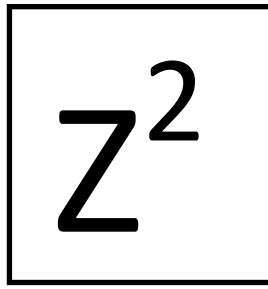
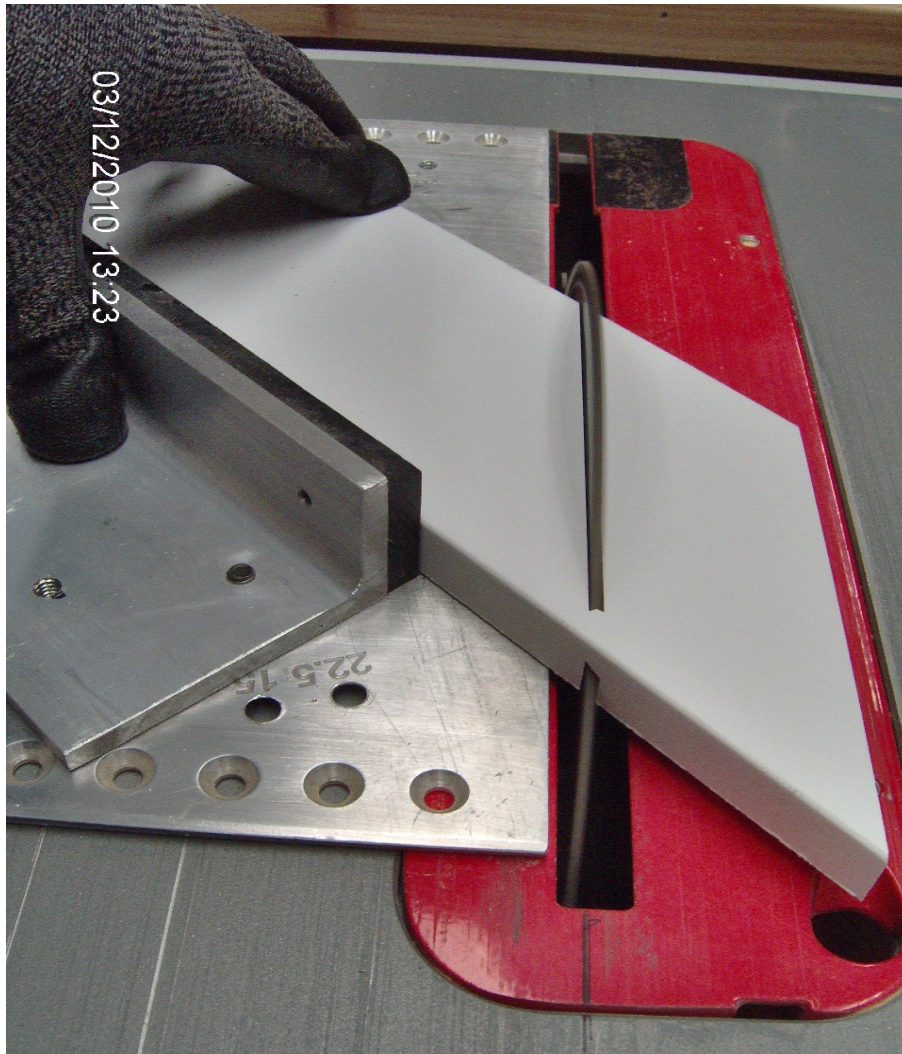


TM



# Z<sup>2</sup> Products User Manual



Congratulations on the purchase of your new Z<sup>2</sup> Table saw jig. Our tool is manufactured of high quality aluminium that has been machined on a CNC mill.

Notable high lites of the Z<sup>2</sup> Jig are,

- CNC machined for the utmost in accuracy.
- Two pivot points for the guide fence, 360<sup>0</sup> and 22.5 & 15<sup>0</sup> for acute Angles.
- Some common angles have been drilled and marked for your convenience.
- 0, 15, 22.5, 30 and 45 degrees . ( Add degrees to get 60, 67.5, 75 and 90.)  
However any angle can be set on the Jig ( see below ).
- The guide fence has been drilled and tapped for mounting toggle Clamps ( sold separately ).
- The Jig is ambidextrous.
- Can be used on most table saws that have 3/4 inch ( 19mm ) guide Slots. See **IMPORTANT** note below.
- Comes with a life time limited warranty that covers manufacturing Defects.

# **SAFETY**

## **ALWAYS USE EYE PROTECTION**

While using this tool you will be operating power Equipment. An abundance of caution must be Exercised as personnel injury and/or death can Result from a careless action or lack of attention.

The Z<sup>2</sup> Jig should be operated only by personnel Trained and qualified in these industrial fields.

The home handy person is not exempt from these Instructions.

Do not operate power equipment if you or someone you know is under the influence of Alcohol Or Drugs.

**BE CAREFUL!!!**

# Do's and Don'ts

## DO

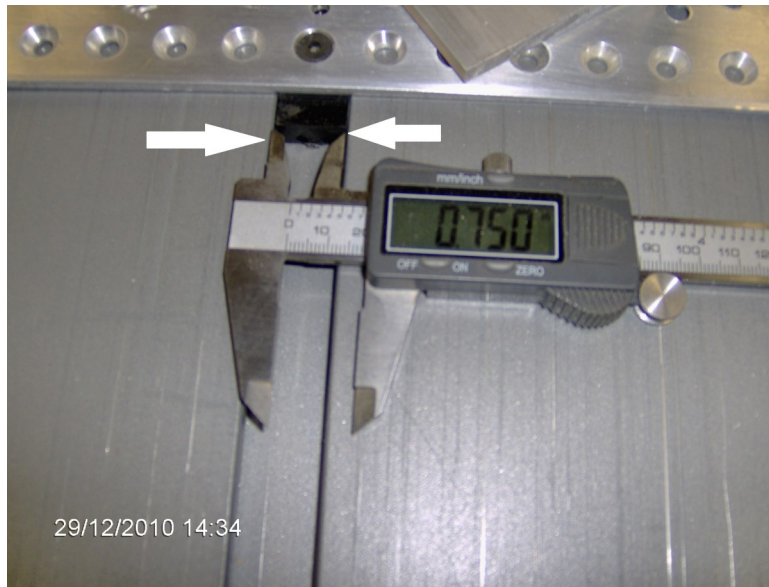
- Always wear eye and hearing protection.
- Use the Jig only for its intended purpose.
- After making an adjustment to the slide rail always check the Jig to saw blade clearance and if using toggle clamp(s), saw blade to clamp clearance. ( See user section )

## DO NOT

- **DONOT** over tighten any of the screws.  
Damage to screw threads will result in a warranty claim being denied. Tighten to snug then  $1/8^{\text{th}}$  of a turn.
- Do not expose to harsh chemicals.

# IMPORTANT !

Ensure that your table saw has a  
3/4 inch ( 19mm ) guide channel!



There must be NO obstructions  
in the channel!

# USER SECTION

## Parts



# SET UP

The side with the engraving is considered the face. You will have to adjust your jig for saw blade clearance before use. Place the slide guide in the guide channel on your table saw.. ( Fig 1 )

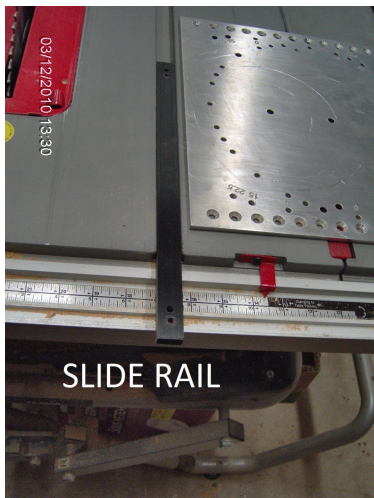


Fig 1

Place the jig face up over the slide guide and get the edge as close as possible to the saw blade. Move the plate so that the counter sunk holes line up with the holes in the slide guide. ( Fig 2 a&b ) **IMPORTANT!** Make sure the edge does not touch the saw blade! ( Fig 3 )

Fig 2a

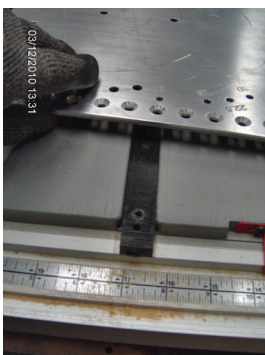
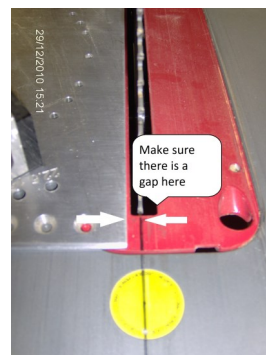


Fig 2b



Fig 3



Use the two 10X32 screws to secure the plate to the slide rail. ( Fig 4 )



10x32 by 1/2 inch screws

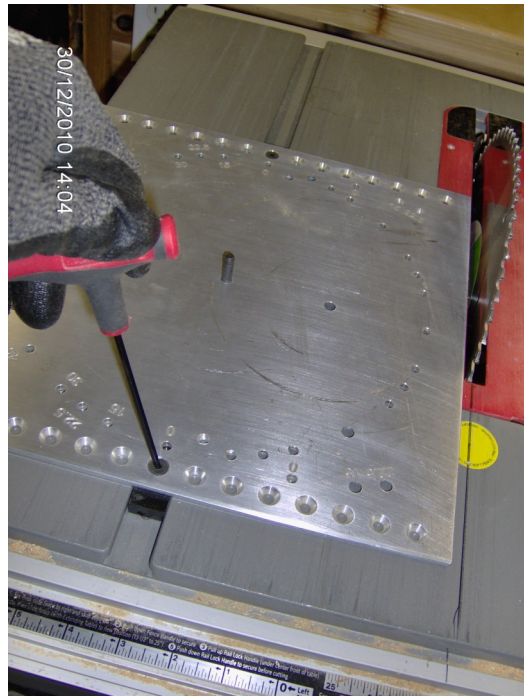


Fig 4

Now is the time to install the guide fence. There are two positions for the guide fence, the center position for  $360^{\circ}$  swiveling and the offset position for the acute angles. ( Fig 5 )

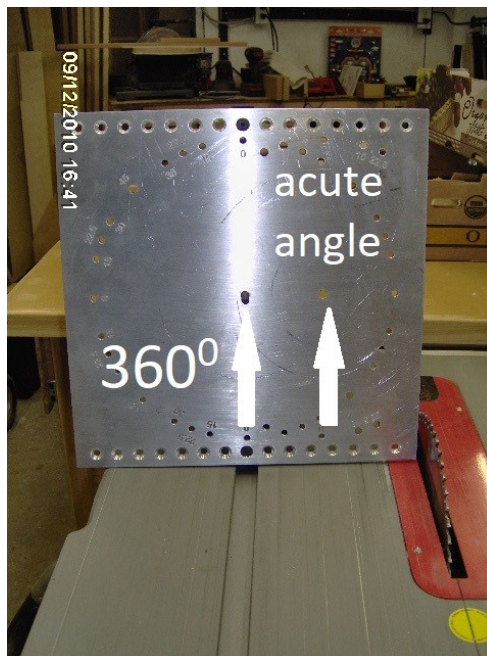


Fig 5.



The guide fence has a center pivot point and two locking points. ( Fig 6 )

Align the center pivot points, set the guide fence on the plate and secure.

Turn the fence to the desired angle and secure with the lock point screws.

**IMPORTANT!** Do not over tighten the screws. Turn down to snug then 1/8<sup>th</sup> turn more!

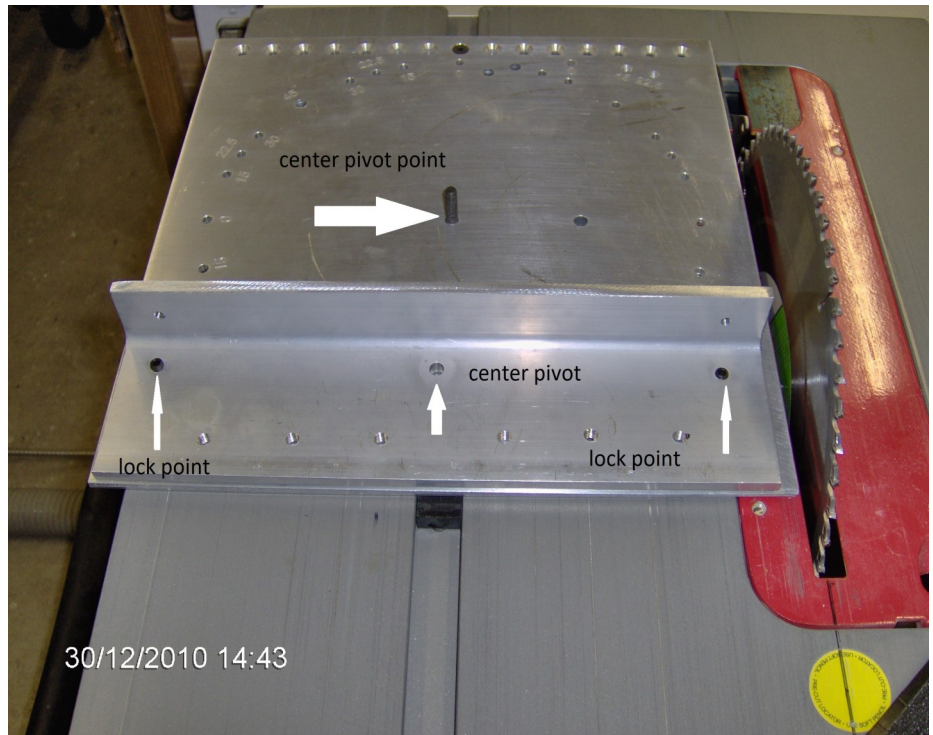


Fig 6

Make sure the edge of the plate is square with the saw blade. ( Fig 6a )

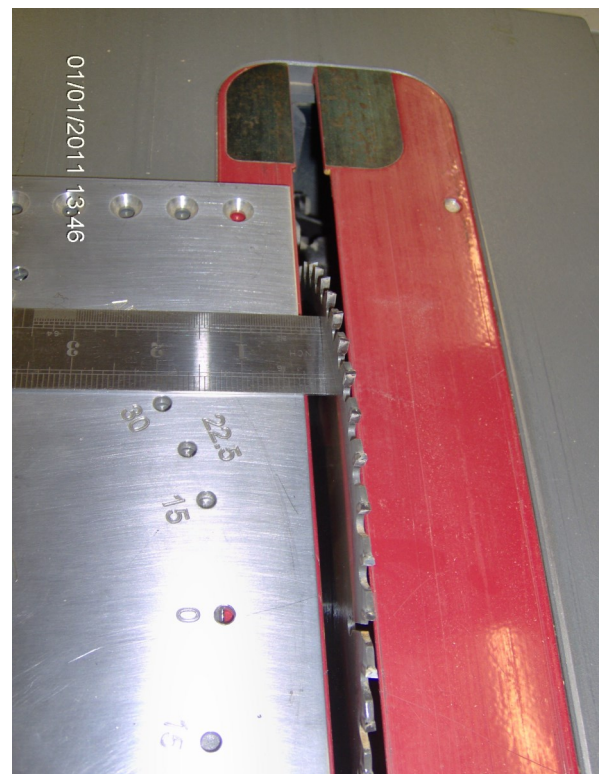


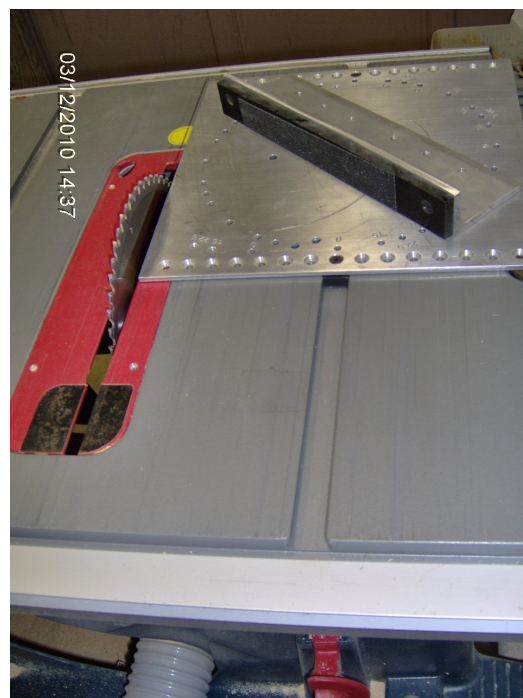
Fig 6a

If required you can install the guide fence anti slip fence. The holes on the guide fence working face should align with the holes in the anti slip fence. Using two 10x32 by 1/2 inch long screws secure the anti slip fence in place. Make sure the anti slip coating is facing out.

**IMPORTANT!** Do not over tighten the screws, turn down to snug then 1/8<sup>th</sup> of a turn more.



The assembly should look like this.

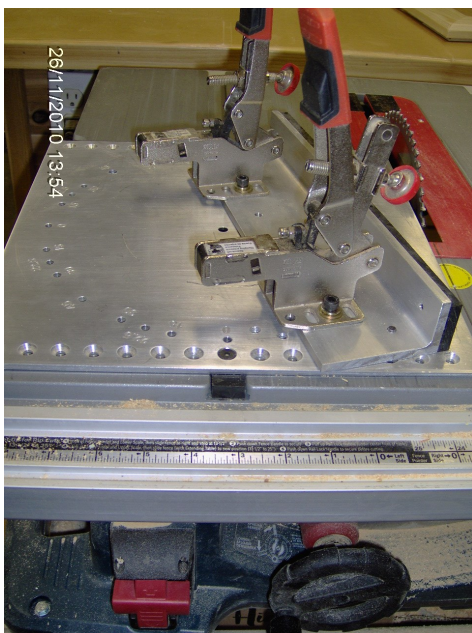


## TOGGLE CLAMPS

Toggle clamps are used to secure the work piece to the Z<sup>2</sup> Table saw jig. This ensures the work piece does not move during a cut. We have found that the work piece may try and slide ( drag )with the saw blade during a cut. The amount of drag is affected by how sharp the saw blade is. This especially noticeable during acute angle cuts. The use of the anti slip fence and toggle clamps results in a higher level of safety, accuracy and quality of cut.

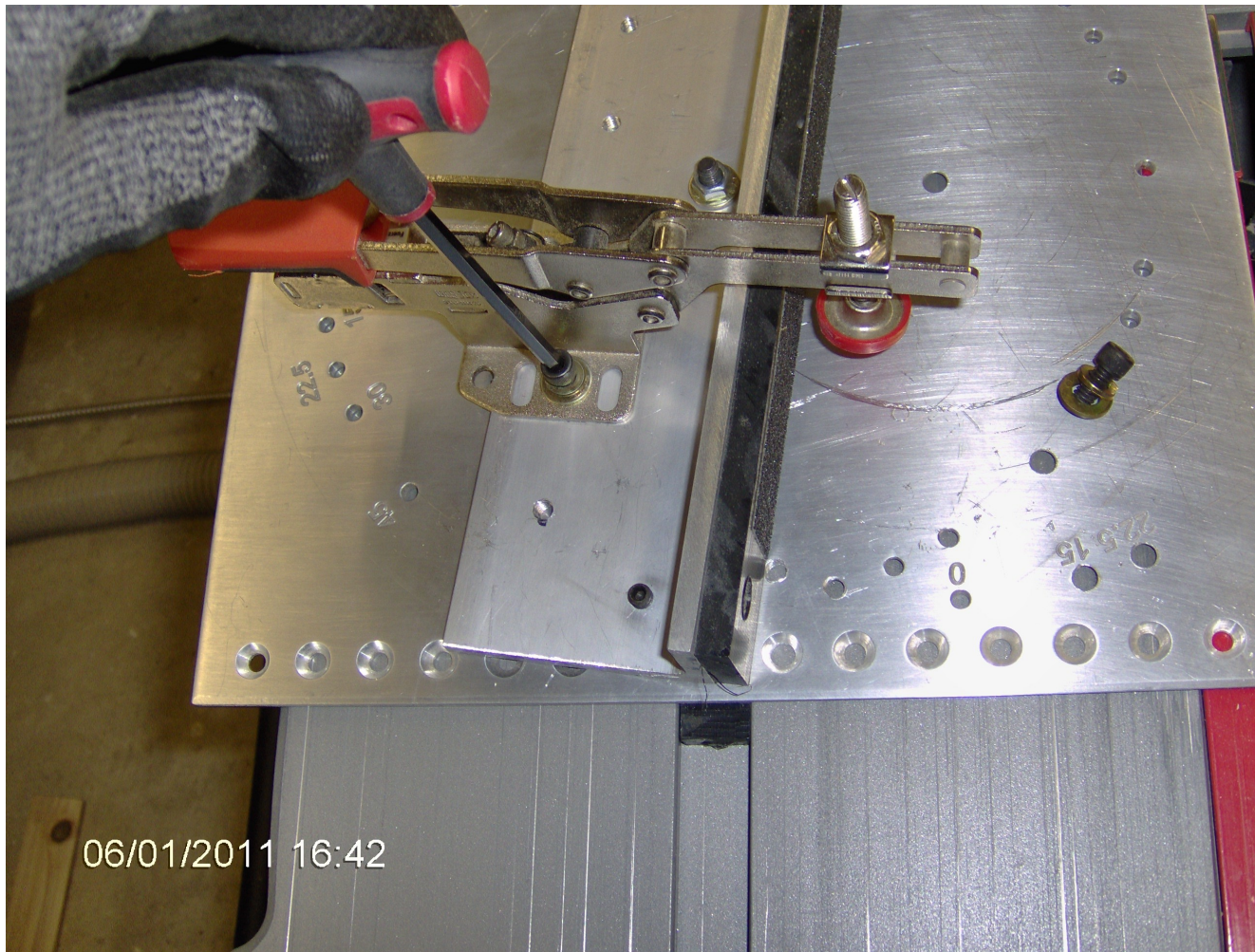
One brand of toggle clamp.

What ever brand you choose to use always follow the manufacturers instructions.



Two toggle clamps installed on a board for acute angle cutting.

Use the supplied 10/32 cap screws to secure the toggle clamps to guide fence. **DO NOT OVER TIGHTEN!** Turn down to snug then 1/8<sup>th</sup> turn more.



Should you want to use toggle clamps it is important to use only enough down pressure to hold the work piece. To much down pressure can cause the back of the guide fence to lift up resulting in a non square cut. You will notice if there is to much down pressure by a gap between the base plate and the guide fence. ( Fig 7 )

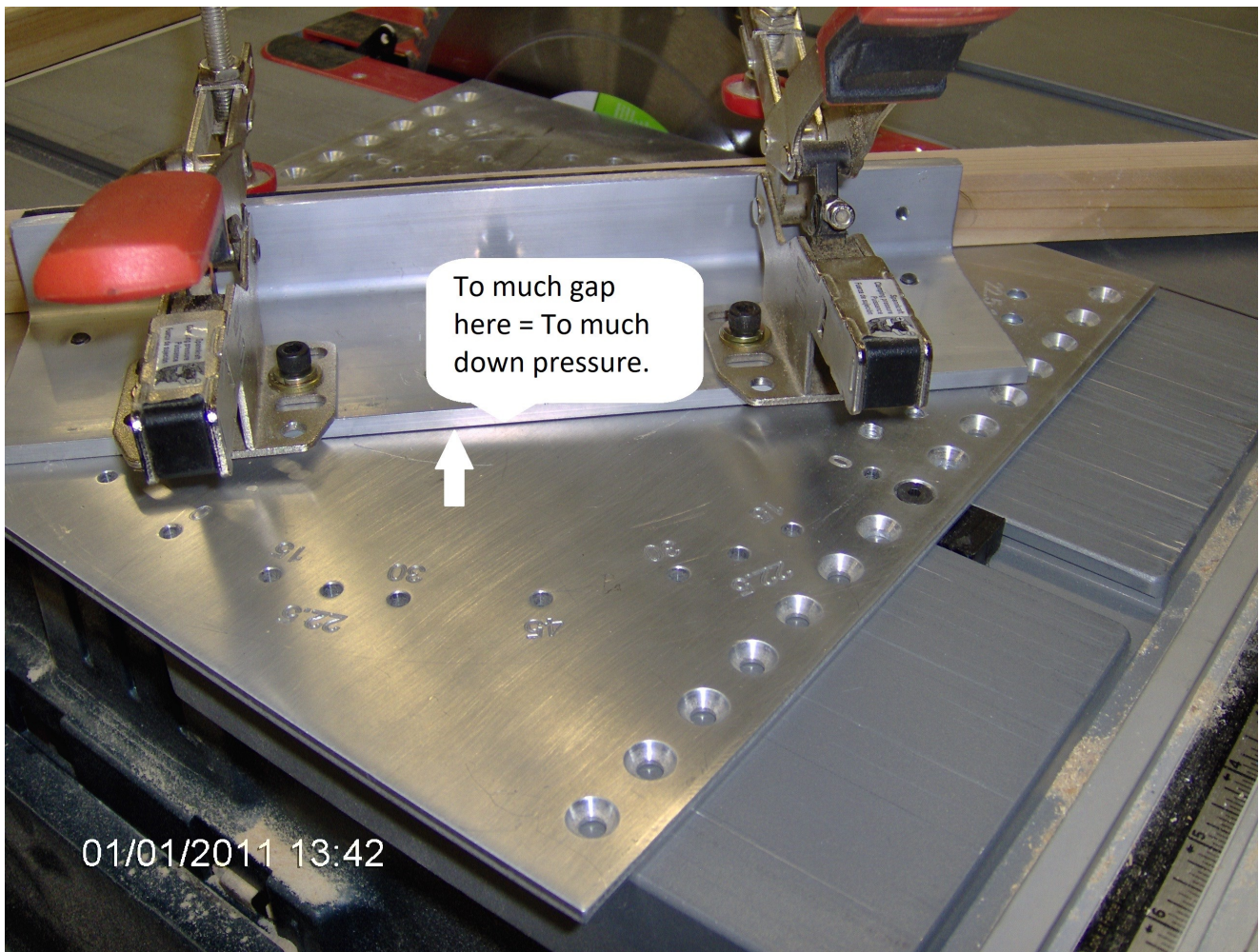
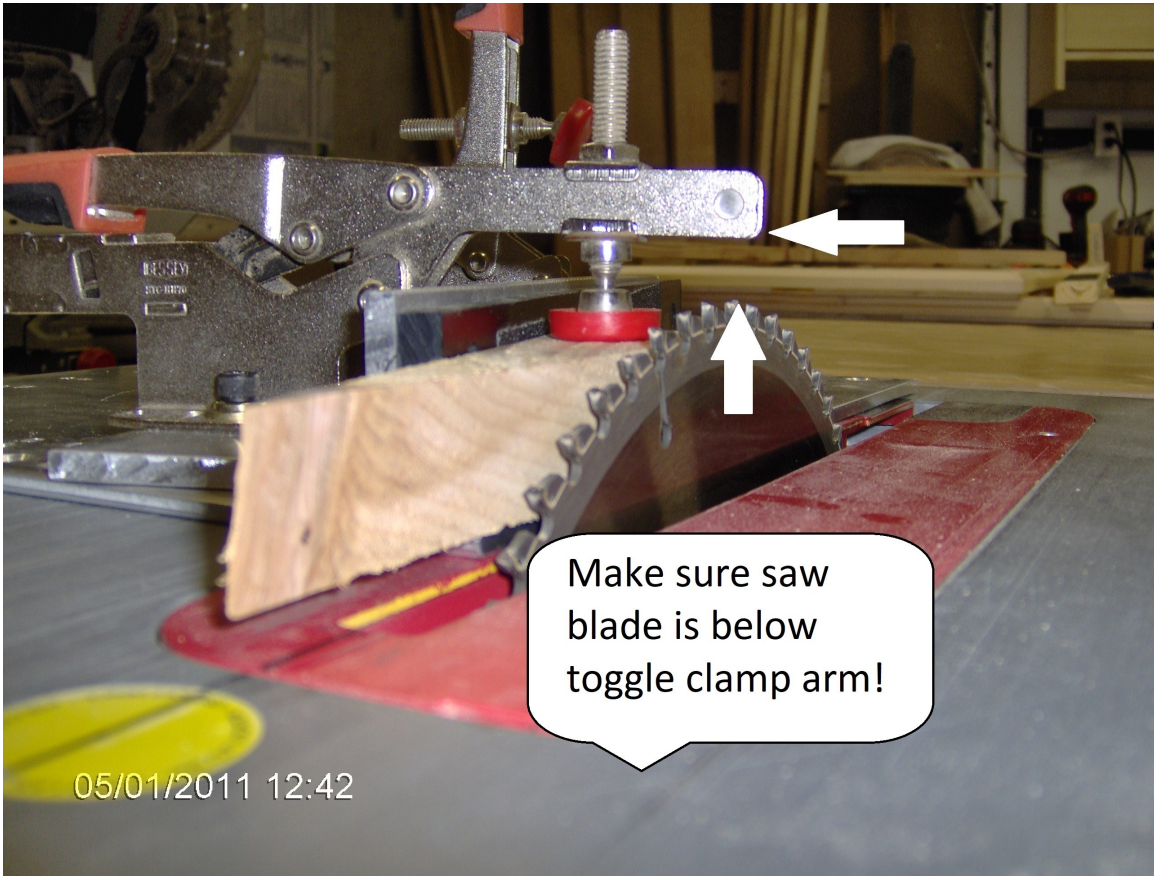


Fig 7

Before the first cut increase the down pressure until a gap starts to form then back off slightly. Try a test cut, to get the correct setting.

# IMPORTANT !

MAKE SURE YOUR TOGGLE CLAMP ARM IS  
CLEAR OF THE SAW BLADE!



# Any Angle

The Z<sup>2</sup> jig comes with preset angles already set. If these angles do not meet what you need for your project you can set the jig to any angle. To do so follow these instructions. Using a protractor set the angle you would like.

35<sup>0</sup> Pictured. ( Fig 8 )

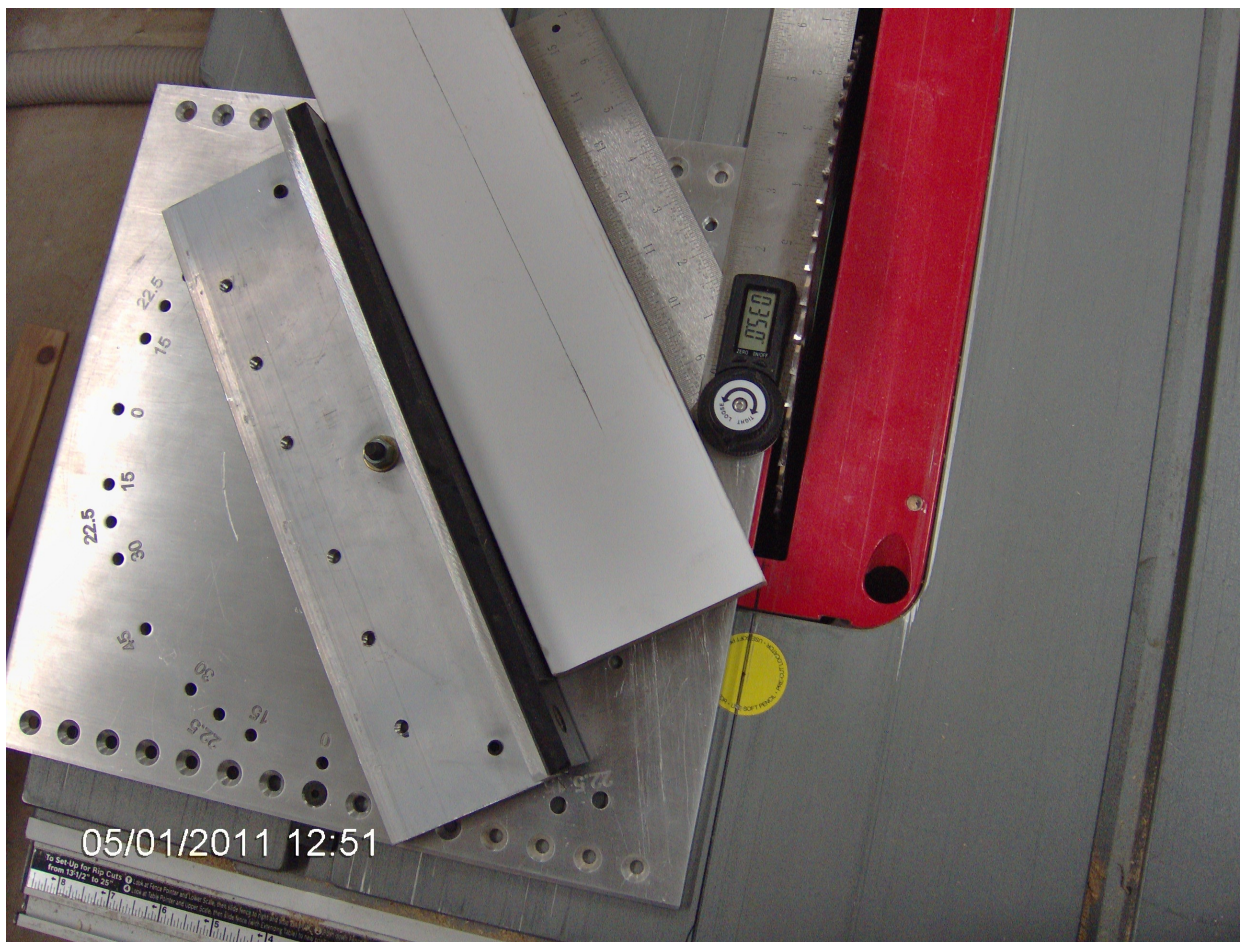


Fig 8.

When you have your angle set tighten the center pivot screw so that it will hold the guide fence in place. Using the cone point set screws turn them in so that they will leave a small circular mark in the face of the jig. Use just enough force to make the mark. Figures 9 and 10.

Fig 9.

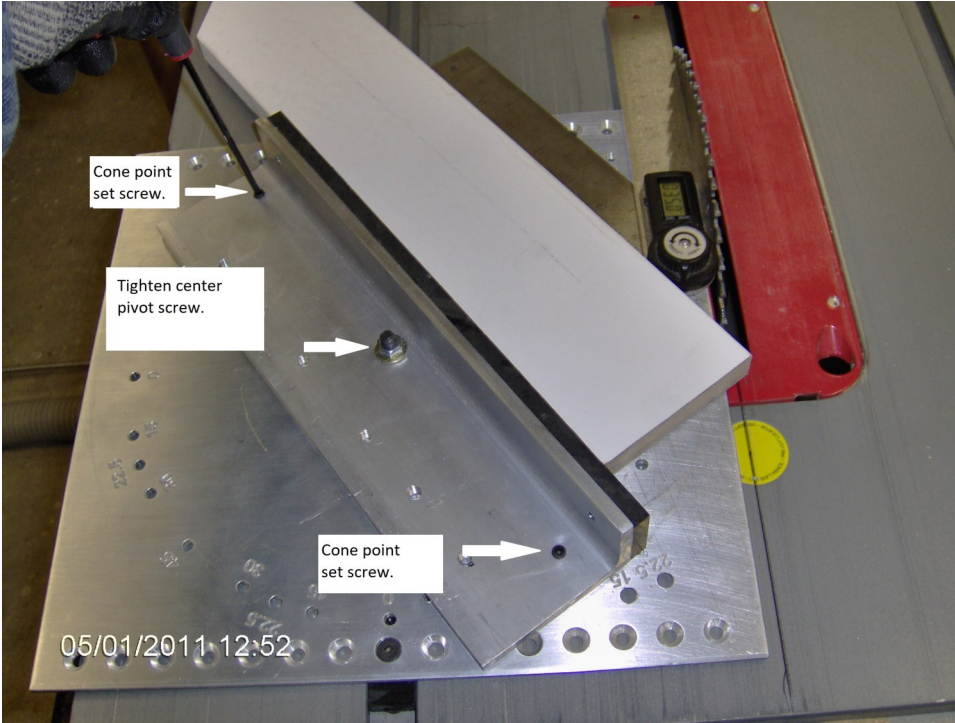
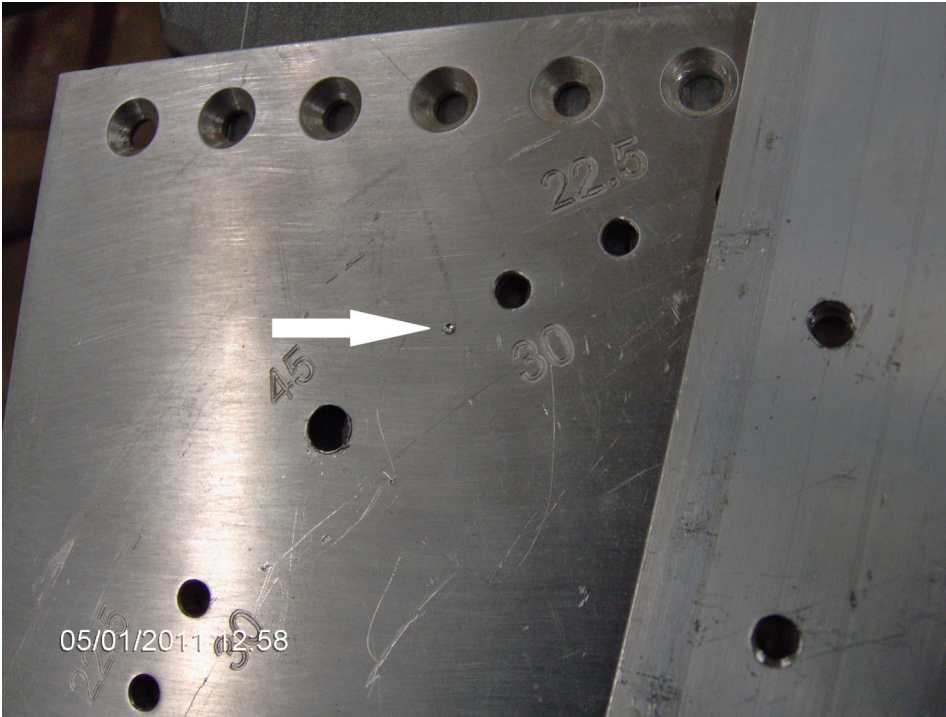


Fig 10.





After inspecting the mark, realign the guide fence on the mark on the jig. Tighten the center pivot screw. Try a test cut to make sure that the angle is correct. If this going to be a common angle for your projects you may wish to drill this spot so that it will be easier to locate for future use. Caution do not drill to deep. ( Fig 11. )



Fig 11.

See next page for instructions on how to make these angles permanent.

## **Making your angle permanent.**

You can make this ( these ) angles permanent by drilling through the board and tapping the resulting hole. You will need a Number 21 drill bit (.1590 in) as well as a 10/ 32 standard taper tap and tap handle. Drill the hole thru and using proper techniques tap the new holes.

### **IMPORTANT!**

**YOU MUST USE THE GUIDE FENCE AS YOUR STARTING POINT!**

Align the guide fence over the hole to be tapped and secure the center pivot screw so the guide fence will not move during the tapping process. If you have to clamp the guide fence to stop it from moving. Tap thru the guide fence to get alignment of the threads between the two surfaces. If you have never tapped a hole before get instructions from a qualified person and practice a few times to get the feel for the job. ( Fig 12 ) Remember to do both holes. It is a good idea to scribe a line by the hole and identify it.



Fig 12.

## TECHNIQUES

If your project requires multiple pieces of the same dimension it is possible to use several different techniques. For short pieces you can set an index block on the jig and hold it in place with a toggle clamp, place the work piece up to it, hold in place with a second toggle clamp and cut as required. ( Fig 20 ) Note mark on index block.

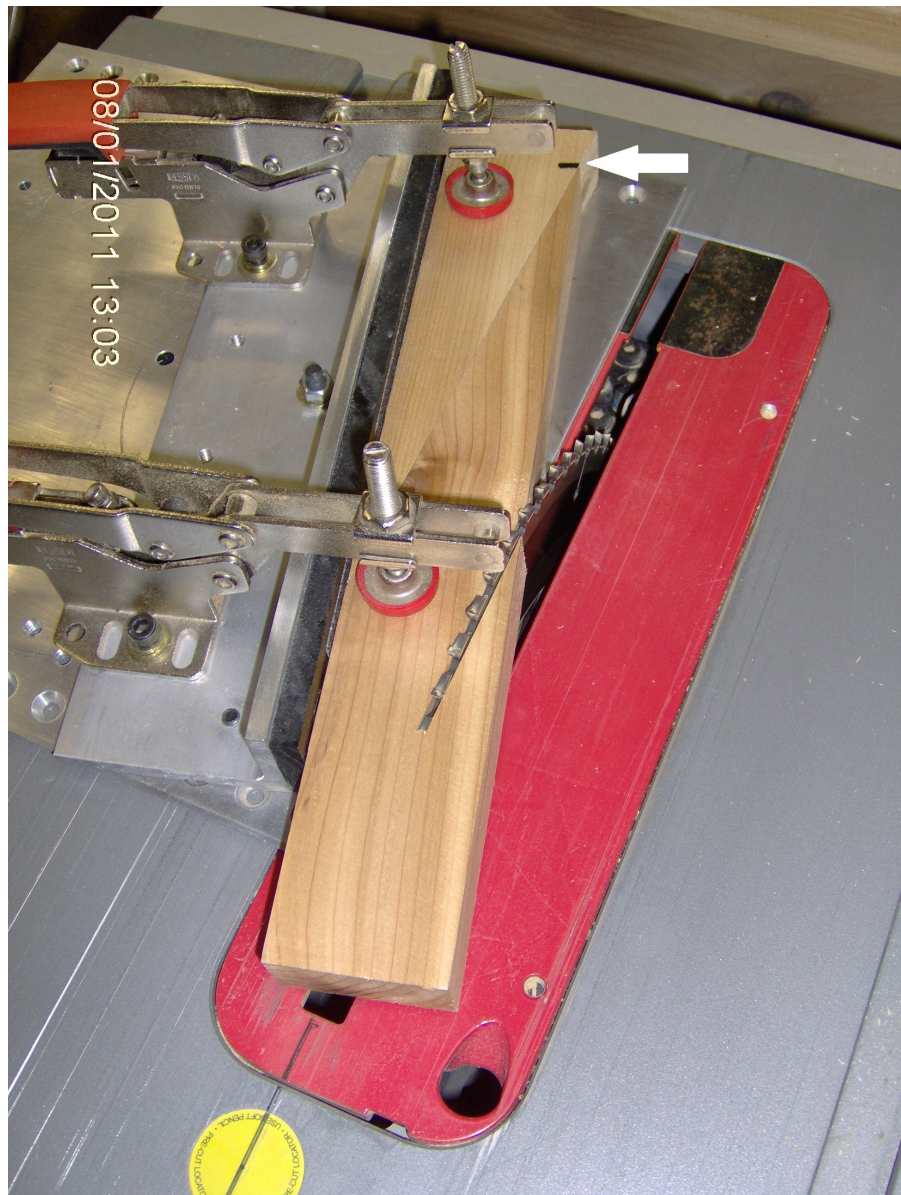


Fig 20.

For longer cuts you can fabricate your own gage . The image below is one Type Z<sup>2</sup> fabricated quickly for a demonstration. ( Fig 21 & 22 ).



Fig 21.



Fig 22.

Z<sup>2</sup> is currently engineering an aluminium gage with a sliding stop. The plan is for one each of 0 to 36 inches and 0 to 72 inches.

# DOOR CONSTRUCTION

There are several different ways of fabricating doors. The following is one technique that Z<sup>2</sup> has used.

We started out fabricating a jig set complete with holding clamps ( Fig 30. )



Fig 30.

It is very important that the corners are square!

Next we put some spacers along the inside edge. ( Fig 31 ) We used 1/4 inch ( 6mm ) plywood.

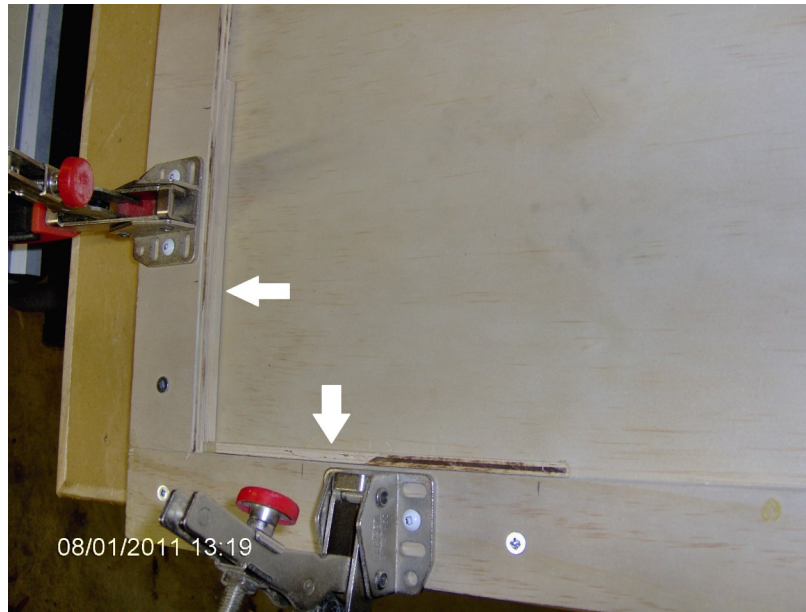


Fig 31.

Precut 90° base plates were placed in the corner using wax paper to insulate the work piece. This prevents the glue from spreading into the wrong areas. ( Fig 32 & 33 )



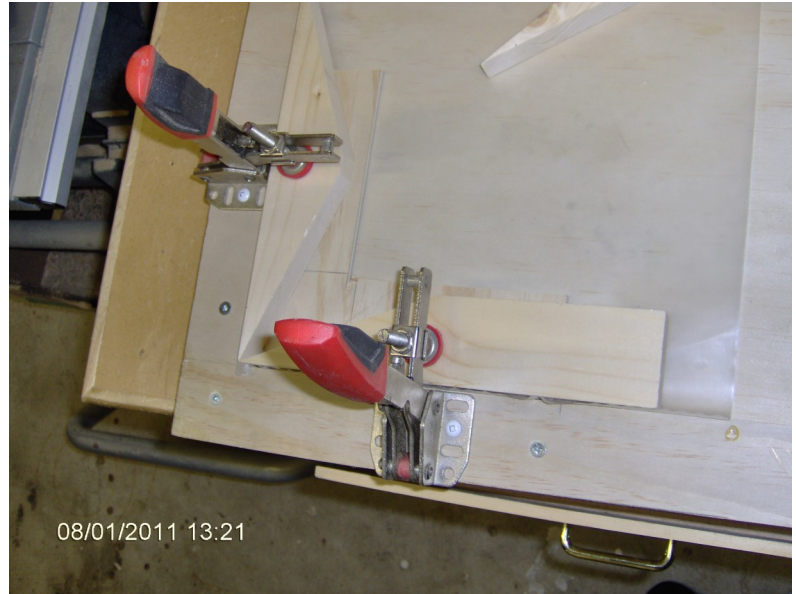
Fig 32.



Fig 33.

Place the work pieces on the base plates , making sure that they align properly. Apply glue and clamp in place. ( Fig 34 ) Allow to dry.

Fig 34.



Add your segments starting out working in. ( Fig 35 )

Fig 35



A wedge can be used to hold the segments in place. Caution! Use some wax paper to insulate the work pieces. ( Fig 36 )

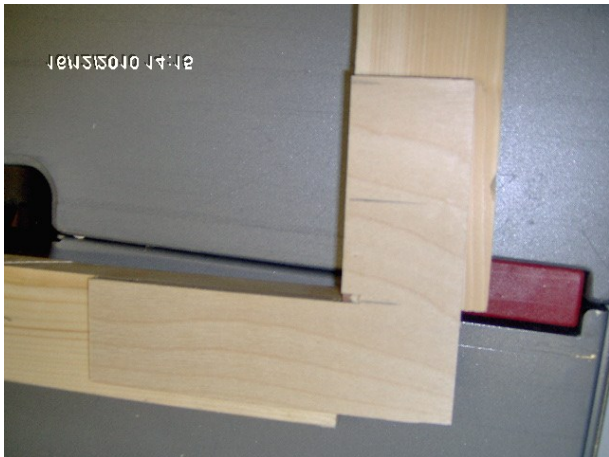
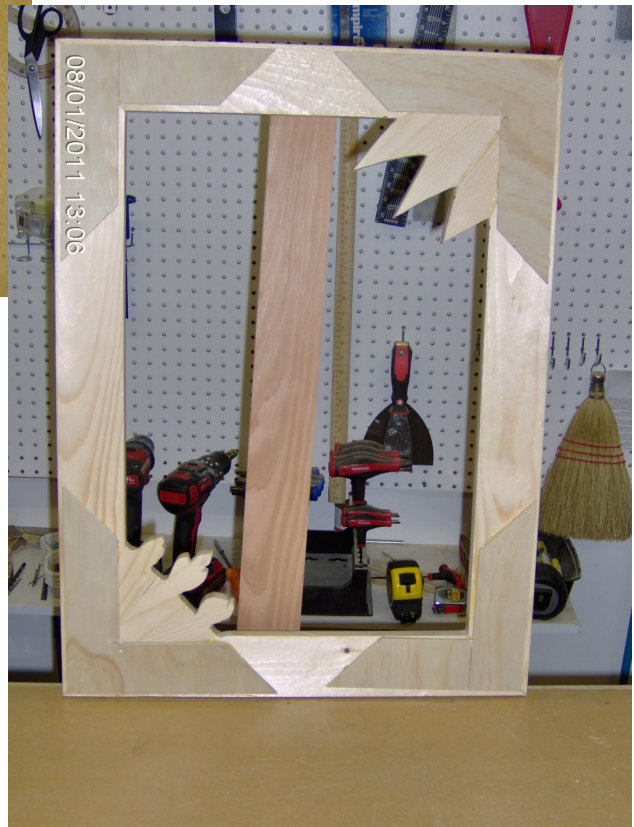
Fig 36



When you are done the back should look like these. This by no means the only way to do this work and Z<sup>2</sup> encourages users to develop their own techniques.



Gap can be adjusted for insert or overlay doors.



Inserting "out" segments.





You do not have to use base plates at all. The door can be glued up as is or biscuits can be employed. ( Fig 37 )

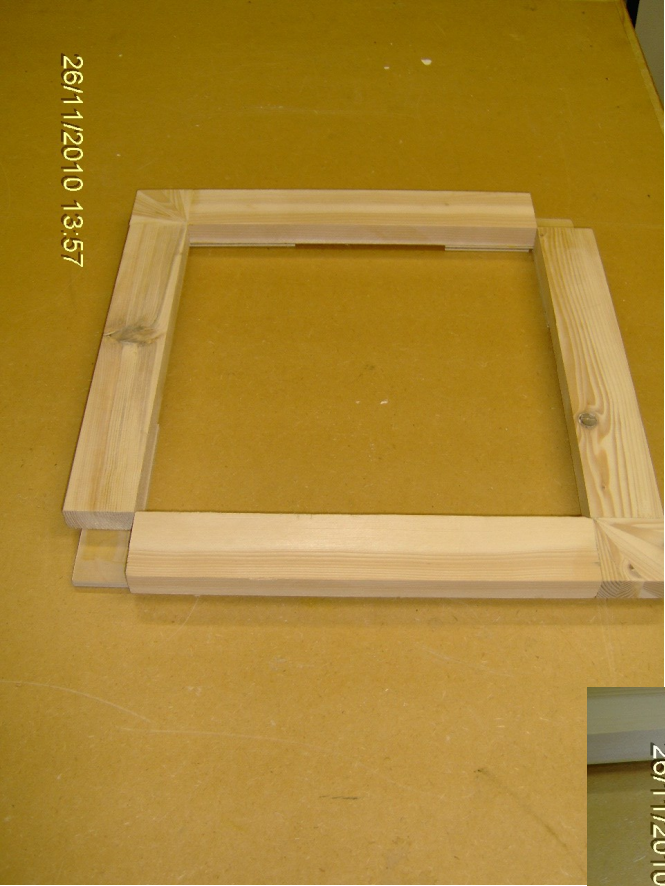


Fig 37.

We here at Z<sup>2</sup> encourage you to experiment and find what works best for you.

# IMAGES





26/11/2010 13:57



26/11/2010 13:58

This is an “insert” style door. The arrow is pointing to a gap. This is an indication that segment pieces are not square to each other.



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Z2 Products will not be held liable for any injury or death resulting from use of this product. It is expected that person(s) using this tool are competent experienced and have a sound working knowledge of the dangers of using power equipment. Person(s) who are in training should be supervised by a qualified individual. Under no circumstance should any person use this tool if they are under the influence of alcohol or drugs. Persons who are suffering mental distress or anxiety should not use power equipment. Use all appropriate safety equipment and procedures.

**BE CAREFUL AND STAY SAFE!**

**LET NOTHING STOP YOU**

**EXCEPT YOUR IMAGINATION!**