



## Introduction

### Purpose

This manual provides installation instructions for the Commercial Atlas™ (9800K) Automatic Temperature Compensation (ATC) Kits:

- M05819K001 for 9800K Single Unit
- M05819K002 for 9800K Dual Unit (see note)
- M05819K003 for 9850K Single Unit
- M05819K004 for 9850K Dual Unit

*Note: 9840K pumps/dispensers require the M05819K002 dual kit. While 9840K pumps/dispensers are classified as singles, they use two meters, requiring components supplied in the M05819K002 kit.*

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### Required Tools

The following tools are required to install the ATC M05819K00X Kits:

- Open-end Wrench Set
- Flat-blade Screwdriver
- Phillips® Screwdriver
- Allen®-Wrench Set

## Parts Lists

### ATC M05819K001 Kit for Single Unit (Except 9850K)

Part Number (see Note)	Description	Quantity
M06080B001	Kit, ATC Kraus TTC200-1GK	1
	Printed Circuit Board (PCB) Assembly in LP-70 Polycase® Box and BC1379 Mounting	
28017	Sponge	1
SK460A4	460A4 ATC Display Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
SK461	461A2 Pulser/Handle Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
27913	Dual Intrinsic Safety (I.S.) Barrier	1
	- 5/16-inch Flat Washer (part of 27913)	2
	- 5/16-inch Hex Nut (part of 27913)	1
212AY04	Single Probe Connector Assembly	1
W171	Two-wire Harness for Intrinsic Safety Barrier	1
SW199	Probe Assembly	1
20026	Thermowell	1
235-C	Thermowell Plug	1
122-B02	1/8-inch National Pipe Thread (NPT) Coupling	1
15912	1/8-inch NPT Adapters Drilled to 17/64-inch Inside Diameter (I.D.)	1
103-B02	1/8-inch NPT Couplings	1
W283	Display Adapter Harness	1
W284	Pulser/Handle Ribbon Cable	1
BSN18-C	18-22 American Wire Gauge (AWG) Crimp Splices	10
BC256W	White "Volume Corrected to 15° C" Label	2
BC1380	Serialized AV-2322 Nameplate	1
N23760-07	Conduit Seal Washer	2

*Note: Left-justified part numbers are Gasboy® part numbers; right-justified part numbers are Kraus part numbers contained in the preceding Gasboy part number.*

### ATC M05819K002 Kit for Dual Unit (Except 9850K)

Part Number (see Note)	Description	Quantity
M06080B002	Kit, ATC Kraus TTC200-2GK	1
28017	PCB Assembly in LP-70 Polycase Box and BC1379 Mounting Sponge	1
SK460A4	460A4 ATC Display Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
SK461	461A2 Pulser/Handle Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
27913	Dual Intrinsic Safety Barrier	1
	- 5/16-inch Flat Washer (part of 27913)	2
	- 5/16-inch Hex Nut (part of 27913)	1
212AY05	Dual Probe Connector Assembly	1
W172	Three-wire Harness for Intrinsic Safety Barrier	1
SW199	Probe Assembly	2
20026	Thermowell	2
235-C	Thermowell Plug	2

Part Number (see Note)	Description	Quantity
122-B02	1/8-inch NPT X 1-inch Coupling	2
15912	1/8-inch NPT Adapters Drilled to 17/64-inch I.D.	2
103-B02	1/8-inch NPT Couplings	2
W283	Display Adapter Harness	1
W284	Pulser/Handle Ribbon Cable	2
BSN18-C	18-22 AWG Crimp Splices	10
BC256W	White "Volume Corrected to 15° C" Label	4
BC1380	Serialized AV-2322 Nameplate	1
N23760-07	Conduit Seal Washer	2

*Note: Left-justified part numbers are Gasboy part numbers; right-justified part numbers are Kraus part numbers contained in the preceding Gasboy part number.*

### ATC M05819K003 Kit for 9850K Single Unit

Part Number (see Note)	Description	Quantity
039087	Kit, ATC 9800 Single (TTC200-1G)	1
SK449C	PCB Assembly in LP-70 Polycase Box and BC1379 Mounting Sponge	1
SK460A4	460A4 ATC Display Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
SK461	461A2 Pulser/Handle Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
27913	Dual Intrinsic Safety Barrier	1
-	5/16-inch Flat Washer (part of 27913)	2
-	5/16-inch Hex Nut (part of 27913)	1
212AY04	Single Probe Connector Assembly	1
W171	Two-wire Harness for Intrinsic Safety Barrier	1
SW199	Probe Assembly	1
20026	Thermowell	1
235-C	Thermowell Plug	1
122-B02	1/8-inch NPT Coupling	1
15912	1/8-inch NPT Adapters Drilled to 17/64-inch I.D.	1
103-B02	1/8-inch NPT Couplings	1
W283	Display Adapter Harness	1
W284	Pulser/Handle Ribbon Cable	1
BSN18-C	18-22 AWG Crimp Splices	10
BC256W	White "Volume Corrected to 15° C" Label	2
BC1380	Serialized AV-2322 Nameplate	1
N23760-07	Conduit Seal Washer	2

*Note: Left-justified part numbers are Gasboy part numbers; right-justified part numbers are Kraus part numbers contained in the preceding Gasboy part number.*

## ATC M05819K004 Kit for 9850K Dual Unit

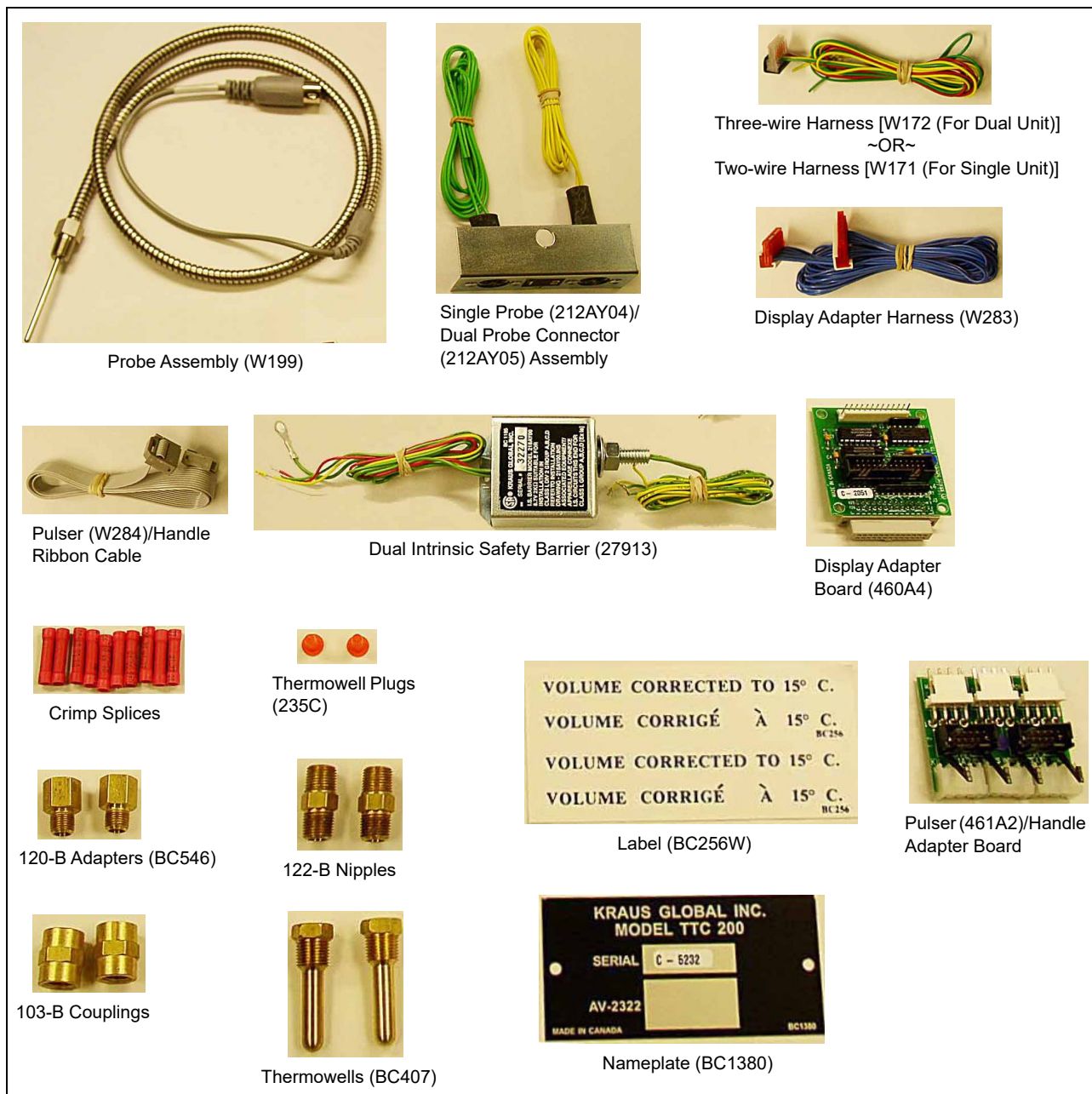
Part Number (see Note)	Description	Quantity
039086	Kit, ATC 9800TW (TTC200-2G)	1
SK449C	PCB Assembly in LP-70 Polycase Box and BC1379 Mounting Sponge	1
SK460A4	460A4 ATC Display Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
SK461	461A2 Pulser/Handle Adapter Board (see <a href="#">Figure 1</a> on <a href="#">page 5</a> )	1
27913	Dual Intrinsic Safety Barrier	1
-	5/16-inch Flat Washer (part of 27913)	2
-	5/16-inch Hex Nut (part of 27913)	1
212AY05	Dual Probe Connector Assembly	1
W172	Three-wire Harness for Intrinsic Safety Barrier	1
SW199	Probe Assembly	2
20026	Thermowell	2
235-C	Thermowell Plug	2
122-B02	1/8-inch NPT X 1-inch Coupling	2
15912	1/8-inch NPT Adapters Drilled to 17/64-inch I.D.	2
103-B02	1/8-inch NPT Couplings	2
W283	Display Adapter Harness	1
W284	Pulser/Handle Ribbon Cable	2
BSN18-C	18-22 AWG Crimp Splices	10
BC256W	White "Volume Corrected to 15° C" Label	4
BC1380	Serialized AV-2322 Nameplate	1
N23760-07	Conduit Seal Washer	2

*Note: Left-justified part numbers are Gasboy part numbers; right-justified part numbers are Kraus part numbers contained in the preceding Gasboy part number.*

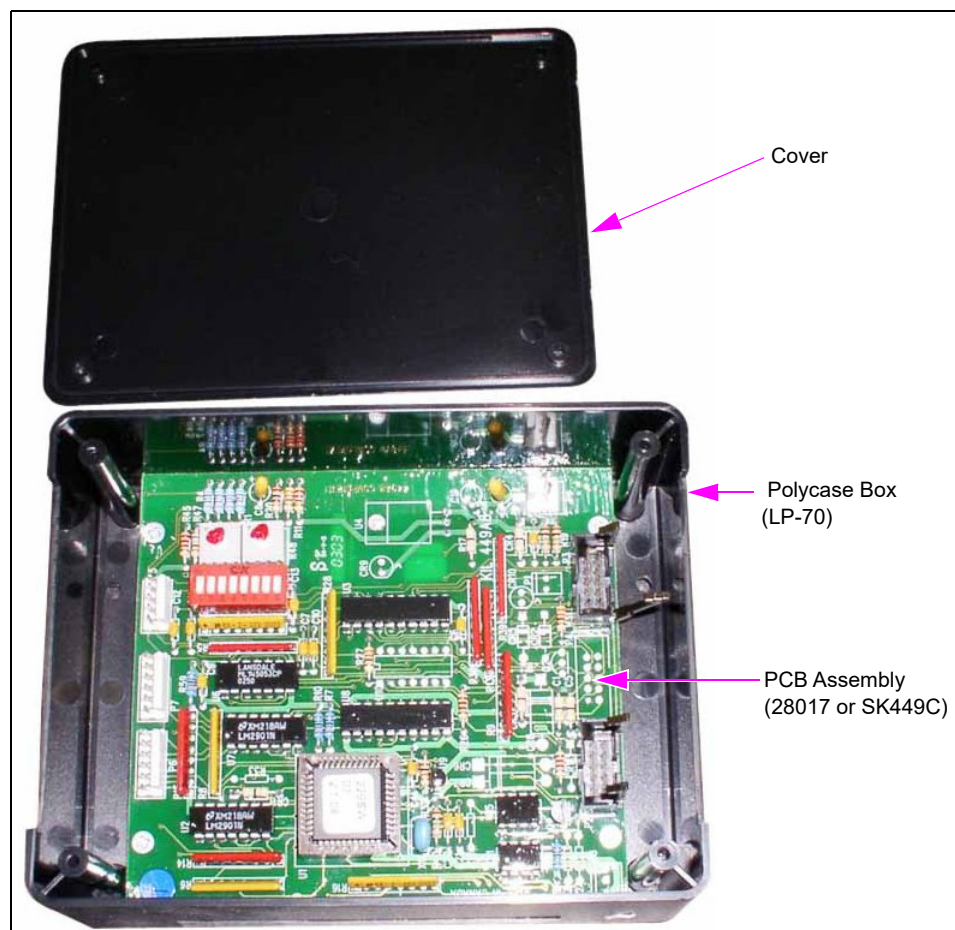
## Parts Identification

Figure 1 and Figure 2 on page 6 show the parts in the M05819K00X Kits.

**Figure 1: Identification of Parts in Kits**



*Note: Kits for single units have only one of these items.*

**Figure 2: Polycase Box (LP-70) and Cover with 28017 or SK449C**

## Related Document

Document Number	Title	GOLD <sup>SM</sup> Library
MDE-4434	Atlas Start-up/Service Manual	Gasboy
MDE-4363	Atlas Systems Owner's Manual	Gasboy

## Required Reading

Before installing a kit, the installer must read, understand, and follow:

- This manual
- National Fire Protection Association (NFPA) 30A, The Automotive and Marine Service Station Code
- NFPA 70®, The National Electric Code (NEC®)
- Applicable federal, state, and local codes and regulations

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

*Note: To ensure warranty, this kit must be installed by a Gasboy Authorized Service Contractor (ASC).*

## Abbreviations and Acronyms

Term	Description
ASC	Authorized Service Contractor
ATC	Automatic Temperature Compensation
AWG	American Wire Gauge
CPU	Central Processing Unit
DIP	Dual Inline Package
I.D.	Inside Diameter
I.S.	Intrinsic Safety
LCD	Liquid Crystal Display
LPM	Liters Per Minute
NEC	National Electrical Code
NFPA	National Fire Protection Association ( <a href="http://www.nfpa.org/Home/index.asp">http://www.nfpa.org/Home/index.asp</a> )
NPT	National Pipe Thread
PCA	Printed Circuit Assembly
PCB	Printed Circuit Board
TPS	Teflon® Pipe Sealant



# 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.



## 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.



Gilbarco Veeder-Root encourages the recycling of our products. Some products contain electronics, batteries, or other materials that may require special management practices depending on your location. Please refer to your local, state, or country regulations for these requirements.

## 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 the Commercial Atlas (9800K) ATC Kits

## Installing the M05819K00X ATC Kit (Single or Dual)

### Preparing for Installation

Request permission from the manager/owner to remove power from the unit and then remove power using normal procedures. Observe the lockout/tagout safety procedures.

**Ensure that you have the proper kit for the pump/dispenser model to be retrofitted.**

Kit #	Pump/Dispenser Model
M05819K001	9852K, 9853K, 9853KX
M05819K002	9852KTW, 9853KTW, 9853KXTW, 9840K, 9840KX
M05819K003	9850K, 9850KX, 9850KTW3, 9850KXTW3
M05819K004	9850KXTW1, 9850KXTW2

- 1 Unlock and remove the doors from both sides of the unit using proper key for the unit. Place doors in a safe place to prevent damage or scratches.
- 2 Remove the two thumb screws securing the bezel assembly and remove the bezel assembly. Repeat for the other side of the unit. Retain the screws for replacing bezel after installation.
- 3 Loosen and remove the two thumb screws securing the display panel at Side A of the unit. Pull the top of the display panel forward and pivot panel down to a horizontal position. Repeat for the other side of the unit. Retain the screws for replacing panel after installation.

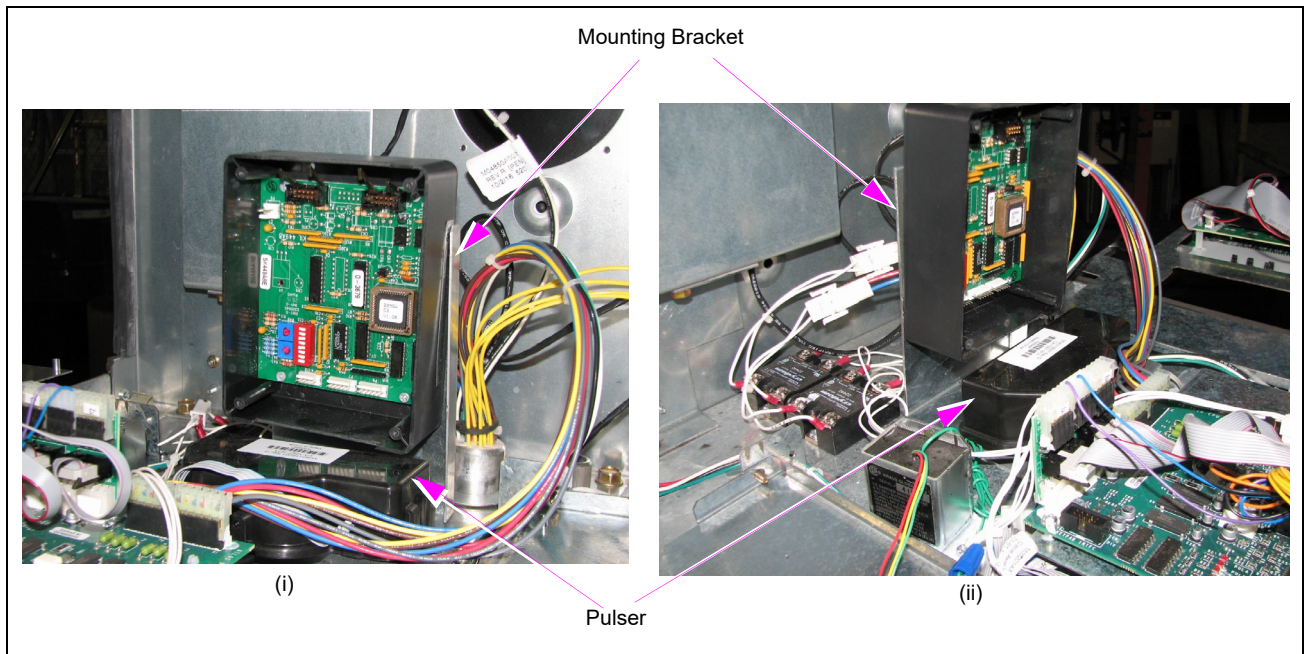
*Note: The panel pivots down in a horizontal position allowing access to the electronics section of the unit.*

### Installing ATC Kit

- 1 Locate the LP-70 Polycase Box with 28017 PCB mounted inside, in the M05819K001 or M05819K002 Kit.  
~OR~  
Locate the LP-70 Polycase Box with SK449C PCB mounted inside, in the M05819K003 or M05819K004 Kit.
- 2 Remove the four mounting screws securing the cover and remove the cover from the box. Retain screws and cover for reinstalling later.

- 3 Peel the protective cover from the Mounting Sponge (on the back of the Polycase Box). Locate the mounting bracket and mount the box as shown in [Figure 3](#). Mount about 1-1/2 inches up so it is above the pulser.

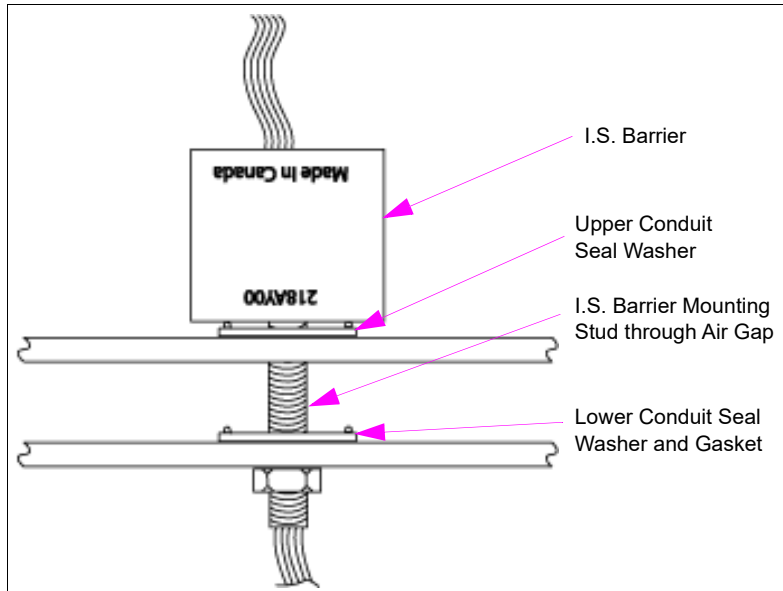
**Figure 3: Mounting the LP-70 Polycase Box**



- 4 On the two shelves creating the air gap, locate the two washers [N23746-01 (mounted to shelf with two screws)].  
*Note: The lower washer location also has a Gasket (N23761-04).*
- 5 Remove the two screws from each washer and remove the washers. Retain the gasket and screws to use later.
- 6 Locate the two Conduit Seal Washers (N23760-07) provided in the kit.
- 7 Place the two conduit seal washers where the two Washers (N23746-01) were mounted, place the gasket (saved in step 5) under the conduit seal washer on the lower shelf, and secure washers with screws removed in step 5.
- 8 Locate the 27913 I.S. Barrier and Probe Connector Assembly (212AY04 for a single or 212AY05 for a dual) provided in the kit. Remove the nut and washer from the mounting stud on the I.S. Barrier and slide them off the wires. Retain the nut and washer to use later.

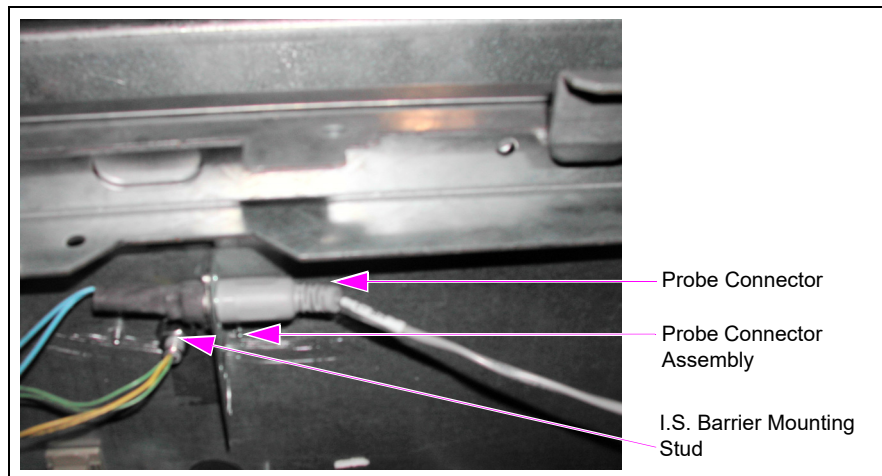
- 9 Feed the wires extending from the I.S. Barrier Mounting Stud through the hole in the shelf as shown in [Figure 4](#) and place the mounting stud through the hole.

**Figure 4: Mounting the I.S. Barrier on the Shelf**



- 10 Place the wires extending from the mounting stud through the mounting hole in the Probe Connector Assembly. Place the Probe Connector Assembly up on the stud [under the shelf (see [Figure 5](#))].

**Figure 5: Probe Connector Assembly and I.S. Barrier Stud Mounting (Under the Shelf)**

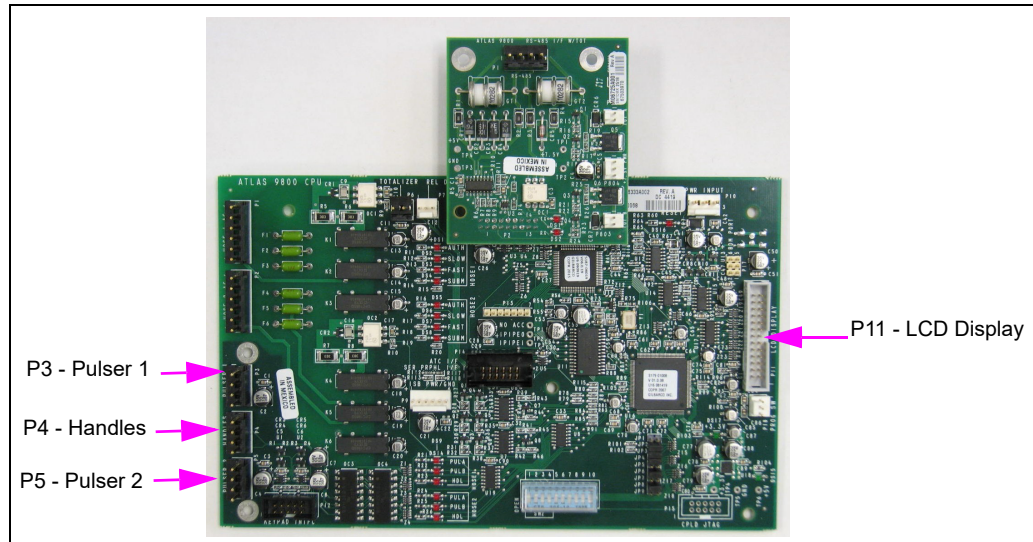


*Note: The probe connection to the Probe Connector Assembly shown is for a single unit.  
The dual unit has two probe connectors connected to the assembly.*

- 11 Place the washer and nut over the wires and turn the nut onto the stud securing the I.S. Barrier and Probe Connector. Tighten snugly but do not overtighten.

- 12 At the CPU PCA (see [Figure 6](#)), disconnect the cables connected to the P3 - Pulser 1, P4 - Handles, and P5 - Pulser 2 connectors.

**Figure 6: CPU PCA Assembly**



- 13 Locate the 461A2 Circuit Board Assembly provided in the kit (for identification, see [Figure 1](#) on [page 5](#)). Connect the assembly to the connector labeled Pulser 1, Handles, and Pulser 2 at the CPU PCA.
- 14 Reconnect the cables removed in step 12 to the 461A2 Circuit Board Assembly (directly above the Pulser 1, Handles, and Pulser 2 Connectors).
- 15 At the CPU PCA (see [Figure 6](#)), disconnect the cable connected to the P11 - LCD Display connector.
- 16 Locate the 460A4 Circuit Board Assembly provided in the kit (for identification, see [Figure 1](#) on [page 5](#)). Connect the assembly to the connector labeled P11-LCD Display at the CPU PCA.
- 17 Reconnect the cable removed in step 15 to the 460A4 Circuit Board Assembly J1 connector in center of board. (see [Figure 9](#) on [page 15](#)).
- 18 Locate the two W284 Pulser/Handle Ribbon Cables provided in the kit (for identification, see [Figure 1](#) on [page 5](#)).
- 19 Connect one end of one W284 cable to P1 on the 461A2 Board (see [Figure 7](#)) and the other end to P2 in the Polycase Box [LP-70 (see [Figure 8](#) on [page 15](#))].



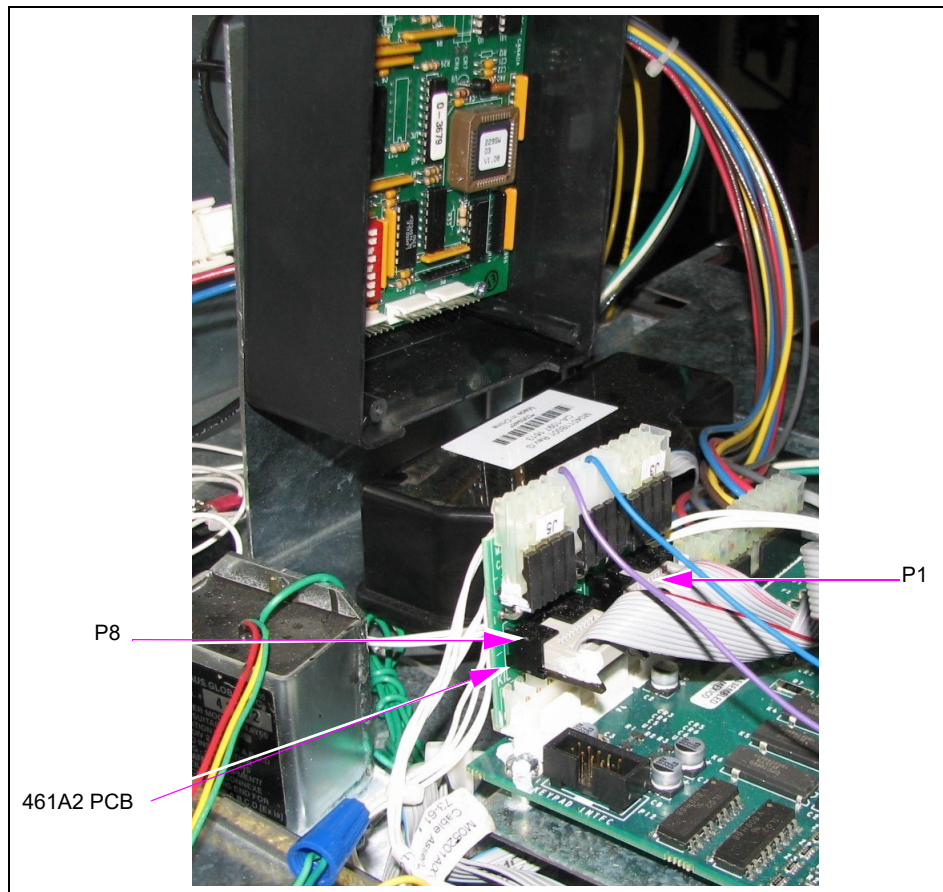
- 20 Connect one end of the second W284 cable to P8 on the 461A2 Board (see [Figure 7](#)) and the other end to P3 in the LP-70 Polycase Box (see [Figure 8](#) on [page 15](#)).

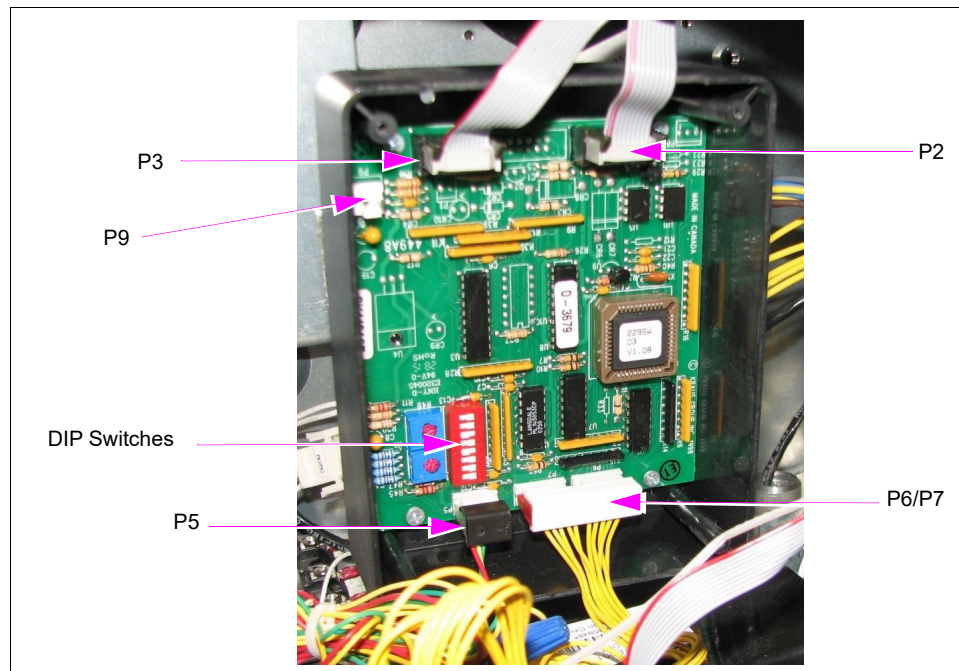
### IMPORTANT INFORMATION

Ensure that the cables are connected to the connectors as follows:

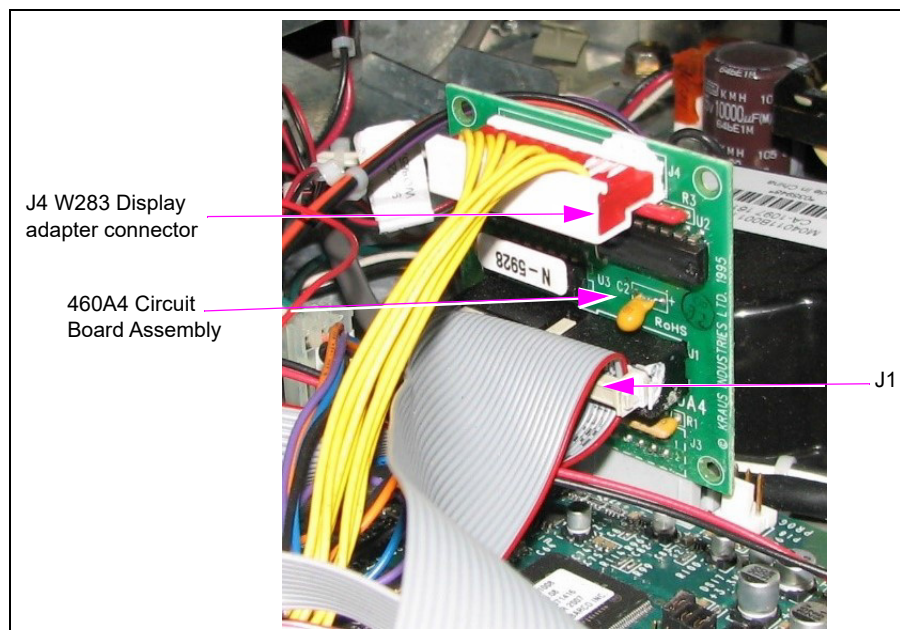
- From P1 of 461A2 to P2 of LP-70 Polycase Box.
- From P8 of 461A2 to P3 of LP-70 Polycase Box.

**Figure 7: 461A2 Circuit Board with Connections**



**Figure 8: Polycase Box (LP-70) Showing Connections**

- 21 Locate the W283 Display Adapter harness provided in the kit (for identification, see [Figure 1](#) on [page 5](#)).
- 22 Connect one connector (both are the same) on the harness to J4 on the 460A4 Circuit Board Assembly (see [Figure 9](#)) and the other connector to P6/P7 in the LP-70 Polycase Box (see [Figure 8](#)).

**Figure 9: Circuit Board (460A4) in Place with Connections Made**



- 23 Locate the W171 Two-wire Harness (single) or W172 Three-wire Harness (dual) for I.S. Barrier provided in the kit.
- 24 Place the connector on the harness on P5 in the LP-70 Polycase Box (see [Figure 8](#) on [page 15](#)).
- 25 Using the crimp splices, connect the wires of the harness to the wires extending from the top of the I.S. barrier. Match color codes.
- 26 For single kits, cap the end of the green wire from the I.S. Safety Barrier, using a Cap (0M0205) or an appropriate size wire nut (these are not part of the kit).
- 27 Connect the ground wire (the wire with eyelet connector) to the nearest true ground.
- 28 Disconnect the cable going to P6 Connector of the Pump CPU Board.
- 29 Connect the cable that was disconnected in step 28 to P9 Connector in the LP-70 Polycase Box.  
*Note: If the user wants to be able to display electronic totals, another Cable (M05119A001) must be installed and connected to the P9 Connector in the LP-70 Polycase Box.*
- 30 In the Polycase Box (LP-70), locate the DIP switches shown in [Figure 8](#) on [page 15](#) and set the switches for the proper unit as shown in the following table.

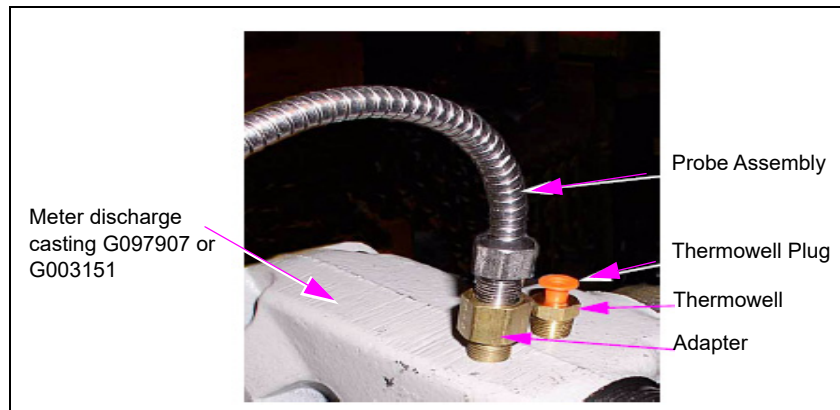
DIP Switch Settings			
Switch Number	Switch Function	Settings for Model 9850K and older A/Q	Settings for Models 9840K, 9852K, 9853K
1	Product 1	ON for Diesel, OFF for Gasoline	ON for Diesel, OFF for Gasoline
2	Product 2	ON for Diesel, OFF for Gasoline	ON for Diesel, OFF for Gasoline
3	Not used	N/A	N/A
4	Unit of Measure	N/A	ON for Liters, OFF for Gallons
5	Pulser Multiplier	ON for 9850 and 9850K, OFF for 9852/9853	N/A
6	Number of Probes	ON for two (2) probes, OFF for one (1) probe	ON for two (2) probes, OFF for one (1) probe
7	Pulser Adder	ON for 9840	ON for 9840K
8	ATC	ON for ATC ON, OFF for ATC OFF	ON for ATC ON, OFF for ATC OFF

- 31 Remount the LP-70 Polycase Box cover removed in step 1 on [page 10](#).
- 32 Using two of the crimp splices, connect the two yellow wires extending from the bottom of the I.S. Barrier Mounting Stud to the two yellow wires attached to the Dual Probe Connector Assembly (see [Figure 5](#) on [page 12](#)).
- 33 If installing a dual kit, connect the two green wires extending from the bottom of the I.S. Barrier Mounting Stud to the two green wires attached to the Dual Probe Connector Assembly, using two of the crimp splices. For a single kit, cap the end of the two green wires extending from the bottom of the I.S. barrier, using two Caps (0M0205) or suitable size wire nuts (these are not part of the kit).

- Figure 10: Hydraulic Coupling (Probe Assembly Mounting Location [except 9850K])**



**Figure 11: Meter Discharge Casting (Probe Assembly Mounting Location [9850K])**



**CAUTION**

When applying SAF-T-LOK® TPS Sealant on threads, leave the two threads that enter the hole first free of sealant to prevent the sealant from entering, and possibly damaging or inhibiting proper operation of the unit.

- 37 Coat the BC407 Thermowell Threads using SAF-T-LOK TPS Sealant and thread into one of the holes where the plugs were removed in step 36 on [page 17](#) (see [Figure 10](#) on [page 17](#)).
- 38 Tighten the Thermowell using a proper size wrench and place the 235-C Thermowell Plug into the Thermowell.
- 39 Coat the threads of the BC546 Adapter with SAF-T-LOK TPS Sealant and turn it into the other hole where the plugs were removed (see [Figure 10](#) on [page 17](#)).
- 40 Coat the threads of the W199 Probe Assembly with SAF-T-LOK TPS Sealant and turn it into the BC546 Adapter mounted in step 39.
- 41 Tighten both the adapter and probe using the proper size wrench.

**CAUTION**

Ensure that the threads on the Thermowell, Adapter, and Probe Assembly are properly coated with the SAF-T-LOK TPS Sealant and tightened properly to prevent leaks.

- 42 Connect the other end (Connector) of the Probe to Probe Connector Assembly in the connector labeled "1".
- 43 If installing a single kit, go to "[Completing Installation](#)" on [page 19](#) to complete the installation procedure. Otherwise, locate the other two plugs in the hydraulic coupling toward the other side of the unit (see [Figure 10](#) on [page 17](#)).
- 44 Repeat steps 36 on [page 17](#) through 41 to mount the second Probe Assembly.

- 45 Connect the Connector end of the second Probe to Probe Connector Assembly in the connector labeled “2”.
- 46 Go to [“Completing Installation”](#) to complete the installation procedure.

## Completing Installation

To complete the installation procedure, proceed as follows:

- 1 Dress the cablings by placing them in existing cable ties. Ensure that the cables do not create any obstruction to operation, access, or servicing.
- 2 Test the ATCs to determine that they are functioning properly.  
This will involve running transactions and using the totalizer display (for more information, refer to [“Appendix A: Totalizer Display Information”](#) on [page 20](#)).
- 3 After determining that the ATCs are functioning properly:
  - Pivot display panels back to the vertical position and secure using saved screws.
  - Remount the bezel assemblies and secure using saved screws.
  - Remount the doors on both sides of the unit.
  - Secure doors with the keylocks.
- 4 Inform the manager/owner that the unit can be returned to service.

## Appendix A: Totalizer Display Information

By presenting a magnet to the sensor located behind the black rectangle on the bezel, the following information will be displayed.

Information Type	Definition	Example of Display
Volume	Displays uncompensated volume.	0023.43
Probe Temperature	Displays probe temperature (in Celsius only).	0 23.2
Flow Rate	Displays flow rate [in Liters Per Minute (LPM only)].	189.2
Software Version	Displays software version number.	1.30
ATC Status	<p>Displays ATC status.</p> <p>Leftmost digits (842) are error indicators, which are blank when the corresponding error condition is not active.</p> <p>8 = temperature probe fault detected  4 = pulser error occurred  2 = exceptional reset detected</p> <p>Rightmost digit (2) indicates whether temperature compensation is enabled, and if so, what product is being dispensed.</p> <p>0 = temperature compensation disabled  1 = product is gasoline and compensation enabled  2 = product is diesel and compensation enabled</p>	842 .2

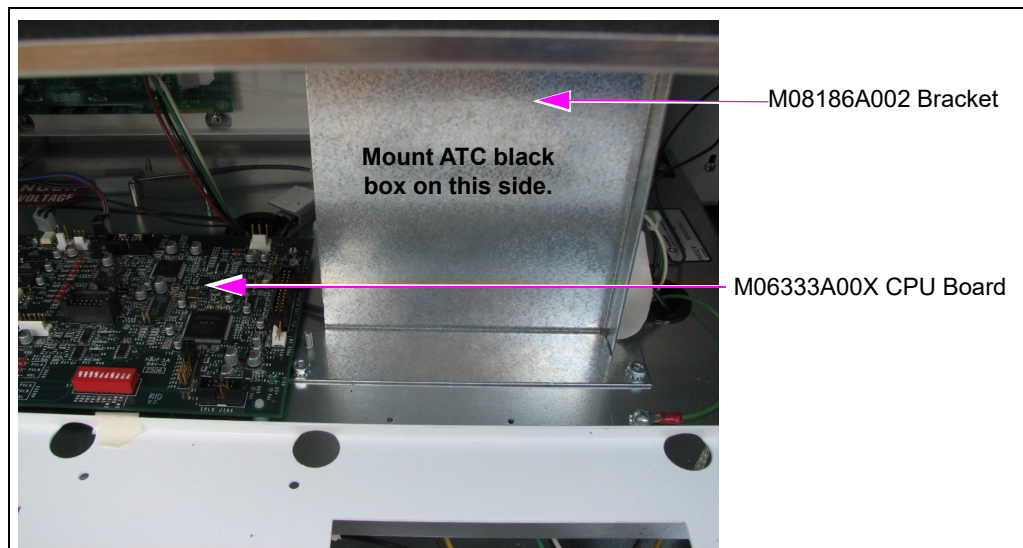
## Appendix B: Upgrading to New M06333A00X CPU Board

If installing a new M06333A00X CPU board in a 9852A, 9853A, 9852Q, 9853Q, or 9850 model dispenser with the old mounting bracket (046716), you must replace the old bracket with the new bracket (M08186A002) before the new CPU board can be installed. If you have a 9852K, 9853K, or 9840K model dispenser or if the dispenser has a new bracket and M06333A00X CPU board, you do not need to change this bracket. To change the bracket, follow the steps listed below.

To change the bracket, proceed as follows:

- 1 Remove the existing bracket by removing the 8/32 nuts (2X) that secures the bracket to the platform. Keep the KEPS nuts to secure the new bracket later in this procedure.
- 2 Carefully remove the ATC black box from the mounting bracket.
- 3 Remove the foam tape (that held the box to the bracket) from the back of the black box.
- 4 Install the new bracket using the 8/32 nuts removed in step 1 (see [Figure 12](#)).
- 5 Apply the K85492-16 foam tape to the back of the ATC black box.
- 6 Mount the ATC black box onto the new bracket (see [Figure 12](#)).

**Figure 12: Mounting ATC Black Box on New Bracket**



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7300 West Friendly Avenue · Post Office Box 22087  
Greensboro, North Carolina 27420

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