

2005 Type ZH User's Manual



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2005 Type ZH User's Manual

1. Type ZH Concept

RRD is proud to release the most advanced and highest performance 7 strut freeride/jumping kite on the market today. If going big and staying up there is what you want, then the Type ZH is the kite for you! New features include a reduced diameter leading edge and strut design that provide a more rigid shape and up to a 15% reduction in weight offering performance benefits that will increase your kiting pleasure!

By incorporating 5th line technology into the all new Type ZH bar and kite, RRD has increased stability, improved upwind performance and maximized lift for big jumps and extended hang time! The 5th line, offers maximum tune-ability, increased safety, and easier water-relaunchability not previously available in other 4 line kites. Continuing with RRD's patented Power Zip Control System, the Type ZH offers power and performance options that allow for maximum range and the ability to tune your kite to your preference and the present wind conditions.

If you have dreamed of owning a kite that will go upwind like never before, jump higher, fly longer, be safer, relaunch easier and give you greater range, then welcome aboard the RRD Type ZH Concept. Enjoy the flight!

2. Release of Liability, Claim Waiver and Assumption of Risk Agreement

By assembling and/or using this RRD Product, you agree that you have read and understood the entire RRD Type ZH User's Manual, including all instructions and warnings contained in that Manual, prior to using the RRD Product in anyway. You additionally agree that you will ensure any additional or subsequent user of your RRD Product will read and understand the entire RRD Kiteboarding User's Manual, including all instructions and warnings contained in that Manual, prior to allowing that person to use your RRD Kiteboarding Product. If you are unwilling to be bound by such terms, return this product (before use) for a full refund.

ASSUMPTION OF RISK: Use of the RRD Product and any of its components involve certain inherent risks, dangers, and hazards, which can result in serious personal injury and death to both the user and to nonuser third parties. In using the RRD Product, you freely agree to assume and accept any and all known and unknown risks of injury to you and to third parties while using this equipment. The risks inherent in this sport can be greatly reduced by abiding by the warning guidelines listed in this owner manual and by using common sense.

RELEASE AND WAIVER OF CLAIMS:

In consideration of the sale of the RRD product to you, you hereby agree to the fullest extent permitted by law, as follows:

TO WAIVE ANY AND ALL CLAIMS that you have or may in the future have against RRD and all related parties resulting from use of the RRD Product and any of its components.

TO RELEASE RRD and all related parties from any and all liability for any loss, damage, injury or expense that you or any users of your RRD Product may suffer, or that your next of kin may suffer, as a result of the use of the RRD Product, due to any cause whatsoever, including negligence or breach of contract on the part of RRD and all related parties in the design or manufacture of the RRD Product and any of its components. In the event of your death or incapacity, all provisions contained herein shall be effective and binding upon your heirs, next of kin, executors, administrators, assigns, and representatives. RRD-related parties have not made and expressly deny any oral or written representations other than what is set forth herein and the RRD Product User's Manual.

3. Type ZH Bar Features

RRD realizes that everybody has their own personal preferences with bar set-up and safety system. The Type ZH bar offers you out of the bag ready to fly simplicity and safety of a 5-line bar with customization options that make it easy to set-up and tune exactly the way that you want it.

Type ZH Bar Features:

- Reduced Diameter Type ZH 5-line bar
- Quick Release Sheeting Loop
- Removable Sheeting Loop Shackle
- Front Line Power Adjuster Strap
- Spin-able 5th Line Safety Leash
- Quick Grab Depower Loop
- EVA Bar-End Floats
- Handle Pass Leash O-ring on Sheeting Loop
- Adjustable and Releasable 5th line
- 25m Flying Line Set

4. Type ZH Bar Options and Setup

Depending on your skill level and personal preference, you can choose to set up your TZH 5-line bar in 4 different configurations:

Rear Line Safety System Setup

This setup is intended for riders who do not prefer to be shackled in or who are still letting go of their bar and wish for their kite to depower off a rear line as opposed to the 5th line. To configure the bar with this setup leave the TZH Bar as it is setup out of the bag and follow steps 1-4:

1. Fix the black webbing O-ring harness attachment to a secure place on your harness (FIG 4.1).
2. Feed the safety leash through the O-ring of the RED grab loop handle on the LEFT side of the bar (FIG 4.2). Feed the leash back through the sewn loop in the end of the leash (FIG 4.3) and cinch down tight (FIG 4.4).



Fig 4.1



Fig 4.2



Fig 4.3



Fig 4.4

3. Before launching the kite, securely fix the Velcro end of the leash through the O-ring that you attached to your harness in Step 1.

4. To activate the system, unhook from the bar and let go. The bar slides up the steering line and depowers the kite.

IMPORTANT: In the event that the kite lines become tangled and the kite does not depower, pull the red release tab sewn onto the Velcro sleeve on the leash to completely disconnect yourself from the kite.

5th Line Tuning Setup

With the 5th Line Tuning Setup, you can tune the 5th line while on the water and completely release it in the event that the kite inverts causing the 5th line to wrap around the kite and inhibit relaunch. The TZH bar comes already set up for on-the-fly adjustments to the 5th line through the use of an adjustable knot cleat located on the sheeting strap. If the wind suddenly increases and becomes overpowering, pull down on the O-ring connected to the grey spectra line to the desired level of depower (FIG 4.5), cleat the knot in the triangular cleat (FIG 4.6) and ride safely back to the beach.



Fig 4.5



Fig 4.6



Fig 4.7

In the event that your 5th line has become entangled and you need to release your 5th line, pull down on the O-ring connected to the 5th line, turn the O-ring sideways and force it through the triangular cleat (FIG 4.7).

To release tension on the 5th line, grab the O-ring and pull down slightly while pushing forward and allowing the line to be pulled back to the O-ring.

NOTE: The O-ring is secured to the cleat with a small piece of Velcro. When pulling down to tune the 5th line, it is important to pull down hard to release the Velcro or to undo it manually before making the adjustment.

TIP: Attach a pull tab to the O-ring on the tuning cleat to make it easier to grab. Make sure that the pull tab is small enough to fit through the triangle cleat in the event that you need to completely release the 5th line.

5th Line Safety System Setup

The 5th Line Safety System Setup allows you to have the security of an emergency 5th line safety system with the convenience of a spin-able leash that allows the rider to do trick after trick and not have to worry about a tangled leash! With the TZH Bar, you can choose to configure and customize the 5th Line safety system to your own personal preference.

NOTE: Out of the bag, the TZH bar is set up and ready to connect to your kite with the tunable 5th line for on-the-fly adjustments to the 5th line. This configuration is explained in the previous 5th Line Tuning Setup Section.

To setup the TZH bar with all the benefits of the 5-line security system and the spin-able leash, you will need to do the following steps:

1. Unwind your lines from your bar and lay them out as if you were going to connect your kite to your bar (see section 5) and lay out the red and white safety leash that is included in your TZH Bag (FIG 4.8).



Fig 4.8



Fig 4.9



Fig 4.10

2. Open the velcro (FIG 4.9). Pass the velcro through the metal ring. Close the velcro (FIG: 4.10).

3. Pass the leash through the center hole in the bar .(FIG 4.11)

4. Measure 70 cms above the webbing and make a mark on the 5th line with a magic marker at 70 cms. (FIG 4.12).

5. Disconnect the 5th line from the gray spectra line (FIG 4.13). Pass the 5th line into the leash end as showed (FIG 4.14). Lock the leash at the mark. Connect the 5th line (FIG 4.15).



6. Your 5th line safety system is now installed and ready to be customized.

5th Line Safety System Customization Options

Depending of your riding style and ability level, you are able to customize your TZH Bar System to suit your changing needs. The following section is intended to give you ideas and guidelines beginning with the most basic- for early intermediate riders, progressing to more advanced customization options for riders with higher skill levels.

· Using the Webbing Harness O-ring Attachment (FIG 4.16)- Attach the O-ring webbing loop that comes connected to your safety leash to the middle of your spreader bar or off to the side by passing the O-ring through the webbing (FIG 4.17). Pass the red pull handle end of the leash through the O-ring and securely fasten (FIG 4.18).



IMPORTANT: Before attaching the Velcro on the leash to any of the attachment options, check to make sure that the Velcro is clean and fastened securely and completely.

TIP: After releasing and recovering the bar, always make sure that the Velcro on the leash is securely fastened and red pull tab on the leash is seated properly through the O-ring on the Releasable Sheeting Loop.

· (E5LSS) Emergency 5th Line Safety System Setup (FIG 4.19) - This is to be used in conjunction with the Removable Sheeting Loop Shackle and will depower the kite by the 5th line only by pulling the Releasable Sheeting Loop quick release (FIG 4.20). This is to be used in emergency situations only, as it is difficult to reassemble the sheeting loop on the water. You will need to cut the black webbing sewn to the webbing harness O-ring and fix the O-ring to the end of the Velcro end of the safety harness so that it is seated securely against the O-ring sewn into the Removable Sheeting Loop.



· Handle Pass Leash to E5LSS (FIG 4.21) - Use an ancillary leash to connect to the O-ring connected to the leash as explained in the Emergency 5th Line Safety System setup above.



IMPORTANT: Regardless of how you have your bar configured, it is always best to test your safety system in a clear and safe area to ensure that it is functioning properly and the kite depowers to your preferred level. Always check your connections and be prepared to disconnect yourself from the kite/bar in case of system failure.

5. Bar Accessories and Maintenance

Quick Release Sheeting Loop Reassembly

1. Position the sheeting line coming through the so that the pin sleeve is facing up and push the spectra loop through the D-ring on the Sheeting Loop (FIG 5.1).



2. Pull back the pin by the red grab handle; slide the pin through the spectra loop, over the D-ring and into the nylon sleeve (FIG 5.2).

3. Push the pin all the way into the nylon sleeve and secure the red grab handle in place with the Velcro (FIG 5.3).



4. Pull the neoprene cover back over the assembly (FIG 5.4).

Removable Sheeting Loop Shackle

The Removable Sheeting Loop Shackle is designed to be easily attached or removed from the harness hook depending on the preference of the rider. If you prefer to use it, simply attach it securely to the middle of the spreader bar hook so that the red ball and RRD logo are facing up (FIG 5.5). To attach to the sheeting loop, hook into the sheeting loop and position the end of the plastic tube underneath the sheeting loop, but on top of the spreader bar hook (FIG 5.6). To release the shackle, pull the red ball all the way back towards your body so that the plastic tube is clear of the spreader bar and you can unhook from the bar (FIG 5.7).



Quick Grab Depower Loop

The Quick Grab Depower Loop is intended for use in situations where the pilot needs to self-land the kite. It can be used as an option to quickly de-power the kite when not connected by a leash to the bar, as well as a leash connection point for a beginner safety system.

NOTE: To self-land the kite, simply hold on to the Quick Grab Depower Loop as you release the bar until the kite depowers. Make sure that you have a firm grasp on the loop!

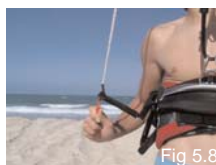
IMPORTANT: In order for the Quick Grab De-power Loop to function, the rider must not be connected to the kite in any way!

Front Line Power Adjuster Strap

The length of the front lines and the power of the kite can be tuned on the fly using the Front Line Power Adjuster Strap. Pull down on the orange grab handle to shorten the length of the front lines and reduce the power of the kite or pull down on the black grab handle to lengthen the front lines and increase the power of the kite.

Safety Leash

In the event that you need to disconnect from the safety leash, grab the RED Velcro pull tab where it is connected to your harness and pull firmly to release the leash (FIG 5.8).



6. Connecting the Bar to the Kite

The Type ZH Bar comes in 3 sizes, Small, Medium and Large. The small size is designed for use on the size 8 and 10, the medium is designed for use on the 13 and 16 and the large is for use on the 20 and 24M. Your bar will come with all of the lines already connected. Follow the instructions on connecting the TZH bar to the kite and you are ready to fly!

Fool Proof Connection System

RRD has integrated a Fool Proof Connection System into the Type ZH Bars and kites to minimize the risk of mixing up the front and the back lines when connecting the bar to the kite. The system uses knots on the front line connection points of the kite and lark's head loops on the trailing edge connection points of the kite. Follow the color-coded loop to knot and knot to loop connections of this system and it is virtually impossible to connect your lines wrong. If you aren't using RRD lines or are using the Type ZH Bar on another kite you may need to turn around the trailing edge connection pigtails on the kite. By doing this, you will disable the Fool Proof Connection System and increase the possibility of error.

Kite Connection

To connect your bar to your kite, read the following important notes and then follow steps 1-7 carefully.

IMPORTANT: If you are unfamiliar with setting-up a 4 line kite, you should not be using the Type ZH 5-Line System. RRD recommends that you take a lesson from a certified instructor!

The easiest way to connect your kite to your bar is with the bar positioned UPWIND of the kite. This minimizes the chance for error when connecting the 5th line to the leading edge of the kite.

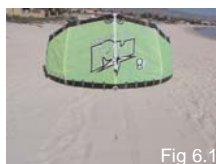
NOTE: The RIGHT wingtip side of the kite has GREY Spectra connection points.

1. Unroll your kite lines from the bar and lay your bar down parallel to the wind direction with the RED Quick Grab Depower Loop on the LEFT. Beginning at the bar, walk down the lines and remove any twists starting with your outside lines.

TIP: Lay the lines out wide enough with so that you can fit your other lines between the 2 outside lines.

2. Now, walk and remove any twists between the 5th line and the spectra line that connects to the front lines. Remove all twists in the lines and lay the front lines down with the 5th line over top of the V of the front lines

3. Position and secure the inflated kite over top of the ends of the flying lines furthest from your control bar (FIG 6.1). Secure the kite by weighting it down with sand or something soft and heavy. Make sure the leading edge is down and facing into the wind



TIP: Make sure that the 5th Line leader line coming off the Leading Edge of the kite is untangled and passed under the leading edge of the kite towards the control bar.

4. Connect the RED knot on the RED outside line to the Fool Proof Connection RED lark's head loop on the trailing edge of the kite. Do the same to the other side and attach the GREEN knot on the outside line to the Fool Proof Connection GREEN lark's head loop on the trailing edge of the kite.

5. Pass the front line BLACK lark's head loop UNDERNEATH the RED outside line to the leading edge Fool Proof Connection knot on the leading edge wingtip of the kite. Repeat with the other line on the other wingtip of the kite.

Note: Make sure that the leading edge lines are connected UNDERNEATH the outside lines. (Refer to DIAGAM 6.2)

6. From the bar, walk the 5th line coming from the Front Line Sheeting Strap and make sure that you pass it OVER TOP of the V split of the center lines. Make sure that the sheeting line and the 5th line are not twisted before connecting!

7. Connect the WHITE 5th line knot end to the KNOT on the 5th line coming from the leading edge. Make sure that all connections are secure by pulling firmly on each of them to double check.

IMPORTANT: Before you launch your kite, have someone hold the kite as you put tension on the lines to make sure that everything is correct and corresponds with Diagram 6.2

NOTE: Always use the TZH Bar system with the RED sheeting loop release handle facing you in case that you need to release from the Sheeting Loop and activate your safety system. Your kite is now ready to fly!

7. Type ZH Kite

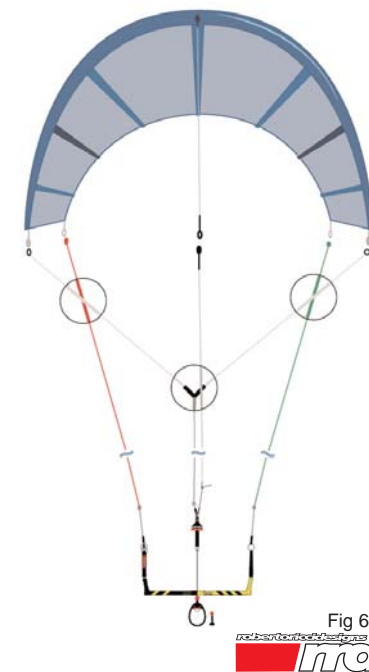
The Type ZH Kites are designed specifically for jumping and free-riding. This new generation of Type Z kites offers performance advantages never before offered in a high-aspect ratio kite that makes it the perfect choice for the intermediate to advanced rider looking to experience the most user-friendly and highest performance kite on the market.

Type ZH Features:

1. 7 Struts for Total Stability
2. Higher Aspect Ratios for Performance and Hang-time
3. Reduced Diameter L.E. for improve Upwind
4. Self-Rescue Wingtip Handles
5. Pump Leash Connection
6. 5th Line Reinforced LE Attachment Point
7. 5th line Storage Pocket for Easy 5th line Management
8. Zipping Power Zip System for Maximum Tuning ability
9. Multiple Speed and Power Settings

TZH Kite Specifications

SIZE	AR	ZIPS	STRUTS	LINE LENGTH	WIND RANGE
08M	6.2	1	7	25M	20-40 knots*
10M	6.1	1	7	25M	18-35 knots
13M	6.0	3	7	25M	14-28 knots*
16M	5.9	3	7	25M	12-22 knots*
20M	5.7	3	7	25M	09-18 knots*
24M	5.5	3	7	25M	06-15 knots*



Type ZH POWER ZIP System

RRD's patented Zipping Power Control System is integrated into all of the Type ZH Kites. By adding more or less tension to the leech of the kite through the use of tough marine grade zip-pers, the simple system allows you to change the power and handling characteristics of the kite.

-Close The Zipper for More Power. Pull the zipper carriage from the neoprene sleeve all the way down to the leach of the kite. With the zipper closed all the way, the kite has more low-end power. Use this setting when the wind is light for the selected kite size or when you are underpowered.

-Open the Zipper for Less Power. Open the zipper all the way and seat the carriage in the neoprene sleeve. With the zipper open all the way, the kite will have less power. Use this setting when the wind is strong for the selected kite size or when you are overpowered.

NOTE: All RRD Type ZH kites have 1 or 3 zippers and offer the user the flexibility to experiment different zipper configurations. With the basic principles outlined in this section, you can try different configurations and decide for yourself which one works the best for you in the given conditions.

TIP: When experimenting with different Zipping Power configurations, it is important to maintain symmetry. For example, your kite has 3 zippers, always make sure the two side zippers are both zipped or both unzipped.

Zipper Care and Tuning Tips

-Before using the Zipping Power Control System, always make sure that the zippers are free of sand and other debris.

-RRD uses marine grade plastic zippers that will not rust. However, it is a good idea to rinse them with fresh water to clear any sand and salt from the zipper before storing for any length of time.

-If the leach of the kite is fluttering at all, the zipper is not closed all the way and the kite should be landed and the zipper closed or opened completely.

8. Relaunching With the Type ZH 5th Line System

When You Crash The Kite:

The Type ZH Bar System allows you to relaunch without swimming, regardless of how you have your bar setup.

1. When the kite is down in the water on its leading edge, simply pull on the 5th line allowing the kite to roll on its back.
2. Before the kite gets completely on its back, pull on one side of the bar and slowly begin to let out the 5th line.
3. As you sheet in and release tension on the 5th line, the kite will want to power-up and relaunch. The further downwind that the kite is to you, the more tension you will want on the 5th line until the kite swims to the side of the wind window and relaunches.

When You Let Go Of The Bar:

1. Pull the bar to yourself making sure to keep the extra line downwind of you so that it does not become tangled on you or the bar.
2. Make sure that the RED side of the bar is in your LEFT hand and begin to feed the 5th line and leash back through the hole in the bar.
3. Watch the kite as you feed the line through the bar and the kite begins to take shape.
4. When all the slack in the 5th line has pulled through, begin the relaunch procedure.

TIPS: If the kite sits with its leading edge down on the water and the wingtips in the air, pull hard on the 5th line and try to get the kite air-born. When the kite is air-born, let go of the 5th line and tension one side of the bar. If it doesn't work the first time, stop, repeat the procedure and try again. This will often expedite relaunching of the kite when it seems to want to just lie on its back.

-You may need to kick yourself upwind to maintain tension in the lines and to eliminate any excess slack line in the water.

-During relaunching, be careful that all the lines are coming off the bar cleanly and no lines are wrapped around you or the bar!

-When feeding the 5th line back through the center hole in the bar, it is sometimes easiest to pull the 5th line from above the top of the bar. You may also need to pull the sheeting loop down in the event that the 5th line cannot freely pass through the center of the bar.

9. Tuning, Tips and Precautions

The following section contains very important and should be read carefully!

-The TZH Bar is designed to be used with the Type ZH kites and the lines should be optimally tuned out of the bag, however wind conditions can change rapidly and lines can stretch, and any adjustments that you make to your bar and lines can change the performance and safety system operation of the kite. Always make sure that your safety system setup is configured properly and operates as intended, before using in an emergency situation.

-Any change in the length of the sheeting loop line will effect the amount of depower in the kite. By shortening the distance between the Releasable Sheeting Loop and the Front Line Power Adjuster, you may need to compensate by adding knots to the grey spectra leader lines on the center and outside lines.

-If uncertain with your safety system function and operation, it is best to consult a certified instructor to help configure your bar.

-When doing spins the lines of the kite will become twisted. Simply spin the bar back the other way and then sheet in and out a few times and the 5th line will spin free. The safety system could be rendered ineffective by twisted lines. It is best to always check your 5th line to be sure that it is not bound in any way. If you feel that it is, you should return to the beach immediately and reset your lines.

-Your TZH bar comes with pre-measured knots in the spectra leaders that connect to your flying lines. After customizing your bar to your preferred setup, you may find it necessary to add more knots to properly tune your kite. Always use a figure-eight knot instead of an over-hand knot.

-Each time before using the TZh Bar make sure that the releasable sheeting loop is connected properly and the release pin is completely inserted into the sleeve.

-Always use the TZh Bar with the RED release handle on the sheeting loop facing towards you!

-When using the TZh Bar on any other kite, it is crucial that the 5th line system be tuned properly with the with a 5th line extension. There should be minimal tension on the 5th line when the kite is fully powered.

-Always use figure-eight knots and a lark's head to knot connection.

-Lines occasionally stretch and you may need to periodically make adjustments to your knots. With the bar pulled all the way down, the 5th line should be slightly slack but slightly tensioned when under load.

-Do not completely let go of the bar with the kite overhead on land to land the kite. In this case, it is best to use the Quick Grab Depower Loop instead of the 5th line safety system.

-The TZh Kites are performance kites and small adjustments can make a big difference in the performance characteristics of the kite. For example, too much rear line tension, or over-sheeting your kite during a jump will kill the lift and hang time of your kite.

-Pack the 5th line leader in the neoprene storage pouch located on the inside of the leading edge of your kite to minimize tangles.

10. Warranty

RRD International warrants this product to be free of major defects in material or workmanship to the original purchaser, for a period of six (6) months from the date of purchase. This warranty is subject to the following limitations: The warranty is valid only when the warranty card is properly filled out and returned to RRD International within seven (7) days from the date of purchase. The warranty is valid only when the product is used for KITEBOARDING ON WATER, and does not cover products used in rental or teaching operations. RRD International will make the final warranty determination, which may require inspection and/or photos of the equipment, which clearly show the defect(s). If necessary, this information must be sent to the RRD International distributor in your country, postage prepaid. Products can be returned only if a return authorization number (RA) is given by the RRD International Distributor in advance. The RA number must be clearly labeled on the outside of the package, or will be refused. If a product is deemed to be defective by RRD International, the warranty covers the repair or replacement of the defective product only. RRD International will not be responsible for any costs, losses, or damages incurred as a result of loss of use of this product. This warranty does not cover damage caused by misuse, abuse, neglect or normal wear and tear including, but not limited to, punctures, rigging with other than RRD International components, damage due to excessive sun exposure, or damage due to over inflation of the bladders, damage caused by improper handling and storage, damage caused by use in waves or shore break, and damage caused by anything other than defects in material and workmanship. This warranty is voided if any unauthorized repair, change or modification has been made to any part of the equipment. The warranty for any repaired or replaced equipment is good from the date of original purchase only. The original purchase receipt must accompany all warranty claims. The name of the retailer and date of purchase must be clear and legible. There are no warranties, which extend beyond the warranty specified herein.

Warranty Claims

Warranty claims must be processed and be issued a return authorization prior to shipping to RRD International. Please call or write for claims processing to the national RRD International distributor.



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