

CDS Automotive

FX3030 SERIES REFRIGERANT RECOVER / RECYCLE / VACUUM AND RECHARGE UNIT

Covered under US Patent 8,082,750 and other patents pending.

Certified by ITS under J2911 to meet SAE J3030 for R-134a and R-1234yf.

Certified by ITS under SAE J2911 to meet high voltage compressor service per SAE J3030.



OPERATION MANUAL

Models: FX3030

Unit Consists Of:

- FX3030 Automotive Refrigerant Management Center
- Low and High side service hoses R-134a and R1234yf
- Low and High side R-134a and R1234yf Service Couplings
- Tank Refill Adapters Two for R134a and one for R1234yf.
- 41 cubic Inch CPS filter drier (Replacement part number FX3030X1)
- 1 lb (454 gram) check weight
- · Operation manual
- 1 Roll 2.25" x 50" Thermal Paper
- · Built-in Refrigerant Identifier
- 50lb DOT Tank/Filter and Hose Sets for R134a (Installed) and R1234yf

End user to provide:

- Refrigerant oil/dye injection system
- Refrigerant

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Specifications

| | FX3030 Specifications |
|-------------------------|--|
| Power | 115V 60Hz 1Ph |
| Compressor | 2/3 HP Twin Cylinder Oil-less |
| Vacuum Pump | 50 Micron Rated 6 CFM |
| Gauges | 3.5" Low side, 30 in/Hg to 250 psi; High Side, 0 to 600 psi |
| Hoses | 120" barrier type |
| Refrigerant | R-134a R1234yf |
| Storage Tank Assemblies | 2 x 50 lb DOT with processor controlled heat band |
| Display | 7" Touch Screen with 256 color graphical display |
| Printer | 2.25" Thermal Printer |
| Construction | Sheet metal frame adorned by injection and rotary molded plastic. Two handle bars, 4" front casters and 10" foam-filled rear tires for exceptional maneuverability |

INTRODUCTION

The CPS FX Series Refrigerant Management Centers are designed to revolutionize A/C equipment ease and endurance. From the seven inch 256 color touch screen display, to the patented and patent-pending oil-less compressor and motorized ball valves, we are confident the FX Series equipment will quickly impress you with its ease of use and superior functionality.

There are many features built into the FX Series equipment. Below are the most noteworthy:

- A/C System Capacities Database—provides refrigerant/oil type and capacities for most vehicles sold in North America since 1994.
- Multiple Language Support—the FX series comes standard in English. Other languages will be made available and easily installed via an SD card.
- **Heated tank**—to help reduce the times the vehicle AC system must be started in order to complete charging, we have added a tank heating blanket to every FX machine.
- Care and Maintenance—the FX Series designers made ease of maintenance a priority. The vacuum pump oil drain and fill ports are accessible from the outside no disassembly is required. The refrigerant filter is located on top of the tank and machines Graphical User Interface walks you through the filter replacement process.

CPS is pleased to bring to the automotive technician the many innovations commercial HAVC/R technicians have enjoyed for years. We hope you will enjoy using your new FX Series Refrigerant Management Center.

GENERAL SAFETY

Only qualified service personnel should operate this unit. Most states, countries, etc... may require the user to be licensed. Please check with your local government agency.

DANGER – this unit's recovery tanks contains liquid refrigerant. Overfilling of a recovery tank may cause a violent explosion resulting in severe injury or even death. Do not disable the overfill safety features. Always make sure the correct tank is on the scale.

DANGER - Only use the recovery tanks provided with this unit. See distributor for replacement tanks.

DANGER - Avoid breathing refrigerant vapors and lubricant vapor or mist. Breathing high concentration levels may cause heart arrhythmia, loss of consciousness, or even cause suffocation.

DANGER - Electrical shock hazard!!!! Always disconnect power source when servicing this equipment.

DANGER - DO NOT USE COMPRESSED AIR TO PRESSURE TEST OR LEAK TEST THE UNIT OR VEHICLE AIR CONDITIONING SYSTEM. Mixtures of air and refrigerant are combustible at elevated pressures. These mixtures are potentially dangerous and may result in fire or explosion causing personal injury or property damage.

CAUTION - all hoses may contain liquid refrigerant under pressure. Contact with refrigerant may cause frostbite or other related injuries. Wear proper personal protective equipment such as safety goggles and gloves. When disconnecting any hose, please use extreme caution.

CAUTION - avoid breathing refrigerant vapors and/or lubricant mist. Exposure may irritate eyes, nose, throat, and skin. Please read the manufacturers Material Safety Data Sheet for further safety information on refrigerants and lubricants.

CAUTION - do not use this equipment in the vicinity of spilled or open containers of gasoline or other flammable substances. Make certain that all safety devices are functioning properly before operating the equipment.

CAUTION- to reduce the risk of fire, avoid the use of extension cords thinner than NO. 16 awg. (1,5mm2). The following table references extension cord wire size vs. maximum length:

| Cord Gauge (awg) | Cord Length (Ft) |
|------------------|------------------|
| 16 | 10 |
| 14 | 20 |
| 12 | 25 |

CAUTION- do not use this equipment in the vicinity of spilled or open containers of gasoline or other flammable substances. Make certain that all safety devices are functioning properly before operating the equipment.

CAUTION- This equipment should be used in locations with mechanical ventilation that provides as least 4 air changes per hour.

CAUTION- RISK OF INJURY, the equipment should only be operated by certified personnel.

CAUTION- Use only CPS certified hose assemblies on this unit. The hose assemblies are made to proper length, contain shut offs where required and have direct affect on the proper operation of this equipment.

CAUTION- R-1234yf is a Class A2L flammable refrigerant. Use in well ventilated areas. Minimize leakage from the unit. Periodically check unit for leaks.

ICON LIBRARY

| ICON NAME | DESCRIPTION | IMAGE |
|-------------------------|---|----------------------|
| | | AIR |
| AIR PURGE | Tap to select AIR PURGE | PURGE |
| AIR PURGE | The AIR PURGE icon indicates that the unit is purging air from the tank | |
| AMERICAN | Tap to select AMERICAN Units | LES . |
| BAR | Tap to select BAR | BAR |
| BOTH COUPLERS | Tap to select BOTH couplers | |
| ° C | Tap to select CELSIUS | °C |
| CALIBRATION | Tap to select CALIBRATION | CALIBRATION |
| CHANGE TANK | The CHANGE TANK icon notifies the user to change the tank | |
| CHANGE UOM | Tap to change the unit of measurement | KISS LAS CRUMS OZ |
| CHARGE | Tap to perform a CHARGE service | ₹ |
| CHARGE COMPLETE | Indicates that the CHARGE service is COMPLETE | √ \$ ® |
| Charge Low Side | Press to select Low Side Charging | <u>-</u> |
| CHECK SCALE COMPLETE | The SCALE CHECK COMPLETE notifies users that a scale check is complete | ፚ⁄ |
| Close Ball vale | Press to close ball valve | |
| CLOSE COUPLER | The CLOSE COUPLER icon notifies the user to close the coupler during a recharge service | |
| CLOSE HP | Notifies the user to CLOSE HP valve during a CHARGE service | **** |
| CLOSEVALVE | Notifies user to CLOSE VALVE | B • B |
| COMPLETE | Indicates that a given operation is COMPLETE | |
| CONNECT HP | Notifies user to connect HP port during tank refill | |
| CPS FILTER | CPS FILTER | • <u>CD2.</u> • |
| DATABASE | Tap to access the vehicle DATABASE | |
| DISCONNECT COUPLERS | Notifies the user to DISCONNECT COUPLERS | 1 7 |
| DRAIN OIL | The DRAIN OIL icon notifies the user that oil is draining from the vehicle | 925- |
| ERROR | Displays when there is an ERROR | 3 |
| ° F | Tap to select FARENHEIGHT | ۰F |
| FAILED | Indicates that a given operation FAILED | |
| FILTER | Displays the current status of the filter life. | |

| ICON NAME | DESCRIPTION | IMAGE |
|------------------------------|---|--|
| FILTER CHANGE | Displays when a filter change is | |
| FILTER GRANGE | required | |
| FILTER CHANGE | Tap to CHANGE FILTER | |
| FILTER CHANGE | Tap to CHANGE FILTER | |
| FULL CYCLE COMPLETE | Indicates that the FULL CYCLE service is COMPLETE | 15 9 |
| GRAMS | Tap to select GRAMS as UOM | PRAIS |
| HELP | Tap to launch the HELP Menu | ? |
| HELP | Provides Firmware version | ? |
| HIGH COUPLER | Tap to select the HIGH SIDE coupler only | |
| номе | Tap to launch the HOME screen | 合 |
| INJECTION | Notifies the user to INJECT oil and/or dye at this point in the service | ¥ €A |
| INTERNATIONAL | TAP to select INTERNATIONAL UOM's | |
| KGCM2 | Tap to select KGCM2 | KGCM2 |
| KGS | Tap to select KGS as UOM | 155 |
| КРА | Tap to select KPA | КРА |
| LANGUAGE | Tap to select LANGUAGE | 9 |
| LBS | Tap to select LBS as UOM | LES |
| LBS:0Z | Tap to select LBS:OZ as UOM | L85 (II. |
| LEAKCHECK | Indicates that a LEAK CHECK is being performed | ${oldsymbol \infty}$ |
| LOW COUPLER | Tap to select the LOW SIDE coupler only | |
| MAINTENANCE | Tap to launch the MAINTENANCE menu | * |
| MAINTENANCE FILTER CHANGE | Tap to CHANGE FILTER | (m) |
| MANIFOLD | Tap to launch the MANIFOLD function | 00 |
| METRIC | Tap to select METRIC UOM's | ASS. |
| МРА | Tap to select MPA | МРА |
| NOT NOW | Tap to postpone suggested operation | <u>Q</u> |
| Open Ball Valve | Press to Open Ball Valve | To the second se |
| OZ | Tap to select OZ as UOM | Q Q |

ICON LIBRARY

| ICON NAME | DESCRIPTION | IMAGE |
|--------------------------------|---|--|
| PLACE WEIGHT | Notifies user to PLACE WEIGHT on the scale | * |
| PRINT | Tap to PRINT a report of the service | |
| PSIG | Tap to select PSIG | PSIG |
| PT | Tap to select PRESSURE TRANSDUCER | PT |
| PURITY | PURITY | PURITY |
| QUIT | Tap to quit the current function | $\left(\begin{array}{c} \mathbf{X} \end{array} \right)$ |
| R1234yf | Tap to select R1234yf Refrigerant | A 1357 |
| R134a | Tap to select R134a Refrigerant | |
| R22 | Tap to select R22 Refrigerant | 672 |
| R407 | Tap to select R407 Refrigerant | |
| RECOVERY | Tap to perform an RECOVERY service | √ \$ |
| RECOVERY COMPLETE | Indicates that the RECOVERY service is COMPLETE | * |
| REFRIGERANT | REFRIGERANT | |
| REFRIGERANT CHANGE | Tap to CHANGE REFRIGERANT | 8≃8 |
| REGISTER | Tap to REGISTER unit | |
| RELAY | Tap to select RELAY | 1 |
| REMOVE WEIGHT | Notifies user to REMOVE WEIGHT from scale | * <u>*</u> |
| SAE | Tap to select SAE | SAE |
| SAE CHARGE | Tap to perform a SAE CHARGE service | √ \$ |
| SAE CHARGE COMPLETE | Indicates that the SAE CHARGE service is COMPLETE | √ 5∰ |
| SCALE | Tap for SCALE functions | B |
| SCALE CHECK | Tap to perform SCALE CHECK | ¥ |
| SCALE CHECK | The SCALE CHECK icon notifies users that a scale check is in progress | T |
| FULL CALIBRATION | Tap to perform full calibration | # |
| SCALE ZERO | Tap to RE-ZERO the scale | ** |
| SERVICE | Tap to select SERVICE | SERVICE |
| SERVICE HOSES BEING FLUSHED | Indicates that the SERVICES HOSES are BEING FLUSHED | M |
| | | |

| ICON NAME | DESCRIPTION | IMAGE |
|--------------------------|---|--------------|
| SET TIME | Tap to SET TIME | 0 |
| SETTINGS | Tap to launch the SETTINGS screen | O S |
| SETUP | Tap to launch the SEUP menu | ့ 8 |
| SPEAKER | Tap to enable sound | 4))) |
| START AC | Notifies user to start vehicle and turn on AC during service | |
| TANK | Indicates the level of refrigerant in the TANK | |
| TANK FULL | Notifies user that TANK is FULL | |
| TANK HOSE | | •\\÷•\\ |
| TANK REFILL | Tap to perform a TANK REFILL | |
| Tank Tare Setup | Press to change tank weight and WC | |
| TANKS REFILL COMPLETE | Indicates that the TANK REFILL is COMPLETE | 1 |
| TARE | Tap to select TARE | TARE |
| TURN UPSIDE Down | Notifies user to TURN TANK UPSIDE DOWN during tank refill | Jan 1 |
| UNIT | Tap to select UOM | |
| UPDATE | Tap to UPDATE | ② |
| UPGRADE | Tap to select UPGRADE | UPGRADE |
| UPKEEP | Tap to launch the UPKEEP menu | * |
| VACUUM | Tap to perform a VACUUM service | ∠ \$ |
| VACUUM COMPLETE | Indicates that the VACUUM service is COMPLETE | 4 |
| VOLUME | Tap to Choose VOLUME UOM | VOLUME |
| WARNING | The WARNING icon appears to caution users of a potential hazard | |
| WEIGHT | Tap to Choose WEIGHT UOM | |
| ZERO | Tap to RE-ZERO the pressure transducer | → 0◆ |
| ZEROING | Indicates that the unit is ZEROING | → 0 ← |

FIRST TIME START UP

1. Remove the black tank cover on the back of the unit by unscrewing the two thumb screws located on each side of the cover. Remove the protective packaging from between the storage tank and the scale. See Figure A below.



Figure A: Shipping support to be removed before start up.

2. Plug the unit into the proper power source. Push the blue lighted power switch. All functions will be operated directly from the 7" Touch Screen.

Registration: To register your machine for warranty, please visit:

http://motorvac.com/FXRegister

- 3. Press the key to enter your shop information into your unit. This information will appear on certain screens and on print outs. Pressing will cause the unit to proceed with set up without personalizing your unit. Selecting will cause the unit to ask you later if you want personalize your FX3030.
- 4. When personalization has been completed, press OK and the unit will proceed through self-calibration. When complete, the Home screen will appear.
- 5. A "NO PRESSURE DETECTED IN THE TANK!" message will appear. Hit Continue to proceed.
- 6. A "STILL NO PRESSURE DETECTED!" message will appear. Hit Continue to proceed.
- 7. The main menu will appear. Hit the tion and refer to page 8 of the Operators Manual for further instructions on how to fill the tank.

Congratulations, your FX Series Refrigerant Management Center is ready to use.



Note: Each time the machine is turned on it MUST be disconnected from a vehicle

THEORY OF OPERATION

FX Series Refrigerant Management Centers feature a touch screen graphical user interface that makes operation a breeze. In this section, we will cover each operation and what the machine is actually doing. While the screen provides much of this information during operation, the descriptions below will offer more detail than can be displayed.



Recovery

Select "Recovery" if you want to recover and recycle refrigerant currently in the vehicle prior to opening the system for repair. This process will begin by checking the refrigerant in the vehicle system. If the refrigerant is at least 98% pure R1234yf or R-134a, recovery will commence automatically. If the refrigerant is less than 98% pure, the recovery function will not be allowed and the machine will vent the hoses to prevent internal contamination of the machine and storage tank.

The recovery process creates a vacuum on the vehicle system, pulling the refrigerant into a distillation chamber. The chamber has a coil inside that is heated by compressor outlet gas. This process distills the refrigerant (turns it to gas) and separates liquids and debris from the refrigerant. The refrigerant passes through the chamber and compressor and is condensed into a liquid before coming to rest in the internal storage tank.

The process ends when the machine detects that the system is void of refrigerant. The machine will display the amount recovered throughout the process and at the end. The ending amount may be printed by pressing the licon visible on the Home screen after recovery is completed.



Vacuum

Select "Vacuum" if the vehicle system is void of refrigerant and is ready to be recharged. Evacuating the vehicle utilizes the FX Series' 6 CFM vacuum pump to pull air and boil moisture from the AC system. A specific vacuum time may be selected, or one of the preset times may be used. If a vacuum time of 15 minutes or greater is selected, vacuuming will be followed by a 2 minute leak test (vacuum decay test).



Charge

Select "Charge" to refill the vehicle system to its designed capacity. Enter the desired charge amount. An A/C Database feature is built into the FX3030, This can be accessed by pushing the key.

The charging sequence begins with a 10-minute vacuum leak test. This is an SAE requirement in SAE J2843 (R1234yf systems only). If the system passes the vacuum leak test, the machine will charge the system to 15% of the selected charge. At this time, an electronic leak detector meeting SAE J2913 for R1234yf is used to leak test the evaporator(s). After performing the leak test, the user will select the appropriate answers to the displayed questions and proceed with charging. The FX3030 will continue allowing the remaining 85% of the charge. The FX3030 is equipped with a heat blanket to assist in completing charging, but if the FX3030 cannot complete a charge due to pressure equalization, it will notify the user to close the high side coupler and start the vehicle. This process will guickly complete the charge.

THEORY OF OPERATION



Full Cycle

Select "Full Cycle" to recover, recycle, vacuum, leak check and charge the vehicle AC system. The display will prompt you to enter the vehicle charge amount. As in the "Charge" sequence, the database may be used to retrieve the charge amount for most vehicles sold in North America.

The full cycle process begins with a refrigerant purity test and the vehicle system. This is required for SAE2843 for R1234yf only. If the system passes the purity test, the machine will proceed with recovery.

The Full Cycle process continues after recovery with pre-charge vacuuming and leak testing. Leak testing is required under SAEJ2843 for R1234yf systems. The system is first vacuumed. After vacuuming, the 5-minute vacuum test is performed. If vacuum is held, the unit will proceed to adding 15% of the selected charge amount to the system. Using a SAE J2913 approved leak detector, inspect the evaporator(s) for leaks and answer the displayed questions. If the system passes leak detection, the machine will continue charging the remaining 85%. If the leak tests fail, the machine will recover any refrigerant and return to the Home screen. After the leak is repaired, the process can be run again. The results may be printed by pressing the



Tank Refill

Select "Tank Refill" to add refrigerant to the internal storage tank. It is suggested that at least 4.5 lbs or 2 kg of refrigerant be available in the storage tank to begin any operation. If less is observed, choose this operation to add refrigerant to the internal tank. This operation transfers refrigerant in the liquid state to the internal storage tank. The Refrigerant amount transferred in this mode is not counted toward the filter life.

Start by connecting the red hose to the liquid port on the cylinder. For virgin cylinders with one port, turn tank upside down once connected and tank valve is opened. The Unit will then go through the refrigerant identification process. If the new refrigerant is determined to be contaminated, the unit will purge the sample and not allow the Tank Refill function to continue. If the refrigerant is determined to be acceptable, follow the directions on the display until the process is completed.

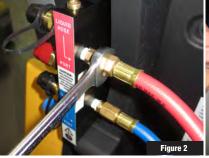
OTHER FUNCTIONS

Refrigerant Change

This feature allows the user to switch between R-134a and R1234yf refrigerants for use in differently equipped vehicles. The "Refrigerant Change" icon first appears on power up as well as in the settings menu.

- 1. Select the "Refrigerant Change" icon to begin to change refrigerants. Select the refrigerant to be used (Figure 1). Follow the directions on the screen to remove the back cover and close valves 1 and 2. The screen will remain on until a small purge and a 3-5 minute deep vacuum is performed on the system to remove any remaining traces of the old refrigerant.
- 2. Disconnect the heater blanket and ground wire.
- 3. Remove the tank by using a 9/16" wrench to disconnect the old tank's liquid feed hose and the vapour return hose from the flush block (Figure 2).
- 4. Once the old tank is removed, install the new tank with the red hose on the left side and the filter parallel to the FX unit. Use the same wrench to attach the two new hoses to the filter bracket. Open all valves and check for leaks. CPS is not responsible for lost refrigerant.
- 5. Attach the new tank's heater blanket, reattach the ground wire and reinstall the back cover.
- 6. On the front of the unit, remove the service cover with a Philips head screwdriver. Loosen the nuts with a 9/16" wrench and replace the service hoses (Figure 3).
- 7. Reinstall the service cover and refer back to the screen. The unit will now go through the refrigerant identification process to ensure proper changeover(Figure 4).









OTHER FUNCTIONS



Change Units

This function will be displayed when setting the charge amount. It allows you to change from the defaulted unit of measure to that on the J639 tag on the vehicle. For instance, the machine default was set to lbs:oz and the vehicle tag provides refrigerant capacity in grams. Use this feature to change the unit of measure to grams for this charge only.







Add Oil

This icon appears the end of the charge operation and is a reminder to add back the amount of oil that was removed during recovery. If you had entered the amount of oil after charging, that amount will also appear with the icon. If not, check the oil discharge bottle to determine the change in volume since the last recovery. Add this amount back to the system by using an oil and/or dye injection accessory.



Car System Health Mode

This mode allows for checking of system pressures and vent temperature before and after servicing the AC system. System parameters can be printed while in this mode to provide a before and after comparison. When entering the Car Health mode, the machine will prompt you to start the AC system. You can then collect and print readings. If you plan to recover next, press the button. You will be taken to the Home screen. If all is well, press and the machine will guide you through clearing the hoses of refrigerant back into the AC system.





Change Unit of Measure or Language

Press the maintenance icon and select This will take you to a screen to allow you to select either or





Air Purge

The FX series features automatic air purge at unit start up. An air purge may also be selected in the maintenance mode. Air purges reduce "non-condensable gases" in the storage tank to an acceptable level and may take a few minutes to complete. Do not turn the machine off or unplug the unit during an Air Purge cycle.

Loading new Firmware

From time to time firmware updates will become available. Should you need to install updated firmware; files will be sent to you to place onto a USB stick. Go to the "Set up" mode and select "Update." After selecting, the machine will guide you through the process, including telling you when to insert the USB stick into the USB port. When complete, the machine will reset. When the Home screen appears, it is complete.

Refrigerant ID

Pressing this icon enables the user to use the FX3030 as a refrigerant identifier.

MAINTENANCE AND CARE



Filter Changes

The filter/dryer has the capacity to dry 150lbs of recovered refrigerant. A filter life monitor is displayed on the Home screen. When indicated the filter must be changed.

To change the filter:

- Remove the black plastic tank cover. Have the filter reset code available before proceeding. It comes with each
- On the display Press the key and select . Then select . Then select Follow the displayed directions. Replace the black tank cover when completed.





Scale Maintenance

Use this mode to check, tare or calibrate the internal tank scale. To access "Scale Maintenance", press the 🕍 icon, then select 🔼 Select the desired function and follow the on screen instructions. To perform the "Test" mode, you will need to remove the black plastic tank cover and then use the 1lb test weight included with the system. The Test mode will alert the user to the need to re-calibrate the scale.

A requires lifting the tank while operating the display. It is best to have two people available for the lamb and the lamb and the lamb are required by the lamb are lamb and the lamb are lamb

Use Last to reset the empty tank weight to zero, thereby enabling indication of the refrigerant weight. Calibration is suggested only if the calibration test was off by more than .02lbs. Calibration may be performed by a service center. CPS technical support can also assist with the process. Calibration requires a certified 25lb weight.



Pressure Transducer Maintenance

Use this mode if you suspect that the internal pressure transducer readings are inaccurate. The internal pressure transducers are used during recovery, vacuum, air purge and in the manifold mode.

To enter this mode, press the maintenance icon. Then select PT. This will allow the transducer ••• to be set, or calibrated. Calibration will require a certified pressure source above 70 PSIG.

Follow the displayed direction for the select transducer maintenance function.



High Pressure Alert

The FX3030 will alert the user should a high pressure condition exist on the outlet side of the compressor. When such a condition is detected, the compressor will be turned off and not allowed to restart until the high pressure condition is remedied. In such case, check that the tank valves and hose ball valves to the tank and filter are all open. If all valves are open, then contact technical support to determine the cause of the alarm.



Tank Overfill Limit

The FX Series' 50lb internal storage tank is designed to contain a maximum of 38lbs of refrigerant. If this amount is exceeded, the user will be alerted and system operations will be halted. Before normal operation can continue, the overfill condition must be remedied by moving refrigerant from the FX tank to another storage tank or into a vehicle AC system. The charge function may be used to transfer internally stored refrigerant to an external storage facility.

MAINTENANCE AND CARE

Service Mode

This mode should only be entered with direction by technical support or by an authorized service center. This mode enables the testing of each device controlled by the FX Series' computer. These devices include the ball valves, vacuum pump, compressor and pressure transducers. This mode can be located in the "Maintenance Mode"

Field Software Update

Updates to the system software will require use of this mode. Found in the "Maintenance Mode", an update password and the new software file installed on a USB drive will be required. Insert the USB stick with the new software update file into the USB port on the back of the control panel. Go to the and select Follow the displayed directions. Be sure power remains on during this operation.

Display Calibration

Under certain conditions the touch screen may lose its calibration (i.e., touches on the screen don't result in the desired result). If pressing a function on the screen does not actuate the function, or engages an adjacent function, the screen needs to be calibrated. To do so, turn the machine's power off. Then while pressing and holding any spot on the touch screen turn the power back on. A screen set up menu will be displayed. Select screen calibration and follow the on-screen directions.

PARTS LIST AND WARRANTY

Common Part List

| Part Number | Description |
|-------------|---|
| FX3030X1 | FX Series Maintenance Kit—Filter, Vacuum Pump oil and Coupler O-rings |
| Buy locally | Printer Paper—2.25" x 50' Thermal Sensitive Paper |
| QCL1234 | Low Side 1234yf Coupler |
| QCH1234 | High Side 1234yf Coupler |
| QCL134 | Low Side R134a Coupler |
| QCH134 | High Side R134a Coupler |
| AR2788X14B | 1/4 SAE/High Side R134a tank refill adapter |
| AR2788X14A | 1/2 ACME High Side R134a tank refill adaptor |
| FA1233X35 | 1/2 ACME LH/High Side R1234yf tank refill adaptor |
| CRX400T | 50lb Recovery Tank |
| 481500 | Oil Injection Kit - R-134a |
| 481500yf | Oil Injection Kit - R1234yf |

WARRANTY & REPAIR POLICY

CPS warranties the FX Series Refrigerant Management Centers are free of manufacturing defects. If a component should fail due to manufacturing defect during the first year in service, it will be repaired or replaced (at our option) at no charge. During the second year, parts failures caused by defect are covered under warranty. CPS will replace any failed part at no charge. Some failed parts must be returned to CPS. Labor time and mileage are not covered during the second year in service. CPS will cover the compressor for five full years of service, limited to the cost of the compressor only. Failed compressors will require return to CPS.

This product is warranted to be free from defects in workmanship, materials, and components for a period of one year from the date of purchase. All parts and labor required to repair defective products covered under the warranty will be at no charge. The following restrictions apply:

- The limited warranty applies to the original purchaser only.
- The warranty applies to the product is normal usage situations only, as described in the Operating Manual. The product must be serviced and maintained as specified.
- If product fails, it will be repaired or replaced at the option of the manufacturer.
- Transportation charges for warranty service will be reimbursed by the factory upon verification of the warranty claim and submission of a freight bill for normal ground service. Approval from the manufacturer must be obtained prior to shipping to an authorized service center.
- Warranty service claims are subject to authorized inspection for product defect(s)
- The manufacturer shall not be responsible for any additional costs associated with a product failure including, but not limited to, loss of work time, loss of refrigerant, cross-contamination of refrigerant, and unauthorized shipping and/or labor charges.
- All warranty service claims must be made within the specified warranty period. Proof-of-purchase date must be supplied to the manufacturer
- Use of recovery/recycling equipment with unauthorized refrigerants or sealants will void warranty
- Authorized refrigerants are listed on the equipment or are available through the Technical Service Department

This Limited Warranty does NOT apply if:

- The product, or product part is broken by accident.
- The product is misused, tampered with or modified.
- The product is used for recovering or recycling any substance other than the specified refrigerant type.

A/C DATABASE END-USER LICENSE AGREEMENT

THIS IS A LEGAL AND BINDING AGREEMENT BETWEEN YOU, THE END-USER ("YOU"), AND MOTOR Information Systems, Hearst Business Publishing, Inc. ("MOTOR"). BY ACCESSING ANY OF THE MOTOR DATABASES VIA THIS WEB SITE, YOU AGREE TO ALL THE TERMS AND CONDITIONS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THESE TERMS, DO NOT ACCESS OR USE THE DATABASES.

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- 5. TERM; TERMINATION. This Agreement is effective for the period of time set forth in your Agreement with the web site owner hosting the DATABASES, but in no event longer than the term of the agreement between MOTOR and that web site Distributor. MOTOR may terminate this Agreement if You do not comply with any term or condition of this Agreement. Should this Agreement terminate, You agree to destroy any data previously obtained from the DATABASES.

A/C DATABASE END-USER LICENSE AGREEMENT

6. MISCELLANEOUS.

- (a) This Agreement is the complete and exclusive statement between You and MOTOR relating to the subject matter hereof and supersedes all prior oral, written and/or contemporaneous negotiations, commitments and understandings of the parties.
- (b) This Agreement shall be governed by the laws of the State of New York without giving effect to any principles of conflicts of law. The United Nations Convention on Contracts for the International Sale of Goods shall not apply. You hereby irrevocably and unconditionally submit to the exclusive jurisdiction of any state or federal court sitting in New York, New York over any suit, action or proceeding arising out of or relating to this Agreement; provided that the foregoing shall not restrict Licensor or its agents from filing suits, actions or proceedings arising out of Host's failure to pay in any jurisdiction of Licensor or its agent's choice.
- (c) No delay or failure by MOTOR to exercise or enforce at any time any right or provision hereof shall be considered a waiver thereof or of MOTOR's right thereafter to exercise or enforce each and every right and provision of this Agreement.
- (d) If any provision hereof shall be held illegal, invalid or unenforceable, in whole or in part, such provision shall be modified to the minimum extent necessary to make it legal, valid and enforceable, and the legality, validity and enforceability of all other provisions of this Agreement shall not be affected thereby.
- (e) This Agreement may only be amended, modified, suspended or canceled by a writing signed by MOTOR.
- (f) This Agreement may be assigned by MOTOR, but may not be assigned by You.

By clicking on one of the buttons below, I acknowledge that I have read and understood the provisions of this End-User License Agreement. If you accept this Agreement, indicate so when prompted by your FX3030. Should you not accept the Agreement, indicate so when prompted by the FX3030. The Database will not be accessible if you do not accept the Agreement.

