assembly instructions

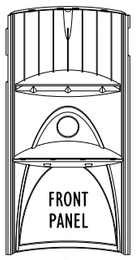
Components: 1 FRONT PANEL (with DOOR), 3 SIDE PANELS, 4 CONNECTOR STRIPS, 2 SHELVES, 1 TOP, 1 LID, 1 PULL-OUT-PANEL, 1 PUSH-PULL-TOOL

Last updated 22 June 2007

START HERE - it's easy - follow these instructions

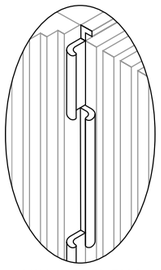
***NB:** Earthmaker components are designed to fit together tightly. But they are made from plastic so **do not use excesssive force**, such as with a hammer or pliers, during assembly. Use a little oil or silicon spray to lubricate any parts that do not easily fit together.*

NOTE: Your Earthmaker can be carried to its final site after assembly.

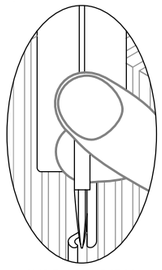


1 Stand the FRONT PANEL on a flat, level surface *(NB: see User Guide - Site Selection)*. Stand a SIDE PANEL at right-angles to the front panel.

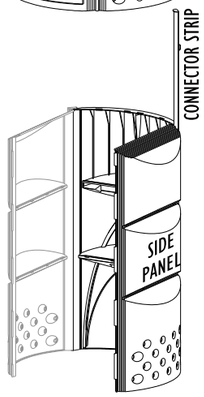
2 Pull the corner tabs together so they overlap. Slide the CONNECTOR STRIP between the overlapping tabs - pointed end down. *Use the handle at the bottom of the connector to guide the tip.*



PULL CORNER TABS TOGETHER SO THEY OVERLAP

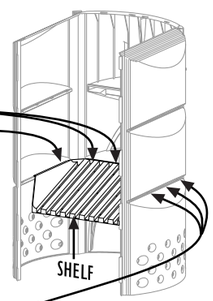


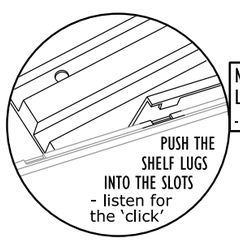
SLIDE CONNECTOR BETWEEN OVERLAPPING TABS



3 Stand another SIDE PANEL *at right-angles* to the other side of the front panel. Repeat step 2.

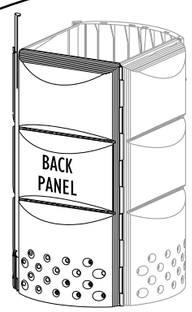
4 Fit a SHELF to the front and side panels at the lower position. NB: *Ensure the shelf lugs are aligned with the slots in the front and side panels.* Working across the back of the shelf start here - and then down the sides of the shelf gradually push the lugs into slots.





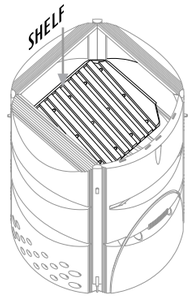
NB: MAKE SURE THE LUGS ARE IN PLACE - check from the outside

5 *After the lower shelf is secure* place the BACK PANEL between the two side panels – pull the tabs together and slide the connector strips between them as in step 2.

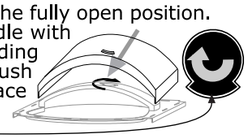


6 Fit the other SHELF to the **back panel** and the two side panels - pushing the lugs into the slots.

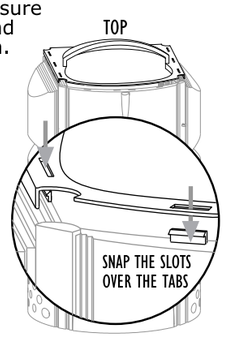
NOTE: *This* upper shelf *slopes down from the **back panel towards the front**, while the* lower shelf *slopes down from the **front panel towards the back**.*



7 Fit the LID to the TOP in the fully open position. Align the lug on the spindle with the notch inthe hole. Holding the lid **at a 45° angle**, push the spindle firmly into place then rotate the lid to the closed position. Check from underneath to ensure the spindle is fully in place and rotate lid to the open position.



8 Fit the TOP PANEL. Starting with the back and sides, **snap the slots over the tabs**. Support the side panels from the inside while pushing the top panel down to **make a definite click**. Snap the slots at the front over the tabs on the Front Panel while pushing the front panel out from the inside.

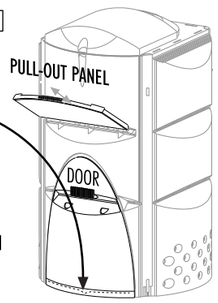


9 Insert the PULL-OUT PANEL into the slot above the door. Place the DOOR in the front panel so that its bottom edge fits behind the rim.

10 Position the Earthmaker, so that it is:

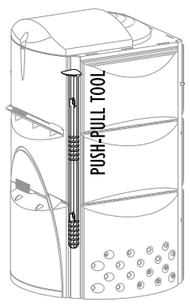
- conveniently positioned in relation to your kitchen
- on a flat, level, well drained surface (eg: paving slabs)
- shaded from hot sun
- suitably positioned for extracting mature compost.

CHECK that the top is properly in place after moving.



11 Hang the PUSH-PULL-TOOL on a hook at the top of one of the connector strips.

Your Earthmaker is now ready for use - read the **User Guide**.



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User Guide

3 BIN PROCESS gravity does the hard work!!

Last updated:
22 June 2007
(USA / UK)

Getting the best results

Congratulations on choosing to process your organic kitchen and garden waste with an Earthmaker™.

Composting is a natural means of making a valuable soil enhancer and your Earthmaker is designed to achieve excellent results with the least effort on your part. In the top chamber water, oxygen and heat help micro- organisms (fungi and bacteria) to break down the raw material. In the cooler middle and bottom chambers, macro-organisms (worms and invertebrates) work to further break down material to mulch and, finally, compost.

Choosing a site

When you have assembled your Earthmaker (see back page instructions) it can be easily moved to a suitable site. PROPER SITING IS IMPORTANT.

- Position your Earthmaker conveniently in relation to your kitchen.
- Choose a place shaded from hot midday sun. While radiant heat warms the top and assists composting, too much heat can soften the plastic and reduce its structural integrity.
- Make a **LEVEL site** approximately one metre in diameter. **A firm, flat base** of brick, paving slabs or timber will stop the Earthmaker from tipping forward, allow for good drainage and easy removal of compost and prevent rodents from burrowing in (see Trouble-shooting Hints).
- Planting herbs around the base is both attractive and useful.

ASSEMBLY INSTRUCTIONS on back page
- please follow carefully

Feeding your Earthmaker

From the garden

Use grass cuttings, leaves (dry or green), weeds and tree trimmings. If possible use a shredder or a mower to mince up larger pieces. NB: Do not use weedkiller containing Chlopyralid on material to be composted - the resulting compost may distort some plants.

Do not overload the top chamber or force material in. Large amounts of grass cuttings all at once can make the mix slimy. Store any excess grass in a simple bin alongside and use it to layer over as kitchen material is added. Layering over in this way eliminates flies etc attracted to putrescent kitchen waste.

Shredded paper, straw, cold ashes, untreated sawdust and vacuum cleaner dust can be added. If you have no lawns use leaves (green or brown), seaweed, twigs, weeds and/or pruning waste. Toxic chemicals must be avoided. **Do not add heavy materials like soil, manure or mature compost -** they have already broken down.

Weed bulbs like oxalis and some seeds (e.g. tomato and pumpkin) may germinate. Placing them in a black garden bag and leaving it in hot sun for a few weeks should sterilise them. You can then add them to your composter.

From the kitchen

Use green vegetable and fruit food scraps (chopping them up aids 'digestion'). Coffee grounds, tea bags, vacuum cleaner dust, paper kitchen towels are also suitable ingredients but avoid putting meat or fatty foods in your composter: they attract rodents and other unwanted wildlife.

Anything organic can be fed into your Earthmaker. It is best to avoid large helpings of any one type of waste. A varied diet, well chopped and mixed, works best. But the Earthmaker is designed to encourage all organic material to eventually breakdown with minimal effort on your part.

Starting the process

Begin by filling the top chamber with food scraps and garden waste. The mixture will heat up and naturally compact down over a few days. Add the food scraps every few days and the garden waste as you mow the lawns, weed the garden or sweep the leaves.

Mixing and stirring material in the top chamber can be useful - once a week is ideal but every 2-3 weeks is fine. Use the Push-Pull-Tool (PPT) carefully – vigorous action may dislodge shelves. **Do not overload the top chamber.**

Every month or so remove the Pull-out Panel and gently push material down into the middle chamber. Start with the material in the front. Some people like to introduce composting worms to the middle chamber at this point to accelerate the process – it is not essential.
Pull-out Panel.

Continuing the process

Before emptying the top again it will be necessary to clear the middle chamber.

Use the PPT through the round access hole above the door opening to push material backward and down to the lower chamber.

When your Earthmaker has been in operation for a few months, micro-organisms and worms (some hatch from eggs in grass cuttings and leaves) will be established in the grooves in the shelves. Do not wash the shelves clean as the older matter serves to kick-start new waste and speed the process.

Before clearing the middle chamber, pull the mulch/compost in the bottom chamber through to the front using the PPT. Remove compost with a long handled shovel. Take care not to damage the lower shelf.

Place your compost directly on the garden or around shrubs, or dig in for new planting. There should be plenty of healthy worms. If it is too rich for new seedlings dilute with potting mix or sand/earth.

Frequently asked questions

How long will it take?
This is a trick question! Time taken to make true compost depends on many variables, eg: amount of material, whether it was shredded, nitrogen/carbon balance, moisture content, time of year etc. Good mulch is made in several weeks. A few more months of bacterial action converts mulch into real compost.

A cold climate will slow the process whilst warm weather speeds the process. But speed is not really important once the continuous cycle process has been established. The Earthmaker takes waste at any time and provides a continuous source of mulch/compost.

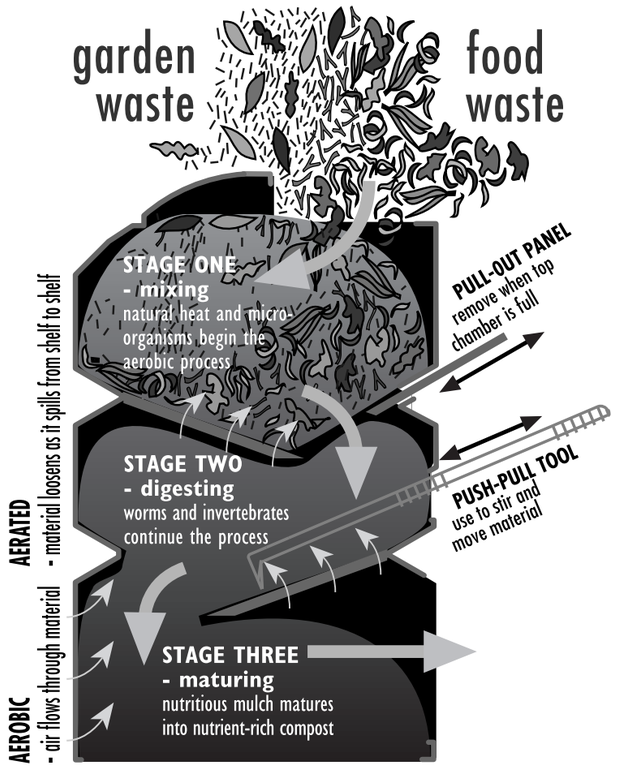
Can weeds be added?
Most weeds can be fed to your Earthmaker like any other green waste. But more tenacious varieties and some weed seeds (eg: oxalis, ground elder, celandine, bindweed, convolvulus) require special treatment. Shred them, seal them in a black plastic bag with some grass clippings and and leave them in a sunny position to 'cook'. When they have been exposed to high temperatures for a few months they will have decomposed and can be fed to the Earthmaker.

Should worms be added?
You can leave it to nature. Red/tiger earthworms (best for eating vegetation) usually find their own way into the upper chambers of the Earthmaker. Earthworms that are good for aerating soil often appear in the bottom chamber. If you want to add tiger worms do it in the middle chamber as it may be too hot in the top.

Visit* www.earthmaker.co.uk *for updated information and to ask your own questions.

Summary: how to make good compost

1) Site the Earthmaker in a flat, semi-shaded, convenient position.
2) Start filling the top chamber with a mix of garden and food waste. Stir carefully with the Push-Pull-Tool. *Do not overload.*
3) Every month or so remove the Pull-Out Panel and allow the material to drop into the middle chamber. Use the PPT to push material down, gently, if necessary. Replace the panel. Continue filling the top chamber whenever waste is available.
4) Over the next few weeks the material in the middle chamber should gradually decompose and tumble into the bottom chamber. Sometimes you will need to use the PPT, through the round hole above the door opening, to push the material from the middle chamber through to the bottom. Then you can repeat step 3.
5) Pull material in the lower chamber to the front before pushing more compost from the middle chamber into the lower.
6) When you are ready to use compost in the garden, remove it from the lower chamber (taking care not to damage the lower shelf with your spade!)
7) A continuous cycle is now established and that can accelerate the decomposition process. Use your nutritious compost around shrubs or dig it into the garden.



Troubleshooting hints

Material too wet and slimy?
Check that you haven't left the top open. You may have too many grass clippings. Stir in straw, sawdust (untreated) dry leaves or shredded dry seaweed, twigs or newspaper. Ensure that the site drains well.

Material too dry and not composting?
Add water or leave the top open to rain. It usually means that you are not adding sufficient nitrogen material (greens, grass clippings, green prunings). The composting process needs a critical mass to create heat and stimulate organic breakdown.
When the top and middle chambers are almost full the process should be working well.

Compost smells rotten?
If the decomposing material smells like ammonia or hydrogen sulphide ('rotten eggs') it means that the mixing, loosening and aeration has not worked as it should. Carefully fold and stir to let in air.

Taking too long to reach the bottom?
You may not be feeding your Earthmaker enough, or a blockage may have developed from large twigs or kitchen scraps or inadequate mixing and pushing. Remember to chop up food waste and shred garden waste where possible.

Fruit flies are in the top chamber?
At certain times of the year there will always be fruit flies (Drosophila). Do not worry - they are part of nature's process. But if they bother you just break their life cycle by covering with wet newspaper or layer over with grass cuttings.

White grubs appear?
Sometimes, in dry conditions, composting grubs may arrive in the top chamber. They are whitish, 1-2 cm long with a wriggly tail. They are not maggots. Leave them to do their job and layer over with grass cuttings and/or leaves.

Unwanted guests?
Rats or mice may be attracted to food or the warm nesting environment. They can be discouraged by:
- ensuring food waste is well covered with garden waste;
- keeping the lid and door properly closed;
- putting your bin on a solid surface, eg: cobbles or timber slats with narrow drainage gaps;
- putting your Earthmaker in the open (provided its not in hot sun) - rodents don't like open space where they are vulnerable to predators.

Or use rat bait to attract them, then dispose of them - rodents will have come from somewhere nearby, so this is an opportunity to get rid of them. It can be seen as a way of keeping field mice out of your house.

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