



Fuel Point

Parts Manual

PT-1954
(formerly C35709)

Computer Programs and Documentation

All Gasboy computer programs (including software on diskettes and within memory chips) and documentation are copyrighted by, and shall remain the property of, Gasboy. Such computer programs and documents may also contain trade secret information. The duplication, disclosure, modification, or unauthorized use of computer programs or documentation is strictly prohibited, unless otherwise licensed by Gasboy.

Federal Communications Commission (FCC) Warning

This equipment has been tested and found to comply with the limits for a Class A digital device pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense. Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

Approvals

Gasboy, Greensboro, is an ISO 9001:2000 registered facility.

Underwriters Laboratories (UL):

UL File#	Products listed with UL
MH4314	All dispensers and self-contained pumping units
MH6418	Power operated Transfer Pump Models 25, 25C, 26, 27, 28, 72, 72S, 72SP, 72X, 73 and 1820
MH7404	Hand operated Transfer Pump Models 1230 Series, 1243 Series, 1520 and 1720 Series
MH10581	Key control unit, Model GKE-B Series Card reader terminals, Models 1000, 1000P Site controller, Model 2000S CFN Series Data entry terminals, Model TPK-900 Series Fuel Point Reader System

New York City Fire Department (NYFD):

NYFD C of A #	Product
4823	9100A, 9140A, 9152A, 9153A, 9800A, 9840A, 9850A, 9852A, 9853A, 9140
4997	9822A, 9823A
5046	9100Q, 9140Q, 9152Q, 9153Q, 9800Q, 9840Q, 9852Q, 9853Q

California Air Resources Board (CARB):

Executive Order #	Product
G-70-52-AM	Balance Vapor Recovery
G-70-150-AE	VaporVac

National Conference of Weights and Measures (NCWM) - Certificate of Compliance (CoC):

Gasboy pumps and dispensers are evaluated by NCWM under the National Type Evaluation Program (NTEP). NCWM has issued the following CoC:

CoC#	Product	Model #	CoC#	Product	Model #	CoC#	Product	Model #
95-179A2	Dispenser	9100 Retail Series, 8700 Series, 9700 Series	91-019A2	Dispenser	9100 Commercial Series			
95-136A5	Dispenser	9800 Series	91-057A3	Controller	1000 Series FMS, 2000S-CFN Series			

Patents

Gasboy products are manufactured or sold under one or more of the following US patents:

Dispensers

5,257,720

Point of Sale/Back Office Equipment

D335,673

Additional US and foreign patents pending.

Trademarks

Non-registered trademarks

Atlas™
Console™
Infinity™

Registered trademarks

ASTRA®
Fuel Point®
Gasboy®
Keytrol®
Slimline®

Additional US and foreign trademarks pending.

Other brand or product names shown may be trademarks or registered trademarks of their respective holders.

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1 – Important Safety Information

This section introduces the hazards and safety precautions associated with installing, inspecting, maintaining or servicing this product. Before performing any task on this product, read this safety information and the applicable sections in this manual, where additional hazards and safety precautions for your task will be found. Fire, explosion, electrical shock or pressure release could occur and cause death or serious injury, if these safe service procedures are not followed.

Preliminary Precautions

You are working in a potentially dangerous environment of flammable fuels, vapors, and high voltage or pressures. Only trained or authorized individuals knowledgeable in the related procedures should install, inspect, maintain or service this equipment.

Emergency Total Electrical Shut-Off

The first and most important information you must know is how to stop all fuel flow to the pump/dispenser and island. Locate the switch or circuit breakers that shut off all power to all fueling equipment, dispensing devices, and Submerged Turbine Pumps (STPs).

⚠ WARNING

The EMERGENCY STOP, ALL STOP, and PUMP STOP buttons at the cashier's station WILL NOT shut off electrical power to the pump/dispenser. This means that even if you activate these stops, fuel may continue to flow uncontrolled.

You must use the TOTAL ELECTRICAL SHUT-OFF in the case of an emergency and not the console's ALL STOP and PUMP STOP or similar keys.

Total Electrical Shut-Off Before Access

Any procedure that requires access to electrical components or the electronics of the dispenser requires total electrical shut off of that unit. Understand the function and location of this switch or circuit breaker before inspecting, installing, maintaining, or servicing Gasboy equipment.

Evacuating, Barricading and Shutting Off

Any procedure that requires access to the pump/dispenser or STPs requires the following actions:



- An evacuation of all unauthorized persons and vehicles from the work area
- Use of safety tape, cones or barricades at the affected unit(s)
- A total electrical shut-off of the affected unit(s)

Read the Manual

Read, understand and follow this manual and any other labels or related materials supplied with this equipment. If you do not understand a procedure, call a Gasboy Authorized Service Contractor or call the Gasboy Service Center at 1-800-444-5529. It is imperative to your safety and the safety of others to understand the procedures before beginning work.

Follow the Regulations

Applicable information is available in National Fire Protection Association (NFPA) 30A; *Code for Motor Fuel Dispensing Facilities and Repair Garages*, NFPA 70; *National Electrical Code (NEC)*, Occupational Safety and Hazard Association (OSHA) regulations and federal, state, and local codes. All these regulations must be followed. Failure to install, inspect, maintain or service this equipment in accordance with these codes, regulations and standards may lead to legal citations with penalties or affect the safe use and operation of the equipment.

Replacement Parts

Use only genuine Gasboy replacement parts and retrofit kits on your pump/dispenser. Using parts other than genuine Gasboy replacement parts could create a safety hazard and violate local regulations.

Safety Symbols and Warning Words

This section provides important information about warning symbols and boxes.

Alert Symbol



This safety alert symbol is used in this manual and on warning labels to alert you to a precaution which must be followed to prevent potential personal safety hazards. Obey safety directives that follow this symbol to avoid possible injury or death.

Signal Words

These signal words used in this manual and on warning labels tell you the seriousness of particular safety hazards. The precautions below must be followed to prevent death, injury or damage to the equipment:



DANGER: Alerts you to a hazard or unsafe practice which will result in death or serious injury.



WARNING: Alerts you to a hazard or unsafe practice that could result in death or serious injury.



CAUTION with Alert symbol: Designates a hazard or unsafe practice which may result in minor injury.

CAUTION without Alert symbol: Designates a hazard or unsafe practice which may result in property or equipment damage

Working With Fuels and Electrical Energy

Prevent Explosions and Fires

Fuels and their vapors will explode or burn, if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will

Important Safety Information

cause potentially dangerous vapors in the vicinity of the dispenser or island.

No Open Fire



Open flames from matches, lighters, welding torches or other sources can ignite fuels and their vapors.

No Sparks - No Smoking



Sparks from starting vehicles, starting or using power tools, burning cigarettes, cigars or pipes can also ignite fuels and their vapors. Static electricity, including an electrostatic charge on your body, can cause a spark sufficient to ignite fuel vapors. Every time you get out of a vehicle, touch the metal of your vehicle, to discharge any electrostatic charge before you approach the dispenser island.

Working Alone

It is highly recommended that someone who is capable of rendering first aid be present during servicing. Familiarize yourself with Cardiopulmonary Resuscitation (CPR) methods, if you work with or around high voltages. This information is available from the American Red Cross. Always advise the station personnel about where you will be working, and caution them not to activate power while you are working on the equipment. Use the OSHA Lockout/ Tagout procedures. If you are not familiar with this requirement, refer to this information in the service manual and OSHA documentation.

Working With Electricity Safely

Ensure that you use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Ensure that grounding connections are properly made. Take care that sealing devices and compounds are in place. Ensure that you do not pinch wires when replacing covers. Follow OSHA Lockout/Tagout requirements. Station employees and service contractors need to understand and comply with this program completely to ensure safety while the equipment is down.

Hazardous Materials

Some materials present inside electronic enclosures may present a health hazard if not handled correctly. Ensure that you clean hands after handling equipment. Do not place any equipment in the mouth.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause cancer.

WARNING

The pump/dispenser contains a chemical known to the State of California to cause birth defects or other reproductive harm.

In an Emergency

Inform Emergency Personnel

Compile the following information and inform emergency personnel:

- Location of accident (for example, address, front/back of building, and so on)
- Nature of accident (for example, possible heart attack, run over by car, burns, and so on)
- Age of victim (for example, baby, teenager, middle-age, elderly)
- Whether or not victim has received first aid (for example, stopped bleeding by pressure, and so on)
- Whether or not a victim has vomited (for example, if swallowed or inhaled something, and so on)

WARNING



Gasoline ingested may cause unconsciousness and burns to internal organs.

Do not induce vomiting.

Keep airway open.

Oxygen may be needed at scene.

Seek medical advice immediately.

WARNING



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs.

Keep airway open.

Seek medical advice immediately.

WARNING



Gasoline spilled in eyes may cause burns to eye tissue.

Irrigate eyes with water for approximately 15 minutes.

Seek medical advice immediately.

WARNING



Gasoline spilled on skin may cause burns.

Wash area thoroughly with clear water.





Seek medical advice immediately.

IMPORTANT: Oxygen may be needed at scene if gasoline has been ingested or inhaled. Seek medical advice immediately.

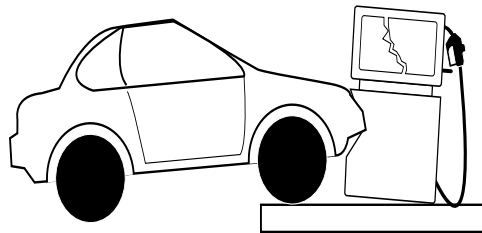
Lockout/Tagout

Lockout/Tagout covers servicing and maintenance of machines and equipment in which the unexpected energization or start-up of the machine(s) or equipment or release of stored energy could cause injury to employees or personnel. Lockout/Tagout applies to all mechanical, hydraulic, chemical or other energy, but does not cover electrical hazards. Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

Hazards and Actions

 WARNING	
	Spilled fuels, accidents involving pumps/dispensers, or uncontrolled fuel flow create a serious hazard.
	Fire or explosion may result, causing serious injury or death.
	Follow established emergency procedures.

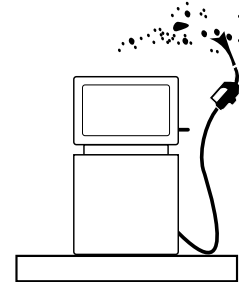
The following actions are recommended regarding these hazards:



Collision of a Vehicle with Unit



Fire at Island



Fuel Spill

- Do not go near a fuel spill or allow anyone else in the area.
- Use station EMERGENCY CUTOFF immediately. Turn off all system circuit breakers to the island(s).
- Do not use console E-STOP, ALL STOP and PUMP STOP to shut off power. These keys do not remove AC power and do not always stop product flow.
- Take precautions to avoid igniting fuel. Do not allow starting of vehicles in the area. Do not allow open flames, smoking or power tools in the area.
- Do not expose yourself to hazardous conditions such as fire, spilled fuel or exposed wiring.
- Call emergency numbers.

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2 – Introduction

Purpose

This manual lists parts information for the Fuel Point system. Using part numbers when ordering will speed up your order and reduce the possibility of the wrong parts being shipped. When ordering replacement parts, ensure that you give the complete name and part number as shown in the relevant parts list. It would also help to provide the serial number of the equipment.

Intended Users

The intended users of this manual are:

- Authorized Service Contractors (ASCs)
- Customer Specified Contractors (CSCs)

Related Reading

The following documents contain related information and may be helpful when ordering parts for the Fuel Point:

Document Number	Title	GOLD® Library
C35628	Fuel Point Reader Installation and Retrofit Instructions Manual	Gasboy Fuel Management Products

Warranty

For information on warranty, refer to Gasboy's Warranty Policy Statement - MDE-4255. If you have any warranty-related questions, contact Gasboy's Warranty Department at its Greensboro location.

Abbreviations and Acronyms

The following table contains a list of acronyms used in this guide.

Acronym	Definition
ASC	Authorized Service Contractor
CPU	Central Processing Unit
CSC	Customer Specified Contractor
PC	Personal Computer
PCB	Printed Circuit Board

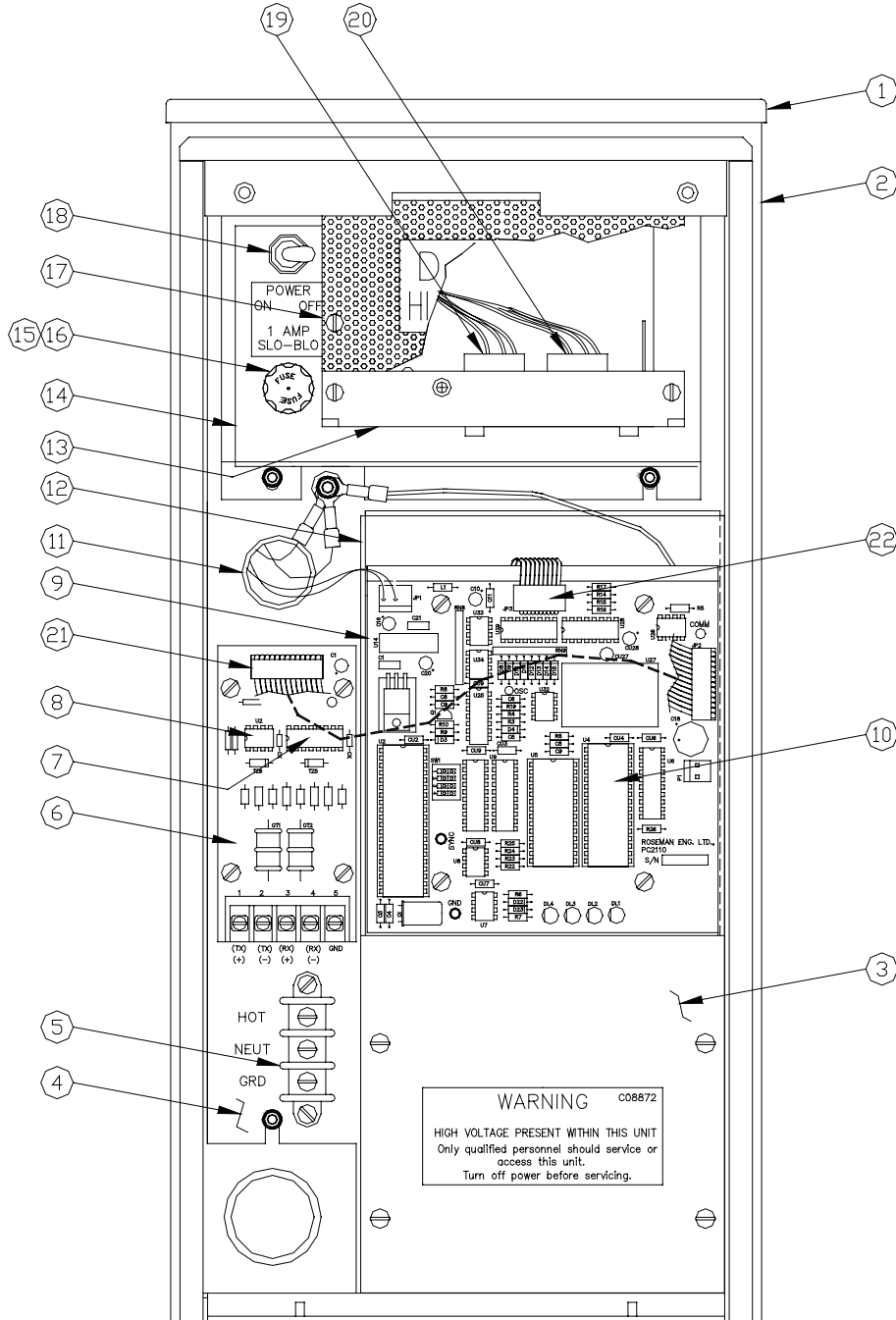
3 – Parts List

Procedures requiring disassembly of portions of the system must be performed by ASCs or CSCs only. Gasboy has a distributor network which services fuel dispensing equipment and management systems in every section of the country.

 **WARNING**

To reduce the risk of electrical shock when servicing, turn off and lock out all power to the Fuel Point system.

Fuel Point Reader, C06699 - Front View



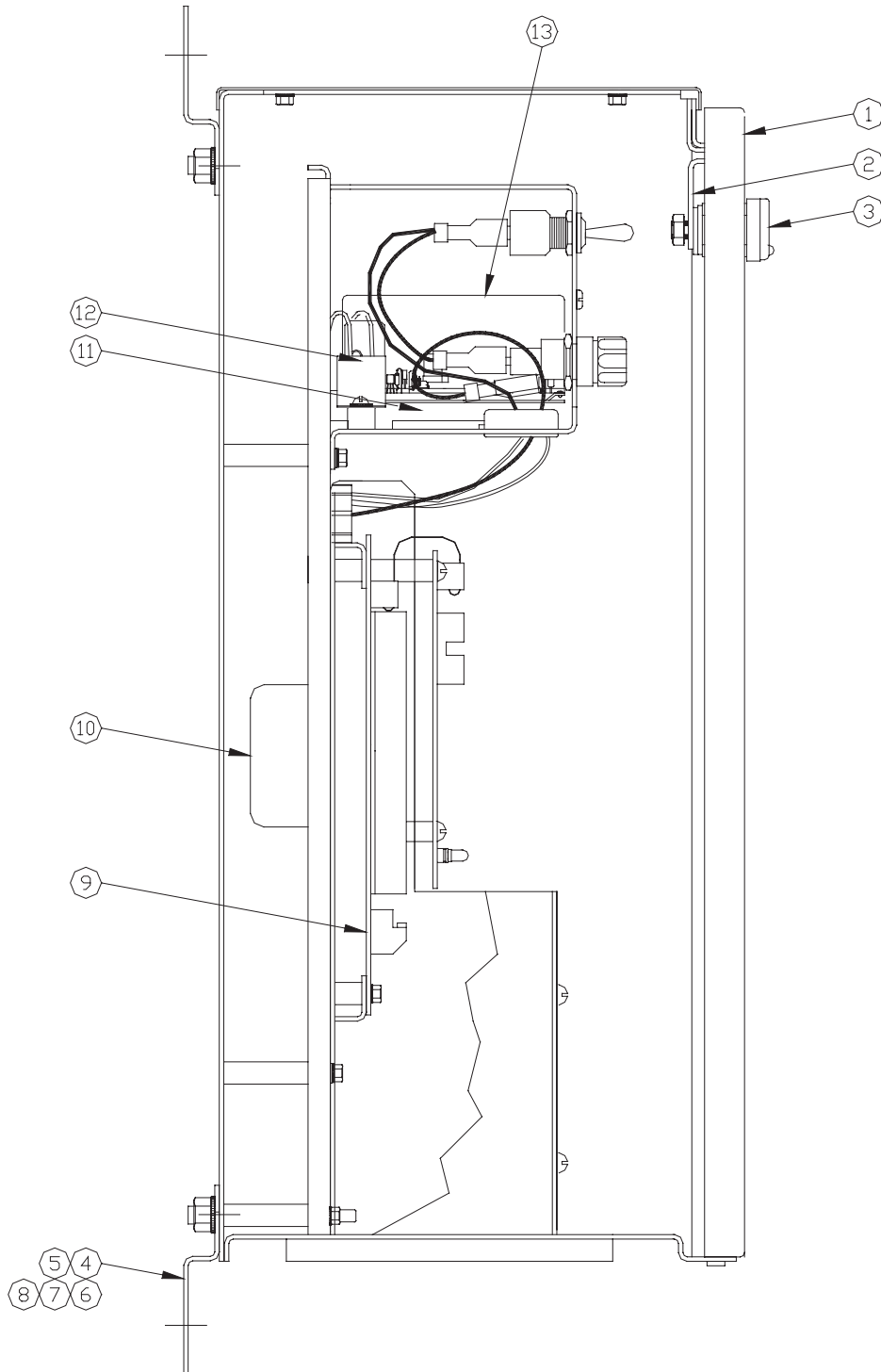
FUEL POINT READER
 FRONT VIEW
 (DOOR REMOVED)

Item	Part No.	Description
1	C35611	Cover Assy.
2	C35627	Housing
3	C35599	Wiring Cover
4	C06698	Chassis Assy., 115VAC
5	*C06723	Cable Assy., AC Term Blk.
6	*C06697	PCB Assy., RS485 Comm.
7	**C02978	IC, RS-485 Line Driver
8	**C03391	IC, RS-485 Line Receiver
9	*C08886	PCB Assy., CPU
10	**C35422KFPR	IC, Programmed
NOTE: When ordering a program, you must specify that it is to be used in the Fuel Point Reader.		
11	*C03756	Bushing, 1"
12	*C35601	I/S Cage
13	*C35667	P/S Hold Down Brkt
14	*C35619	Base Weld Assy.
15	*C06724	Cable Assy., Fuseholder
16	**C04044	Fuse, 3AG, 1 Amp, Slo-blo
17	*C35604	P/S Cover
18	*C02704	Toggle Switch SPST
19	*C06763	Cable Assy., DC Power
20	*C06725	Cable Assy., AC Power
21	*C06728	Cable Assy., 14-Pos Ribbon
22	*C06727	Cable Assy., 10-Pos Ribbon

* Indicates that this part is a subpart of the preceding part without an asterisk.

** Indicates that this part is a subpart of the preceding part with an asterisk.

Fuel Point Reader, C06699 - Side View



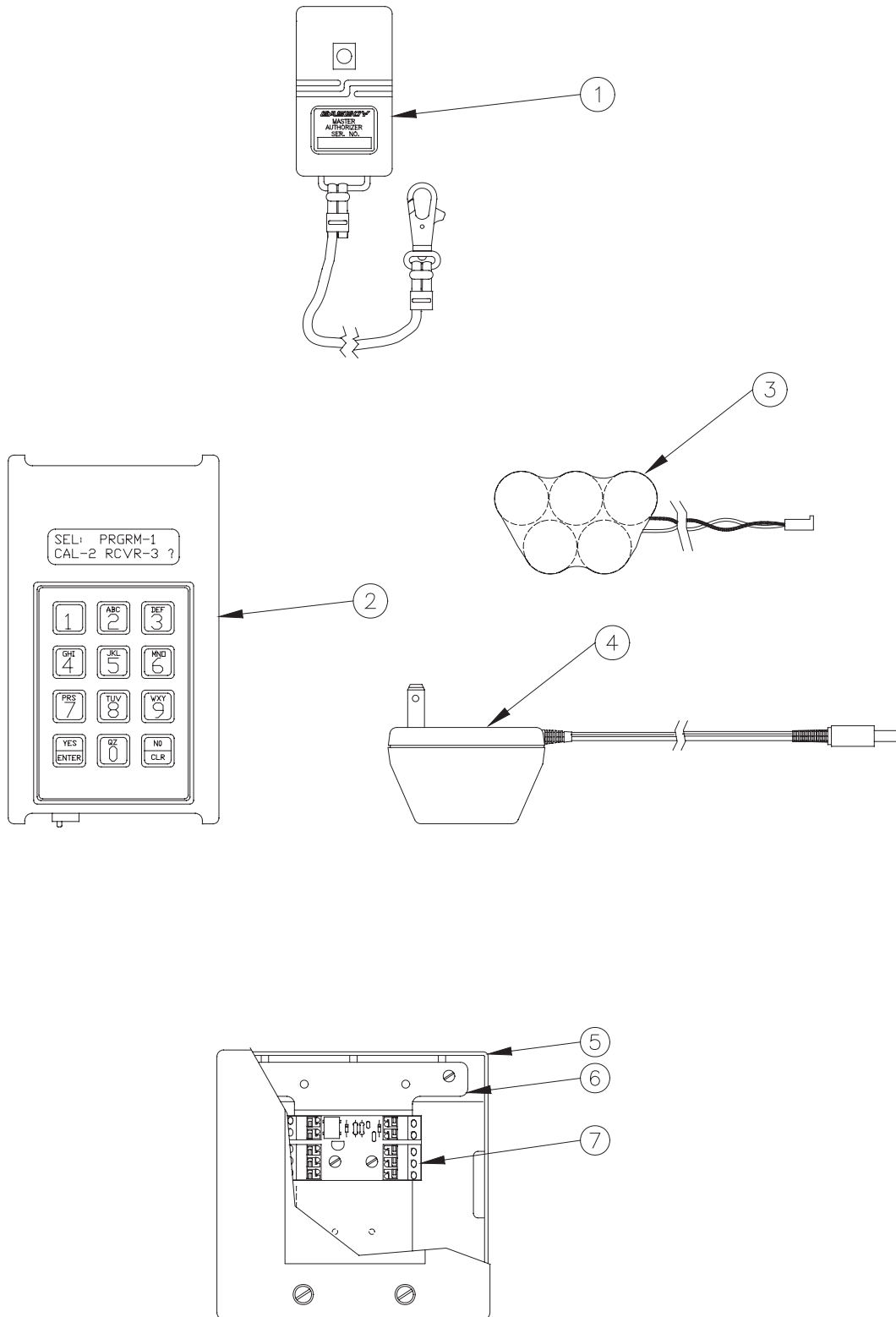
Item	Part No.	Description
1	C06767	Door Assy.
2	*035009	Lock w/Key
3	*C34753	Lock Cam
4	C06790	Mounting Kit (Not Shown)
5	C35618	Mounting Brkt.
6	C06778	Cable Assy. 115VAC Power Input (Not Shown)
7	C06779	Cable Assy. RS-485 Comm Input (Not Shown)
8	C08875	Gasket (Not Shown)
9	C06783	PCB Assy., I/S Barrier
10	C02446	Line Filter
11	C35668	Bracket P/S Hold Down
12	C06726	Cable Assy., Heater 115VAC
13	C06797	Power Supply, 5VDC

NOTE: Items 9, 10, 11, 12, & 13 are subparts of item 4 C06698 from front view pages.

* Indicates that this part is a subpart of the preceding part without an asterisk.

** Indicates that this part is a subpart of the preceding part with an asterisk.

Fuel Point Parts

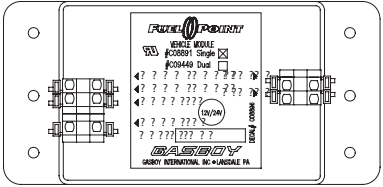
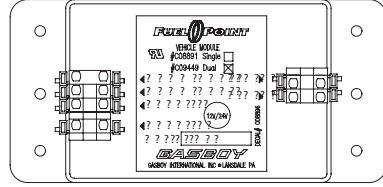
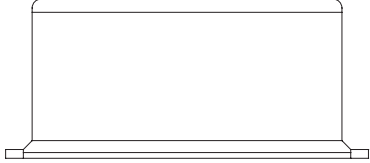
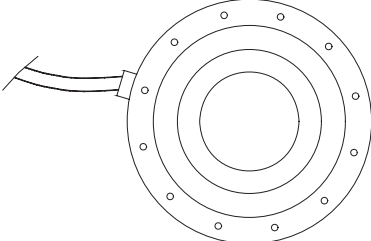
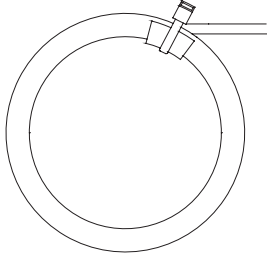


Item	Part No.	Description
1	C06737	Master Authorizer
2	C06736	Programmer w/Charger
	*C06847	Programmer, Vehicle Module
	**C35422KFPP	IC, Programmed
NOTE: When ordering a replacement program, you must specify that it is to be used in the Fuel Point Programmer and provide the site name of the end user. If requesting changes to the current configuration, a new Configuration Form may be required.		
3	**C09492	Battery Pack, Replacement (Subpart of C06847)
4	*C09488	Charger, VM Programmer (Subpart of C06736)
5	C06832	Junction Box, Pre-Amp, Single
	C06833	Junction Box, Pre-Amp, Twin
	C07112	Junction Box, Pre-Amp, Single, Special
	C07116	Junction Box, Pre-Amp, Twin, Special
6	C35706	Mounting Bracket
7	C08888	Pre-Amp PCB




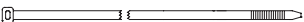

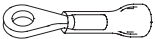
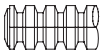




* Indicates that this part is a subpart of the preceding part without an asterisk.

** Indicates that this part is a subpart of the preceding part with an asterisk.

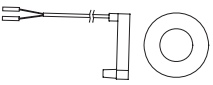



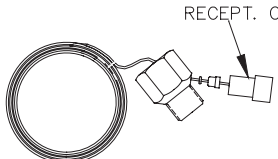
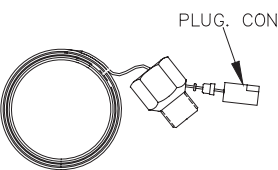










Vehicle Module Components

PART	PART NUMBER	DESCRIPTION																						
	<p>C08891 C07212</p>	<p>VEHICLE MODULE, SINGLE, UL VEHICLE MODULE, SINGLE, CSA</p>																						
	<p>C09449</p>	<p>VEHICLE MODULE, DUAL</p>																						
	<p>C09454</p>	<p>COVER, VEHICLE MODULE</p>																						
	<p>C08889 C09735 C07215 C07216</p>	<p>TANK RING, 2-1/2" MOLDED, UL TANK RING, 4-1/2" MOLDED, UL TANK RING, 2-1/2" MOLDED, CSA TANK RING, 4-1/2" MOLDED, CSA</p>																						
	<table border="0"> <tr> <td>UL</td> <td>CSA</td> </tr> <tr> <td>C09462</td> <td>C07217</td> </tr> <tr> <td>C09463</td> <td>C07218</td> </tr> <tr> <td>C09464</td> <td>C07219</td> </tr> <tr> <td>C09465</td> <td>C07220</td> </tr> <tr> <td>C09466</td> <td>C07221</td> </tr> <tr> <td>C09467</td> <td>C07222</td> </tr> <tr> <td>C09468</td> <td>C07223</td> </tr> <tr> <td>C08908</td> <td>C07224</td> </tr> <tr> <td>C08909</td> <td>C07225</td> </tr> <tr> <td>C08910</td> <td>C07226</td> </tr> </table>	UL	CSA	C09462	C07217	C09463	C07218	C09464	C07219	C09465	C07220	C09466	C07221	C09467	C07222	C09468	C07223	C08908	C07224	C08909	C07225	C08910	C07226	<p>TANK RING, 1-5/8" ID, 2-1/8" OD TANK RING, 2-1/8" ID, 2-11/16" OD TANK RING, 2-7/16" ID, 3" OD TANK RING, 2-5/8" ID, 3-1/8" OD TANK RING, 3" ID, 3-1/2" OD TANK RING, 3-7/16" ID, 4-1/16" OD TANK RING, 3-13/16" ID, 4-3/8" OD TANK RING, 4-3/16" ID, 4-13/16" OD TANK RING, 4-13/16" ID, 5-3/8" OD TANK RING, 5-1/4" ID, 5-7/8" OD</p>
UL	CSA																							
C09462	C07217																							
C09463	C07218																							
C09464	C07219																							
C09465	C07220																							
C09466	C07221																							
C09467	C07222																							
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C08908	C07224																							
C08909	C07225																							
C08910	C07226																							

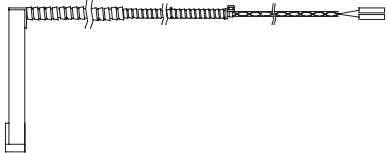


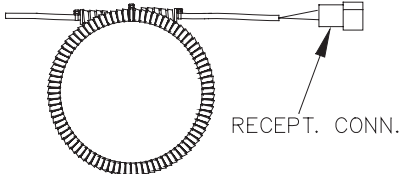
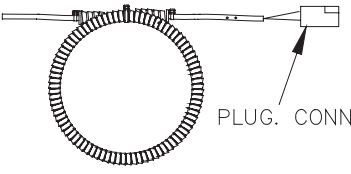
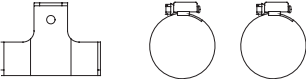




Vehicle Kit, C06761

PART	PART NUMBER	DESCRIPTION
	C09445	QUIK CONNECT CONNECTOR
	C08898	LISTED OR R/C FUSE HOLDER
	C04044	LISTED OR R/C FUSE, 1 AMP
	C08879	TIEWRAP
	C08899	LISTED OR R/C BUTT CONNECTOR
	C09446	LISTED OR R/C RING TERMINAL
	C09447	TUBING, CORRUGATED PLASTIC
	068843	LOCKWASHER
	C09469	SELF-DRILL SCREW
	C70059	RESISTOR, 5.1K OHM 1/4W
	C09448	CLAMP, 1/8D NYLON

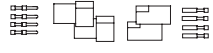
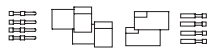

Hose Assembly - Internal Wire Components

PART	DESCRIPTION	P/N
	N-RING ASSY	1-3/4 MOLDED
	CSA N-RING ASSY	
	NOZZLE COVER	3/4"
		1"
	WIRE COVER	1-1/4" DIA.
	BREAKAWAY COVER	3/4" & 1"
		1-1/4" DIA.
	SHORT (RECPT) HOSE WIRE* W/FITTINGS (MAX HOSE LEN.)	3/4" X (01')
		3/4" X (08')
		3/4+1" (MPD)
		1" X (01')
		1" X (08')
		1-1/4 X (1.5')
	LONG (PLUG) HOSE WIRE* W/FITTINGS (MAX HOSE LEN.)	1-1/4 X (08')
		3/4" X (08')
		3/4" X (10')
		3/4" X (15')
		3/4" X (20')
		1" X (08')
		1" X (10')
		1" X (15')
		1" X (20')
		1-1/4 X (12')
1-1/4 X (20')		
1-1/4 X (60')		
	HOSE WIRE COMPRESSION FITTING	C35973
	HOSE WIRE FITTING @ DISCHARGE ELBOW	C35972
	COMPRESSION FITTING (FOR USE WITH C35972)	C35999
	O-RING WIRE SEAL	048865
	FITTING ASSY (INCLUDES LARGE BRASS FITTING, HOSE WIRE COMPRESSION FITTING AND O-RING)	3/4" DIA.
		1" DIA.
		1-1/4" DIA.
	LIMITED ROTATION (DUAL SHOWN)	3/4" DIA.
		1" DIA.
		1-1/2" DIA.
	FP ELBOW, 1"	003622
	REDUCER BUSHING, 1" TO 3/4" NPT	017278
	FITTING, HOSE WIRE TUBING	C09767
	TUBING, HOSE WIRE	C36004
	BUSHING, HOSE WIRE TUBING	C09756

Hose Assembly - External Wire Components

PART	DESCRIPTION		P/N		
	N-RING ASSY	2-7/8 MOLDED	C06794		
	CSA N-RING ASSY		C07284		
	WIRE COVER		012180		
	BREAKAWAY COVER		012183		
	PUMP WIRE (MAX HOSE LEN.)		STD. (01')		
			MPD (01')		C07393
			H/H (07')		C07393
	HOSE WIRE (MAX HOSE LEN.)		H/H (06')		
			MPD (09')		C07392
			STD (12')		C07421
			EXTD (20')		C07422
	SWIVEL LIMIT BRKT KIT		C07073		
	FITTING, HOSE WIRE TUBING		C08999		
	TUBING, HOSE WIRE		C09494		
	BUSHING, HOSE WIRE TUBING		C01744		
	TUBING GUIDE		C36041		

Hose Wire Repair Parts

 <p>(CRIMP TOOLS NOT SHOWN)</p>	KIT, CONN REPAIR & CRIMP TOOLS	C07499	KIT USED TO REPAIR DAMAGED PLASTIC HOUSING OR CONTACTS. INCLUDES SPEC TOOLING
	KIT, CONN REPAIR	C07467	KIT USED TO OBTAIN ADDITIONAL CONNECTOR PARTS (NEED CRIMP TOOLS FROM C07499)
	KIT, REPAIR FP CONN 'PIGTAIL' WITH BUTT SPLICE CONN (ONE FOOT LEADS)	C07161	KIT USED TO UPDATE TO CURRENT CONNECTOR DESIGN OR TO REPAIR DAMAGED CONNECTOR
	KIT, REPAIR, EXTERNAL WIRE (20 FT. LEADS)	C07494	KIT USED TO UPDATE TO CURRENT WIRE STYLE. UPDATE C07110, C07111, C06796 & C06764
ORDER BY QTY (FEET) REQ'ED	CABLE, 2 COND, INTERNAL WIRE	C09632	
ORDER BY QTY (FEET) REQ'ED	CABLE, 2 COND, EXTERNAL WIRE	C08903	



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