



Installation Manual

Upgrading the Gilbarco Advantage to EMV
using Freedom Electronics Easy Pump

Rev 2.1 • 11/2021

Kit #	SA00000 Kit
Description	Easy Pump Install
Pump Models	Advantage WF, NF

Freedom Electronics
Technical Support 800-761-9369 Option 2



Easy Pump with Gilbarco Advantage



Parts list

Manufacturer Part #	Description	Quantity
SA00001	Advantage FIM-20/Printer Door	2
SA00002	Advantage Door Gasket	2
SA00003	Advantage Door Overlay	2
SC00004	24V/5V Dual Power Supply	1
SC00005	Power Supply Bracket	1
SC00007	FIM-20 Power Cable	2
SC00001	FIM-20/Printer Data Cable	2
SC00013	Printer Power Cable	1
SC00019	Power Supply AC Input Cable	1
M3x0.5mmx12mm	M3 Phillips No. 1 with 0.5mm Pitch and 12mm Length (McMaster P/N: 92000A122) "PAX Screw"	10
SC00025	Non-printer Plug	2
SA00004	Non-printer Plug Gasket	2
SA00005	Non-printer Plug Overlay	2
SC00023	Hengstler Bracket	2
SC00024	Hengstler Bracket Gasket	4
6-20x3/8xHex	3/8" Hex Head #6-20 (McMaster P/N: 93880A146)	25
6-32x3/8	3/8" Phillips No. 2 #6-32 Thread (McMaster P/N: 90272A146)	25
8-32x3/8	3/8" Phillips No. 2 #8-32 Thread (McMaster P/N: 90272A192)	10
8-32 Nut	8-32 Locking Nut (McMaster P/N: 90413A102)	10
SP00025	Bag of zip ties (25 pack)	1
0684011 New or Reb	C56 - RS-232 Long Chute Printer (sold Separately)	
FIM-20	Sound Payments IM-20 (sold separately)	

Tools Required

- Flat Head screwdriver
- Phillips® Screwdriver
- 5/32" Nut Driver
- 5/16" Nut Driver
- 1/4" Nut Driver
- Cutters/dykes
- Pliers
- Putty knife
- Isopropyl Alcohol



- We recommend completing the Forecourt install first. Then install a kit into the first dispenser and verify operations before moving onto any others.
- The site will be able to run on dual systems, the new Easy Pump and the existing DCR's. This allows one dispenser at a time to be upgraded without affecting the customers other dispensers.
- eReceipts are available in place of a printer, or in combination with a printer.
- Gilbarco dispensers will require printer replacement for proper printer operation, if desired.
- Dispensers with 10.4" displays CANNOT be upgraded at this time.
- Both Non-CRIND and CRIND Advantage dispensers CAN be upgraded.



Important Safety Information

Know Your Environment

Working at a fueling station can present many dangers. It is a potentially dangerous environment of electricity, flammable fuels, vapors, and interaction with the general public. Only trained and knowledgeable individuals should perform service on the equipment. It is important to your safety and the safety of others to follow proper procedures.

Emergency Shut Off (ESO)

Know how to turn OFF power to all the fueling equipment by locating the ESO switch and circuit breakers. You must know how to shut off all fuel flow and electricity in an emergency.

Follow the Regulations

Information is available at Occupational Safety and Hazard Association (OSHA), National Fire Protection Association (NFPA) 30A; Code for Motor Fuel Dispensing Facilities and Repair Garages, NFPA 70; National Electrical Code (NEC), as well as other national, state and local entities. All applicable codes must be followed to maintain safe installation, service, use and operation of the equipment.

LOTO (Lockout/Tagout)

Always make sure ALL power to the dispenser is turned OFF before servicing the dispenser. Follow OSHA Standard 29 CFR 1910.147 The Control of Hazardous Energy (Lockout/Tagout).

No Sparks - No Smoking

Sparks from power tools, burning cigarettes, static electricity, vehicles and other sources can ignite fuels and their vapors. Ensure that you use safe and established practices while working with electrical devices and equipment. **WARNING – EXPLOSION HAZARD. DO NOT DISCONNECT WHILE THE CIRCUIT IS LIVE OR UNLESS THE AREA IS FREE OF IGNITIBLE CONCENTRATIONS.**

Wear Proper PPE

Check with your company, customers and the job/site specifics to determine what types of personal protective equipment are appropriate. Always wear the proper PPE to prevent injuries and save lives.

Barricade Your Work Area

One of the dangers of working at an active retail fueling station is the potential impact of customers and the general public. It is important to properly establish your work area by barricading, to reduce the potential of vehicles or customers from entering the work area. The use of barricades is both for the protection of workers and protection of the general public/customers.

Read the Manual(s)

Knowledge of all related manufacturer procedures, manuals and documents is important. Follow the Recommended Practices of The American Petroleum Institute (API). Understand the specific procedures before starting work. If you do not understand a procedure, call Freedom Electronics at 770-792-8888.

Notify Site

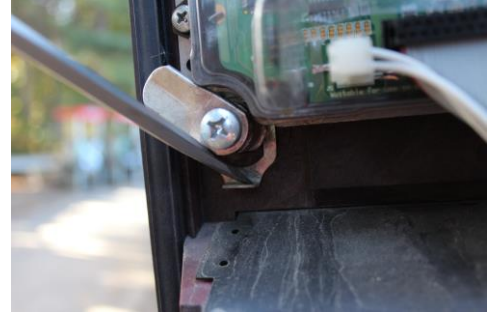
On arrival identify yourself to the site manager and inform them of the work you will be performing.



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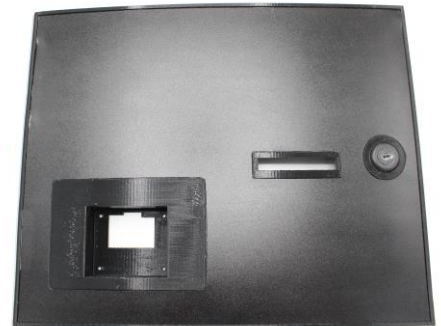
1. Before you begin work, read and understand the Important Safety Information.

2. Remove power from the Advantage dispenser.

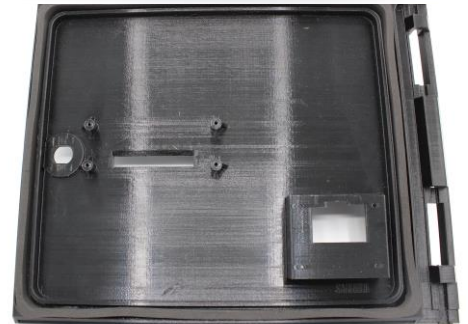


3. Remove the door lock from the existing CRIND door. (save hardware for later)

4. Install the Door Overlay (SA00003) onto the new door (SA00001).



5. Install the Door Gasket (SA00002) into the new door channel.



6. Install the door lock removed in step 3 onto the new door.



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If not using a printer skip to step 14.

7. Install Bracket Gaskets (SC00024) to the front and back of Printer Bracket (SC00023).



8. Mount the Printer Bracket to the door.



9. Disconnect all cables from the existing door (display, keypad, card reader, etc.).

10. Secure old cables inside the dispenser cleanly, use zip ties.



11. Pull the hinge pin up through the hole in the main door and remove the old door.

12. Mount the new door (SA00001) using hinge pin from step 11.



13. Install the Printer(0684011 New) onto the new door using (4) nuts (8-32 Nut).

After printer installation - skip to step 17



*Printer Plug installation
(When NOT using a printer)*

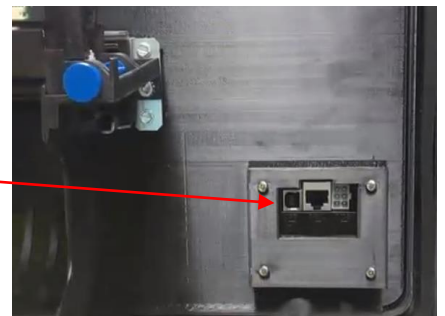
14. Install the Printer Plug Gasket (SA00004) onto the Printer Plug (SC00025).



15. Install the Printer Plug into the door using (4) screws (6-20x3/8xHex).



16. Apply the Printer Plug Decal (SA00005) to the exterior side of the plug.



17. Install the FIM-20 terminal using (4) screws (M3x0.5mmx12mm).
 - Verify the gasket is present on the FIM-20 before installing.
 - The FIM-20's will be labeled per fueling point. Make sure to install the correct FIM-20 into the correct fueling point.

18. Disconnect and remove the old printer. Secure the cables cleanly. Remove cables if desired.

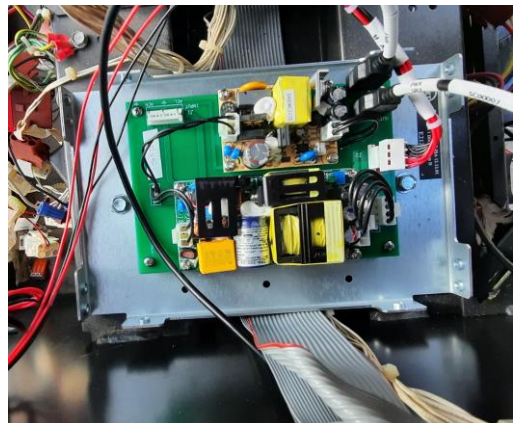
Repeat steps 3-18 on other side of dispenser.



19. Mount the Power Supply Board (SC00004) onto Power Supply Bracket (SC00005) using (4) screws (6-32x3/8).



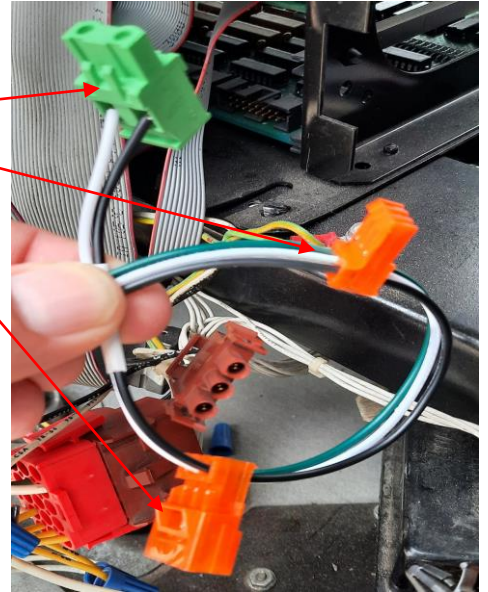
20. Install the power supply assembly into the dispenser using either the existing twist tabs (Use pliers for a 1/8 twist), or (2) 8-32x3/8 screws.



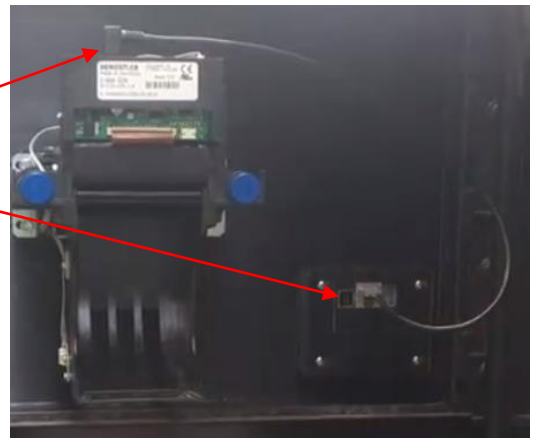
21. Connect the Power Supply AC Input Cable (SC00019) from J1 of the power supply to the dispenser power harness using one of the (3) available connectors.

If the dispenser does not have these connections, wire it in to the existing CRIND power connector or other power source.

IMPORTANT: Be sure the power supply board is grounded through the AC input cable, and/or the power supply bracket is grounded to the dispenser chassis.



22. Connect the printer to the FIM-20 using cable (SC00001). *Repeat on other side of the dispenser.*



23. Connect the Printer Power Supply Cable(SC00013) to the printer and to J3 on the power supply board. *Repeat on other side of the dispenser.*

24. Connect the FIM-20 power Supply Cable (SC00007) to the FIM-20 and to either J2 USB ports on the power supply board.

Repeat on other side of the dispenser.

25. Route cables through the dispenser and secure cables cleanly, to avoid pinching and stretching.

26. Close all dispenser doors securely.

27. Power dispenser back on.

