

Linear 1500

Log set, and modern media installation

Experience has shown that the majority of performance problems are caused by burn media being installed incorrectly. Please take the time to read and follow these instructions as malfunctioning due to incorrect burn media placement is not covered by warranty.

YouTube videos

We also have burn media installation videos on the Rinnai NZ YouTube channel.



The Linear **MUST NEVER** be used with other burn media or burn media that is damaged. The Linear burn media sets are different and cannot be interchanged, ensure you have the correct set before installation.

Correct placement

It is important to place the burn media in the correct position. Incorrect placement can create carbon build-up (sooting) and affect performance.

IMPORTANT



Ensure the gaps between the burners are kept clear of any vermiculite or crushed glass. This is important as these gaps provide secondary air to the unit. A tip to stop any burn media going into the gaps is to place the installation guide in the burner gap while placing the vermiculite or crushed glass over the burner.

Log set

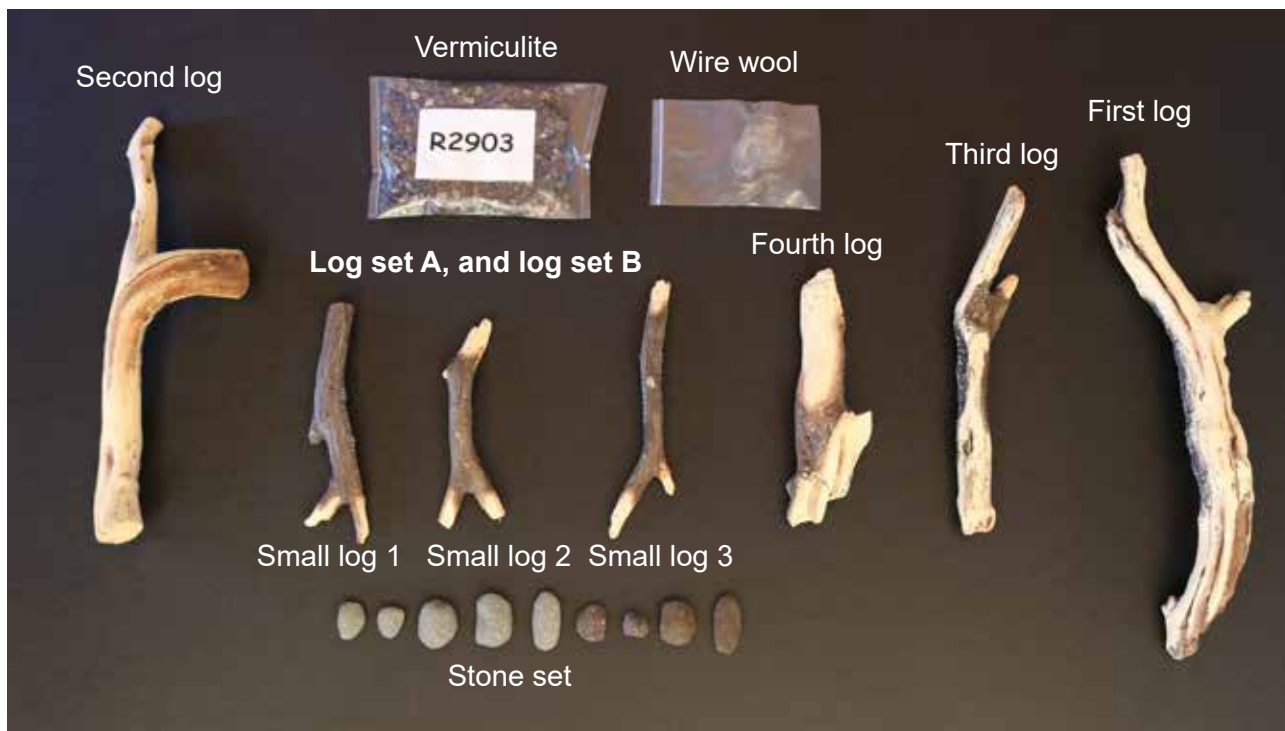
The logs have a charred section on them and when correctly installed, the charring will always be face down.

Different gas type burners

The NZ LPG burner differs from the natural gas burner. The LPG burner has a 'U' stamped in the side, as pictured.



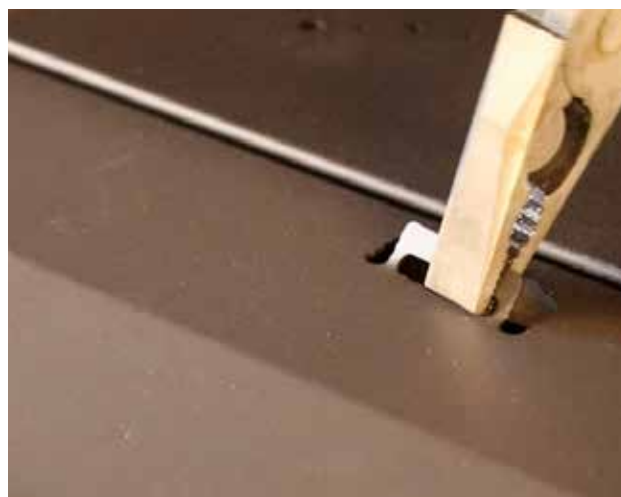
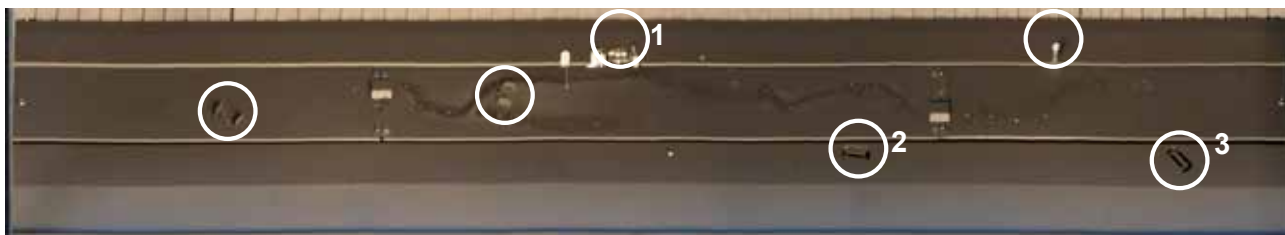
Linear 1500 log set



Before starting the installation, carefully unpack the entire burn media set. Inspect each part for damage and lay them out as shown above, making sure that everything has been supplied. Use this guide and the one-page sheet fixed to the fire for further guidance.

These instructions show a single sided fire, but the process for the double sided is the same as long as the media is installed from the front of the fire, with the pilot to the back of the burner.

There are six log location points along the burner and burner surrounds. For this fire, the three location tabs (numbered below) in the burner surrounds need to be folded up before proceeding.



Place a thin layer of vermiculite across the entire burner bed. Don't pour the vermiculite, there will be dust that has settled in the bag, this can block the burner ports and cause cross lighting and performance issues with the fire. Avoid putting excessive vermiculite over the burner ports at this stage. The first layer should use less than a third of the vermiculite.

Make sure the burner ports in front of the pilot and main burner flame rod are not covered, circled below.



Start the fire and make sure that the flames track across the entire burner bed. Move the vermiculite around as required. You may need to use the remote control or control panel to keep the fire burning on high.



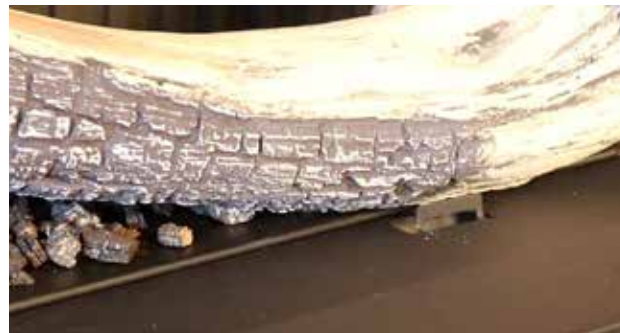
First log

Take the first log and carefully lay it over the burner using the location tab and supporting bridge. Make sure there is a clear path in the vermiculite where the log crosses the burner. The bridge is designed to hold the log slightly above the burner top.



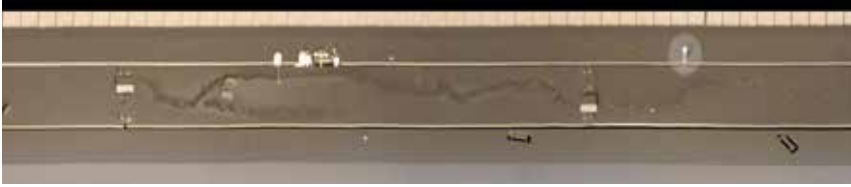
Second log

Take the second log and install it using the tabs as a location guide. You may need to clear away some vermiculite to allow the log to sit on the burner. The log sits BEHIND the right-hand locator tab.



Third log

Fit the third log using the pin in the back burner surround. The pin should fit firmly in the fork of the log and the free end of the log rests on top of the second with the small nub (circled) on the second log holding it in place.



Fourth log

The fourth log is fitted in front of the right-hand log locating tab and rests on the third log above the locating pin. Note that with all the logs, the charred section is facing down.



The location of the fourth log, and the last three smaller logs is not as restricted as the first three logs may need to be adjusted in later steps.



Three remaining smaller logs

Continue fitting the three smaller logs using the colour installation sheet on the front of the appliance as a guide.



Remaining vermiculite

Place the remaining vermiculite on the burner surrounds. This is a decorative aspect of the installation and can be adjusted to customer requirements. If they only want vermiculite on the burner that's okay, and similarly, if they want vermiculite spread across the entire panel, that's okay to.

Do not place more vermiculite on the burner itself at this stage. Take care not to block the gap between the burner and the front and back surrounds (indicated with arrows below). This gap is required for secondary air to get to the burner.



Stones

Place the stones using the colour installation sheet as a guide. These are decorative and are not necessary if the customer doesn't want them used. Rinnai recommends using them to camouflage the places where the log location tabs are visible. Take care not to directly block any of the burner ports.

If you are setting up a double-sided fire, make sure it looks good from both sides.

Start the fire again and make sure that the burner lights completely. Force the fire into high burner mode using either the remote or the front control panel. Adjust the stones and vermiculite as required.



Adjust smaller logs

Adjust the smaller logs so that they are not over the top of any long flames. This is especially important with LPG or propane fires as too much impingement can cause excessive soot. The aim is to avoid long streaky yellow flames.

Don't worry if the flames look a bit flat at this stage, the next step is to add the wire wool, this will help with the look.

It's important to note that the flames will stand up a bit straighter when the glass front goes back on. Take this into consideration when adjusting the logs. You can always briefly fit the glass to get a better feel for how it will look.

It may be necessary to clean out some of the bigger burner ports, but sometimes a larger piece of vermiculite can help with cross-lighting or diffusing a flame.

Wire wool

Take the wire wool out and tease into thin strands. There is nothing to be gained by having a thick rope of wire wool.

Most installations will use less than a third of the supplied wool. The remainder of the wool can be left with the customer or can be used as a replacement when the fire is serviced.

The wool is used to enhance the flame, but if the customer doesn't like it, it doesn't have to be installed.



Place thin strands of wire wool over the flames to make them brighter and more vibrant. There is no benefit in having wool where there is no flame, and having too much wool can make the flames too yellow and streaky, and will look odd when the fire is off.



Be careful to avoid getting the wire wool anywhere near the flame rods. If you find that the fire is cutting out, there is a good chance that it is a strand of wool shorting out one of the flame rods. If there is a loss of flame or a short circuit on either the pilot or the main burner flame rod for more than five seconds, the fire will shut down.

Checking the final assembly

Once you are happy with the way the flame bed looks, replace the glass front and start the fire. Make sure that you are getting good cross-lighting and that there is no impingement or long streaky flames that might cause sooting.

It is important to leave the fire running for at least ten minutes to get a good idea of how yellow the flames might get and if there are any patches of major impingement on any of the logs. These need to be fixed to prevent soot appearing on the logs, especially with LPG or propane installations.



Linear 1500 modern media



Before starting the installation, carefully unpack the burn media set. Inspect each part for damage and lay them out as shown above, making sure that everything has been supplied. Use this guide and the one-page sheet fixed to the fire for further guidance.

These instructions show a single sided fire, but the process for the double sided is the same as long as the media is installed from the front of the fire, with the pilot to the back of the burner.

Note that this is specialty glass, there is a risk of damage to the fire if anything other than Rinnai supplied products are used.

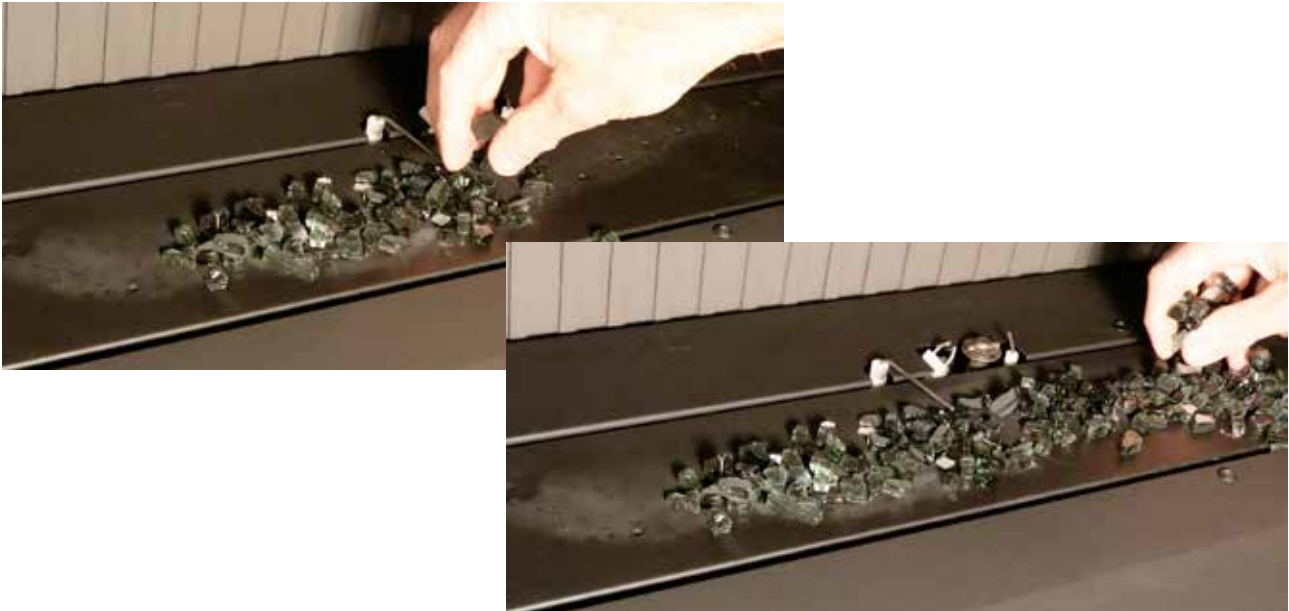
There are log location tabs along the burner and burner surrounds. These are not used when installing the glass media. The tabs in the burner surround should be left flat. If changing from a log set to glass, flatten these tabs before proceeding. The tabs on the burner top can be left folded up.



Start using the smaller bag of glass. Spread out a thin layer across the entire burner top. Don't pour the glass out, as there will be dust that has settled in the bag. This can block the burner ports and cause cross-lighting and performance issues with the fire.

Try to avoid putting excessive glass over the burner ports at this stage.

You should not require much more than the smaller bag of glass on the burner to start with.



Start the fire and make sure that the flames track across the entire burner bed. Move the glass around as required.

These instructions have images using natural gas, the flames will behave differently when using LPG or propane, but the principles are the same. You may need to use the remote control or control panel to keep the fire burning on high.



Wire wool

Take the wire wool out and tease it into thin strands. There is nothing to be gained by having a thick rope of wire wool.

Most installations will use less than a third of the supplied wool. The remainder of the wool can be left with the customer or can be used as a replacement when the fire is serviced.

The wool is used to enhance the flame, but if the customer doesn't like it, it doesn't have to be installed.



Place thin strands of wool over the flames to make them brighter and more vibrant. There is no benefit in having wool where there is no flame, and having too much wool can make the flames too yellow and streaky, and will look odd when the fire is off.

Be careful to avoid getting the wire wool anywhere near the flame rods. If you find that the fire is cutting out, there is a good chance that it is a strand of wool shorting out one of the flame rods. If there is a loss of flame or a short circuit on either the pilot or the main burner flame rod for more than five seconds, the fire will shut down.



You can now install the remaining glass. How much of the fire base you cover with the glass is up to the customer. If they only want glass on the burner that's fine, but they need to be aware that the log locating tabs in the burner surrounds will be visible. Our recommendation is to place a layer of glass between the burner and the fold on the burner surrounds, but some customers prefer to have glass across the entire fire base.

Make sure that the gap between the burner and burner surrounds is left clear of glass, this gap is required for secondary air to reach the burner.



← Burner gap, keep clear

← Burner gap, keep clear

Fit the glass front and make sure that you are getting good cross-lighting and that there are no long streaky flames that might cause sooting.

It is important to leave the fire running for at least ten minutes to get a good idea of how yellow flames might get and if there are any flames that might be sooty. These need to be fixed by either clearing the glass away from the burner ports or moving any wire wool that is causing flames to join together. This is especially important with LPG or propane installations.



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