KAIDAN

QuickPan®
Panoramic Tripod Head

User's Guide - V1.2 - 12 Jan 2005

QuickPan III / IV Panoramic Tripod Head Overview

Welcome to the Kaidan QuickPan III / IV and Panoramic Photography

Thank you for purchasing a Kaidan QuickPan III / IV Panoramic Tripod Head. This manual is designed to help you understand how to use your QuickPan III / IV to create quality panoramas. This document will be revised from time to time and updated versions can be downloaded from the QuickPan III / IV page on the Kaidan web site.

QuickPan III / IV Overview

The QuickPan III / IV family is built around a sturdy and precise Rotator Base with interchangable indexing ClickDiscs (or rings QP-III). There are several camera brackets that slide and lock onto the Rotator Base. The QuickPan IV rotator design supersedes the QuickPan III rotator and uses a new flat detent disc design.

A panoramic tripod head makes it easy to capture a sequence of photos that are stitched to form a complete panoramic image. It holds the camera in the portrait orientation, positions the camera so that it rotates around the optical center or nodal point of the lens and provides a repeatable and adjustable click-stop indexing mechanism.

QuickPan IV Rotator with Optional Twin-Axis Adapter and Compact Camera Bracket

The QuickPan III / IV Family

Introducing the QuickPan III / IV Components

Rotator Base (QuickPan L, III & IV)

This heavy-duty design is lighter and more compact than previous models and the competition. The QuickPan bases employ interchangeable indexing ClickDiscs or rings that support various click-stop positions. These can be easily swapped at any time and contribute to the light weight. The indexing mechanism requires no lubrication or adjustments and has no loose parts. The base contains an integral circular bubble level and accommodates either 1/4" or 3/8" tripod threads. The latest QuickPan IV Rotator Base (Aug 04) will also accept older Kaidan camera brackets (i.e. KiWi+, QuickPan).

Twin-Axis Adapter

The Twin-Axis Adapter is designed to support most digital and film cameras that are equipped with fisheye lenses, or will appeal to those users who desire two independent axes of adjustment. It can be used with either the Standard Camera Bracket or with the Compact Camera Bracket. The two axes of adjustment positions the lens in such a manner so as not to capture any more of the Rotator Base than necessary. When a camera equipped with a circular fisheye lens is installed on the bracket, only a small segment of the Rotator Base will appear in the image. This feature makes the Twin-Axis Adapter ideal for those using iPIX software, Panoweaver and other software applications that use circular fisheye images. Both camera brackets support optional Quick Release Camera Plates.

Standard Camera Bracket

The Standard Camera Bracket is designed to support most digital and film cameras in a portrait orientation. Used primarily to shoot single-row cylindrical panoramas it is adjusted along the horizontal arm to locate the camera in the side-to-side orientation. There are three slots in the bracket, that when used with various positioning aids, provide the fore-aft adjustment of the camera's nodal point, over the rotational center of the tripod head. Earlier models used an aluminum bracket while recent models use a high-strength composite material (inset). A Quick Release Plate is optional.

Spherical Camera Bracket

The Spherical Camera Bracket is designed to support most digital and film cameras and to permit the angular up/down elevation for the capture of multirow spherical and QuickTime® VR Cubic panoramas. This bracket is ideal for those software applications that stitch multiple rows of images, including up/down "cap" shots such as REALVIZ Stitcher. The Spherical Camera Bracket can also be positioned at a level zero degrees, thus fulfilling the same functions as the Standard Camera Bracket. You can also use the Spherical Camera Bracket for shooting single-row cylinders as well. An optional Arca-Quick Release Camera Plate is also available.

QuickPan III Rotator Base

How to install and remove the indexing rings and adjusting the indexing force

Installing Indexing Rings

1) Slide the Indexing Ring onto the Rotator Base from the bottom, keeping the portion of the Indexing Ring with the degree label facing up until it makes contact with the brass plunger. The brass plunger will eventually snap into the hole that is in the side of the Indexing Ring.

2) Rotate the Indexing Ring to line up the notch on the top of the Indexing Ring with the black slanted alignment pin at the top of the Rotator Base. The pin will eventually go into the notch.

3) Depress the brass plunger and push up on the Indexing Ring until the brass plunger pops into the plunger hole and the pin slides into the notch.

Removing Indexing Rings

On the lower portion of the black Indexing Ring, there is gold colored pin visible through the hole in the side. Insert the tip of a ball point pen or a paper clip end into the hole and push the gold pin inward till the Indexing Ring drops down, then slide the Indexing Ring off the Rotator Base.

Adjusting the Force of the Spring Plunger

The screw, shown at left, can be used to position the spring plunger up and down. You can use a screwdriver (or a coin) to adjust the indexing or click-stop force. The spring plunger is set from the factory, but you may find that you prefer a harder click-stop action.

Be sure to not overtighten the plunger so that the metal body of the plunger would come in contact with the indexing ring. Also be sure that the plunger is not set deep enough as this will cause excessive play in the indexing action.

QuickPan IV Rotator Base

How to install and remove the indexing discs and adjusting the indexing force

Installing Detent Discs

1) To install or change the Detent Discs simply loosen the silver thumbscrew on the side of the black Rotator Hub by turning it in a counter clockwise direction. Do not remove the screw, just turn several times. You do not need to remove the head from the tripod.

2) Once the thumbscrew is loosened, pull the Horizontal Bracket Assembly upward out of the Rotator Hub. You may need to wiggle it a bit as you lift it out of the hub.

3) Once the Horizontal Bracket Assembly is removed, the Detent Disc can be changed by grabbing the protruding tab on the detent ring and pulling it up out of the Rotator Housing.

Silver Thumbscrew

Note: The QuickPan IV rotator uses a stainless steel ball plunger that is different from the plastic nosed plunger on the QuickPan III. Be sure to use only the stainless steel ball plungers (available from Kaidan) on the QuickPan IV rotators.

4) The new Detent Disc is installed by pushing it into the recessed area in the top of the Rotator Hub as shown at left.

5) Replace the Horizontal Bracket Assembly into the Rotator Hub. Push the assembly down into the hub to fully engage and collapse the plunger, then tighten the thumbscrew.

Adjusting the Force of the Spring Plunger

The screw, shown at left, can be used to position the spring plunger up and down. You can use a screwdriver (or a thin coin) to adjust the indexing or click-stop force. The spring plunger is set from the factory, but you may find that you prefer a harder click-stop action.

Be sure to not overtighten the plunger so that the metal body of the plunger would come in contact with the indexing ring. Also be sure that the plunger is not set deep enough as this will cause excessive play in the indexing action.

QuickPan III / IV Rotator Base

Tripod threaded bushing adapter

The QuickPan III / IV Rotator Bases comes with a tripod adapter bushing which accommodates both 1/4 inch and 3/8 inch tripod mounts.

1/4 inch Tripod

If your tripod has a 1/4 inch threaded mount, leave the brass bushing in the center hole in the bottom of the rotator as shown at right.

3/8 inch Tripod

If your tripod has 3/8 inch threaded mount, remove the brass bushing by unscrewing it in a counterclockwise direction and screwing it into the adjacent hole in a clockwise direction using a coin (or large screwdriver) as shown at right.

Use the spare outer hole to store the brass bushing when you're using the 3/8 inch thread. That way, you won't lose the bushing!

Standard Camera Bracket - Camera Mounting

Mounting your camera on the Standard Camera Bracket

To mount your camera, first select the appropriate slot in the Vertical Camera Bracket that will best locate the tripod mounting thread on your camera. You may need to reposition the Captive Camera Knob. To remove the knob simply slide it along the slot to the end that has the threaded hole. Carefully unscrew the knob out of the threaded hole, being careful not to crossthread the knob. Replace the knob into the appropriate slot by reversing the procedure.

Note: Whatever side of the Vertical Bracket you mount your camera on always keep the offset portion of the Vertical Bracket towards the rear of the camera.

The camera knob is a two piece knob, with a inner and outer knob. Before installing the camera knob in the Vertical Bracket, turn the inner knob clockwise into the outer knob until it won't turn anymore. Next, install the knob into the appropriate slot then into the tripod mounting hole of your camera.

Standard Camera Bracket Aluminum Design (up to 2004)

Standard Camera Bracket High-Strength Composite Design (starting in 2005)

Turn the inner knob into the camera until it bottoms out, then turn the outer knob clockwise until the camera is tight on the Vertical Bracket. Don't worry about getting the camera level at this time, as this is a task you'll need to do when you're ready to shoot.

The left-right adjustment to center your lens over the pivot point is accomplished by loosening the purple knob and sliding the bracket. Be sure to tighten the knob to lock the bracket in place.

The fore-aft adjustment is made by loosening the camera knob and sliding the camera along the slot. There are camera adjustment shoes and lugs to locate your camera on the bracket and to help position the camera along the slot. These devices will also make it easy to remove and replace your camera when you use it for other tasks.

Spherical Camera Bracket - Camera Mounting

Mounting your camera on the Spherical Bracket

The Spherical Camera Mounting Bracket has a rotating swing arm which is held into position by large black locking knob. The knob allows you to position the arm and your camera from plus 90 degrees to minus 90 degrees .

Mounted on the swing arm is an adjustable camera mount. This mount can be adjusted along the length of the swing arm by loosening and tightening the purple clamping knob. To remove the camera mount, simply loosen the knob and slide the mount off of the swing arm. There is a spring-loaded plastic ball which provides drag on the camera mount as well as the camera bracket. When you replace the mount or the camera bracket onto their respective arms, you'll need to push it sharply so as to overcome the spring force.

The standard camera mount (shown) has a number of slots for you to choose from to mount your camera. It's important to make sure that the centerline of your camera's lens intersects the pivot axis of the swing arm. Since some cameras have tripod mounting threads that are not inline with the center of the camera, it may be necessary to use one of the various slots on the bracket.

There are camera mounting shoes (flat shaped) and lugs (triangle shaped) that are provided for you to help locate and position the camera. These are also helpful when you want to remove and replace the camera and return it to the proper location.

An optional camera mount is also available with a quick-release mount. In this case you would attach the a plate (Arca-Swiss) to your camera and this plate would then dovetail into a mating plate on the optional camera mount.

Adjusting the camera position for the nodal point is made by loosening the appropriate locking knobs and sliding either the camera mount plate along the swing arm, or sliding the entire assemblage along the arm of the Rotator Base. Be sure to tighten the knobs when you're done positioning the camera.

Camera Mounting - Standard Camera Bracket

Mounting your camera on the camera brackets

For the Standard Camera Bracket, shown at right, select the appropriate slot in the bracket that will best locate the tripod mounting thread on your particular camera. You may need to re-position the camera knob to another slot in order to achieve this. To remove the knob simply slide the knob along the slot to the end that has the threaded hole. Carefully unscrew the knob out of the threaded hole, being careful not to crossthread the knob. Replace the knob into the appropriate slot by reversing the procedure.

The camera knob is a 2 piece knob, with an inner and outer knob. Before installing the camera knob in the bracket, turn the inner knob clockwise into the outer knob until it won't turn anymore. Install the knob into the appropriate slot then into the tripod mounting hole of your camera. Turn the inner knob into the camera until it bottoms out, then turn the outer knob clockwise until the camera is tight on the bracket. Don't worry about getting the camera level at this time, as this is a task you'll need to do when you're ready to shoot.

The left-right adjustment to center your lens over the pivot point is ac-

QuickPan IV Rotator with Standard Camera Bracket and optional Twin-Axis Adapter.

complished by loosening the purple knob and sliding the camera bracket in and out of the slider. Be sure to tighten the knob to lock the bracket in place.

The fore-aft adjustment is made by loosening the other purple knob on the slider and then moving the entire assembly along the arm of the Rotator Base.

There are camera adjustment shoes and lugs (shown at left) to help locate your camera on the bracket and to help position the camera along the slot. These devices will also make it easy to remove and replace your camera when you use it for other tasks.

Note: You can also mount the optional Quick Release Plate onto the Standard Camera Bracket.

Camera Mounting - Compact Camera Bracket

Mounting your camera on the camera brackets

For the Compact Camera Bracket, shown at right, select the appropriate mounting hle in the bracket that will best locate the tripod mounting thread on your particular camera. You may need to reposition the camera knob to another hole in order to achieve this. Carefully unscrew the knob out of the threaded hole, being careful not to crossthread the knob. Replace the knob into the appropriate hole by reversing the procedure.

The camera knob is a 2 piece knob, with an inner and outer knob. Before installing the camera knob in the bracket, turn the inner knob clockwise into the outer knob until it won't turn anymore. Install the knob into the appropriate hole then into the tripod mounting hole of your camera. Turn the inner knob into the camera until it bottoms out, then turn the outer knob clockwise until the camera is tight on the bracket. Don't worry about getting the camera level at this time, as this

QuickPan IV Rotator with Compact Camera Bracket and optional Twin-Axis Adapter. Quick Release Plate not shown.

is a task you'll need to do when you're ready to shoot.

The left-right adjustment to center your lens over the pivot point is accomplished by loosening the purple knob and sliding the camera bracket in and out along the Twin-Axis Adapter. Be sure to tighten the knob to lock the bracket in place.

The fore-aft adjustment is made by loosening the other purple knob on the Twin-Axis Adapter and then moving the entire assembly along the arm of the Rotator Base.

The Compact Camera Bracket can also be equipped with a Quick Release Plate. Compared to the Standard Bracket, the Compact Bracket has no camera shoes or lugs to retain the camera. Therefore, the Compact Camera Bracket is best used in combination with the Quick Release option. The main advantage to the Compact bracket is the smaller size and lighter weight.

QuickPan-L Rotator

Using the QuickPan-L Rotator

The QuickPan-L is a unique model which has three concentric rings of 24, 18 and 14 positions. There are three corresponding plunger positions in the rotator cap. You can move the plunger from one position to another and select any one of the three rows. The 24 position is the outermost, the 18 position is in the middle and the 14 position is one on the inside.

By double-clicking (skipping over one position) you can index your QuickPan-L accordingly:

24 Position - 12 shots
18 Position - 9 shots
14 Position - 7 shots

By triple-clicking (skipping over two positions) you can index your QuickPan-L accordingly:

24 Position - 8 shots
18 Position - 6 shots
14 Position - N/A
    (does not divide equally)

The top index shows the angular

position in degrees. The subsequent rows below the angular position show the number of positions for 24, 12, 8, 6, 4, 3 and 2 respectively.

The engraved number indexes below the angular engraving on the QuickPan-L barrel is for use with the 24 click position only.

Please note that only the angular position index will be of use when you're working in the 18 or 14 click positions.

Nodal Point

What is it and how do I find it?

This is one of the most frequently asked questions when it comes to stitcher-based panorama creation. Once you understand the basics, you'll be able to easily locate the nodal point for any camera and lens combination.

Simply put, the nodal point is the point inside your camera where the light rays converge and flip over. When shooting a panorama it's necessary to rotate about this point to eliminate the image mismatch caused by parallax error.

It's also worth noting that the nodal point is not the same as the film plane, which is often marked on the underneath side of many 35mm cameras. Generally, for most 35mm cameras and lenses, the nodal point is located somewhere towards the center of the lens barrel.

Parallax error can be easily demonstrated by this simple experiment. Close one eye and hold your index finger upright
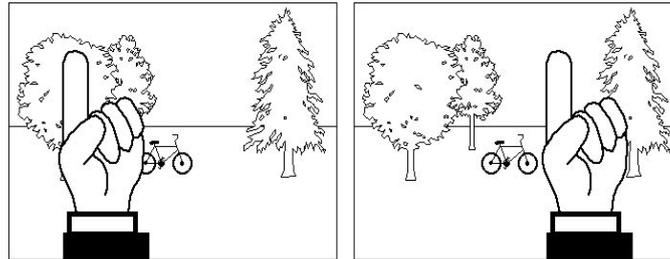
Parallax error can be easily demonstrated. It's the relative movement caused by a shifting point of view. In this example, you eye is moving with respect to your hand and the background.

about six inches away from your open eye. Rock your head from side to side. Notice how your finger moves with respect to the background. This relative movement is due to the fact that you're not rotating your head around your eye's nodal point, which is somewhere in the center of your eyeball. Instead, you're rotating about your spine which is several inches to the rear and off to one side. It is this relative side-to-side motion that we will strive to eliminate when setting up a camera for VR panoramas.

Step 1: The side-to-side adjustment

Once your camera is fastened to your camera bracket, move to the front of the tripod head so you're looking into the lens. Adjust the camera bracket so that the center of the lens is directly over the pivot axis of the tripod head. Try to be as accurate as possible. You should strive to get this adjustment within plus/minus a 1/16th of an inch.

Nodal Point (continued)

What is it and how do I find it?

Step 2: Fore-Aft Adjustment

This step is most easily accomplished out of doors. Find a vertical edge or line, such as a doorway or edge of a building. Position your camera and tripod about 2-1/2 feet away, or as close as possible with the edge still in focus when you look through the viewfinder. If you're using a multirow head such as the QuickPan III Spherical, set the swing arm to a level horizontal position (zero degrees).

Looking through the camera's viewfinder, find another vertical edge or line that is far away, such as another building or telephone pole. Align the two objects and rotate the pan head so they are in the left hand side of the viewfinder.

Rotate the pan head so the two objects move over to the right hand side of the viewfinder. Unless you've managed to unwittingly locate the right position, you should notice the two objects will
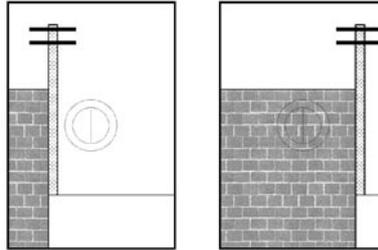
Looking through the viewfinder align a close object (brick wall) with a faraway object (telephone pole). As you rotate the camera from side-to-side there should be no relative movement between the two objects as shown to the right.
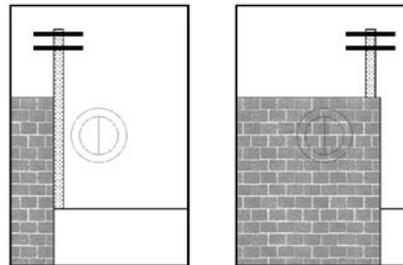
If, as shown above, the two objects move with respect to one and another in the viewinder, slide the camera fore or aft in order to eliminate this movement. Here, the telephone pole has moved behind the brick wall.

move with respect to each other as you rotate the pan from left to right. Slide the camera to the front or rear as required to eliminate this relative movement.

Step 3: Record Your Results

After you've discovered the two location dimensions, be sure to record the settings. The QuickPan III has convenient indicator scales for this purpose. These numbers represent the nodal point for this given camera and lens combination. If you change cameras or lenses, this procedure may have to be repeated

Step 5: How About Rangefinder Cameras?

A rangefinder camera is a camera where you look through a separate viewfinder and not through the actual lens. The process is basically the same. Locate the Side-to-Side adjustment as discussed in Step 1. When it

Nodal Point (continued)

What is it and how do I find it?

comes to the Fore-Aft adjustment, you won't be able to look through the viewfinder to determine the proper setting since the viewfinder is a separate optical path that doesn't really "see" the same image as the film.

Instead, you'll have to start with the bracket all the way to the front and take pairs of test shots. Each pair will have the vertically aligned objects in the left and then the right side of the viewfinder. After each pair of photos, slide the bracket rearward and repeat the process. Slide the bracket the same increment each time (i.e. 10mm). Be sure to record the scale setting for each pair of images. Process the film, or in the case of digital cameras, download the images to your computer.

At the end of this process you will be able locate the pair of images with the least relative movement. If no single image is optimum, you may need to interpolate between two images to find the closest value.

Shooting Panoramas

How do I begin?

How much Overlap?

The amount you turn the camera for each shot varies. It is dependent on a number of factors such as the field of view (the angle) of your camera and lens, as well as which program you intend to use. For example, in their QuickTime VR Authoring Studio, Apple recommended that the images should overlap by anywhere from one-third to one-half. That's a good rule of thumb for most stitching applications. You should check with the recommendations of the software that you intend to use in order to determine overlap requirements.

How many Shots?

Once you've determined the overlap, you'll be able to figure out how many shots. The easiest way to do this is to simply look through the viewfinder and turn the camera to achieve the desired amount of overlap. You then check the angle readout to see how far you turned the camera. Round the angular value to the nearest convenient value. For most stitching programs, it is generally not that important to use a precise overlap value. However, it should be noted that some programs are more sensitive to an overlap value that constantly repeats from shot to shot. You may need to experiment somewhat to obtain the best results.

Taking the Photos

When you're ready to shoot, make sure that the camera is securely attached to the QuickPan III. You should use a tripod that is sturdy, ideally one that has a center support system of braces to help keep the camera from flexing.

Proper leveling is important and often misunderstood. When it comes to leveling there are two things that are fairly important. With multirow panoramas (i.e. Stitcher) the issue of leveling is less crucial and primarily involves aestethics and placement of the horizon. We'll concentrate primarily on cylindrical or single-row panoramas.

First, the camera's optical axis should be parallel with the rotation plane of the tripod head. In other words the camera should not be pointed up or down with respect to the plane of rotation.

Secondly, it's also somewhat important for the camera and film/CCD to be properly aligned with respect to rotation when viewed from the front (looking into the lens).

This can happen because the camera is not seated flush against the upright bracket. This is pretty common since many cameras have mounting screws that are not in the center of the base. Many cameras have screws off to one end of the camera or at the edge of the camera and this can cause the camera to not be pulled down evenly onto the tripod head mounting plate.

Another problem is that CCDs may not be accurately positioned within the camera body and respect to the mounting surface. It only takes a fraction of degree and with other manufacturing tolerances this can add up to be noticeable.

This misalignment can also happen if the upright bracket is bent or is not exactly perpendicular to the rotation plane of the head. At Kaidan we check this dimension very closely to ensure it's as close to 90° as reasonbly possible.

The effect of a rotated camera (when viewed looking into the lens) is a

Shooting Panoramas (continued)

How do I begin?

stairstepping of images as you progress around the panorama. Stairstepping has nothing to do with the state of the entire head being level with respect to the horizon. This can be corrected by rotating all the images a slight amount in your authoring program.

You can also shim the camera/head to compensate for such misalignment errors as well. A few layers of tape is usually all that it takes. Let me also reiterate what's not as important as some people think.

The overall level of the head/camera is not as critical in order to produce good stitched results. As long as the camera is not tilted or rotated and as long as the camera is positioned so that the optical axis is parallel to the rotation plane, you can tilt or position the entire head so that it's not level to the horizon and it won't affect the image.

Now, it might produce a panorama that is tilted with respect to the horizon but that might be an artistic choice or something you want to do on purpose.

As long as the optical axis is parallel to the

rotation plane and the camera/CCD is not rotated, slight variations in level as the head rotates is generally not a problem.

As you shoot around the circle, try to avoid capturing any moving objects that might come into your field of view. There is no harm in waiting, for example, while a person walks past before shooting the photo.

You may also want to check with the software developer of the stitching software that you're using to get their recommendations for exposure settings and other camera settings.
We hope you enjoy shooting your panoramas and if you have any questions or problems using our equipment, please let us know.

Warranty and Product Return Information

Kaidan Warranty and Return Policy

A • Limited Warranty

In the event of a defect in materials or workmanship, Kaidan will repair the product with new or rebuilt parts for a period of three-hundred and sixty five (365) days from the date of original purchase. Such work will be performed free of charge. Follow the Product Return Procedure (Section D following). Likewise, any software purchased from Kaidan also comes with a one year warranty if your disc or media is defective or damaged. This warranty is extended only to the original purchaser and is not transferable. A purchase receipt or other proof of original purchase will be required before warranty performance is rendered. This warranty only covers failures due to defects in materials or workmanship which occur during normal use. It does not cover damages or failures which are caused from accident, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, modification, service by anyone other than an authorized representative of Kaidan, Acts of God, or by products not supplied by Kaidan.
This warranty covers any damage incurred during original shipment of product to customer. Any item resold, or distributed by, and not explicitly manufactured by Kaidan will be covered by their respective company's product warranty.

B • Warranty Exclusions

There are no express warranties except as listed above.

Kaidan shall not be liable for special, incidental, consequential or punitive damages, including, without limitation, loss of goodwill, profits or revenue, loss of the use of this product or any associated equipment, cost of substitute equipment, downtime costs, or claims of any party dealing with buyer for such damages, resulting from use of this product or arising from breach of warranty or contract, negligance, or any other legal theory .All express and implied warranties, including the warranties of merchantability and fitness for a particular purpose, are limited to the applicable warranty period set forth above. Some states do not allow the exclusion or limitation of consequential damages, or limitations on how long an implied warranty lasts, so the above exclusions or limitations may not apply to you. This warranty and any claims which arise with the Kaidan product(s) are governed by the laws of the state of Pennsylvania. By purchasing this product, customer acknowledges and agrees to these Limits and Exclusions. If a problem with your Kaidan product develops during the warranty period, immediately contact Kaidan for assistance.

C • Product Return Policy

All Kaidan products come with a 30-day return policy (a minimum 10 percent restocking fees may apply) from date of purchase, with the exception of software or videotapes. Both of the aforementioned items are copyrighted and subject to the laws concerning intellectual property. Kaidan will replace defective software/videotapes free of charge upon return receipt of defective item(s). Products returned under this policy, excluding replacement of defective items, must be shipped at purchaser's expense. Purchaser must ship product with an approved traceable service, such as FedEx, and with appropriate levels of shipping insurance for the item being returned. Kaidan will not be held responsible for returned items lost or damaged in transit. Kaidan will issue a refund to customer's account if the following conditions are satisfied:

1) Receipt of item(s) in a restockable condition.

Criteria for Restockable Condition is as follows:

• All parts are included in box; hardware, manuals, discs, nuts/bolts, tools.
• No signs of damage; scratches, bent parts, missing pieces, markings, alterations, or additions to the product.
• All packaging materials are intact; foam, peanuts, cardboard, bubble bags.
• No signs of excess usage or wear to the product.

Items of Non-Restockable Condition are subject to the following:

• Restocking Fee(s) - a minimum of 10% and possible additional fees based on the condition of the product (how the product best meets the criteria above), at Kaidan's discretion.

Non-Restockable Condition - constitutes the following:

• Missing parts; hardware, manuals, discs, nuts/bolts, tools, and packaging materials; foam, peanuts, cardboard, bubble bags.
• Signs of damage; scratches, bent parts, missing pieces, markings, alterations, additions to the product.
• Signs of excess usage or wear to the product.
• Damage or loss incurred during uninsured shipping to Kaidan. In this case, Kaidan cannot issue any type of refund. Customer will be responsible to submit claim with their shipping company.
• If damages occur in shipping, customer must submit claim with shipping company prior to any action by Kaidan.

Items Part of Special Bundle

If item(s) are part of a special bundle offer, return of part of the bundle will void any special pricing and the item(s) remaining in the possession of the customer will revert to their regular Suggested Retail Price (SRP). The credit, to customer, will reflect the difference of the actual product SRP from the amount of credit due customer.

Shipping Costs

All shipping costs, VAT, duties and return costs are sole responsibility of customer. If customer purchases thru Kaidan distributor or reseller, customer is responsible for all shipping and VAT costs incurred by that distributor or reseller. These charges are non-refundable. For instructions on the return of your product, follow the Product Return Procedure below

D • Product Return Procedure

When returning a product, customer must first contact Kaidan (or the distributor/reseller) and obtain a Return Material Authorization Number (RMA#). After receiving the RMA#, customer will be instructed to return product directly to Kaidan. Returned goods must be shipped with an approved traceable service, such as FedEx, and with appropriate levels of shipping insurance for the item being returned. Kaidan will not be held responsible for returned items lost or damaged in transit. RMA numbers are valid for 15 days, and the product(s) must be received by Kaidan before the RMA expires. We are unable to accept for return any product(s) received after the expiration of the RMA.

Return Packaging

The product packaging must reflect customer name, address, RMA# as well as Kaidan information:

Kaidan Incorporated
703 E. Pennsylvania Blvd • Feasterville, PA 19053 • U.S.A.
Attention: Return Department per RMA# _____

Contact Information: Voice: 215-364-1778 • Fax: 215-322-4186
http://www.kaidan.com • E-mail: info@kaidan.com