



## Introduction

### Purpose

This manual provides instructions for installing the TopKAT™ Series 900 Replacement Report Printer Kit (M11810K001) for TopKAT Fuel Management System (FMS).

### Table of Contents

Topic	Page
<a href="#">Introduction</a>	1
<a href="#">Important Safety Information</a>	3
<a href="#">Installing TopKAT Series 900 Replacement Report Printer Kit</a>	5

### Required Tools

A Phillips® Screwdriver is required for installing the Series 900 (TopKAT) Replacement Report Printer Kit.

### Parts List

Following table lists the parts included in this TopKAT Series 900 Replacement Report Printer Kit.

Item	Description	Part Number	Quantity
1	Printer Controller PCA	M11960A001	1
2	Line Thermal Printer	M11811B001	1
3	Printer Support Bracket Assembly	M11806A001	1
4	Upper Paper Deflector	M11807B001	1
5	Screw MH PNH PHL 4-40X	Q11270-16	10
6	Paper Roll Support Shaft	C35702	1
7	Paper Roll Secure Bracket	C35701	1
8	Thermal Paper 2.250 W X 1.87	C01819	1
9	Lock Washer #8 REG	K73278-33	1
10	24 V Power Supply 1.0A#SNP-9	C09837	1
11	Spacer, 0.25 OD X 0.141 ID	Q10213-25	1
12	Spacer Hex Thread 4-40 X 1.00	Q10340-14	3
13	Lock Washer #4 REG	K73278-35	3
14	+24 V Power Supply Cable	M11808A001	1
15	24 V Printer Cable	M11809A001	1
16	Printer Interface PCA	M11777A001	1

## Abbreviations and Acronyms

<b>Term</b>	<b>Description</b>
FMS	Fuel Management System
GND	Ground
PCA	Printed Circuit Assembly
TB	Terminal Block
VP	Printer Voltage

# Important Safety Information

**Notes: 1) Save this Important Safety Information section in a readily accessible location.**

**2) Although DEF is non-flammable, Diesel is flammable. Therefore, for DEF cabinets that are attached to Diesel dispensers, follow all the notes in this section that pertain to flammable fuels.**

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

DEF is non-flammable. Therefore, explosion and fire safety warnings do not apply to DEF lines.

## Important Safety Information

### 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/DEF 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

DEF generates ammonia gas at higher temperatures. When opening enclosed panels, allow the unit to air out to avoid breathing vapors. If respiratory difficulties develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek medical attention.

#### WARNING



Gasoline inhaled may cause unconsciousness and burns to lips, mouth and lungs. Keep airway open. Seek medical advice immediately.

#### WARNING



Gasoline/DEF 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.

#### WARNING

DEF is mildly corrosive. Avoid contact with eyes, skin, and clothing. Ensure that eyewash stations and safety showers are close to the work location. Seek medical advice recommended treatment if DEF spills into eyes.

**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.

# Installing TopKAT Series 900 Replacement Report Printer Kit

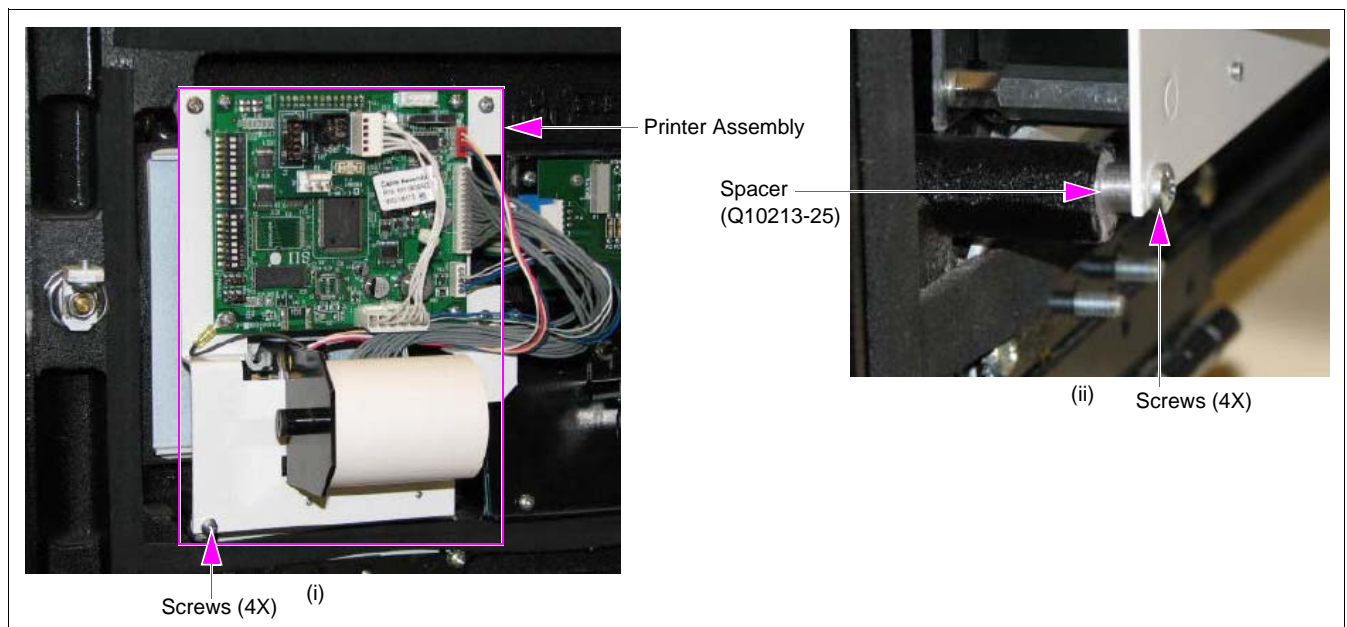
To install the TopKAT Series 900 Replacement Report Printer Kit, proceed as follows:

- 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 On the front bezel, disconnect all cables to the existing Report Printer Assembly.
- 4 Remove and retain the four screws securing the existing printer/bracket to the bezel.
- 5 Remove the existing Printer/Bracket Assembly.
- 6 Install and secure the new Printer Assembly provided in the kit using the four screws removed in step 4.

*Notes: 1) Ensure to align the new Printer Assembly with the four screw holes.*

*2) The Spacer (Q10213-25) provided in the kit is required under the lower left corner of the new bracket.*

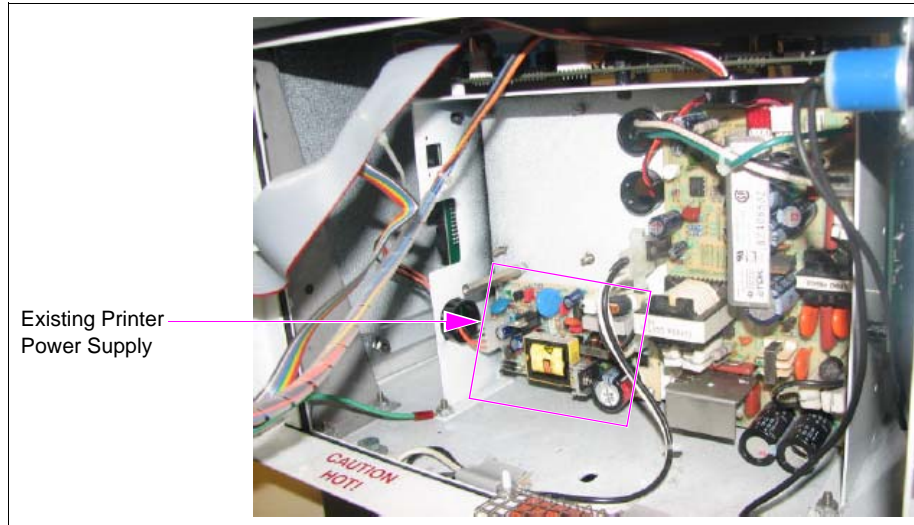
**Figure 1: Installing New Printer Assembly**



- 7 Remove the power supply cover marked WARNING HIGH VOLTAGE by removing the three screws that secure the cover.

- 8 Disconnect the cables and remove the existing +5 V Printer Power Supply (C09370) located in the lower left corner of the Power Supply Chassis Assembly (see [Figure 2](#)).

**Figure 2: Existing +5 V Printer Power Supply**



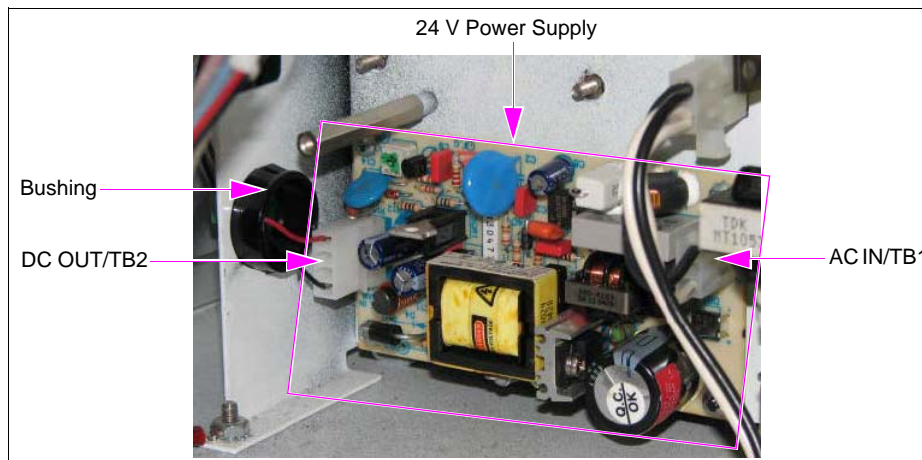
- 9 Install the new 24 V Power Supply (C09837) into the lower left corner of the Power Supply Chassis Assembly.

*Notes: 1) Orient the 24 V Power Supply so that the 4-position Connector (DC) is to the left and the 3-position Connector (AC) is to the right of the Power Supply Chassis Assembly.*

*2) Secure the 24 V Power Supply with four screws removed in step 4 on [page 5](#).*

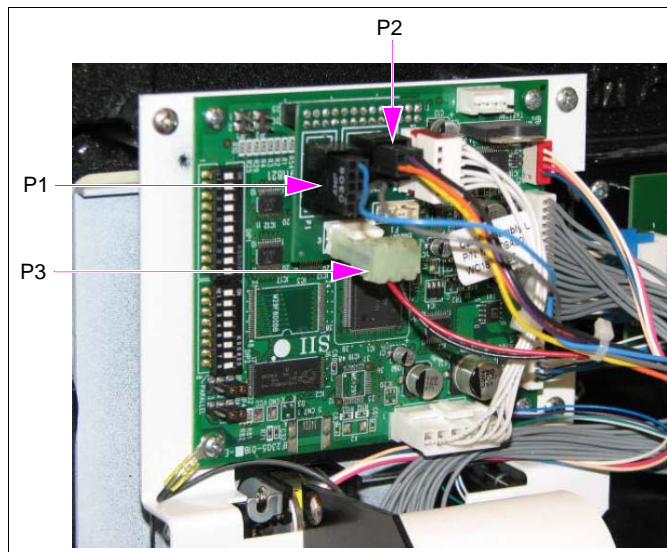
- 10 Connect the AC Power Cable to the Terminal Block (TB) 1 power input connector on the 24 V Power Supply.

**Figure 3: Connecting AC Power Cable**



- 11 Replace the existing Printer DC Power Cable (C06812) with the +24 V Power Supply Cable (M11808A001) provided in the kit and perform the following steps:
  - a Plug in one end of +24 V Power Supply Cable to the 4-position DC OUT/TB2 on +24 V Power Supply.
  - b Plug in the other end of +24 V Power Supply Cable to P3 on the Printer Interface Printed Circuit Assembly [PCA (M11777A001)].
  - c Ensure to route the DC Connector through the bushing from left to right and then onto the DC Output Connector (see [Figure 3](#) on [page 6](#)). Failure to route the DC Connector through the bushing will not allow reinstalling the power supply cover without pinching the cable.
- 12 Connect the two connectors from the existing Printer Cable Assembly, the 10-position Connector to P1 and the 6-position Connector to P2 as shown in [Figure 4](#).

**Figure 4: Attaching Power Cable to Printer Interface PCA**



- 13 Verify the following settings on the new Printer Controller PCA (M11960A001):

JP1	JP2	JP3	JP4
Open	Open	Jumper 1-2	Jumper 1-2

Switches DIP 1

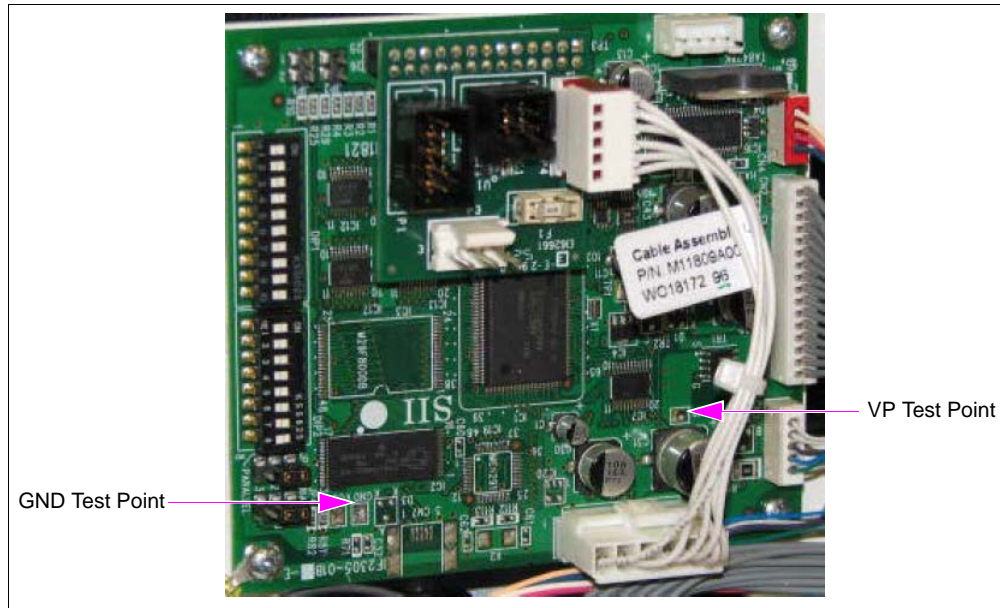
Pos 1	Pos 2	Pos 3	Pos 4	Pos 5	Pos 6	Pos 7	Pos 8	Pos 9	Pos 10
Off	Off	Off	On	Off	On	Off	On	On	Off

Switches DIP 2

Pos 1	Pos 2	Pos 3	Pos 4	Pos 5	Pos 6	Pos 7	Pos 8
On	Off	Off	Off	Off	Off	Off	On

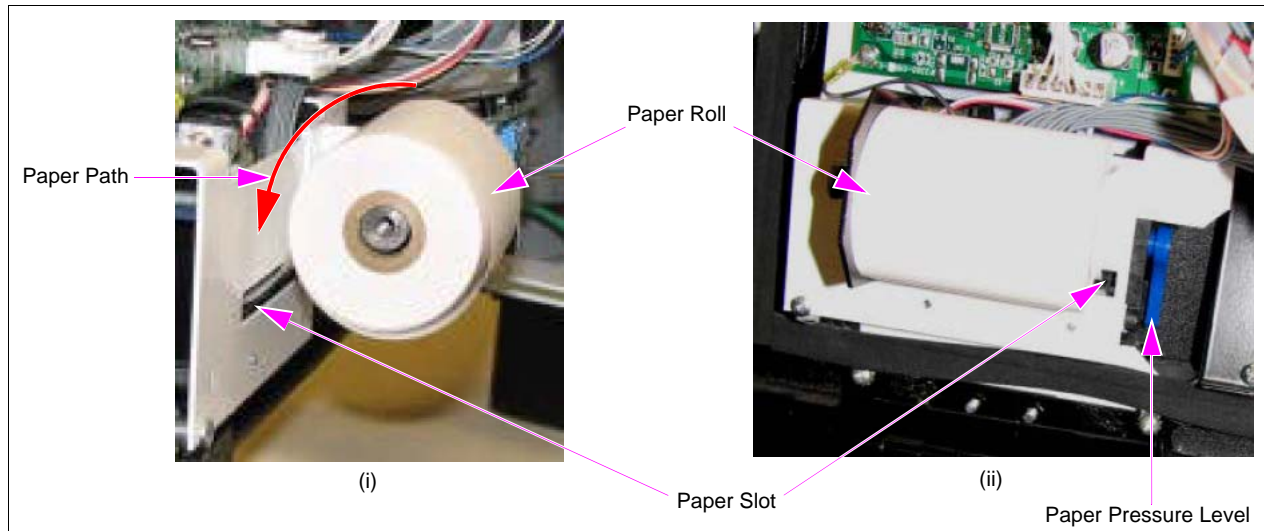
- 14 Turn on the power and check for 24 V between Ground (GND) and Printer Voltage (VP) on the new Printer Controller PCA [M11960A001 (see [Figure 5](#))]. Adjust the supply to 24 V by turning the potentiometer located on the upper left corner of the printer power supply. Turn clockwise to increase the voltage and counter-clockwise to decrease the voltage.

**Figure 5: Installing New Printer Controller PCA**



- 15 Reinstall the power supply cover and secure it with the three screws removed in step 7 on [page 5](#).
- 16 To load the paper, push Paper Pressure Level towards the front of the TopKAT unit (see [Figure 6](#)), feed the paper about 3 inches into the paper slot, and then pull the Paper Pressure Level back to the closed position.

**Figure 6: Loading the Paper**





**17** Close and lock the front and rear doors of the TopKAT unit.

Installation of the TopKAT Series 900 Replacement Report Printer Kit is now complete.

*Phillips® is a registered trademark of Phillips Screw Company. TopKAT™ is a trademark of Gasboy International.*



© 2013 GASBOY

7300 West Friendly Avenue · Post Office Box 22087

Greensboro, North Carolina 27420

Phone 1-800-444-5529 · <http://www.gasboy.com> · Printed in the U.S.A.

MDE-5061 TopKAT™ Series 900 Replacement Report Printer Kit (M11810K001) Installation Instructions · March 2013