



## VertiMax Raptor Quick Start Manual



Model No. \_\_\_\_\_ US Pat. App. Serial No. 12/155,747

Serial No. \_\_\_\_\_

The model number and serial number of your unit can be found on the backside storage area of your Raptor unit. Write the model number and serial number in the space above.

**Refer to the back of this manual for important downloads & videos!**

Customer Care: 1-800-699-5867

Monday-Friday, 8 AM—5 PM Eastern Standard Time

VertiMax Inc.—4710 Eisenhower Blvd.—Suite A-6—Tampa—FL—33634

## VertiMax Raptor Quick Start Manual

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### IMPORTANT SAFETY PRECAUTIONS

**WARNING:** To reduce the risk of serious injury to users and bystanders, read the following important safety precautions and information before utilizing the Raptor product. Before beginning this or any exercise program, consult your physician. This is especially important for persons over the age of 35 or persons with pre-existing health problems. Read all instructions including the full manual download at [www.vertimax.com/raptor/ownersinfo](http://www.vertimax.com/raptor/ownersinfo) before using the Raptor product and only use the product as described in this manual. VertiMax Inc. assumes no responsibility for personal injury or property damage sustained by or through the use of this product.

1. It is the responsibility of the owner to ensure that all users of the Raptor product line are adequately informed of all warnings and precautions within this manual and on Warning and Caution labels located on the Raptor unit. NEVER remove the Warning and Caution labels. If any Warning or Caution label is damaged or separates from the unit, cease using the unit immediately and contact Customer Service to have a replacement label provided to re-apply to the Raptor unit.
2. You should consult a physician before you start an exercise program or training routine. Stop using any VertiMax product if you feel faint, experience pain or tightness in your chest, or become short of breath. Contact your physician before resuming use of any VertiMax Raptor or V Series product.
3. VertiMax Raptor Products are intended primarily for users 10 years of age or older. Special "Youth Cord" configurations (3/16<sup>th</sup> inch diameter cords) providing lower training resistances are required if parents of users between the ages of 6 and 9 desire to have their children utilize the VertiMax Raptor product under adult supervision. "Youth Cord" configurations can be requested at the time of purchase. Users over the age of 9 should utilize lower resistance bands contained in the "Youth Configuration" if they have difficulty training with the resistance provided by the "Standard Band" configurations utilizing ¼ inch or 5/16 inch diameter bands. No one under the age of 18 should use any VertiMax product without first consulting a parent or guardian. Children and teenagers must have constant adult supervision while utilizing the VertiMax Raptor product.
4. When used outdoors, Raptor units should only be attached to chain link fences with appropriate structural integrity. Each vertical fence posts support should be able to support a minimum of a 150 pound horizontal load applied to the vertical support four feet above ground level. Do not attach any part of a Raptor

## VertiMax Raptor Quick Start Manual

### IMPORTANT SAFETY PRECAUTIONS (Continued)

4. unit more than 6 feet high on a chain link fence and never attempt to attach Raptor units to wooden fences or any other fence made out of a material other than standard metal chain link mesh.
5. When attaching a Raptor unit to a chain link fence, place the unit horizontally or vertically over a vertical support post. Adjust the unit so it's centerline lies directly over the vertical support fence post. Such positioning will optimize support for the unit during use. Placing the unit away from a vertical fence post could lead to structural damage to the fence, causing the unit or fence to shift suddenly. Such movement could potentially cause severe injury to the user or a bystander and/or damage to the Raptor. Never place more than two Raptor units on a chain link fence vertical support post. Vertical support posts are typically placed 10 feet apart. Therefore when placed properly, every Raptor unit should be at least 10 feet away from any other Raptor unit.
6. In the event that a cord comes loose from the user during use, it will retract back into the Raptor unit at potentially very high velocities, potentially causing serious and/or life-threatening injuries to bystanders. No person should stand between the user and the Raptor at any time during its use or when cord maintenance procedures are being conducted. Non-users (bystanders) should also stand no less than 8 feet away from any part of the Raptor unit including protracted bands and adjacent Raptor units at all times during use. Reference the Figure 1 Warning label below which is placed on the top, right side of each Raptor unit.

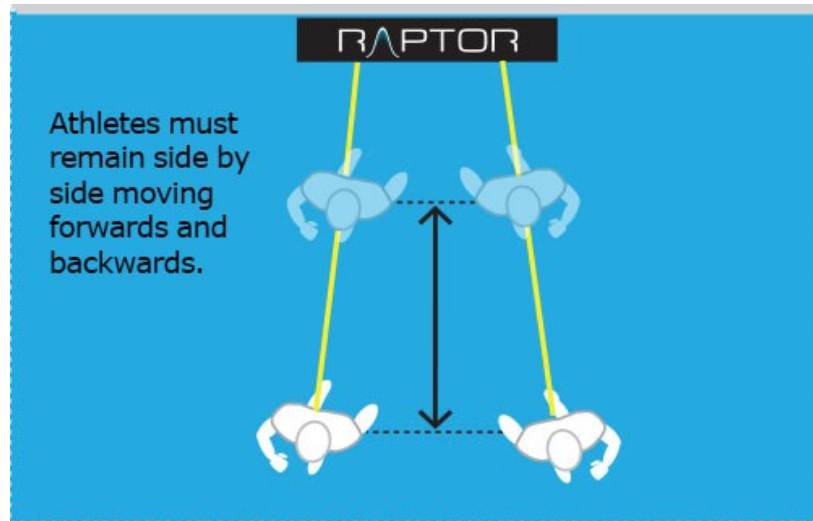


FIGURE 1

## VertiMax Raptor Quick Start Manual

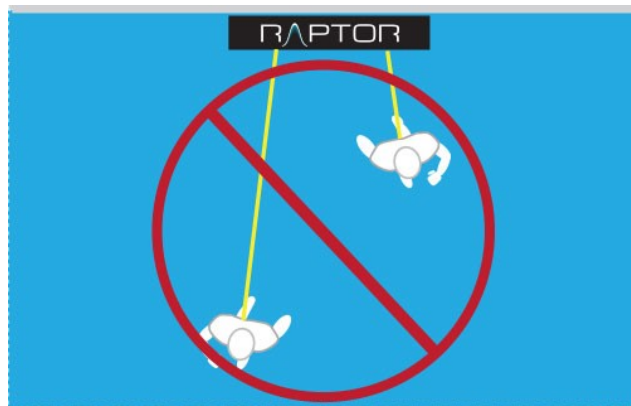
### IMPORTANT SAFETY PRECAUTIONS (Continued)

7. When training two athletes simultaneously on a Dual Band Raptor unit it is imperative that both athletes synchronize their training movement such that they remain side-by-side while moving away from and towards the Raptor unit as shown in the Figure 2 below.



**FIGURE 2**

Figure 3 below illustrates how two athletes using the same Raptor unit simultaneously should NOT individually train at different distances from the Raptor unit at any given point in time.



**FIGURE 3**

## VertiMax Raptor Quick Start Manual

### IMPORTANT SAFETY PRECAUTIONS (Continued)

8. Prior to each use of the Raptor, the user should inspect each component of the Raptor and associated harnesses used to attach resistance bands to the user to ensure proper functioning and that there is no damage (beyond normal wear and tear). Any damaged Raptor components including resistance band attachment harnesses could cause the unit to fail during use and result in serious injury to the user or bystanders. If any fraying of nylon on attachment harnesses is observed or fraying of the nylon braiding around the elastic bands is observed, the harnesses and unit cannot be used until it is repaired, otherwise injury to users or bystanders could occur.
9. When detaching any Raptor cord, always have the user first position themselves as close to the vertical support structure and detachable Raptor pulley assemblies as possible (within 1 foot) so resistance band tension is minimal. Once positioned properly to minimize cord tension, detach (Continued) selected resistance bands by firmly gripping the end of the cord attached to the athlete, release the cord from the attachment harness and hold it firmly until it retracts completely into the movable pulley assembly. NEVER release the cord before it fully retracts into the Raptor's movable pulley assembly, otherwise serious injury to the user or bystanders could result including possible damage to the unit. All bands when detached from a user should be held until they are fully retracted into the VertiMax Raptor unit or until the person holding the band no longer feels any tension on the band.
10. When training more than 30 feet from the Raptor unit, only attachment harnesses that cannot accidentally open up can be used to help avoid accidental cord detachment. The two harness assemblies that can be used more than 30 feet from the Raptor unit are:
  - a) The continuous 360 degree belt that must be slipped over the body and worn around the waist and
  - b) The hip flexor harnesses in conjunction with the waist harness with Raptor cord connections only attaching to the hip flexor harnesses.

Both harness assemblies described above cannot accidentally come off the user unless there is a major harness failure which is extremely rare. When performing the Cord Maintenance Procedure (explained later), the user must always use the 360 Degree belt attaching a single cord to each "D" ring on the belt, as the user walks back and extracts the cords from the Raptor unit. Use of the 360 Degree belt will minimize the possibility of an accidental cord detachment.

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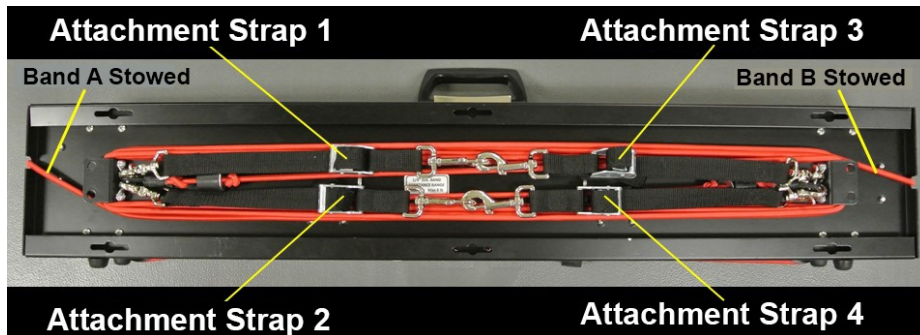
### RAPTOR MODELS (THE RAPTOR & RAPTOR EX)

There are two types of Raptor models which provide mid-range training distances (approx. 20 yards) and long range distances (approx. 45 yards). The mid-range unit called the **Raptor** provides two resistance bands with each band able to provide resistance over an approximate 20 yard range. The long range unit called the **Raptor EX** provides a single resistance band allowing athletes to train with resistance over an approximate 45 yard range. In summary;

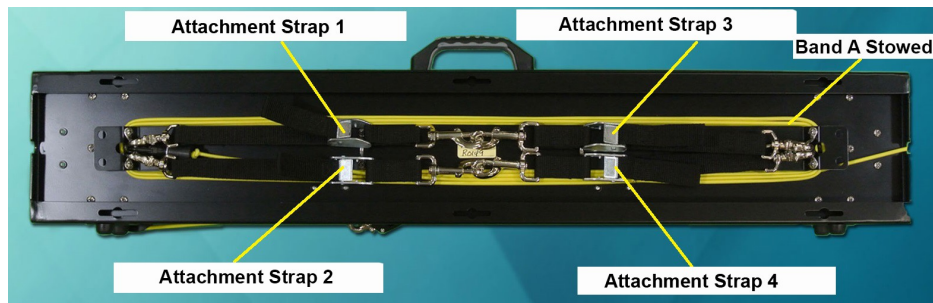
**Raptor Unit:** Dual Band, train up to two athletes simultaneously. Resistance can be applied for ranges of approximately 20 yards.

**Raptor EX Unit:** Single Band, trains one athlete, resistance can be applied to an athlete over an approximate range of 40 to 45 yards.

#### Raptor Unit Rear View Stowed Configuration



#### Raptor EX Unit Rear View Stowed Configuration



## VertiMax Raptor Quick Start Manual

### MOUNTING THE RAPTORS (FENCE & WALL)

**FENCE MOUNTING:** When mounting any Raptor unit to a chain link fence, first make sure the vertical fence support structures (poles) are stable by grabbing them and pulling on them. The vertical support posts should be firmly fixed in the ground and show very little movement when significant force is applied to the vertical support poles. If the vertical support poles do not feel stable or move more than a quarter inch at or below waist level when applying significant force (pulling and pushing with body weight in excess of 150 lb.), do not use that particular fence structure. Find another fence that satisfies the stability requirements.

**Step 1:** Remove the four attachment strap assemblies from the rear of the Raptor unit and attach each of the four straps to the chrome saddle straps in all four corners of the Raptor unit.

**Step 2:** Uncoil all the resistance bands from the rear of the unit. One band for Raptor EX and 2 bands for the Dual Band Raptor.

**Step 3:** Hold the Raptor unit about chest high on or near the top of the fence if it is a standard 4 foot high fence and sequentially attach the top left and right side attachment straps at near 45 degree angles coming off the unit. Then attach the lower left and right side straps and tighten each strap so that the unit is both secure and level on the fence as shown in Figure 4 below.



FIGURE 4

## VertiMax Raptor Quick Start Manual

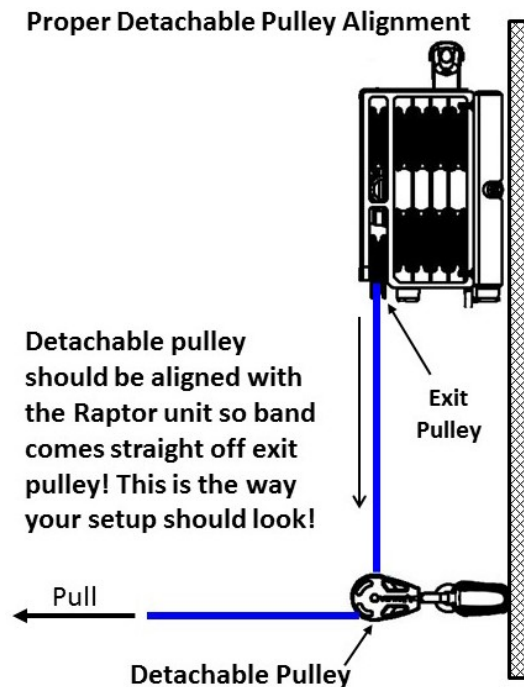
### MOUNTING THE RAPTORS ON A FENCE

#### FENCE MOUNTING (Continued):

**Step 4:** Referencing Figure 4, after securing the Raptor to the fence remove detachable pulley assemblies 5 and 6 for a Dual Band Raptor or just assembly 5 for a Raptor EX from the interior underside of the Raptor unit and clip the pulley assemblies in the desired location beneath the unit.

#### **\*\*CHECKING PULLEY & CORD ALIGNMENTS\*\***

**Step 5 (THIS IS AN EXTREMELY IMPORTANT STEP!):** Referencing Figure 5, after the detachable pulley assembly or assemblies are attached to the fence the resistance band should be pulled tight and away from the fence and the band coming off the exit pulley should be checked to make sure the band is coming straight off the exit pulley as shown in Figure 5. If the band is coming off at a significant angle as shown in Figures 6 and 7, the band will likely become damaged after very little use.



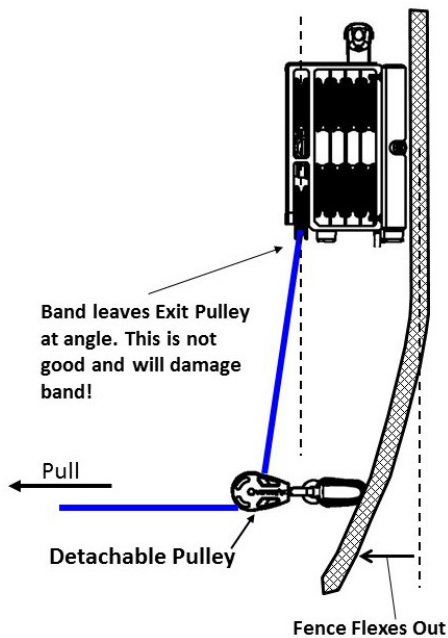
**FIGURE 5**

## VertiMax Raptor Quick Start Manual

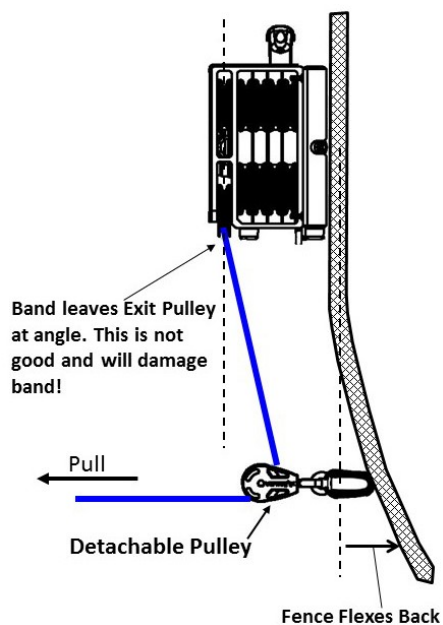
### MOUNTING THE RAPTORS ON A FENCE

**Step 5 (Continued):** Referencing Figure 6 and 7 below, examples are shown for improper pulley alignment between the Raptor and detachable pulley which causes the band to come off the Raptor exit pulley at an angle which can damage the bands. Figure 5 is good alignment, Figures 6 and 7 show bad alignments.

#### IMPROPER PULLEY ALIGNMENT SHOWN IN FIGURES 6 AND 7



**FIGURE 6**



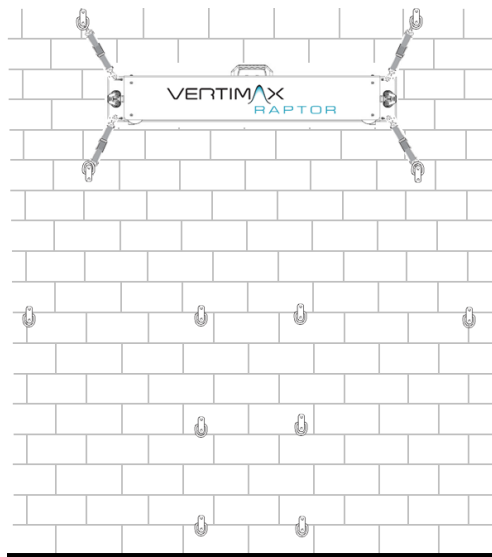
**FIGURE 7**

Once Step 5 has been completed and the proper pulley alignment has been verified, the athlete is now ready to step into the 360 Degree belt, attach the cord end to the 360 Degree Belt "D" rings and begin training.

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### MOUNTING THE RAPTORS ON A WALL

The Raptor units are also designed to attach to solid cement, cinder block and wood walls utilizing 3 different wall attachment kits depending on the type of wall you may want to attach the Raptor to. To acquire the Raptor Mounting Manual go to [www.vertimax.com/raptor/ownersinfo](http://www.vertimax.com/raptor/ownersinfo) Figure 8 below shows what a typical Cinder Block wall mount looks like using the fence straps and “D” rings. A typical layout of “D” rings below the Raptor for attaching the detachable pullies is shown.



**FIGURE 8**

Key hole slots on the back of each Raptor unit allow you to mount the Raptor to walls without the need for fence straps as shown in Figure 9 below. Refer to the Raptor Mounting Manual for mounting utilizing the keyhole slots.



**FIGURE 9**

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### DUAL BAND RAPTOR TRAINING RANGES

**Dual Band Raptor Training Range**— Referencing Figure 10, when both ends of the resistance bands are fully extracted from the sides of the unit, the resistance bands will be tight right at the Raptor unit before being attached to the athlete. (see Photo 10, page 14), the resisted training range for the athlete extends out about 15 yards. Referencing Figure 10A, when both tail ends of the bands are released from the cam cleats and the ends that attach to the athlete are extracted from the Raptor out to about 5 yards (see Photo 10A and 10A1 on page 15), the resisted training range increases from about 15 yards to approximately 22 yards.

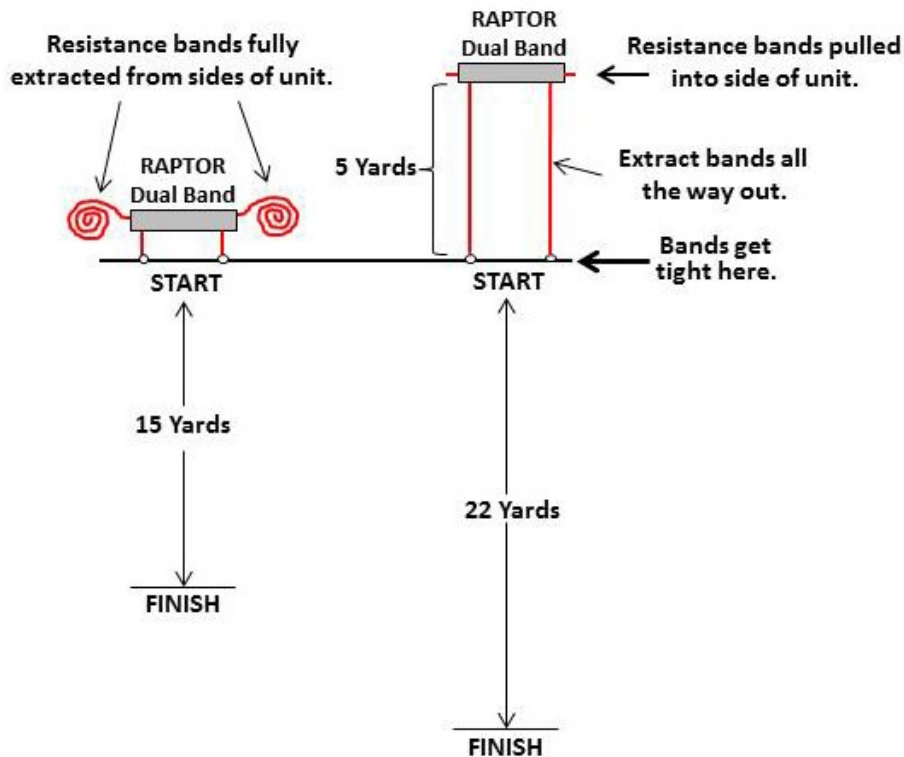


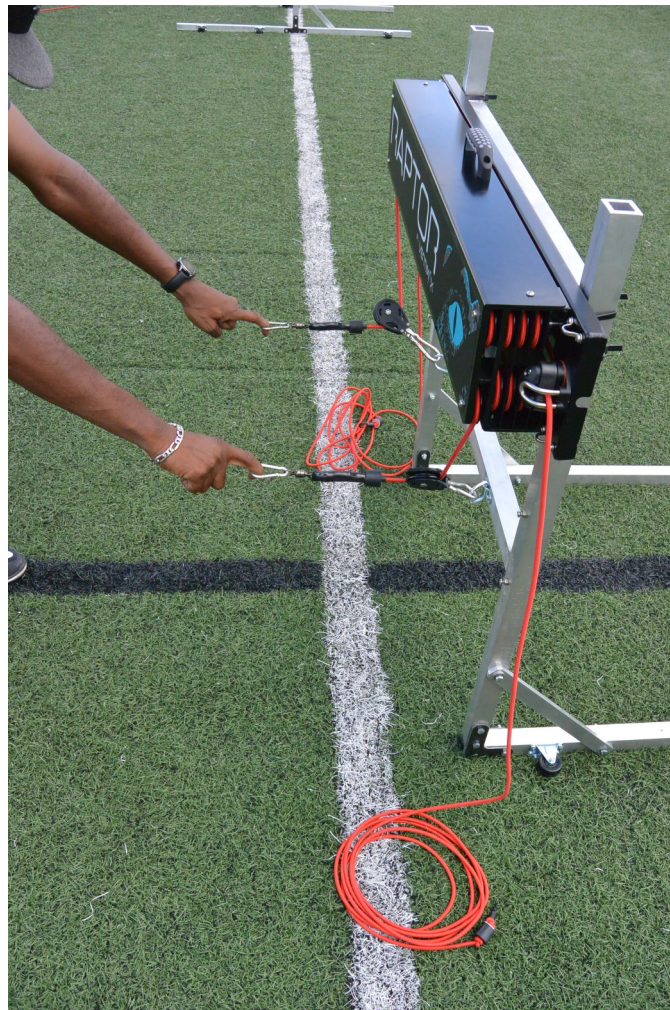
FIGURE 10

FIGURE 10A

## VertiMax Raptor Quick Start Manual

### DUAL BAND RAPTOR TRAINING RANGES

Photo 10 below illustrates the Figure 10 configuration on page 13. The resistance bands are set for the Figure 10 (15 yard) training distance example on the previous page. Both bands on the Dual Band Raptor are fully extracted out the sides so the opposite ends of the bands that attach to the athlete are tight right at the pulleys and apply resistance immediately to the athlete right at the unit.

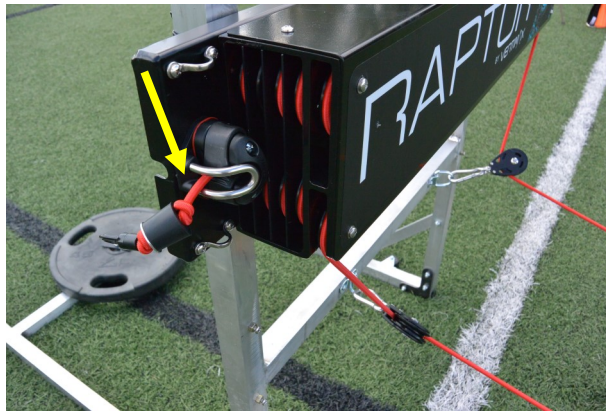


**PHOTO 10**

## VertiMax Raptor Quick Start Manual

### DUAL BAND RAPTOR TRAINING RANGES

Photo 10A and 10A1 below illustrate the Figure 10A configuration on page 13. The resistance bands are set for the Figure 10A (22 yard) extended training range example on page 13. The tail end of both bands are fully retracted into the sides of the Raptor unit as shown in Photo 10A and both ends that attach to the athlete are fully extracted out to about 5 yards as shown in Photo 10A1. For the extended range setup the athlete will be about 5 to 6 yards from the Raptor when the attached bands finally tighten up, that's the beginning of the training range shown in Figure 10A on page 13.



**PHOTO 10A**



**PHOTO 10A1**

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### RAPTOR EX TRAINING RANGE

**Raptor EX Training Range**— Referencing Figure 11 below, when the tail end of the resistance band is fully extracted from the side of the Raptor EX, the resistance band attached to the athlete will be tight right at the Raptor EX unit (see Photo 11 on page 17), the resisted training range for the athlete extends out about 30 yards. Referencing Figure 11A below, when the tail end of the Raptor EX band is released from the cam cleat and the end that attaches to the athlete is extracted from the Raptor EX out to about 8 yards (see photos 11A and 11A1 on page 17), the resisted training range increases from about 30 yards to approximately 45 yards.

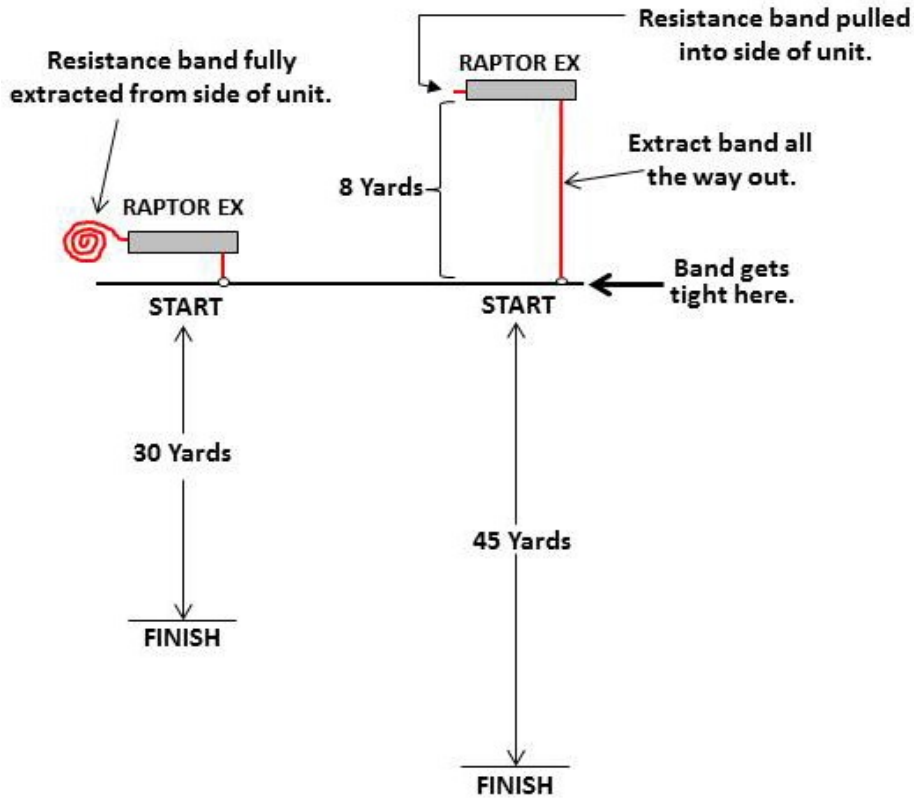


FIGURE 11

FIGURE 11A

## VertiMax Raptor Quick Start Manual

### RAPTOR EX TRAINING RANGE

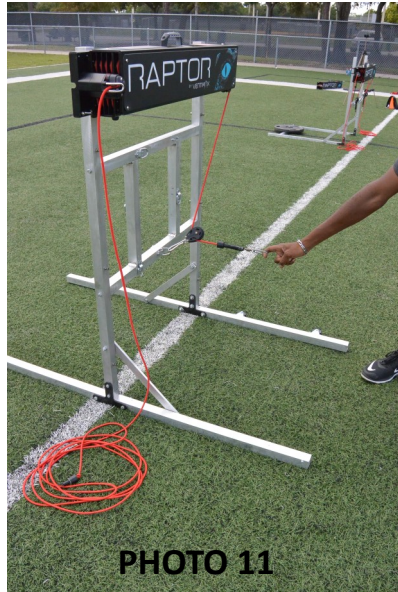


PHOTO 11

Match the band configuration of Photo 11 with Figure 11 on page 16 to understand how the bands are set for 30 yard training. Training resistance will be applied right at the Raptor as shown and the athlete will be able to train out to about 30 yards.

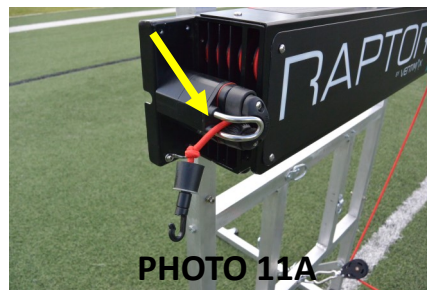


PHOTO 11A

Match the band configuration of Photo 11A and Photo 11A1 with Figure 11A on page 16 to understand that when you release the tail end of the resistance band from the cam cleat on the left side of the unit and pull the training band with clip out of the unit like Photo 11A1 shows, all the excess cord will be taken up into the unit like Photo 11A shows. This configuration is depicted in Figure 11A on page 16 and allows the athlete to start training with resistance at about 8 yards from the EX unit. The athlete's training range will be extended from 30 yards to about 45 yards when configured like this.



PHOTO 11A1

## VertiMax Raptor Quick Start Manual

### HARNESS SAFETY



**360 Degree Belt: Near to Long Range Harness**—The VertiMax 360 harness which comes with your Raptor purchase can be used from 0 to 45 yards from the Raptor unit. These belts are designed for maximum protection against accidental band detachment. There are no seams in the belt and no belt buckles or Velcro to accidentally come undone allowing the harness to accidentally release.



**Hip Flexor Harness Used With Padded Waist Belt: Near to Long Range Harness**— The VertiMax Hip Flexor Harness and Padded Waist Belt (purchased separately) can be connected together to allow an athlete to train from 0 to 45 yards from the Raptor unit. The athlete must attach Raptor bands to the hip flexor clips behind the knees so that even if the waist belt comes undone, the hip flexor harnesses around the legs won't let the Raptor bands break free of the athlete.



**When using the Padded Waist Belt only, training is restricted to within 30 feet of Raptor Unit** —The padded waist belt (purchased separately) has a cam buckle that can pop open or break in rare cases which can allow the harness and resistance bands to detach from the athlete. For this reason, athletes are to remain within 30 feet of the Raptor unit when using the Padded Waist Harness without Hip Flexors attached.

## VertiMax Raptor Quick Start Manual

### HARNESS SAFETY



**Ankle Straps: Training is restricted to within 30 feet of Raptor Unit** —The VertiMax ankle straps (purchased separately) use Velcro to fasten straps to the ankles. Since the hook and loop of Velcro can degrade over time there is always risk that the straps can come undone. For this reason, athletes must remain within 30 feet of the Raptor unit when training.



**Hand Grips: Training is restricted to within 10 feet of the Raptor Unit** — When using the VertiMax Hand Grips (purchased separately), since the integrity of the resistance band connection to the athlete is dependent on the athlete's grip and not a strap, the athlete must remain within 10 feet of the Raptor unit when training.



**Hand Straps: Training is restricted to within 10 feet of the Raptor Unit** — When using the VertiMax Hand Straps (purchased separately), the athlete must remain within 10 feet of the Raptor unit when training.

## VertiMax Raptor Quick Start Manual

### CORD MAINTENANCE PROCEDURES

**IMPORTANT!** Prior to every Raptor use the unit bands should be inspected for any damage. Photos 12, 13 and 14 below show a new cord, worn cord and damaged cord respectively. Note in Photo 12 the nylon braid of new and unworn cord is smooth with no “fuzzing” of the nylon braiding. Photo 13 shows a cord with moderate to heavy use where “fuzzing” occurs but the nylon braiding is still in tact with no breaks exposing the rubber core of the cord. This cord (shown in Photo 13) is still good and will not impact the performance of the unit. Photo 14 shows a damaged cord where the nylon jacket has been breached and the rubber interior portion of the core is exposed. When the nylon jacket has been compromised and any portion of the rubber interior of the cord is exposed, do not use the Raptor unit. Call VertiMax Customer Service at 800-699-5867 and talk to a repair specialist to order replacement cords to replace the damaged cord.



Photo 12 shows a new cord or cord with low usage. Note the smooth nylon braiding with no abnormalities.

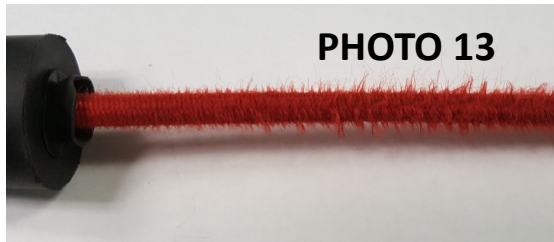


Photo 13 shows a cord with medium to high usage. The “fuzzing” of the nylon braiding is normal as the cord wears. And does not impact performance

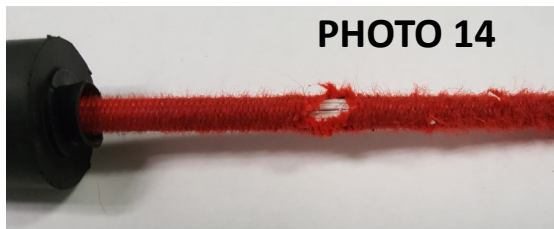


Photo 14 shows a damaged cord where the nylon braiding has been compromised and rubber bands show through. The Raptor unit must not be used if this type of damage exists. The cord must be replaced.

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### CORD MAINTENANCE PROCEDURES

Raptor units have a 6 month warranty on the resistance bands contained in each unit. If the bands are taken care of with this cord maintenance procedure every other use, the bands should last well over a year. The resistance bands will inherently twist inside the unit after prolonged use and it is important to remove the twists from the bands every so often to increase the life of the resistance bands. Photos 15 and 16 compare a normal cord with a twisted cord. If you look up inside the Raptor unit and see cordage twisted like Photo 16, it's time to perform the cord maintenance procedure. Even if you do not see twisting, the cord maintenance procedure described below should be performed after every two hours of use.



**Untwisted cord**



**Twisted cord**  
Perform Cord  
Maintenance  
Procedure

After every two hours of use the ends of each resistance band should be extracted out of the unit while it is attached to a fence or wall and the resistance bands should be allowed to untwist while they are extracted.

### PROCEDURE TO UNTWIST THE RESISTANCE BANDS

Watch Procedure video at: [www.vertimax.com/raptor-maintenance/](http://www.vertimax.com/raptor-maintenance/)

**Step 1:** After the training session is completed and before the Raptor unit is removed from the fence or wall, chose a cord and release the tail end from its locking cam cleat on the side of the Raptor unit. Then grab the cord end that attaches to the athlete and pull it away from the Raptor until the rubber stopper on the opposite end of the cord butts up against the locking cam cleat (Photo 17).



**PHOTO 17**

## VertiMax Raptor Quick Start Manual

### CORD MAINTENANCE PROCEDURES

**Step 2:** Put on a 360 Degree belt and clip the extracted Raptor cord to the “D” ring on the 360 Degree belt. Never attempt this part of the procedure without the 360 Belt around your waist and the resistance band securely clipped to the “D” ring on the 360 degree belt! Once the 360 belt is around the waist with resistance band securely clipped to the “D” ring, walk away from the Raptor unit extracting the cord under tension out of the unit until the cord will not extend any further or you feel the cord is getting close to locking up (See Photo 18). Then walk back towards the Raptor unit until the cord goes slack. While you are walking away from the unit extracting the cord and while you are walking towards the unit allow the cord to spin freely. The double bearing connector on the clip will allow the twisting in the cord to automatically untwist as the cord is extracted and retracted.



PHOTO 18

**Step 3:** After completing Step 2 stand within 3 feet of the Raptor unit and detach the cord from the 360 Degree belt and pull the tail end of the cord with rubber stopper at the cam cleat until the user end of the cord is pulled all the way back to the detachable pulley. Then firmly grab the cord coming out of the cam cleat and extract it one arms length at a time until it is difficult to ex-

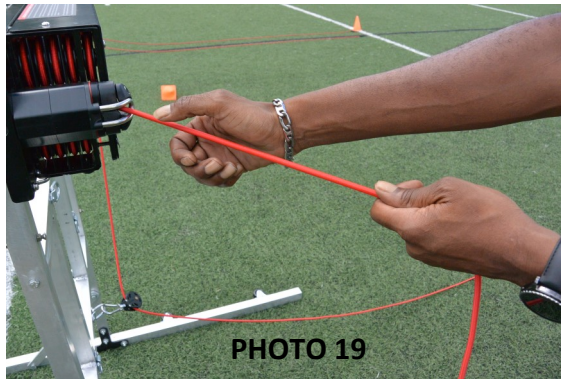


PHOTO 19

tract any more cord (see Photo 19). Lock the pulled out cord in place by inserting it in the locking cam. Then grab the tail end of the cord (the end with a plastic hook) and walk away from the Raptor unit until all the slack is pulled out of the cord. Be careful not to pull the cord out of the cam cleat or the cord will try to snap back into the unit. As you walk back away from the Raptor holding the end of the cord, allow the cord to rotate in your hands so the cord can untwist if it needs to.

## VertiMax Raptor Quick Start Manual

### CORD MAINTENANCE PROCEDURES

**Step 4:** Once you have allowed all the twists to come out of the tail end of the cord, lay the cord on the ground and walk back to the Raptor unit and grab the cord coming out of the cam cleat with both hands tightly. Unlock the cord from the cam cleat and feed the cord back into the Raptor carefully using both hands (Reference Photo 19 again) until the cord stops being pulled into the Raptor and cord tension dissipates to zero. If you have a dual band Raptor repeat Steps 1 thru 4 on the second band. After the completion of Step 4, the Cord Maintenance procedure is complete and the Raptor is ready to be used or stowed if you desire.

## VertiMax Raptor Quick Start Manual

### DOCUMENT DOWNLOADS & VIDEO LINKS

#### IMPORTANT DOCUMENT DOWNLOADS:

To retrieve an electronic version of the Raptor Owner's Manual: go to [www.vertimax.com/raptor/ownersinfo](http://www.vertimax.com/raptor/ownersinfo) and click on the PDF link right under "Raptor Owner's Manual"

To retrieve an electronic version of the Raptor Mounting Manual: go to [www.vertimax.com/raptor/ownersinfo](http://www.vertimax.com/raptor/ownersinfo) and click on the PDF link right under "Raptor Mounting"

#### IMPORTANT VIDEO LINKS:

Raptor Video Links: go to [www.vertimax.com/raptor/ownersinfo](http://www.vertimax.com/raptor/ownersinfo) and click on the Video link right under "Raptor Unit Deployment and Stowing Introduction Video". Make sure you watch the whole video and specifically the "pulley alignment check" portion of the video from the 8 minute point to 9:45 minute point!

Customer Care: 1-800-699-5867

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# VertiMax Raptor Quick Start Manual

## BASIC TRAINING

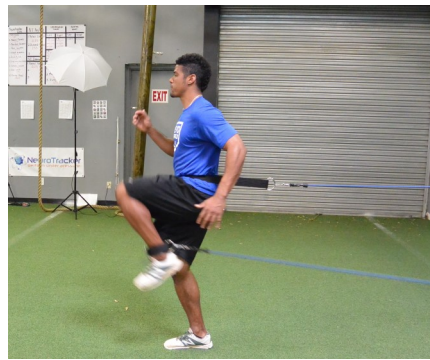
There are hundreds of drills that can be conducted with the Dual Band Raptor and Single Band Raptor EX System. Five of the most common drills for each system will be illustrated on the following pages while many more drills can be accessed at [www.vertimax.com](http://www.vertimax.com). Select SPORTS and scroll down your sport of interest and click on “Start Your Training”, then select the Raptor icon on the right. Note that any Dual Band Raptor drill that can be performed with a single band attached to the athlete can also be conducted with a Raptor EX unit.

### Sample Dual Band Raptor Training Drills

- 1) **Lunge To High Knee Drive**: With a Dual Band Raptor there are three ways to load the athlete during this drill. A) BEGINNER— At the waist only using the 360 Degree Belt attaching one or both bands to the belt, B) INTERMEDIATE— Attaching one band to each ankle using the ankle straps or, C) ADVANCED— Attaching one band to the waist using the 360 Degree Belt and one band to the ankle using the ankle strap on the driving leg’s ankle. Attachment option (C) for the Lunge To High Knee Drive will be used for the drill illustration below.



**START**



**FINISH**

**Drill Directions:** Place one movable pulley at thigh to waist level and the other about 6 inches up from ground level. Set the Raptor resistance so that both bands are tight right at the movable pulley assemblies. Attach one Raptor band to the waist using the 360 Belt and attach one band to the ankle using the ankle strap. Perform 3 sets of 10 reps each explosively moving from the “Start” to “Finish position” shown. Move band to opposite ankle and repeat 3 sets, 10 reps/set.

## VertiMax Raptor Quick Start Manual

### SAMPLE DUAL BAND RAPTOR TRAINING DRILLS

- 2) **Lateral Bounding**: With a Dual Band Raptor there are two ways to load the athlete during this drill. A) BEGINNER: At the waist only using the 360 Degree Belt attaching one or both bands to the belt and B) INTERMEDIATE/ ADVANCED: Attach one band to the waist using the 360 Degree Belt and one band to the ankle of the foot positioned closest to the Raptor unit. Attachment option (B) for the Lateral Bounding Drill will be used for the drill illustration.

**Drill Directions**: Attach both bands as shown using 360 belt and ankle strap. Referencing picture sequence below, bound from left foot (1) to right foot (5) and back again (8). Repeat with a smooth rhythm back and forth performing 3 sets of 6-10 reps per set. Then detach left ankle, face opposite direction and attach band to right ankle and repeat bounding from right leg to left leg.



## VertiMax Raptor Quick Start Manual

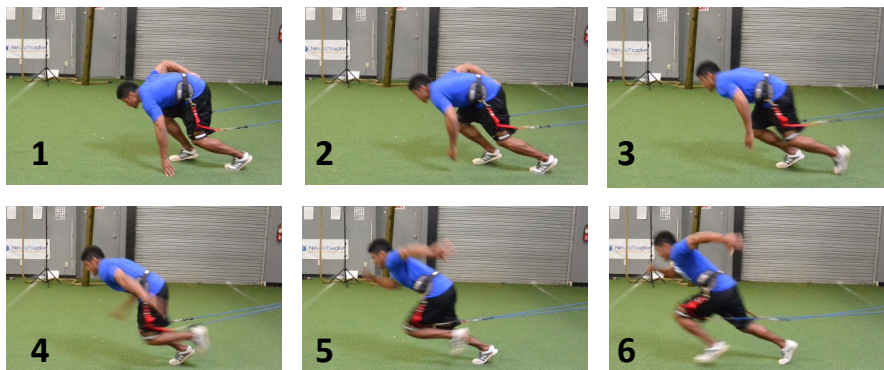
### SAMPLE DUAL BAND RAPTOR TRAINING DRILLS

- 3) **Three Point Start:** With a Dual Band Raptor there are two ways to load the athlete during this drill. A) BEGINNER: At the waist only using the 360 Degree Belt attaching one or both bands to the belt and B) INTERMEDIATE/ ADVANCED: Utilize the hip flexor attachments with waist belt to attach one band to the back of each knee as shown below. Attachment option (B) will be used for the drill illustration. below.

**Drill Directions:** Attach both bands as shown using the waist belt and hip flexor harness. Referencing the picture sequence below, step away from the Raptor unit until the bands are taught and you feel a load on both legs. Get down into a proper 3-point starting position and when ready explode forward driving at 100% each step for 13 to 20 yards depending if the Dual band Raptor is set for min-



imum or maximum training range. Perform 7 to 10 starts making sure you alternate the leading leg in the 3-Point Start from left to right after each start. It is recommended before your first start to walk out with resistance bands attached and place a marker of some type like a cone at the point where resistance starts rapidly increasing. The marker is your visual cue to stop at that point. This drill can be performed with one or both bands attached to the 360 belt .

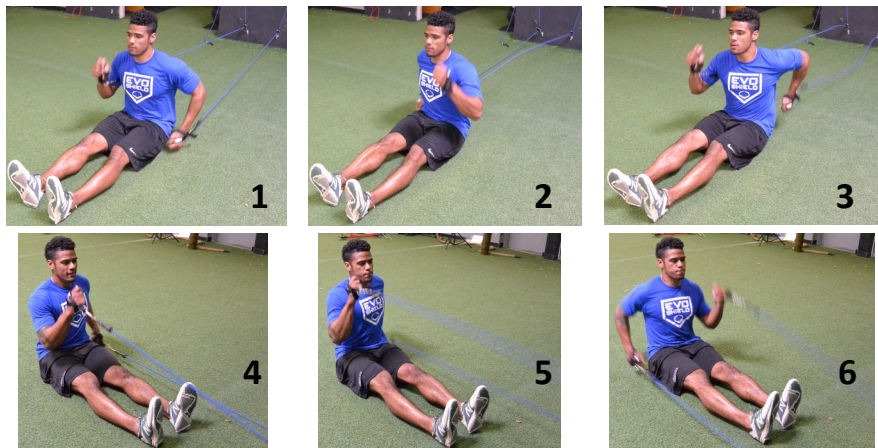


## VertiMax Raptor Quick Start Manual

### SAMPLE DUAL BAND RAPTOR TRAINING DRILLS

- 4) **Seated Arm Drive:** This drill is performed in two positions, seated with your back to the Raptor unit and seated facing the Raptor unit. Conducting the drill in these two positions allows you to work both the muscles that drive the arms forward and the separate set of muscles that drive the arms backwards.

**Seated Back to Raptor Arm Drive Drill Directions:** It is recommended that you use VertiMax palm straps with ringlets attached to connect resistance bands to your hands for this drill. If you do not have VertiMax palm straps you will have to conduct this drill holding the rubber stopper portion of each band firmly in each hand. With resistance bands extracted equally 3 to 4 feet, step between bands with your back facing the Raptor. Bend down and attach or grab each band with the left and right hands. Walk away from the Raptor until you feel both bands tighten and apply loads to both hands. Sit down in the seated position as photographs 1 through 3 show and pump both hands forward and backwards vigorously 10 seconds. Perform 3 sets for ten seconds each. After the third set stand up and walk back towards the Raptor until both bands go slack. Detach both bands then face towards the Raptor and then re-attach both bands to your hands. Walk backwards away from the Raptor until both bands tighten. Sit down in the seated position as shown in photos 3 through 6 and pump both hands forwards and backwards vigorously for ten seconds. Perform 3 sets for ten seconds each. After completion stand up, walk towards the Raptor until bands go slack and then disconnect both hands.

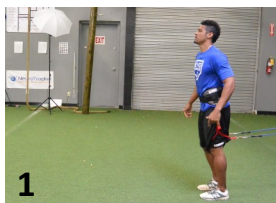


## VertiMax Raptor Quick Start Manual

### SAMPLE DUAL BAND RAPTOR TRAINING DRILLS

- 5) **A-Skip:** With a Dual Band Raptor there are three ways to load the athlete during this drill. A) BEGINNER: At the waist only using the 360 Degree Belt attaching one or both bands to the belt and B) INTERMEDIATE: Utilize the hip flexor attachments with waist belt to attach one band to the back of each knee as shown below. C) ADVANCED: Utilize ankle straps to attach a band to each ankle. Option B) will be used for this drill illustration below.

**Drill Directions:** Attach both bands as shown using the waist belt and hip flexor harness. Referencing the picture sequence 1-7 below, from the standing position (1) drive your right knee up (2) and then extend your right foot out (3) then drive your right foot back into the ground underneath you with a quick hop or skip after the initial ground strike (4). Repeat sequence with left foot referencing photos 5-7 below. Repeat right/left sequence 4 to 6 times 15 to 20 yards using a smooth skipping motion on each skip out.



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### SAMPLE RAPTOR EX TRAINING DRILLS

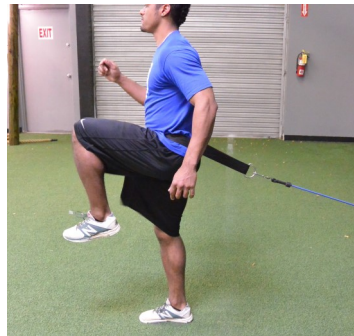
There are hundreds of drills that can be conducted with the Single Band Raptor EX System. Five common drills for the Raptor EX system will be illustrated on the following pages while many more drills can be accessed at [www.vertimax.com](http://www.vertimax.com). Select SPORTS and scroll down your sport of interest and click on “Start Your Training”, then select the Raptor icon on the right. Note that any Raptor EX drill shown on the following pages can be performed if you own a Dual Band Raptor unit. The only difference is that the training range of the Dual Band Raptor unit will be one half the range of the Raptor EX unit.

#### Sample Raptor EX Training Drills

- 1) **Lunge To High Knee Drive**: With a Raptor EX there are two ways to load the athlete during this drill. A) BEGINNER— Attach the Raptor EX band to the waist using the 360 Degree Belt. B) INTERMEDIATE— Attach the Raptor EX band to the drive leg ankle using the ankle strap accessory which can be purchased separately. Attachment option (A) for the Lunge To High Knee Drive will be used for the drill illustration below.



**START**



**FINISH**

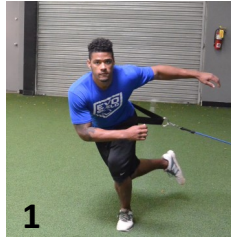
**Drill Directions:** Place the movable pulley that controls the band height about 2 feet above the ground. Set the Raptor EX resistance so that the band is tight right at the movable pulley assembly. Attach the Raptor EX band to the waist using the 360 Belt. With right leg forward and left leg back, drive with the right leg while simultaneously driving the left knee to chest level. Perform 3 sets of 10 reps each explosively moving from the “Start” to “Finish position” shown. Switch leg positions and repeat 3 sets, 10 reps/set.

## VertiMax Raptor Quick Start Manual

### SAMPLE RAPTOR EX TRAINING DRILLS

- 2) **Lateral Bounding**: Lateral bounding using the Raptor EX unit is performed by attaching the single Raptor EX band to the waist using the 360 Degree belt. Once the band is attached as shown (below right) the athlete will leap side-ways left to right and back again always driving off the leg which touches down first on each bound.

**Drill Directions**: Attach Raptor EX band as shown using the 360 belt. Referencing picture sequence below, bound from left foot (1) to right foot (4) and back again (8). Repeat with a smooth rhythm back and forth performing 3 sets of 6-10 reps per set. Then turn in the 360 belt to face the opposite direction repeat bounding from right leg to left leg and back to the right leg again. Perform 3 sets of 6-10 reps.



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### SAMPLE RAPTOR EX TRAINING DRILLS

- 3) **Three Point Start**: This drill is designed to develop explosive power to improve acceleration during the start. The drill utilizes a Raptor EX and 360 degree belt to engage in training.

**Drill Directions:** Set the movable pulley assembly on the wall or fence at about thigh level so the resistance band coming off the 360 belt angles down slightly as shown to the right. Refer to pages 16 and 17 to set the Raptor EX for standard range or long range training depending on how far you want to run during each 3 point start. Walk away from the Raptor unit until the resistance band becomes taught



and you feel at least 3 to 5 lb. of resistance. From a proper 3-point starting position explode forward driving with 100% effort each step for 25 to 35 yards depending if the Raptor EX is set for minimum or maximum training range. Perform 7 to 10 starts making sure you alternate the leading leg in the 3-Point Start from left to right after each start. It is recommended before your first start to walk out with resistance bands attached and place a marker of some type like a cone at the point where resistance starts rapidly increasing. The marker is your visual cue to stop at that point.



## VertiMax Raptor Quick Start Manual

### SAMPLE RAPTOR EX TRAINING DRILLS

- 4) **A-Skip Drill:** The purpose of the A-skips drill is to improve running mechanic coordination, activate hip flexors, and create large amounts of displacement between the feet and hips. It is one of the most challenging running drills because of the level of coordination needed to execute this drill, but it can be one of the most beneficial drills when it comes to improving running form.

**Drill Directions:** Set the movable pulley assembly on the wall or fence at about thigh level so the resistance band coming off the 360 belt angles down slightly as shown to the right. Refer to pages 16 and 17 to set the Raptor EX for standard range or long range training depending on how far you want to run during each A-Skip run-out. Referencing picture sequence 1-7 on page 29, from the standing position in photo (1) move forward



driving your right knee up (2) and then extend your right foot out (3) then drive your right foot back into the ground underneath you with a quick hop or skip after the initial ground strike (4). Repeat sequence with left foot referencing photos 5-7 on page 29. Repeat right/left sequence three times using a smooth skipping motion. Perform 4 to 6 sets ranging from 20 to 30 yards on each skip out.

- 5) **Reverse Direction Drill:** The purpose of the reverse direction drill is to develop strength for stabilization during high speed deceleration into a stop and then acceleration strength in the opposite direction from which the athlete decelerated. The Raptor's ability to safely load this movement in both directions allows for dynamic strength development for both performance enhancement and injury prevention.

**Drill Directions:** Place the movable pulley that controls the band height about 2 feet above the ground. Set the Raptor EX resistance so that the band is tight right at the movable pulley assembly. Attach the Raptor EX band to the waist using the 360 Belt as shown (above right). Prior to starting this drill

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### SAMPLE RAPTOR EX TRAINING DRILLS

**Drill Directions (Continued):** take two cones or markers and place a cone about 5 yards away from the Raptor and another cone about 20 yards away from the Raptor so you have a 15 yard training range between both cones. Once you set the cones down it is very important to check to make sure the resistance band never goes slack when you are at the cone 5 yards away from the Raptor EX. It is very important that training resistance/tension is maintained while you are decelerating to a stop at the 5 yard cone prior to stopping and reversing direction and accelerating back towards the cone placed 20 yards away from the Raptor. Referencing photos 1-6 below, start approximately 20 yards away from the Raptor facing the unit and begin accelerating towards the unit (photo 1). As you approach the marker placed around 5 yards from the Raptor unit begin the decelerating process as late as possible while still being able to fully come to a stop at the 5 yard mark (photo 5). Quickly shift your balance upon stopping and accelerate as quickly as possible in the direction from which you came (photo 6). Accelerate at full speed towards the marker at 20 yards for the first 10 yards after you stop and change direction. Perform 3 to 4 sets facing right with a left hand touch down as you decelerate and then an equal number of sets facing left with a right hand touchdown as you decelerate.



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The background of the entire page is a dark, high-contrast photograph of a sprinter in a starting block on a track. The sprinter is in a crouch, ready to start a race. The track has white lane markings. In the foreground, there is a piece of equipment, likely a VertiMax training device, which is dark and has some text on it. The overall tone is professional and athletic.

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