WIN & WIN ARCHERY OWNER'S MANUAL

WIN & WIN ARCHERY CO.

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■ IMPORTANT RECURVE BOW INFORMATION

1. Completely and properly the Riser and Limb.

In an attempt to improve and increase the accuracy of each bow made by WIN&WIN has a tight connection between the Riser and the Limb.
When setting the Riser and the Limb, please push in Limb until you hear a "tick" sound.
This tick sound will assure proper limb placement.
The failure to follow this procedure may result in a decreased accuracy and/or a broken limb.

2. Never dry fire your bow.

Dry fire means to draw and release your bow without an arrow.
Shooting without an arrow to absorb most of the bow's stored energy could cause severe damage to the bow and possible injury to the shooter or others close by.

3. Never expose your bow to extreme heat or prolonged extreme moisture.

Excessive heat, such as could be experienced on a sunny day inside of a closed vehicle, could cause limb failure. Prolonged storage in a hot, dry, attic or damp basement could also be damaging. This voids your warranty.

4. Carefully inspect your bow before each shooting session.

Carefully note condition of bowstrings should be replaced. damaged or suspect limb be reported to the dealer where you purchased your bow.

5. Maintenance of bowstring and bow limbs.

Apply a light coat of bowstring wax to your bow's string on a regular basis. With target bows, use a quality car polish to protect the finish and luster of your bow's limbs.

6. Always be safe.

Never shoot your bow straight up.
Always be sure of your target area and the area immediately behind it.

7. Inspect all arrows.

Before shooting, inspect your arrows for defects.
Replace cracked nocks.
Discard fractured or dented arrows.
Replace loose fletch.

8. Check the place of weight/tiller adjustment bolt

When you set the string on bow, keep the weight/tiller adjustment bolt is under the bushing. If the bolt is upper than bushing, it can be shot out anywhere. It can be dangerous.

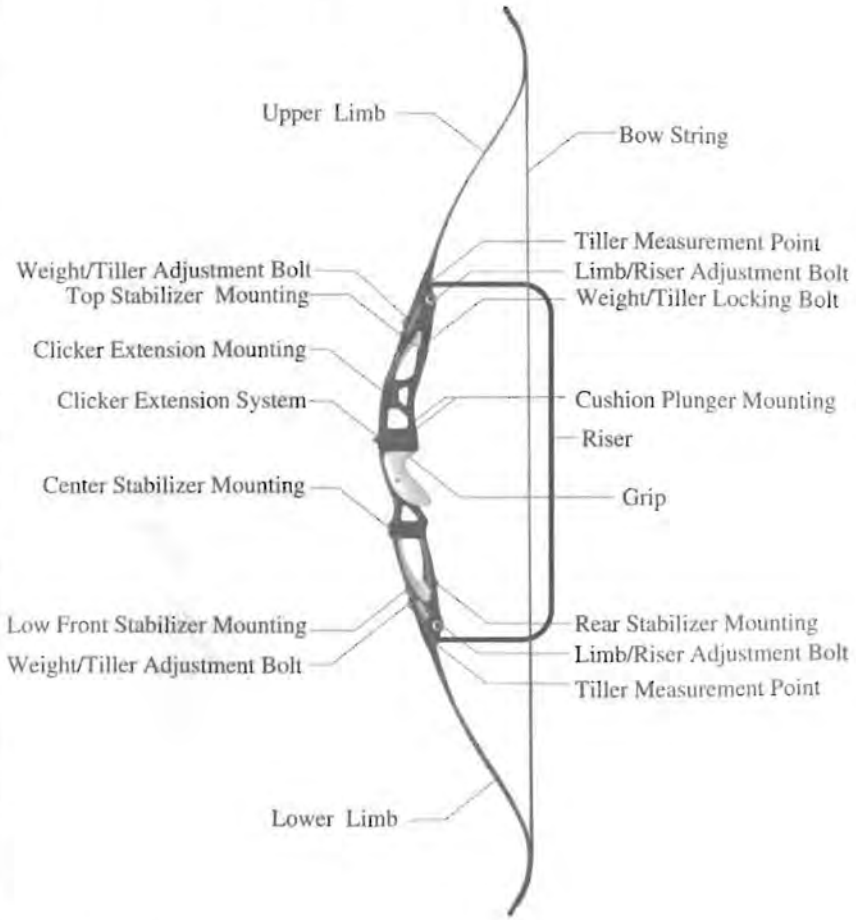
※ WARNING ※

All bows are a deadly weapon.
always abide by all safety advisements.
Children should be supervised by an adult.

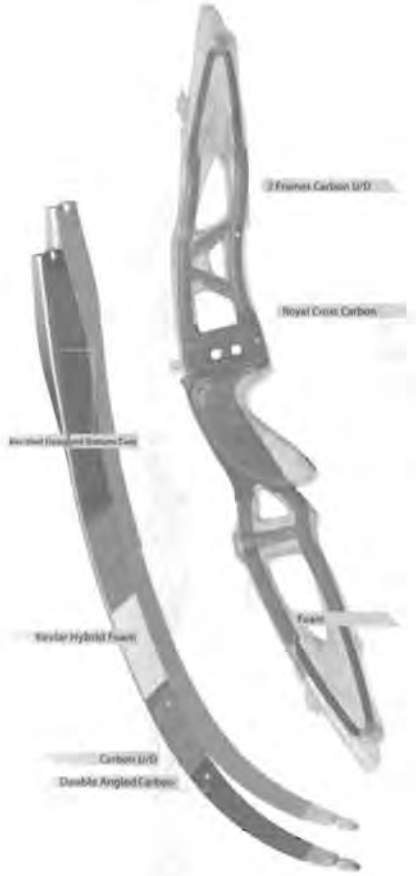
■ CONTENTS

■ RECURVE BOW TERMINOLOGY

「INNO CARBON」



「INNO BOW STRUCTURE」

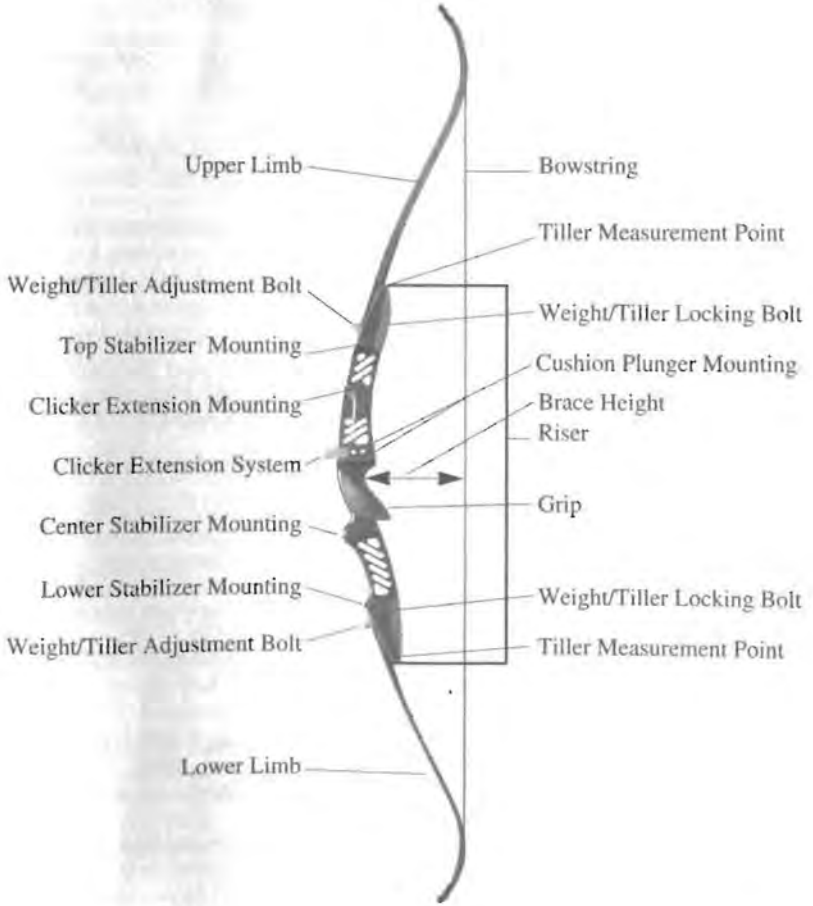


■ RECURVE BOW TERMINOLOGY

「XPERT NX」

■ RECURVE BOW TERMINOLOGY

「WINACT」



■ IMPORTANT RECURVE BOW INFORMATION

WIN&WIN High quality recurve limbs are available : **Kevlar Hybrid Foam Limbs, Honeycomb/Foam Limbs and Royal Cross Carbon / Wood Limbs.**
Each style is available in three lengths : **Long, Medium and Short.**

Actual bow length is determined by the combination of limb and riser type(length). The following chart shows the relationship between 25 inches Riser 「INNO CARBON」 「XPERT NX」 「WINACT」 and 23 inches Riser 「WINACT」.

WIN&WIN Recurve Bow	Long Limbs	Medium Limbs	Short Limbs
INNO CARBON, XPERT NX, WINACT, (25")	70"	68"	66"
WINACT (23")	68"	66"	64"

WIN&WIN high quality limbs are available in marked weigh from 28# to 48# in two pounds increment.(WINACT Limb : from 24 to 48#)
This marked weight is measured at 26 1/4(AMO Standard) inches of draw when the limbs are used with WIN & WIN 25" risers.
Shifting the same limbs to WINACT 23" riser will result in a weight increase of approximately two pounds.

1) WIN&WIN BOW

WIN&WIN Bows have a remarkable limb mounting and limb weight/tiller adjustment system. Internally, the butt end of each limb is engaged in a circular channel.
That channel is adjustable for weight control, limb balance(tiller) and limb/riser alignment.
The special dovetail limb guide bushing aligns and captures each limb to prevent it from disengaging from the riser should bowstring breakage occur.
A spring loaded detent button also holds the limbs in place while stringing.
To install each limb in its respective pocket, carefully enter the limb guide bushing in the dovetail groove and gently push the limb forward the limb butt seats into the channel at the back of the pocket.
Firmly push home the limb to engage the detent button.

① STRINGING

Special attention should be given to the proper procedure for stringing any recurve bow. The safest and only procedure recommended by WIN&WIN is a to use Bow Stringer. Preadjust the length of the Bow Stringer according to the manufacturers instructions.
Begin by placing the larger loop of the bowstring over the upper limb and slipping the bowstring's smaller loop in the string groove of the lower limb. Next, place the large cup of the bow stringer over the lower limb tip and the small cup over the upper limb top.

With the upper limb of the bow held the left, step(some prefer to use both feet) on the middle of the Bow Stringer with instep(back of bow up) and pull with the right hand on the bow grip. Flexing the bow sufficiently to easily slip the upper loop of the bowstring into the upper limb string groove. To unstring, reverse this procedure.

② BRACE HEIGHT

Brace height is the perpendicular distance from the bowstring to the pivot point of the handle.
This height is an important part of tuning. The following chart gives you the recommended brace height range for your WIN&WIN Bow.

Contrary to popular opinion, changing the brace height does not change bow weight. But changing brace height does drastically effect bow performance. For instance, each 1/2 inch change in brace height will effect velocity approximately 2 1/2 feet per second.
A higher brace height will decrease velocity. A lower brace height will increase velocity.
The reason for this is that stored energy and the length of the power stroke are both effected by brace height.

Optimum brace height is one that gives smooth bow action, good arrow flight, tight grouping and a quiet shot. Generally, slight variations of string height are not critical, but at the extremes, you may get erratic arrow flight and/or excessive string noise.

WIN&WIN Recurve Bow	Long Limbs	Medium Limbs	Short Limbs
INNO CARBON, XPERT NX, WINACT, (25")	22.5~24.5cm	21.5~23.5cm	20.5~23cm
WINACT(23")	21.5~23.5cm	20.5~23cm	20~22.5cm

2) LIMB ADJUSTMENT

Bow weight and limb tiller adjustments are accomplished with the all of WIN&WIN Bow by using the fork wrench and allen wrench or two allen wrenches provided with the bow. Preferably, these adjustments are made when the bow is strung.
but after the adjustment, it is better to lock when bow is unstrung as it would be made more firmly.
The limb Adjustment Channel is factory adjusted to minimum bow weight for 「INNO CARBON」 「XPERT NX」 and 「WINACT」.

① WEIGHT ADJUSTMENT

The 「WIN & WIN BOWS」 are weight adjustable in a range of approximately 5% above the weight indicated on the limbs.

As a fine tuning aid, sometimes changing bow weight to accommodate arrow spine is desirable-increasing weight for a stiff spine and decreasing of it for a weak spine.

Turning the Weight/Tiller adjustment Bolt clockwise will increase bow weight.

Turning the same bolt counter-clockwise will decrease bow weight.

Bow tiller should be checked after all bow weight changes. Some bow weight changes may necessitate tiller corrections.

② TILLER ADJUSTMENT

Strengthening or weakening one limb relative to the other is called tillering.

Turning the Weight/Tiller Adjustment Bolt clockwise on one limb will strengthen that limb and decrease the distance between the limb and the string.

Turning the Weight/Tiller Adjustment Bolt counter-clockwise will produce opposite results.

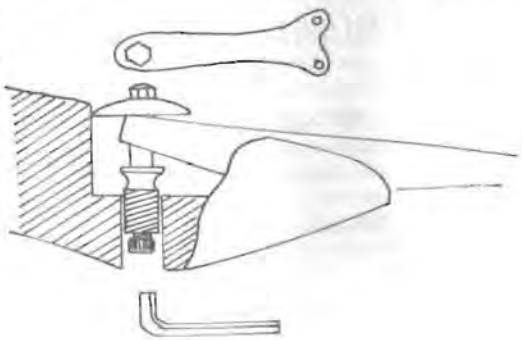
To adjust tiller on the riser without affecting bow weight, adjust each Weight/Tiller Adjustment Bolt an equal amount but in opposite directions.

When a tiller adjustment is made, shoot several ends, to stabilize the change and recheck the tiller. It is best to make tiller or weight adjustment with bow braced.

Normally, in the course of shooting, all bows will change tiller to some degree whether limbs are adjustable or non-adjustable. Some bows have been known to reverse tiller under extreme conditions. With very few exceptions, bow, that change tiller return to their normal tiller after resting in an unstrung condition for only a few hours.

Therefore, with any recurve bow, do not jump into making premature tiller adjustments as soon as a change in tiller is observed. After the bow has rested and is restrung, normal tiller will typically return.

However, there are times when limb balance(tiller) may need to be adjusted after some use of the bow has occurred. Should this be the case, make an initial tiller adjustment, then shoot several ends and recheck tiller.



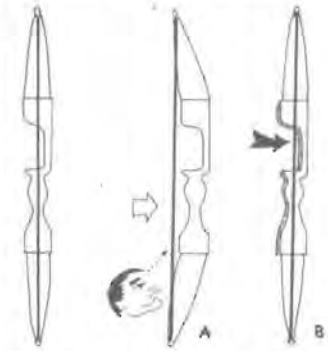
③ LIMB/RISER ALIGNMENT ADJUSTMENT

To ensure the proper and accurate alignment of the limb and the riser, you must first inspect the setting of the limb and the riser to make sure that the bowstring penetrates the center point of the upper and the lower limb.(during this inspection, you should also make sure that the bowstring goes through the center of the grip)

As shown in the diagram No. 1) you must mark the center of the limb on the upper and lower limb using a pen. Moreover, the string has to pass through the center of the upper/lower(the point marked with a pen) and the grip.

In oder to provide an archer with a customizable control the alignment, a limb/riser alignment system. As shown in the diagram No. 2) If the upper and lower limbs are tilted toward the left side, it might appear to be properly aligned when you try only to place the string on the also be tilted favoring the left. This will make the sight pin to favor the right side.

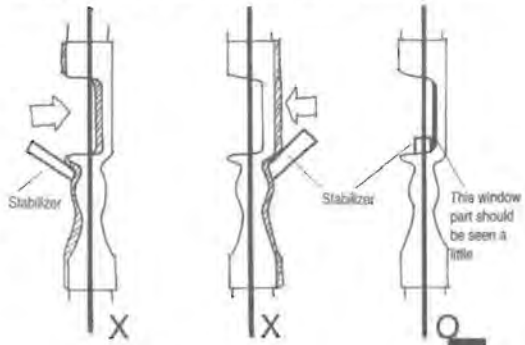
Thus, resulting an inaccurate arrow grouping. In order to prevent this, the riser has to be the focal point in setting and adjusting the limb/riser alignment system.



(No. 1) (No. 2)

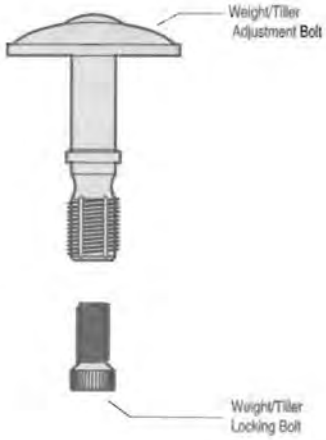
In order to prevent the improper setting and the alignment of the limb/riser, you should follow these steps.

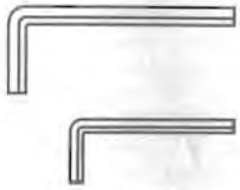
1) Stand where you can see the window part of a little and the opposite side should not be seen.
   At this time, it is the best if the stabilizer is located in the enter of the bow when you find the center of your bow. Most stabilizers, however, are not straight enough. So the window part is required to adjust the center of the bow.
2) While standing on that side, adjust the string and the center point of the limbs that these two points are properly and accurately aligned.
3) By following the previous two steps listed, you will be able to adjust the alignment of the limb and riser easily.



3) 'INNO CARBON, LIMB POCKET SYSTREM

The INNO CARBON limb pocket mechanism consists of the following parts.





- TILLER & WEIGHT

To adjust tiller and bow weight, first loosen the Weight/Tiller Locking Bolt with the Hex wrench(diagram 1-②). Use the Hex wrench to turn the weight/Tiller Adjustment Bolt clockwise to increase bow weight and vice-versa for decrease in bow weight(diagram 1- ①).
When the correct poundage is set, tighten the Locking Bolt and hold Adjustment Bolt with the Hex wrench(diagram 1-②).
At this time it is better to lock the Locking Bolt while the bow is unstring

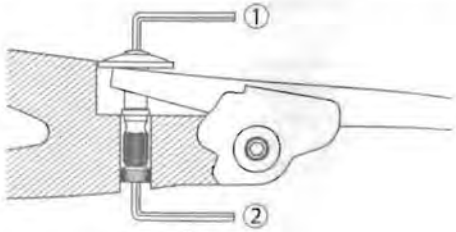


Diagram No.1

- LIMB/RISER ALIGNMENT

You can simply adjust the center-shot without unstringing the bow.
We also adopted the special washers so that it can be a loose-proof system.

▶ **When you want the limb to move to the right? (same as lower limb)**
1st Loosen no. ① bolt
2nd Lock down no. ② bolt until the limb is set on proper position
3rd Tighten no. ① bolt

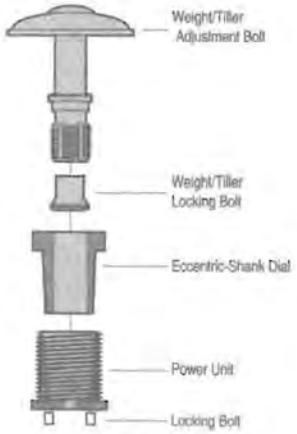
When you want the limb to turn to the left? (same as lower limb)
1st Loosen no. ② bolt
2nd Lock down no. ① bolt until the limb is set on proper position
3rd Tighten no. ② bolt

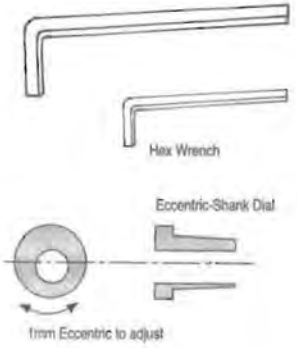
**** Don't forget to double-check the bolts fastened tightly!***

4) 'XPERT NX, LIMB POCKET SYSTEM

The micro tuning system developed by WIN&WIN Archery Co. allows the following adjustment to be made in fine tuning

The Limb pocket mechanism consists of the following parts:





- TILLER & WEIGHT

To adjust tiller and bow weight, first loosen the Weight/Tiller Locking Bolt with the Hex wrench(diagram 1-②). Use the Hex wrench to turn the weight/Tiller Adjustment Bolt clockwise to increase bow weight and vice-versa for decrease in bow weight(diagram 1- ①).
When the correct poundage is set, tighten the Locking Bolt and hold Adjustment Bolt with the Hex wrench(diagram 1-②). At this time it is better to lock the Locking Bolt while the bow is unstring

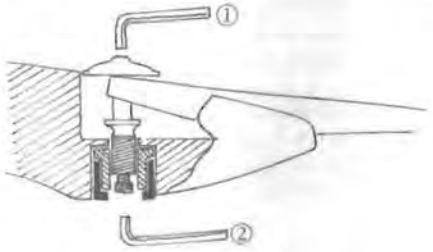


Diagram No. 1

- LIMB/RISER ALIGNMENT

To adjust limb/riser alignment, first, loosen the Locking bolt with Hex wrench a turn(diagram No. 2).
Turn the Eccentric-shank dial with Hex wrench for the correct limb/riser alignment.

As shown in the diagram No.3), put the Hex wrench into the Weight/Tiller Adjustment Bolt and turn it right and left side to adjust. Turn the Eccentric-shank dial clockwise to move the limb conuter-clockwise for accurate limb/riser alignment and vice-versa.(diagram No. 4).

Diagram No. 2

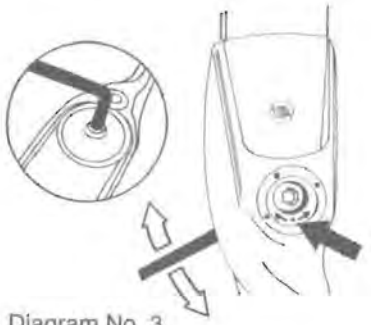


Diagram No. 3

Hold the dial imposition with the Hex wrench on the Weight/Tiller Adjustment Bolt while tightening the Locking bolt with the Hex wrench(diagram No. 5). At this time it is better to lock the Locking bolt while Hex wrench keep the Weight/Tiller Adjustment Bolt.

It is recommended that the limb/riser alignment should be done after locking the Weight/Tiller Locking Bolt.

Diagram No. 4

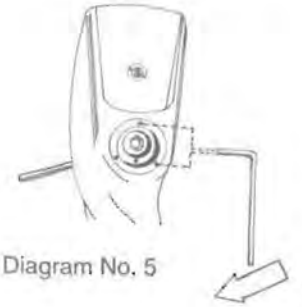
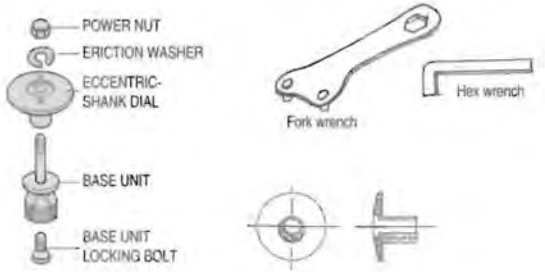


Diagram No. 5

5) 「WINACT」 LIMB POCKET SYSTEM

The micro tuning system developed by WIN&WIN Archery Co. allows the following adjustment to be made in fine tunning

The Limb pocket mechanism consists of the following parts:



- TILLER & WEIGHT

To adjust tiller and bow weight, first loosen the Base Unit Locking bolt with the hex wrench(diagram No. 1). Use the Fork wrench to turn the Eccentric-shank dial clockwise to increase bow weight and vice-versa for decrease in bow weight(diagram No. 2). When the correct poundage is set, tighten the Base Unit Locking bolt and hold the Eccentric-shank dial with the fork wrench(diagram No. 4). At this point, the eccentric is placed inaccurately, the limb/riser alignment should be adjusted again.

Diagram No. 1

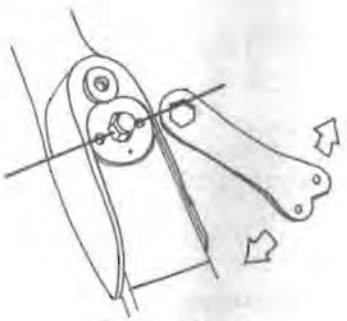


Diagram No. 2

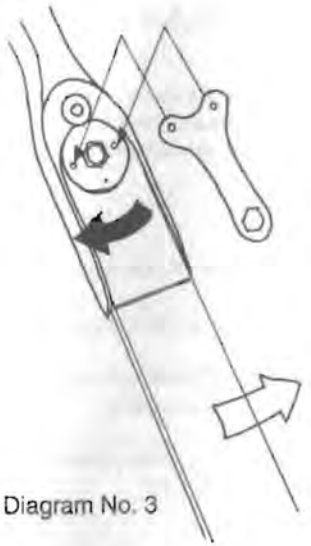


Diagram No. 3

Diagram No. 4

- LIMB/RISER ALIGNMENT

To adjust limb/riser alignment, first loosen the power nut half a turn(diagram No. 2). Turn the Eccentric-shank dial with fork wrench for the correct limb/riser alignment.

As shown in the diagram No.3), put the fork wrench into the dial holes and turn it right and left side to adjust. Turn the Eccentric-shank dial clockwise to move the limb conuter-clockwise for accurate limb/riser alignment and vice-versa.

Hold the dial imposition with the fork wrench while tightening the power nut with the wrench(diagram No. 4). At this time it is better to lock the power nut while the bow is unstrung.

It is recommended that the limb/riser alignment should be done after finishing the tiller and bow weight.

■ WIN&WIN RECURVE BOW WARRANTY

WIN&WIN recurve bows are backed by a solid 2 years limited warranty. For the first year from date of purchase, WIN&WIN recurve bows are fully warranted against factory defects in materials and workmanship. A copy of your retail sales receipt, establishing date of purchase, is required for all warranty service.

WARRANTY SERVICE

To obtain warranty service, you should return to the WIN&WIN Distributor where you purchased your WIN&WIN bow.
The distributor can help you determine if WIN&WIN factory service is required or if the repair can be completed by the distributor.
If the bow must be returned to the factory, the bow owner is responsible for the return postage to WIN&WIN, in return, will pay the postage for reshipping the repaired bow.

WIN&WIN recurve bows requiring WIN&WIN factory warranty service should be sent to
820-9, Donghang-Ri, Yangsung-Myun, Ansung-Shi, Kyungki-Do, Korea
Post Code : 456-931
TEL. +82-31-671-0898 / FAX. +82-31-671-0897

Before any bow is returned to the WIN&WIN factory for warranty service, WIN&WIN return confirmation must be made by WIN&WIN.

Any bow returned to the WIN&WIN factory for warranty service :
1. must be sent postage paid
2. must include a copy of the dated sales receipt
3. must include a short note explaining the nature of the problem

WIN&WIN ARCHERY CO.
RECURVE BOW MANUAL

BOW OWNER'S PERSONAL RECORD

WIN&WIN RECURVE BOW MODEL :	
LIMB TYPE AND LENGTH :	WEIGHT : #
PURCHASED FROM :	
PURCHASED DATE :	

MEMO