

Installation Instructions & Use Recommendations

FMS Accessories – CHP Motor Assembly

These instructions must be read carefully and thoroughly **before** beginning work. FMS Solutions, LLC accepts no liability for damage caused by failure to observe the installation instructions or use recommendations.

Installation of this accessory does not change the factory specified load limits for the motorcycle.

CHP models have been specially built in Berlin with a VO without the siren option 486, which then activates the civilian horn function. Route the L & R BMW siren speaker harnesses up to the knee panel chambers on either side. A civil horn should already be mounted to the motorcycle and connected using the horn wire on the RH side of the steering head.



Install the horn relay to the side panel using a cable tie.

Attach the 12x connector to the molded connector mount on the side panel and plug it into the dual siren harness.

Route the single wire of the “Y” harness to the civil horn and connect between the harness and horn for the “air horn tap”. This provides the signal to activate the air horn as well as power to provide the secondary horn function from



the red horn button which operates for 30 minutes after ignition-OFF.



Install the loop plug to the LH siren harness lead and attach to the plug holder molded in the LH chamber.

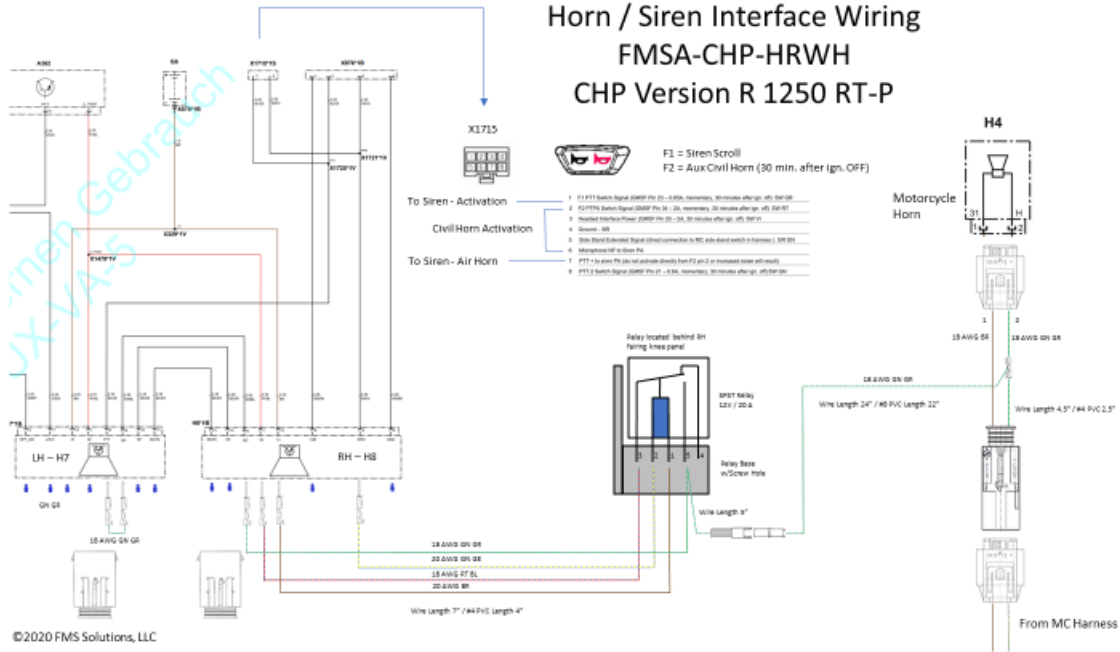
Route your extra cables into the LH chamber.



You may use one of the cable tie “trees” to secure the wiring.



Horn / Siren Interface Wiring FMSA-CHP-HRWH CHP Version R 1250 RT-P



Route Stalker moving radar cable to the front in the traditional way – photo shows approximate free length needed.



Route repeater antenna cable. Mount repeater antenna bracket to underside of LH pod by replacing the M5 bolt with the longer M5 fully-threaded bolt provided. Install rubber washer, bracket and KEPS nut and secure.

Note: Removing the LH color panel in front of the mirror and the radio speaker provided the room to route the cable up along side the emergency light cable.

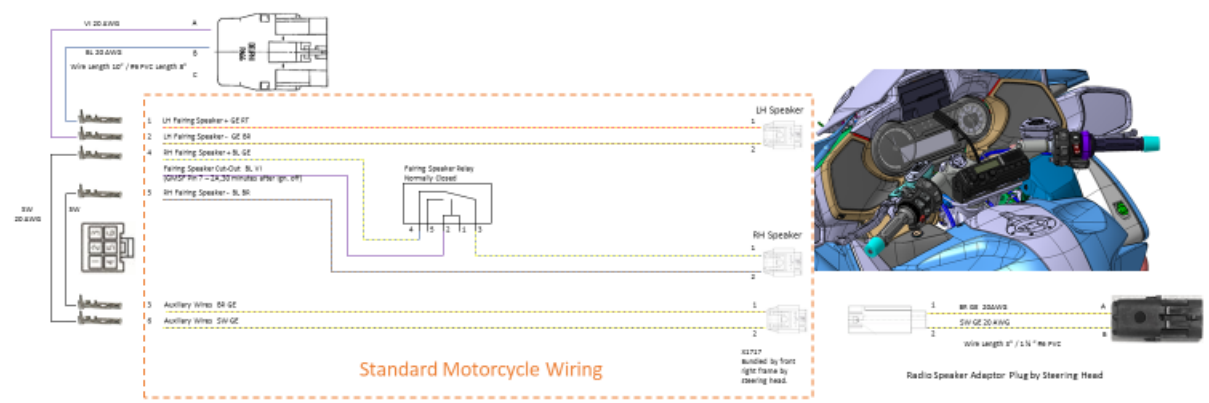


Remove the M10 x 1.5 handlebar bolt. Clean the threads using a 10 x 1.5 tap to remove all old Loctite. Insert spacer. Install internal tooth lock washer on bolt. Mount stalker remote onto PTT bracket. Apply Loctite to bolt threads and secure hand-tight. Position bracket with a gap between the PTT bracket and the top of the clutch master cylinder. Pay attention to the fit of the tube as it passes between the clutch lever and high beam switch. **Torque to 40 Nm.**



Radio Speaker Connection FMSA-CHP-RSWH

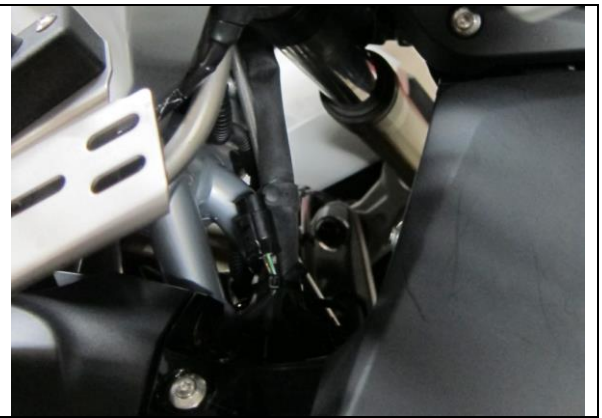
Radio Box Speaker Adaptor
Plug Located Under Radio Box
Floor Plate for CHP-Applications.



The radio speaker plug from the radio head connects to the radio speaker adaptor harness, which connects the speaker output from the radio head to the auxiliary harness wires on the left side of the steering head. The plug at the rear redirects the radio speaker signals back into the plug via two loop wires and sends it right back up to the RH speaker.

The radar signal from the white square amplifier box in the radio box connects to the other speaker input.

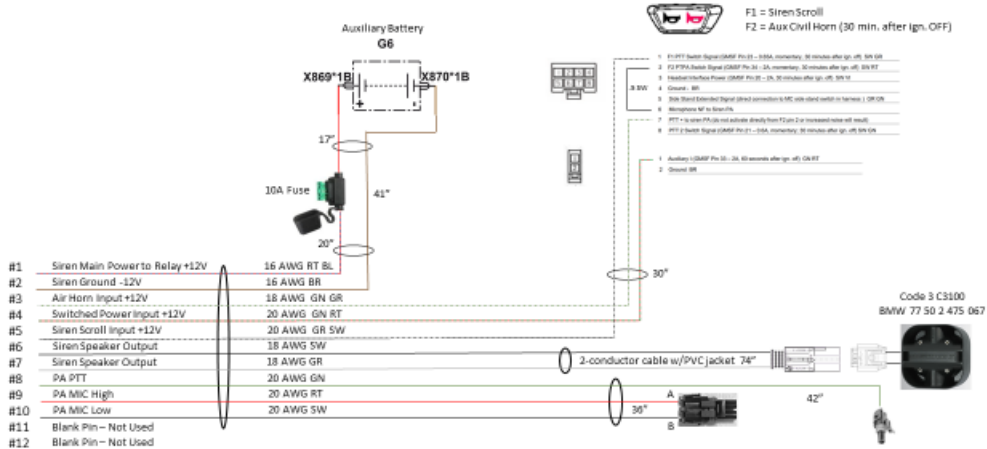
Route radio head cable up the LH handlebar cable pathway and loop around under support bracket – secure in radio head. You will need to stuff some extra unused Weatherpack plugs in the triangle area under the bracket.



Siren Wiring Interface FMSA-CHP-SWH CHP Version R 1250 RT-P



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The siren amplifier mounts to the inside face of the RH saddlebag between the bag mount and the frame. Drop the bag mounting bolts through the bracket on the back side and locate / drill the M5. Install clip nut on bracket.

Mount amplifier to bracket using supplied M6 self-clinching studs and serrated washer-head nuts.

Mount assembly to the bag securing with the one M5 washer-head Torx bolt. Mount bag to the motorcycle.



The siren harness main plug runs from the amplifier up through the gap between the side panel. You may need to remove the screw supporting the bottom of the panel to separate the parts enough to run the harness up from the outside to the inside.

Leave a gentle loop of cable to ensure that the plug on the amplifier is not stressed – the heavy PVC sheath should protect the cable from abrasion.



Route siren harness along the inside of the frame locating the **waterproof fuse holder near the radio box support mount**. The main power cable for the radio system will run along the outside of the frame.

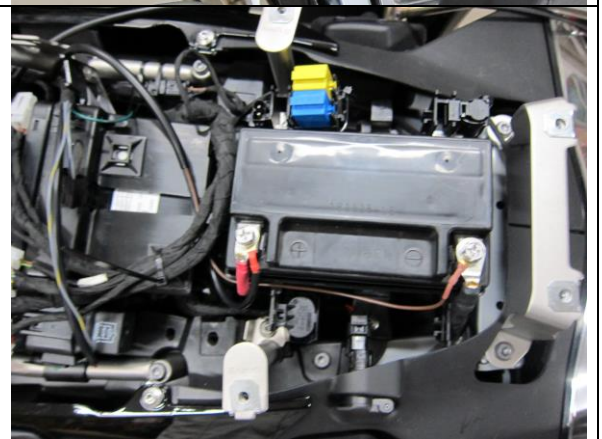
Connect the + and – to the battery ... there is no parasitic load as there is a main relay inside the siren that is triggered by the ACC1 plug connection.



Remove the plug bracket. Lift the GMSF up and route the main cable under the GMSF. Secure the relay block with cable ties to the battery case. Plug the radio power plug into the battery case molded holder.

Attach the various cables from the radio power connection kit, radio speaker connections and siren harness while the radio box plate is away.

Connect the raw end of the braided ground strap to the battery negative terminal (remove lock washer) to be routed to the top side of the radio box base plate.



Mount siren speaker to left front protection bar bracket using special pan-head bolt provided with speaker – securing through holes provided for driver. Start all four bolts and tighten evenly. Cable tie siren cable to support as shown.

Bolts to Siren Speaker Torque: 20 in-lbs.

Note warning label on speaker that recommends checking the torque on the bolts securing the speaker to the protection bar at each service.



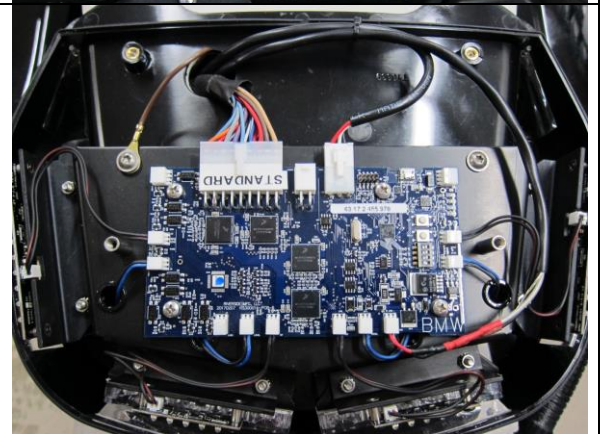
The ground strap from the battery connects to the bolt securing the radio mounting. A second ground cable attaches here and runs up the Code 3 light cables to the rear pod where it grounds the heat sink.



A special CHP flasher board has been created which is restricted only to Title 13 and CHP approved activities (photo not accurate – board PN 77 50 2 475 069).

Note ground wire connection to heat sink.

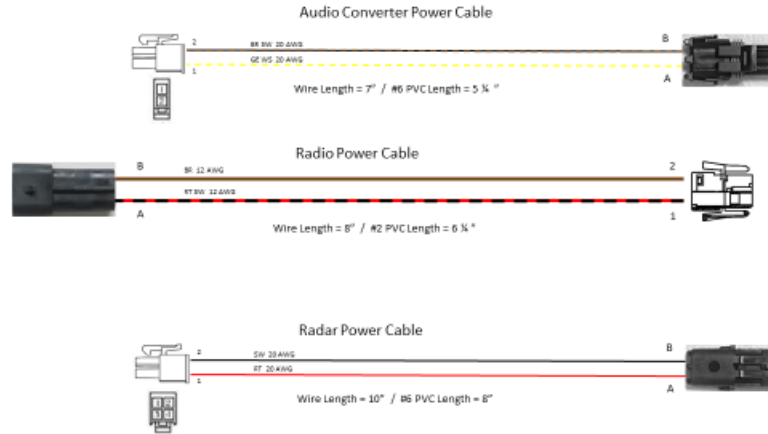
Note license plate ID light harness only uses single plug.



Color Coding:

BL = blue
BR = brown
GE = yellow
GN = green
GR = gray
RT = red
OR = orange
SW = black
VI = violet
WS = white
TR = transparent

Radio Power Connector Kit FMSA-CHP-RPCH

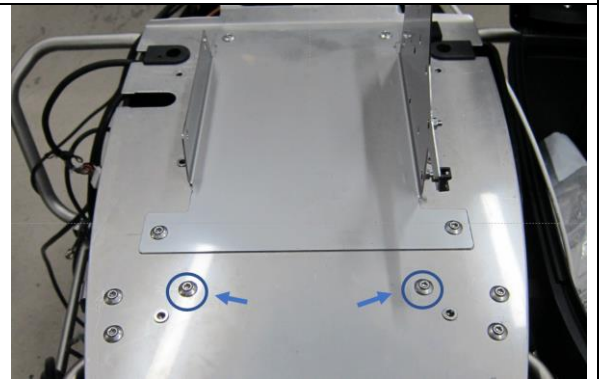


Connect the cables above to the outputs on the MC harness under the floor of the radio box. Each output should be long enough to enable connect of the adaptor harness to the CHP component.

Audio converter Power Cable to ACC III (RH Side)

Connect the 18-wire harness under the floor of the radio box and bring it up through the forward wire port.

Upon reassembly, replace these two M5 x 16 bolts securing the skirt trim with bolts provided in radio bracket kit. The new bolts are shorter on top and will allow the radio to settle down more, enabling everything to stack up and let the lid close with Stalker counting unit mounted on top.



Wiring is segregated to various ports to reduce the likelihood of interference between the systems.

The left front port has only wiring from the lighting system (18-wire cable, 3-wire duplex light cable and ID light cable) as well as the thick cable from the front radar display.

All other radio & repeater cable are routed through the second cable port.



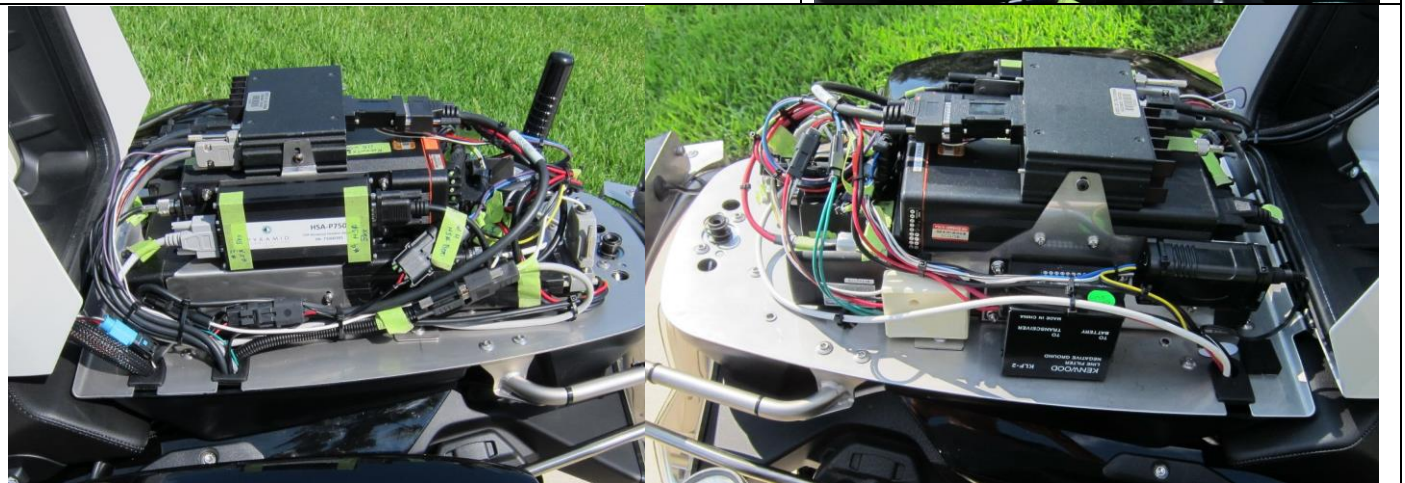
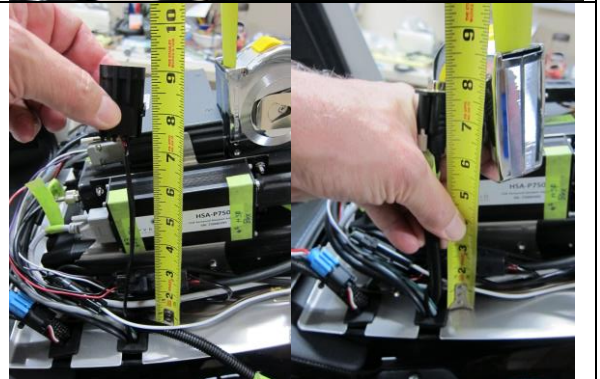
The right side cable port is for the radio power cable, audio converter power cable (thin long black cable) and the radio antenna cable. As always, do your best to keep the antenna cable away from the other cables ... never cable tie them to other wires.

Antenna Cable Length = 26" above grommet.



Other Cable Lengths as measured above grommet in radio box:

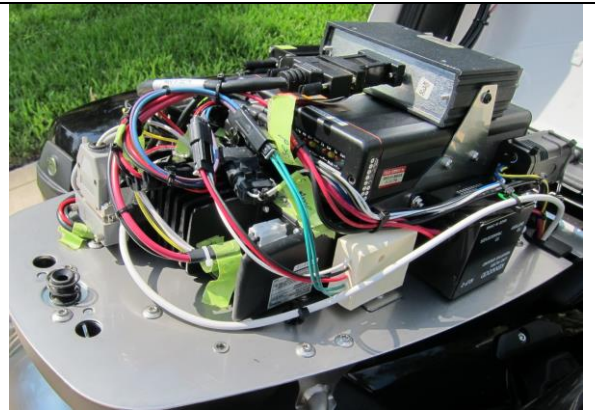
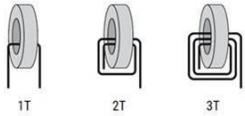
- Black HSA Cable = 8"
- Front Radar Antenna Cable = 13.5"
- Rear Radar Antenna Cable = 13"
- Stalker Power Cable = 13"
- Repeater Antenna Cable = 9.5"
- Radar Speaker Wire = 9"
- Radar Counter Unit (from display head) = 21"



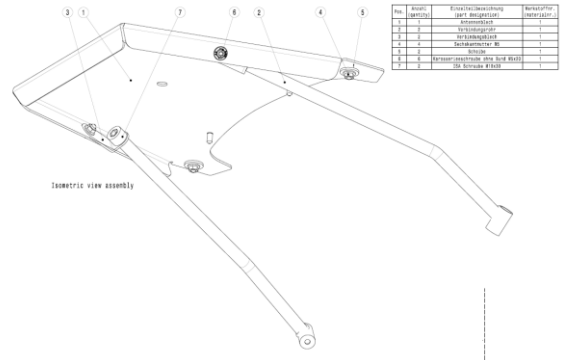
Use one of the provided cable tie “tree” mounts to keep the antenna cable separated. Note the 90 degree D25 adaptor plug on the left and the ivory box on the right is the radar audio amplifier box, which connects to the Weatherpack 3x connector with only one of the three locations plugged.

Note: Ferrite filter is installed by CHP during radio install. Use 2T wrap of ground wire through filter from LKF-2 Kenwood line filter.

Figure 1 - How to count turns



When mounting the radio antenna mount, remember to install the warning label provided in the Code 3 kit warning that the antenna mounting base is not a lift point.



Mount the ID lights and rear radar antenna as shown at right. A special cable has been created for the ID lights to minimize space, with only one plug at the flasher board.

Route both cables along the saddlebag mount and up to the radio box.


























Mount front radar antenna mount as noted.

Note that no additional weight should be added to the LH front protection bar.



FMS Accessories Parts Listing for CHP Models:

SKU	Image	Product(s)
FMSA-MT-MLLED		LED Map Light
FMSA-MT-NPH		Notepad Holder
FMSA-CHP-PTTMT		PTT Switch / Radar Remote Mount - CHP
FMSA-MT-HBK		Handlebar Accessory Mounting Bolt Kit Demo: Pan Head Standard Length
FMSA-CHP-SMB		Siren Amp Mounting Bracket - CHP
FMSA-MT-SCHP		Stalker Radar Display - CHP
FMSA-CHP-RAM		Repeater Antenna Mount - CHP
FMSA-CHP-GSK		CHP Ground Strap Kit
FMSA-CHP-RMP		CHP Radio Mounting Plate w/Hardware
FMSA-CHP-DB25		DB25 Right Angle Adapter - CHP
FMSA-CHP-RSWH		Radio Speaker Wiring Harness - CHP
FMSA-CHP-RPCH		Radio Power Connector Kit - CHP

FMSA- CHP- FF		Radio Power Filter - CHP
FMSA- CHP- HRWH		Horn Relay Wiring Kit - CHP
FMSA- CHP- SWH		Siren Wiring Harness - CHP
FMSA- AMF		Front Radar Antenna Mount Demo: Standard Mount for Dual Bolt Antennas - Stalker [+\$10.00]
FMSA- AMR		Rear Radar Antenna Mount Demo: Dual Bolt Antenna - Stalker [+\$13.00]
FMSA- EA- USB		Fairing USB Outlet w/ Voltmeter & On-Off Switch Demo: USB w/67" harness for aux. battery ACC II or III [+\$20.00]
FMSA- MT- SSE		Side Stand Extension
FMSA- SB		Storage Box
FMSA- CHP- LBRA		Low Band Antenna - CHP
FMSA- CHP- LBAM		Low Band Antenna Mount - CHP
FMSA- CHP- ASC		Authority Lower Switch Cover - CHP