

Introduction

Recently the TopKAT Central Processing Unit (CPU, C06741) underwent changes to accommodate a faster processor and a higher quality Peripheral Component Microchannel Interconnect Architecture (PCMCIA) card. Prior to the changes to the board, field sites were noticing problems creating full backups when using the PCMCIA backup option (C06740). There were also issues with international locations when used in a 50 Hz environment. The revision J board has enhanced driver chips and requires V05.1.15 Program Chip (C07037KTKENG).

What you need to know:

- TopKAT systems with pre-revision J CPU boards* need to be upgraded (CPU and firmware†) when installing the PCMCIA backup option (C06740) or when replacing PCMCIA cards (C09624, 128KB).
- All new TopKAT Units will be shipped with the Revision J CPU board and latest firmware (V05.1.15 or above).
- Replacement CPU boards will be revision J or higher and will work with old and new PCMCIA cards.

** Some boards prior to Revision J were not properly marked with a revision letter. It can be assumed that unmarked boards were pre-J boards.*

*† CPU board replacements **do not include** Firmware. Firmware must be ordered separately.*

Required Reading

Before installing a Printed Circuit Assembly (PCA), the installer must read, understand, and follow:

- This manual
- NFPA 30A, The Automotive and Marine Service Station Code
- NFPA 70, The National Electric Code
- Applicable federal, state and local codes and regulations

Failure to do so may adversely affect the safe use and operation of the equipment.

Note: This PCA must be installed by a Gasboy Authorized Service Contractor (ASC) to ensure warranty.

Related Documentation

Document Number	Title	GOLD Library
C35789	Upgrading Firmware PROMs for TopKAT	Gasboy Fuel Management Products
MDE-4338	TopKAT Fuel Management System Operation Manual	Gasboy Fuel Management Products

Required Tools and Materials

The following tools are needed to install the PCMCIA Interface PCA:

- Flat tip screwdriver
- Phillips® screwdriver
- Grounded wrist strap

Parts Lists

TopKAT PCMCIA Kit C06968

Item	Part Number	Description	Quantity
1	C06740	PCMCIA interface printed circuit assembly (Figure 1)	1
2	C09419	Standoff, 1/4-turn , plastic (Figure 2 shows where used)	5
3	Q12083-13	Screw, 6-32 x 3/8", SEMS, Phillips with lock washer (Figure 2 shows where used)	1
4	C09849	Card, PCMCIA 256KB memory with battery (Figure 3) <i>Note: These cards are used to backup/restore data. See MDE-4338 TopKAT Fuel Management System Operation Manual for more information.</i>	2
5	MDE-4621	Field Installation of TopKAT PCMCIA Kit C06968 (this document)	1
6	Q11770-04	Bag, static shielding, 8" x 10"	1
7	025130	Envelope, #7-24, Kraft coin	3
8	K93158	Carton, 9" x 7"	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 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 only these cashier station "stops."

Total Electrical Shut-Off Before Access

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

Evacuation, Barricading and Shut-Off

Any procedures requiring accessing the pump/dispenser or STPs requires the following three actions:



- An evacuation of all unauthorized persons and vehicles using safety tape, cones or barricades to the effected units
- A total electrical shut-off of that unit

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

There is applicable information in NFPA 30A; *Automotive and Marine Service Code*, NFPA 70; *National Electrical Code (NEC)*, OSHA regulations and federal, state, and local codes which 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 that follow 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 become explosive if ignited. Spilled or leaking fuels cause vapors. Even filling customer tanks will cause explosive vapors in the vicinity of dispenser or island.



No Open Flames

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 fuels and their vapors. After getting 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. Be familiar with Cardiopulmonary Resuscitation (CPR) methods if you are working 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 tag out and lock out procedures. If you are not familiar with this requirement, refer to information in the service manual and OSHA documentation.

Working With Electricity Safely

Be sure to use safe and established practices in working with electrical devices. Poorly wired devices may cause a fire, explosion or electrical shock. Be sure grounding connections are properly made. Make sure that sealing devices and compounds are in place. Be sure not to pinch wires when replacing covers. Follow OSHA Lock-Out and Tag-Out 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. Be sure to clean hands after handling equipment. Do not place any equipment in mouth.

WARNING

This area contains a chemical known to the State of California to cause cancer.

WARNING

This area contains a chemical known to the State of California to cause birth defects or other reproductive harm.

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

Emergency First Aid

Informing 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. Reference Subpart S of 29 CFR Part 1910 - Electrical Hazards, 29 CFR Part 1910.333 contains specific Lockout/Tagout provision for electrical hazards.

Installing the C06740 PCMCIA Interface PCA

IMPORTANT INFORMATION

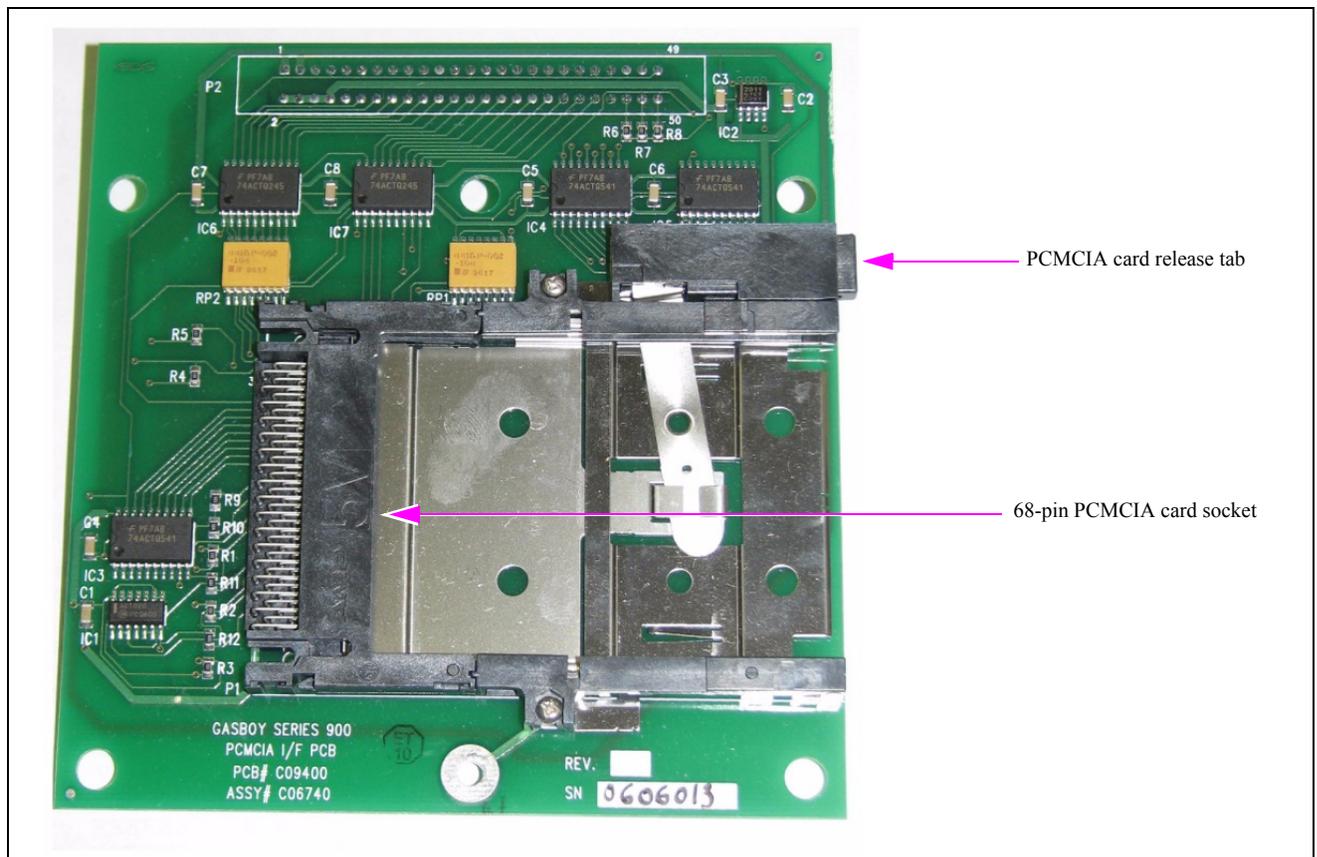


Be sure to use a grounded wrist strap when handling electronic components to avoid damaging those components through electrostatic discharge (ESD).

Installation

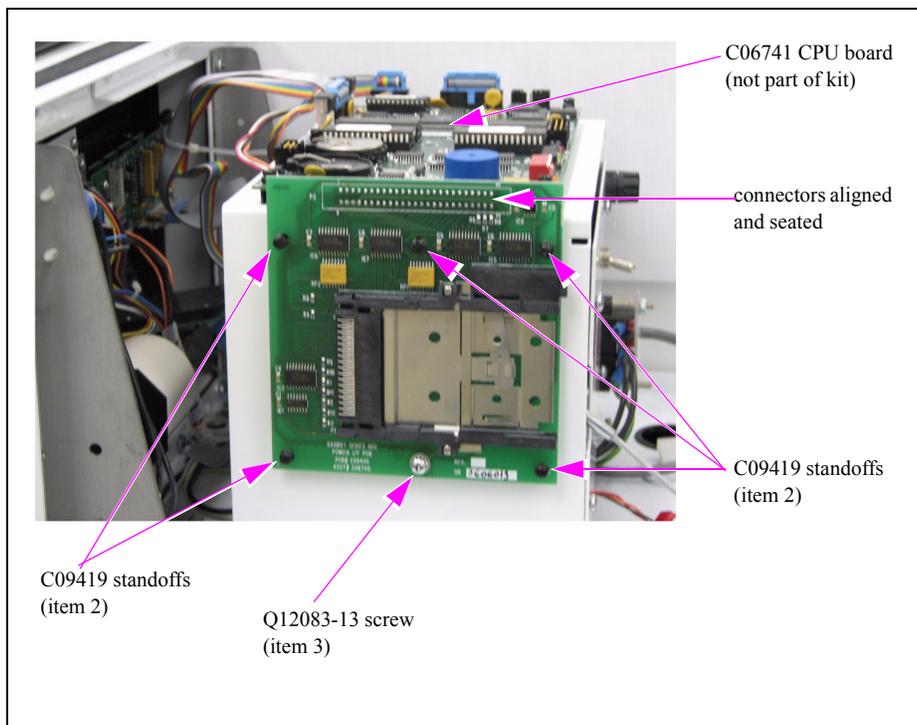
- 1 Unlock and open the front and rear doors of the TopKAT unit.
- 2 Turn off the AC power switch located to the right when viewed from the rear of the head.
- 3 Loosen the two captive screws located to the lower left and right when viewed from the rear of the head. Remove the cover by lifting it up and toward you.
- 4 The PCMCIA Interface PCA (item 1 and [Figure 1](#)) will be installed on the left side of the power supply chassis assembly when viewed from the rear of the head ([Figure 2](#)).
 1. Locate the five 1/4-inch holes in the chassis and install the five C09419 standoffs (item 2).
 2. Fully seat each standoff in the hole and press down on the screw head to lock the standoff in place.

Figure 1: C06740 TopKAT PCMCIA Interface PCA



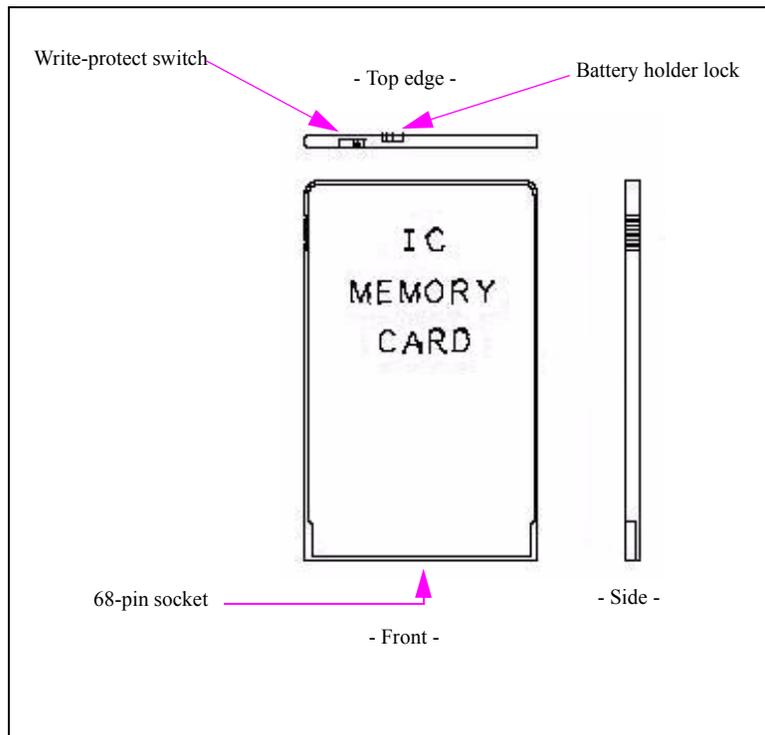
- 5 Install the PCMCIA Interface PCA by aligning the edge connector of the CPU PCB with the connector on the PCMCIA Interface PCA (Figure 2).
- 6 Press the PCMCIA Interface PCA onto the CPU PCB and the standoffs (Figure 2).
- 7 Install the Q12083-13 screw (item 3) to the center hole on the lower edge of the PCMCIA Interface PCA (Figure 2).
- 8 Turn on the AC power and verify that the unit is operating correctly.
- 9 Refer to the Diagnostics and Utilities section in MDE-4338 TopKAT Fuel Management System Operation Manual to test the PCMCIA option.
- 10 When testing is complete, replace the cover and secure the two slotted screws.
- 11 Close and lock the front and rear doors of the TopKAT unit.

Figure 2: C06740 PCMCIA Interface PCA Installed



- 12 Remove the battery cover from both PCMCIA memory cards (item 4 and [Figure 3](#)); insert the included battery and replace the cover for both cards.
- 13 Move the battery cover switch to the “Lock” position on both cards.
Note: These cards are used to backup/restore data. See MDE-4338 TopKAT Fuel Management System Operation Manual for more information.

Figure 3: C09849 PCMCIA Memory Card – Used to Backup/Restore Data



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