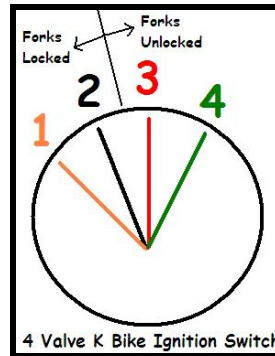


Operating Tips For A K100RS4V, K1 or K1100

IGNITION SWITCH

The ignition switch has four positions.



FORK LOCK

The fork lock is built into the ignition switch. To engage the fork lock turn the front wheel almost all of the way to the right and turn the key to position 1 or 2. The key can only be turned to positions 1 and 2 when the fork lock is aligned and allowed to engage. If the fork lock hasn't been used in a while then it may be a bit sticky.

POSITION 1: Forks locked. Front parking light and taillight on. The key can be removed.

POSITION 2: Forks locked. Nothing on. The key can be removed.

POSITION 3: Forks unlocked. Nothing on. The key can be removed.

POSITION 4: This is the on position for running the bike. Obviously the forks aren't locked. The key cannot be removed in this position. When you first turn the bike on you will hear a whining noise in the fuel tank for a second or so. This is the fuel pump pre-pressurizing the fuel system and is normal.

SIDE STAND SWITCH

Four valve K bikes have a side switch that disables the bike when the side stand is deployed. This is so you don't ride off with the side stand down. Some people, myself included, are not a fan of the side stand switch. Options for disabling can be had if you email me at smithduck@gmail.com for details.

STARTING THE BIKE

The bike must be in neutral (as indicated by a zero in the gear display in the tachometer face plate and the neutral light being illuminated) or the clutch lever must be pulled in. The red kill switch on the right hand combination switch must be pointing straight up. Push the green button on the right hand combination switch to engage the starter.

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If you try to start a K bike with a low battery then there's a chance that the starter relay will only partially engage which creates a spark that can arc and weld the starter relay contacts together. If this happens then the starter will keep going (and going, and going...) even after you release the starter button. For 1993 model year and earlier bikes, the quickest way to disconnect the battery in the event of this occurring is to disconnect the battery ground cable from the left side of the transmission. If you think this might happen then it's a good idea to check that bolt ahead of time as many times that bolt was last touched when the bike left the factory and some corrosion may have built up in the threads.

In general, K bikes don't need a lot of gas to get started. Before starting it, I've always found that a quick flip of the throttle and putting the choke lever to the first position will have the bike start right up. (It's a fuel injected engine so technically it's a throttle advance, not a real choke, but BMW labeled it a choke so that's what people call it.)

There's no need to let the engine warm up. BMW recommends just starting it up and riding off. It might be a little cold-blooded for the first couple of miles so don't be afraid to leave the choke on for a little while.

SHIFTING

K bikes employ the typical one down, four up shift pattern common to most motorcycles. Some people think K bike transmissions are clunky. In my experience it really varies from bike to bike.

One thing is for sure though, K bikes don't like timid shifts and will leave you in a "false neutral" if you don't shift assertively. This doesn't mean that you have to stomp on the shift lever, just pull in the clutch and shift with authority.

Some people subscribe to a "preload the shift lever" theory (put some pressure on the shift lever prior to pulling the clutch in) but I've owned quite a few of these bikes and have never found that to be necessary on any of them.

HANDLEBAR CONTROLS

The throttle, front brake lever (which is adjustable on 94 and later bikes) and clutch lever function pretty much as you'd expect them to.

TURN SIGNALS

The turn signals are the paddle type switches at the bottom of the left and right combination switches. If you're coming from another brand of bike then you might think it's goofy at first but it doesn't take that long to get used to it. The button with the "X" on it on the right combination switch cancels either turn signal. Push that button up with your right thumb to cancel either turn signal.

K bikes also have an automatic turn signal canceling function that turns off the turn signals after traveling approximately 210 meters. (You can disable this by cutting the blue/green wire at the flasher relay.)

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HORN

The horn switch is located on the bottom of the left hand combination switch. Push this button up with your left thumb to sound the horn.

HEADLIGHT SWITCH

The headlight switch is the big yellow three-position switch in the left combination switch. The middle position is the headlight low beam. The up position is the high beam. The down position is a momentary switch for the high beam.

(There's a square white one wire connector in the relay box under the gas tank. If it's connected then the low beam stays on with the high beam. If it's disconnected then the low beam goes off when the high beam is on.)

DASH SWITCHES

HAZARD SWITCH

This is the switch with the red graphic insert with a triangle on it. Pushing it down turns on the four way emergency flashers. The hazards can only be turned on when the bike is turned on. However, they can be left on when the bike is turned off. (I suspect BMW designed it that way so that some idiot couldn't come by and turn your flashers on and run down your battery when you're away.)

(If your bike doesn't have a hazard switch then it's very easy to add one. All of the circuitry to have one is already on the bike. All you need to do is install a hazard switch in the dash and plug it into the wiring harness connector under the tank on the left side.)

HEATED GRIP SWITCH (If your bike is equipped with heated grips.)

The graphic on the heated grip switch is a grip with a coil of wire around it. It is a three-position switch. Pushing the top of it turns the heated grips on on the high setting. Pushing the bottom of it turns the heated grips on on the low setting. The middle position is off.

ABS SWITCH (If your bike has ABS.)

The graphic on this switch is the letters "ABS" bracketed by a couple of brake shoes on a red background. Hopefully you'll never need to use it. If your ABS is in fault mode then the ABS lights in your instrument cluster will keep flashing when you're riding. When this happens that means that your ABS is not operational and that you just have normal brakes. When this happens pressing the ABS switch will make those lights go solid for about ten minutes so it's not as bothersome as the flashing lights. The ABS warning lights will then start flashing again. Hit the ABS switch again to make them solid for another ten minutes. (How to deal with a faulted ABS system is addressed elsewhere.)

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WINDSCREEN SWITCH (K1100LT only)

The K1100LT allows you to electronically/mechanically adjust the windscreen up and down. 1995 and earlier model years have a three position dash switch to adjust the position of the windscreen. The graphic on this switch is a motorcycle helmet on a green background. Pressing the switch up raises the windscreen. Pressing it down lowers the windscreen. 1996 and later K1100LTs have the windscreen switch integrated into the left side combination switch on the clutch perch. Like the dash switch, up raises the windscreen and down lowers it. BMW recommends not raising the windscreen while in motion as this induces more stress of the components of the windscreen mechanism. (The windscreen rods inside the front of the fairing should be cleaned and lubed annually. Silicone lubricant is preferred over other lubricants as it is less prone to collecting dust and gumming things up.)

BULB MONITOR UNIT (a.k.a. "the triangle light")

In the center of the instrument cluster is a red indicator lamp with a triangle. This light is controlled by a relay of sorts known as the bulb monitor unit, or BMU. The BMU tests four things:

- 1) The front brake switch
- 2) The rear brake switch
- 3) The taillight running light bulb
- 4) The brake light bulb

When you first start the bike this light will remain on until you have activated both the front and rear brake switches. If it remains solid after you've applied both brakes then either one of your switches is not working or the tail or brake light bulb is out. (On ABS equipped bikes, once the brakes have been applied, it will flash in conjunction with the ABS indicator at the bottom of the speedometer faceplate.)

If the BMU light comes on or starts to flicker while you're riding then either your tail or brake light is out or on it's way out. Note that sometimes you may still have a functioning brake/tail light but either the contacts are getting dirty or the bulb's filament isn't working well enough to make the BMU happy. Replacing the bulb with a new one should cure this.

TURN SIGNAL "HYPERFLASH"

If one of your turn signals is flashing at twice it's normal rate then the flasher relay is telling you that one of your turn signal bulbs is out.

ABS EQUIPPED BIKES

If your bike is equipped with ABS then the ABS warning lights will flash until you've ridden several feet. The reason for this is that the ABS control unit (a.k.a. ABS brain) tests all of the following components as part of it's initialization process: the front ABS sensor, the rear ABS sensor, the front ABS modulator, the rear ABS modulator and the brain itself. The front and rear ABS sensors cannot be

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tested until the bike starts moving and the sensors send pulses to the ABS brain.

If the ABS warning lights in the instrument cluster continue flashing after you've started riding then this tells you that the ABS is not operational. The bike is still safe and rideable though, you just have normal non-ABS braking. As mentioned above, pressing the ABS dash switch will make the lights go solid for the next ten minutes so they aren't as obnoxious as when they're flashing.

PUTTING THE BIKE ON THE CENTER STAND

K bikes have a lifting handle along the left rear diagonal frame member. It folds up and out and aids in putting the bike on the center stand. K1s and K1100RSs do not have a fold out handle but have a tube welded onto the left side of the frame for the purpose of getting the bike on the center stand. Being rather heavy beasts it does take some effort and technique to get them up on the center stand. Here are some pointers on how to make it easier:

- 1) Put the bike in neutral. This allows the rear wheel to rotate freely and reduces the initial resistance to moving backwards.
- 2) Point the front wheel straight ahead.
- 3) Place your left hand on the left handlebar grip.
- 4) Pull out the center stand lifting handle your with your right hand.
- 5) Push down on the center stand with the ball of your right foot until the left "foot" of the center stand hits the ground.
- 6) Slowly rotate the bike to an upright position until the right "foot" of the center stand also touches the ground.
- 7) Using mostly downward pressure on the center stand with your right foot, pull the bike back and up onto the center stand.

GAS CAP

The gas cap opens by inserting the ignition key and turning the key about 90 degrees counterclockwise. When closing the gas cap it helps to give it a good rap with the butt of your hand to make sure that it latches completely.

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SEAT/HELMET LOCK

For "normal" K bikes: The seat/helmet lock is located about half way back of the seat on the left hand side. The lock has three positions. I'll call them left, up and right. When the lock is in the left position (all of the way counterclockwise) then the seat lock is unlocked and can be opened by pushing in on the lock. When the lock slot is vertical and pointed straight up the seat is locked. With the key inserted, the helmet lock is released by turning the key to the right (all of the way clockwise) and pushing in the lock. (As you'll soon discover the helmet lock is pretty darned worthless. It can be made somewhat useful if you use a helmet lock extender.)

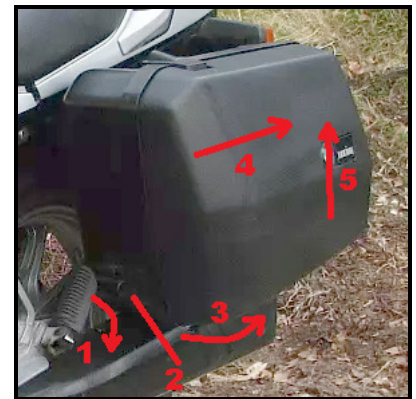
Make sure that the seat lock latches when you close the seat. If you don't then the seat latch rod on the seat rides on top of the hook of the seat lock which will eventually wear it out and break it. The length of the seat latch rod can be adjusted by loosening the lock nut at its base.

SYSTEM CASE MOUNTING (Luggage, Panniers, Side Cases)

BMW K bike System Cases can be a bit awkward to get on and off. However, once you learn the steps to remove and mount them, it is much easier. With a little practice it will become second nature. The racks that they mount on are often called "Z" racks due to their shape.

Removal

1. Make sure the passenger peg is deployed
2. Open the latch that holds the case to the "Z" rack.
3. Rotate the bottom of the case slightly outward.
4. Slide the case to the rear along the "Z" rack.
5. Lift it off.



Mounting

1. Make sure the passenger peg is deployed
2. Set the case on the top of the "Z" rack as far back as possible and make sure that the mounting rail on the back of case is well-seated along the "Z" rack.
3. Rotate the bottom of the case slightly outward.
4. Slide the case forward as far as it will go.
5. Rotate the bottom of the case inward and secure the latch that holds it to the "Z" rail.



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K BIKE ODDITIES

SMOKING ON STARTUP

Any 4 valve K bike, if left on the side stand for an extended period of time, will smoke for a few minutes when started. This is because when the bike is on the side stand the cylinder head is angled downward and oil seeps past the piston rings into the combustion chambers. Aside from the smoke that it generates it's really not an issue.

There are a couple of ways to minimize smoky startups. The first is to use the center stand. That way the engine is level and much less oil, if any, seeps past the rings. The second method is to turn off the bike and tilt it to the right for about ten or fifteen seconds before putting it on the side stand. This allows most of the oil behind the pistons to drain back into the sump so there's less to seep past the rings into the combustion chambers.

K BIKE WHINING

It's normal. It's the fuel pump working inside the gas tank. As you get low on fuel it will tend to get louder as less of the fuel pump is submerged and the empty gas tank becomes a larger resonating chamber. Since the fuel also serves as a coolant for the fuel pump it's a good idea not to run your tank extremely low on a consistent basis. I usually refill when the low fuel idiot light in the instrument cluster illuminates.

"BOX OF ROCKS"

Some 4 valve K bikes, particularly the K1100s, make some racket in the front of the engine at idle. (I'm pretty sure it's the timing chain gear.) Though a little annoying "they all do that" and it's not necessarily a sign that anything is wrong. Put your ear plugs in and helmet on before starting the bike.

EXHAUST CRACKS

4 valve K bikes have a tendency to develop cracks in the welds at the exhaust collector. This can be rewelded but chances are that won't last too long. Supposedly the chances of cracked welds developing can be minimized by making sure that the header flange nuts that hold the headers to the head remain tight. Therefore it's a good idea to make sure these are good and tight periodically. Many owners check these nuts at every oil change. The torque spec for those nuts is 21 N-m. (15.5 Ft-lbs)

SPEEDOMETER ACCURACY

K bike speedometers tend to run about 10% fast from the factory. You can calibrate the speedometer yourself though. Email me at smithduck@gmail.com for details.

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TIRE PRESSURE

The tire pressures listed in the owners manual are for the tires that came on the bike umpteen years ago when the manual was originally written. Since then tire technology has advanced quite a bit the recommended pressures listed in the owners manual usually do not apply to today's tires.