

CLS • Chain Lube Systems

Heated Grips



CLS HEAT
Installation Guide &
Instruction Manual

5 years
warranty!



INNOVATIVE MOTORCYCLE-ACCESSORIES

CLS HEAT Installation Guide & Instruction Manual

Foreword

Thank you for choosing the CLS Heat! Please read this manual thoroughly before the installation. If any questions occur, we will be happy to answer them to you.

Preparation:

Look for a nice position to place the electronic unit and either the rotary switch or the Control Display. The electronic unit can be placed in any position, it's waterproof and completely shock-resistant. Basically, you can place the blackbox anywhere you want. But, make sure to not have any cables running alongside the ignition coil, since that may cause disturbances. For the installation you will need a clean cloth, break cleaner, a pair of pliers, a small wire cutter, a thin long screwdriver, a very sharp knife, sandpaper of middle granulation, a round file, a grinder and some tools for detaching handlebar weights or parts of the casing.

Installation:

Remove the original grips. You could just cut the grips open lengthwise, using a sharp knife. If you don't want to damage the grips, do the following: take a long, thin screwdriver and a can of break cleaner.



Remove the handlebar weights first (if available), then push the screwdriver in between the grip and the handlebar. Now, spray some break cleaner inside the gap, while rotating the screwdriver around the handlebar. The grips should come off easily by pulling now. On the throttle side, you will need to pull the grip off the throttle-sleeve.

Note:

The heated grips have a different inner radius. The grip with the smaller one is for the side of the clutch, the one with the bigger radius for the side of the throttle.

Mounting the heated grips:

The ripple on the throttle-sleeve needs to be removed. Use a very sharp knife (hobby knife or scalpel), a grinder and some sand paper to do so. Leave only about 1/10 of the ripple intact for better adhesion of the grip on the sleeve.



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But make sure the grip doesn't sit too tight on the sleeve, since too much stretching could damage the heating wires inside the grip. Slightly roughen the inner side of the grips with a file to create more surface and ensure better bonding.

As a test, put the grips on the respective bars, **without gluing them in place**. Put the throttle-grip about halfway onto the sleeve and check if the sleeve can run freely and goes from full throttle to the idle position trouble-free. The grip needs to sit tightly on the throttle-sleeve, but the sleeve must not be blocked in its movement in any way. The throttle-sleeve must be able to run trouble-free.

This is very important and needs to be made sure!



Hint:

Put some oil (WD40 or similar) in between the handlebar and the throttle-sleeve. This way, it won't stick the sleeve to the handlebar, should some glue accidentally get in there. But, the adhesive surface needs to be free of oil. Clean all adhesive surfaces with brake cleaner and let it dry out. Roughen the inside of the grips with a file, as shown in the picture.



Now, apply some glue to the inside of the grips (two-component glue). The glue should be applied carefully but thoroughly. It also serves as a lubricant and prevents the grips from coming loose after bonding.

Push the grips into your desired position, but make sure the exiting cables from the grips have enough space. The cable of the throttle-grip must not be bent, snapped or crushed, not even on full-throttle. On the left side; pull the clutch and make sure, the cable does not block the clutch lever in any way. Excessive glue coming out of the sides must be removed, because otherwise your handlebar weights won't fit properly anymore.

Connect the cables from the grips with the cable from the electronic unit. One pair of plugs respectively to one pair of connectors.

Hint:

Lay all cables alongside already existing wire harnesses. This makes it easier to hide and fix the cables in place. Also, make sure no cables are bent or snapped while steering.

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Now place the temperature-sensor underneath the left side grip and fix him in place with some cable ties. Please be careful not to snap the sensor cable, which could possibly lead to wrong temperature measurements. Be especially careful around the caster area: when positioning the cable, make sure it's not bent or snapped while steering.

Very important!!!!

The sensor needs to be in a place, very close to your hand, to be able to make realistic temperature measurements! If the vehicle has hand guards, place the sensor behind them (where your hands are).

Never put the sensor underneath the seat, the fuel tank or behind the headlight, since the temperature regulation won't work then!!! The sensor always needs to measure in the area, where your hand is open to the airstream!

All cables of the system need to be installed in a way, that they don't influence the steering.

Installation of the rotary switch/Control Display:

Now, look for a place for the rotary switch/the CLS Control Display. The rotary switch can be integrated in the casing, placed in the cockpit, or on the side of the frame (with the enclosed holder plate). The holder plate can also be used as a drill jig (Ø10.0mm; 3.5mm). You are supposed to be able to operate the rotary switch while driving, without endangering anyone.

After the installation, put the knob on the switch and tighten the 9mm nut (clamp). Finally, put the cap onto the knob.



CLS Control Display:

The CLS Control Display is specifically designed for tubular handlebars. Install the display onto your handlebar.

Pull the holder-belt tight with a pair of pliers, while pressing the holder in place with one hand. When pulling, move your hand in an up and down motion to tighten the holder belt one or two grids further. This way, the holder will be secured in place and won't come off by itself.



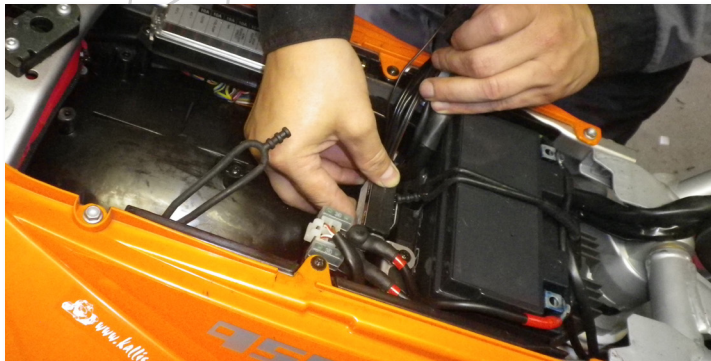
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Carefully cut away the excessive belt, without damaging the last (holding) grid on the underside. Leave about 2~3mm of the belt behind the holding grid intact, so the grid has some flexibility and won't accidentally open. If it happens, you will need a new holder!



Installation of the electronic unit:

Place the electronic unit into your vehicle. Secure the it in place with some cable ties or some Dual Lock Velcro.



Now attach the unit's cable to the vehicle's battery and fix it in place with cable ties. Make sure the cable won't get damaged by the seat, parts of the casing, or other things. Screw the two poles of the cable to the battery.

On some vehicles, it's necessary to attach the additional red-black cable to the ignition-plus, because otherwise, the automatic start-up with the rippled voltage won't be working. Some of these vehicles are for example the Suzuki V Strom 1000 (since 2014), Moto Guzzi (all newer models), Kawasaki Versy 650, ER-6, Honda VFR 800 (since 2002), VTR 1000, Varadero, Husqvarna Nuda 900, and more.

Check if the system starts up automatically upon engine ignition (mind the 20sec wait by the system), and also shuts down with the engine. Watch the green LED on the electronic unit. It starts blinking as soon as the electronic unit is operational and glows continually if the grips are being heated. If the electronic unit shuts down shortly after engine ignition, you need to attach the red-black cable.

Attention:

Make sure no cables are running alongside the ignition coil of the vehicle. This would potentially lead to massive disturbances in the system.

Pay attention to the polarity! Red cable (with the fuse holder) to the + pole, black cable to the – pole. The colors of the connectors have no meaning to the polarity. The ignition and the engine must be turned off when attaching the system. Make sure, the battery's screws are back on tightly. There is always the danger of a short-circuit when dealing with batteries! Never short-circuit the battery poles – explosion hazard!
Batteriepole kurzschließen – Explosionsgefahr!

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Operating the system:

The CLS Heat is a temperature-regulated heated grip system. It automatically regulates the temperature in the grips according to the outside temperature.

The electronic unit constantly measures the battery voltage. Upon engine start-up, the outgoing battery voltage changes slightly (AC voltage). The unit recognizes this difference and automatically starts up and shuts down with the engine. After engine ignition, the system waits 20sec before starting up, to not strain the battery too much.

After that, the temperature sensor measures the outside temperature. If it happens to be below 15°C (59°F), the system preheats the grips with a higher power, to ensure the grips get the desired temperature faster. The preheating lasts up to a maximum of 40sec. The electronic unit now measures the outside temperature with the sensor in an interval of 15sec, and changes the heat output according to it. Every person's heat sensation is slightly different. This sensation may also change due to other circumstances, such as hunger or an illness (e.g. a cold).

Therefore the system has a rotary switch/the CLS Control Display. With it you can regulate the heat output individually to your personal preference. The base setting for men is on position 4 or 5, for women 5 to 7, counting from left to right on the switch. Turn left to reduce the output-heat, turn right to raise it. The leftmost position turns the system completely off.

The rightmost position is for maximum output-heat, independent of the outside temperature. This position is usually used to dry ones gloves.

The display shows the different positions in the form of numbers 1 to 10. The last position, the one for drying your gloves (position 11), is displayed

as HI. On the positions 0 and HI, the display activates itself every 5mins and blinks 10 times, to remind the driver, that the system is turned off or running at maximum output.

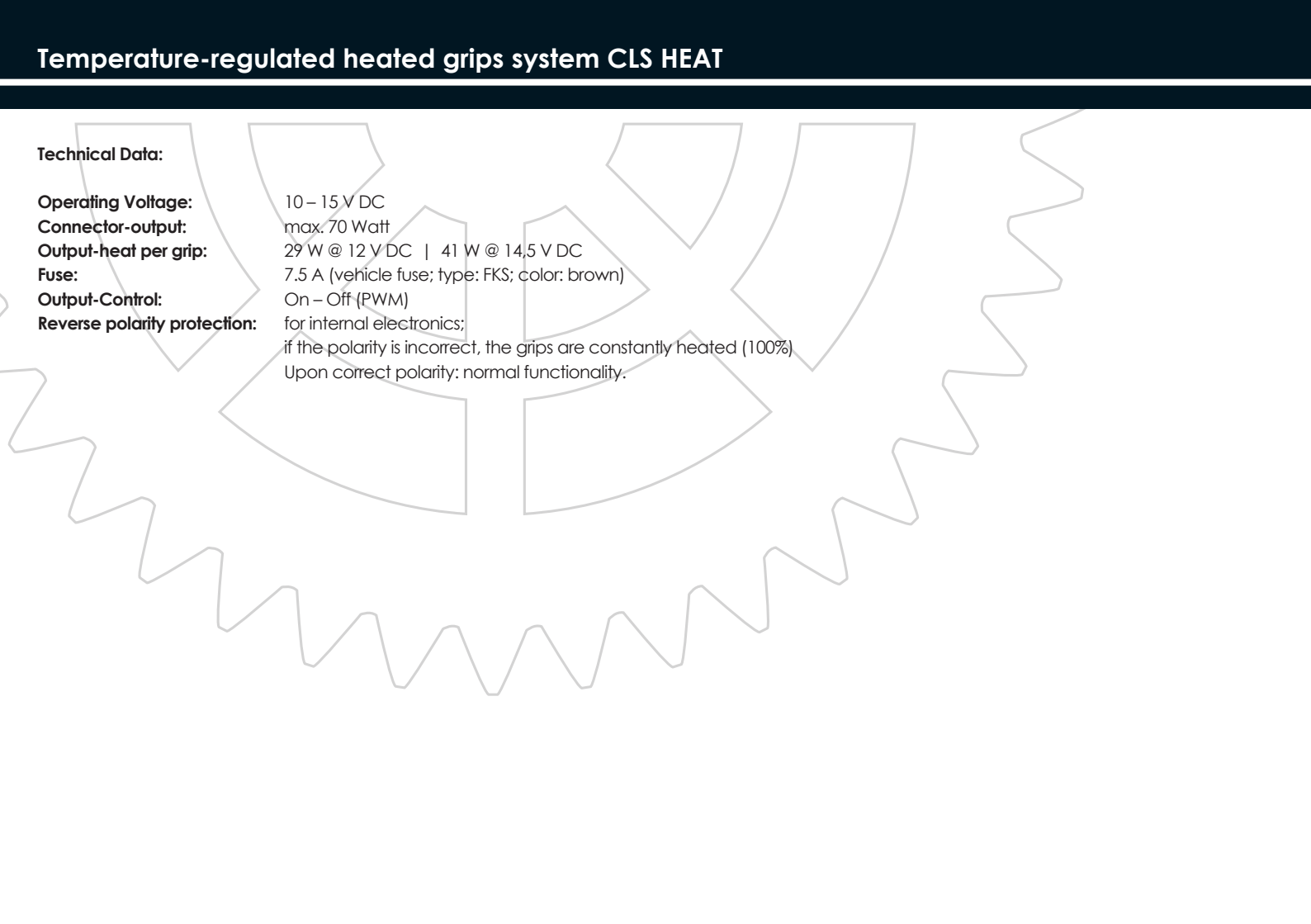
You can also watch the installation video on our homepage, which shows and explains all the steps in the installation.

Important notes:

- **Keep in mind, that using heated grips reduces the effectiveness of waterproof materials on gloves, such as Gore-Tex® membranes. These only work, if the outside temperature is lower than the temperature inside the gloves. When the grips are warm during rain, the membrane's functionality is reversed and water can get inside the gloves. In this case, try using additional rain-gloves.**
- **When charging the battery, please turn off the heated grips. The charging voltage may cause the electronic unit to start up and thus activate the grips. Just turn the rotary switch to position 0 (leftmost) or set the display on 0 or remove the system's fuse.**
- **If the vehicle is standing idle for a period of over 2 months, we recommend detaching the system from the battery or removing the fuse.**
- **Warranty = 60 months
no warranty if the system has been technically modified
(e.g. shortening the cables)**

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Technical Data:



Operating Voltage:	10 – 15 V DC
Connector-output:	max. 70 Watt
Output-heat per grip:	29 W @ 12 V DC 41 W @ 14,5 V DC
Fuse:	7.5 A (vehicle fuse; type: FKS; color: brown)
Output-Control:	On – Off (PWM)
Reverse polarity protection:	for internal electronics; if the polarity is incorrect, the grips are constantly heated (100%) Upon correct polarity: normal functionality.

MOTORRAD

Test Ausgabe 10/2008:
"sehr empfehlenswert"

MotoRoute MAGAZIN

DER TOP TIPP ★★★★★

"Wir haben das System
getestet, eine geniale
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REISE *mit* **on!**
MOTORRAD

EMPFEHLUNG

Heft 5/2005
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Preis-Leistungs-
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moto traveller

Heft 1/2006
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Your CLS Team