

INSTALLATION INSTRUCTIONS

FTS02B

WARNING

Improper installation of this product may lead to death or severe injury. Follow installation instructions carefully and read all warning labels thoroughly before installing this product. Install provided warning stickers on the throttle side of the vehicle in sight of the operator, so the operator is made aware of the modified throttle controls. Not installing these warning stickers can result in severe injury or death to the operator. If riding anywhere near the trees or in forested areas, a Munster throttle guard should be installed to help protect the throttle cable and lever from trees and branches. Use only our proprietary Munster throttle guard. Installing any other aftermarket or OEM throttle guard, hand guard, or wind deflector, can cause the snowmobile to accelerate uncontrollably due to damage of the throttle cable from the shifting of these components on your handle bar. If your machine is equipped with a hand guard or wind deflector, it should be removed before installing this product.

IMPORTANT: Before Installation



Install the two provided warning stickers on the vehicle side panel to warn any operator of the modified throttle controls.

WARNING: Not installing these warning stickers can result in death or severe injury to the operator.

Install the stickers at the top of the right hand side panel of the snowmobile, below the finger throttle, so the stickers are easily visible by the operator. Ensure surface is clean and dry and that the stickers adhere properly to the side panel. If additional stickers are needed, please contact us through our website: munstercanada.com, and we will provide new stickers.

Thumb Throttle Removal



(1) Use a small screwdriver to remove the E-clip holding the throttle cable housing in place. Pull the cable housing out and slide the cable through the slot to detach the housing.



(2) Remove the pivot bolts from the thumb lever with an Alan key to detach it from the assembly. With the thumb lever off, pull the cable end out of the thumb lever by pulling on the cable housing. Try not to kink the cable while removing it from the lever.

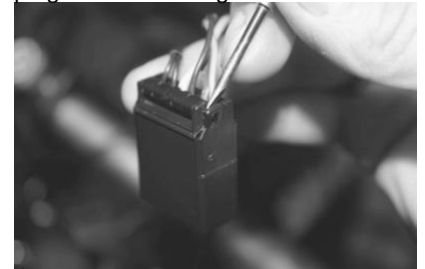


(3) Using an Alan key, undo the bolt on the clamping plate of the thumb throttle. Use a flat head screwdriver to push in the small tab while sliding the plastic clamping plate away from your grip. (Some models may have different style throttle block) You may have to take off the kill switch by removing the torx screw before taking off the throttle clamping plate.



(4) Take off the riser cover to expose the wiring harness plugs. Follow the wires from the thumb heater

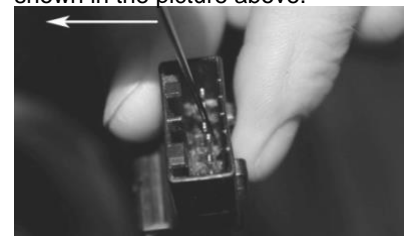
and the right hand grip heater to the wiring harness, cutting the zip ties to expose the wires. Unplug the harness plug that the wires go to.



(5) Using a small flat head screwdriver release the small clips on the plug and flip the locking tab back to expose the pin connectors in the plug.



(6) With the locking tab flipped back, locate the wires coming from the right hand grip heater. Push the wires into the plug to make sure they are fully inserted before removal. Flip the connector over. Using the small needle tool provided, push the needle end lightly into the hole behind the pin connector you are trying to release as shown in the picture above.



(7) Pull the needle tool towards the pin connector to pry the locking mechanism inside the plug away from

the pin connector. At the same time, pull on the individual wire you are trying to release. You may want to get someone to help you for this step. If done correctly, the wire should pull out easily. If the wire is pulled before you pry back the locking mechanism the pin connector will not release.



(8) Remembering which wires go where, repeat step 6 to remove the other grip heater wire(s) going to the plug. Once the grip heater wire(s) are free from the plug remove the throttle block, pulling the grip heater wires through the hole in the block. Reinsert the grip heater pin connectors into the plug in their original location.

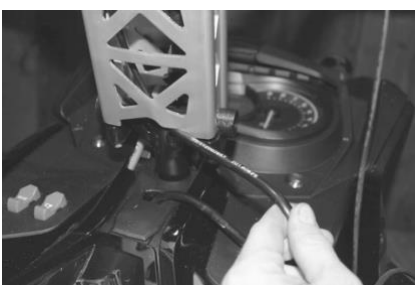


(9) Locate the wires coming from the thumb heater. Repeat step 6 to remove all thumb heater wires from the plug.

Installation



(10) Undo the clamp bolts on your new finger throttle using an Alan key. Route the wires from the heated grip through the slot in the throttle block. Clamp the finger throttle assembly to the handle bar and snug up the clamp bolts being sure not to pinch the wires.



(11) Re-route the throttle cable through your riser so it can be installed in front of the handlebars. Keep in mind the cable must be clear of the riser cover when it is installed later. Make sure the cable housing is away from any pinch points. Check your steering for full range of motion making sure it doesn't put any tension or stress on your throttle cable housing.



(12) Insert the throttle cable end into the finger lever slot.



(13) Pull on the cable housing to extend the cable and slide the cable through the slot in the aluminum block. Release the cable housing allowing it to slide into place.



(14) Using the low profile C-clip provided with your finger throttle, install it over the end of the cable housing to secure it in place.



(For E-tec Models)

(15.1) Plug the pin connectors for the finger heater into the plug where the thumb heater was. The wires can be inserted in any order. Make sure they are inserted in the right direction. Flip the plug locking mechanism closed, making sure both locking tabs snap shut. Plug the connector plug back into the wiring harness.



(For All Other Models)

(15.2) Plug the pin connectors for the finger heater into any two of the three available spots in the plug. The wires can be inserted in any order. Make sure they are inserted in the right direction. Flip the plug locking mechanism closed, making sure both locking tabs snap shut. Plug the connector plug back into the wiring harness. Start the sled and test the finger heater to see if it works on one of the two heat settings. Regardless of which setting the heater works on, you will now be limited to the options of having full finger heat or no finger heat. If the finger heater does not work, repeat step 6 in the "Removal of Stock Thumb Throttle" section to remove any one of the two finger heater wires. Plug the wire you removed into the other pin connector port that wasn't being used. Close the locking tab on the plug and plug it back into the harness. Start the sled again and test to make sure it works on one of the two heat settings.



(16) Adjust and tighten kill switch if it was loosened. Tuck all heater and kill switch wires back into the harness and use zip ties to fasten to the handle bar.



(17) Reinstall the riser cover making sure all wires are routed in their original location.



(18) Adjust finger throttle position for rider preference and tighten clamp bolts.

OPERATING MANUAL

WARNING

Inexperienced operation of a finger throttle can lead to death or severe injury. Read the following operating manual before use.

BE AWARE OF THE HAZARDS

1. **ONLY USE ONE FINGER** - Never use more than one finger to activate the throttle lever at all times. Using more than one finger to activate the throttle can cause uncontrollable acceleration of the snowmobile, due to lack of grip on the handle bar. **ONLY** use your one index finger to activate the throttle. Your middle finger must remain on the handle bar for grip at all times. If your middle finger is used to activate the throttle, you will lack grip strength on the handle bar, which will cause you to pull the throttle in attempt to hold on. If you have any disability which limits the use of your middle finger, ring finger and/or pinky finger in your right hand, you should not attempt to operate a snowmobile with a finger throttle.
2. **CAUTION WHEN LOADING** - Take special caution when loading the snowmobile onto a truck or trailer with a finger throttle. Loading a snowmobile is a dangerous task which requires good throttle control. Any error in throttle control, or incorrect hand placement can cause your machine to accelerate up the ramp out of your control. **DO NOT** attempt to load your snowmobile until you are competent using a finger throttle, and have good throttle control. **NEVER** let others load your snowmobile for you, unless they are competent using a finger throttle.
3. **AVOID TREES AND BRANCHES** - If riding near trees or forested areas, the finger throttle should only be used with the added protection of a Munster throttle guard installed. The finger throttle is mounted in front of the handle bar which makes it susceptible to accidental throttle activation from foreign objects. An example of this would be if a tree or branch came into contact with the throttle lever to activate the throttle. Another example, and a much more dangerous scenario is if the throttle cable gets snagged by a tree branch. A snag can cause the throttle cable housing to stretch, which would result in the throttle sticking wide open and the snowmobile accelerating uncontrollably. Alternatively, a tree or branch can cause damage to any one of the throttle components resulting in uncontrollable acceleration of the snowmobile. Although a Munster throttle guard will help protect the lever and throttle cable, it will not ensure that accidental throttle activation will not occur. It is still possible to snag the throttle cable on a branch and/or damage other components of the finger throttle even with a Munster throttle guard installed. Use discretion if riding in the trees, and avoid trees and branches at all times.
4. **THROTTLE SAFETY SWITCH BYPASS (POARIS AND ARCTIC CAT ONLY)** - On Polaris and Arctic Cat machines, the Throttle Safety Switch (TSS) has been bypassed and removed in order to use the finger throttle product. The throttle safety switch is an OEM safety mechanism which helps deactivate the machine if the throttle is stuck open unintentionally, either from damage to throttle components, or from something obstructing the throttle linkage. By bypassing this safety mechanism, the machine will not be deactivated in the event the throttle sticks open. This means that if the machine's throttle gets stuck open for any reason, the machine may accelerate uncontrollably, even if your finger is released from the throttle lever. This includes accidental throttle activation during start up. Always inspect and cycle the finger throttle to ensure it is functioning normally before start up. If for any reason the finger throttle doesn't cycle normally, **DO NOT START THE MACHINE**. Inspect further, and make sure the throttle linkage is functioning normally before start up. Always wear your tether before starting the vehicle.
5. **"WHISKEY THROTTLE" AND THE IMPORTANCE OF MUSCLE MEMORY** - Throttle control, just like any other motor skill requires muscle memory to be done effectively and efficiently. When a movement is repeated over time, a long-term muscle memory is created for that task, eventually allowing it to be performed with little to no conscious effort. This process decreases the need for attention and creates efficiency within the memory system. When learning how to use a finger throttle, throttle control is often slow, stiff and easily disrupted without attention. This can make throttle control feel unnatural, but it can also pose a threat to the operator. If attention is drawn elsewhere, the operator can forget to let go of the throttle in a critical situation. Often times, an unexpected lurch in acceleration is enough to cause the operator to draw attention away from throttle control, and in turn lead to more acceleration. This is what is commonly known as "Whiskey throttle", and it can happen with any vehicle where there is an absence of muscle memory for a certain throttle control system. Make sure you understand your ability, and practice in a safe open area while learning to use a finger throttle.

OPERATING CONDITIONS

If it's your first time using a finger throttle, find a safe wide open space to get familiar operating the vehicle with a finger throttle. It should be a flat area with no hazards in close proximity. Wear your tether, as well as your helmet and any appropriate safety gear. A tether should always be used while operating the vehicle with a finger throttle.

If a safe area isn't available, or if the vehicle needs to be transported first, it may be useful to flip your finger throttle around and use it as a thumb throttle when loading, or when riding in higher risk areas. The comfort and familiarity of using your thumb may be a good strategy when riding in higher risk areas. However, if flipping your throttle to use as a thumb throttle, pay close attention to your throttle cable routing, and make sure your throttle cable is clear of any pinch points. Check that your steering will not put tension on the throttle cable in either direction. Improper throttle cable routing can cause the machine to accelerate uncontrollably if the throttle cable is pinched or stretched by the steering linkage.

OPERATING PROCEDURE

Before starting the snowmobile, visually inspect that the finger throttle has been installed correctly, and that your throttle lever functions normally. The finger lever should pull with ease activating the throttle all the way. When the lever is released, it should spring back to the same position without any resistance. The throttle cable should have about 1/8 inch of cable play in the lever at its rest position. It is good practice to inspect your throttle before every start up.

In a safe area and with your tether on, start the machine. With a firm grip on the handle bars, use **ONLY** your index finger to pull on the throttle lever to engage the throttle. Never use more than one finger to activate the throttle. Practice engaging and disengaging the throttle to rev up the motor without engaging the clutch to start. Once comfortable, try engaging the clutch and move the machine forward. Practice riding around in a safe area until you're comfortable enough progressing to the trail and so forth.

Throttle control with your index finger may feel weird at first, but take your time getting comfortable learning the new controls. Mid RPM throttle control tends to feel unnatural since it requires finesse, where as the full throttle and no throttle positions tend to be more predictable. For this reason, the finger throttle may feel less comfortable on the trail where mid throttle control is required, and more comfortable off the trail in deeper snow conditions where throttle control tends to be more off and on. Do not put yourself in any technical or dangerous situations while learning. Your finger throttle control should feel like second nature before riding in any higher risk areas. Loading your snowmobile onto a truck or trailer with a finger throttle should only be performed once fully competent and comfortable operating a finger throttle.

TIME FRAME FOR LEARNING

The time that is required to feel comfortable using a finger throttle depends on the person. Some feel comfortable using a finger throttle right away, while others take weeks. The average person takes about 2-4 days of riding before the finger throttle starts to feel intuitive. It is important to gauge your comfort level, and progress at your own rate.

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For any questions regarding the safety, use, installation or warranty of any of our products, please contact us directly at the following contact information:

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