

Tools and Tips

A guide to the use of tools,
health and safety issues and
general tips when building
your new conservatory



DIRECT 
CONSERVATORIES

Direct Conservatories 4 U – The UK's leading supplier of DIY
and Easy Self Build PVCU Conservatories



Using this Installation Manual - READ THIS SECTION CAREFULLY

Contained within this Installation Manual are step-by-step instructions to guide you through the installation of your conservatory to successful completion. Each build stage has been broken down into sections and you will see an overview of these build stages immediately following this section.

IMPORTANT

Read **ALL** the instructions completely **BEFORE** commencing any work, more than one reading may be necessary. Understanding these instructions and familiarity with procedures will make the build process much easier and an enjoyable project to undertake.

Cross referencing

Your conservatory is supplied as several items of packaging, some of which will be immediately apparent (such as panels and doors) other items will be labelled as a particular package reference. For example, 'Pack B' will contain your sills.

Contained within 'Pack A' (along with these instructions) is a set of component checklists which you will use to identify the items contained within each pack. Also as part of the checklists is a 'Roof Plan'. This diagram is very important as it contains information specific to your conservatory, such as, width, projection, height, etc. Throughout this manual will be references to your 'Roof Plan', please ensure that you refer to this plan whenever requested to ensure all dimensions, etc. correspond.

Working through the sections

The first part of the manual is an 'Order of Assembly' chart, outlining the build stages for your conservatory and the 'Packs' which you will be using (for each section). Each diagram gives an indication of what your conservatory will look like at the end of each stage.

Each section in this manual is numbered to correspond with the build stages and is structured as follows:

- **Component reference page** – here you will see a diagram showing details of the parts required to complete the section. The table shows an item number, description, the pack it is contained within and any specific comments if necessary. The descriptions and item numbers are shown on your checklists (along with another graphic for identification) so you may sort out these parts prior to commencing each section. You will not need to collate any other parts from your packaging until it is outlined in a 'component reference page'. The only exception is silicone sealant, (as this is needed continually as you work through the build process) which will be outlined in the text as required.
- **Section instructions pages** – following the component reference page will be the detailed step-by-step instructions to complete the section. Once each section is complete the format is re-produced again for the next section, and so on.

If at any point you feel you require any assistance, the telephone number for our technical helpline is shown at the bottom of each page.

INSTALLATION TIPS

- All panels are a two person lift.
- Treat PVCu in much the same way as timber, however, use a finer saw when cutting.
- All panels (including doors) are externally beaded. When fitting the panels ensure the beading is to the outside of your conservatory. If you have difficulty identifying the beaded side, the panel PVCu sections will have labels on them which are always to the bead side (outside).

- When fitting your door outer frame, it should be considered as a window panel and fitted in the same manner.
- Ensure when fitting the door outer frame that it is plumb and square. To check this, the width must be constant all the way up and the height constant all the way across. In addition a diagonal measurement across the corners must be the same. If this is not addressed correctly, it will most probably cause problems when it comes to fitting your doors.
- Try to avoid fitting opening window panels against the property wall. This will avoid any conflicts with the openers and gutter down pipes, etc.
- Ensure all drainage slots on panels are at the bottom when positioning panels. All panels and doors are internally reinforced. You may feel a screw, for example, appear to have more difficulty once it is through the PVCu. This is normal due to the steel reinforcing.

RECOMMENDED TOOLS

- Tape measure (5m min.)
- 2.5m (8') step ladder.
- 3.7m (12') ladder – 2 section.
- Electric drill (hammer action).
- Steel drill bits: 3.0mm, 5.0mm (min. 80mm reach), 8.0mm.
- Masonry drill bits (min 200mm reach): 8.0mm.
- Cordless screwdriver (12v min.)
- 3 Clamps (G-Clamp or similar, one-handed operation if possible).
- 1.2m (4') spirit level.
- Silicone sealant gun.
- Plastic mallet.
- Hacksaw.
- Gasket pliers/cutters.
- Work bench.
- Extension lead.
- Screwdrivers.
- Superglue.
- Cleaning materials.
- Cleaning equipment.
- Paper Towels.

HEALTH, SAFETY AND ENVIRONMENTAL ISSUES

As with any type of construction work, there are inherent dangers when assembling a conservatory. The following supplement is designed to supply the installer with general health, safety and environmental information that may be required during the assembly of a conservatory. The appendix offers a guide to "best practice" but cannot be considered as comprehensive.

You are advised to work safely at all times.

1. General Site Safety

All sites are different and have different hazards. Have a general regard to what potentially can cause harm. The construction site itself should be made a restricted area. Particularly at risk are children and animals. You also need to consider the security issue.

Organise your space. Don't open boxes haphazardly and leave components lying around that can get damaged, lost or pose a trip hazard. Be aware of the weather forecast.

Wet and hot conditions cause specific hazards. Put controls in place to manage any possible vehicular movement on site.

Protect the environment by avoiding fugitive waste. Dispose of your rubbish appropriately.



2. Personal Protective Equipment

The following PPE should be worn throughout the construction:

A hard hat.

Safety foot wear.

The following PPE should be worn under certain conditions: (Follow machinery guidelines where applicable).

Safety glasses when drilling.

Hearing protection when drilling.

Dust mask if dust is likely to be generated.

Disposable or rigger gloves as applicable.

Advisable to keep arms and legs covered.

Fall arrest equipment if working above 2 metres in height.

It is also advisable to have a first aid kit handy – just in case.

3. Working at Height

Be aware that Health and Safety legislation states that fall protection measures must be put in place by the employer of any person working at a height of 2 metres or more where a fall hazard exists.

If it isn't feasible to eliminate the hazard using a collective system then a personal protective equipment system must be selected and used, be it for restraint, work positioning or fall arrest purposes.

For further information, a useful specialist company to contact for fall arrest guidance is **Bacou-Dalloz on 01256 693200**

Some height work is inevitable during construction. The majority of this work will probably be done off a ladder.

USE OF LADDERS

You are advised to adopt the following rules at all times:

- Assess whether an alternative means of access is more suitable. Take into account the nature of the work, duration, height being worked at, movements required, equipment and materials being used, type of ladder available etc.
- Ladders ideally should be of the "Class 1" type.
- Place them on a firm, stable and level surface which is capable of supporting the ladders and any intended load. They must be erected so as to ensure they won't become displaced.
- Prior to use always check visually whether the ladder is in good condition and free of slippery substances such as oil or mud.
- Check facilities for securing against slipping – tied at top, secured at bottom, or footed by a second person if no more than 3m height access is required.
IF ABOVE 3 METRES IN HEIGHT, THEY MUST BE SECURED.
- The correct angle of rest is 75 degrees. E.g. for every 4 metres in height, move the base of the ladder out 1 metre.
- Metal ladders (and wooden ones when wet) conduct electricity and should not be used or carried near overhead power lines.
- Ladders must be positioned the correct way up – metal ladders often have rungs with both flat and curved surfaces – the flat surface is the one on which the user's feet should rest.
- The use of ad hoc and "botched" safety devices must be avoided. For example plywood base plates are not to be used. If you require plant, equipment or devices to do the job safely you are to hire/buy them and not manufacture them. This is a short cut to having an accident.
- Never feel pressured to go up a ladder if you are unhappy about its safety.
- Only use the ladders for the purpose for which they were intended.
- Anyone below you? They could be injured if you drop something.

If scaffolding is to be erected, this should be done only by a suitably qualified contractor. You are advised to ask the contractor to show you an appropriate certificate of qualification. Ensure any scaffold is "scaff - tagged".

4. Tools

The tools you use are your responsibility. We advise:

- Check the condition of your tools prior to use, for obvious damage. Get them checked out if you are in doubt. Arrange for your tools to have a portable appliance test.

- Any electric handtools are 110 volt or used in conjunction with a residual circuit breaker.
- Don't use tools other than for their intended purpose.
- Follow manufacturer's guidelines as applicable.

FORMAL PROCEDURE FOR THE USE OF KNIVES AND CHISELS

1. Ensure when using a knife / chisel you always keep your hand that isn't in use BEHIND the blade. Ensure that you cut away from your body - NEVER towards yourself.
2. Ensure the position of others is away from the cutting direction.
3. Keep the tooling in a sharp condition so you don't have to exert excessive force to cut / slice.
4. Always pick up the tool by the handle.
5. Always ensure the tool is stored safely where a sharp edge cannot cause injury.
6. Only use the tooling for its intended purpose where possible.

5. Manual Handling

As a general guideline, follow the "2 man lift" stickers on the boxes. Lift correctly.

STOP AND THINK. Plan the lift.

Where is the load going to be placed?

Use appropriate handling aids if possible.

Do you need help with the load?

Remove obstructions such as discarded wrapping materials. For a long lift – such as floor to shoulder height – consider resting the load mid-way on a table or bench in order to change grip.

PLACE THE FEET.

Feet apart, giving balanced and stable base for lifting. Leading leg as far forward as is comfortable.

ADOPT A GOOD POSTURE.

Bend the knees so that the hands when grasping the load are as nearly level with the waist as possible. Don't kneel or overflex the knees. Keep the back straight and lean forward slightly over the load if necessary to get a good grip. Keep the shoulders level and facing in the same direction as the hips.

GET A FIRM GRIP

Try to keep the arms within the boundary formed by the legs. The optimum position and nature of the grip depends on the circumstances and individual's preference, but it must be secure. A hook grip is less fatiguing than keeping the fingers straight. If it is necessary to vary the grip as the lift proceeds, do this as smoothly as possible.

DON'T JERK

MOVE THE FEET

KEEP CLOSE TO THE LOAD

PUT DOWN, THEN ADJUST

If precise positioning of the load is necessary, put it down first, then slide it into the desired position.

TEAM LIFTING

It is important team members are physically evenly matched. One person should take responsibility and co-ordinate their actions.

ADEQUATE VISION

Clear vision may mean multiple trips with smaller loads, but it is safer.

6. Control of substances harmful to health

The chemicals supplied by us for use when assembling your conservatory are:

- **SILICONE:** Safety data sheet provided.
- **CREAM CLEANER CLEANING FLUID:** Safety data sheet provided
- **FLASHING TAPE***

* You are advised to follow the guidance on the packaging.