

Los Angeles Unified School District

Maximo 7.5

Refrigerant Cylinder Tracking Guide

How to Input Refrigerant/Recovery Cylinder Usage



DEFINITION

The **Refrigerant Cylinder Tracking Guide – How to Input Refrigerant/Recovery Cylinder Usage** provides step-by-step instructions on how to input Refrigerant/Recovery Cylinder Usage in Maximo.

PREREQUISITE

- Completed Service Order Input Form(s).

1. HOW TO INPUT REFRIGERANT CYLINDER USAGE

LOGIN

The requestor performs this function.

To login to Maximo 7.5, please go to <http://awms.lausd.net/maximo>.

Enter your **Single sign-on** username and password and click on the **Sign In** button.

The image shows the Maximo login interface. It has a blue header with 'Tivoli software' and 'IBM'. Below the header, it says 'Welcome to Maximo' next to a large hexagonal nut icon. To the right of the icon is a login form with two input fields: 'User Name:' containing 'danny.lu' and 'Password:' with masked characters. A 'Sign In' button is located below the password field.

START CENTER

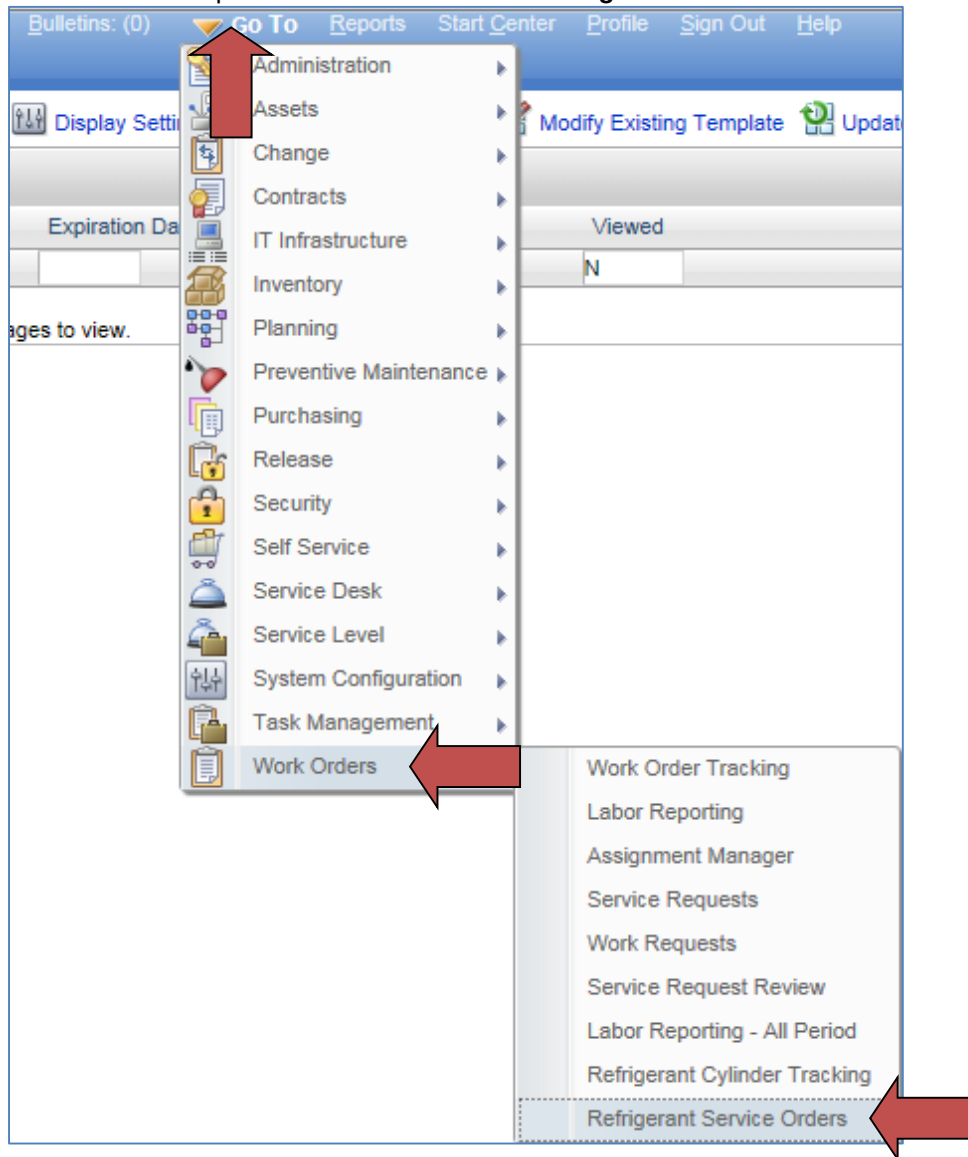
When you first login, you will be taken to the Maximo Start Center.

The image shows the Maximo Start Center dashboard. On the left, there is a 'Favorite Applications' sidebar with a list of links: Work Order Tracking, Purchase Requisitions, Request for Quotations, Purchase Orders, Receiving, Preventive Maintenance, Assets, Labor Reporting, Job Plans, Assignment Sheet, Invoices, and Work Requests. The main area on the right is titled 'Bulletin Board' and contains a table with columns: Subject, Message, Post Date, Expiration Date, and Viewed. The table is currently empty, with a message stating 'There are currently no bulletin board messages to view.'

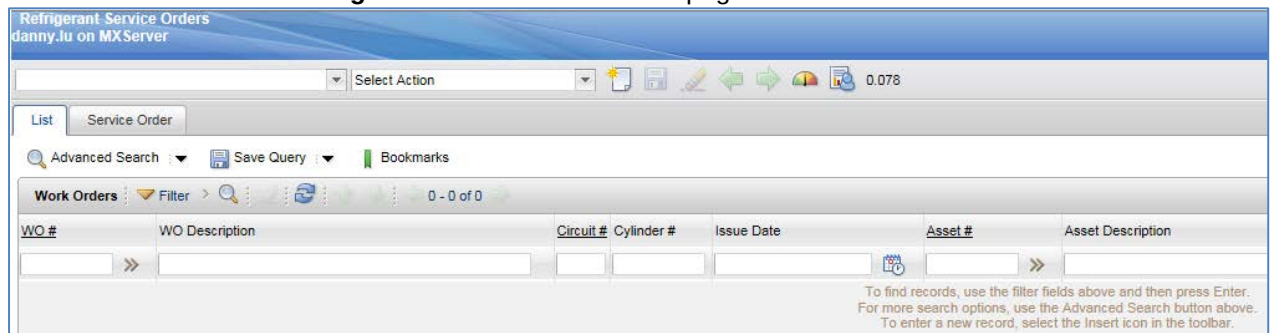


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Click on the **Go To** dropdown → **Work Orders** → **Refrigerant Service Orders**



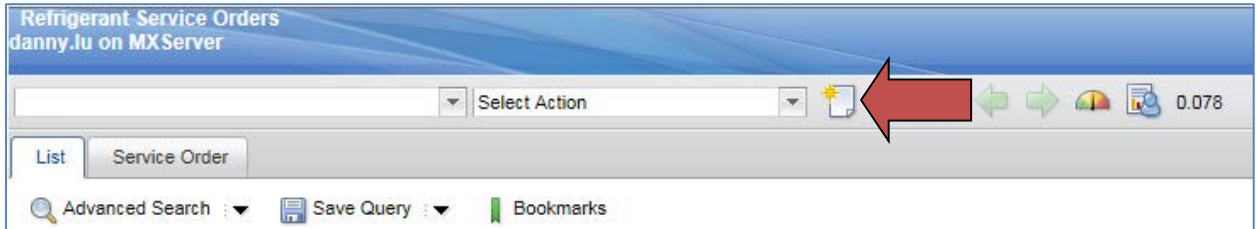
You will be taken to the **Refrigerant Service Order** main page.



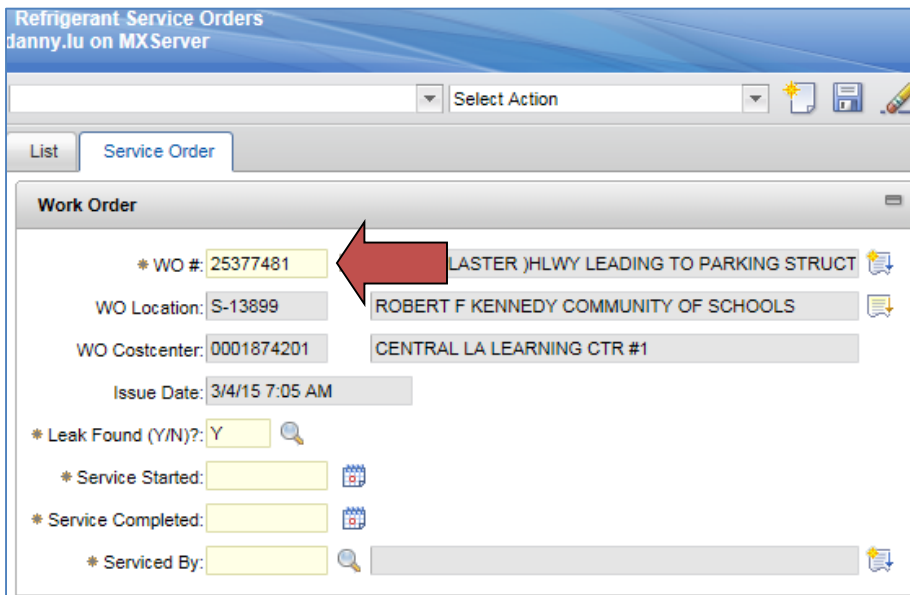


For each **Service Order Input Form**, perform the following:

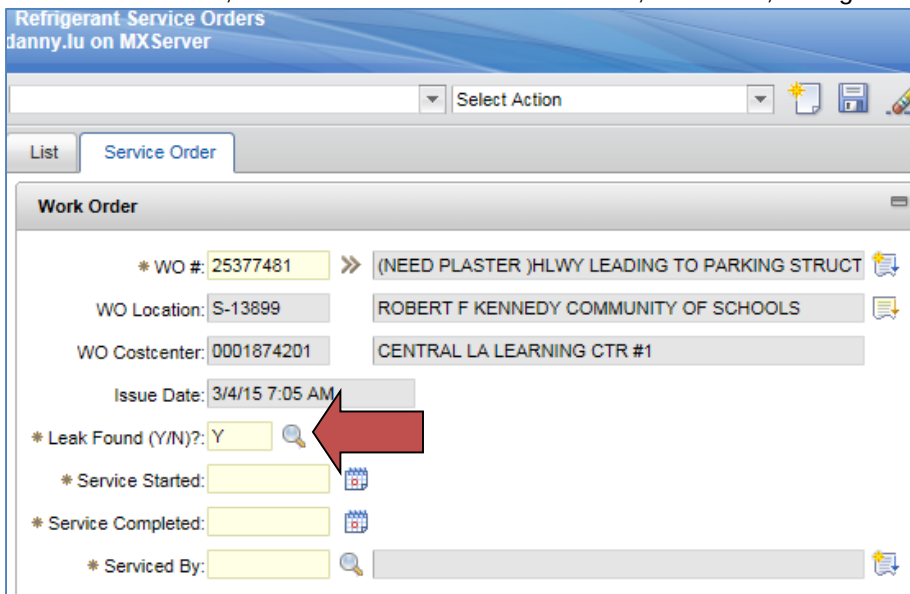
Click on the **New Service Order**  icon.



Enter the Work Order number in the **WO #** field.



If a leak was found, leave the **Leak Found** value as Y, otherwise, change the value to N.





Enter the **Service Started** and **Completed date**.

Refrigerant Service Orders
danny.lu on MaxApp05

Select Action

List Service Order

Work Order

* WO #: 25667787 >> RM 76, A/C NEED REPAIR

WO Location: S-13856 SYLMAR SH

WO Costcenter: 0001887801 SYLMAR SH

Issue Date: 7/23/15 9:51 AM

* Leak Found (Y/N)? Y

* Service Started: 12/12/15

* Service Completed: 12/13/15

* Serviced By:

Enter the employee number of the person who performed the service in the **Serviced By** field. If there are more than one individual who serviced the system, please enter the name in the **Service Description** long description field.

Refrigerant Service Orders
danny.lu on MaxApp05

Select Action

List Service Order

Work Order

* WO #: 25667787 >> RM 76, A/C NEED REPAIR

WO Location: S-13856 SYLMAR SH

WO Costcenter: 0001887801 SYLMAR SH

Issue Date: 7/23/15 9:51 AM

* Leak Found (Y/N)? Y

* Service Started: 12/12/15

* Service Completed: 12/13/15

* Serviced By: 544546 Sanchez, Luis Fernando

Asset & Location

Asset #: >>

Asset Tag:

Asset Serial #:

Asset Barcode:

Manufacturer:

Model #:

Asset Type:

RM #:

Service Type

Confirm Charge? Isolated Leak?

Dispose of Unit? Minor Maintenance?

Upgrades Installed? Major Maintenance?

Refrigerant Conversion? Yearly Audit?

Service Description

* Vacuum inches/microns:

Recovery / Recycling Unit #:

* Service Description:

Changed By:

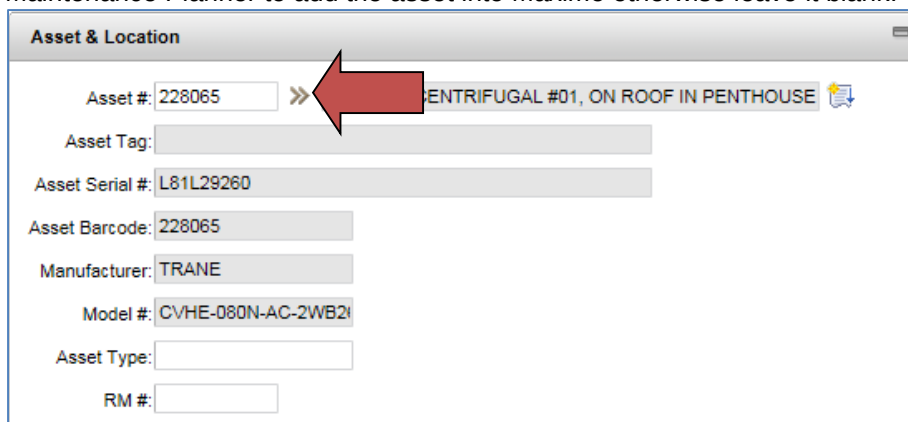
Change Date:

AQMD id: 441



Enter the Asset number in the **Asset #** field. If the Asset # is not written on the Service Order Input

Form, you may search for the Asset by clicking on the  icon to the right of the field and click on **Select Value**. The value list will return all HVAC assets that are located in the cost center of the work order. Click on the appropriate asset and the asset number will return to the field. If you are unable to find the asset on the value list and the asset has a total charge of 50lbs or over, contact your Maintenance Planner to add the asset into Maximo otherwise leave it blank.



Asset & Location

Asset #: 228065 >> CENTRIFUGAL #01, ON ROOF IN PENTHOUSE

Asset Tag:

Asset Serial #: L81L29260

Asset Barcode: 228065

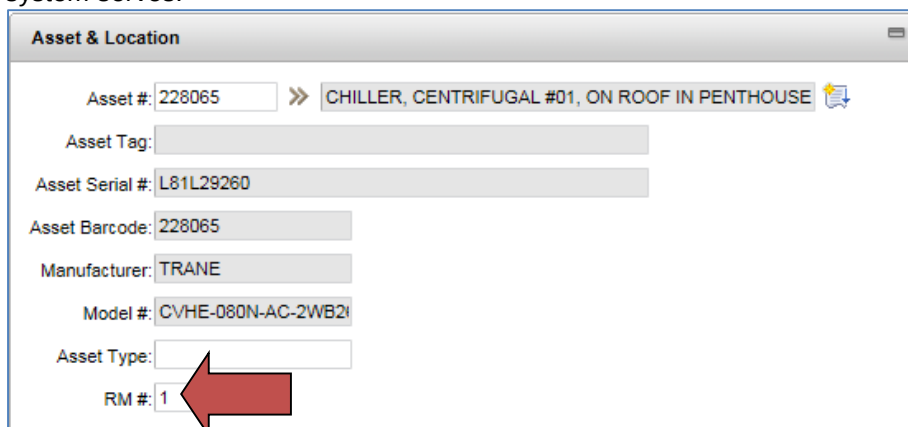
Manufacturer: TRANE

Model #: CVHE-080N-AC-2WB2I

Asset Type:

RM #:

The asset details will appear. In the **RM #** field, enter the name or room number of the zone the system serves.



Asset & Location

Asset #: 228065 >> CHILLER, CENTRIFUGAL #01, ON ROOF IN PENTHOUSE

Asset Tag:

Asset Serial #: L81L29260

Asset Barcode: 228065

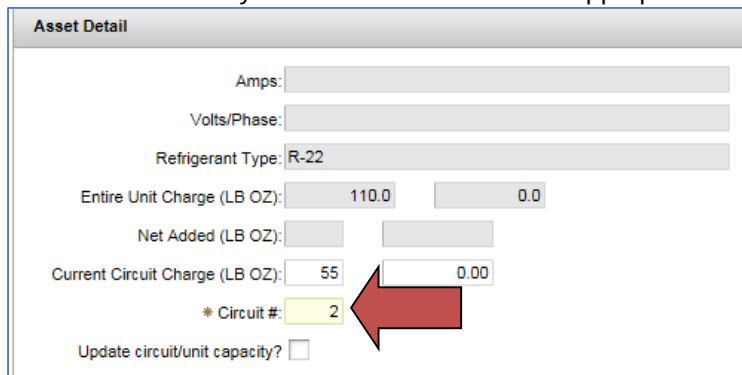
Manufacturer: TRANE

Model #: CVHE-080N-AC-2WB2I

Asset Type:

RM #: 1

Enter the circuit # that was serviced in the **Circuit #** field. If the asset only has one circuit, the field will automatically default to blank and become read only. If the asset has more than one circuit, the field will be editable and you will be able to enter the appropriate circuit number.



Asset Detail

Amps:

Volts/Phase:

Refrigerant Type: R-22

Entire Unit Charge (LB OZ): 110.0 0.0

Net Added (LB OZ):

Current Circuit Charge (LB OZ): 55 0.00

* Circuit #: 2

Update circuit/unit capacity? ☐



When replacing a component of the refrigerant cycle, it is sometimes necessary to re-pipe. At this time, the total circuit charge may change, if this is the case, the circuit charge will need to be updated.

This is accomplished by manually entering the new circuit charge in the box labeled **Current Circuit Charge (LB OZ)** and checking the **Update circuit/unit capacity?** Checkbox.

Asset Detail

Amps:

Volts/Phase:

Refrigerant Type:

Entire Unit Charge (LB OZ):

Net Added (LB OZ):

* Current Circuit Charge (LB OZ): *

Circuit #:

Update circuit/unit capacity? ☒

When saved, this will automatically update the new charge to the asset.

Check the applicable **Service Types** (you must select at least one).

Service Type

Confirm Charge? ☐ Minor Maintenance? ☐

Dispose of Unit? ☐ Major Maintenance? ☒

Upgrades Installed? ☐ Yearly Audit? ☐

Refrigerant Conversion? ☐

If applicable, enter the Vacuum inches/microns value in the **Vacuum inches/microns** field; otherwise type in N/A for not applicable.

Service Description

* Vacuum inches/microns:

* Recovery / Recycling Unit #:

* Service Description:

Changed By:

Change Date:

AQMD id:



If applicable, enter the **Recovery/Recycling Unit #**, otherwise, leave this field blank.

Service Description

* Vacuum inches/microns: 29 IN

* Recovery / Recycling Unit #: 12378

* Service Description: REPAIRED LEAK AND CHARGED UNIT

Changed By:

Change Date:

AQMD id: 126494 161

Enter the Detailed Description of Service in the **Service Description** field.

Service Description

* Vacuum inches/microns: 29 IN

* Recovery / Recycling Unit #: 12378

* Service Description: REPAIRED LEAK AND CHARGED UNIT

Changed By:

Change Date:

AQMD id: 126494 161

Enter the **Leak Detected** and **Repair Date**, **Leak Repair** and **Follow-up Verification Test Date** and **Method** and **Leak Notes**.

Note: If performing a yearly audit for units with over 50lbs charge, enter the **Leak Audit Date** and **Method**.

Leaks

* Leak Detected Date: 12/12/15

* Leak Repaired Date: 12/13/15

* Leak Repair Verification Test Date: 12/13/15

* Follow-up Verification Test Date: 12/13/15

Leak Audit Date:

* Leak Notes: Flare nut loose at receiver.

* BUBBLES

* BUBBLES



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Under **Refrigerant Usage** section, click on the **Add** button to add each action taken on this service.

Enter the appropriate **Action type** value. You may click on the magnifying glass  to view all available values.

Type	Reason for use
A (Accidental Release)	When charging from a cylinder, if start weight is less than the last end weight, refrigerant has leaked out of the cylinder and needs to be logged.
C (Charged)	When adding refrigerant to HVAC/Refrigeration equipment.
R (Recovered)	When removing refrigerant from HVAC/Refrigeration equipment.
T (Used as Trace Gas)	Refrigerant used to locate leak.

Enter the **Cylinder #** and **Date** of action.

Enter the **Condition** of the cylinder. If the cylinder type is Disposable or Reclaimed, the condition will auto-populate. If the cylinder type is Recovery, the condition field is required.

Enter the **Start weight (LBS and OZ)** and **Finish weight (LBS and OZ)**.



Click on the **Add** button and repeat steps if additional actions were taken on this service.

Condition	Start LBS	Start OZ	Finish LBS	Finish OZ	Usage LBS	Usage OZ
NEW	35	10.00	27	8.00	8	2.00

* Start Lbs: 35 * Start Oz: 10.00 * Finish Lbs: 27 * Finish Oz: 8.00

Add

If **Accidental Released** (anytime a refrigerant leaks out of an asset) occurred enter Y otherwise N. If Y, enter the **Estimated Amount Released (LB OZ)** and **Accidental Release Notes**.

Accidental Release from Equipment

* Accidental Release Occurred (Y/N)? Y * EQUIPMENT

* Estimated Amount Released (LB OZ): 8 * 2.00

* Accidental Release Notes: Flare nut loose at receiver.

Oil Removal, when replacing a compressor enter the **Oil Removed (Oz)**, **Type of Oil** and **Accumulation Drum Placed In**.

Oil Removal

Oil Removed (Oz):

Type of Oil:

Accumulation Drum Placed In:

If parts were used for the service, click on the **Add** button under the **Parts Used** section to add parts.

Parts Used 0 - 0 of 0

Part number	Description	Qty
...No rows to display...		

Add

Parts Used 1 - 1 of 1

Part number	Description	Qty
1125-31	3/8" Flare Nut	1

Add



When done, click on the floppy disk  icon to save the record.

If applicable, repeat steps for the next Service Order Input Form

OPTIONAL: PRINT SERVICE ORDER INPUT FORM

If EPA is requesting a copy of the **Service Order Input Form** and you no longer have the hand written copy, you may print a copy of the report out of Maximo if the data was entered. To do so, click on the **Select Action** dropdown → **Run Reports**.



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Enter the **Work Order** number and click the **Submit** button.

Request Page

Help Text

Parameters

* Freon service W.O. number:

Output format (pdf is default, or leave blank for web browser view):

Los Angeles Unified School District

Existing Facilities Maintenance & Operations

Refrigerant Service Order Form

Work Order #: 25313908	Owner: LAUSD	Circuit #: 1
Date Issued: 02/05/2015 01:44:53 PM	Site: EAGLE ROCK EL	Bldg:
Service Started: 1/1/13	Address: 2057 FAIR PARK AVE, LOS ANGELES, CA 90041	
Service Completed: 1/1/13	Room: S-13499	Description: EAGLE ROCK EL
Technician: Calderon, Jesus	Equip ID: 340930	Description: CHILLER, RECIPROCATING
Primary service technician listed above. For others, see service description below.	Model: YCAL008OEC46	Mfg: YORK
	Serial #: RDRM014360	
	Refrigerant Type: R-22	Charge: 160.00 lbs 0.00 oz

Service Request - Why dispatched
AUD- NO A/C

Service Type

☐ Confirm Charge	☐ Upgrades Installed	☐ Minor Maintenance	Recovery Vacuum: 29 IN. Inches
☐ Dispose of Unit	☐ Refrigerant Conversion	☒ Major Maintenance	Recovery Unit ID: 12378

Service Description: NO A/C IN AUD. null

Refrigerant	Cylinder ID	Type	Condition	Use Date	Quantity
R	1143	R-22	RECOVERED	1/1/13	6 lbs 10 oz

OPTIONAL: PRINT BLANK SERVICE ORDER INPUT FORM

You may also print a blank copy of the **Service Order Input Form** out of Maximo by performing the following:

click on the **Select Action** dropdown → **Run Reports**.

Refrigerant Service Orders
danny.lu on MaxApp04

Select Action

Attachment Library/Folders

Run Reports

Cognos Reporting



Reports

? Select a report from the list, or click Create Report to create an ad hoc report.

On Demand Reports Scheduling Status

Reports to Run Filter > 1 - 4 of 4 Download

Description
Equipment Refrigerant Usage
SCAQMD Form R-1415
Service Order Input Form
Service Order Input Form - Blank

Create Report Cancel



In the **Request Page**, click on the **Submit** button.

Request Page

Help Text

Parameters

Output format (pdf is default, or leave blank for web browser view): pdf

Schedule

☒ Immediate
☐ At this Time
☐ Recurring

Email

To:
Subject:
Comments:

File Type:
☒ PDF
☐ XLS

Report Delivery Format:
☒ Email with a file attachment
☐ Email with a file URL

Submit





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A blank **Service Order Input Form** will appear. Click on the printer icon to print.

LAUSD M&O
Service Order Input Form

WORK ORDER #: _____ WAS THERE A LEAK FOUND DURING THIS SERVICE? (Y/N): _____ DATE SERVICE STARTED: _____ SEVICE COMPLETED ON: _____ TECHNICIANS: _____ _____ _____	ASSET _____ RM # _____ MANUFACTURER: _____ MODEL # _____ SERIAL # _____ EQUIPMENT TYPE: _____ REFRIG TYPE _____ CHARGE: _____ lbs. _____ oz. CIRCUIT # _____ VOLTS _____ AMPS _____ PHASE _____ CHECK BOX IF SYSTEM/CIRCUIT CHARGE NEEDS TO BE UPDATED ☐
---	---

Service Requested:

Type of Service

☐ **Confirm Charge**
☐ **Dispose of Unit**

☐ **Upgrades Installed**
☐ **Refrigerant Conversion**

☐ **Minor Maintenance**
☐ **Major Maintenance**

☐ **Vacuum:** _____ **inches / microns (circle one)**
☐ **Isolated Leak** ☐ **Yearly Audit**

Recovery Unit ID # _____
Detailed Service Description:

Leak Detected: Date: _____	Leak Notes:
Leak Repaired: Date: _____	
TEST DONE AFTER REPAIR BEFORE CHARGING Initial Leak Verification Test Date: _____ Method: _____	
TEST DONE WITH UNIT RUNNING UNDER NORMAL LOAD Follow-up Verification Test Date: _____ Method: _____	
Leak Audit Date: _____ Method: _____	

USE ONE FORM PER REFRIGERANT CIRCUIT

ACTION: R = Recover, C = Charge Unit, T = Used as Trace Gas, A = Accidental Release
CONDITION: N = New, C = Contaminated, G = Good, R = Recovered, RC = Reclaimed, RD = Recycled

Action	Cylinder ID #	Refrigerant Type	Date	Condition	Start Weight	End Weight	Quantity Used
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.
		R-			lbs. oz.	lbs. oz.	lbs. oz.

NET REFRIGERANT ADDED _____ **lbs.** _____ **oz.**

☐ **Accidental Release Occurred** **Cause of Leak** _____
Estimated Amount Released _____ **lbs.** _____ **oz.**

Oil Removed _____ **oz.** **Type of Oil** _____ **Accumulation Drum Placed In** _____

Part No.	Description	Qty.	Material Notes

1 / 1

←

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📄

FORM DATE 1/1/16

Should you have any questions on this guide, please contact Danny Lu (danny.lu@lausd.net / 213-241-1121), Mark Merrick (mark.merrick@lausd.net / 213-241-8620), or John Herweg (john.herweg@lausd.net / 213-241-1127).