# Removing and Refitting Cooling Coil Removable Drain Tray

## How To Guides

# Removing and Refitting Cooling Coil Removable Drain Tray

*Figure 1. Typical ECE air handling unit. The removable stainless-steel drain tray beneath the cooling coil collects condensate and directs it to the drain connection to support hygiene compliance.*

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| Video Duration: 7 minutes 24 seconds |
| Applies to: Stainless Steel Removable Drain Tray Beneath Cooling Coil Section |
| Document Status: Controlled technical instruction |

# 1. Purpose

This procedure describes the safe removal, inspection, cleaning, and refitting of the removable drain tray located beneath the cooling coil.

# 2. Important AHU Information

- ECE AHUs are bespoke. Do not assume that information, access arrangements, terminal numbers, wiring colours, component selections or controls logic from another AHU applies to the AHU being reviewed or worked on.
- The certified drawing and current project-specific documentation are the primary sources for the AHU arrangement and component technical information.
- Where component technical information is checked, it must be checked against the certified drawing and related manufacturer data for the exact AHU.

*IMPORTANT: Always use the project-specific asset information, certified drawing, relevant ECE product-range IOM, quotation scope and component information for the exact AHU being reviewed or worked on.*

# 3. Safety and Competency Requirements

- Only competent and authorised personnel should carry out this procedure. The required competency depends on the task being undertaken.
- Before starting, confirm the correct AHU, asset tag, certified drawing, relevant ECE product-range IOM and any applicable wiring diagram, controls description, component technical information or manufacturer data sheet.
- Follow all site-specific RAMS, permits, PPE, isolation and access requirements.
- Where the task requires physical access to the AHU, do not open access doors, remove panels or work inside the AHU unless fans and relevant equipment are isolated, stationary and safe to access.
- Do not bypass safety devices, interlocks, alarms or controls.
- Stop and escalate if the AHU identity, current technical information, safe isolation, access condition or required competency cannot be confirmed.

*Figure 2. Site personnel in PPE reviewing the certified drawing. Confirm AHU identity and the project-specific drain/condensate arrangement before opening any access panel.*

## Task-specific requirements:

- Before opening access doors or removing panels, select Maintenance Mode where applicable, allow fans to ramp down fully, confirm airflow has stopped, isolate relevant equipment and apply lock-off/tag-out where required by site procedure.
- Water, condensate and pressure-related services must be worked on by competent personnel in accordance with current statutory, project and site requirements.
- Use suitable PPE and hygiene controls for standing water, contaminated deposits, sharp edges, drain outlets, traps and condensate connections.

- Do not alter drain falls, traps, condensate pipework or drainage components unless this is approved and checked against the certified drawing and relevant IOM.
- Stop and escalate if the tray, drain connection, trap arrangement, access route or hygiene condition cannot be made safe or does not match the certified drawing.

## 4. Before You Begin

- Access the AHU asset information via the ECE Client Portal using the asset tag or 18-digit reference number where available.
- Confirm the AHU reference, project name, location and latest document revision.
- Review the certified drawing, relevant ECE product-range IOM, quotation scope, component schedule and manufacturer data sheets where applicable.
- Review the wiring diagram, controls description and commissioning information where the task involves electrical, controls or BMS interfaces.
- Confirm the required personnel, tools, PPE, access equipment, permits and isolation method before starting work.


*Figure 3. Asset Tag plate carrying the unique 18-digit reference number used to retrieve AHU technical information from the ECE Client Portal.*

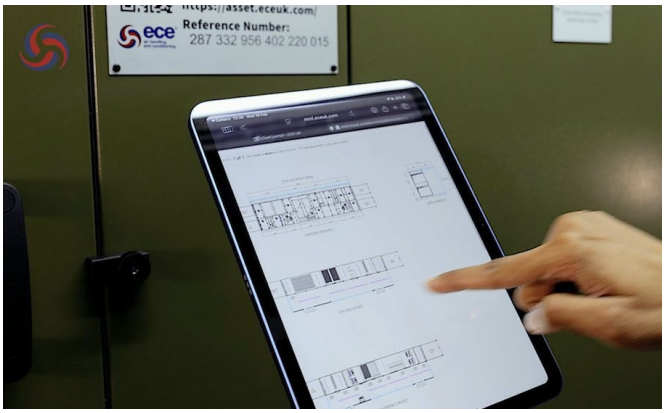


*Figure 3b. AHU technical information opened on a device via the Asset Tag link, used to confirm AHU reference, drawing revision and fan information before starting work.*

## 5. Required Tools, Equipment, PPE and Information

- Project-specific certified drawing and relevant ECE product-range IOM
- Task-specific hand tools
- Replacement components or spares where applicable
- PPE required by site procedure
- Cleaning materials or seal inspection tools where applicable
- Maintenance record or site log

## 6. Procedure

### The drain tray is designed to:

- Collect condensate from the cooling coil
- Direct water to the drain connection
- Prevent standing water within the AHU
- Support hygiene compliance (HTM where applicable)

### Before opening the access panel:

- Select Maintenance Mode via the control panel (if applicable).
- Allow fans to ramp down fully.
- Confirm airflow has completely stopped.
- Isolate fans electrically using local isolators.
- Apply lock-off/tag-out if required by site procedure.

**WARNING**: Do not open access doors while fans are rotating.

## 6.1 Accessing the Cooling Coil Section (Air Off Coil Access Door)

- Release all external door latches.
- Open the access door fully.
- Secure the door in the open position.
- Visually confirm that the coil and drain tray are accessible.

Check that condensate drain is not actively flowing before removal.

## 6.2 Disconnecting the Drain Connection

- Identify drain outlet connection point.
- If applicable, disconnect flexible drain pipe.
- Ensure no residual water is trapped in pipework.

Have absorbent materials available to catch residual condensate.

## 6.3 Removing the Access Panel (If fitted)

Some units include an internal removable panel covering the drain tray.

### Step 1 – Identify Fixing Type

### The panel may be secured using:

- Allen key bolts
- Finger-tightened thumb screws

*Figure 4. Identifying the fixing type — an Allen key is used here for the access panel bolts.*

### Step 2 – Release Fixings

- Loosen all fasteners evenly.
- Support panel during removal.
- Carefully withdraw and place safely aside.

Do not bend or distort the panel.

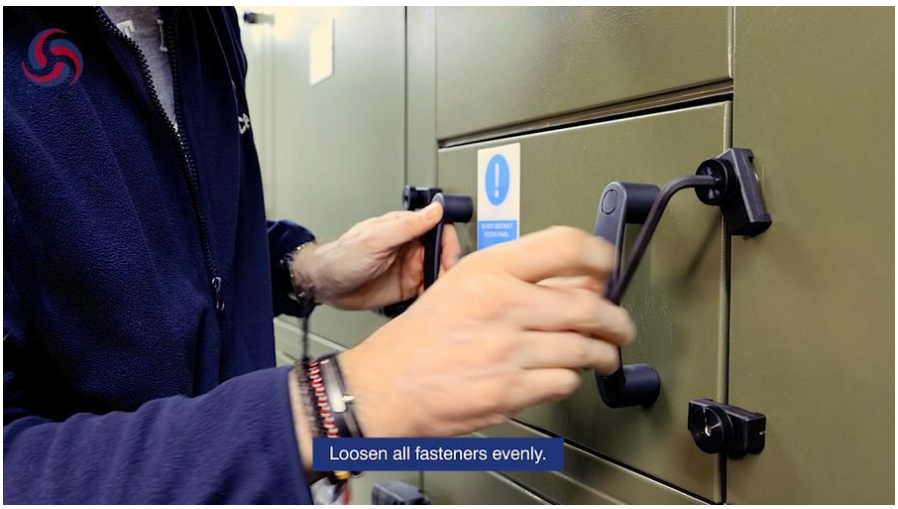


*Figure 5. Loosening all fasteners evenly using the appropriate tool.*

## 6.4 Removing the Drain Tray

- Grip tray using integrated handles (if fitted).
- Support evenly along both sides.
- Slide the drain tray straight outward along guide rails.
- Withdraw completely from the housing.

Do not tilt excessively to avoid spillage.

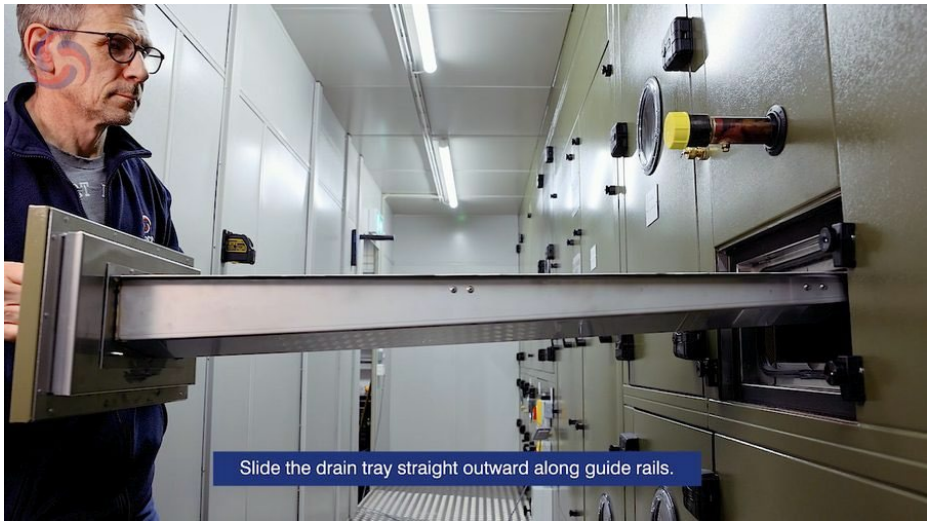


*Figure 6. Sliding the stainless-steel drain tray straight outward along the guide rails.*

## 6.5 Inspection and Cleaning

### Once removed:

### Inspect for:

- Corrosion or pitting
- Debris accumulation
- Biological growth
- Blocked outlet

### Clean using:

- Approved disinfectant solution
- Non-abrasive cloth or brush
- Warm water rinse if required


*Figure 7. Cleaning the drain tray with an approved disinfectant solution and a non-abrasive cloth or brush.*

### Ensure:

- Drain outlet is fully clear
- Tray is completely dry before refitting

Check tray fall (slope) has not been distorted.

## 6.6 Inspecting Surrounding Components

### Before refitting:

- Check underside of cooling coil for blockage or debris.
- Confirm drain spigot is secure.
- Inspect neoprene or gasket seals around tray opening.
- Confirm no standing water remains in housing.

## 6.7 Refitting the Drain Tray

### Step 1 – Orientation Check

- Ensure drain outlet aligns with drain connection point.
- Confirm tray slope is toward outlet.

### Step 2 – Slide Tray into Position

- Insert tray into guide rails.
- Slide fully inward until seated against rear stop.
- Ensure tray sits level and square.


*Figure 8. Inserting the cleaned tray into the guide rails.*


*Figure 9. Tray slid fully inward until seated against the rear stop, level and square.*

### Step 3 – Reconnect Drain

- Reattach flexible drain connection.
- Confirm secure and leak-free fit.

## 6.8 Reinstalling the Internal Panel

- Reposition panel over opening.
- Insert all fasteners loosely at first.
- Tighten evenly using:
- Allen key, or
- Finger-tight fasteners

Do not overtighten.

Panel must sit flush and maintain air-tight seal.


*Figure 10. Inserting all fasteners loosely at first to allow even tightening.*

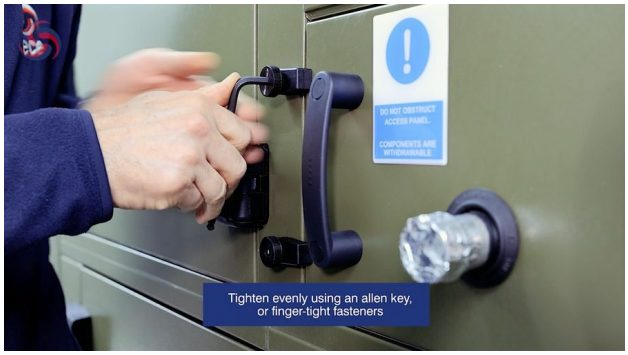


*Figure 11. Tightening evenly using an Allen key or finger-tight fasteners.*


*Figure 12. Do not overtighten — the panel must sit flush and maintain an air-tight seal.*

## 6.9 Closing and Restarting the Unit

- Close access door fully.
- Secure all external latches evenly.
- Remove lock-off devices (if applied).
- Restore electrical supply at isolators.
- Exit Maintenance Mode.
- Allow fans to ramp up gradually.

### After system restart:

- Check drain connection for leaks.
- Confirm condensate flows freely during cooling operation.
- Inspect viewing window for correct drainage behaviour.
- Verify no abnormal vibration or noise.
- Confirm no water carryover downstream.

## 7. Verification / Functional Test

- Component is correctly refitted, seated, latched, sealed or secured.
- Access doors, panels and latches are fully closed and secure.
- No tools, fixings, packaging or loose items remain inside the AHU.
- AHU is returned to normal operating condition and no abnormal noise, vibration, leakage or alarm condition is present.
- Cooling coil drain tray is refitted, drains freely and shows no leakage.

### Additional Verification Notes

## 8. Stop-and-Escalate Conditions

**STOP: Stop work or stop the review and escalate to the responsible ECE/project technical contact if any of the following apply:**

- The AHU reference, asset tag, certified drawing or document revision cannot be confirmed.
- The information found does not match the physical AHU, installed component or project scope.
- Safe access, safe isolation or required site permits cannot be confirmed.
- A required component technical detail, wiring detail, control signal or manufacturer data sheet is missing.
- The task would block or compromise AHU maintenance access, withdrawal routes, isolators, terminal boxes or emergency access.
- Access cannot be obtained safely.
- Door, panel, latch, rail or component condition is damaged or does not match the certified drawing.
- The replacement component does not match the original component or asset information.
- Drain tray cannot be withdrawn without damaging the coil, pipework or drain connection.

## 9. Final Checks

- Confirm the AHU, component, wiring, control function or approval item has been left in the intended safe and complete condition.
- Confirm access doors, panels, terminal boxes, covers, guards, isolators and labels are secure where applicable.
- Confirm no tools, temporary materials, loose items, debris or packaging remain in or around the AHU.
- Confirm any alarms, faults, abnormal indications or unresolved comments have been recorded and escalated.

### Additional Final Checks

- Tray fully seated
- Drain connected
- No visible gaps
- All fixings secure
- No tools left inside

## 10. Records to Complete

Record enough evidence to prove that the task, review or test has been completed using the correct AHU information and by competent personnel.

- AHU isolated and made safe
- Component removed/refitted or adjusted
- Final physical inspection completed
- Operational check completed
- Maintenance record updated

| Evidence item | Required entry |
|---|---|
| AHU reference / asset tag | To be completed |
| Certified drawing revision / document revision | To be completed |
| Person completing task / review | To be completed |
| Date completed | To be completed |
| Result / status | Pass / fail / comment / not applicable |
| Outstanding actions | To be completed or marked none |

## 11. Completion Checklist

[ ] Correct AHU and guide number confirmed.
[ ] Latest asset information and certified drawing checked.
[ ] Relevant IOM, wiring diagram, controls description or manufacturer data checked where applicable.
[ ] Safety and competency requirements confirmed.
[ ] Procedure completed or approval review completed.
[ ] Verification / functional test completed.
[ ] Stop-and-escalate conditions checked and no unresolved stop condition remains.
[ ] Records to Complete section completed.
[ ] AHU returned to safe condition or review status recorded.

## 12. Task-Specific Completion Checks

[ ] Maintenance mode selected
[ ] Fans fully stopped and isolated
[ ] Access panel removed safely
[ ] Drain disconnected
[ ] Tray removed
[ ] Tray cleaned and inspected
[ ] Drain cleared
[ ] Tray refitted correctly
[ ] Drain reconnected
[ ] Panel secured
[ ] Door latched
[ ] Unit restarted
[ ] Drainage verified

## 13. Learning Outcome

After completing this guide, the user should be able to complete or review Removing and Refitting Cooling Coil Removable Drain Tray using the correct AHU information, with clear safety controls, defined verification, completion records and escalation criteria.