



HEATER MOUNTING KIT: 1YDR2HMK (Fits Yamaha Drive and Drive2)

Must be installed with Curtis Electric Heater 9PH20S70
 Must be installed with Curtis Alternator Kit 1ACYDR2DRK
 May be installed along with Curtis Air Conditioner 1ACUNIT-G2

Approximate Installation Time *

Experienced Dealer Technician – 1 Hour
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Average Dealer Technician – 2 Hours

Do-It-Yourself – 3 Hours

(* = Not including accessories)

The contents of this envelope are the property of the owner. Leave with the owner when installation is complete.

Rev. B, 10/30/2018

p/n: IM-1YDR2HMK


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WARNINGS, TIPS, & REQUIRED TOOLS

Curtis accessories feature an assembly of parts designed for your vehicle which require adjustment and alignment of components to accommodate vehicle variations. For accurate installation, proper operation, and years of satisfaction, please read and understand the installation and owner's manual fully prior to installing the accessory.

From all of us at Curtis, we thank you for choosing our product.


NOTICE

Curtis Cabs, blades and general accessories add additional weight to the base vehicle. All Curtis accessory weights are listed in product brochures. Deduct the accessory's total weight from the vehicle's rated capacity and never exceed the vehicle's rated capacity including driver and passenger.

California Health and Safety Proposition 65 Warning: This product may contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

GENERAL INFORMATION BEFORE YOU START

HELPFUL HINTS:

- Refer to parts diagram found in the service parts section of this manual to help identify parts during the assembly process.
- To assist with the installation, leave all fasteners loose for later adjustment unless otherwise specified.
- Read and understand all instructions before beginning.

TOOLS REQUIRED:

- Set of Standard and Metric Sockets (3/8" Drive)
- 3/8" Drive Ratchet
- Set of Standard and Metric Open-End Wrenches
- #2 and #3 Phillips Head Screwdrivers
- Snips
- Drill and Standard Drill Bits

KIT INSTALLATION

STEP 1: (VEHICLE PREP)

- 1.1** This heater can be installed with or without the rooftop A/C.

If installing the **heater with a rooftop A/C**, begin by installing the roof kit first, followed by the alternator kit before this heater kit is installed. Note: when installing the A/C unit into the roof, there is an additional harness in this kit that must be run at the same time as the main A/C power harness. Please read forward to identify this wire.

If installing the **heater without an A/C**, begin by installing the heater kit first before installing the alternator kit.

- 1.2** Lift up the seat on the vehicle.
- 1.3** Remove cup holder/ dashboard from vehicle by first removing the center plug with the Yamaha logo, then removing the bolt underneath. Once removed, the cup holders will pop out towards you. See Figure 1.3.
- 1.4** Disconnect the negative battery terminal from the battery. See Figure 1.4.

Tools

1/2" wrench or socket

- 1.5** Remove the rear motor cover. Vehicles manufactured prior to 2017 will have a different motor cover. See Figure 1.5a and 1.5b.

Tools

5mm Allen wrench, ref. Fig. 1.5a

Flat head screw driver, ref. Fig. 1.5b



Fig. 1.3 (Remove Cup Holders)



Fig. 1.4 (Disconnect Negative Battery Terminal)



Fig. 1.5a (Remove Motor Cover 2017 & Later Models)



Fig. 1.5b (Remove Motor Cover 2016 & Earlier Models)

KIT INSTALLATION

STEP 2: (Heater Installation)

For ease of installation, it is recommended to feed the wires down through the dash before installing the brackets.

- 2.1** Locate the relay/switch wire harness (9SV-WH-00087).

See Figure 2.1.

The rear of the plug that connects to the back of the switch has two sets of wires (red/black and pink/green) coming off the back of it. Disconnect the relay holders from the red/black wires at the bullet terminals and route the two sets of wires (red/black and pink/green) downwards and through the hole between the dash, windshield, and hood so that the wires are routed out under the hood.

Leave roughly 10" of wire inside the vehicle that will connect to the back of the switch.

- 2.2** Locate one of the heater units from Curtis kit 9PH20S70. Feed the wires down through the same hole on the driver's side, leaving the heater and roughly 12" of wire inside the vehicle.
- 2.3** Locate the remaining heater unit. Feed the wires down through the hole on the passenger's side, leaving the heater and roughly 12" of wire inside the vehicle.

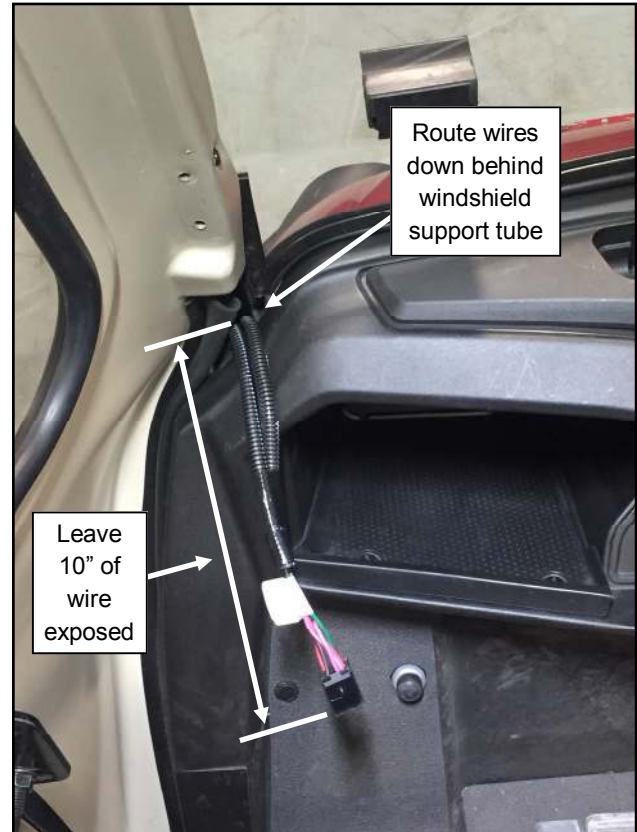


Fig. 2.1 (Route Switch Wiring)

KIT INSTALLATION

STEP 2: (Heater Installation)

- 2.4** Remove lower windshield mounting hardware. See Figure 2.4.
- 2.5** If installing with cab, do not open up lower (2) holes on front roof supports. Instead drill through plastic in cab using 1/4" drill bit. See Figure 2.5.

Tools

1/4" Drill bit / Drill

If cab is already installed, use the threaded insert as a guide and drill a 1/8" hole on the opposite side of front roof supports and cab plastic.

CAUTION! Do not let drill bit touch threads to keep from ruining them. Center guide hole as accurately as possible.

Drill through plastic and inside of front roof supports with 1/4" drill bit, using hole previously created as guide. **CAUTION!** Be careful not to damage insert when drilling through front roof supports.

Tools

1/4" Drill bit / Drill

1/8" Drill bit / Drill

- 2.6** Install upper bolt on driver side heater bracket per Figure 2.6. Note the driver's side bracket includes a rectangular cut out for the switch.

Hardware Used

1/4-20, 2.5" button head screw

1/4-20 flanged hex nut

Qty

1

1

Tools

7/16 socket

5/32 allen wrench

- 2.7** Install the passenger side heater bracket per Figure 2.7.

Hardware Used

1/4-20, 2.5" button head screw

1/4-20 flanged hex nut

Qty

1

1

Tools

7/16 socket

5/32 allen wrench

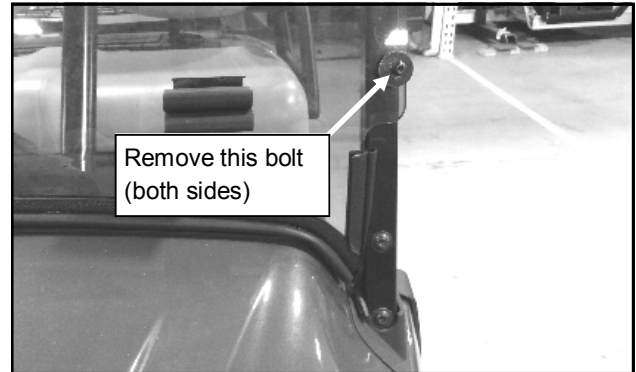


Fig. 2.4 (Remove mounting hardware)



Fig. 2.5 (Drill Upper Hole)



Fig. 2.6 (Driver Side Upper Hardware)



Fig. 2.7 (Passenger Side Upper Hardware)

KIT INSTALLATION

STEP 2: (Heater Installation)

- 2.8** Per Figure 2.8, orient bracket so that it is parallel with the windshield tube and tighten the hardware. Use the lower hole in the bracket as a guide and drill through plastic and front roof supports using 1/4" drill bit.
- 2.9** Repeat for passenger side of vehicle.

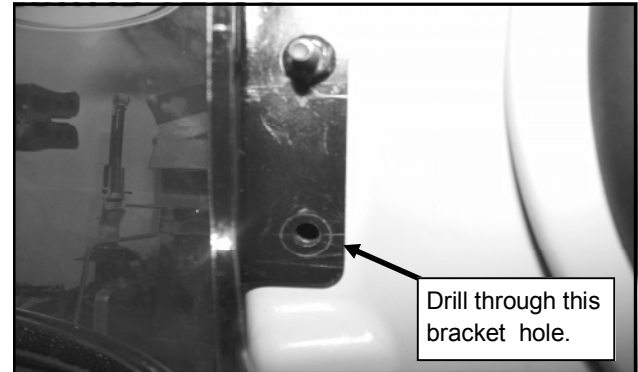


Fig. 2.8 (Drill lower holes)

- 2.10** Install lower hardware into heater brackets. See Figure 2.10.

Hardware Used

1/4-20, 1.75" button head screw
1/4-20 flanged hex nut

Qty

2
2

Tools

7/16" wrench and socket
5/32 allen wrench



Fig. 2.10 (Install lower bracket hardware)

- 2.11** Install thumbscrew clamp and Heater (from Curtis kit 9PH20S70) onto the driver's side bracket oriented roughly as shown and tighten thumb screw. See Figure 2.11.
- 2.12** Repeat for the passenger side.



Fig. 2.11 (Install Heater and Clamp to Bracket)

KIT INSTALLATION

STEP 3: (WIRING)

- 3.1** Per Figure 3.1, route the plug that mates to the rear of the rocker switch (previously routed) through the rectangular cutout in the driver's side bracket and connect to the back of the switch.

Snap the switch into the bracket.

- 3.2** Route the wires from the passenger side heater along the vehicle frame to the driver's side.

- 3.3** Route the two heater harness wires and the red/black wire lead from the switch to the battery compartment.

If installing the heater with an A/C, route the pink/green wire to the engine compartment as well.

If no A/C will be installed, leave the pink/green wires under the hood.

- 3.4** In the battery compartment, reconnect the bullet terminals on the red/black harness that were disconnected in step 2.1 with the corresponding wires on the relay holders as shown in Figure 3.4.

Use the Wiring Diagram on page 15 or 16 (depending on your configuration) to make the following connections:

- 3.5** Connect the yellow push-on terminals on red wires from the heater units to the mating terminal extending out of relay socket 3.
- 3.6** Install the relays supplied with the heater mounting kit into their corresponding sockets.

Install the relay with the larger terminals into the large relay socket (Figure 3.6a) (labeled socket 3 on the wire diagram)

Install the Beuler Time delay relay into the remaining relay socket (Figure 3.6b) (labeled socket 4 on the wire diagram)



Fig. 3.1 (Switch Installed)

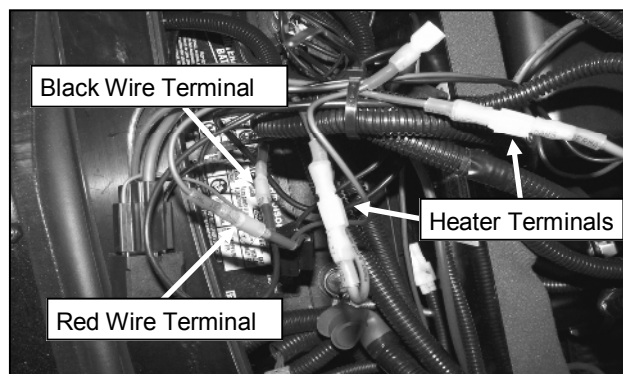


Fig. 3.4 (Connect Heater & Relay Harness)

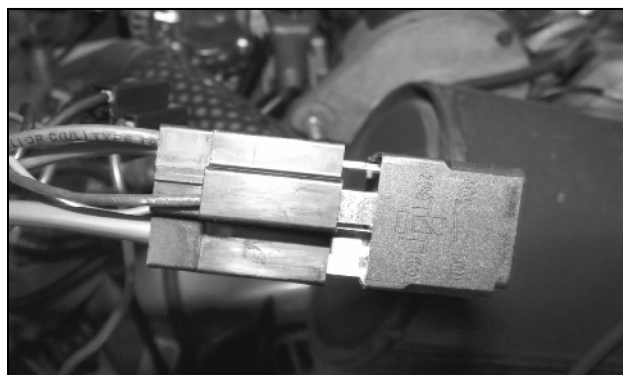


Fig. 3.6a (Install Larger Relay)



Fig. 3.6b (Install Smaller Relay)

KIT INSTALLATION

STEP 4: (WIRING HEATER ONLY)

If installing the heater kit with an A/C, skip step 4 and proceed to Step 5.

The following steps use components from the alternator kit.

- 4.1 Install time delay solid state relay (0-10 sec) on-delay (8SV-114-00023) (located in the alternator kit) into socket 2 of relay harness (located in the alternator kit). Note that the solid state relay can only fit into socket 2, due to its shape. As shown in figure 4.1.
- 4.2 Install the standard relay (9SV-85-01-0022) (located in the alternator kit) into the relay socket 1 on the harness as shown in figure 4.7 on the following page.
- 4.3 Zip tie relay harness 9SV-WH-00074 (located in the alternator kit) to wire harness for the fuel gauge under the cup holders. Shown in figure 4.3.

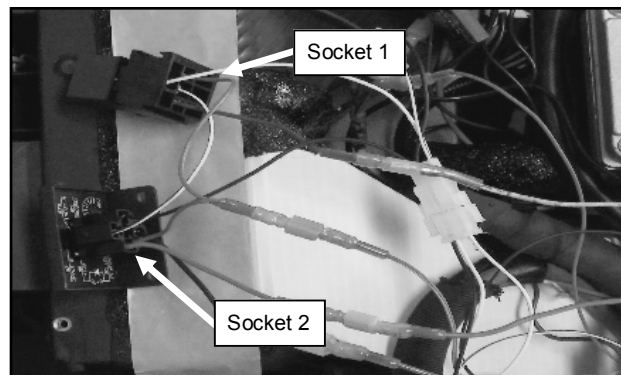


Fig. 4.1 (Install Relays)

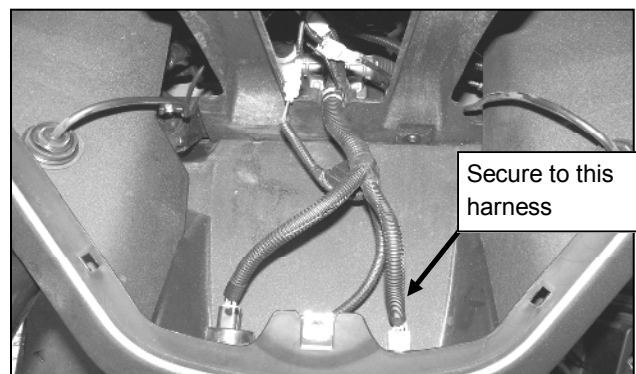


Fig. 4.3 (Secure Relay Harness)

- 4.4 Locate the controller wire harness (9SV-WH-00089).

Connect the ring terminal on the black wire with the white plug on the other end to the vehicle horn bolt that is under the hood to ground the harness to the frame. See Figure 4.4.

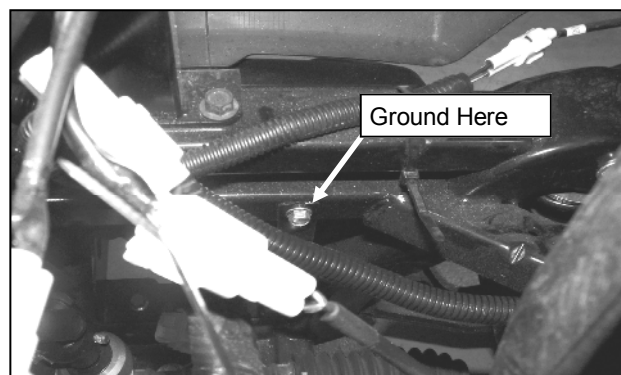
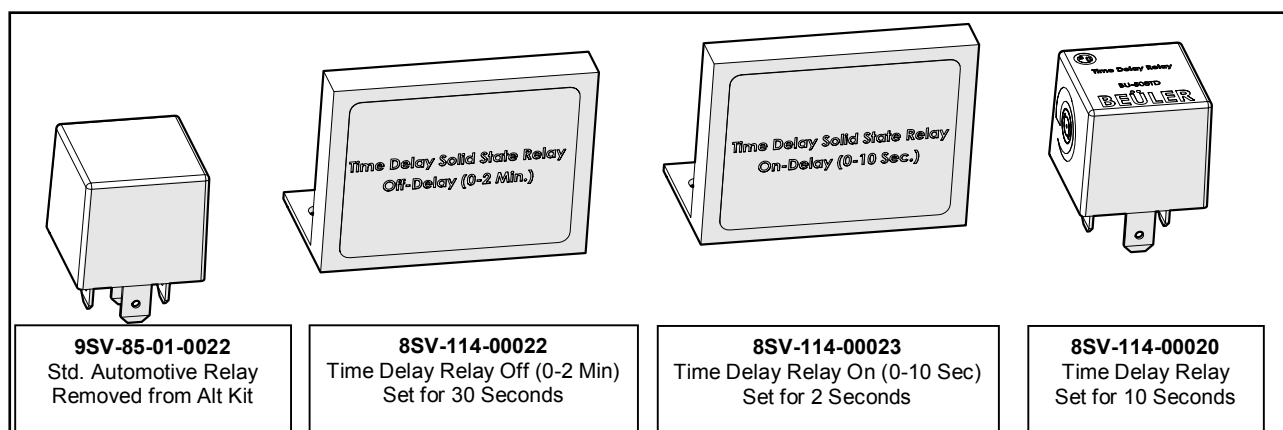


Fig. 4.4 (Ground Wire)

Note: Relay 8SV-114-00022 (the second from left shown below) supplied in the alternator kit will not be used when installing the heaters without A/C.



KIT INSTALLATION

STEP 4: (WIRING HEATER ONLY)

- 4.5** Zip tie the controller (located in the alternator kit) to wire harness for vehicle ignition or vehicle frame shown in figure 4.5

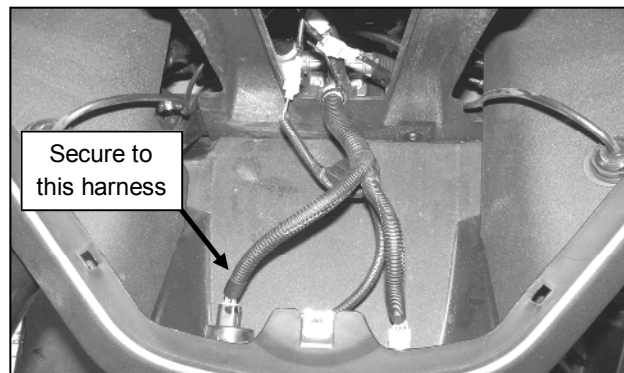


Fig. 4.5 (Controller Zip Tie)

- 4.6** Connect the relay wire harness 9SV-WH-00074 and controller wires under the hood as follows:

Relay Harness Terminal	Destination
Male Plug (White)	Female Plug (White) of Controller Harness (9SV-WH-00089)
Female Plug (White)	Male Plug (White) of Controller
Purple Wire	Purple Wire of Controller Harness (9SV-WH-00089)
Pink Wire	Pink Wire of Controller Harness (9SV-WH-00089)
Red Wires	Red w/ White Stripe Wire of Controller 114-00017
Green Wire	Unused
Black Wire	Unused

Controller Wire	Destination
Red Wire (from controller)	Green Wire from heater switch
Brown Wire (from controller)	Brown Wire of Controller Harness (9SV-WH-00089)

- 4.7** Beneath the seat, find the vehicle solenoid. Connect the purple wire on the controller harness 9SV-WH-00089 to the vehicle solenoid. To help identify this wire, it has a 10-amp fuse near the ring terminal, and has a section of black wire at the fuse holder. Figure 4.7.

The ring terminal must be attached to the large lug on the starter side of the solenoid (not the battery side). *If this ring terminal is on the wrong side of the solenoid, the controller will not turn off with the engine.*

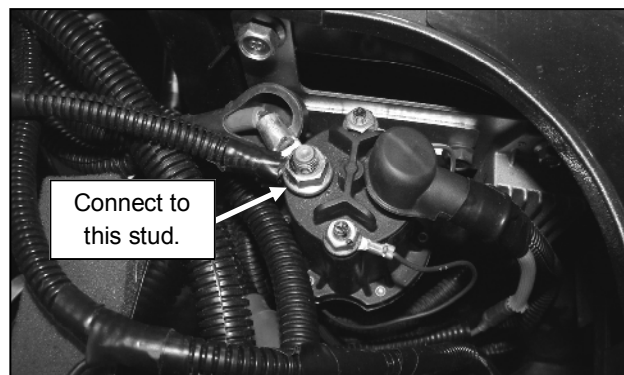


Fig. 4.7 (Solenoid Connection)

Tools

5/16" wrench or socket
13mm wrench or socket

KIT INSTALLATION

STEP 4: (WIRING HEATER ONLY)

- 4.8** Locate the RPM signal wire harness (9SV-WH-00075) (located in the alternator kit). The harness is a 2-foot long brown wire with a male bullet and female push-on terminals. Connect this to the end of the brown wire on the controller harness (9SV-WH-00089). See Figure 4.8.

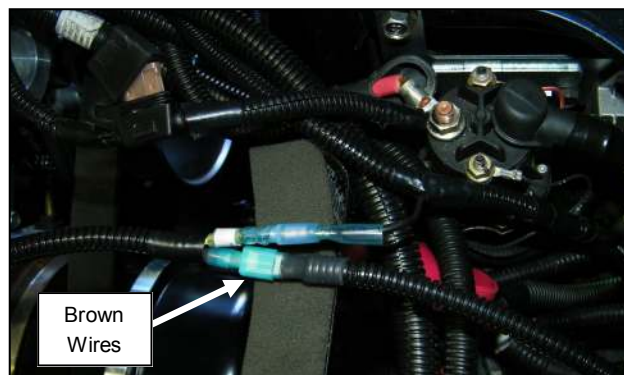


Fig. 4.8 (Locate RPM signal wire harness)

- 4.9** Below the OHV cover on the engine, there are two OEM wire connections. Remove the lower connection (orange wire) from its terminal. Install the signal wire harness onto the terminal where the orange wire was.

Connect the orange OEM wire to the signal wire harness. Splicing into this wire enables the air conditioner to detect when the motor is running. See Figure 4.9.



Fig. 4.9 (Connect to RPM signal wire)

- 4.10** See Figures 4.10a and b. Route the signal wire harness around the engine compartment and towards the power supply harness.

For 2017 and newer models, route the signal wire harness over the engine and next to the air cleaner.

For 2016 and older models, route the signal wire harness over the gas tank and along the passenger's side of the vehicle.

In each case, it is important to use wire ties to secure the wire harness away from any moving components, and away from any hot components.



Fig. 4.10a (Route Signal Wire Harness 2017 & Newer)



Fig. 4.10b (Route Signal Wire Harness 2016 & Older)

KIT INSTALLATION

STEP 4: (WIRING HEATER ONLY)

- 4.11** Route the white plug on the pink wire of the controller harness out into the engine compartment. Connect this to the alternator once that item is installed. Only the top terminal of the "T" on the plug is used. Figure 4.11.
- 4.12** Locate the main power harness in the alternator kit. Remove the nut at the fuse that is securing the red wire from the long portion of the harness with the wire covering on it. This will split the harness into two pieces.

The long section of harness with the wire covering on it will not be used when installing heaters without A/C.

- 4.13** Install the two small ring terminals on the heater wire harness to the fuse holder stud as shown in the wire diagram and re-install the nut. See Figure 4.13.
- 4.14** Install the alternator kit at this time. When installing, skip over any steps that have already been completed as part of this heater installation.

Be sure to connect the pink wire from the controller harness to the alternator.

When reconnecting the battery, ensure that the two ring terminals on the harnesses from the heaters are connected to negative terminal on the battery as well as the ring terminal on the heater relay harness 9SV-WH-00087.

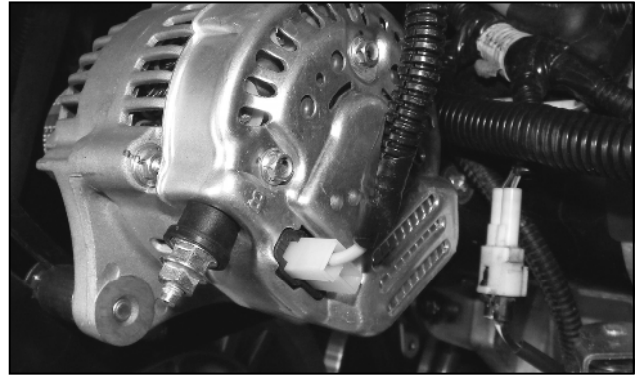


Fig. 4.11 (Connect to Alternator)

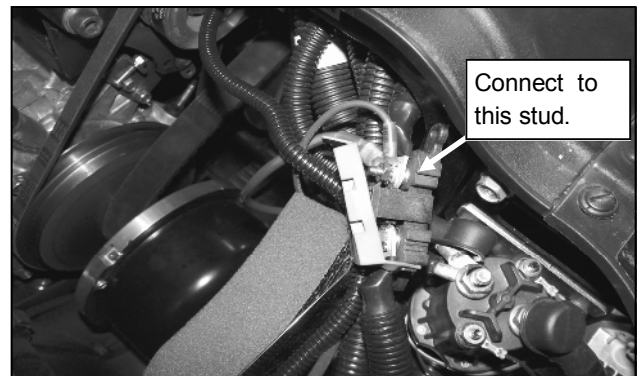


Fig. 4.13 (Connect to Alternator Harness Fuse)

KIT INSTALLATION

STEP 5: (WIRING WITH A/C UNIT)

Note: Refer to the wire diagram on the last page for clarity

Note: The controller harness 9SV-WH-00089 is not used with the A/C and can be discarded.

- 5.1** Route the Green/pink set of wires up to the A/C unit along side the main power wires. See white arrows in Figure 5.1.



Fig. 5.1 (Route Wires to A/C)

- 5.2** See Figure 5.2. Disconnect the red wire on the controller from the pink wire on the A/C unit.

Connect the green wire on the heater harness to the red wire coming from the controller relay.

Connect the pink wire on the heater harness to the pink wire on the A/C unit that is connected to the trigger on the main solenoid.

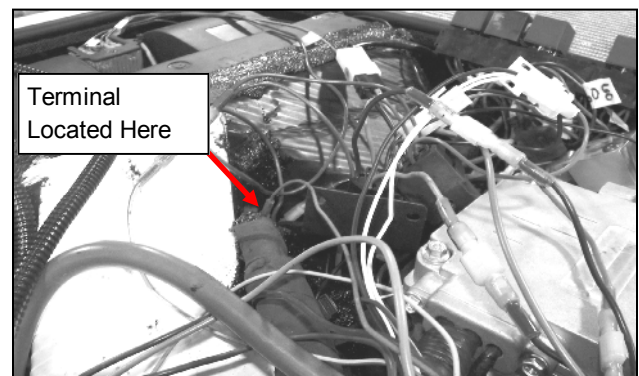


Fig. 5.2 (Disconnect Red/Pink Wire in A/C)

- 5.3** See Figure 5.3. In the battery compartment, connect the two small ring terminals on heater harness to the 100 Amp Fuse Terminal on the main power wire running from the alternator to the battery.

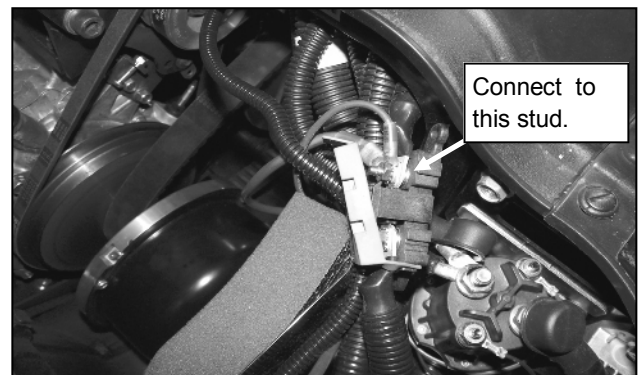


Fig. 5.3 (Connect to Alternator Harness Fuse)

- 5.4** See Figure 5.4. Connect 2 heater ring terminals and ground ring terminal on the heater relay harness to the negative terminal bolt on vehicle battery.

- 5.5** Continue with wire connections as shown in the alternator kit installation manual.

- 5.6** Be sure to secure all wires to vehicle frame and away from moving parts.

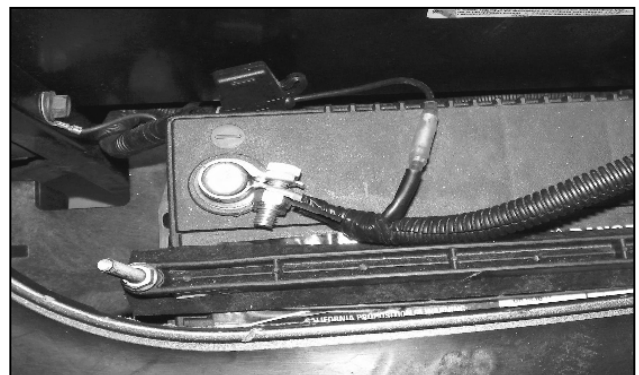


Fig. 5.4 (Ground to Battery)

KIT INSTALLATION

STEP 6: (FINISHING TOUCHES)

- 6.1 Inspect all fasteners, they should be fully tightened before starting vehicle.
- 6.2 Inspect all wire to make sure they are sufficiently tied down and away from hot or moving parts.
- 6.3 Start the vehicle in neutral, turn the switch to heat, and turn on the heater. Run the engine at a high RPM. Warm air should begin to flow after 30 to 60 seconds. Verify that the heater is functioning. Repeat for the A/C if installed.

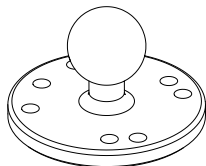
CARE AND MAINTENANCE

- Check and tighten hardware after 20 hours of operation. Periodically inspect and tighten hardware for the remainder of the unit's life.
- Wash the painted surfaces of the unit with commercial automotive cleaning products.

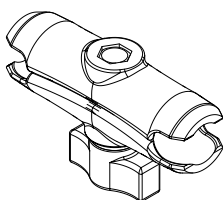
YAMAHA DRIVE ELECTRIC HEATER MOUNT KIT

SERVICE PARTS

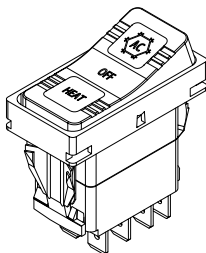
BALL & SOCKET MOUNT, 2.5" ROUND BASE,
1" BALL; P/N: 9SV-9BSM-02



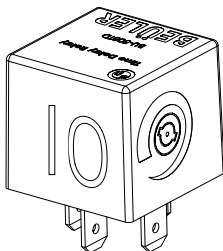
SOCKET EXT, 3" SOCKET TO SOCKET, 1"
BALL; P/N: 9SV-9BSM-03



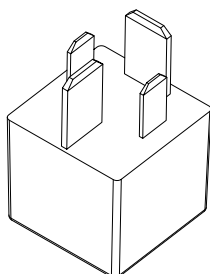
ROCKER SWITCH W/ COVER, 3 POS. FOR
HEATER & A/C; P/N: 9SV-OHC-29



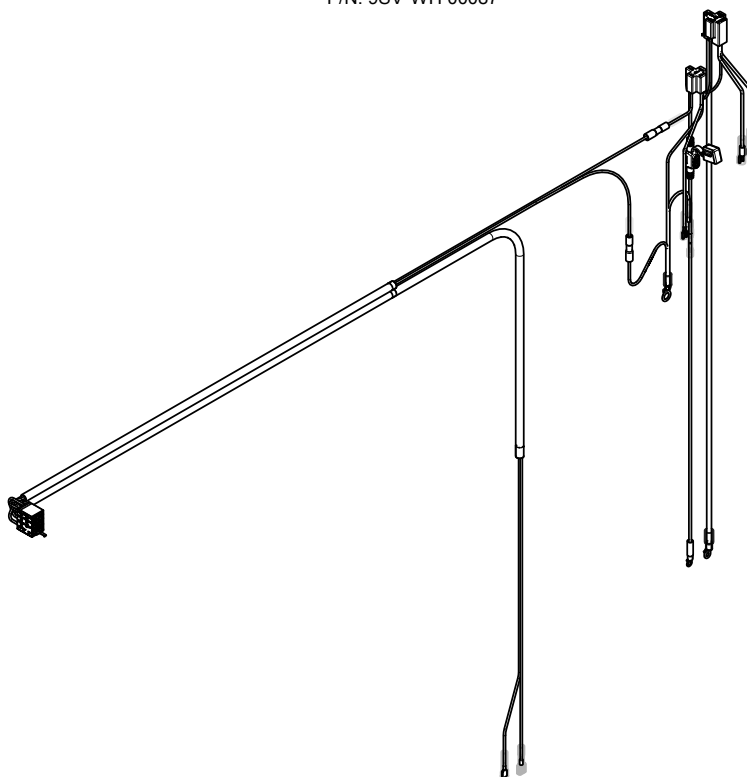
RELAY, 12V DC, 30 AMP, 10 SEC TIME DELAY
P/N: 8SV-114-00020



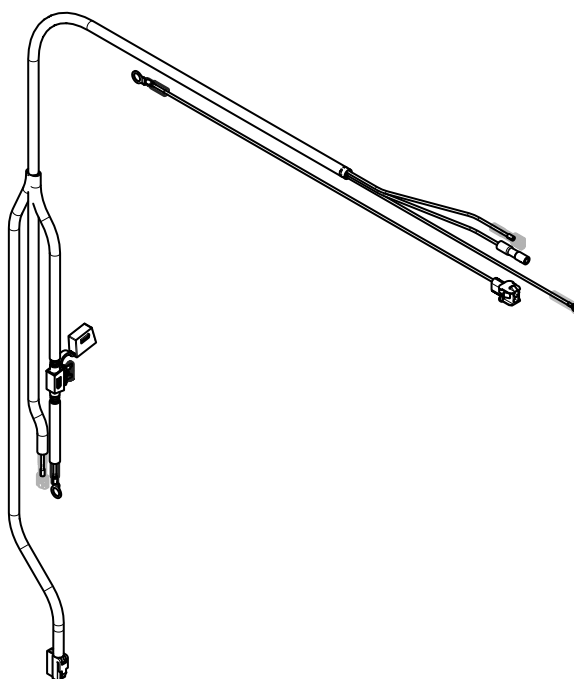
DMAXI RELAY, 12V, 50A CONTINUOUS
P/N: 9SV-85-12-0038



RELAY HARNESS, ELECTRIC HEATER
P/N: 9SV-WH-00087



CONTROLLER HARNESS, ELECTRIC HEATER
P/N: 9SV-WH-00089

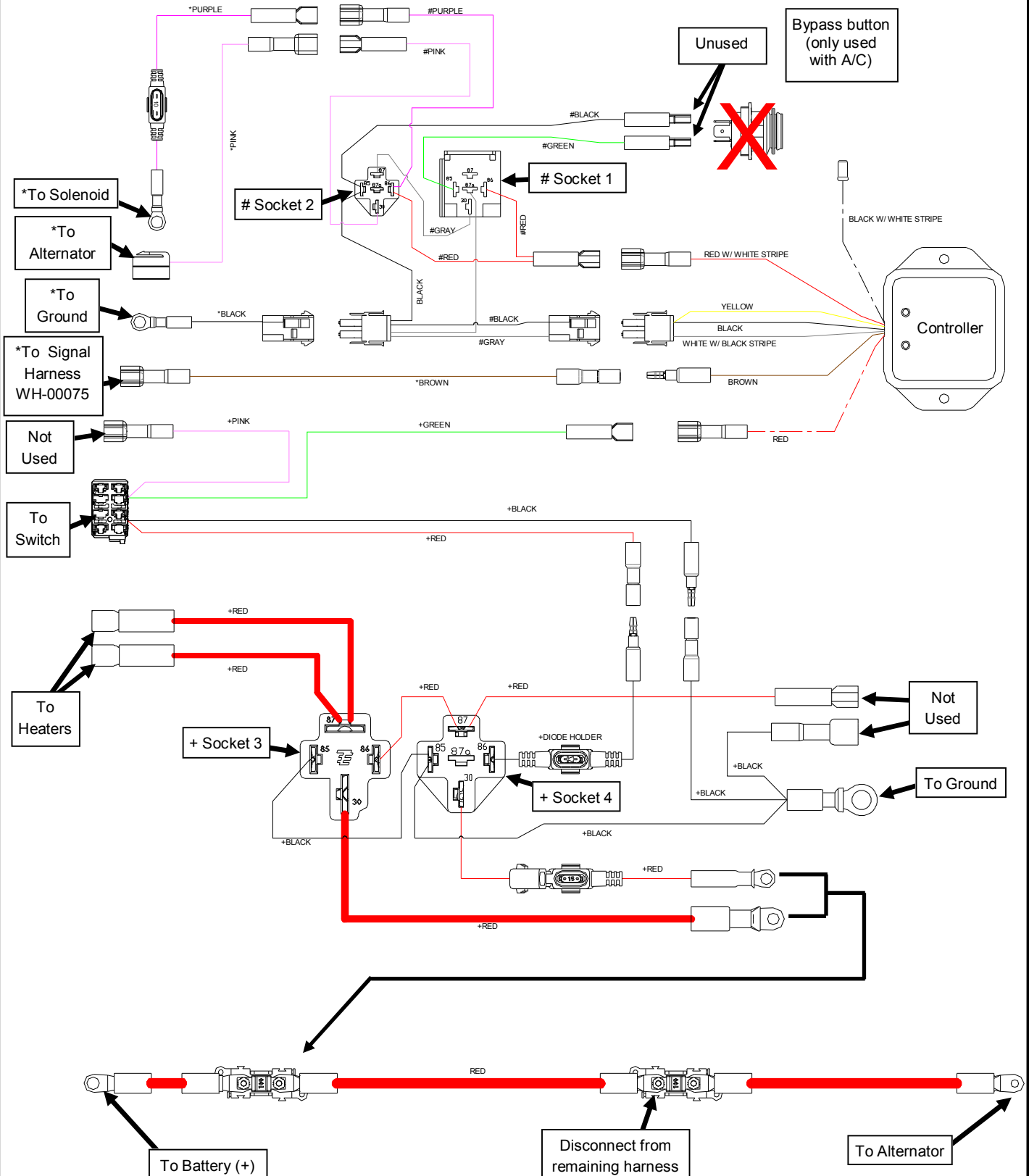


Heat Only Wiring

Wires marked * are part of controller harness 9SV-WH-00089

Wires marked + are part of heater relay harness 9SV-WH-00087

Wires marked # are part of alternator kit relay harness 9SV-WH-00074



This wire is a portion of the main power harness (9SV-WH-00065) in the alternator kit.

Heat + A/C Wiring

Wires marked ** are part of main power harness 9SV-WH-00065

Wires marked + are part of heater relay harness 9SV-WH-00087

Wires marked # are part of alternator kit relay harness 9SV-WH-00074

