MITSUBISHI Replace-Multi Y

Optional Parts

PAC-KP95ECK

Mitsubishi Electric Building Air-conditioners
Ester Oil Recovery Kit Instruction Manual

Before operating the equipment, carefully read all the instructions in this manual to ensure safety.
Those items that require particular attention are marked with a triangle with an exclamation mark ⚠ .

WT03567X02

Safety Precautions

Read and follow the instructions provided in the safety precautions section when handling the equipment; they provide important information regarding safety.
Depending on the degree of imminence of danger, items are categorized under 'Warning' and 'Caution.'

⚠Warning:
It is intended to alert the user to the presence of a risk of serious personal injury to the user or even death if instructions given in this manual are not carefully followed.

⚠Caution:
It is intended to alert the user to the presence of a risk of personal injury or damage to the equipment if instructions given in this manual are not carefully followed.

⚠ Warning

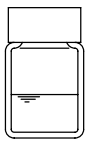
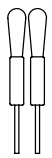
- Refer all testing to authorized personnel.
  Proper reading may not be obtained if used incorrectly.
- Do not alter or modify the equipment.
  If unauthorized alteration or modification is made, proper reading may not be obtained.
- Handle the equipment according to the instructions given in the manual to obtain correct reading.

⚠ Caution

- Care must be taken when transporting equipment.
  If not handled carefully, equipment damage may result.
- Turn on the power to outdoor unit at least 12 hours before operation.
  Insufficient powering time may result in malfunction. Always leave the power on during the operating season.

1. Package Contents

Parts that are included with this manual.

No.	①	②	③	④
Parts Name	Oil Collector	Bottle (For sampled oil)	Bottle (Containing oil)	Dropper
Appearance				
Quantity	1pc.	1pc.	1pc.	2pcs.

Caution: Do not reuse these parts.

❋ Wear protective gloves.

2. Oil Collection Method

Operation Flow Chart

Preparation of Ester-oil Recovery kit, hand-held refractometer, and other tools.

Operation of outdoor unit, Collection of oil (for disposal and for testing)

Evacuation of oil collector

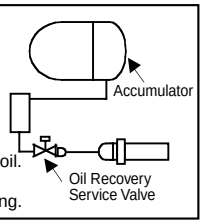
(Turn to next page)

Details

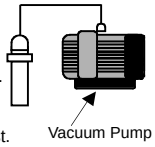
Check the content of package and other necessary tools.
Acquire a hand-held refractometer.
Recommended Manufacturer: Atago Corporation Item No.: N 3000E

1. Start the operation of outdoor unit.
2. Attach only the top part of the oil collector to oil recovery service valve.
3. Drain a small amount of oil in a drain pan by opening the valve for a few seconds; dispose of the collected oil.
4. Twenty minutes later, attach the bottom half of the oil collector to the top part already connected to the valve, open the service valve for a few seconds, and collect some oil.

❋Oil pan is not included in the kit.
Caution: Open the valve slowly to prevent the oil from splattering.

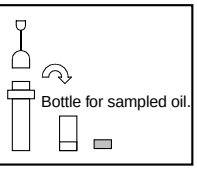


Steps in evacuating the oil collector
Caution:
1. Set the oil collector in a vertical position, since attempting to evacuate the oil collector in a horizontal position will allow not only the air but also the oil in the collector to be suctioned out.
2. Evacuate for at least 15 second after the vacuum degree of 650Pa has been reached; then, stop the pump, wait for 15 seconds, and confirm that the vacuum degree is not being lost.



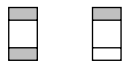
Transfer the oil in the collector to the bottle for sampled oil.

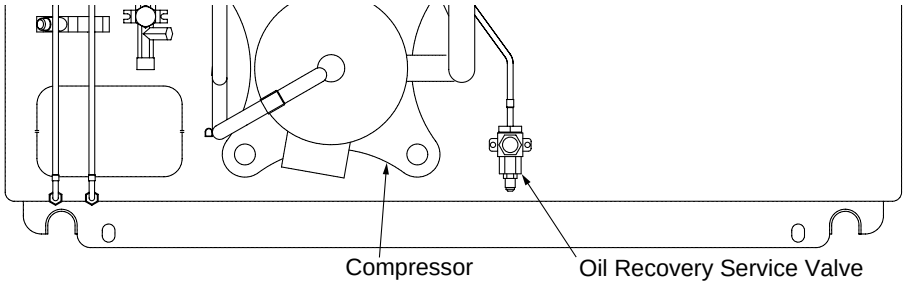
Loosen the flare nut and open the lid to the oil collector; then, pour the content into the bottle reserved for sampled oil.
Caution: Open and close flare nut with a double-end wrench.



Equalize the temperature of the oil collected for sampling and the oil contained in the other bottle included in the kit.

Leave both of these bottles for 50 minutes in the same environment (either indoor or outdoor)
❋Although the bottles may be left either indoor or outdoor, leave them in the same environment where the refraction factor test will be conducted.





3. Measuring the Refraction Factor

Operation Flow Chart

Drop a few drops of the oil included in the kit on the refractometer.

Read the scale.

Remove the oil on the prism on the refractometer.

Repeat the same procedures for the oil collected for sampling.

Compare the measurements taken.

Under 0.0015

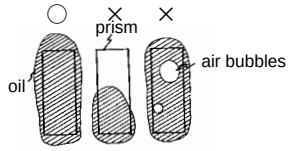
The unit has passed the test.

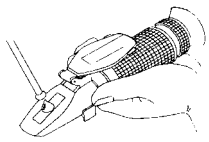
Over 0.0015

Flush the system again.

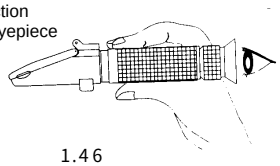
Steps in Measuring the Refraction Factor

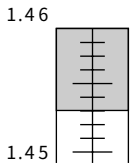
Open the lid to the bottle in the kit containing oil. Using a dropper included in the kit, draw a small amount of oil and drop a few drops on the prism of the refractometer.
Caution: 1. Make certain that the surface of the prism is evenly covered.
2. Do not reuse the dropper, since by the use of contaminated droppers, correct readings may not be obtained.



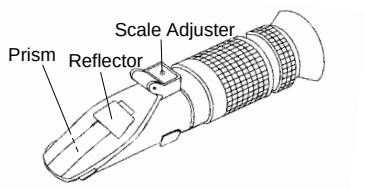


1. Point the tip of the refractometer toward the direction of well-lighted area, and adjust it by turning the eyepiece so that scales are clearly visible.
Caution:
A. Do not point the device to direct sunlight, as the direct sunlight may obscure the line indicating the refraction factor; use indirect light or soft light. Also, hold the device in the way that the oil will not drip.
B. Do not wrap the device with your hands, since the body heat transferred to the device will affect the reading on the scale.
2. Read the scale on the line separating the dark and bright sides.
Read the scale to 4 places of decimals
Example: 1.4530





Moisten soft tissue and wipe the prism and its surrounding area.
Remove any moisture with dry tissue.
Caution: 1. Care must be taken not to scratch the soft surface of the prism.
2. Keep the prism clean to obtain accurate measurements.

Parts of Handheld Refractometer

❋Read and understand all the instructions provided in the operation manual for your handheld fractometer.