

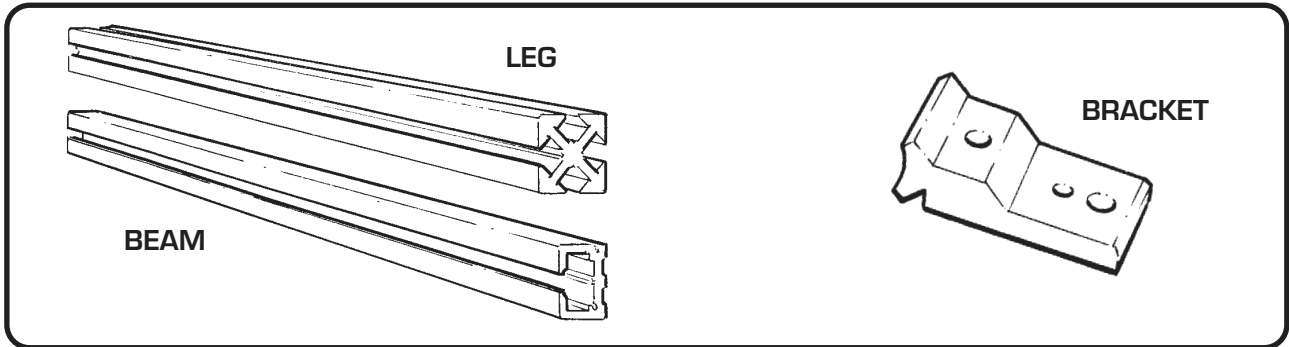
**The key  
to a superb  
workplace**

**Assembly instructions**

# General Guidelines

Please read these notes before starting to assemble your proteus units

**THE BASIC COMPONENTS OF THE PROTEUS SYSTEM** consist of two aluminium extrusions (the *leg* and *beam* extrusions) which are connected together with *joining brackets* to construct various forms of work benches, tables, storage units, etc. Plastic trim is then fitted to the finished construction to enhance its good looks.

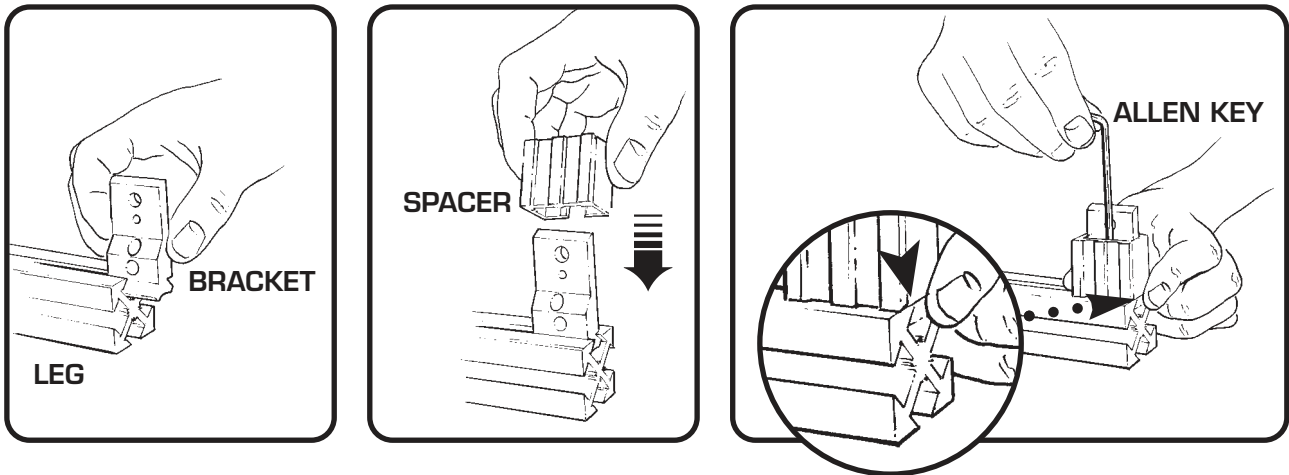


**THE ORDER OF ASSEMBLY IS IMPORTANT** for all constructions:

- Fasten the joining brackets to the *leg* extrusions
- Construct the *end frames*
- Join the *end frames* and *beam* extrusions to complete the cube
- Fix the trim and worktop

**POSITIONING THE JOINING BRACKETS ON THE LEG** is done in one of two ways :

- 1 With each kit is included a small section of the *beam* extrusion which acts as a *spacer*. When placed over the *joining bracket* during assembly it enables you to precisely predict the final position of the *beam* on the *leg* when the assembly is complete. This method is particularly useful when a *beam* is required to be flush with the end of a *leg* extrusion.

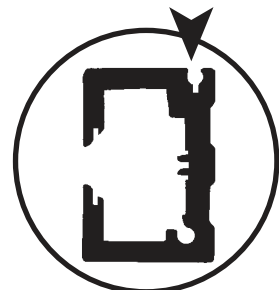


- 2 Use a measuring tape or make a spacer from stiff card or wood to space the *joining bracket* a given distance from another *joining bracket* or the end of the *leg*.

**THE 5mm ALLEN KEY (HEXAGON WRENCH)** in your assembly kit has a ball end on the longer leg which enables the key to be rotated at an oblique angle to the screw it is tightening. This feature allows the key to be rotated fully when used in a confined area. Many ratchet screw driver tool sets contain 5mm Allen key bits which can be very useful when assembling the Proteus.

**WHEN FITTING GLASS OR OTHER SMOOTH MATERIALS** such as a smooth MDF work top for example, without using screws or other fixings we offer a *white silicon rubber cord* to provide the grip necessary to avoid easy displacement, the cord fits into the slot in one of the narrow sides of the *beam*.

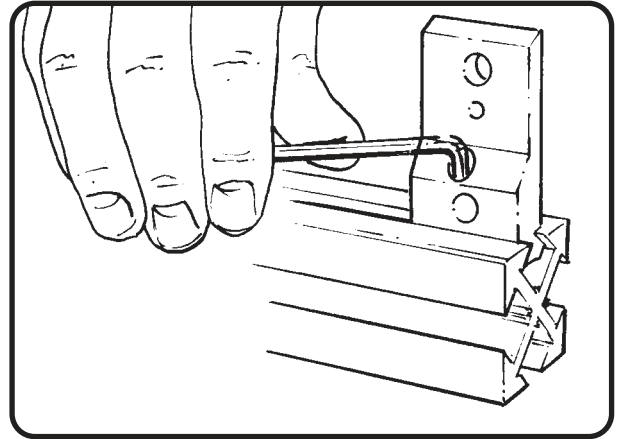
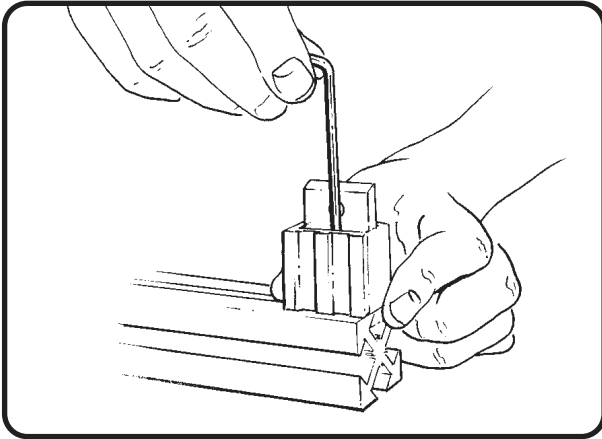
*When assembling a bench or table ensure that the slot is uppermost.*



## SPECIAL ASSEMBLY NOTES AND PRECAUTIONS

Both the **beam** and **leg** sections feature special webs which are intended to collapse locally under pressure from the conical end of the **grub screw**. The result is a permanent and secure position for each **grub screw** which is designed to prevent collapse of a structure under load in the event of one or more **grub screws** working loose over a period of time.

It is essential that the **grub screws** are clamped up tight. Use the ball end of the Allen key to initially tighten the **grub screw**, then when you are satisfied that the components are located in the correct position, always fully tighten the **grub screws** with the short leg of the Allen key in the screw head using additional leverage of the long leg (*possibly another 1 1/2 turns or so*).



For the reasons described above it is important to locate each component carefully before tightening fully because a small adjustment (*less than 5mm or 3/16"*) will be difficult afterwards. Large realignments will present no problem.




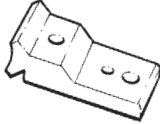
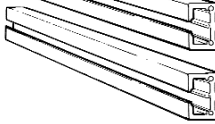




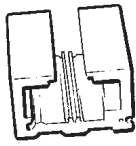
## Construction Details

<b>Workbench or Table</b>	<b>Section 1</b>
<b>Workbench or Table Extension</b>	<b>Section 2</b>
<b>Matboard Storage Unit</b> PDO2 & PDO7	<b>Section 3</b>
<b>Adding a Matboard Storage Unit Extension</b> PRO2 & PRO7	<b>Section 4</b>
<b>Matboard Storage Unit with Extension</b>	<b>Section 5</b>
<b>Covering the Worktop with Fabric</b>	<b>Section 6</b>
<b>Fitting the Worktop</b>	<b>Section 7</b>
<b>Fitting Cantelever Matcutter Supports</b>	<b>Section 8</b>

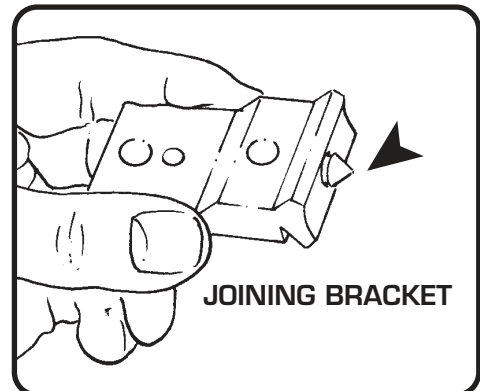
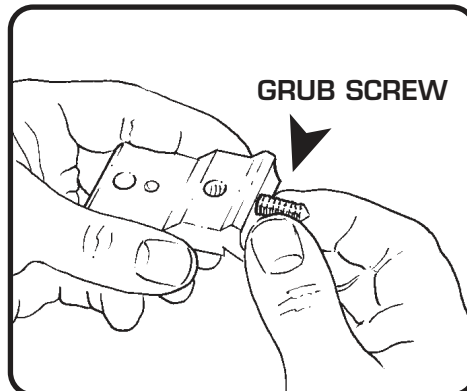
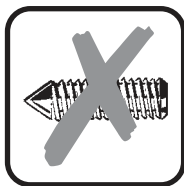
# Workbench or Table

# SECTION 1

You should have :

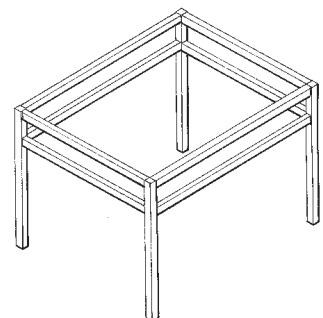
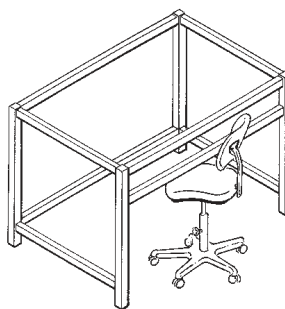
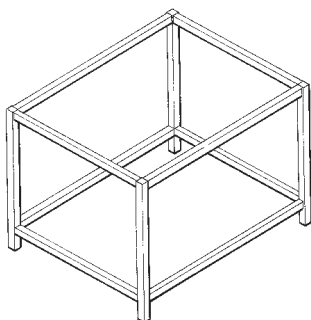
ITEM		QTY	ITEM		QTY
	Leg	4		Grub Screw	48
	Long Beam	4		Joining Bracket	16
	Short Beam	4		Screw	6
<b>TOOLS</b>				Work Top Clip	6
	Allen Key	1		Leg-End Cap	4
	Spacer	1			

- Put a **grub screw** backwards into each of the **joining brackets** - do not place **grub screws** in the other holes at this stage.



- Attach the **joining brackets** to the **legs**.

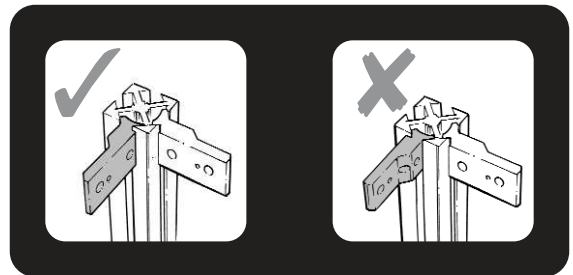
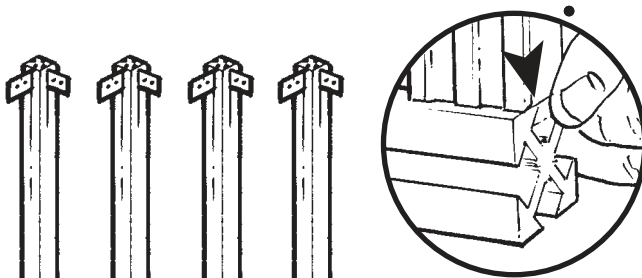
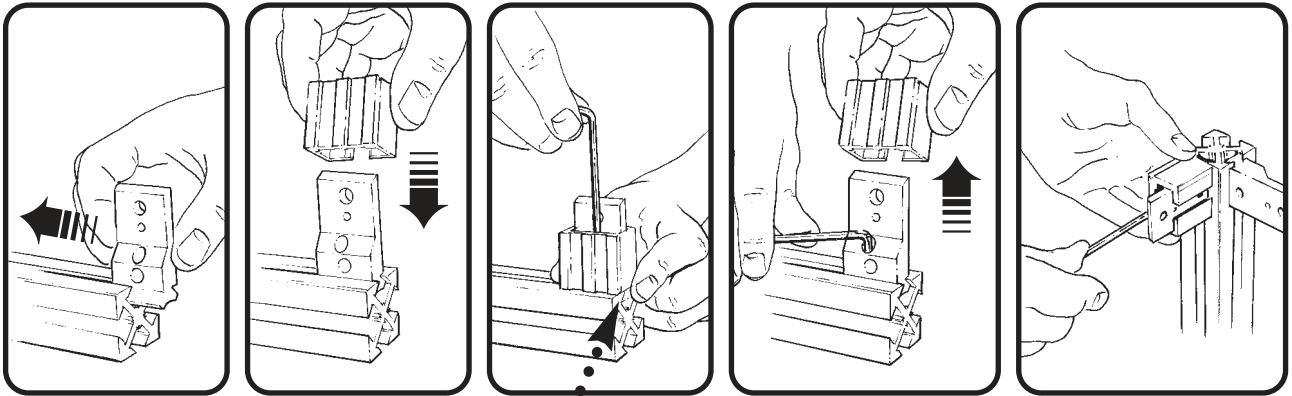
At this stage you need to decide the format of your bench/table. Here are a few ideas :



## 2 (Continued)

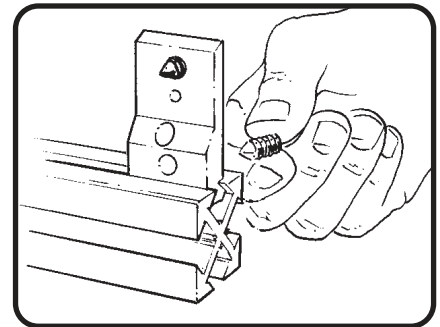
We will assume for the purposes of these instructions, that the style on the left is required.

Using the **spacer**, fit two **brackets** to the top of each **leg** ensuring the brackets are fitted the correct way round - with the flat faces towards each other.



Attach **joining brackets** to the bottom of the **legs**, using a tape measure, or self made spacer to position them accurately to your requirements.

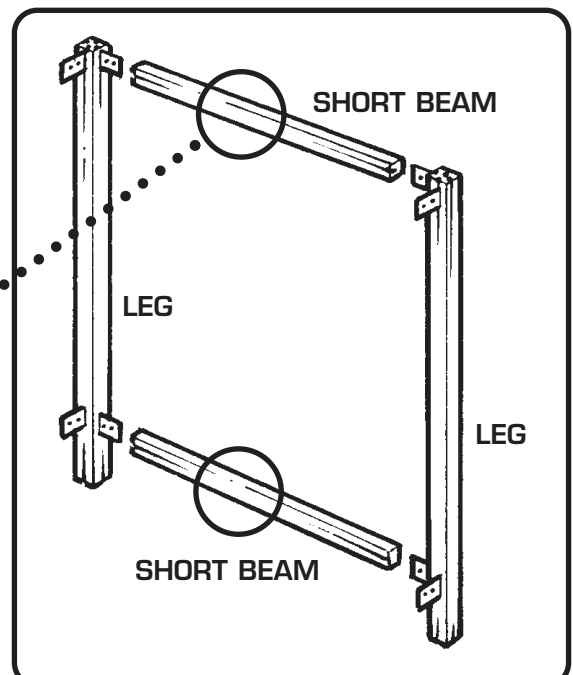
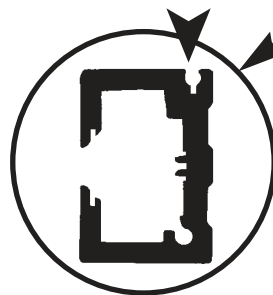
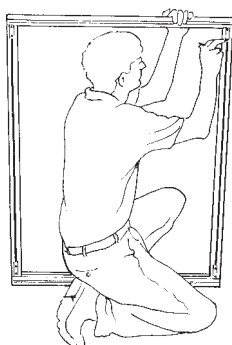
Put **grub screws** in each of the two large holes in every **bracket**, only screw them in by 2 or 3 turns.



## 3 Make the end frames

Fit two **short beams** between two **leg** assemblies ensuring the small groove in the **beam** is uppermost. Pulling the two **legs** together - closing any gaps between the end of the **beam** and the **legs** - tighten all the **grub screws** using the long end of the allen key first then the short end to lock them.

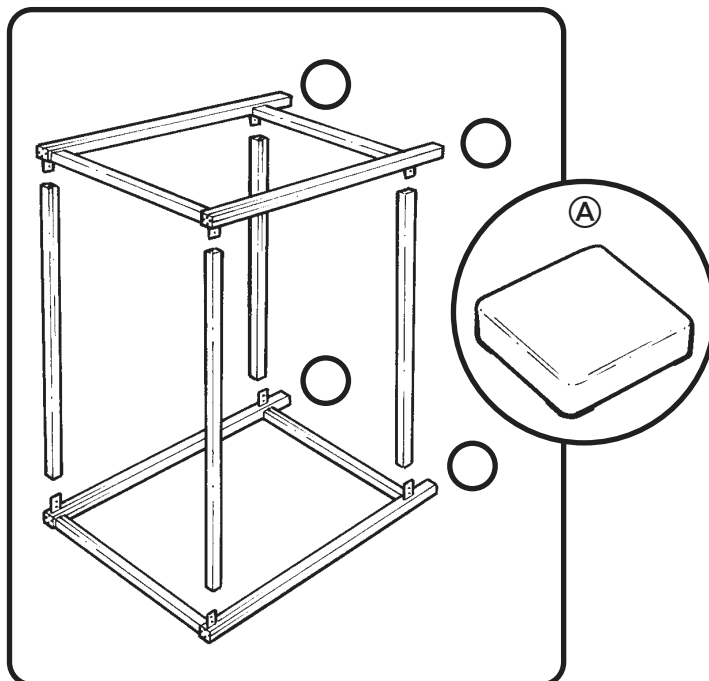
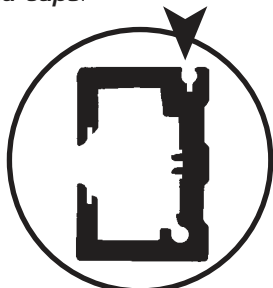
Repeat for the second frame.



#### 4 Join the end frames

Place one **end frame** on the floor with the **brackets** pointing upwards, position a **long beam** over each **bracket**, ensuring the small groove in the **beam** is uppermost. Place the other **end frame** over the beams and tighten the **grub screws** ensuring there are no gaps between the **beam** end and the **legs**.

Ⓐ Fit the moulded **leg-end caps**.



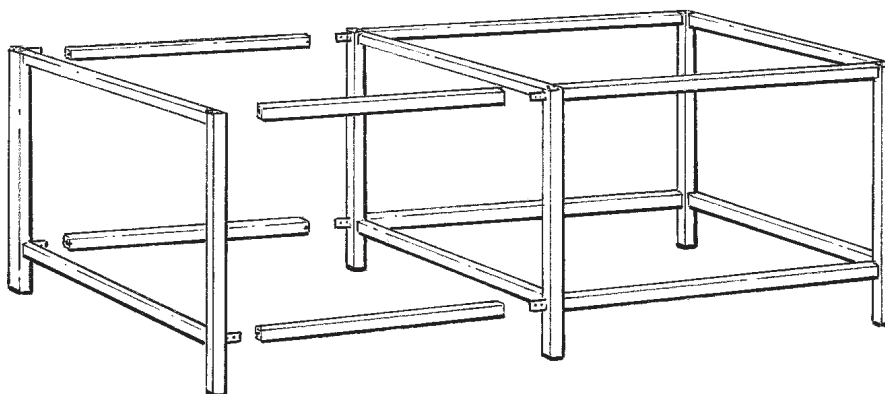
## Workbench or Table Extension

## SECTION 2

When ordering an extension unit to an existing standard bench, order one **end frame** with the same order prefix as the bench. e.g. Order a PA01 **end frame** to extend a PA03 bench.

Then order the **beams** and **brackets** bearing in mind the **leg** is 4cm (1 9/16") square.

Plastic trim is also available seperately.



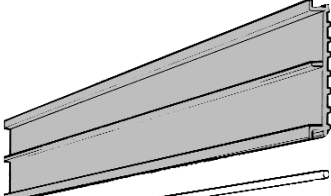

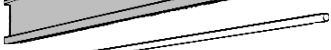
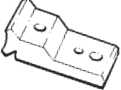
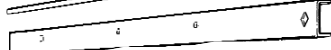

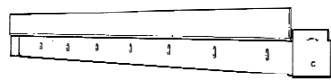







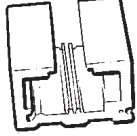
- 1 Assemble the **end frame** as in Section 1;
- 2 Attach the joining brackets to the legs on the side of the bench being extended;
- 3 Position the **beams** and **end frame** then tighten the **grub screws** ensuring there are no gaps between the ends of the **beams** and the **legs**.

# Single Matboard Storage Unit

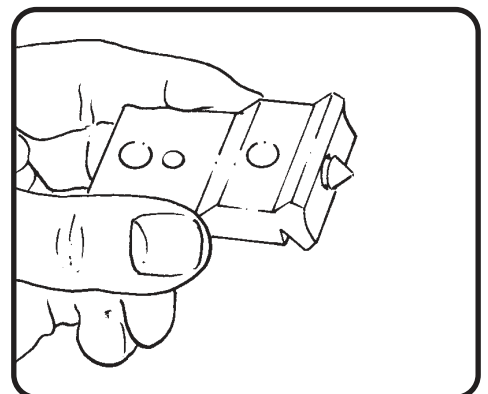
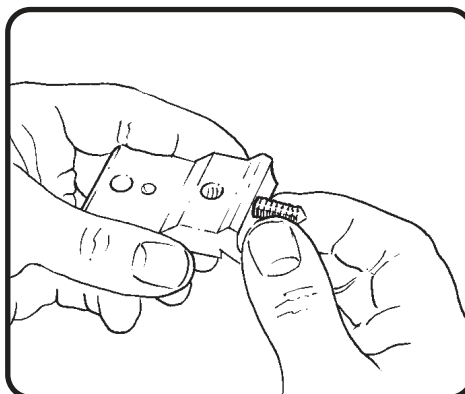
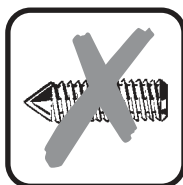
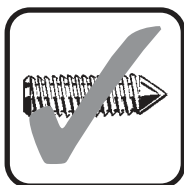
## SECTION 3

**NOTE:** If you are assembling an extension unit *with* a standard unit – go to section 5

You should have :

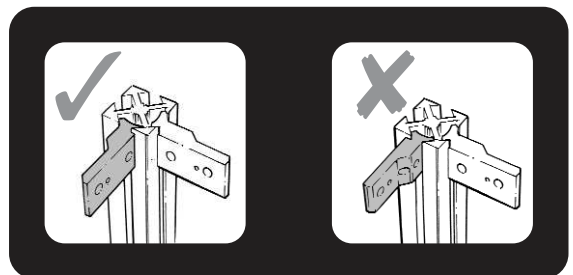
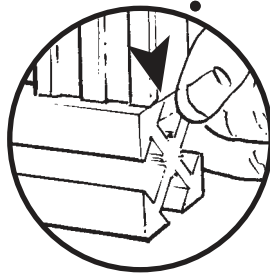
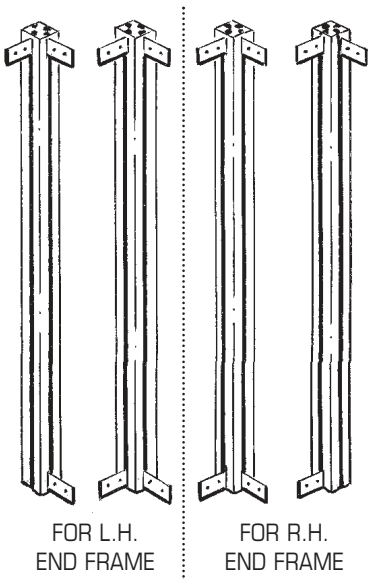
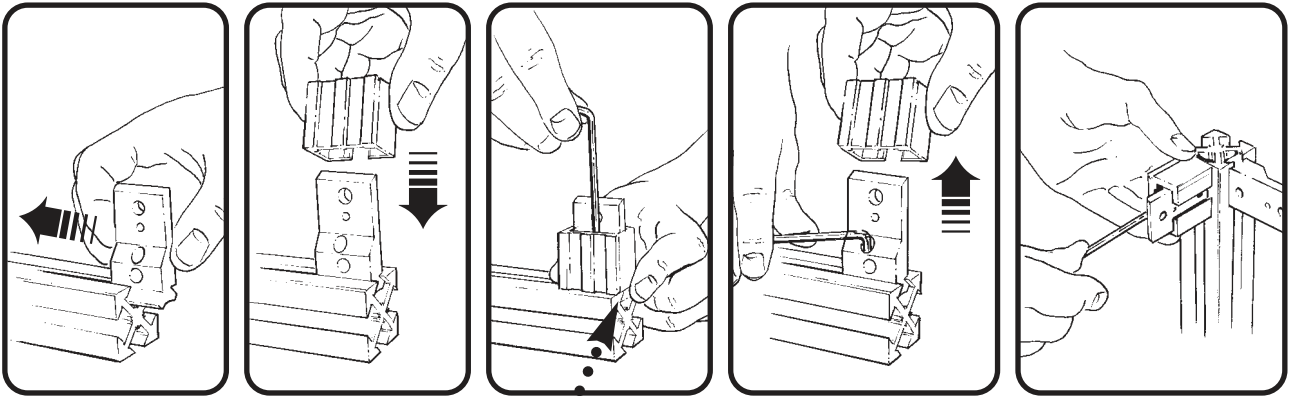
ITEM	PD02	PD07	ITEM	PD02	PD07
 Base Channel	10	7	 Grub Screw	42	42
 Dividing Rod	33	24	 Joining Bracket	14	14
 Fixing Channel	2	2	 Screw	9	9
 Dividing Rod Support	3	3	 Work Top Clip	6	6
 Leg	4	4	 Leg-End Cap	4	4
 Beam	3+4	3+4	 Cap screw	6	6
<b>TOOLS</b>			 Washer	6	6
 Allen Key	1				
 Spacer	1				

**1** Put a **grub screw** backwards into each of the **joining brackets** - do not place **grub screws** in the other holes at this stage.



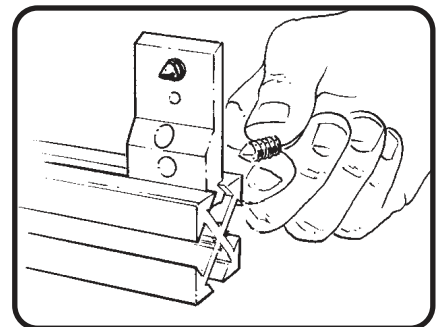
2

Using the **spacer**, fit two **brackets** to the top of each **leg** ensuring the brackets are fitted the correct way round - with the flat faces towards each other.



Attach **joining brackets** to the bottom of the **legs**, again using the spacer, position them as shown.

Put **grub screws** in each of the two large holes in every **bracket**, only screw them in by 2 or 3 turns.



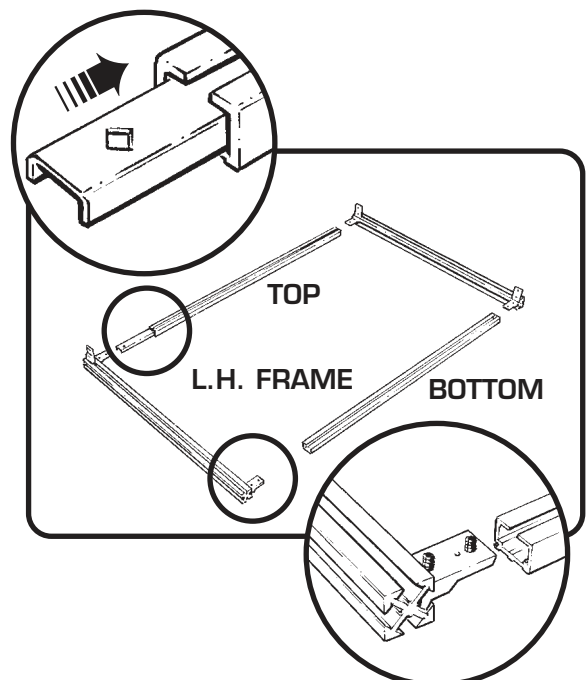
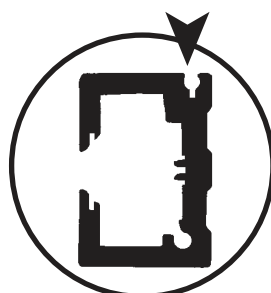
### 3 Make the end frames

Lay the two **legs** for the **LH end frame** on the floor together and two of the set of four **beams**. Slide a **fixing channel** in the **top beam** - take note of the relative positions of the **brackets** in the drawing and the diamond hole in the **fixing channel**.

Fix the **legs** over the **brackets** and tighten all the **grub screws** using the long end of the **allen key**. Ensure there are no gaps between the ends of the **beams** and the **legs**, then lock the **grub screws** using the short end of the **allen key**.

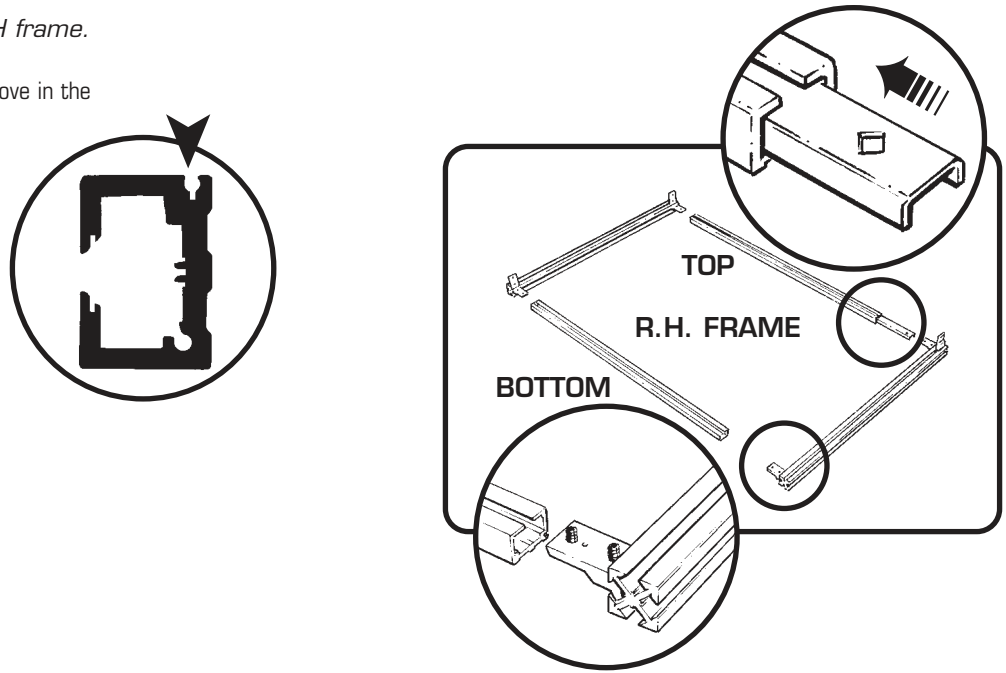
Remember to ensure the groove in the **beam** is on top.

Repeat for the **RH frame**.



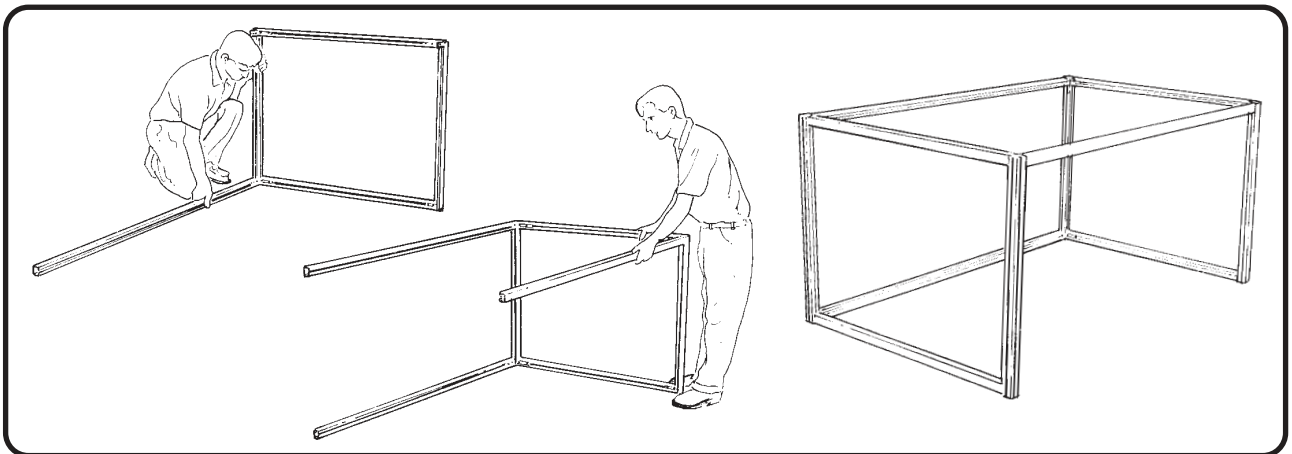
**3** Repeat for the RH frame.

Remember to ensure the groove in the **beam** is on top.



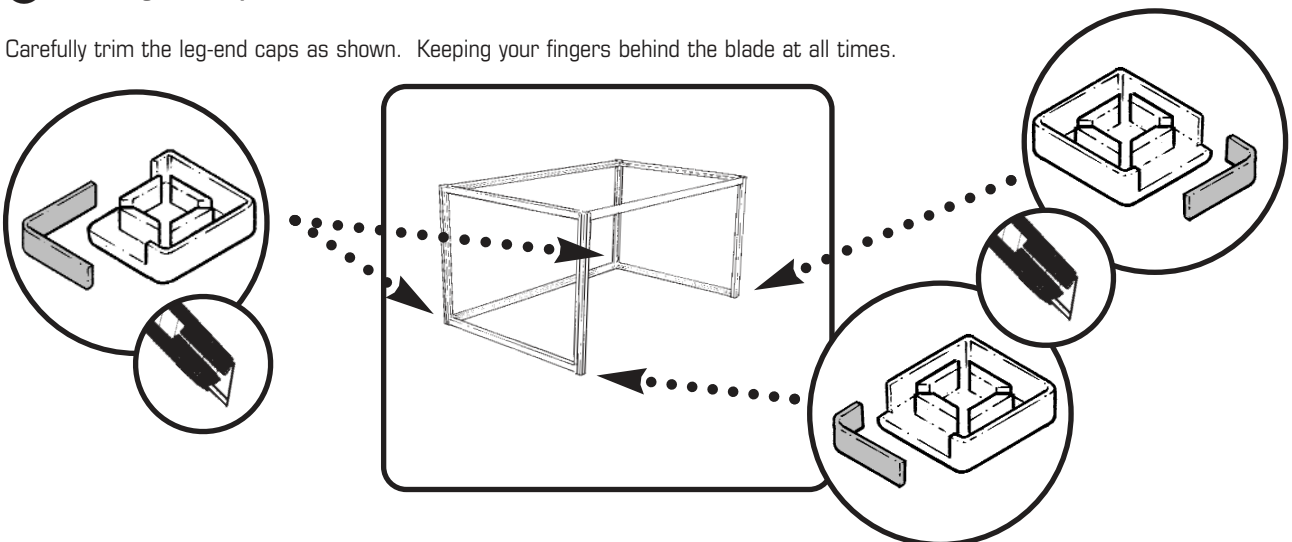
**4** Join the end frames

Position the beams (set of 3) on the end frames as shown, again ensuring the groove in the beam is at the top. Tighten the grub screws ensuring there are no gaps between the beam ends and the legs.



**5** Fit leg-end caps

Carefully trim the leg-end caps as shown. Keeping your fingers behind the blade at all times.

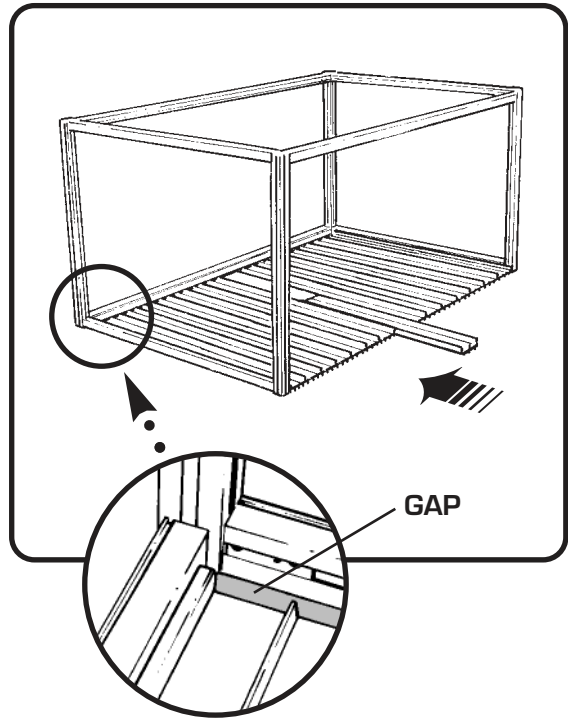


## 6 Fitting the base channels

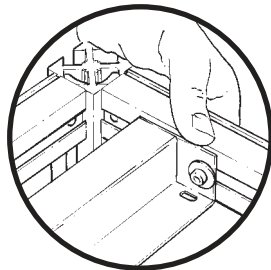
Place the unit in its final position, once the **base channels** are fitted the unit can be dragged but not lifted.

Slide the **base channels** in place starting from the outside working towards the centre. Ensure the set of holes in the edges are towards the front of the unit.

The two channels on the outside fit tight to the inside of the **beam** leaving a small gap at the back of the channel.



## 7 Fitting the dividing rod supports & dividing rods

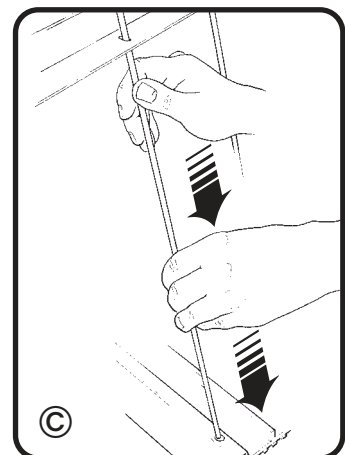
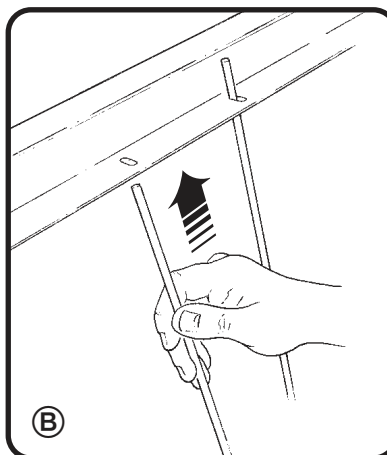
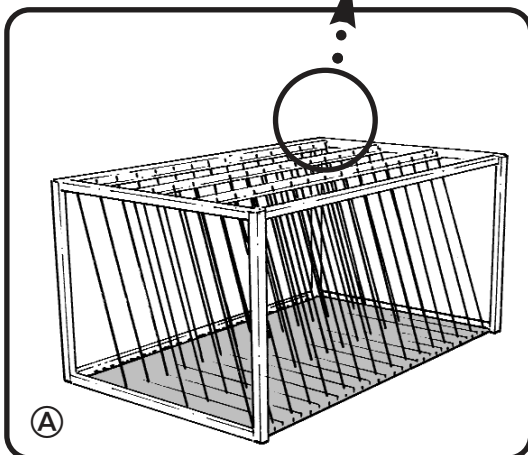


- Ⓐ Fit the **dividing rod supports** inside the **top beams** as shown, using the **cap screws** and **washers**.

**Note:-** ensure the fixing channel is pushed to the back of the unit.

- Ⓑ Offer each **rod** up into the slot (this may be a tight fit - this stops the **rods** rattling when in use).

- Ⓒ Pull the **rods** down and push into the holes in the **base channels**.



# Adding a Matboard Storage Unit Extension

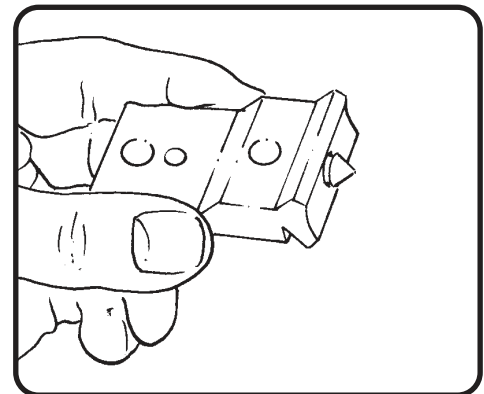
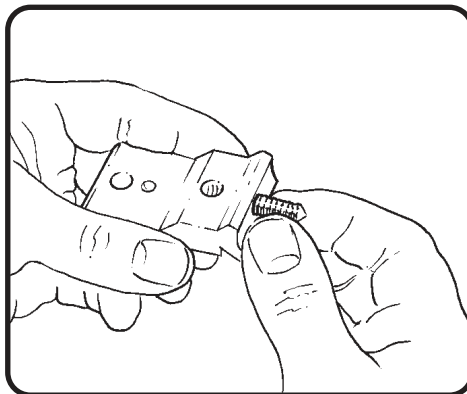
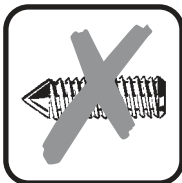
# SECTION 4

**NOTE:** If you are assembling an Matboard Storage unit *with* an extension unit – go to section 5

You should have :

		PR02	PR07			PR02	PR07
	<b>ITEM</b>			<b>ITEM</b>			
	Base Channel	10	7	Grub Screw	30	30	
	Dividing Rod	33	24	Joining Bracket	10	10	
	Beam with holes	1	1	Screw	7	7	
	Dividing Rod Support	3	3	Work Top Clip	4	4	
	Leg	4	4	Leg-End Cap	2	2	
Beam	3+4	3+4	long Cap screw	3	3		
				Nut	3	3	
				Washer	6	6	
<b>TOOLS</b>	<b>ITEM</b>	<b>QTY</b>					
	Allen Key	1					
	Spacer	1					

**1** Put a **grub screw** backwards into each of the **joining brackets** - do not place **grub screws** in the other holes at this stage.

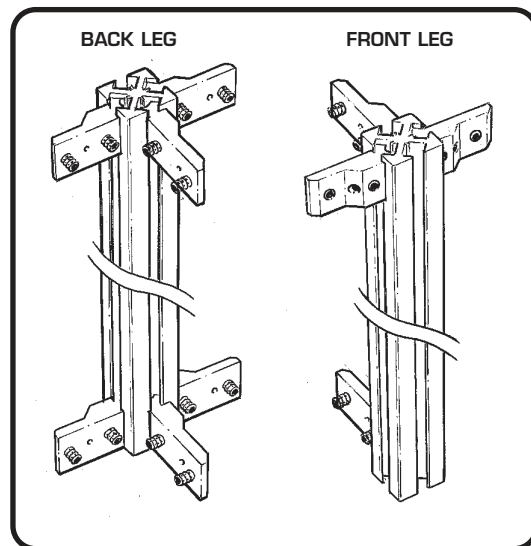
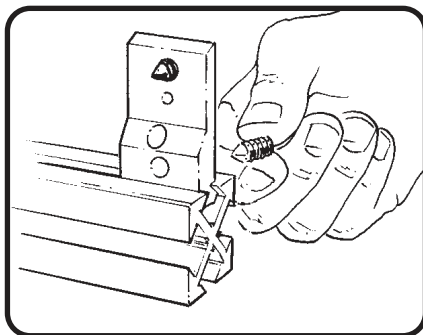


**2** Attach the **Joining brackets** to the **legs**

Using the **spacer**, fit the **joining brackets** to the top of each **leg**

**NOTE:-** Ensure the **joining brackets** are fitted the correct way round.

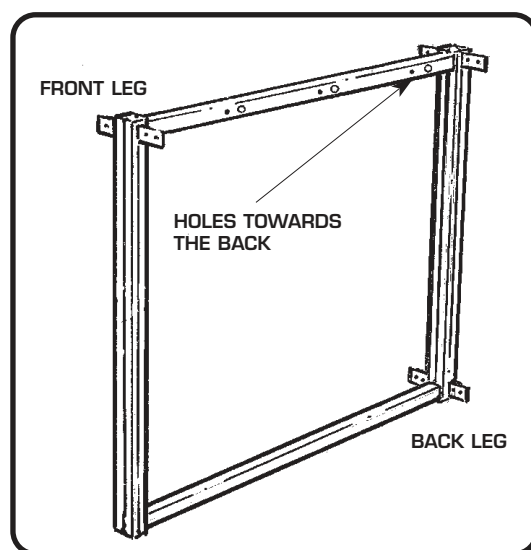
Put **grub screws** in each of the two large holes in every **bracket**, only screw them in by 2 or 3 turns.



**3** Make the **Centre frame**

Assemble the frame using the **beam with holes** and the other single **beam** of the same length. ensure the **beam with holes** is assembled the correct way round (see diagram)

Tighten all the **grub screws** using the long end of the **allen key**. ensure there are no gaps between the ends of the **beams** and the **legs**, then lock the **grub screws** using the short end of the **allen key**.



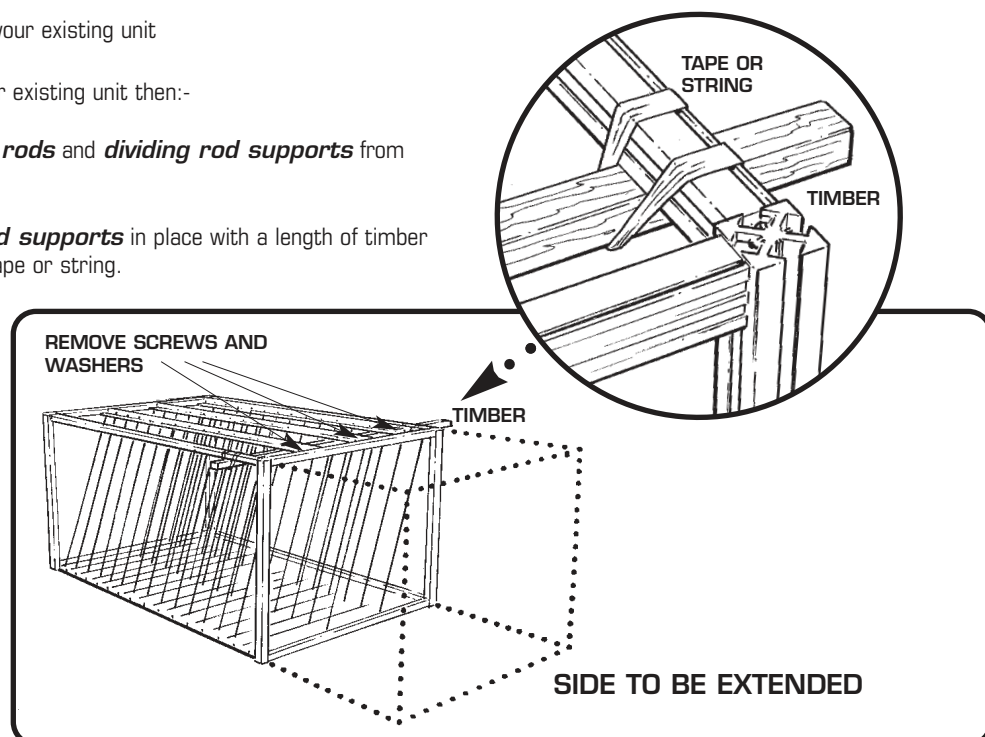
**4** Change the frame on your existing unit

Remove the worktop from your existing unit then:-

*Either* Remove the **dividing rods** and **dividing rod supports** from your existing unit

*Or* Hold the **dividing rod supports** in place with a length of timber fixed to the unit with strong tape or string.

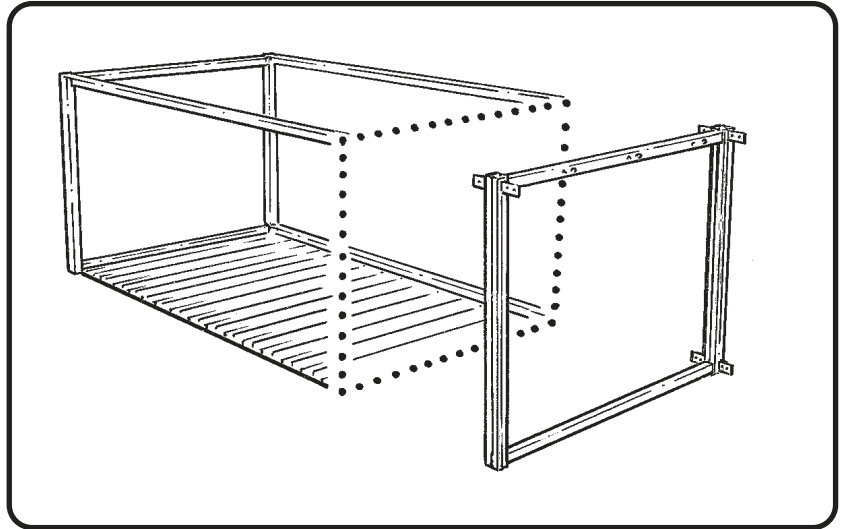
Remove the **screws** and **washers** attaching the **dividing rod supports** to the end frames.



4 (Continued)

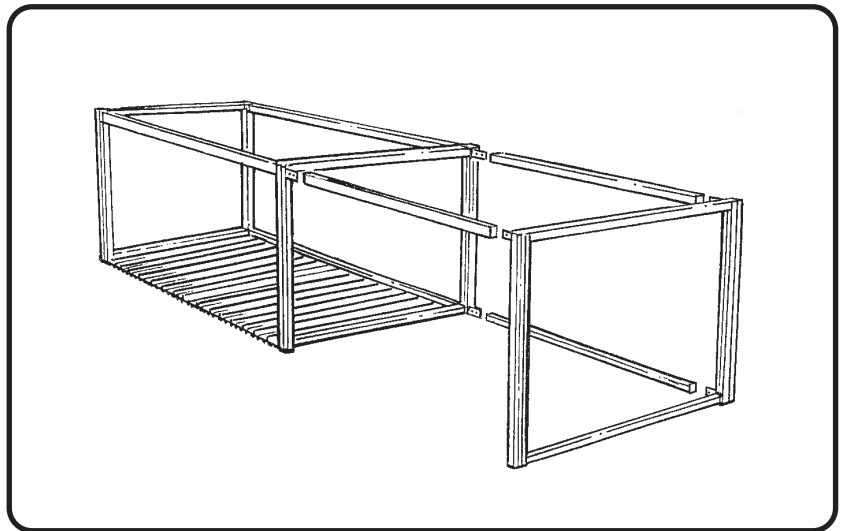
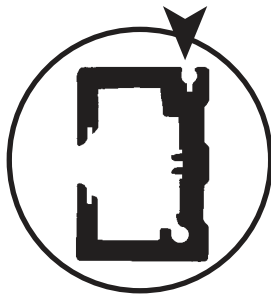
Release the **grub screws** to remove the end frame and replace it with the centre frame.

**NOTE:- Rod supports are not shown for clarity.**



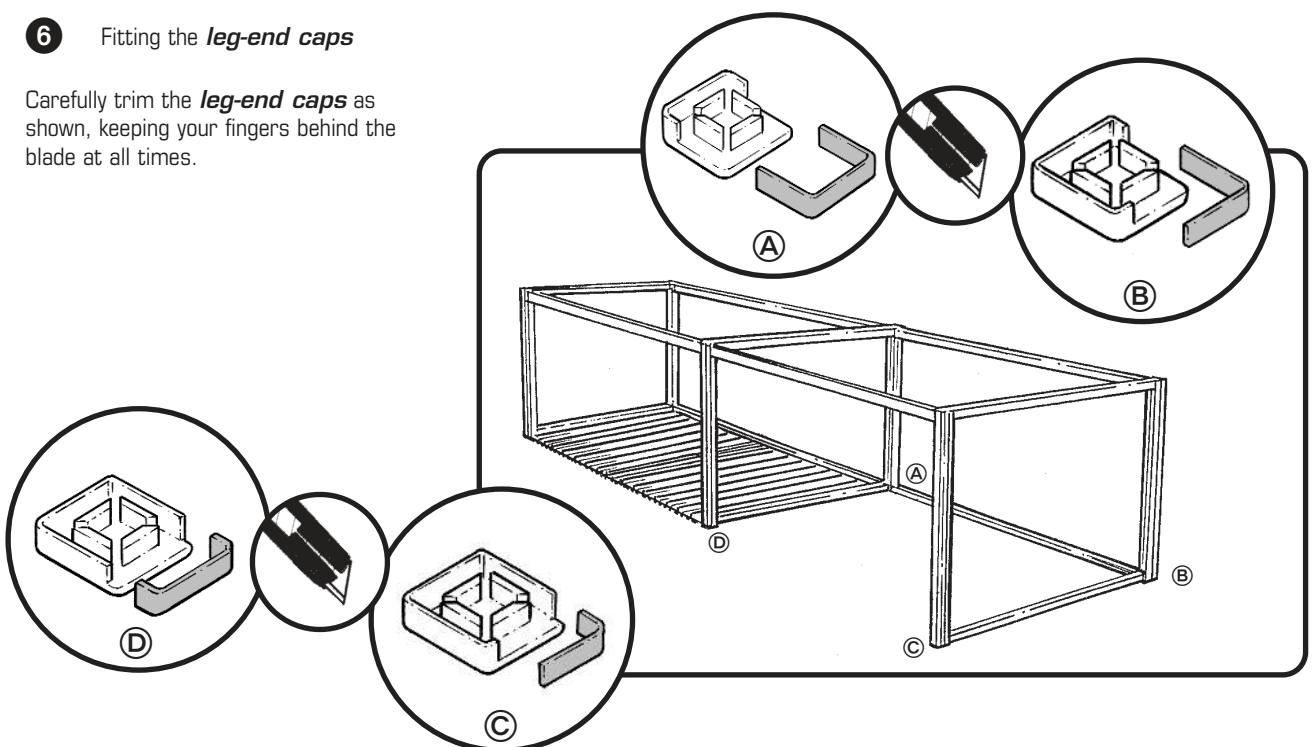
5 Complete the frame work

Using the set of 3 **beams** assemble the unit as shown. Ensure all **grub screws** are tightened fully and there are no gaps between the beam ends and **legs**.



6 Fitting the **leg-end caps**

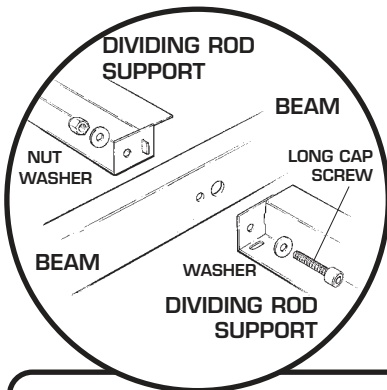
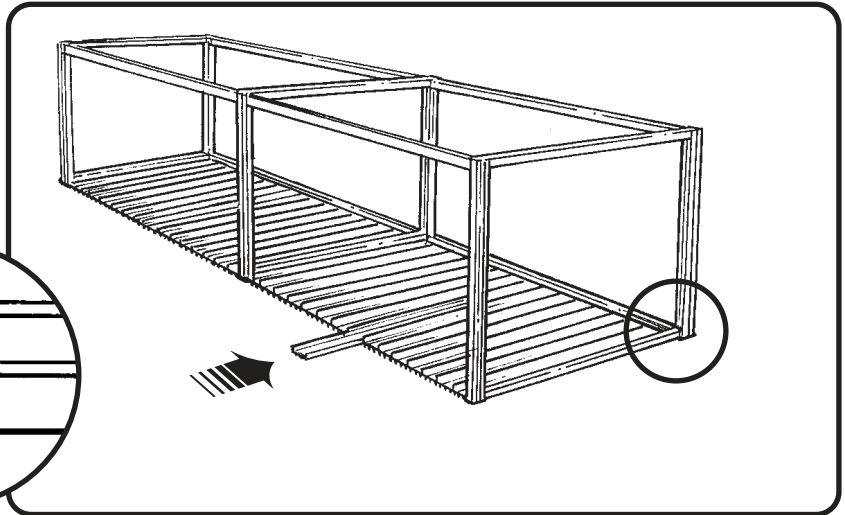
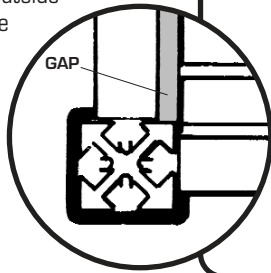
Carefully trim the **leg-end caps** as shown, keeping your fingers behind the blade at all times.



## 7 Fitting the base channels

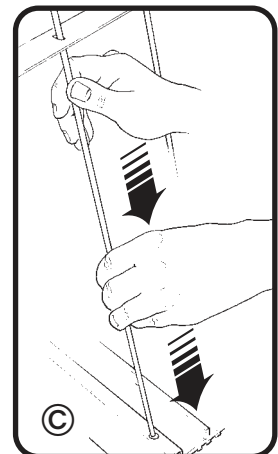
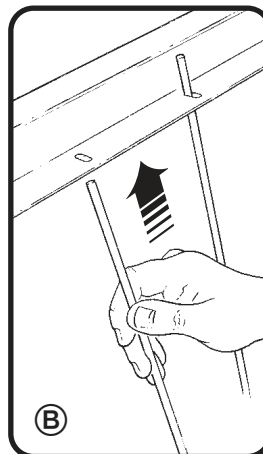
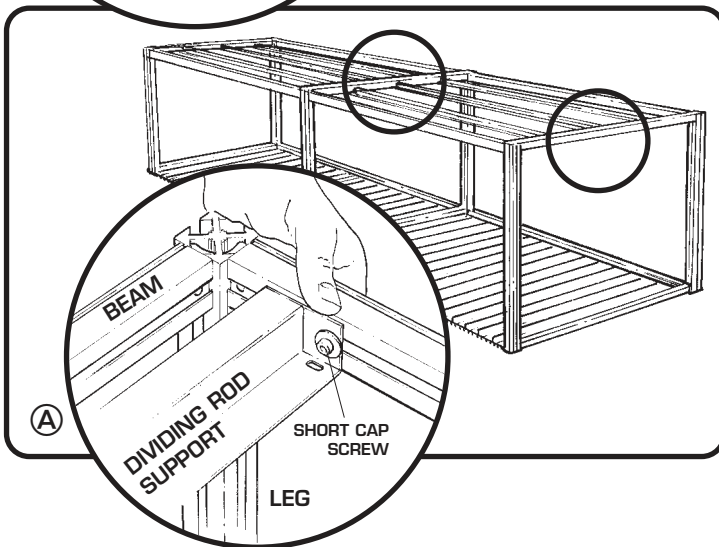
Slide the **base channels** in place starting from the outside working towards the centre. Ensure the set of holes in the edges are towards the front of the unit.

The two channels on the outside fit tight to the inside of the **beam** leaving a small gap at the back of the channel.



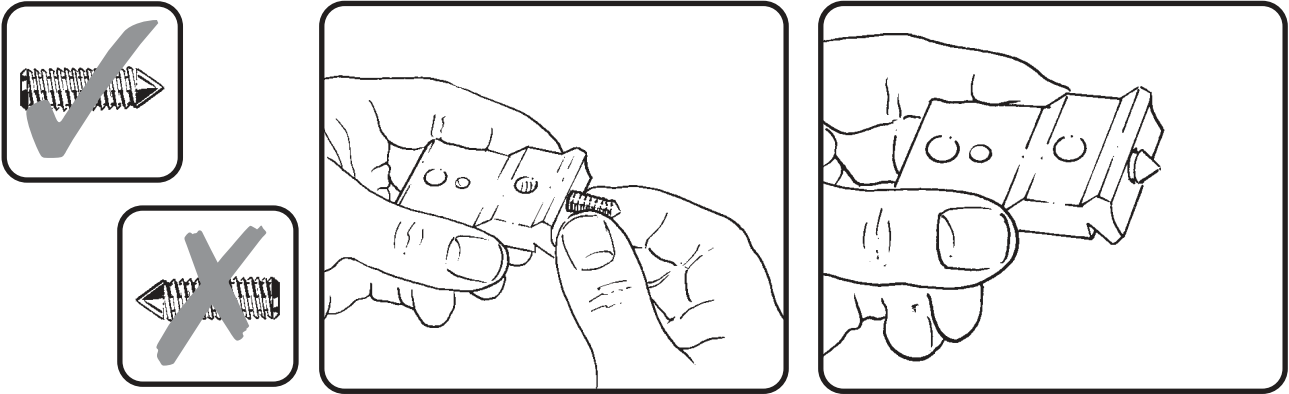
## 8 Fitting the dividers

- Ⓐ Place the **dividing rod supports** as shown, using the **short cap screws** and **washers** removed earlier, to hold the supports to the end of the unit.
- Ⓑ Offer each **rod** up into the slot (this may be a tight fit - this stops the **rods** rattling when in use).
- Ⓒ Pull the **rods** down and push into the holes in the **base channels**.



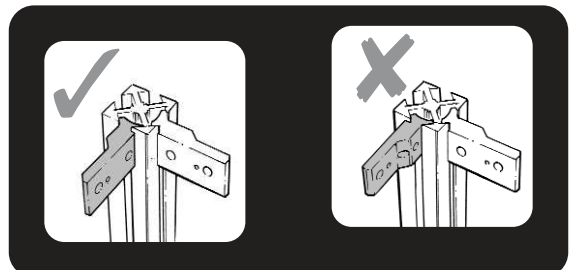
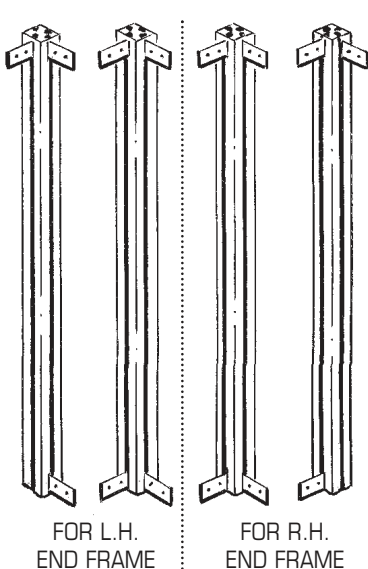
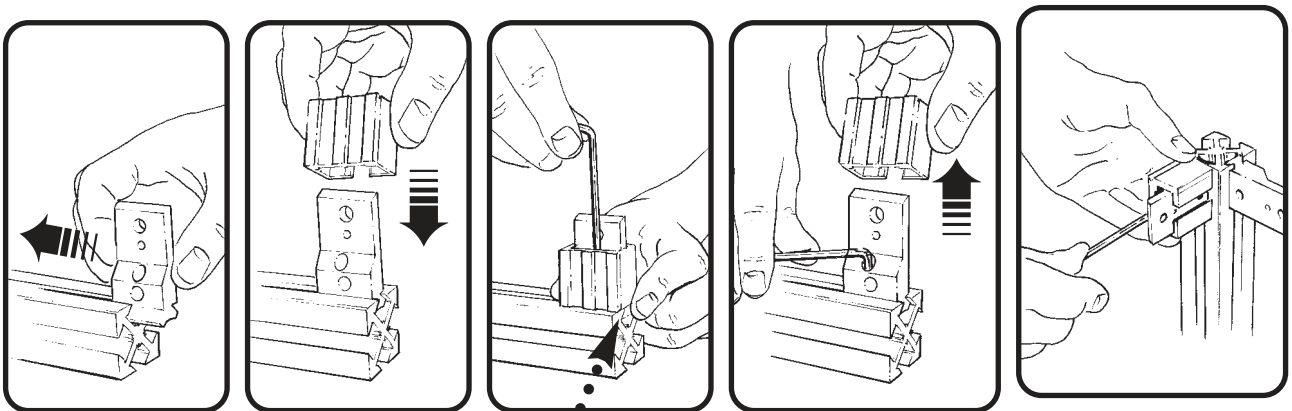
**NOTE:** If you are **adding** an extension to an existing Matboard Storage Unit – go to section 4. **For a Parts List refer to the beginning of:**  
**Section 3** – Matboard Storage unit PDO2 & PDO7  
**Section 4** – Matboard Storage unit extension PRO2 & PRO7

- Put a **grub screw** backwards into each of the **joining brackets** - do not place **grub screws** in the other holes at this stage.



- Attach the **joining brackets** to the **legs**

Using the **spacer**, fit two **brackets** to the top of 4 **legs** ensuring the brackets are fitted the correct way round - with the flat faces towards each other.



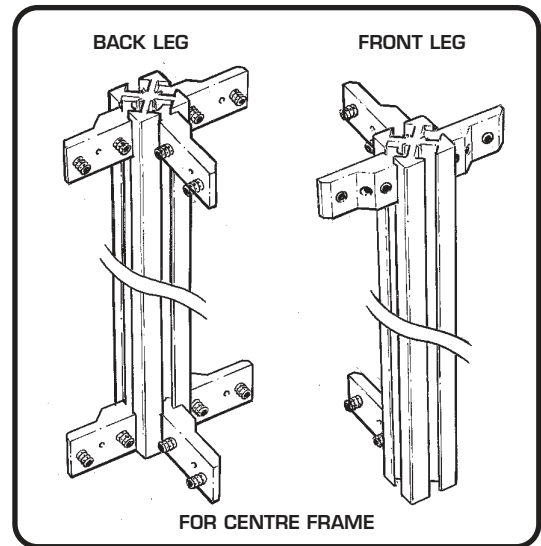
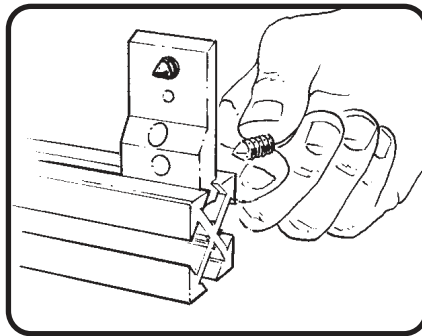
Attach **joining brackets** to the bottom of the **legs**, using the **spacer**. Position them as shown in the diagram. These will make the left & right hand **end frames**

**2** (Continued)

Using the **spacer**, fit the **joining brackets** to the other two **legs** as shown, these will make the **centre frame**.

**NOTE:-** Ensure the **joining brackets** are fitted the correct way round.

Put **grub screws** in each of the two large holes in every **bracket**, only screw them in by 2 or 3 turns.



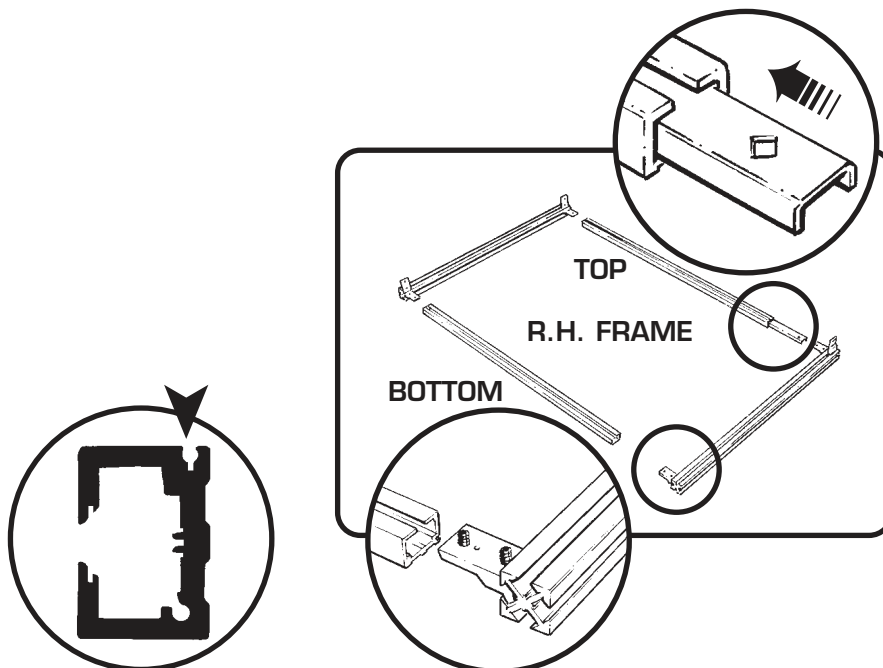
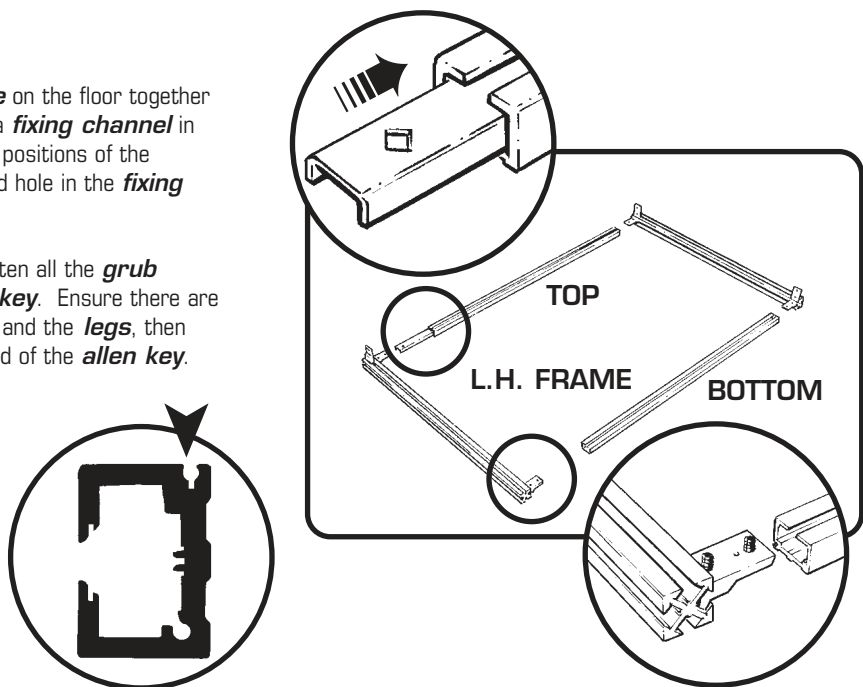
**3** Make the end frames

Lay the two **legs** for the **LH end frame** on the floor together and two of the set of four **beams**. Slide a **fixing channel** in the **top beam** - take note of the relative positions of the **brackets** in the drawing and the diamond hole in the **fixing channel**.

Fix the **legs** over the **brackets** and tighten all the **grub screws** using the long end of the **allen key**. Ensure there are no gaps between the ends of the **beams** and the **legs**, then lock the **grub screws** using the short end of the **allen key**.

Remember to ensure the groove in the **beam** is on top.

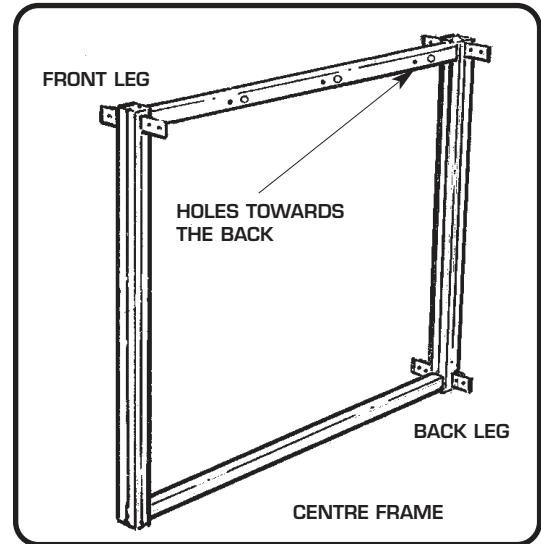
Repeat for the **RH frame**.



**4** Make the **Centre frame**

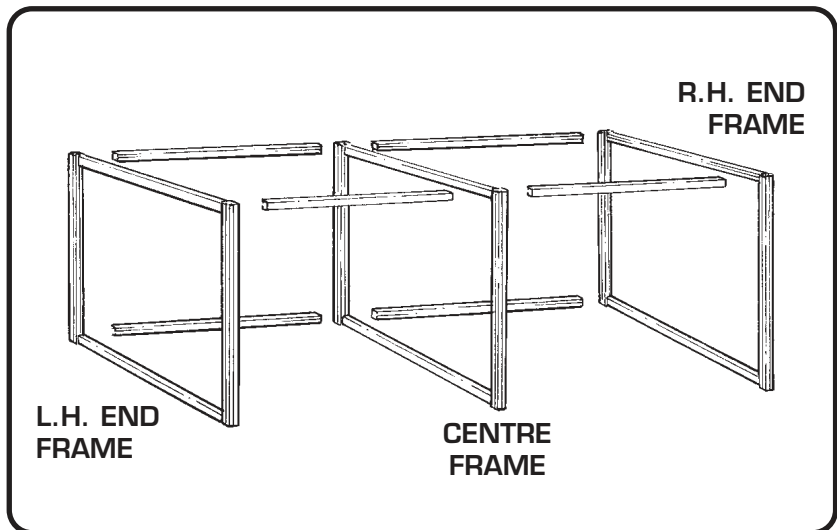
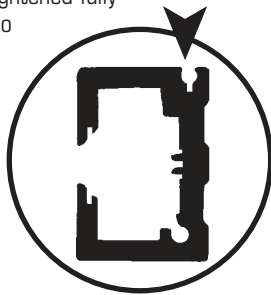
Assemble the frame using the **beam with holes** and the other single **beam** of the same length. ensure the **beam with holes** is assembled the correct way round (see diagram)

Tighten all the **grub screws** using the long end of the **allen key**. ensure there are no gaps between the ends of the **beams** and the **legs**, then lock the **grub screws** using the short end of the **allen key**.



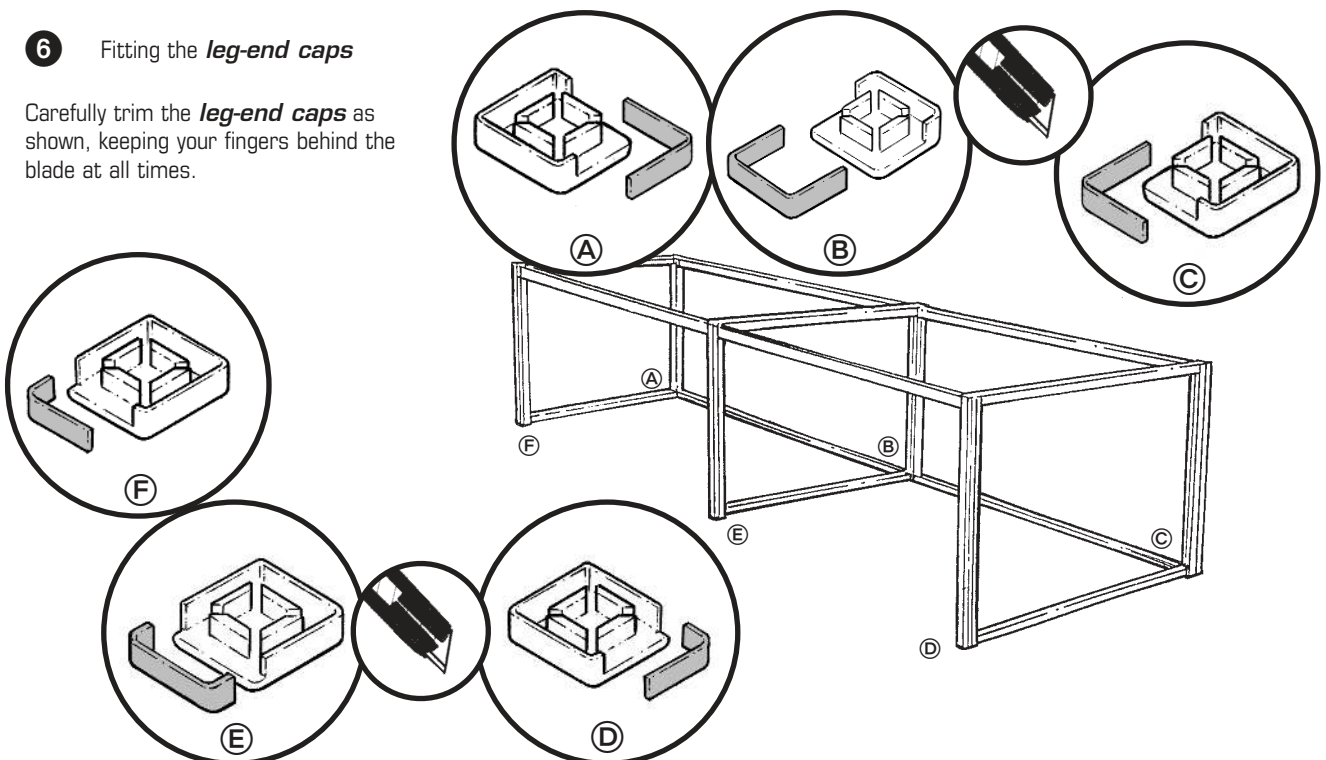
**5** Assemble the frame work

Using the remainder of the **beams** assemble the framework as shown. Start from one end frame and attach 3 beams, then the centre frame, 3 beams and then the remaining end frame. Ensure all **grub screws** are tightened fully and there are no gaps between the beam ends and **legs**.



**6** Fitting the **leg-end caps**

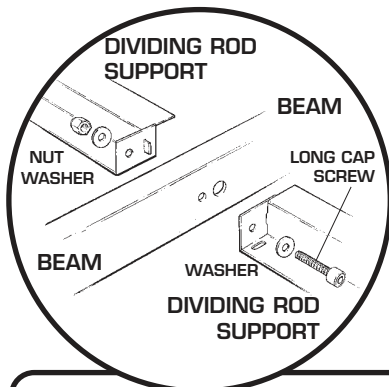
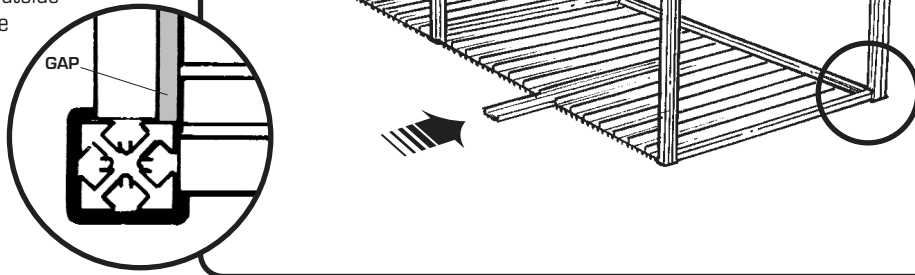
Carefully trim the **leg-end caps** as shown, keeping your fingers behind the blade at all times.



## 7 Fitting the base channels

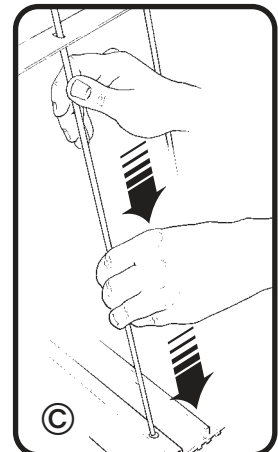
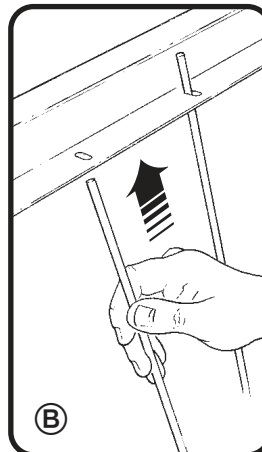
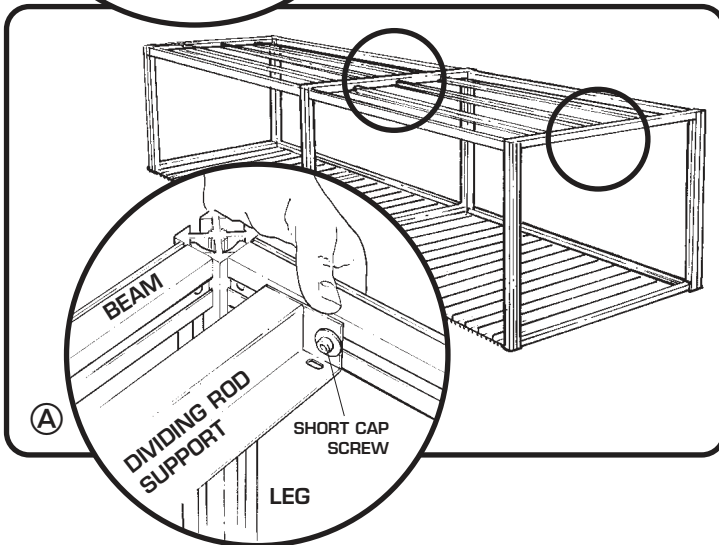
Slide the **base channels** in place starting from the outside working towards the centre. Ensure the set of holes in the edges are towards the front of the unit.

The two channels on the outside fit tight to the inside of the **beam** leaving a small gap at the back of the channel.



## 8 Fitting the dividers

- Ⓐ Place the **dividing rod supports** as shown, using the **short cap screws** and **washers** removed earlier, to hold the supports to the end of the unit.
- Ⓑ Offer each **rod** up into the slot (this may be a tight fit - this stops the **rods** rattling when in use).
- Ⓒ Pull the **rods** down and push into the holes in the **base channels**.



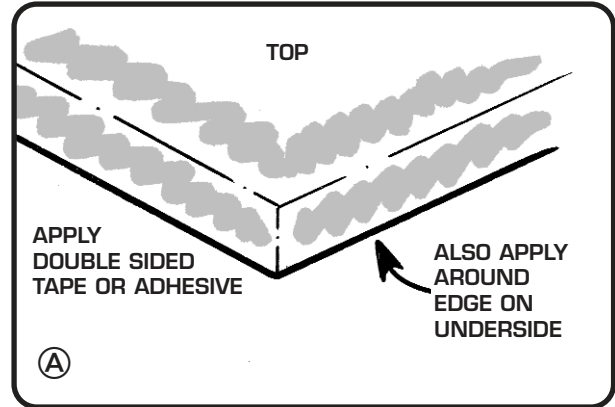
# Covering the worktop with fabric

## SECTION 6

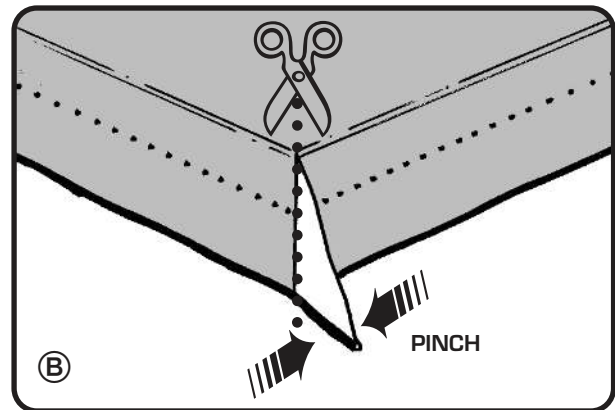
Worktops can be covered with many types of worksurface, the Proteus covering (PNO1/2/3) is a grey non woven fabric which will not fray or unravel and can be moulded around worktop corners.

Proteus worktop fabric has a smooth upper surface and slightly rougher underside to key into adhesives. Use double sided carpet tape, carpet/flooring adhesive or staples.

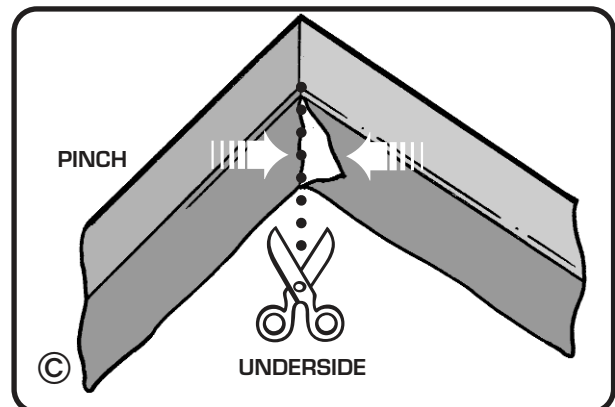
- Ⓐ Cut the fabric larger than the worktop allowing about 10cm (4") overhang on all four sides. Apply tape or adhesive around the edges and to the middle of the worktop.



- Ⓑ Fold the sides of the fabric down and pinch the flap made in each corner, trim with scissors.



- Ⓒ Fold the fabric to the underside, again pinch and trim. A few staples in the underside will ensure the fabric is held in place whilst the adhesive cures.

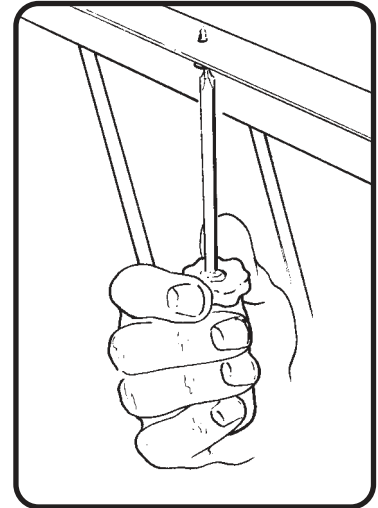
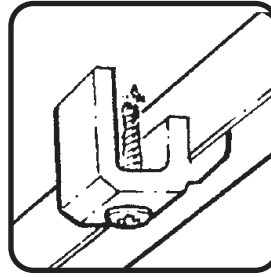


# Fitting the Worktop

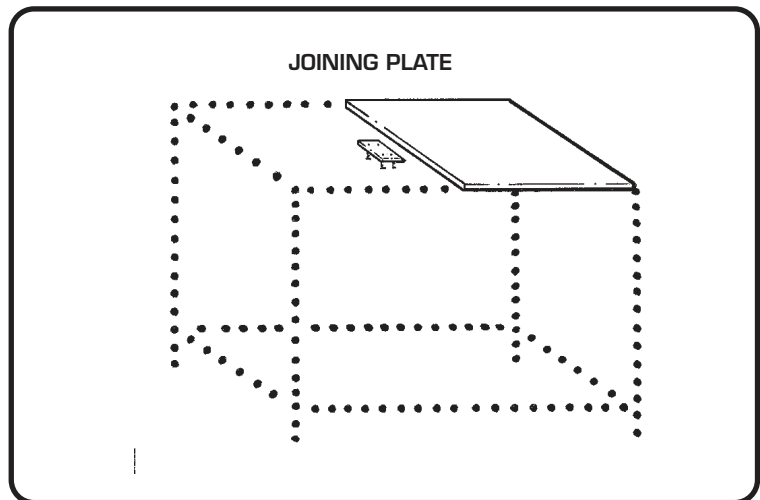
## SECTION 7

It is advisable to fit one piece worktops cut from 18mm (3/4") MDF. When deciding on the size of your worktop make allowances for any overhangs you require.

The worktop **clips** are hooked into the slot on the inside of the **beam** and screwed into the underside of the worktop. Position one **clip** near to each corner of the top and space any others accordingly. Matboard storage units also have worktop fixing holes in the **dividing rod supports**.



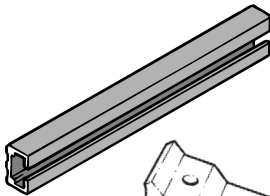

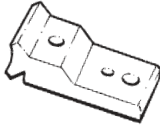



If you are fitting multiple piece worktops, use the **joining plate** (PI01) to fix adjoining worktops as shown. This will prevent a step along the join.



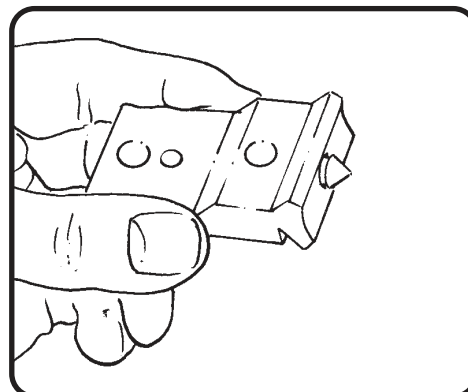
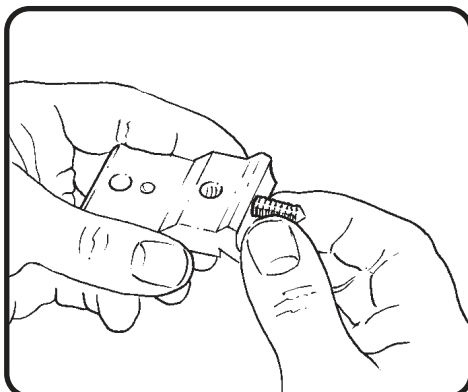
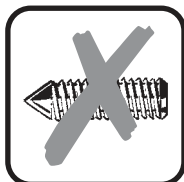
# Fitting Cantilever Matcutter Supports

## SECTION 8

You should have :

ITEM	QTY	ITEM	QTY
	2		6
	2		2
			2
TOOLS		ITEM	QTY
			1

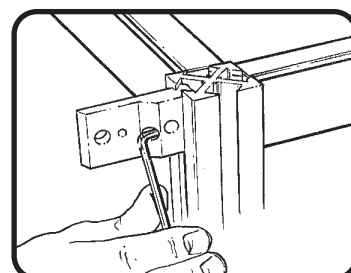
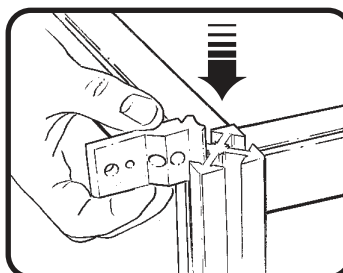
- Put a **grub screw** backwards into each of the **joining brackets** - do not place **grub screws** in the other holes at this stage.



- Attach the **joining brackets** to the **legs**

Decide upon the height required for the **supports** and fit the **brackets** on two adjacent **legs** accordingly.

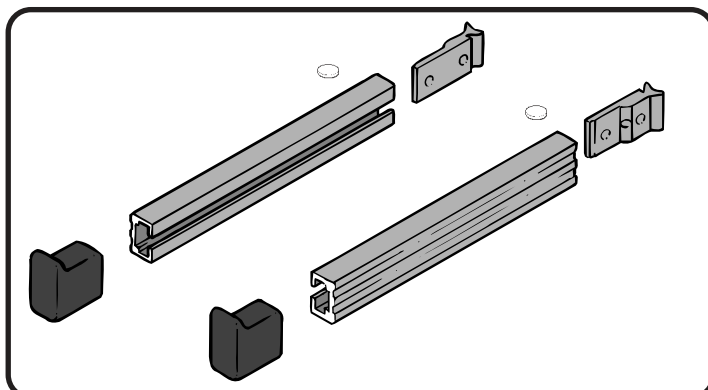
**Note:** the flat faces of the bracket should face each other.



- Attach the **beams** to the **brackets**

Assemble the two **beams** on to the **brackets** and fasten with the grub screws.

Fit the **beam end caps**.



- Placing a matcutter

When placing a matcutter directly on to the **supports** (ie. when not extending the worktop across them) place the **rubber pads** on the **beams** to support the right hand edge of the cutter.