



Installation Instructions

DGK45F\FU AutoStart



1000000291

Kit Contents:

- (1) AutoStart Module and Panel Decal
- (1) Wiring Harness



- (1) Terminal Strip
- (2) 8-32x3/4" stainless steel screws
- (4) 8-32 stainless steel flat washers
- (2) 8-32 stainless steel lock nuts
- (1) 2-Position Toggle Switch w/mounting
- (1) Decal - AutoStart On\Off
- (1) 1/8"x 7/16" Grommit
- Black Cable Ties



- (1) DGK45F\FU AutoStart Terminal Strip and Grommit Installation Template

Tools & Materials Required:

- Masking tape
- Measuring tape
- Scissors
- Safety knife
- Center punch
- Deburring tool
- 1/8" drill bit
- 3/16" drill bit
- 5/16" drill bit
- 13/64" drill bit
- Drill (electric or cordless)
- 11/32 socket & 1/4 drive
- 10 mm socket - 3/8 drive
- 17 mm socket - 3/8 drive
- 3/8 impact driver with 3" extension
- 13 mm combination ratchet wrench
- #2 Phillips screwdriver
- Needle Nose Pliers
- Wire cutter\stripper & crimper
- Heat Gun or equivalent
- Clear silicone sealant

NOTES

INSTALLATION INSTRUCTIONS

- **Step 1: Verify Kit Contents**
- **Step 2: Read through installation instructions before beginning the procedure.**

NOTE: Make sure your machine has a RELAY MODULE installed before attempting. If your machine DOES NOT have this installed, contact customer service. (Figure 1)

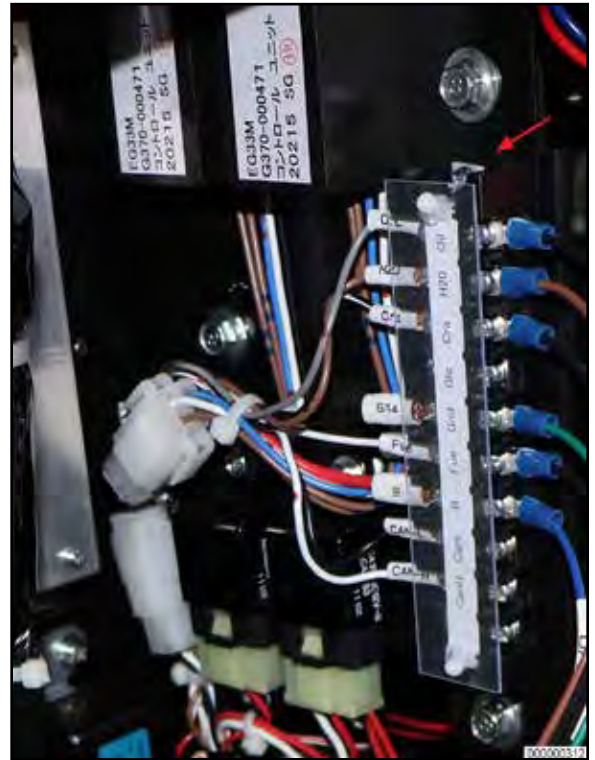


Figure 1

- **Step 3: Release the Right Enclosure rear door latch, then open both right enclosure doors. (Figure 2)**



Figure 2

- **Step 4: Remove nut and washer securing NEGATIVE battery cable to NEGATIVE terminal using a 13 mm wrench. (Figure 3)**



Figure 3

- **Step 5: Position the negative battery cable out of the way, then reinstall washer and nut to battery terminal. (Figure 4)**



Figure 4

- **Step 6: Release the Latch on the Front Enclosure Control Cabinet Door, to access the controls. (Figure 5)**



Figure 5

- **Step 7: Carefully remove the all Black Vinyl decal located just to the right of the THROTTLE toggle switch. DO NOT use any chemicals to remove. Avoid scratching the control panel surface (Figure 6)**



Figure 6

- **Step 8:** Clean the control panel surface in preparation for installing the new AutoStart Decal. There should be no residual adhesive or debris on the surface.
- **Step 9:** Locate the AutoStart Decal in the kit. Carefully remove the adhesive release film from the back of the decal. Carefully align and match up the holes in the decal with those in the control panel. Place the decal onto the control panel surface, gently pressing the surface of the decal to ensure it is making full contact. (Figure 7)

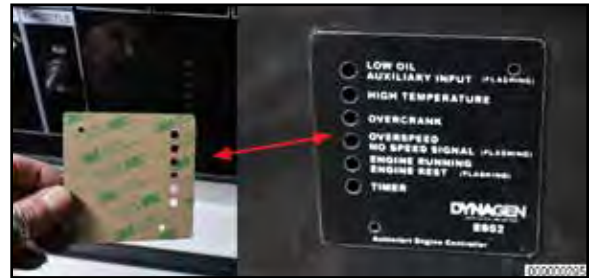


Figure 7

- **Step 8:** Release the Control Panel by turning the two knobs at the top upper corners; turn each counter-clockwise till completely released. (Figure 8)
- **Step 9:** Locate the AutoStart module and two (2) mounting screws provided with it.



Figure 8

- **Step 10:** Before installing the AutoStart module, verify that the "DipSwitch" settings are as shown. (Figure 9)

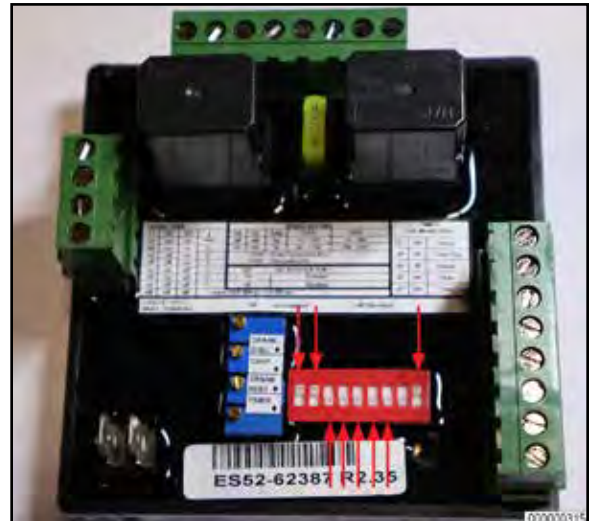


Figure 9

- **Step 10:** Place the AutoStart module so that the LED indicator bulbs are in each of their corresponding holes in the Control Panel. Using the provided screws, attach the AutoStart module to the Control Panel through the decal mounting holes. **DO NOT OVER-TIGHTEN.** (Figure 10)

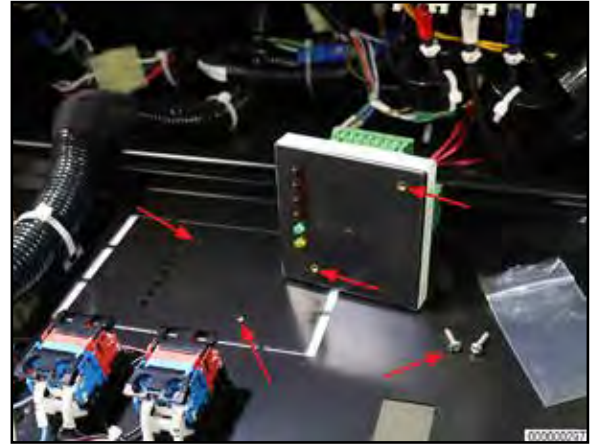


Figure 10

- **Step 12:** Select the wiring harness from the kit; cut the two cable ties keeping the wires buddled together. (Figure 11)



Figure 11

- **Step 13:** There are nine (9) wires with Seven (7) with Flat pin connections on the ends, and two (2) female Disconnects, each with a different descriptive wire tag. Locate each of the corresponding connections on the AutoStart Module terminal blocks. Using a very small flat blade screwdriver secure each of the flat pin wires into place. Place the two Female Disconnects onto the corresponding Male power blade Connections.(Figure 12)

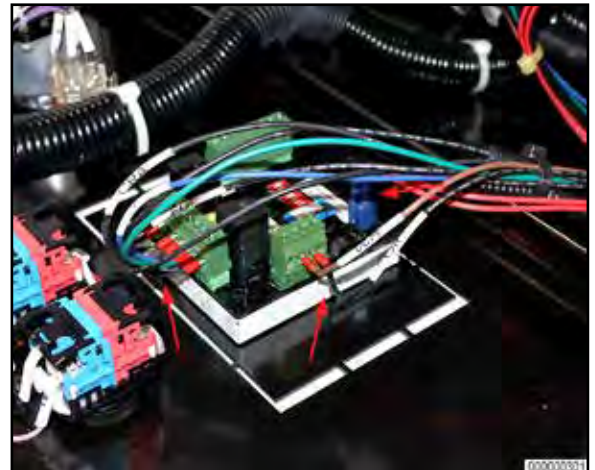


Figure 12

- **Step 14:** There are six (6) wires with Spade connectors on the ends of the wires, each with a different descriptive wire tag. Locate each of the corresponding connections on the Relay Module terminal strip. Using a #2 Phillips screwdriver, secure each of the spade connector wires into place. (Figure 13)

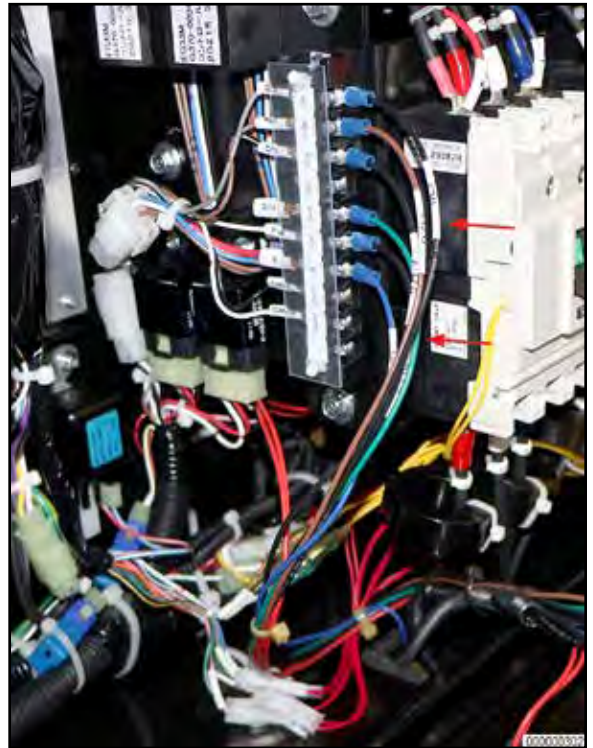


Figure 13

- **Step 15:** Locate two (2) RED wires with Ring Terminals on the wire ends, these will be labeled "Breaker". Route these two wires under and up behind the single phase breaker on the right side of the controls cabinet.
- **Step 16:** Remove both the Positive and Negative power lead fastener screws from the top of the Single Phase Breaker. Combine one ring terminal with the Positive cable and secure with a previously removed screw. Repeat the process for the Negative side of the breaker. (Figure 14)



Figure 14

- **Step 17:** Take the long sections of wiring harness, one labeled "Terminal Strip", the other "Toggle Switch" and route these through the left side cable pass-thru opening of the control cabinet as shown. Using cable ties, secure excess wiring and cables in a neat secure manner. (Figure 15)



Figure 15

- **Step 18:** Release door latch on Left Enclosure Side Door then open door. (Figure 16)



Figure 16

- **Step 19:** Using a 10 mm socket and impact driver, remove two (2) bolts securing the Left Enclosure Side Door to the Enclosure Frame. (Figure 17) Retain bolts for reinstallation.



Figure 17

- **Step 20:** Using a 10 mm socket and impact driver, remove eight (8) bolts securing the Left Enclosure Side Door Rear Cover. (Figure 18) Retain bolts for reinstallation.

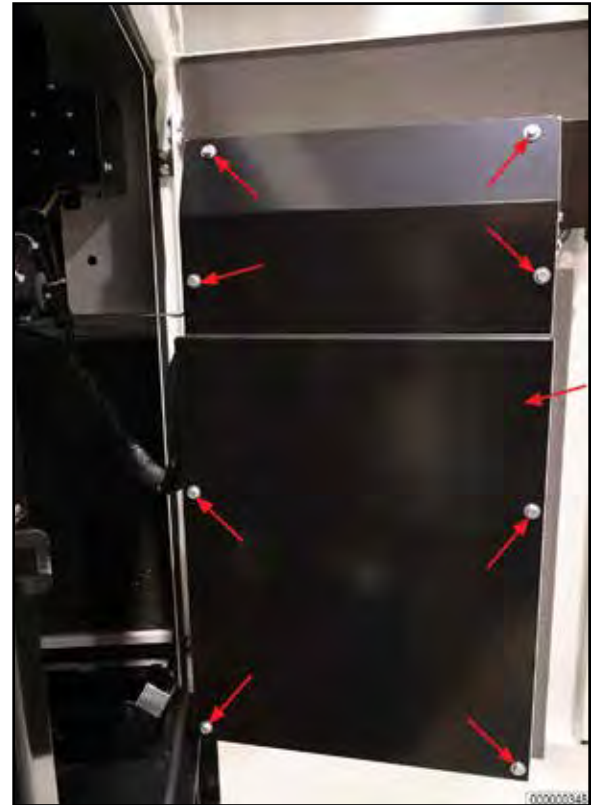


Figure 18

- **Step 21:** Locate the Terminal Strip\Grommet Template included with the kit. Prepare template for use by cutting on the dashed lines.
- **Step 22:** Using masking tape, attach template to the door surface, below the recepticals as shown. (Figure 19)



Figure 19

- **Step 13:** Using center punch and hole location indicated on template, transfer hole center locations to the door surface.

NOTE: All drilling is intended to be done with template remaining taped in place.

- **Step 24:** Drill a pilot hole in all three (3) hole locations using 1/8" drill bit and drill.
- **Step 25:** Enlarge all three (3) holes using 13/64" drill bit and drill.
- **Step 24:** Enlarge Grommet hole using 7/16" drill bit and drill.

- **Step 25:** Remove and discard the template.
- **Step 26:** Deburr all holes.
- **Step 27:** Install grommet into 7/16" grommet hole. Make certain the grommet edges sit flush with surface. (Figure 20)



Figure 20

- **Step 28:** Attach the Terminal Strip to the Left Enclosure Side Door with the two supplied 8-32 screws, washers and locknuts using a #2 Phillips screwdriver and a 11/32 wrench. (Figure 21)

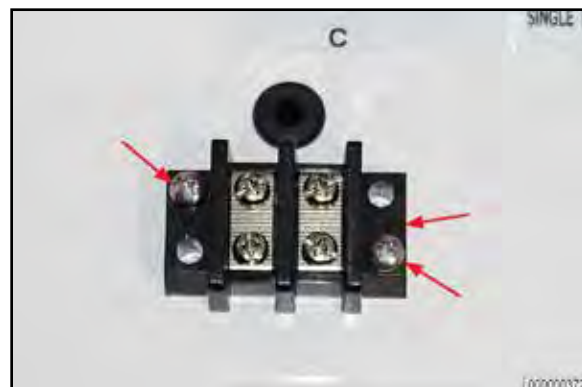


Figure 21

- **Step 29:** Locate the wire harness label "Terminal Strip" that was passed through the left side of the control cabinet. Route the "Terminal Strip" wire harness from the Control Cabinet along the existing wire harness to the Power Output Terminals as shown. Secure the terminal strip wire harness in place using cable ties. (Figure 22)

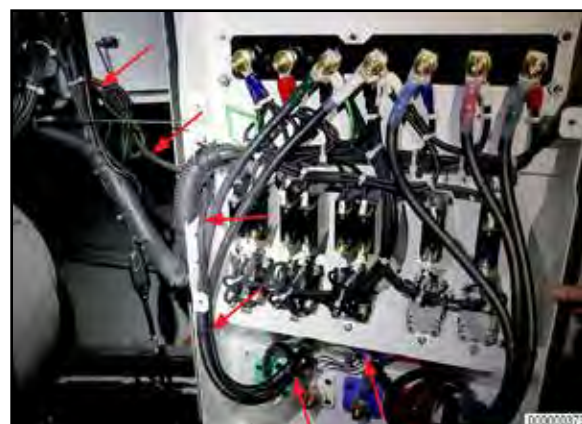


Figure 22

- **Step 30:** Route both "Terminal Strip" wires through the grommet (installed in step 27) and attach to the terminal strip as shown. (Figure 23)



Figure 23

- Step 31: Reattach the Left Enclosure Side Door Rear Cover with the eight (8) previously removed bolts using a 10 mm socket and impact driver.
- Step 32: Locate a hole plug inside the control cabinet face, just to the left of the Hour Meter; remove the hole plug. (Figure 24)
- Step 33: Locate the AUTOSTART ON\OFF Decal provide in the kit.
- Step 34: Clean the surface surrounding the hole inside the control cabinet to make certain there is no dirt or debris on the panel surface.
- Step 23: Remove the center circle from the decal.



Figure 24

- Step 23: Remove the release film on the AUTOSTART ON\OFF decal. Carefully align the hole in the decal with the hole in the Control Cabinet wall and keeping the bottom of the decal aligned horizontal as possible, place the decal onto the control cabinet surface as shown. (Figure 25)



Figure 25

- Step 24: Install the toggle switch into the hole of the Control Cabinet wall as shown. Make sure the switch is installed\oriented to coorespond with the correct On\Off position. (Figure 26)



Figure 26

- **Step 25:** Locate the wire harness labeled "Toggle Switch" that was passed through the left side of the control cabinet. Connect the two (2) wires from this harness to the toggle switch installed in step 26. (Figure 27)

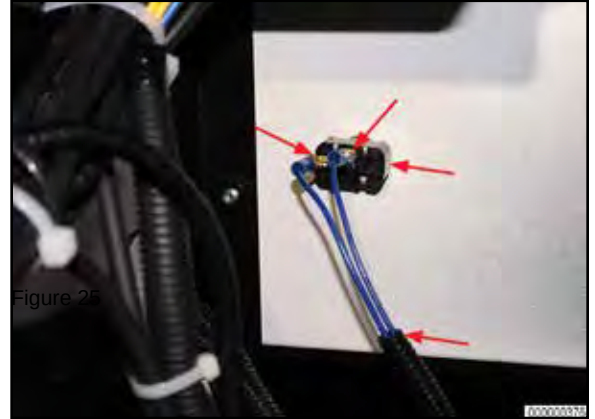


Figure 27

- **Step 26:** Secure excess Toggle Switch Cable and Terminal Strip Cable with a cable tie as shown. (Figure 28)

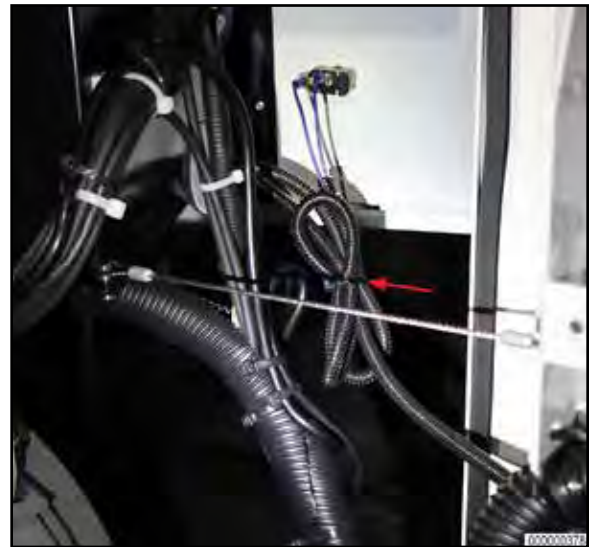


Figure 28

- **Step 27:** Close the Left Enclosure Side Door and secure it to the Enclosure Frame using a 10 mm socket, impact driver and the two (2) previously removed bolts. (Figure 29)



Figure 29

- **Step 28:** Return to the Right Enclosure side - Remove bolt and lockwasher from NEGATIVE battery terminal, reposition and re-attach NEGATIVE battery cable to NEGATIVE battery terminal, using a 13mm wrench or equivalent, secure the battery cable using the previously removed lockwasher and bolt. **DO NOT OVERTIGHTEN bolt - Snug only.** (Figure 30)



Figure 30

- **Step 29:** Verify that AutoStart installation has been completed correctly; place the AutoStart toggle switch into the ON position. Using a pair of pliers or a jumper wire, connect across the two terminals on the terminal strip. It will take a few seconds, but you should hear the fuel pump turn on, and shortly thereafter the engine will crank and attempt to start. A successful start signifies the AutoStart has been correctly installed. Disconnect from the terminal strip, move the toggle switch to the OFF position.
- **Step 30:** Close the Control Panel, the Front Enclosure Control Cabinet Door and both Left and Right Enclosure doors, making sure the door latches are fully engaged.

Installation of the AutoStart is now complete.