

TRADITIONAL
Woodworking

THE MAGAZINE FOR ALL WOODWORKERS DECEMBER 99 £2.50

FREE 36 PAGE TREND
2000 CATALOGUE

THIS MONTH'S PROJECTS

Home Cinema ● Windsor Chair ● Yew Salt Pot



NEW PRODUCTS TESTED THIS MONTH

DeWalt Right Angle Drill ● Trend Router Table
Gauges ● Power Devil Router

NEW

Jim Kingshott answers
your questions every month
in Traditional Woodworking!



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Traditional Woodworking,
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This time last month, I was venting my spleen at the judging committee of the Jerwood Prize, after they had apparently ignored both form and function in awarding this year's first place to Michael Marriott, whose furniture seemed to be telling people where society is going wrong, rather than giving them something to sit on while eating their dinner. In my view, Guy Martin, who was profiled in the October issue of *TW*, should have won by about a light year: his work is both beautiful and functional, thoroughly contemporary in its design and yet remains deeply traditional in its execution.

So it was interesting to hear from John Hewlett of Gloucester, who clearly hates Guy Martin's work: 'I had to look at the captions to find out what some of them were!' In a way, I suppose, what he's saying about Martin's furniture is the same as what I'm saying about Marriott's, which just goes to

show how subjective this whole subject is. Where one man sees beauty, another sees emptiness, even ugliness.

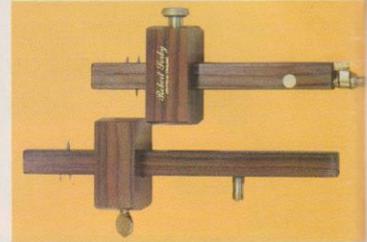
And thank heavens this is so. People disagree about everything from what makes a good-looking table to what makes a good-looking woman to what makes a decent prime minister. The ability to do so is one of the fundamental elements of what has been called our 'higher humanity.' We can discern quality, we all do so in our own way, and that's what a civilised society is. In the 1930s, the Nazis organised an exhibition of what they called 'degenerate art.' It featured many of the century's greatest painters. Need I say more?

On a far less contentious note, I'm delighted to announce two new editorial appointments in the *Traditional Woodworking* team this month. First and foremost is Jim Kingshott, who is renowned throughout the whole world of woodworking as a global authority on the subject.

His Masterclass series has been running since August, but this month he's taken up an additional role as Technical Consultant. What that means is that you can write in with your woodworking questions, in the knowledge that they'll be answered by the very best in the business. Catch Jim's Workshop Wisdom on page 26.

Then there's Jeff Loader, another familiar name to regular readers, who's taken up a new position as Test Editor. Every month, he'll be searching out the latest tools, testing them rigorously and giving you his honest opinion. Unlike some magazines, we don't allow the manufacturers to read what we're writing before going to press – so you know that when you read it in *Traditional Woodworking*, it hasn't been tampered with or watered down to keep advertisers happy! Our new, expanded Test Area starts on page 48.

Alan Kidd, Editor



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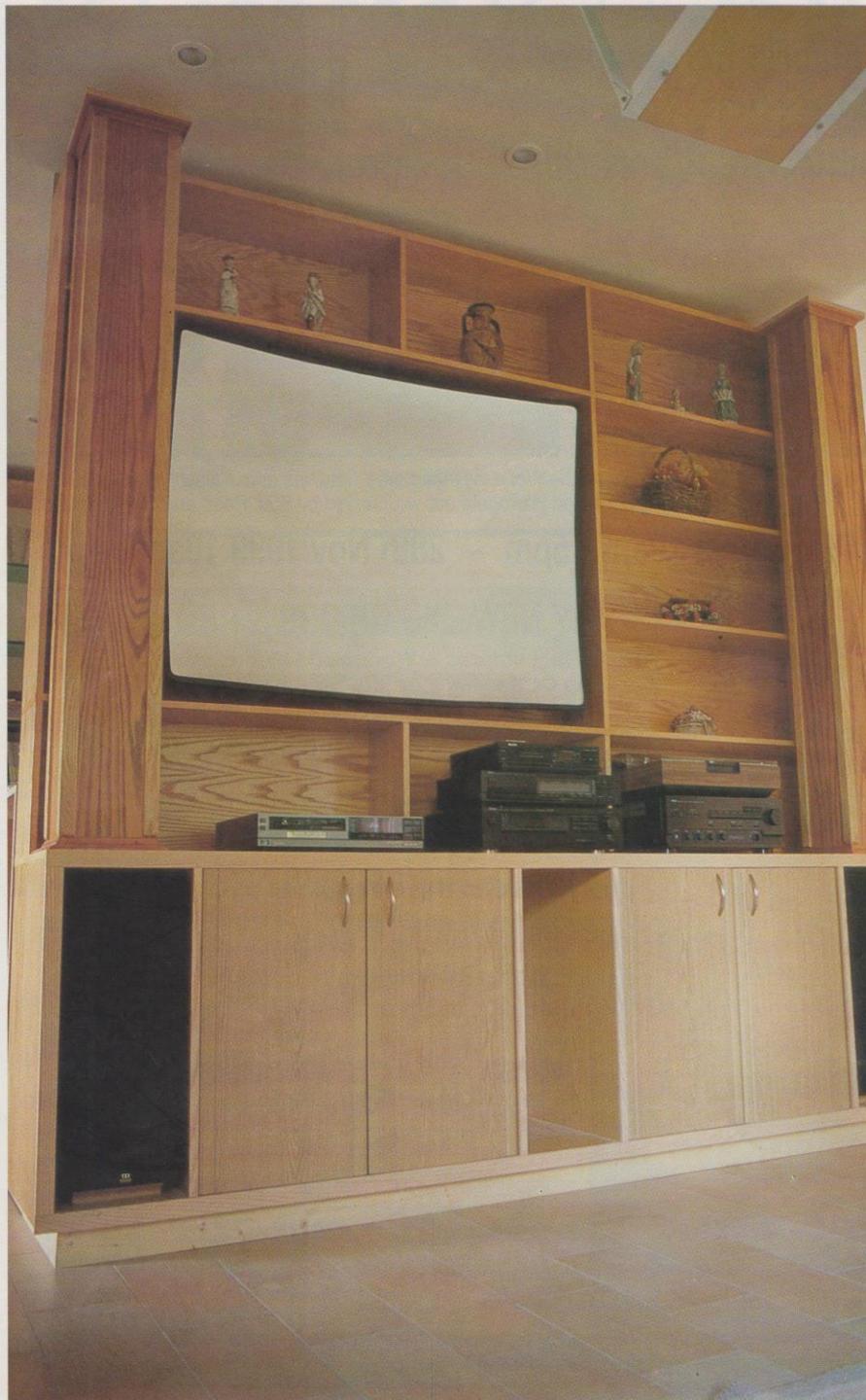
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Saturday night at the movies

Despite being one of the biggest projects ever to have featured in *Traditional Woodworking*, Petros Kronis' home cinema unit is something you can build with the minimum of tools – and it ought to be suitable for most beginners, too



With the emergence of new technology in home entertainment, like giant screen television and surround sound systems, many enthusiasts will be searching for furniture to replace the traditional TV and video stand. My solution was a piece of furniture 2586mm wide, 2695mm high and 520mm deep, effectively covering one wall of the home cinema room. One may at first feel hesitant in attempting the construction of such a big unit, but, as I have found out, admirable results can be obtained even with access to only the limited equipment available at home.

The unit will accommodate a 60-inch screen, making it suitable for a front projection screen system. The projector can either be hung from the ceiling or placed on a coffee table, and the unit also has plenty of space for storage, decorative ornaments and so on.

Description

As shown in the exploded diagram, the unit is made in two parts. These are the bottom and top units. The bottom part houses the three main speakers required in a modern surround sound system, namely the left, right and centre channels. The other sound channels, two rear and one subwoofer, are placed at the back and centre of the room respectively, and therefore are not housed in the unit itself. The bottom part also has two enclosed compartments, which can be used to store cassettes, CDs, books or other items.

The top part of the unit houses the 60-inch reflective screen and has open shelves for storage. On either side of the top part, two columns enhance the feeling of being in a large cinema hall when watching TV or listening to music. At the top of the bottom unit there is ample room for the electronic equipment such as amplifiers, decoders, tuners, videos, DVD or CD players and so on.

As you can see in the illustrations, the screen is not

placed centrally in the top part of the unit. This was a particular requirement in my case, as the wall where the unit was placed also included the entrance to the room – as a result, this arrangement was necessary to bring the screen into a central position within the room. With some simple modifications to the geometry, however, the screen can be placed centrally in the unit if so desired, and similar modifications would also be necessary if you needed to accommodate a different sized screen.

Technology changes rapidly, but the unit is not likely to become obsolete in the foreseeable future. One such development is flat screen digital TV, which has recently been introduced. The thickness of such TV screens is just a few centimetres, and they will therefore fit nicely into the unit.

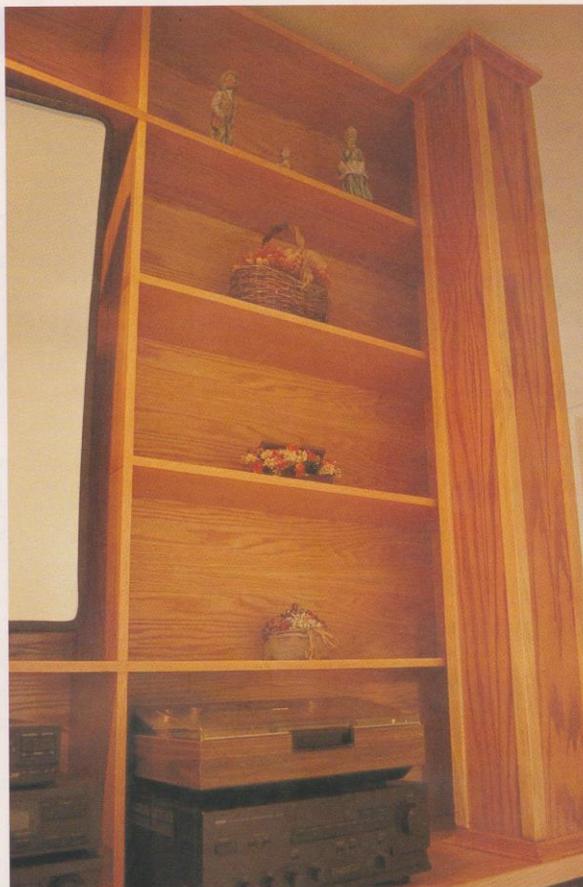
Some systems use rear projection, however this unit is not particularly suited for these unless there is room behind the unit. In this case, the back panel will need to be cut around the perimeter of the screen and a suitable fabric screen must replace the reflective screen.

Construction

Given the size of the individual pieces used in the project, your best bet is to take the cutting list to your nearest DIY store or timber merchant and have the pieces of oak veneered manufactured board cut for you on a large saw table. Don't attempt to cut them using hand tools, as these will not provide the required accuracy.

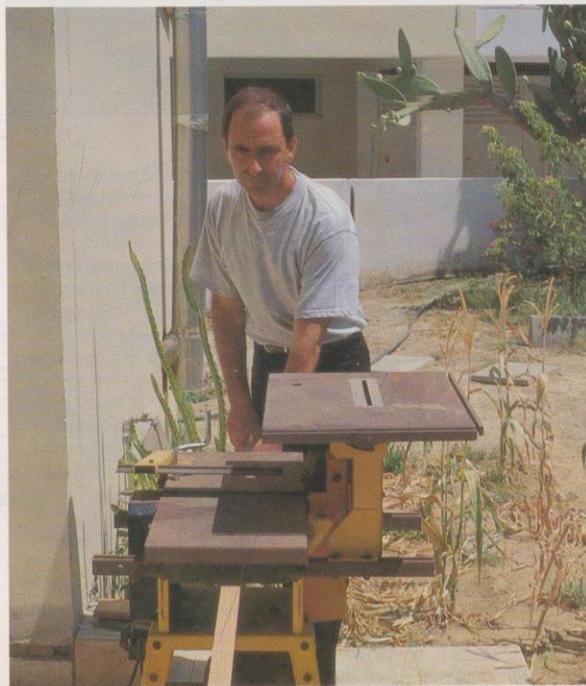
Before placing your order, however, you should find out the available sizes of boards and plan how to cut the pieces to get the correct grain alignment and minimum waste. The best way to do this is to get a piece of paper and draw the boards and pieces to scale to find out the best fit.

At this stage, find out whether the store has the equipment to apply edge banding to the appropriate edges of the top and bottom units. If not, you will have to apply the edge banding yourself – to do this, you need to buy oak edge banding of the correct width, that is greater than or equal to 18mm. Cut it to the required length, and place it on the edge so that it is flush on one side. Apply heat with a hot iron and press down firmly with a metal,



Above: The column at the side of the unit provides an authentic 'cinema' atmosphere

Below: Solid oak lipping being cut, planed and thickened



plastic, or wooden block until cold. Trim away any excess from the side of the strip, then sand lightly to get a clean finish.

Constructing the base

The obvious place to begin the construction is the base on which the unit will stand. This is constructed from planed 4x2 inch timber, mitre cut at the ends to form a rectangle. Screw the four pieces together using two 4x60 screws per corner. Make sure the base is square, and fix it to the floor using metal angle cleats with suitable screws depending on the type of floor. With a ceramic or concrete floor, rawlplug fixings will be required.

Constructing the bottom part of the unit

Stand the four outer members of the unit face up, and clamp the pieces together with the aid of four mitre cramps at the four corners. Use four 3.5x35 wood screws per connection, making sure the pieces are exactly flush with each other before screwing together. Next, fix the internal partitions in the same way. Pay particular attention to the correct positioning of these partitions, especially in the case of the enclosed compartments where the doors will be fixed.

Now turn the unit face down and attach the 10mm rear panel. Again, ensure the unit is square before screwing it into place. Next, attach the sides and screw these from the inside using five 3x30 wood screws. Make sure that these screws do not protrude through the side panels. Turn the unit face up again, and fix the solid oak lipping to all edges except the top horizontal edge. This will be fixed later, when the top and bottom parts of the unit are attached.

To apply solid oak lipping, start by selecting the correct width then cut it to the required length. Apply wood glue on one side of the lipping and on the edge where it is to be applied, then position it on the edge, ensuring it is flush with the most visible side of the edge. Clamp securely, then drive in lost head pins at intervals of about 400mm. Remove the excess glue, and leave overnight to dry.

Next, screw the door frame pieces to the inside of the enclosed compartments. Before doing this, however, you should apply edge banding to the front lip of all door frame pieces (this too is explained below).

WORKSHOP PROJECT

Home Cinema



Above: The door hinge and frame on the bottom part of the unit

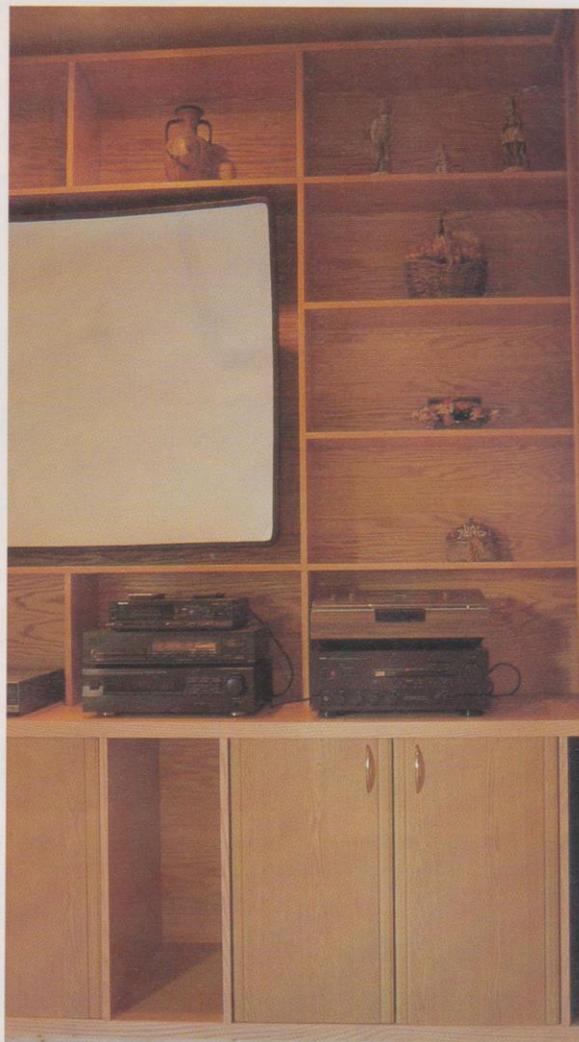
The dimension which is critical here is the distance from the front lip of the door frames to the outside face of the solid oak lipping. This measurement must be made equal to the thickness of the doors, so that when closed the front face of the doors is flush with the front face of the lipping.

Constructing the top part

The top part of the unit is quite large, and special care is needed to avoid damage when handling it. The best way to proceed here is to construct a working bench measuring 2900x1500mm, by placing a piece of board (chipboard, plywood or MDF) on top of at least five trestles or boxes, so that the height is 260mm. Ensure the surface of the bench is level.

Before beginning the assembly, apply oak self-adhesive edge banding to the front face edges of all parts and to the perimeter of the top member. Do not apply edge banding to the horizontal face of the bottom member, as solid oak lipping will be applied to this edge when the top and bottom units are connected together.

Start by assembling the perimeter frame face down on the bench, in such a way that the two verticals rest on the bench but the top and bottom pieces, which are wider, hang outside



the bench and rest on the floor. You may have to place some plastic or cardboard shims under these parts to get the assembly parts flush with each other. Use mitre cramps at the four corners to clamp the parts together, and screw with three 3.5x35 wood screws per connection.

In the same way, assemble the internal parts of the unit, making sure all parts are flush and square. There are two cases of cross connections, where you will have to use dowels or biscuits. Next, screw the 10mm rear panel with 3.5x35 screws, about every 400mm but with at least two screws per section. If you find that the rear panel is too big to handle, it is acceptable to cut it into two pieces – but make sure the joint

coincides with a vertical or horizontal partition member.

Constructing the columns Assemble the columns by screwing the four members together to form a box-section unit. Use 3.5x35 wood screws at 400mm intervals. You may wish to stain the columns to get a two-colour effect – if so, now is the time to do it, using a dark oak stain. Wait until this has dried and then attach the solid oak corner trims using wood glue and lost head pins.

Apply pressure by tying the trims around, wipe off excess glue and leave to set. Next, attach the cornice bed mouldings at the top and bottom of the columns, by gluing and screwing from the inside of the columns with 3x30 screws.



Above: The door handles on the lower part of the unit

Left: The screen, shelving and cupboard units

Again, you should take care to avoid any protrusions.

At this stage, you are now in a position to finish all the units you have assembled so far, prior to final assembly. This is explained in the separate item on finishing.

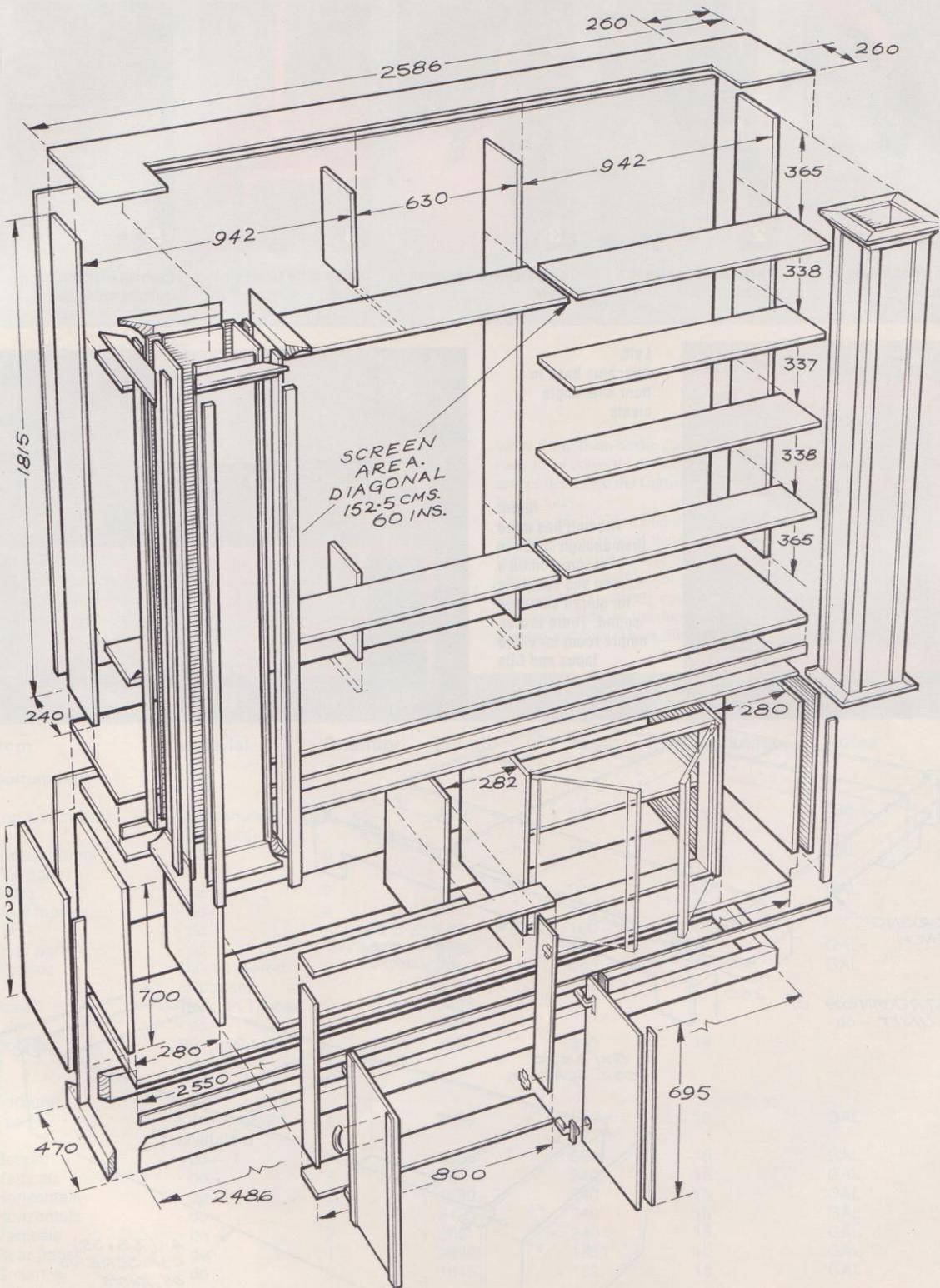
Final assembly

Place the bottom unit on the base, adjusting the position so that it rests symmetrically. Screw the unit down on the base, using eight 4x50 screws at symmetrical locations.

Next, fit the columns on both sides of the top unit, using four 3.5x35 screws for each connection. Screw from the outside of the top and bottom members, and take care to achieve the correct position.

Now it's time to summon help. At least four people will be needed to lift the top unit and place it on to the bottom unit – be warned, don't try it on your own unless you want the whole project to end in an expensive and painful disaster.

Lift the top unit and slide it to the correct position, so that the two units are exactly flush with each other. Clamp together, then screw from below and inside the bottom compartments, using eight 3x30 screws. Once again, take care to avoid protrusions through the top panel. Now attach the solid oak



Dimensions: mm.

WORKSHOP PROJECT

Home Cinema



1 Fixing spring hinges on the doors



2 Drilling doors to accept hinges



3 Using a mitre clamp on an L-joint



4 Using a mitre clamp on a T-joint



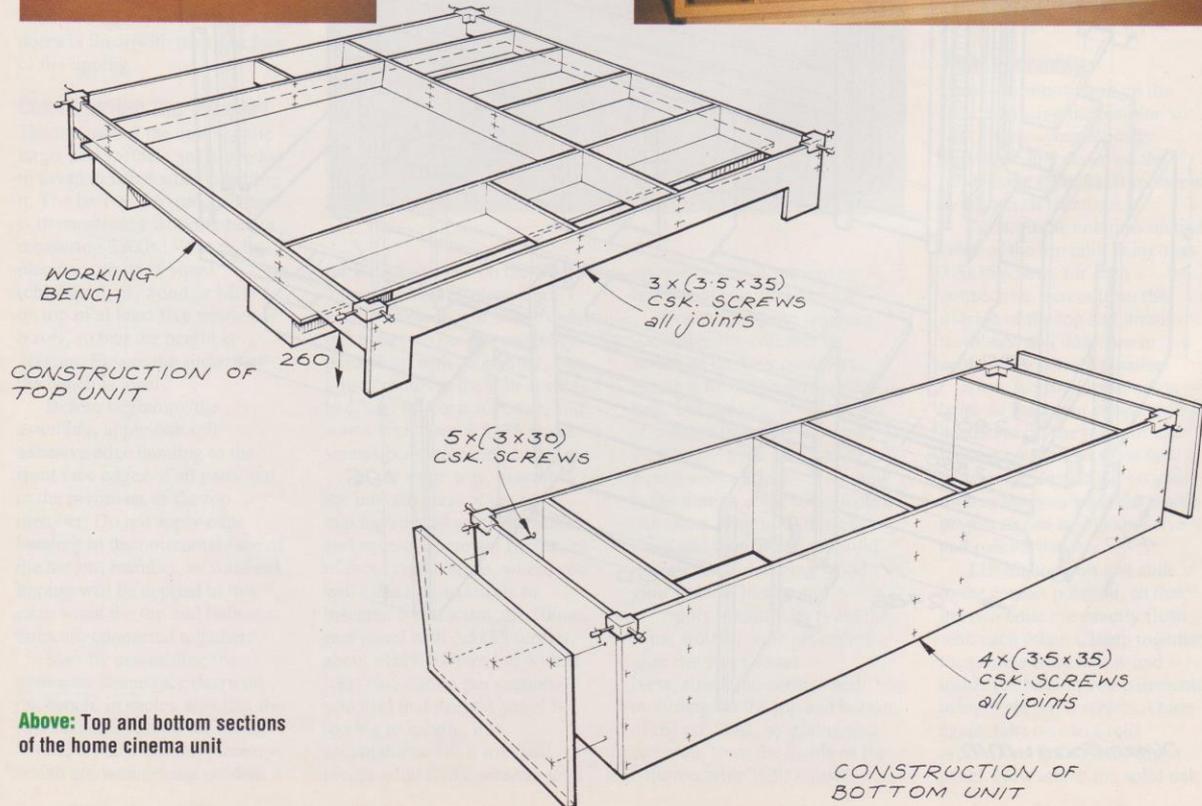
5 Applying edge banding on manufactured board



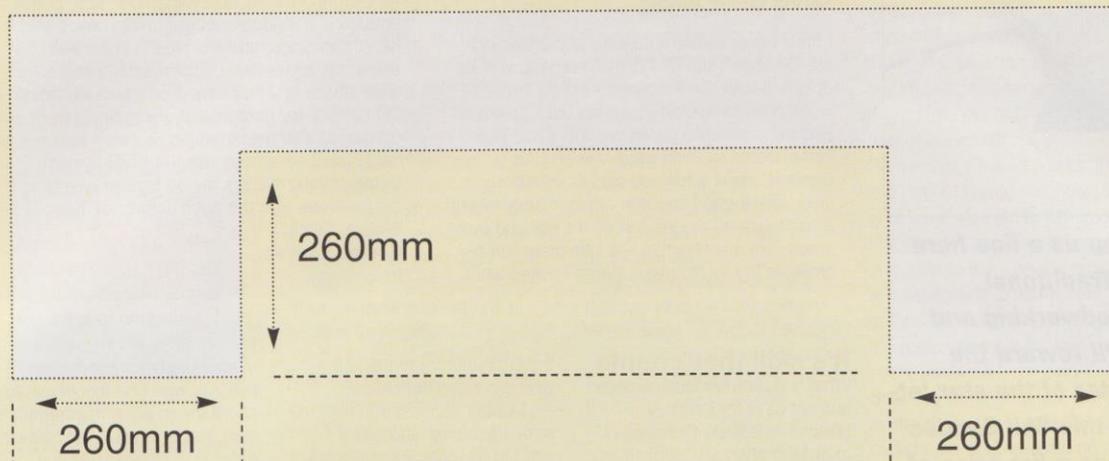
Left: Attaching base to floor with angle cleats



Right: The unit has more than enough space to accommodate a screen and speakers for stereo surround sound. There is also ample room for video tapes and CDs



Above: Top and bottom sections of the home cinema unit



lipping, using glue and lost head pins, to cover the common front face of the top and bottom units. Sand the lipping and apply two coats of clear satin varnish.

Fixing the doors

The doors I used were pre-finished, but came in lengths of 2800mm. In order that these would fit easily into an opening

700mm high, they were cut into four equal lengths of 695mm. Self-adhesive edge banding – of the same finish as the doors – should then be applied to the ends of each piece.

The doors were attached to the unit using kitchen cabinet spring hinges appropriate to lay-on doors. Two hinges per door will be required, but take care

when fitting them as the doors have to be correctly drilled to accept them (see the Cutting List below).

You are likely to find that more than one type of these hinges are available. Use the 18mm variety, as this will allow the doors to effectively cover the 18mm width of the door support member. These hinges

will also allow adjustment in all directions after fixing.

Finishing touches

Edge banding will need to be applied in various places to hide the visible edges of the manufactured boards. Sand these areas, then apply the edge banding, sand again and apply two coats of satin varnish ■

CUTTING LIST in mm

Item	Material	Quantity	Length	Width	Thickness	Notes
Bottom unit						
Top and bottom	Oak veneered chipboard	2	2550	500	18	GAL*
Sides/internal Partitions	- do -	6	700	500	18	GAL
Sides	- do -	2	736	500	18	GAL
Door frames	- do -	4	800	100	18	
- do -	- do -	4	664	100	18	
Rear panel	- do -	1	2586	736	10	GAL
Shelves	Oak veneered chipboard	2	795	380	18	GAL
Base	4in x 2in Timber	2	2486			45 mitre
- do -	- do -	2	470			- do -
Doors	Pre-finished in oak veneer	4	695	395	18	
Top unit						
Top **	Oak veneered chipboard	1	2586	500	18	GAL
Bottom	- do -	1	2586	500	18	GAL
Verticals	- do -	3	1815	240	18	GAL
Horizontals	- do -	2	1590	240	18	GAL
Horizontals	- do -	4	942	240	18	GAL
Verticals	- do -	2	365	240	18	GAL
Rear panel	- do -	1	2586	1851	10	GAL
Columns	- do -	8	1815	182	18	GAL

* GAL: Grain Along Length

** Make the cut-out in the top part of this unit as shown in the diagram