemical injection is completed you should switch tanks and Inject each pipe with 1.5 litres of water, i.e. 53 litres per 35m run of pipe. This is to ensure all the required emulsion volume is injected into the soil and does not remain in the pipe.

7. Once the injection process is completed, the hose is disconnected and the Camlock dust caps are replaced and the valve box lid is then replaced, secured by the screws.

Documentation

Complete a Certificate of Treatment / Certificate of Installation. (A template of this document for new construction work, is available for download from our website)

A Durable Notice (as below) should be completed and installed at the time of the treatment. (these are available at a modest charge through our website). Ensure the surface of the meter box where the Notice is to be installed is clean. A wipe over with methylated spirits or similar cleaning compound is recommended. Allow a few minutes for the surface to dry, before affixing the Notice.

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The TERM-seal™ Termite Pro Retreatment System has been installed to the perimeter of this building.

Job No..... (Mandatory)

Date Installed...../...../.....

Volume of diluted product required..... Litres. Treatment to comply with the requirements laid out in AS 3660 Series and chemical label directions for retreatment systems.

Maintenance Visits

Date	Inspection	Retreatment

This re-treatment system should be pumped with diluted termiticide at no more than 40psi (275k Pa).

WARNING To the home owner

Inspections and Maintenance

A TERM-seal™ termite protection system has been installed in accordance with AS 3660 Series into this building. AS 3660 Series highly recommends regular inspections are carried out on the building, not less than annually to detect bridging or breaching of the termite systems by a competent termite inspector. Do NOT install pathways, pavers, gardens or make building alterations or additions without seeking advice from your TERMSEAL accredited installer.

ADDITIONAL WARNING

To ensure warranties are maintained, have the property inspected by a competent TERMSEAL accredited termite inspector, not less than annually, and comply to any recommendations made by that inspector.

Installation Company: .....

Phone: .....

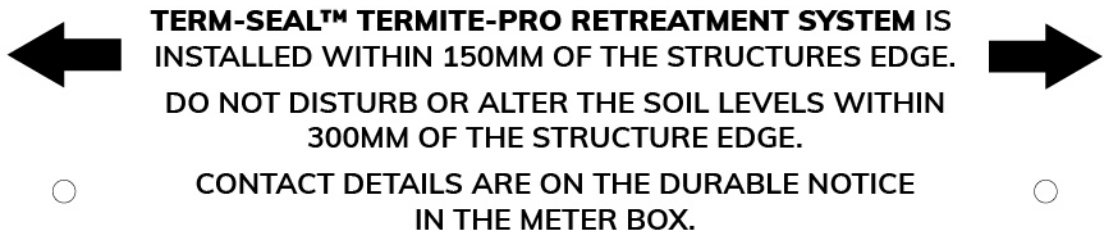
TPRS 12144

QUEENSLAND INSTALLATIONS ONLY

It is a requirement in the Queensland variation of the NCC 2022 Building Code of Australia- Housing Provisions Part 3.4.1 (6)(b) to install a concrete cover strip not less than 50 mm thick and 300 mm wide measured from the external wall of the building over an external perimeter termite management system.

In situations where a concrete cover strip (also known as a mowing stirp) is not practical, the use of wall plaques has been assessed by Australian Timber & Pest Research Pty Ltd and validated to comply with QLD H1P3 as an alternative solution to the deemed-to-satisfy requirements of the Queensland Variation of H1D3 where Part 3.4.1(6)(b). In compliance with our CodeMark Certificate of Conformity, the wall plaques must be installed around the perimeter of the building when this System is installed, no more than 10.0m apart on each elevation (side of building). It is recommended that each plaque is no more than 150mm up the wall from the soil surface.

The wall plaque looks like this:



A hole on each end of the plaque will allow concrete nails to be used to attach the plaque through the mortar joints, to the wall.

The plaques can be ordered with the other fittings for the System.