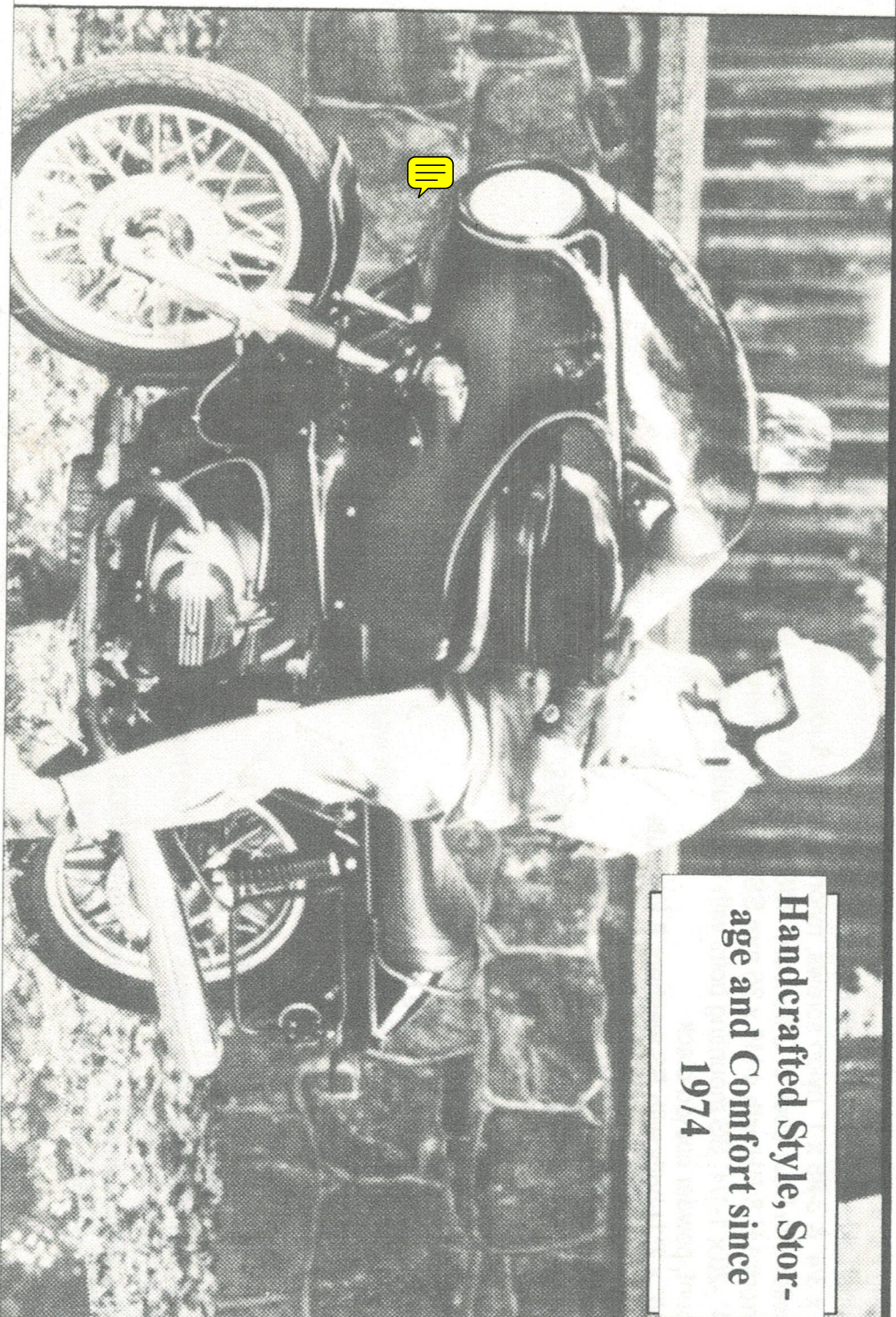


Hannigan ST & SS Fairing Mounting Instructions for BMW /6 & /7 Models

Handcrafted Style, Storage and Comfort since
1974



Hannigan Fairing® Company Ste Classic Full-Lowers Fairing System

800-324-7660

112 S. Elm St., Pairs, AR

Hannigan@centurytel.net

HANNIGAN FAIRING® MOUNTING INSTRUCTIONS: MODEL ST & SS FOR PUSHROD BMW TWINS

Thank you for purchasing a Hannigan Fairing®. Having ridden behind a Hannigan Fairing® for three decades I can verify that you are about to begin a long and enjoyable relationship with your fairing. I can also understand that you are anxious to start riding. Please be patient. A little extra time and care when installing your Hannigan Fairing® will yield years of satisfaction that will begin in just a few short hours. Please read all the instructions before beginning.

RECEIVING FROM UPS:

While the UPS driver is there, inspect the carton for visible carton damage and note the damage on the shipping documents. Open the cartons and inspect for damaged parts. Contact UPS if anything is damaged, UPS may want to inspect the contents and shipping materials. Don't be alarmed, fiberglass parts are pretty tough and stand up well to shipping hazards. If you have any questions or problems call me at **800-324-7660**.

Box # 1 contains the assembled fairing, mount, windshield and Mid-Lowers if ordered. Small items such as electrical parts and hardware packs are in the fairing pockets. Access these parts with the keys for the side pockets. Open the center door by placing your finger tips under both door edges where the silver buttons are and lifting the door so the top of the door rotates toward you then lift the door up and free, laying it on the fairing deck. If you ordered Full-Lowers or a taller windshield these are in Box # 2.

TOOLS REQUIRED:

- 2— $\frac{1}{2}$ " wrench or socket and ratchet for attaching bracket to M/C
- 2— $\frac{7}{16}$ " wrenches or socket for attaching fairing to bracket
- 1— $\frac{1}{16}$ " or 9 mm wrench or socket for mirrors and lowers
- 1—#2 Phillips blade screw driver for mirrors and lowers
- 1—Straight blade screw driver for attaching bracket to M/C
- 1—Masking tape
- 2—Bath towels to protect front fender paint and fuel tank
- Grease, corrosion inhibiting or Vaseline, a very small amount for bike connections
- Clear Silicone Seal or similar glue, a small amount to hold brake line grommets to Full-Lowers on /6 /7 BMWs

MOUNT BEFORE PAINTING: Before painting, mount your fairing to your motorcycle to ensure that everything fits.

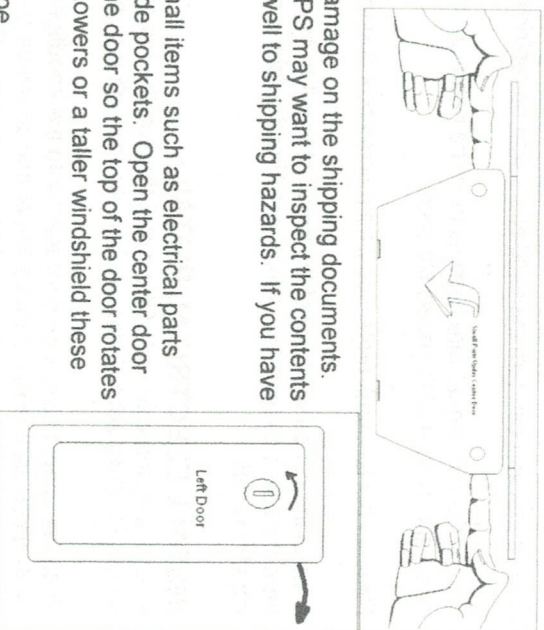
REMOVE STUFF:

Place your motorcycle on its center stand and lift seat.

Remove the ground wire from the battery's negative terminal.

Remove the headlight lens/reflector from the headlight bowl. Remove the headlight connector from the circuit card. Save the headlight parts in plastic bags after cleaning so they will be ready to install when you transfer your Hannigan Fairing® to your next motorcycle.

Note: My personal preference is to remove everything from the motorcycle that no longer serves a purpose. For example: I slide the fork tubes down to remove the headlight ears and turn signal hardware.



Remove the turn signals and mounting stalks. Or tap out the locator roll pins and rotate stalks forward. Or bend the turn signal stalks up and out of the way of the fairing (this is pretty hard on the OEM stalks & should only be done as a last resort.

Ensure that you can turn the handlebars with no restrictions before attempting to ride your motorcycle.

Unplug the turn signal wire harness from the headlight circuit card. Slip the turn signal harness through the grommet in the bottom of the headlight shell.

Remove the fuel tank protecting it from scratches during fairing installation.

Loosen the nut on the back of the horn holding it to its mounting arm. Remove the horn with and its mounting arm from the bike's chassis lug. When installing the fairing mount, the horn on its mount arm will attach under the left inboard U-Bolt.

INSTALL ELECTRICAL PIGTAIL:

Push the motorcycle end of the pigtail through the headlight shell turn signal grommet one terminal at a time. A squirt of WD-40 will help the wires to slip through the grommet.

Push the correct color wire connector onto the headlight circuit card connector using the color code table. Coat each circuit card terminal with a film of anti corrosive grease (same as house wiring type found at hardware's and lumber yards) reducing the possibility of corrosion. We assemble your harness with a black film of corrosion pre-

HANNIGAN FAIRING TO BMW WIRING CHART

Function	Fairing Pin #	Fairing Wire	BMW Wire
Ground	4	black	brown
Ground	8	black	brown or frame bolt
Marker lights	2	green	gray/black
High beam	6	white	white
Low beam	5	yellow	yellow
Right signal	1	blue	blue/black
Left signal	3	brown or violet	blue/red
+ Accessory	7	red	red

ventative at the connectors, please do not remove this film. The OEM brown parking light wire in the OEM headlight is not used. Tape this wire into the harness bundle. Attach the red pigtail wire to an accessory voltage source of your choosing for powering accessories such as cell phone, radar detector or GPS. Or tuck the red wire back into the tape for later use. Route the connector down and forward under the OEM headlight.

Attach the second ground wire lug to the forward starter relay socket head cap screw on the left side just aft of the steering head or other chassis bolt. Do not attach ground wire to parts that rotate with the handlebars. Coat the bolt and ground wire ring lug with anti corrosive.

Loosen the headlight retaining bolts and push the shell as far to the rear of the motorcycle as possible. Tighten bolts.

Note: The supplied H-4 bulb is a standard DOT 55-watt low beam/60 watt high beam unit.

WARNING: Installing a higher wattage headlight bulb may melt your motorcycle's wiring. This could result in a fire which may result in loss of control, injury or death. Limit headlight high beam wattage to no more than 85 watts. If you install a higher wattage headlight bulb consult a qualified electrical technician for the proper installation on your motorcycle.



INSTALL REMOTE FUSE HOLDERS:

The remote fuse holders allow you to change the fuses without removing the fairing. Install the supplied remote fuse holders (orange wires) through the grommets in the headlight shell. Find the two fuses and their circuit card terminals. Push connectors from one remote fuse holder onto the circuit card fuse terminals 15, 15U. Push one of the other remote fuse holder's connectors onto terminal 58. Remove the wire from terminal 58U and slip it onto the last remote fuse holder connector then push the remote fuse connector onto terminal 58U. Each pair of remote fuse wires should now be attached to the pair of terminals associated with an OEM fuse. If the OEM fuse terminals 15, 15U or 58 also have wires attached (these are not OEM connections), follow the same steps as for terminal 58U.

Remove the OEM fuses from the circuit card. Leaving the OEM fuses on the circuit card will defeat the over current protection the remote fuses offer. The fuse holders use 7.5 amp type ATO/ATC fuses. Tie or stick the black portion of the remote fuse holders into the harness or onto chassis so they are accessible and inconspicuous.

WARNING: Failure to remove the OEM fuses from the circuit card defeats the over current protection the remote fuses offer. This could result in wiring damage, loss of headlight or electrical fire. These circumstances can result in loss of control, injury or death. Remove the OEM fuses from the circuit card after installing the remote fuses.

Install the headlight Frisbee over the headlight shell opening.

INSTALL THE MOUNTING BRACKET:

Open the four stainless hose clamps and remove the nuts from the U-Bolts so they are ready for installation.

Place a single layer electrical tape on the motorcycle frame to protect the paint.

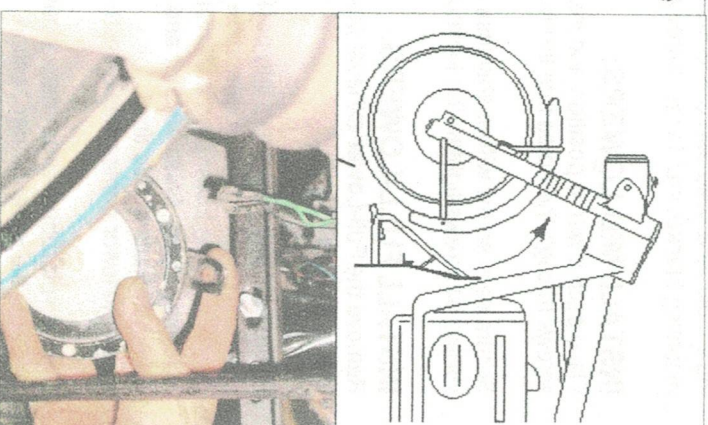
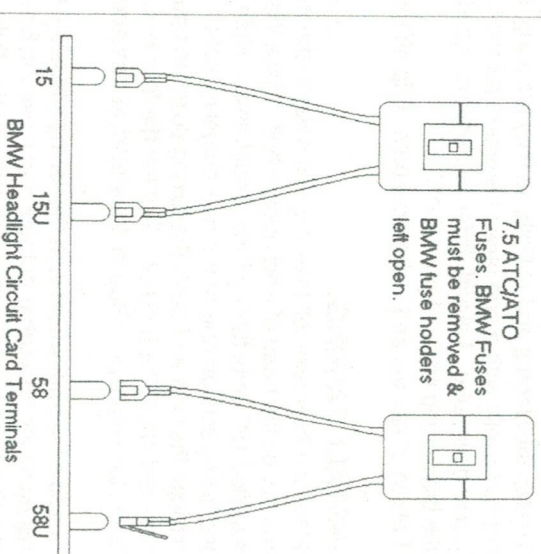
Place a bath towel over the front fender. Slip the mounting bracket onto the motorcycle down tubes being careful not to scratch the paint. On 1974-1976 BMW /6 motorcycles the left U-Bolt should be up against the steering damper mounting bracket on the left down tube. On 1977-& newer BMW /7 motorcycles the bracket cross-angle should be just above the motorcycle frame cross tube.

Place the U-Bolts around the down tubes and through the mounting bracket slots. Proper fit may require a slight spreading of the U-Bolt legs.

Install the horn to the left side inboard U-Bolt end. Rotate the horn on its mounting arm so the terminals are up and the OEM horn wires will reach. Coat the horn connectors with anti-corrosive grease and push onto horn.

Install the four supplied hose clamps to the top and bottom of both mounting bracket down tube saddles.

Remote Fuses for BMW /6, /7



Tighten the clamps and U-Bolts so they are snug, but not tight. Tap the mounting bracket gently with a soft faced hammer until the bracket is equal distance from its adjacent down tube. Lateral distance from the outside of the down tube to the inside of the bracket top rail is about 1-3/16". Tighten all clamps and U-Bolt locknuts. Clip off the extra clamp length if desired.

INSTALL FAIRING:

Place a rubber washer over the four holes in the mount. Place a rubber stainless washer on the head of each mount bolt. Place the fairing on the mount and insert the supplied 1/4" bolts through the mount holes. Note that fiberglass is springy and often the fairing sets off one of the rear mounting holes. This is normal so place the bolt through the hole and push the fairing down and push the bolt down through the mount hole and install the locknut. Tighten the four locknuts until the rubber washers just begin to compress. Plug in the electrical connector.

Straddle the front wheel with the fairing's headlight aimed at your navel. Grasp the fairing by the handlebar cutouts and move the fairing in all directions. The fairing should be a solid part of the motorcycle. If the fairing is loose check the mounting bracket and fairing hardware and tighten as needed.

INSTALL MID-LOWERS:

Place each lower in position and install the #8 stainless steel oval-head machine screws through the holes into the fairing.

Secure each screw with a stainless steel locknut, but do not tighten. After installing all screws tighten the locknuts.

INSTALL FULL-LOWERS:

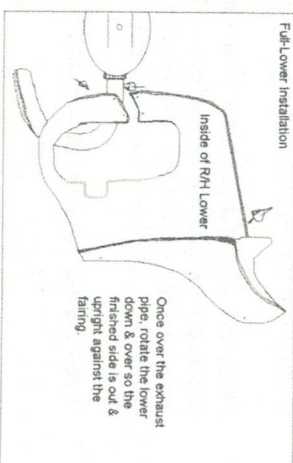
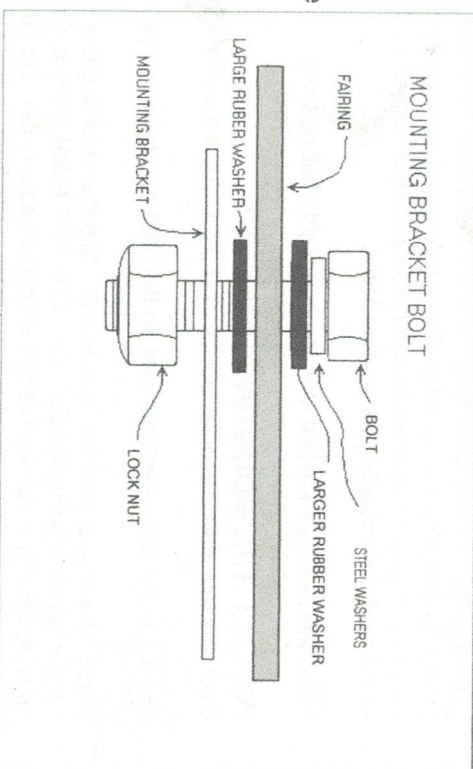
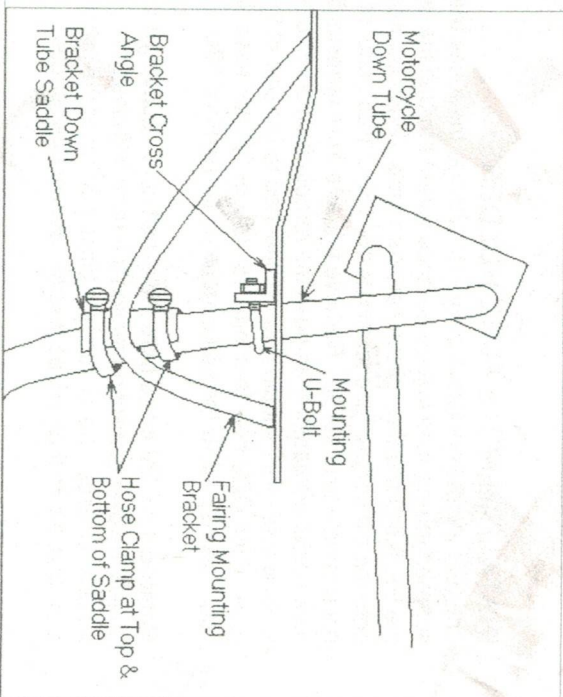
Remove the Full-Lower exhaust pipe lap joint screws and joint piece from both lowers if supplied.

Fit the right and left lowers into position around the cylinders and secure.

Spread the split so the front portion of the lower of the lower slips over the exhaust pipe in front of the cylinder. Rotate the lower so the finished side is out and against the fairing. Install a #8 stainless oval head machine screws, finish washer and locknut in each hole attaching the lower to the side of the fairing. Do not tighten the nuts at this time.

Install the lower center section with the #8 stainless sheet metal screws with finish washers.

Slip the split rubber grommets around the hydraulic brake lines. Press the grommets into the brake line groove in the lower center section.



Place Full-Lowers:

Place a blanket on the floor under your motorcycle to protect the lowers.

After threading the left and right lowers through the exhaust pipe, assemble the lowers to the front panel forming an open box. Place pieces of wide masking tape on the upper edges of the lower to hold it to the fairing when raised into position.

With a helper on one side of the motorcycle raise the lowers unit up to the under side of the fairing. The lowers will lay evenly with no gaps when they are in the correct position. Tape the lowers to the fairing.

Check symmetry by measuring the distance the lower edge is from the turn signal recess on each side, about 1/4". Position the rear edge of the lower so both sides look the same. Look at the back and front of the motorcycle noting if the lowers look perpendicular to the bottom of the fairing on both sides and not rotated to one side or the other. Examine the clearance with the engine:

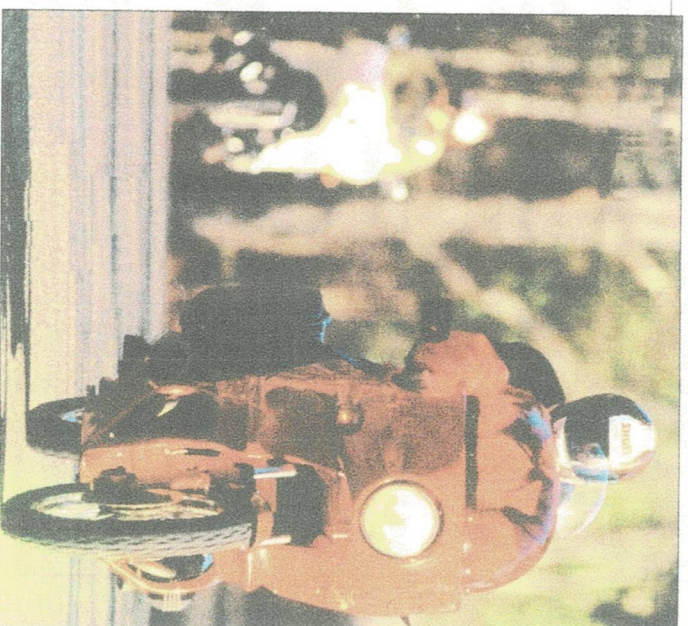
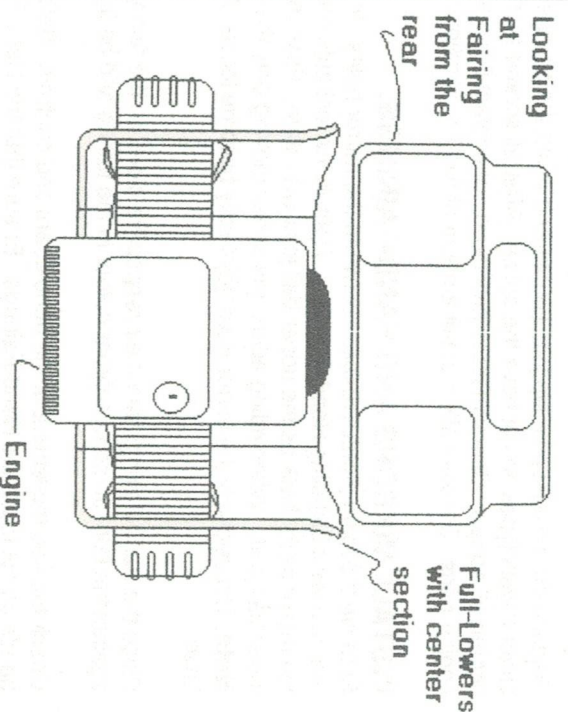
- 1.) Clearance with the cylinder fins should be even top and bottom.
- 2.) The spark plug cap should be centered in the lowers opening.
- 3.) The exhaust header should have uniform clearance from the lower.

Move the lowers, re taping as needed, until you are satisfied with the symmetry and look of the lowers and fairing.

Sit on the motorcycle and look for gaps and symmetry. Move your boots on and off the foot pegs to ensure you have clearance and are not tripped when placing a foot to the pavement. When you are certain the fairing is where you want it begin drilling the lowers mounting holes in your fairing.

Starting with the turn signal hole drill a 3/16 or 13/64" hole through the lowers hole into the fairing. Apply light pressure so you do not break through the glass. Insert a screw through the new hole and secure with a finish washer and locknut. Drill each hole and insert a screw before proceeding to the next hole. Drill the front hole close to the mount last. Tighten the lock nuts until the lower is held firmly to the fairing. Tighten the center panel screws and place a drop of silicone seal on the pointed end of the screw and the U-nut so the screw does not come loose.

Note: Symmetry of the Full-Lowers is not perfect due to the for/aft cylinder offset on motorcycles with opposed cylinder engines.



Replace the exhaust pipe lap joint pieces and insert the screws with finish washers and tighten the locknuts on the Classic Open-Loop Lower. Other lowers types do not have the splice. After all screws that secure the lowers to the fairing and the center section to the lowers are in place tighten all screws. Check that the lowers do not contact the brake lines. Ensure that the lowers fit around the cylinders and do not contact any engine parts. Occasionally a small amount of filing or sanding may be needed to clear a cylinder fin.

INSTALL MIRRORS AND HAND-FAIRINGS:

Remove the foam protective foam between the mirror holes. Install the mirrors using the screws attached to the mirrors. Leave the nuts off the rear screws if installing Hand-Fairings. Tighten the locknuts only tight enough to solidly hold the mirrors. Adjust the mirror by pulling the head of the mirror as far back as the upper ball joint will rotate. Push the mirror into viewing position by grasping the mirror stalk and only moving the lower ball joint. When riding adjust the mirror moving only the lower joint leaving the upper joint full aft.

Note: Occasionally the mirror lower joint may become loose. After removing the mirror from the fairing, tighten the nut in the center of the mirror base.

Place the Hand-Fairings into their respective sides on the fairing pushing them forward firmly. The Hand-Fairings should be close to bottoming against the front of the handlebar cutout in the fairing and be tight against the inside of the fairing.

Check the free movement of the handlebars and controls. Before drilling your fairing ensure that the ends of the handlebars, controls and your hands do not touch the Hand-Fairings. Ensure that the Hand-Fairings do not restrict the movement of the handlebars by turning them full left and full right. If there is interference change the height or length of the handlebars or move the controls slightly so there is no interference or restriction in the movement of the handlebars before riding. If there is handlebar movement interference or restriction that cannot be resolved with changes to the handlebars or controls please remove the Hand-Fairings and call Hannigan Fairing® Co. for a return authorization number.

WARNING: Restricted Handlebar movement or interference in the free movement of a motorcycle's handlebars can cause loss of vehicle control resulting in injury or death. Do not ride a motorcycle with restricted handlebar movement or interference in the free movement of the handlebars.

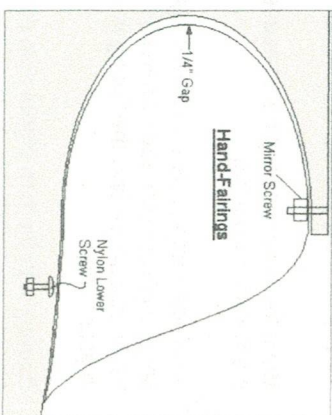
Adjust the mirror stalk forward. Install a #8 black nylon machine screw and nut to hold the Hand-Fairing in position before going on to the next step.

Install the supplied #8 nylon machine screw, washer and locknut and tighten.

Clean the dust from the inside of the fairing and the Hand-Fairings. For better rain tightness squeeze a bead of clear silicone seal around the edge of the Hand-Fairing mounting area before re installing the Hand-Fairings. Snug all hardware.

ASSEMBLE THE REST OF THE FAIRING:

Install the windshield starting with the center #8 nylon screw and work your way back. Install the longer black nylon screw at the front windshield hole. Finger-tighten only to avoid cracking the windshield. If the windshield bows in at the head of the screw it is over tight, loosen the screw so the windshield relaxes and just slightly compresses the windshield seal.



Install the Hannigan spoiler to the under side of the windshield. A helper to install the first nut is a time saver. Depress the center of the windshield about $\frac{1}{2}$ " so the nut can be started on the center nylon screw. Stop tightening the spoiler screws when the gap between the spoiler and windshield is $\frac{1}{4}$ ". Further tightening will not raise the spoiler higher, but will flatten the windshield.

Snap down the center cover in place and lock the side pocket covers.

Plug in the pigtail connector to the fairing's center connector. Align the connector halves so they are square with each other and the fairing connector's corner key lines up with its corresponding notch in the pigtail's connector. The halves slide together easily and the side bars latch the halves together. Forcing the connectors together will push one or more pins out the back of the connector resulting in lamp failure. Inspect the connector to make sure each pin has snapped into its respective hole in the connector body.

RE-ASSEMBLE THE MOTORCYCLE:

Push the fuel tank back on to its mounting lugs and install the fuel tank mounting. Check the fuel line connections to be sure that they are tight and not leaking.

Attach the battery ground and covers, replace tool tray and close seat.

Check the function and adjustment of the lights. Raise the headlight beam by pressing on the top of the headlight with the palm of your hand. Swing the beam to the rider's right by turning the screw in the headlight's chrome ring clockwise. Once positioned tighten the two headlight bolts inside the fairing.

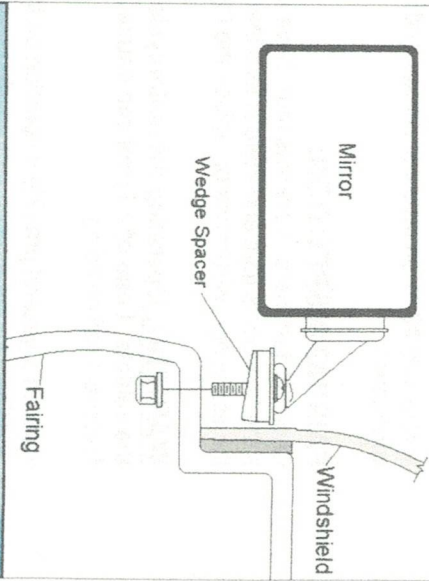
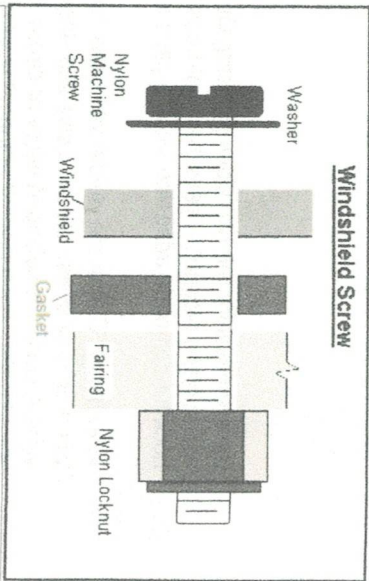
WINDSHIELD SPOILER INSTALLATION:

Clean windshield with warm soapy water or Windex window cleaner. The windshield must be absolutely clean before attempting to stick the spoiler to the windshield to ensure good adhesion.

While sitting behind your Hannigan Fairing place the spoiler to the underside of the windshield with both hands. Position the spoiler so it is at the aft edge of the windshield and centered left and right and pointed straight ahead. Temporarily tape the spoiler mount tabs to the windshield positioning the spoiler so your line of sight down the road to the horizon is about $\frac{1}{2}$ " over the top of the spoiler. While you are in your comfortable riding posture.

If your Slipper spoiler does not fit do not stick it down. Measure how much taller you want your spoiler. Call Hannigan Fairing for a one time resize. Return your spoiler in its original packaging in new, un-scratched condition, postage paid. No COD's with the written change you want in inches. Walk around the bike and check the spoiler position from the front and both sides. Move the spoiler to get a good appearance. Mark the corners of the spoiler's mount tabs on the underside of the windshield with a Sharpie felt tip marker.

Install the spoiler only when the temperature is 70F (21C) or above to ensure pads adhere properly to the windshield. You can use a hair dryer to warm the spoiler and windshield. Keep your hand in the dryer's air flow so you do not burn your hand or overheat the plastic parts. Remove the center peel & stick tape from center mount tab, pressing the mount tab over the marks starting at the rear and rolling the tab down work air bubbles forward. Repeat the



tape removal for the two sides pressing Dual-Lock firmly to the windshield. Wipe the off Sharpie ink with rubbing alcohol. Press the Dual-Lock to the windshield the next time you ride. Check the Dual-Lock for complete adhesion with no gaps at the beginning of each ride.

Warning: Check the windshield spoiler's Dual-Lock pads at the beginning of each ride. Heat and vibration may stress the adhesive allowing the spoiler to come loose striking the rider causing loss of vehicle control resulting in injury or death. Check the Dual-Lock for complete adhesion to the windshield before each ride. If riding off road or above legal speeds drill a mounting hole and attach the spoiler with #8 nylon machine screws and locknut. Call Hannigan Fairing at 800-324-7660 for more information.

FAIRING INSPECTION:

Check all fasteners. Locknuts must have at least one full thread extending beyond the end on the nut. If the fastener is tight and there is less than one full thread the part is not assembled correctly. Check the assembly instructions or replace the fastener with the next longer one of the same strength.

WARNING: Operating the motorcycle with loose fairing fasteners can cause loss of control of the vehicle. Loss of control can cause an accident resulting in injury or death. Tighten loose fasteners before riding.

Perform a general pre-ride inspection on the motorcycle to ensure that the motorcycle is ready to ride. Additional information on motorcycle pre-ride inspections is available from the Motorcycle Safety Foundation.

FIRST RIDE:

Ride at low speeds in low traffic density areas until you become familiar with the feel of the motorcycle with a fairing.

FAIRING MAINTENANCE:

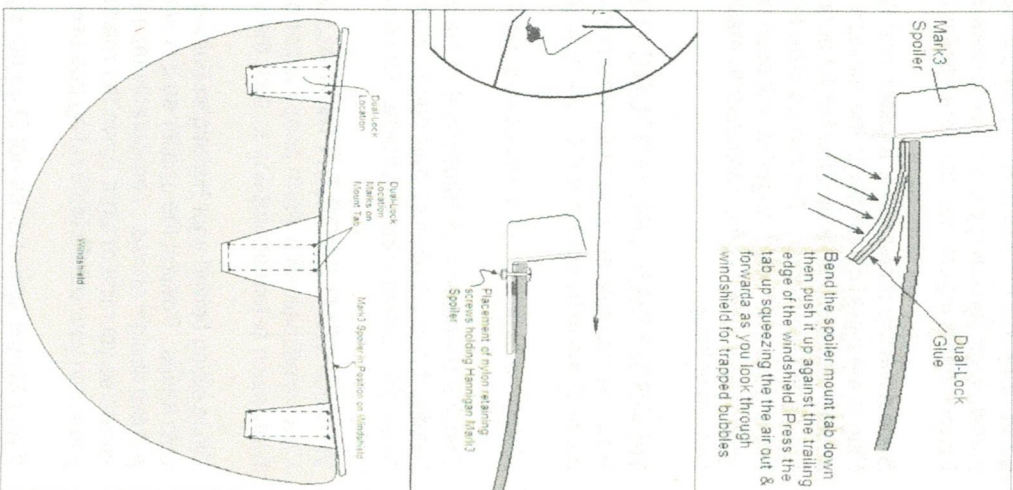
Cleaning:

Clean your fairing, windshield and spoiler with a mild detergent and lots of water. Use a clean all cotton cloth. Synthetic fabrics and paper towels scratch paint, gel coat and acrylic windshields and spoilers. Never use solvents or abrasives on paint, windshield or gel coat.

Waxing or polishing with petroleum distillate products is prohibited for the first four months of your fairing's life. Every decade or so restore the gel-coat's luster by power buffing with 3000 grit buffing compound.

Restoring luster:

Scratches and dull or worn areas in the spoiler, windshield, gel-coat and paint can usually be restored. Sand deep scratches by gently wet sand.



ing with 2500 grit sand paper across the scratch. Flush with lots of water and do not to over sand painted surfaces sanding through the clear coat into the color paint. Apply Novus brand #3, #2 & #1 polishes following the manufacturer's instructions or call Hannigan Fairing® Co. for advice. Novus brand products are available at most motorcycle shops.

WARNING: Riding with a dirty or scratched spoiler can impair the motorcycle operator's vision resulting in loss of control of the vehicle. Loss of control can cause an accident resulting in injury or death. Clean, polish or replace the spoiler before riding.

Fastener Check:

Once a month or every 3,000 miles shake the fairing as described in the mounting instructions to ensure that it is firmly attached to your motorcycle and visually inspect and turn every fastener with your fingers to ensure tightness.

Check Fairing Mount Rubber Washers:

The rubber washers protect the fiberglass from local stress that can break the glass fibers. Check the rubber mount washers every year for cracks and weathering. Replace all eight washers. Washers are available at hardware stores or through Hannigan Fairing® Co.

WARNING: Operating the motorcycle with loose fairing bolts can cause loss of control of the vehicle. Loss of control can cause injury or death. Tighten loose fasteners before riding.

Headlight Adjustment:

Raise the headlight beam by pressing on the top of the headlight with the palm of your hand. Swing the beam to the rider's right by turning the screw in the headlight ring clockwise. Tighten the two headlight bolts inside the fairing.

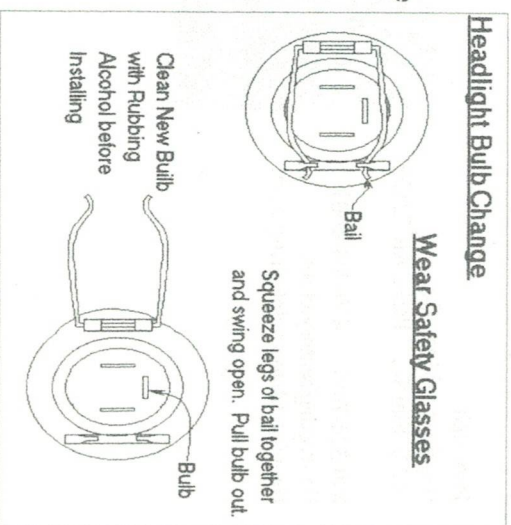
Headlight Bulb replacement: Wear Safety Glasses and gloves.

Warning:

Headlight bulbs can explode or shatter into high speed sharp glass pieces causing injury and blindness. Wear eye protection to help avoid eye injury. Wear gloves to avoid cuts from glass. Handle bulbs with care to avoid bulb damage and injury.

Prepare a receptacle to store the used bulb. Remove the fairing's center storage cover. Remove the headlight electrical connector exposing the back of the headlight bulb rubber boot. Lift the rubber boot from the back of the bulb and draw it through the round fairing opening. Lift the two wire bales holding the bulb to the lens/reflector. Lift the bulb from the lens/reflector noting the orientation of the three locator tabs on the bulb. Place the bulb in a safe container so it can not break.

Clean the replacement bulb with denatured alcohol to remove oil from the glass and only handle the bulb with a clean paper towel so your skin does not touch the bulb. Insert the bulb into the lens/reflector with the locator tabs correctly oriented. Hook both bales back down and place the rubber boot over the bulb pins. Check the headlight connector for corrosion and clean and treat with anti-corrosive grease as necessary. Push the headlight connector back on the bulb pins pressing it forward to ensure complete engagement.



HANNIGAN WIRING CHART

FAIRING SIDE

LARGE RED — TO HEADLIGHT YELLOW

LARGE WHITE — TO HEADLIGHT WHITE

LARGE BLACK — PRIMARY GROUND

BLUE — RIGHT SIDE TURN

GREEN — LEFT SIDE TURN

BROWN — RUNNING LIGHT / HEADLIGHT

GREY — " " FAIRING

YELLOW — 12V HOT " FAIRING
HARNES SIDE | FAIRING SIDE

BIKE SIDE

RED TO YELLOW

WHITE TO WHITE

BLACK TO BROWN

BLUE TO BLUE / BLACK STRIPE

GREEN TO BLUE / RED STRIPE

BROWN TO ~~GREY~~ / BLACK STRIPE

GREY TO " / " "

YELLOW TO ~~YELLOW~~ RED

HARNES SIDE

HEADLIGHT BUCKET
SIDE

