

44-2575 F150 7" Lift

IF your ReadyLIFT<sub>®</sub> product has a damaged or missing part, please contact customer service directly and a new replacement part will be sent to you immediately. For warranty issues, please return to the place of installation and contact ReadyLIFT.

# (877) 759-9991

MON-FRI 7AM-4PM PST OR EMAIL: support@readylift-ami.COM

# WEBSITE: ReadyLIFT.COM

\*\*Please retain this document in your vehicle at all times.\*\*

# Limited Lifetime Warranty

This unique product warranty proves our commitment to the quality and reliability of every product that ReadyLIFT manufactures. The ReadyLIFT product warranty only extends to the original purchaser of any ReadyLIFT product, if it breaks, we will give you a new part. Warranty does not apply to discontinued parts.

Our Limited Lifetime Warranty excludes the following ReadyLIFT items; bushings, bump stops, ball joints, tie rod ends, heim joints and shock absorbers. These parts are subject to wear and are not considered defective when worn. They are warranted for 12 months from the date of purchase for defects in workmanship.

This product warranty is voided if the vehicle is not aligned after kit installation and proper maintenance is routinely done.

Product purchased directly from ReadyLIFT has a 90 day return policy on uninstalled products from the date of purchase (may be subject to restocking fee). Uninstalled product returns must be in the original Ready-LIFT packaging. Please call **(877) 759-9991** to get an RGA# for any return. Customer is responsible for shipping costs back to ReadyLIFT. <u>Returns without RGA# will be refused.</u> Contact ReadyLIFT directly about any potentially defective parts prior to removal from vehicle.

ReadyLIFT products are **NOT** intended for off-road abuse. Any damage or failure as a result from off-road abuse voids the warranty of the ReadyLIFT product. ReadyLIFT is **NOT** responsible for any subsequent damages to any related vehicle parts due to misuse, abuse, improper installation, or lack of maintenance. Furthermore, ReadyLIFT reserves the right to change, modify or cancel this warranty without prior notice.



#### READ INSTRUCTIONS THOROUGHLY AND COMPLETELY BEFORE BEGINNING INSTALLATION.

INSTALLATION BY A <u>CERTIFIED PROFESSIONAL MECHANIC</u> IS HIGHLY RECOMMENDED.

#### **R**EADYLIFT® IS **NOT** RESPONSIBLE FOR ANY DAMAGE OR FAILURE RESULTING FROM IMPROPER INSTALLATION.

#### Safety Warning

MISUSE OF THIS PRODUCT COULD LEAD TO INJURY OR DEATH.

Suspension systems or components that enhance the on and off-road performance of your vehicle may cause it to handle differently than it did from the factory. Extreme care must be used to prevent loss of control or vehicle rollover during abrupt maneuvers.

Always operate your vehicle at reduced speeds to ensure your ability to control your vehicle under all driving conditions. Failure to drive safely may result in serious injury or death to driver and passengers.

Driver and passengers must ALWAYS wear your seat belts, avoid quick sharp turns and other sudden maneuvers. ReadyLIFT Suspension does not recommend the combined use of suspension lifts, body lifts, or other lifting devices.

You should never operate your vehicle under the influence of alcohol or drugs.

Constant maintenance is required to keep your vehicle safe. Thoroughly inspect your vehicle before and after every off-road use.

It is the responsibility of the retailer and/or the installer to review all state and local laws, with the end user of this product, related to bumper height laws and the lifting of their vehicle before the purchase and installation of any ReadyLIFT products.

It is the responsibility of the driver/s to check their surrounding area for obstructions, people, and animals before moving the vehicle.

All raised vehicles have increased blind spots; damage, injury and/or death can occur if these instructions are not followed.

### Installation Warning

All steps and procedures described in these instructions were performed while the vehicle was properly supported on a two post vehicle lift with safety jacks.

Use caution during all disassembly and assembly steps to insure suspension components are not over extended causing damage to any vehicle components and parts included in this kit.

Included instructions are guidelines only for recommended procedures and are not meant to be definitive. Installer is responsible to insure a safe and controllable vehicle after performing modifications.

ReadyLIFT Suspension recommends the use of an OE Service Manual for model/year of vehicle when disassembly and assembly of factory and related components.

Unless otherwise specified, tighten all bolts and fasteners to standard torque specifications listed within the OE Service Manual.

Suspension components that use rubber or urethane bushings should be tightened with the vehicle at normal ride height. This will prevent premature wear or failure of the bushing and maintain ride comfort.

Larger tire and wheel combinations may increase leverage on suspension, steering, and related components.

Due to payload options and initial ride height variances, the amount of lift is a base figure. Final ride height dimensions may vary in accordance to original vehicle ride height. Always measure the vehicle ride height prior to beginning installation.

This suspension system was developed using a  $35" \times 12.5"$  tire with  $20" \times 9"$  wheel and a offset of +25. If wider tires are used, offset wheels may be necessary and trimming may be required. Factory wheels can be used but are not recommended with tires over 11.5" wide.

The stock spare rim can be run in an emergency - exercise extreme caution under stock spare tire operating conditions. Please note that, if running the spare factory tire, it is done for short distances and a speed not to exceed 45mph or damage to differentials may occur.

# **IMPORTANT NOTE:**

Steering u-joint and extension instructions are very important to proper operation of the vehicle. These must be followed precisely.

This kit is only designed to work with factory struts and will not work with any aftermarket lift struts.

Trimming of the front valance for tire clearances may be necessary.

# **VEHICLE HEIGHT MEASURMENTS**

	Driver Before	Driver After	Passenger Before	Passenger After
Front				
Rear				

# **BILL OF MATERIALS**

Front Cross Member	1	14mm Washer	1
Rear Cross Member	1	9/16" x 4.0" Bolt	3
M18 x 150mm Bolt	2	9/16" Washer	6
M18 x 140mm Bolt	4	9/16" Lock Nut	3
M18 Washer	8	Driver Sway Bar Drop	1
M18 Lock Nut	2	Pass Sway Bar Drop	1
Cam Adj Plate and Nut	4	7/16" x 1.25" Bolt	4
Front Differential Skid Plate	1	7/16" Washer	8
3/8"x 1" Bolt	6	7/16" Lock Nut	4
3/8" Washer	6	Front Brake Line Bracket	2
Ball Joint Spacer	2	Rear Brake Line Bracket	1
Driver Side Differential Drop	1	Rear Parking Brake Bracket	1
Pass Side Differential Drop	1	5/16" x 1" Bolt	4
Driver Differential Torsion Bracket	1	5/16" Washer	8
Pass Differential Torsion Bracket	1	5/16" Lock Nut	4
Barb Connector	1	M6 x 16MM Bolt	2
Vent Tube	1	M6 Washer	2
Steering Extension Shaft	1	Zip Tie	6
Universal Joint	1	Driver Side 5" Block	1
Rod End w/ boot	1	Pass Side 5" Block	1
Driver Knuckle	1	U-bolt and Hardware Pack	1
Pass Knuckle	1	Driver Strut Spacer	1
Front Driveshaft Spacer	1	Pass Strut Spacer	1
M10 x 100mm Allen Bolt	6	M10 - 1.25 Flange Nut	6
M14 x 90mm Allen Bolt	1	M10 - 1.50 Flange Nut	6
Anti-seize Packet	1	Rear Shock	2

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**Before starting installation:** ReadyLIFT Suspension highly recommends that the installation of this product be performed by a professional mechanic with experience working on and installing suspension products. Professional knowledge and skill will typically yield the best installation results. If you need an installer in your area, please contact ReadyLIFT Suspension Customer Service to find one of our "Pro-Grade" Dealers.

### **INSTALLATION BY A PROFESSIONAL IS HIGHLY RECOMMENDED.**

- A Factory Service Manual for your specific Year / Make / Model is highly recommended for reference during installation.
- All lifted vehicles may require additional driveline modifications and / or balancing.
- A vehicle alignment is REQUIRED after installation of this product.
- Speedometer / Computer recalibration is required if changing +/- 10% from factory tire diameter.
- A vehicle lift or hoist greatly reduces installation time. Installation time estimates are based on an available vehicle hoist.
- Vehicle must be in excellent operating condition. Repair or replace any and all worn or damaged components prior to installation.

# \*\*\*Parts shown in red or silver for picture clarification only\*\*\*

ReadyLIFT recommends all steps and procedures described in these instructions be performed while the vehicle is properly supported on a two post vehicle lift with safety jacks.

Otherwise, park vehicle on a clean flat surface and block the rear wheels for safety. Engage the parking brake.

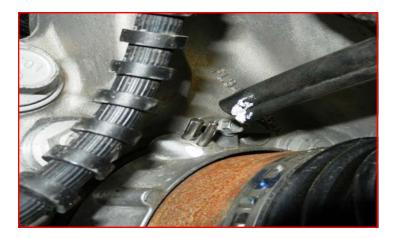
Disconnect the vehicle power source at the ground terminal on the battery.

Lock the steering wheel in the straight forward position with the column lock or steering wheel locking device.

Raise the front of the vehicle and support with safety jack stands at each frame rail behind the lower control arms. Remove all factory skid plates and plastic guards in between the two cross members of the frame by unclipping the plastic clips. Discard all.

Remove the brake line brackets from the knuckle and frame. Remove the ABS line from the knuckle. Disconnect the ABS wires from the engine compartment and remove from brake line brackets. Unclip electrical connectors from plastic holders to gain slack for reassembly later.

Disconnect the vacuum line from the actuator on the backside of the knuckle.



Remove the tie rods from the knuckle. Strike the tie rod boss on the knuckle with a dead blow hammer to dislodge the taper from the knuckle.



Remove the caliper from the knuckle and hang out of the way using suitable hook. DO NOT let the caliper hang by the brake hose. Remove the brake rotor and dust shield. Remove the axle nut dust cover. Remove the axle nut.

Loosen the upper ball joint nut. Strike the ball joint boss on the knuckle with a dead blow hammer to dislodge the taper.

Remove the upper ball joint nut and separate the upper control arm ball joint from the knuckle.

# USE CAUTION TO NOT DAMAGE THE VACUUM ACTUATOR

Remove the hardware holding the vacuum actuator on the knuckle and slide it and the axle off to the side. Carefully remove the vacuum hub from the axle. Loosen the lower ball joint nut. Strike the ball joint boss on the knuckle with a dead blow hammer to dislodge the taper and slide the knuckle off of the ball joint.



Remove the sway bar end link from the lower control arm.



Remove the lower strut mount from the lower control arm.

Remove the strut from the frame.



Remove the sway bar from the frame.



Remove the rear cross member from the frame.



Mark driveshaft to differential location for installation later. Remove the driveshaft mounting bolts and allow driveshaft to hang out of the way.

Remove both the driver side and passenger side CV axle. Strike the shaft with a mallet or soft hammer to dislodge it from the c-clip. Support the differential with a suitable jack. Remove the vent tube. Remove the 3 differential mounting bolts from the frame and lower the differential out of vehicle.



Locate the intermediate shaft pinch bolt. Mark the alignment of the rack and pinion input shaft and the coupler. Remove the pinch bolt and separate. MAKE SURE TO HAVE THE STEERING WHEEL LOCKED STRAIGHT FORWARD. FAILURE TO DO SO CAN CAUSE MAJOR DAMAGE TO THE IN-TERNAL CLOCK SPRING.



Disconnect the electrical leads to the rack and pinion. Support the rack and pinion and remove hardware from the frame. Carefully lower the rack & pinion assembly from the vehicle and set aside.



Measure from the outside edge of the driver side rear control arm pocket 2 5/8". Mark a vertical line on both the front and rear of the control arm pocket. Connect the 2 lines across the top of the pocket. Using a suitable cutting tool, cut this section off the frame. Sand and paint exposed metal with quality rust preventative paint.

Locate the upper differential frame mount. Mark a line across the center of the mount. Make a cut to the frame. Cut the front half off the frame and sand flush with the frame. Paint exposed metal with quality rust preventative paint. This cut is for clearance of the steering shaft extension and u-joint.





If your differential has the front assembly tab in the middle of the assembly, mark a straight line even with the housing and using a suitable cutting device, remove.



Locate the driver side differential drop bracket and the 3/4" rod end. Install the rod end into the bung on the drop bracket until. Screw into the bung until you measure from the face of the bung to the middle of the heim joint 1.75". The heim joint housing will end up slightly tilted to the back of the truck once installed. Do not tighten the set screw at this time.

Using the provided anti-seize packet, squeeze the lube into the boot. Make sure to get lube into the ball socket of the heim joint and into the middle opening of the ball on both open ends of the boot. This lube is for the steering extension installed in a later step. Add a thin layer to the top and bottom of the boot openings. Save a little lube for the extension.

Install the driver side drop bracket into the factory location using the 14mm x 90mm Allen bolt and flat washer. Do not tighten at this time.







Install the ReadyLift passenger side differential drop into the factory location using factory hardware. Do not tighten at this time.



Install differential onto the drop brackets using 9/16" x 4" bolts, and 2 washers from the front of the vehicle facing the rear. Do not install the 2nd washer and nuts at this time. (Rack and Pinion shown for reference) Install vent tube, and barb extension onto vent tube and differential.



Install the ReadyLift differential brace on the driver side differential drop bracket using 9/16" washer and lock nut. Install the crush tube into the frame using the factory hardware. Do not tighten at this time.

Install the ReadyLift differential brace onto passenger differential drop bracket. Install the 9/16" washer and lock nut. Do not tighten at this time.





Install the ReadyLift sway bar brackets to corresponding sides of the frame using 7/16" x 1 1/4" bolts, flat washers, and lock nuts. Do not tighten at this time.



Install the ReadyLift rear cross member into the factory control arm frame pockets using M18 x 150mm bolts, flat washers, and lock nuts.

Go through the sway bar drop brackets and then the factory control arm frame pockets from the rear of the vehicle. Do not tighten at this time.

Install factory cross member hardware into the passenger side frame pocket and into passenger differential support bracket. Do not tighten at this time.

Install rear differential mount using 9/16" x 4" bolt, flat washers, and lock nut. Do not tighten at this time.

Install the ReadyLift front cross member using the factory hardware from the rear of the vehicle facing forward. Do not tighten at this time.







Locate the steering u-joint, and steering extension. Install the steering extension into the u-joint while making sure the pinch bolt on the u-joint and the pinch bolt slot on the extension are 100% in line with each other. Any position set other than this will cause the rack and pinion to steering wheel alignment to be off center and can cause failure of the clock spring inside the steering column.

Install the complete assembly onto the rack and pinion making sure that the pinch bolt slot and the pinch bolt on the u-joint are in line with each other.

Torque the u-joint Allen pinch bolt to 165 in-lbs.

The extension has splines on the lower portion of itself, a blank area around the extension, and then a small section of spines above the blank area. Set the extension with the bottom set of splines even with the top of the u-joint housing. Tighten the set screw just enough to hold the extension into place. Final torque to be done once the kit is completed. Use the provided anti-seize packet and add a thin layer of lube to the steering extension.



(Assembly shown outside of vehicle only for picture clarification, do not remove.)

Install the rack and pinion to the front cross member using the factory hardware while lining up the steering extension through the 3/4" rod end.

Attach factory intermediate shaft to extension using factory pinch bolt. Use a drop of thread locker on the pinch bolt and torque to 165 in-lbs.

After attaching the intermediate shaft, make sure the intermediate shaft u-joint is not pushing down on the heim joint boot. This makes sure there is a 1/16" gap between the intermediate shaft u-joint and the ball socket of the heim joint.

There should have been a light layer of anti-seize on the top of the boot from the earlier step on page 10 for when the intermediate shaft u-joint makes contact to keep the boot from tearing. If not, then wipe the top of the boot with anti-seize. Install driver and passenger side lower control arms into the cross members using M18 x 140mm, flat washer, cam bracket and cam nut.



Tighten all differential, rack and pinion, and cross member hardware at this time. Starting with differential, torque all differential hardware to 95 ft-lbs, differential brace to cross member to 45 ft-lbs, cross member main hardware to 200 ft-lbs, sway bar drop bracket hardware to 60 ft-lbs, rack and pinion to front cross member hardware to 150 ft-lbs.

Install the ReadyLift front skid plate using 3/8" x 1" bolts, and washers. Torque to 35 ft-lbs.



Install the ReadyLift driveshaft spacer and driveshaft in the same orientation with the marks previously made using the 10mm x 100mm Allen head bolts and a drop of thread locker to all bolts. Torque hardware to 50 ft-lbs.



Install the ReadyLift driver and passenger side strut spacers to the struts using supplied 10mm x 1.50 flange nuts. They are marked D for drivers and P for passenger. Torque to 35 ft-lbs. Install completed strut assemblies into vehicle frame and lower control arms using supplied 10mm x 1.25 flange nuts and factory lower hardware. Torque upper nuts to 35 ft-lbs and lower nuts to 90 ft-lbs.



Remove hub assembly from the factory knuckles and transfer them to the Ready-Lift knuckles in the same orientation using factory hardware. Torque to 148 ft-lbs.

Locate the vacuum hub assembly and place onto the factory axle.





Install the ReadyLift knuckles onto the lower ball joints using factory ball joint nut, 3/4" washer. Run tight at this time. Will torque in later step.



Raise knuckle towards upper control arm while guiding the axle shaft into the hub assembly.



Take vacuum actuator and move to knuckle mounting surface making sure to engage the splined inner ring to the hub assembly and that the vacuum ports are pointing to the top of the knuckle. Install vacuum actuator using factory hardware. Torque to 132 in-lbs.

Install upper ball joint to knuckle using factory hardware. Torque to 65 ft-lbs. Grab axle and pull towards the hub assembly while rotating the hub to engage the splines of the axle with the vacuum actuator. You will be able to tell if the axle has been fully engaged to vacuum actuator and hub assembly when the shoulder of the axle is visible through the hub and when rotating hub assembly the axle will rotate also. The shoulder should be 2mm under the nut mounting surface. You will be able to see about 3 threads of the axle if all is done correctly. If this is not the case, then the hub assembly will need to be rotated more until full engagement of splines is achieved.

These steps are very important to follow. The vacuum actuator is made of plastic and is very easily damaged. If the nut is tightened before full engagement of the splines, the plastic actuator will break. Repeat steps for driver and passenger sides. Once the splines have been fully engaged, install factory axle nut. Torque to 18 ft-lbs.



Install dust shield to knuckle using factory hardware. Torque to 5 ft-lbs. Install rotor and brake caliper assembly to hub assembly and knuckle using factory hardware. Apply a drop of thread locker to threads and torque to 148 ft-lbs.

Install the factory brake line bracket to knuckle using 6mm bolt, and washer. Install ABS wire to knuckle using factory hardware. Torque all 5 ft-lbs. Install vacuum lines to vacuum actuator.

Install front brake line drop bracket to factory hard line bracket using 5/16" x 1" bolts, flat washers, and c-nuts. Gently pull down and bend the metal brake line at the frame to be able to attach the brake line drop bracket to the factory location using the factory hardware. Torque all brake line bolts to 10 ft-lbs. Attach ABS wire to factory locations on factory brake line brackets. Run the ABS line on the outside of the strut tower next to the vacuum lines at strut tower location. Reattach electrical connectors in engine compartment.

Install outer tie rod ends to knuckle using factory hardware. Torque tie rod end nut and lower ball joint nut to 110 ft-lbs. Install sway bar to drop brackets using factory hardware. Torque to 35 ft-lbs. Install end links to lower control arm using factory hardware. Torque to 40 ft-lbs. Install the wheels and tires and lower the vehicle to the ground. Torque lug nuts to wheel manufacturer specifications.

Jounce the front of the vehicle to settle the front suspension. Move the lower control arm eccentric cams to full inboard. Initial torque to 150 ft-lbs. (Final torque to be set by alignment technician)







# Rear Install

Block the front wheels and raise the rear of the vehicle. Place jack stands under the frame rails ahead of the spring hangers.

Remove the rear wheels.

Remove the rear emergency brake line bracket from the frame ahead of the driver side spring.

Remove the brake line bracket from the frame. Support rear axle with a suitable jack and remove the shocks.

Slightly loosen but do not remove the driver side u-bolts. Remove the passenger side u-bolts completely. Lower the axle just enough to remove the factory block and install the lift block.







Locate the passenger side lift block, making sure the tapered end points to the front of the vehicle. Install the lift block on the axle pad aligning the pins. Raise the axle and the block up to the spring while aligning the center pins. Install the provided u-bolts, washers and nuts. Snug the u-bolt nuts but do not fully tighten at this time. Repeat steps for driver side.

Install the rear brake line drop bracket to the frame using factory hardware. Gently pull the rear hard lines down and attach the rear brake line bracket to the drop bracket using 5/16" x 1" bolt, washers, and lock nut. Torque all to 10 ft-lbs.

Install the rear emergency brake line drop bracket to the frame using the factory hardware, the emergency brake line bracket to the drop bracket using 5/16" x 1" bolt, washers and lock nut. Torque to 10 ft-lbs.

Install new rear shocks with factory hardware. If installing the kit black shocks, the body goes to the ground the same as the factory. If installing other shocks, refer to their directions for install. Do not tighten

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at this time.









Install rear wheels and lower vehicle to the ground. Torque lug nuts to wheel manufacturers specifications. Jounce vehicle to settle suspension. Torque rear u-bolts to 110 ft-lbs, and shock hardware to 60 ft-lbs. Install the vehicles power source at the ground terminal.

Have a reputable alignment shop set alignment to the recommended specs on the bottom of the last page of this instruction booklet. If driving vehicle to an alignment shop, adjust toe prior to vehicle operation.

Recheck that all hardware is of proper torque values and all electrical connections are hooked up. Start vehicle and verify that all dash warning lights are off. Cycle the steering wheel from lock to lock to check for any interference of steering intermediate shaft, steering extension, steering u-joint, wheels, tires, brake lines, hoses, wires, ect and ensure adequate clearance through out the suspension cycle. Adjust as necessary.

# \*\*\* Due to manufacturer frame variances, if there is any contact between steering extension, u-joint or intermediate shaft, it may be necessary to remove extension from intermediate shaft and u-joint to adjust rod end inwards to gain clearance.\*\*\*

Once everything has been thourghly checked for clearances, make sure the steering heim joint is set perpendicular to the steering extension. Once done, tighten the set screw for the heim joint. If there needs to be any adjustment, now is the time to do so. If the intermediate shaft is to close to the heim joint when the steering wheel is turned, it can cause a binding effect. To alleviate this, you will raise the steering extension upwards from the kit u-joint to make sure that the intermediate shaft is not making contact with the heim joint. It can make contact with the boot, just not the actual heim joint.

If there is any 1/4 turn binding that gets tight and then loose, then tight again, the provided steering u-joint and the intermediate u-joint are not in phase with each other. The fix for this would be remove the steering extension and make sure the two u-joint pinch bolts are 100% in line with each other. If you have any questions, please call our tech support line and/or watch the youtube video that shows the installation outside the cab.



### FAILURE TO PERFORM THE POST INSPECTION CHECKS MAY RESULT IN VEHICLE COMPONENT DAMAGE AND/OR PERSONAL INJURY OR DEATH TO THE DRIVER AND/OR OTHERS.

# Final Checks & Adjustments

Once the vehicle is lowered to the ground, check all parts which have rubber or urethane components to ensure proper torque. Torque lug nuts to the wheel manufacturer specs. Move vehicle backwards and forwards a short distance to allow suspension components to adjust. Turn the front wheels completely left then right and verify adequate tire, wheel, brake line, and ABS wire clearance. Test and inspect steering, brake and suspension components for tightness and proper operation. Inspect brakes hoses and ABS lines for adequate slack at full extension, adjust as necessary.

# RECHECK ALL HARDWARE FOR PROPER TORQUE VALUES AFTER 500 MILES, AND THEN PERIODICALLY AT EACH SERVICE INTERVAL THERAFTER.

# Vehicle Handling Warning

Increasing the height of your vehicle raises the center of gravity and can affect stability and control. Use caution on turns and when making steering corrections.

Vehicles with larger tires and wheels will handle differently than stock vehicles. Take time to familiarize yourself with the handling of your vehicle.

# Wheel Alignment/Headlamp Adjustment

It is necessary to have a proper and professional wheel alignment performed by a certified alignment technician. Align the vehicle to factory specifications. It is recommended that your vehicle alignment be checked after any off-road driving.

In addition to your vehicle alignment, for your safety and others, it is necessary to check and adjust your vehicle headlamps for proper aim and alignment. If the vehicle is equipped with active or passive safety/collision monitoring and/or avoidance systems including, but not limited to, camera- or radar-based systems, check and adjust your vehicle's systems for proper aim and function.

	Driver	Passenger	Tolerance	Total / Split
Camber	-0.3	-0.3	+/- 0.5	+0.0
Caster	+3.0	+3.0	+/- 0.5	+0.0
Тое	+.07	+.07	+/-0.05	+.14

# **RECOMMENDED ALIGNMENT SPECS**

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