
ACCQPrep HP150

Installation Guide



69-5233-800
Rev. B, July 2020

1.0 Overview

This Installation Guide provides:

- Safety information
- Unpacking instructions
- Installation instructions, including connections with Windows and iOS operating systems
- Certification and warranty information

1.1 Safety

Before installing, operating, or maintaining this equipment, it is imperative that all hazards and preventive measures are fully understood. While specific hazards may vary according to location and application, take heed in the following general warnings:

 **WARNING**

Liquids associated with this instrument may be classified as carcinogenic, biohazard, flammable, or radioactive. Should these liquids be used, it is highly recommended that this application be accomplished in an isolated environment designed for these types of materials in accordance with federal, state, and local regulatory laws, and in compliance with your company's chemical/hygiene plan in the event of a spill.

 **WARNING**

Avoid hazardous practices! If you use this instrument in any way not specified in this manual, the protection provided by the instrument may be impaired.

 **WARNING**

If you are using flammable solvents or chemicals with this system, vapor concentration levels may exceed the maximum exposure levels as recommended by OSHA Guide 1910.1000. To reduce those levels to a safe exposure, Teledyne Isco recommends that you place the system in a laboratory hood designed for the purpose of ventilation. This hood should be constructed and operated in accordance with federal state and local regulations. In the event of a solvent or chemical spill, your organization should have a plan to deal with these mishaps. In all cases, use good laboratory practices and standard safety procedures.

1.3 Hazard Severity Levels This manual applies Hazard Severity Levels to the safety alerts. These three levels are described in the sample alerts below.

 **CAUTION**

Cautions identify a potential hazard, which if not avoided, may result in minor or moderate injury. This category can also warn you of unsafe practices, or conditions that may cause property damage.





 **WARNING**

Warnings identify a potentially hazardous condition, which if not avoided, could result in death or serious injury.

 **DANGER**

DANGER – limited to the most extreme situations to identify an imminent hazard, which if not avoided, will result in death or serious injury.

1.4 Hazard Symbols The equipment and this manual use symbols used to warn of hazards. The symbols are explained in the table below.

Hazard Symbols	
Warnings and Cautions	
	The exclamation point within the triangle is a warning sign alerting you of important instructions in the instrument's technical reference manual.
	The lightning flash and arrowhead within the triangle is a warning sign alerting you of "dangerous voltage" inside the product.
Symboles de sécurité	
	Ce symbole signale l'existence d'instructions importantes relatives au produit dans ce manuel.
	Ce symbole signale la présence d'un danger d'électocution.
Warnungen und Vorsichtshinweise	
	Das Ausrufezeichen in Dreieck ist ein Warnzeichen, das Sie darauf aufmerksam macht, daß wichtige Anleitungen zu diesem Handbuch gehören.
	Der gepfeilte Blitz im Dreieck ist ein Warnzeichen, das Sie vor "gefährlichen Spannungen" im Inneren des Produkts warnt.
Advertencias y Precauciones	
	Esta señal le advierte sobre la importancia de las instrucciones del manual que acompañan a este producto.
	Esta señal alerta sobre la presencia de alto voltaje en el interior del producto.

1.5 Safety Components The power cord is a safety disconnect for the ACCQPrep HP150 (Figure 1-2).

To remove power from the ACCQPrep remove the power cord by pulling it straight out from the power inlet connector. The circuit breaker is located adjacent to the power inlet connector. If an internal circuit fault occurs, this breaker will trip. It can be reset by pressing the end of the rocker labeled “1”. In addition, switching the breaker manually to the “O” position will remove power from the internal operating components.

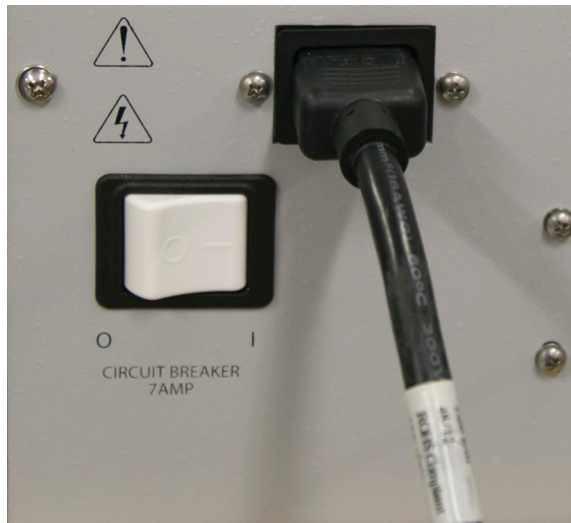


Figure 1-2 Location of power cord for the ACCQPrep

ACCQPrep HP150

Section 2 Installation

2.1 ACCQPrep Installation

The following section will cover the installation, connection of the pump, and a review of the priming steps.

Note

When the system ships, it will ship in two boxes to minimize the weight. One box will contain the unit and the other box will have the pump and assorted accessories.

Tools Required

- Hex wrench (included with the pump module)
- 1/4" open end wrench
- Fitting wrench (allows more secure connection of 'finger tighten' fittings) (Wrench is included in the ACCQPrep accessory kit)

2.2 Setting Up the System

The ACCQPrep chassis including AutoInjector, Solvent Selector Valve Module, and Column Selector Valve Module, but without the pump assembly, weighs up to approximately 64 pounds (29 kg). Handles are provided on each side of the instrument to facilitate lifting.

 **CAUTION**

A two person lift is recommended to prevent injury.

The pump assembly weighs 25 pounds (11.5 kg) resulting in a final weight of 93 pounds (42.3 kg) with the column cover installed, but not including an optional AutoSampler.

The fraction collector arm is secured to prevent damage during shipping. The arm securing bracket should be removed at this time.

1. Loosen the bracket's two thumbscrews along the sides of the arm (Figure 2-1).

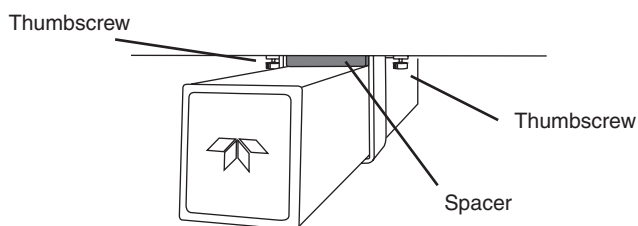


Figure 2-1 Remove arm stowing bracket and spacer

2. Push the arm to the left or right to remove the spacer.
3. Store the bracket and spacer. These parts should be reinstalled if the system must be shipped again.

When you are ready to place the system, be sure it is situated in such a way that the power cord is accessible to disconnect in case of malfunction.

2.2.1 Pump Installation

Note

Be sure to move the two electrical connections and solvent tubing out of the way before sliding the pump assembly into the pump compartment.

To install the pump:

1. Remove the two pump retaining screws in the pump compartment.
2. Align the pump assembly horizontally with the two notches facing the opening of the pump compartment (Figure 2-2).

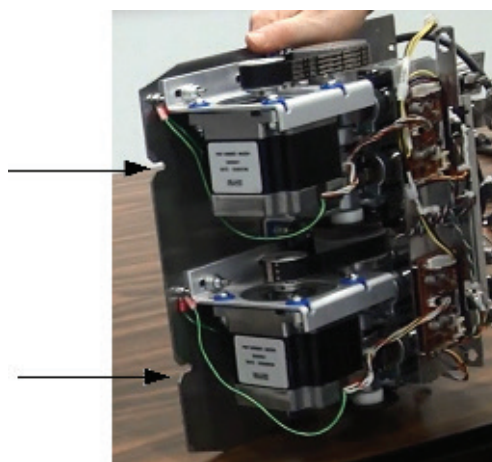


Figure 2-2 Location of notches on the pump sled

3. Slide the pump assembly into the pump compartment. It may require a little force since it is metal on metal sliding together. If the force seems excessive, ensure there is nothing obstructing the pump assembly. Be sure to keep the electrical connections and tubing out of the way so they do not get pushed inside of the compartment (Figure 2-3).

Note

Be sure to observe the top of the pump assembly as it is being inserted into the system. Make sure no wires from the case or pump assembly are being snagging.

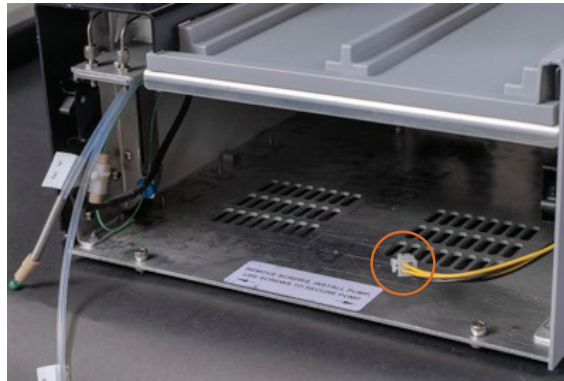


Figure 2-3 Pump compartment with electrical connection shown

4. When the pump assembly is most of the way in the pump compartment, connect the electrical connections on each side of the pump. First, connect the black connection on the left side. Ensure the tab on top of the connector is facing up before pushing it into the mating connector (Figure 2-4).

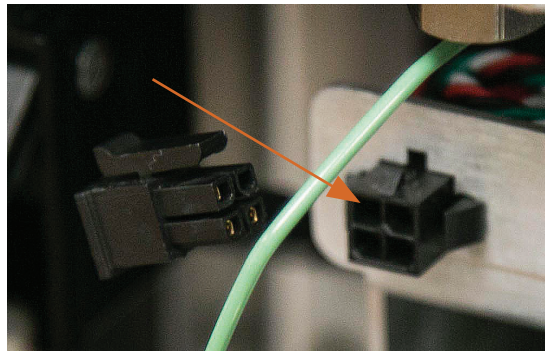


Figure 2-4 Black connection with tab facing up

5. Then, connect the white connection on the right side. Ensure the tab on top of the connector is facing up before pushing it into the mating connector (Figure 2-5).

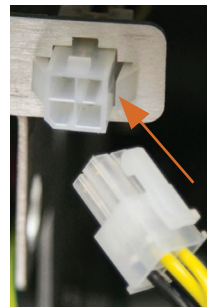


Figure 2-5 White connection with tab facing up

5. Once the electrical connections are complete, push the pump assembly the rest of the way into the pump compartment until the holes in the front of the pump assembly are aligned with the corresponding holes in the case bottom.

Note

Hold downs at the back of the pump may cause extra resistance for the last 1/2" of travel.

6. To hold the pump in place, use the two hex screws, removed previously, and the hex wrench to secure the pump assembly (Figure 2-6).

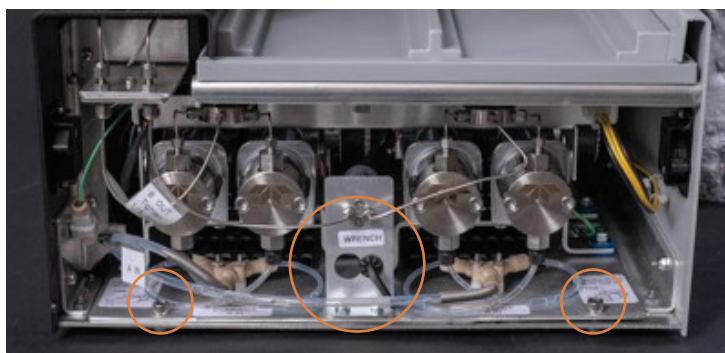


Figure 2-6 Location of threaded holes, in the base of the unit, and the hex wrench

2.2.2 Solvent Line Installation

1. The left two pump heads form the A solvent pump and the outlets are connected to a tee. The outlet of this tee connects to the left bulkhead union. Tighten with the 1/4" open end wrench.
2. The right two pump heads form the B solvent pump and the outlets are connected to a tee. The outlet tee on this side is connected to the pressure transducer in the middle of the assembly. The remaining connector on the pressure transducer must be connected to the right bulkhead union. Tighten this fitting with the 1/4" open end wrench (Figure 2-7).

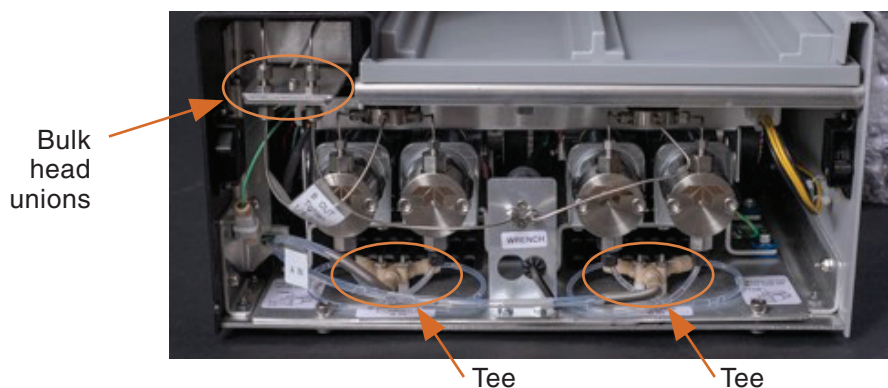


Figure 2-7 Line connections on the pumps

3. Connect the *shorter* FEP inlet solvent line to the left side pump's PEEK tee. Slide the spring down the tube and place the open side of the wrench (included) over the tubing and FEP fitting and make small turns as to not bend the tubing (Figure 2-8). Slide the spring back into place.
4. Connect the *longer* FEP inlet solvent line to the right side pump's PEEK tee. Slide the spring down the tube and place the open side of the wrench (included) over the tubing and FEP fitting and make small turns as to not bend the tubing (Figure 2-8). Slide the spring back into place.

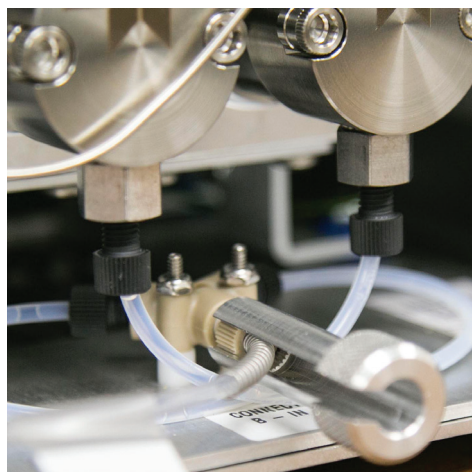


Figure 2-8 Wrench used to tighten the FEP inlet line

5. Once complete, install the faceplate onto the unit by snapping the side mounted connectors into place.

2.2.3 Fluid Line Installation

Note

The solvent lines are installed at the factory and include labels identifying the lines A1, A2, and A3 for the A solvents and line B1, B2, and B3 for the B solvents when using the Solvent Selector Valve Module.

1. Remove the two screws that secure the solvent lines for shipment.
2. Place the solvent lines in the desired containers.
3. Place waste line from ACCQPrep in an appropriate waste container.

2.2.4 ACCQPrep Equipped with Optional ELSD

Note

Teledyne ISCO recommends >99% pure nitrogen from a source that can deliver 2.5 SLPM at 60 to 70 psi.



Figure 2-9 Location of ELSD gas port (Nitrogen input line circled)

The ACCQPrep ELSD system has several additional connections.

1. Install the ELSD P-trap vent assembly found in the accessory package (PN 3-250004) by placing the short tube into the port on the rear panel, orienting the vent as shown and tightening the fitting nut finger tight plus a small amount more with a wrench (Figure 2-10).



Figure 2-10 Back of ACCQPrep with optional ELSD

2. ELSD operation requires a carrier gas. To connect the carrier gas to the ACCQPrep:
 - Locate the 1/8 inch O.D. FEP tubing (PN:023-0503-02) from the accessory package.
 - Push one end of the tubing into the NITROGEN INLET (Figure 2-9) port on the back of the system. The tubing should be fully seated in the port.
 - Cut the tubing to length and connect the other end to the user-supplied carrier gas. An assortment of 1/8 inch adapters are supplied in the accessory kit to complete the connection to your gas source.
3. The P-trap must be filled with fluid to prevent sample loss. To accomplish this, raise the drain tubing attached to the P-trap drain vent assembly above the instrument and place 10 mL of liquid, such as isopropyl alcohol, into the tube. Make sure the fluid level in the tubing doesn't exceed the level of the instrument case top. If the tubing is raised too fast, fluid may flow out the top of the vent tube causing a spill. Lift it high enough so the fluid enters the P-trap drain (Figure 2-11).

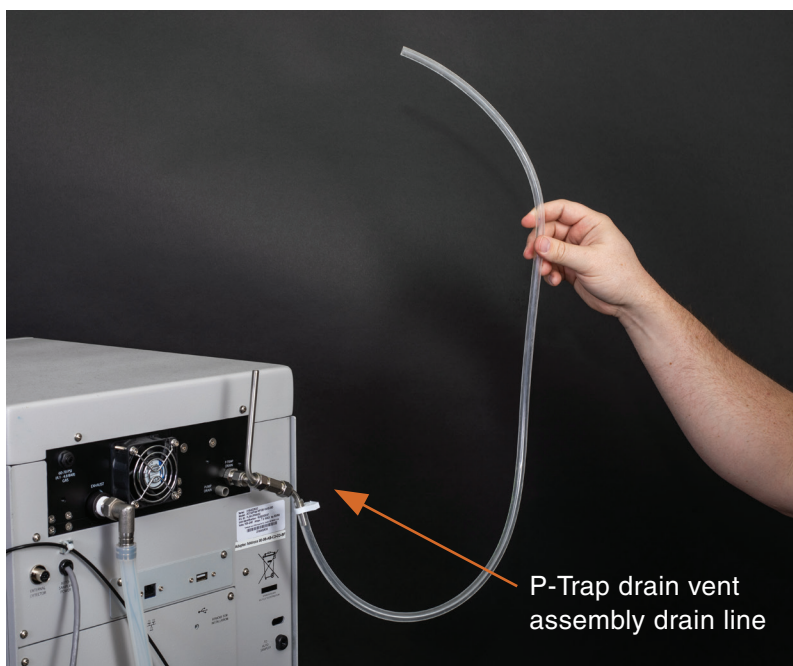


Figure 2-11 Keep liquid level lower than the top of the system

4. Route the end of the P-trap drain tube to a suitable waste fluid collection container. Please be aware that as the tubing is lowered, several mL of isopropyl alcohol will run out of the tubing. This is normal and means that the P-trap is properly filled. Depending on your application, the P-trap fluid may need periodic replenishment to ensure maximum signal strength of the ELSD.

Note

If accessible, the outlet end of the P-trap drain tube may be used to refill the P-trap.

5. Route the attached tubing from the ELSD exhaust port away from the system. This will prevent unnecessary solvent vapor alarms.

Note

The ELSD exhaust will contain fine particles of compound. If using outside of the hood, ensure that the exhaust port tubing is routed to an exhaust handling system that meets your safety and environmental requirements. Do not use tubing smaller than the exhaust tube. If the exhaust is restricted, some of the gas flow could be diverted out the P trap drain resulting in reduced sensitivity and the need to route the P trap drain to an exhaust. In normal operation, the exhaust gas is dry and does not require a waste collection container.

⚠ CAUTION

Discontinue use of the ACCQPrep if liquid is present at the Pump Drain. Contact Teledyne ISCO technical service for assistance with correcting the leak.

2.2.5 Priming Steps

The system will require priming with the desired solvents. To prime the system:

1. Press the red switch, next to the front USB port, to the ON position to boot up the system (Figure 2-12).



Figure 2-12 Front USB and On switch

2. Turn the prime valve to the PRIME position (Figure 2-13).



Figure 2-13 Turn the valve to the Prime position

- If the solvent select option is not installed, the system will immediately prime both solvent lines.
 - If the solvent select option is installed, a dialog box opens when the valve is switched to the PRIME position. The dialog box allows you to select which of the A solvents and B solvents will be primed.
 - If you have not already assigned names to the A and B solvents, they can be named at this time using the drop downs. If the name you want isn't listed, it can be added in the CONFIGURATION screen. This action can be completed at a later time.
3. Once priming is complete, a new screen will appear directing you to turn the valve from the PRIME position to the Run position.

Note

The system will prime both pumps simultaneously. There is no method to prime A and B individually.

2.3 Installing the Injection Port

Manual sample injection can be performed with the system even when equipped with an AutoInjector or AutoSampler. If no AutoInjector or AutoSampler is installed, a luer injection port (209900002) is included in the accessory package. To install, place the fitting into the injection valve and tighten the nut snugly (Figure 2-14).



Figure 2-14 ACCQPrep with Manual Injection Luer Port installed

Connect the included check valve(209016629) to the inject valve waste line. Ensure that the arrow on the check valve points toward the waste container. This check valve ensures sample doesn't run from the port when the injection syringe is removed.

If an AutoInjector or AutoSampler is installed and manual injection is also desired, install the included check valve (209016629) in the waste line from either the inject valve (if no AutoInjector or AutoSampler is installed) or the waste line from the sample load pump. Ensure that the arrow on the check valve points toward the waste container. This check valve ensures sample doesn't run from the port when the injection syringe is removed.

2.4 Installing the Optional AutoSampler

These instructions assume that the AutoSampler was purchased with a new ACCQPrep. In that case, the AutoInjector portion of the AutoSampler is already installed in the ACCQPrep. If not, please refer to installation instructions included with the Auto-Injector.

To install the AutoSampler:

1. Carefully unpack the Z-Drive and remove the packing materials from the Y-axis arm (Figure 2-15).

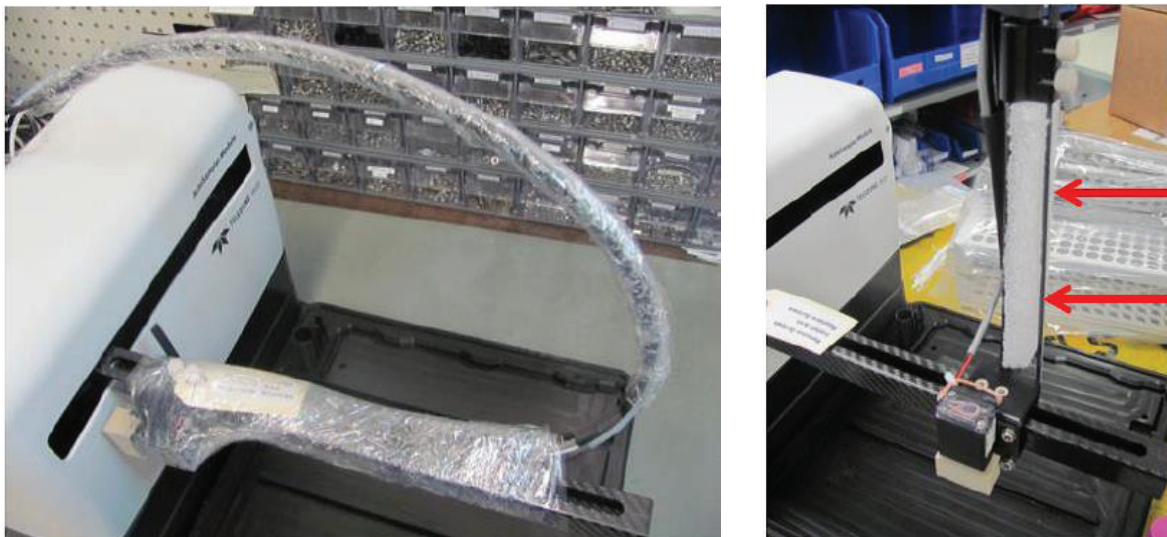


Figure 2-15 AutoSampler Module and Z-Drive

2. Find the Y-axis carriage on the arm of the AutoSampler Module. The Z-Drive will be attached to this carriage (Figure 2-16).



Figure 2-16 Z-Drive mounted on the Y-axis carriage

3. Remove the two screws from the Y axis carriage. Slide the Z-Drive onto the arm until the two holes align with the matching holes in the Y-axis carriage.
4. Using the two plastic thumbscrews, secure the Z-Drive to the carriage and finger tighten (Figure 2-17).



Figure 2-17 Z-Drive secured to the Y-axis carriage

5. Rotate the Z-Drive rotor back and forth to ensure that the Z-Drive moved up and down freely (Figure 2-18).

Note

If the rotor does not move freely, check that the other cables are not interfering with the movement of the green probe cable.

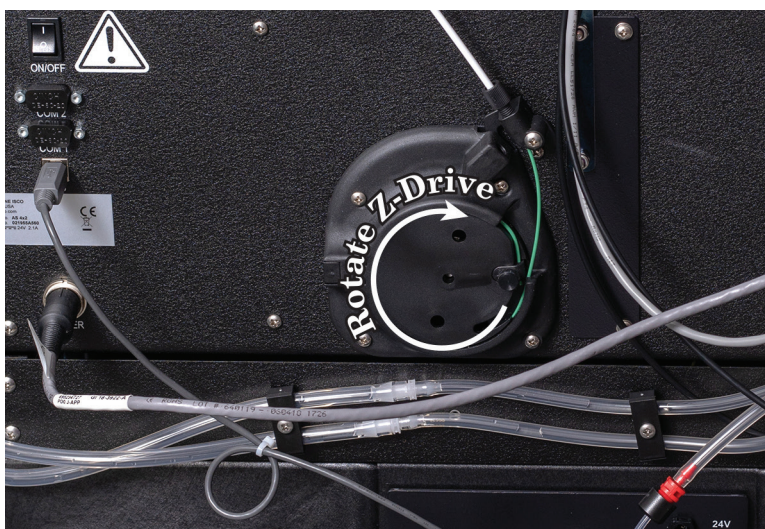


Figure 2-18 Z-Drive rotation

6. Mount the wash well by placing it into the receptacle located on the right-rear portion of the AutoSampler Module bed (Figure 2-19).

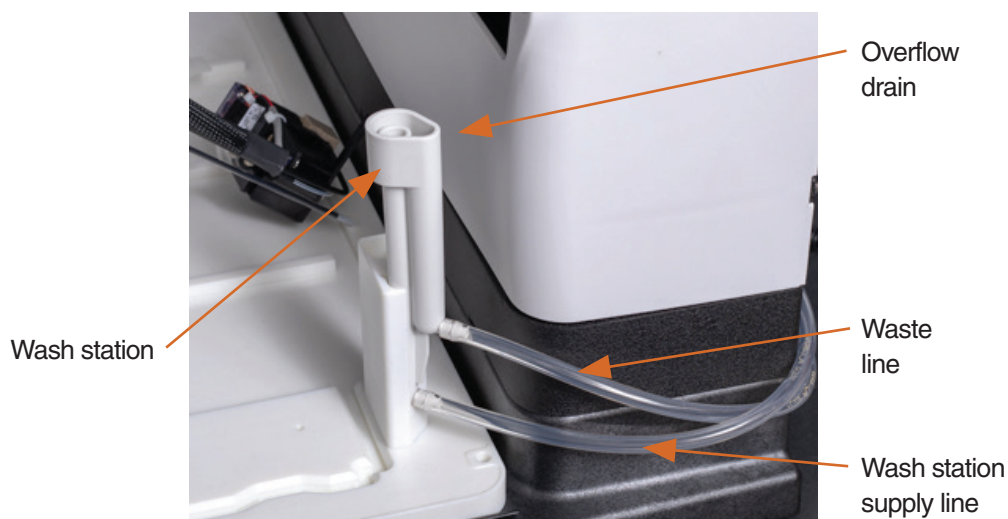


Figure 2-19 AutoSampler Module wash well with tubing attached (top tube is waste to port #2 while the bottom tube is supply port #3)

7. The wash well comes pre-plumbed to the peristaltic pump ports. If disconnected in the future, it is important to connect the wash well waste tube (upper tube on wash well labeled 2) to port “2” of the peristaltic pump and connect the wash well supply tube (lower tube on wash well labeled 3) to port 3 of the peristaltic pump.
8. Place the AutoSampler Module on the right side of the ACCQPrep.
9. Find the tube labeled “Wash Supply” connected to port “1” of the peristaltic pump on the back of the AutoSampler Module. The free end of the tubing (which has a metal weight) can be placed in the wash solution container or tee'd into a solvent supply line (Figure 2-20).

Note

The wash fluid peristaltic pump uses Pharm-A-Line™ tubing. Please ensure the wash fluid is compatible with this tubing, such as methanol.

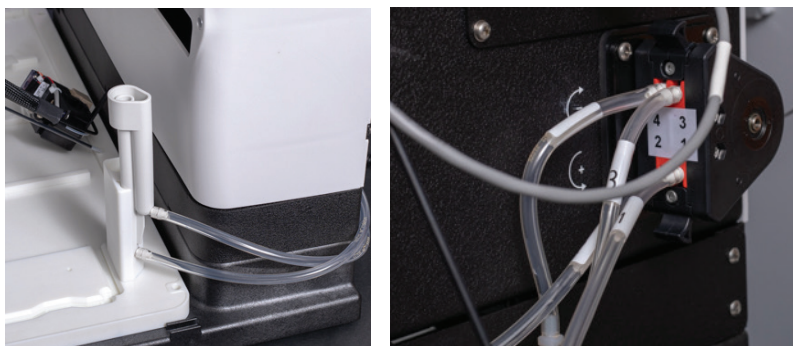


Figure 2-20 AutoSampler Module peristaltic pump with tubing correctly attached

- Connect the black tube labeled “XX” from the tee on the back of the AutoSampler to the attached 4-port cross on back of the ACCQPrep. (Figure 2-21).



Figure 2-21 AutoSampler waste connection point on ACCQPrep

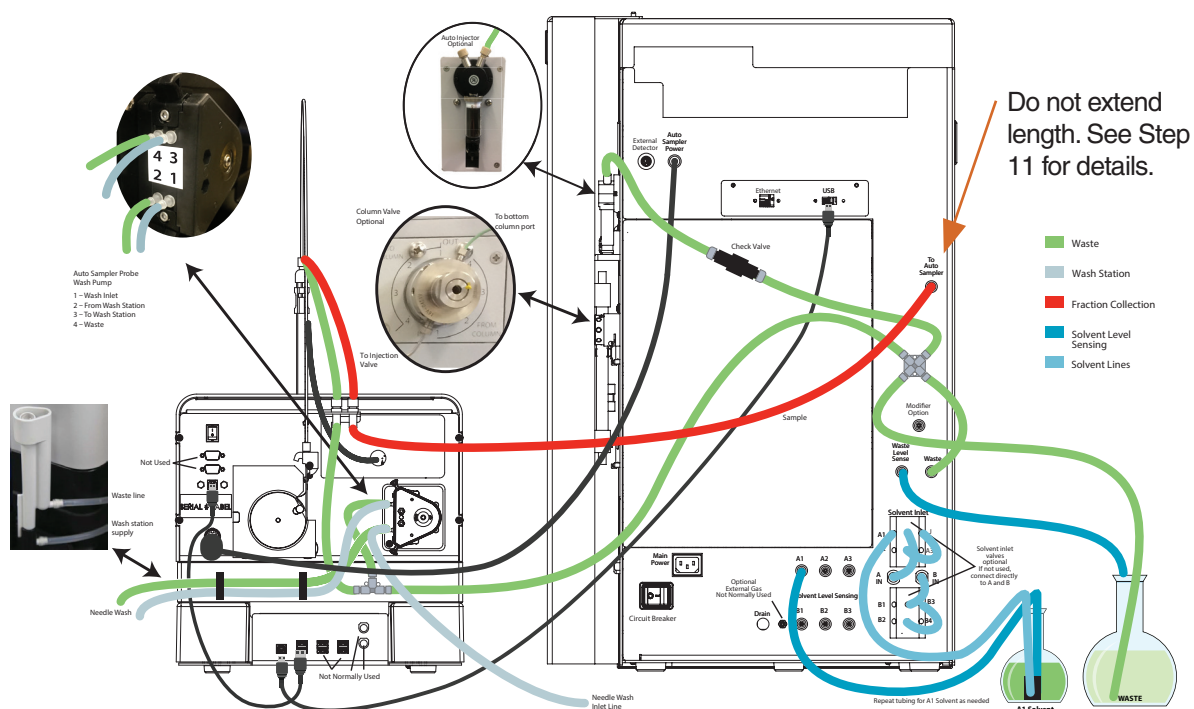


Figure 2-22 Tubing diagram of the AutoSampler connected to the ACCQPrep

11. Connect the AutoSampler tubing labeled “To ACCQPrep” to the connection on the ACCQPrep’s rear panel labeled “To AutoSampler”. The length of this tubing is critical to control the delay volume for fraction collection on the AutoSampler. The overall length of the tubing to the diverter valve should be XX” (XX cm).

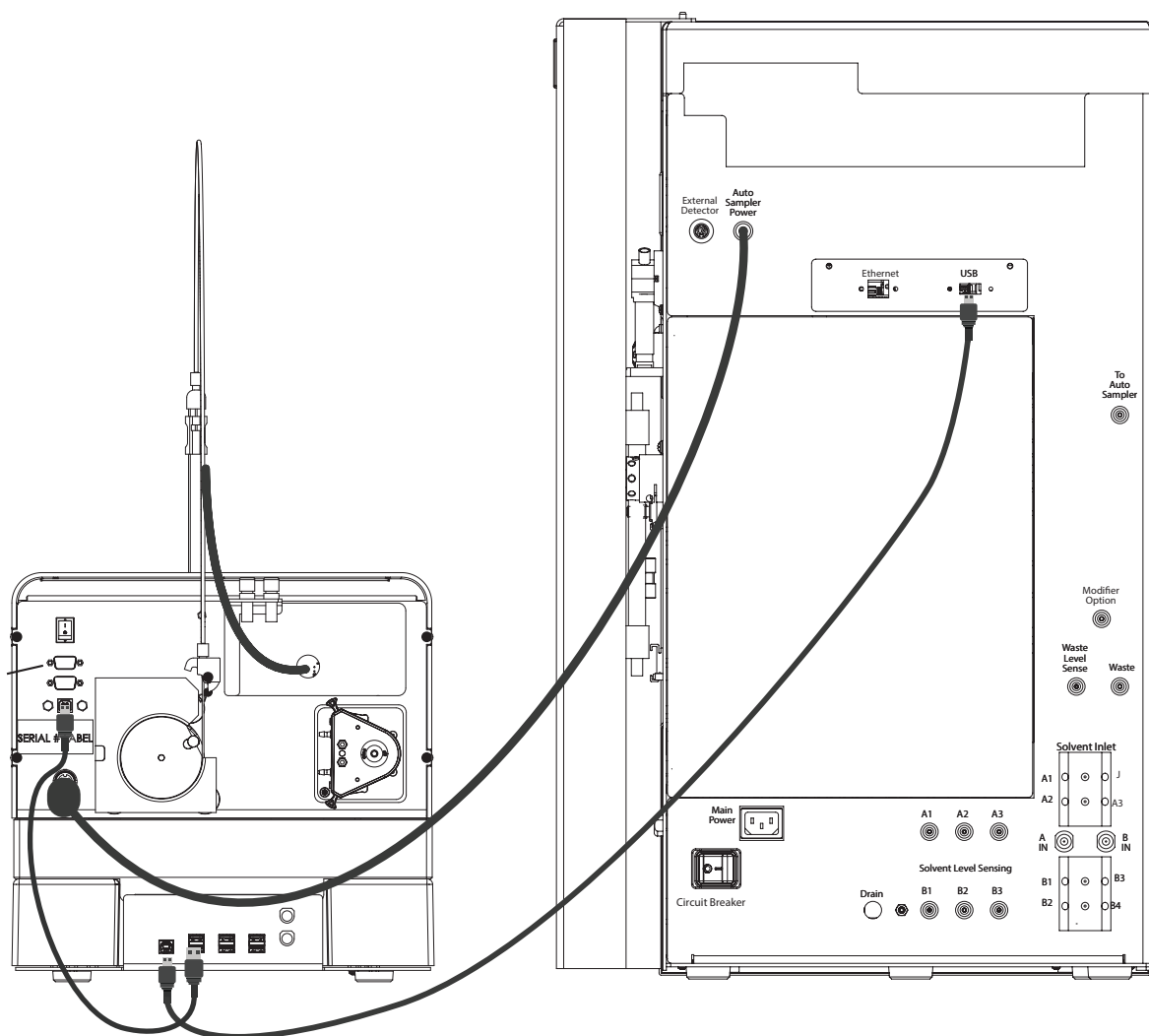


Figure 2-23 Diagram of the AutoSampler and ACCQPrep USB connections

12. Connect the long USB cable (provided) from the USB-A port on the back of the ACCQPrep to the USB-B port on the lower portion of the back panel on the AutoSampler Module (Figure 2-23).
13. The short USB cable connecting the USB-B port on the top portion of the back panel of the Autosampler Module to the USB-A port on the lower portion of the back panel of the Autosampler Module should already be pre-installed. If not, make connection as seen in Figure 2-23.

Note

The power supply accompanying the AutoSampler will not be used, the AutoSampler will receive its power supply through the ACCQPrep.

14. Power for the AutoSampler is provided by the ACCQPrep. On the rear panel of the ACCQPrep, the power cord is coiled and retained (Figure 2-24). Remove the retainer and route the power cable to the mating connector on the AutoSampler Module.

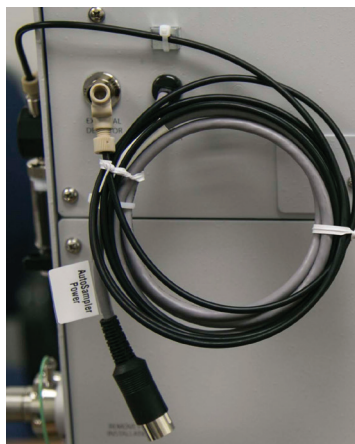


Figure 2-24 Power cable on the ACCQPrep

2.4.1 Establishing the Fluid Connections

To establish the necessary fluid connections:

1. Connect the sample probe fitting to the inlet port #2 of the injection valve on the ACCQPrep (Figure 2-25).

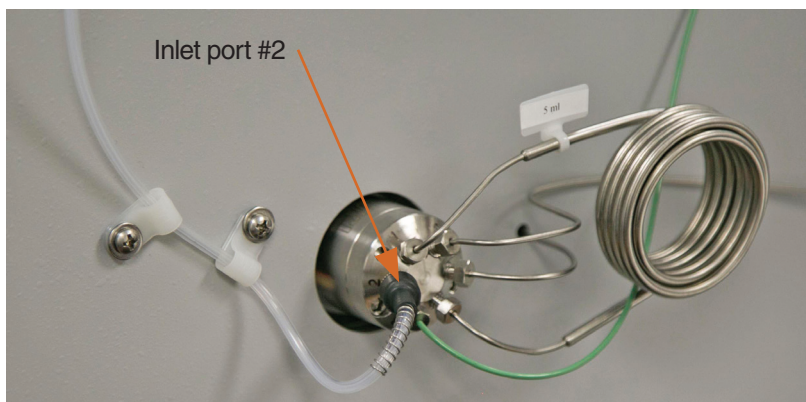


Figure 2-25 Probe fitting connected to inlet port #2

2. Secure the probe tubing to the side of the ACCQPrep by removing the housing screw, fitting the tubing bracket to the screw, and replacing the screw (Figure 2-25).
3. The tubing bracket should be affixed to the ACCQPrep so that the probe tubing threads vertically through the bracket. This ensures that the probe tubing will not be obstructed by the other end of the probe attachment (Figure 2-26).

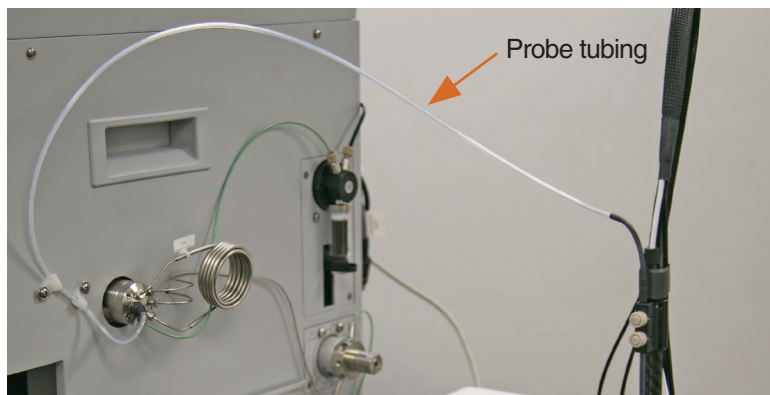


Figure 2-26 Probe tubing affixed to the side of the ACCQPrep

4. Install the included 18 mm test tube in the receptacle at the right rear corner of the AutoSampler platform just to the left of the wash well (Figure 2-27). Fluid in this tube will be used for bracketed solvent injections. In this technique, the injected sample is separated from the chromatographic solvents by a small amount of air and a “bracket” solvent during the sample loading and injection process.

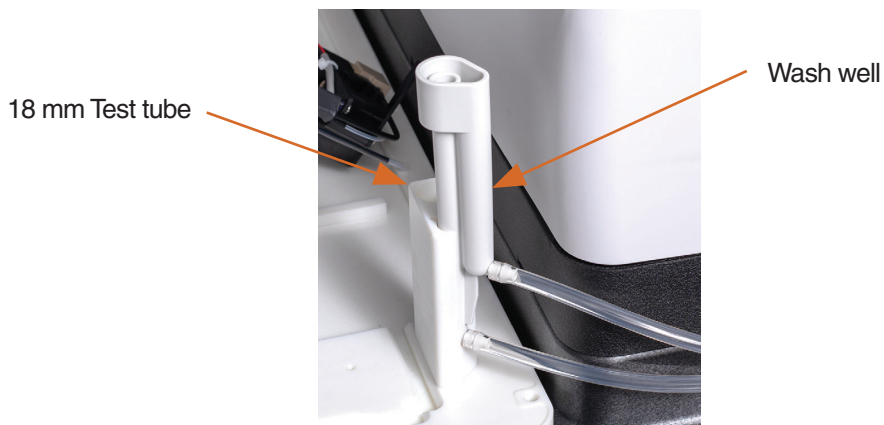


Figure 2-27 Location of the test tube and the wash well on the AutoSampler

To Power on the System

The AutoSampler gets its power from the ACCQPrep.

1. Turn On the power switch on the AutoSampler (Figure 2-28).



Figure 2-28 On switch for the AutoSampler

2. Turn on the power to the ACCQPrep. A red light on the AutoSampler will light up, the arm will move to the HOME position, and then the light will turn blue (Figure 2-29).



Figure 2-29 Power switch for the ACCQPrep

*Prime AutoSampler
Wash Station*

1. Ensure the wash station supply line is placed into a suitable solvent (typically the strong chromatographic solvent) and the waste line is routed to a suitable container.
2. Go to TOOLS | AUTOMATION MANUAL CONTROL, and select the START WASH button (Figure 2-30).

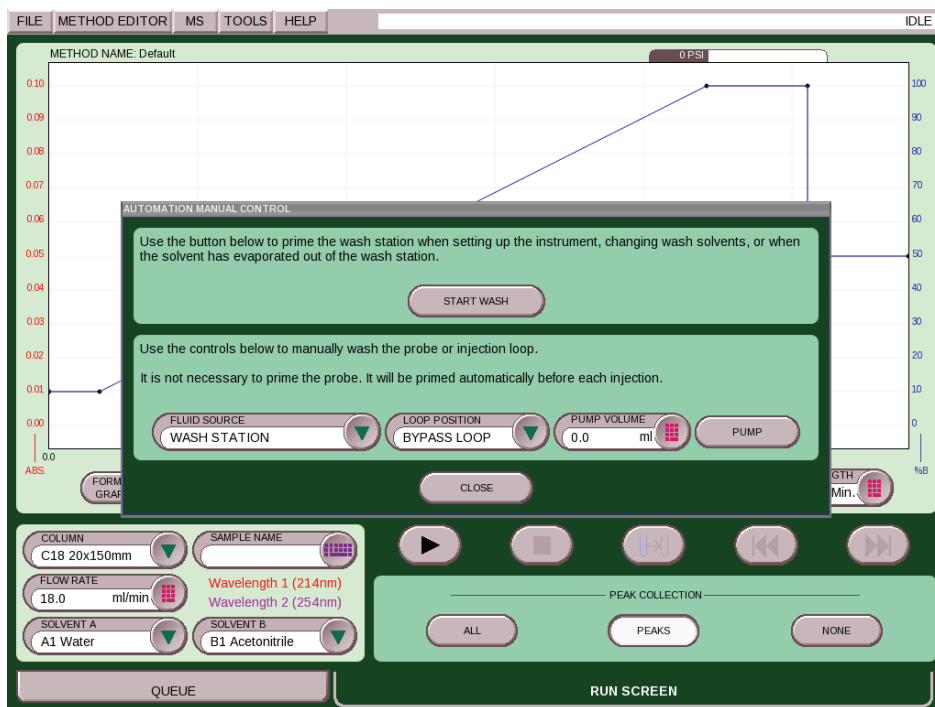


Figure 2-30 Screen of Start Wash button

3. Ensure the wash solvent is pumped into the center portion of the wash station and when full, the fluid drains into the overflow drain (Figure 2-31).

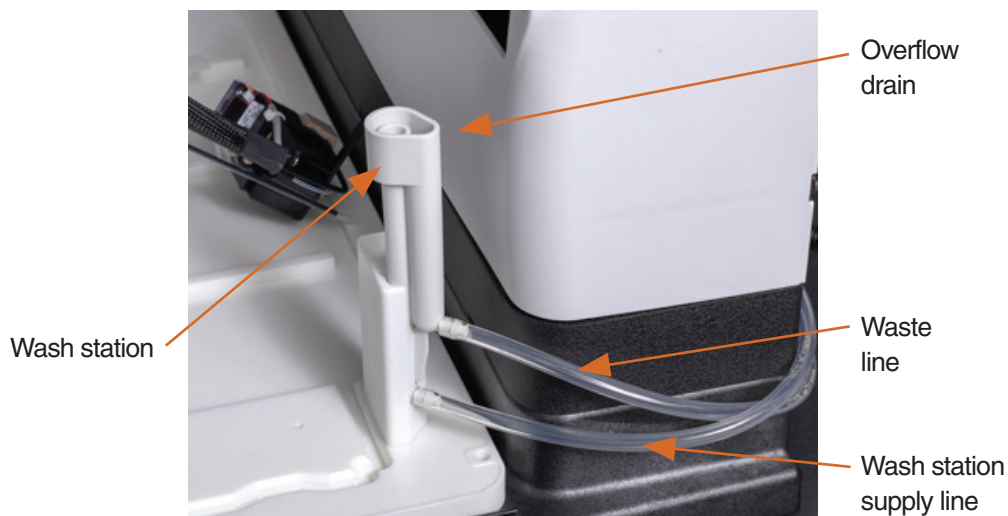


Figure 2-31 Wash station and overflow drain

2.5 Column Installation The ACCQPrep is compatible with HPLC columns ranging from 4.6 mm up to 50 mm diameter using typical 10-32 HPLC style fittings. Columns with different fittings may be used with adapters available from HPLC fitting manufacturers. Column lengths of up to 250 mm can be mounted to the instrument using the included hardware. The high pressure capability of the ACCQPrep may enable the use of longer columns than typical preparative HPLC systems, but these may be difficult to mount with the included hardware.

Larger diameter columns can also be used on the system at below optimal flow rates and will require the column to be supported outside of the instrument. Column packing materials of 5 or 10 μm work well on the ACCQPrep due to its high pressure capability, but any packing can be used if compatible with the flows and pressures supported by the ACCQPrep.

2.5.1 Column Mounting

The ACCQPrep includes hardware to support 4.6 mm, 10 mm, 20 mm (or 21mm), 30 mm, or 50 mm column diameters. 40 mm columns can be mounted on the system using a “universal” column mount (P/N 60-5234-636 not included) (Figure 2-32).

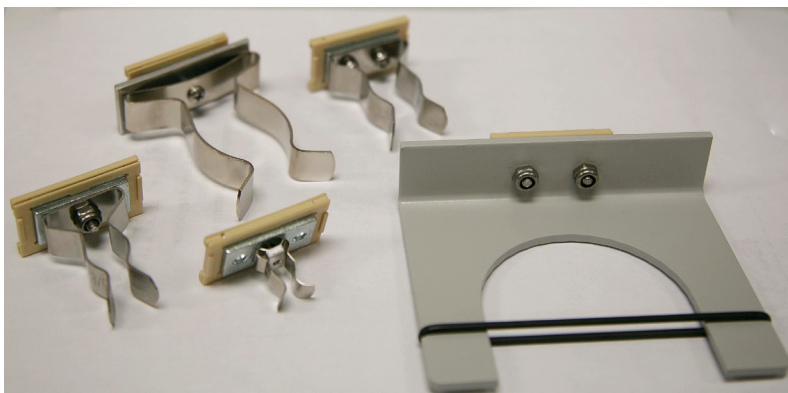


Figure 2-32 Column Mounting Parts

To install a column onto the ACCQPrep:

1. Select the proper sized column mount and simply slip the mount into one of the two column mounting tracks on the side of the ACCQPrep (Figure 2-33).



Figure 2-33 Column track on the ACCQPrep

2. Remove the union connecting the column fluid supply line to the column effluent line.
3. Connect the line from the injection valve to the inlet of the column and connect the remaining tubing to the column outlet (Figure 2-34).



Figure 2-34 Column with inlet and outlet lines connected

Note

Metal tubing and fittings for the column connection are recommended. The high pressure capability of the ACCQPrep could cause a rupture if polymer tubing or fittings are used and a blockage occurs. If you would like to use polymer tubing and fittings, we recommend the column be configured with a lower pressure limit in the PeakTrak® software.

If a guard column is desired, this can be connected between the injection valve and the column inlet. This may require an additional column mount and tubing which is not included. A kit containing a complete set of column mounts can be obtained (P/N 60-5234-790). In addition an assortment of tubing lengths and nuts can be obtained (P/N 60-5239-025).

2.5.2 Column Configuration

The ACCQPrep software supports default methods for individual columns. This allows easy selection of default methods with a single key touch. This process is described in section 3.4.1.

2.5.3 Column Select Valve (Optional)

The ACCQPrep's efficiency can be enhanced by the addition of the Column Select Valve Module (CSV-4). This optional accessory supports up to four columns on the system that can be selected for a separation from a simple drop down menu. When coupled with the AutoSampler, every programmed sample can utilize the column best suited for each sample. This assumes the fluids used for each column are miscible and small amounts are compatible in sequentially used columns.

Note

Mixed reverse phase and normal phase solvents may require manual flushing of the pumping system between separations.

- If the CSV-4 was ordered with the instrument, it will arrive installed in the ACCQPrep.
- If you decide to add this capability at a later time, this can be easily accomplished in a manner of minutes following the instructions included with the valve upgrade (PN 68-5237-102).

Columns are mounted onto the CSV-4 in the same manner as a system without the CSV-4 (Section 2.4.1). The CSV-4 comes with additional column mounts and an assortment of precut tubing and fittings to support the additional columns. When the columns are connected, the inlet and outlet of the columns are connected to the column select valve instead of directly to the injection valve. The columns are identified on the CSV-4 as 1 through 4 and can be assigned a meaningful name in the PeakTrak software (such as 20x150 Hi pH).

If you would like to flush the internal tubing of the ACCQPrep between solvents (such as when changing from a low pH to a high pH), one of the column positions (such as position 4) can be connected with a length of tubing. For ease of use, the column defined for the position could be called “Flush”. When changing from a low pH to a high pH solvent, a line can be placed into the AutoSampler queue to use a method with neutral pH solvent to flush the fluid lines. This assumes that the system has the CSV-4 option installed.

2.6 Installation Troubleshooting

ACCQPrep won't turn on using the front panel power switch—

- Ensure power cord is connected.
- Verify that rear panel circuit breaker is in the “1” position. (The breaker looks like a white rocker switch on the rear panel near the cord inlet.) Switch breaker to off and then back on to ensure the circuit breaker is reset.
- Ensure the lab power connection has power.

Error: “Unable to communicate with pump controller module”—

- Check the pump communication connector at the top, left corner and the pump power connector at the top right corner of the pump subassembly. Ensure the connectors are oriented so that the locking tab is at the top.

AutoSampler control not visible on the ACCQPrep software—The ACCQPrep only loads the AutoSampler control features if it can detect the presence of the AutoSampler. Check the AutoSampler pilot light (upper right corner of AutoSampler) to determine the next step.

- If the light is off:
 - Verify that the AutoSampler power switch is on. This is located on the rear panel of the AutoSampler.
 - Check that the AutoSampler power cord connects from the ACCQPrep to the power connection on the rear panel of the AutoSampler.
- If the light is blue the AutoSampler is functioning but not communicating with the ACCQPrep:
 - Check the USB cable connection from ACCQPrep to the square USB connector along the rear, bottom edge of the AutoSampler (Figure 2-22).
 - Check the USB cable connection from the lower, rear panel of the AutoSampler to the USB connector on the upper left corner of the rear panel (while viewing the AutoSampler from the rear panel).
 - Recycle the power on the ACCQPrep. The PeakTrak software only checks for the presence of the AutoSampler on power up. If the AutoSampler is powered up after the ACCQPrep, the software will not detect the presence of the AutoSampler.
- If the light is red the AutoSampler is not able to reach the home position:
 - The sampler arm is not able to move to the left rear corner to home. Verify that there is nothing blocking its motion.
 - Inspect the flag on the rear of the probe mechanism to ensure the flag is perpendicular to the rear panel. It must enter into a receptacle to reach the home position. Its mounting screw may be tightened, but too much torque could break the plastic screw.
 - The sample probe is unable to reach the top of its travel. Verify that there is nothing blocking its motion.

Installation Qualification



For ACCQPrep HP150

The following tasks are to be performed upon installation of the Teledyne ISCO ACCQPrep HP150. The following procedures should be performed in accordance with ACCQPrep HP150 Installation Guide (#69-5233-800)

Description of task	Yes	No	Comment
Are there any visible signs of damage to the box?	<input type="checkbox"/>	<input type="checkbox"/>	
Have all items of the order been delivered?	<input type="checkbox"/>	<input type="checkbox"/>	
Unpack the unit	<input type="checkbox"/>	<input type="checkbox"/>	
Are the solvent and waste lines present?	<input type="checkbox"/>	<input type="checkbox"/>	
Are the solvent and waste lines connected?	<input type="checkbox"/>	<input type="checkbox"/>	
Are the correct collection racks present?	<input type="checkbox"/>	<input type="checkbox"/>	
Where is the instrument located? (Building name, Lab #, FC #)	<input type="checkbox"/>	<input type="checkbox"/>	
Position the system	<input type="checkbox"/>	<input type="checkbox"/>	
Remove fraction arm shipping bracket	<input type="checkbox"/>	<input type="checkbox"/>	
Install system pumps	<input type="checkbox"/>	<input type="checkbox"/>	
Install Autosampler (if applicable)	<input type="checkbox"/>	<input type="checkbox"/>	
Is the auto-prime knob fixed securely?	<input type="checkbox"/>	<input type="checkbox"/>	
Connect ELSD gas (optional)	<input type="checkbox"/>	<input type="checkbox"/>	
Install Purlon (optional)	<input type="checkbox"/>	<input type="checkbox"/>	
Connect power cords	<input type="checkbox"/>	<input type="checkbox"/>	
Order number	Company Name		
Customer Name	Customer Signature		
Date			
Installer Name	Installer Signature		
Date			



Operation Qualification



For ACCQPrep HP150

The following tasks are to be performed after the installation of the ACCQPrep HP150 and all accessories:

Description of task	Yes	No	Comment
Does the system power up?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the fraction arm go to the "left rear" position?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the touch screen work?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the RFID identification for racks work?	<input type="checkbox"/>	<input type="checkbox"/>	
Program the correct date and time	<input type="checkbox"/>	<input type="checkbox"/>	
Does the LAN connection work? (if required by customer)	<input type="checkbox"/>	<input type="checkbox"/>	
Does the USB port work for exporting files?	<input type="checkbox"/>	<input type="checkbox"/>	
Configure system settings depending on user preference	<input type="checkbox"/>	<input type="checkbox"/>	
Install system solvents	<input type="checkbox"/>	<input type="checkbox"/>	
Prime the pumps	<input type="checkbox"/>	<input type="checkbox"/>	
Prime the autosampler wash station (if installed)	<input type="checkbox"/>	<input type="checkbox"/>	
Does the autosampler align to test tube 1? Perform the test in automated manual control by pumping 1 mL of solvent mix	<input type="checkbox"/>	<input type="checkbox"/>	
Make up test mix (UTM) and run sample according to Instruction Sheet #69-5233-885, ACCQ Prep Verification Instructions	<input type="checkbox"/>	<input type="checkbox"/>	
Does the UV detection work as expected?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the fraction arm move and collect peaks into test tubes?	<input type="checkbox"/>	<input type="checkbox"/>	
Are UTM results consistent with data Table 1 ?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the 214 nm UV signal of Peak 1 > Peak 2?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the active solvent level sensing activate with low solvent?	<input type="checkbox"/>	<input type="checkbox"/>	
Does the active waste level sensing activate with full waste?	<input type="checkbox"/>	<input type="checkbox"/>	
Order number	Company Name		
Customer Name	Customer Signature		
Date			
Installer Name	Installer Signature		
Date			

Table 1: Expected Results for UTM Verification, Time of Peaks 1 and 2

ACCQPrep HP150	Peak 1 (±0.5 min) Minutes, MeCN	Peak 2 (±0.5 min) Minutes, MeCN	Peak 1 (±0.5 min) Minutes, MeOH	Peak 2 (±0.5 min) Minutes, MeOH
UV/ UV-VIS	2.9	4.5	4.6	6.4
with Purlon	2.9	4.5	4.6	6.5
With ELSD	3.2	4.9	4.9	6.8
With ELSD and Purlon	3.2	4.9	4.9	6.9



DECLARATION OF CONFORMITY



Application of Council Directive: 2014/30/EU – The EMC Directive
2014/35/EU – The Low Voltage Directive
2011/65/EU – The RoHS Directive

Manufacturer's Name: Teledyne Isco
Manufacturer's Address: 4700 Superior, Lincoln, Nebraska 68504 USA
Mailing Address: P.O. Box 82531, Lincoln, NE 68501

Equipment Type/Environment: Laboratory Equipment for Light Industrial/Commercial Environments

Trade Name/Model No: ACCQPrep HP 125 & ACCQPrep HP 150

Year of Issue: 2017

Standards to which Conformity is Declared:	EN 55011:2016	EMC Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use
	EN 61326-1:2013	EMC Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use
	EN 61010-1:2010	Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use
	EN 61010-2:2015	Safety requirements for electrical equipment for measurement, control and laboratory use - Part 2-081: Particular requirements for automatic and semi-automatic laboratory equipment for analysis and other purposes
	EN 61000-3-2:2014	Limits for harmonic current emissions (equipment input current ≤ 16 A per phase)
	EN 61000-3-3:2013	Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A

I, the undersigned, hereby declare that the design of the equipment specified above conforms to the above Directives and Standards as of May 9, 2019.

Sam Ramey
USA Representative



Sam Ramey
Director of Engineering
Teledyne Isco, Inc.
4700 Superior Street
Lincoln, Nebraska 68504

Phone: (402) 464-0231
Fax: (402) 464-3799

60-5232-256
Rev B

产品中有毒有害物质或元素的名称及含量
Name and amount of Hazardous Substances or Elements in the product

部件名称 Component Name	有毒有害物质或元素 Hazardous Substances or Elements					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二联苯 (PBDE)
液晶显示 LCD Display	O	O	O	O	O	O
线路板 Circuit boards	O	O	O	O	O	O
接线 Wiring	O	O	O	O	O	O
内部电缆 Internal Cables	O	O	O	O	O	O
主电源线 Line Cord	O	O	O	O	O	O
步进电机 Stepper Motor	O	O	O	O	O	O
氙气灯 Deuterium lamp	O	O	O	O	O	O
阀体 Valve Body	O	O	O	O	O	O

产品中有毒有害物质或元素的名称及含量：Name and amount of Hazardous Substances or Elements in the product

O: 表示该有毒有害物质在该部件所有均质材料中的含量均在ST/ 标准规定的限量要求以下。

O: Represent the concentration of the hazardous substance in this component's any homogeneous pieces is lower than the ST/ standard limitation.

X: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出ST/ 标准规定的限量要求。

(企业可在此处，根据实际情况对上表中打“X”的技术原因进行进一步说明。)

X: Represent the concentration of the hazardous substance in this component's at least one homogeneous piece is higher than the ST/ standard limitation.

(Manufacturer may give technical reasons to the “X”marks)

环保使用期由经验确定。

The Environmentally Friendly Use Period (EFUP) was determined through experience.

生产日期被编码在系列号码中。前三位数字为生产年(207 代表2007年)。随后的一个字母代表月份：A 为一月，B为二月，等等。

The date of Manufacture is in code within the serial number. The first three numbers are the year of manufacture with the second digit removed (218 is year 2018) followed by a letter for the month. "A" is January, "B" is February and so on (I is not used).