# Installation Instructions & Use Recommendations

## FMS Accessories – Moving Radar Installation

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.** 

The radar used for illustrative purposes is from Stalker / Applied Concepts. Note that most moving radar will mount in a similar way from the perspective of cable routing, only the brackets may be different. There are three basic antenna mounting brackets from BMW. Stalker which has two mounting holes in each antenna, Kustom K-band which is square (unique antenna) and Kustom Ka-band, which is similar to MPH and Decatur, which use a single mounting bolt / stud. BMW provides dash plates for the most common radar displays.



The most time consuming part of installing moving radar is the installation of the display head, as it requires routing the display head cable up behind the instrument cluster. Therefore, remove (or do not install if new unit) windshield and dashboard.

Additionally, you will need to remove the LH side panel w/air duct, LH lower side panel, the LH knee panel, LH radio speaker w/grill, LH saddlebag and seat bolster.

### Prior to TFT models:

Note that the radar cable should be cable tied to the LH windshield mechanism housing so that the cable won't move into the path of the windshield mechanism over time. "Dry fitting" the display panel makes it much easier to get the cable lengths correct as there normally is some extra cable to be stored once devices are connected at both ends of the cable.

On the new Stalker Compact display head, make sure to install the cable onto the display before securing the display to the bracket. Otherwise, there is insufficient room to rotate the cable locking ring.

After the dashboard trim is installed, attach the display bracket using the same bolts. Note that you should not over-tighten the bolts until they bottom or the display bracket tabs will distort. Tighten the bolts until they are "snug" and the display bracket is securely in place.



### For MY2021+ with TFT Display:

Remove the windshield. Place the mounting bracket in the position so it cannot move farther forward. Holding the bracket steady, drill the two M6 holes in the forward side. Insert two of the provided M6 rivet bodies (no pin yet) to secure the bracket and drill the other two M6 holes.

Take a pencil and draw around the center hole.

Remove the bracket.

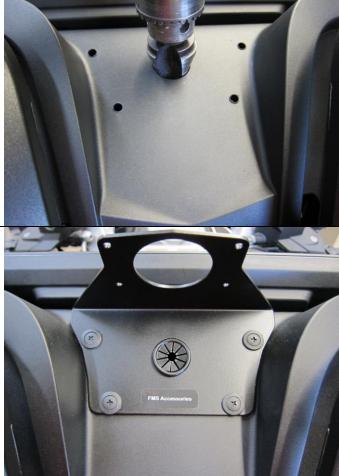
Using a large Uni-Bit, drill out the center hole so that the grommet fits inside the hole. The grommet is mounted in the bracket, but it must be able to extend through the hole.

Use this opening to route radar cables as the fairing bodywork is very precise with no gaps to otherwise route cables.

Press the grommet into the bracket so that it locks to the bracket frame. Mount the bracket using the four (4) M6 push rivets supplied. Start with the forward edge and secure those two rivets first, then the two rivets nearest the TFT display. Note that once those rivets are installed, it is difficult to remove them. Mount the radar display to the bracket and reinstall the windshield.

Additional hardware packages are available from FMS Accessories <u>https://fmsaccessories.com/hardware-set-</u> tft-display-mounts





Remove the LH handlebar M10 bolt. Insert the aluminum spacer from the Remote Attachment Mount kit 71 60 2 452 841. Attach the remote control to the specific remote mounting bracket for that radar – screws should be provided by the radar for each remote. Secure the remote mounting bracket using the longer M10 bolt with Loctite 243 applied to the bolt.

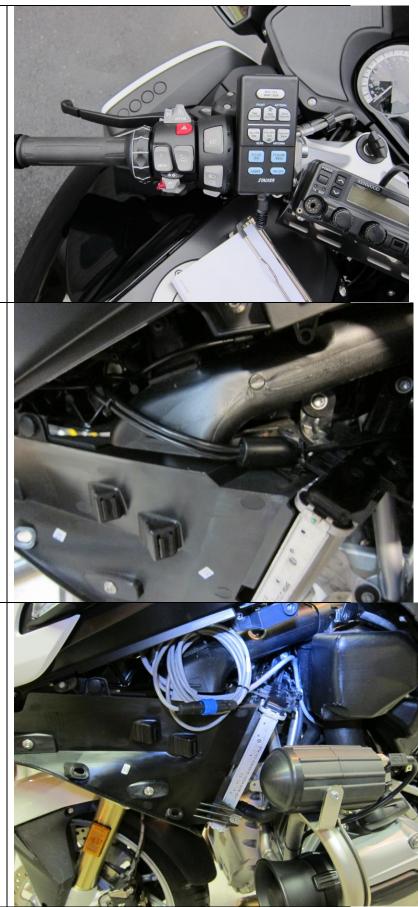
Torque to 40 Nm to ensure the handlebar is secure.

Route the remote cable along the cable & hose from the LH switch cluster, securing gently with cable ties.

Some radar cables leave no excess cable behind the LH side panel as in this Stalker Compact installation.

Caution: Do not route cable across the opening of the air duct – this could cause drivability problems. Never position any objects in such a way that would interrupt the intake air flow.

Others have a large amount of cable that must be located away from the forks and other moving parts. Often excess cable comes from very long remote control cables. Secure excess cable behind the LH knee panel.



Route main cable from radio box along the frame, behind the LH throttle body. Ensure that no cable, hoses, etc. are trapped or pinched. Secure cable away from throttle mechanism.

Attach front and rear antennas to their respective mounts. Note that Stalker antennas use two screws in a "U" mount. Stalker normally provides stainless screws for antenna mounting with red Loctite encapsulations. If not, use a small amount of Loctite on the screws to keep them from loosening.

The front antenna requires an 8' cable. The rear antenna requires a 4' cable.

Route the antenna cables from the antennas with a soft curve on the cables to prevent cable failure.

Note on front protection bar, leave enough cable to loosen the bar to enable knee panel removal without cutting cable ties. This will speed routine maintenance later.



Route the rear antenna cable along the saddlebag frame, up around the forward mount and then up into radio box. Secure the rear antenna cable with a cable tie onto the forward saddlebag frame mount.

Attach the counter unit to the mounting bracket. The ears of the mounting bracket will be held by the bolts that secure the radio box lid back rest pad.

Note that all K52SF models have a  $10K\Omega$  resistor integrated in the harness VSS line so an additional external resistor is not needed.

Some radar brands require a divider module that splits the VSS signal into a lower count per wheel revolution (Stalker divider secured on LH side of radio box lid near cables).

Watch how cables are routed so that when radio box is closed, cables are not abraided / damaged.



**Feedback:** Thank you for your purchase and we welcome your feedback as we too want to make every accessory exceed your expectations. Report any comments, suggestions, problems or concerns to FMS Solutions, LLC at <u>info@fmsaccessories.com</u>.

#### FMS Solutions, LLC Limited Warranty

FMS Solutions, LLC warrants to the first retail purchaser of new FMS Accessory products, to be free from defects in materials or workmanship, for a period of three (3) years from the original date of purchase as noted on the FMS Solutions, LLC invoice or original dealer invoice, except for paint and powder-coated finishes, which are warranted for the first 12 months only. LED lights from Feniex, Inc., Code 3, Inc. and Littlite are covered for 5 years by their manufacturer's respective warranties – processed through FMS Solutions, LLC.

This warranty extends only to the FMS accessory and does not include: damage caused by accidents or abuse; incorrect installation; labor to diagnose, remove, repair or replace; any consequential damage or loss of use. Any FMS Accessory suspected of being defective should be returned to FMS Solutions, LLC along with a copy of proof of purchase and warranty request form available on the FMS website. FMS Solutions, LLC will determine if the FMS accessory has a warrantable defect, and if so, will repair or replace the item and return it to the sender without charge. The decision to repair or replace said item is solely the prerogative of FMS Solutions, LLC.

**Note:** Police motors can operate in a very rough environment since police motors are a "tool". They can be dropped, knockedover, etc. without concern as the officer has a job to do and determines what is necessary at any given moment. Warranty is for defects in materials or workmanship. Therefore, the ability of an item to become broken or damaged does not mean it is warranty ... it just means it is broken or damaged and in need of repair or replacement. No manufacturer warrants their products to be indestructible. Any questions should be directed to info@fmsaccessories.com.