

# One-Day Air Conditioning Installation Training Course

## Module 1 – Introduction & Course Overview (09:00 – 09:30)

- Welcome and trainer introduction
- Course objectives and expected outcomes
- Review of F-Gas responsibilities (brief recap)
- Health & Safety overview
- PPE requirements
- Manual handling
- Electrical and working-at-height safety

## Module 2 – System Types & Components (09:30 – 10:30)

- Overview of common A/C systems: split, multi-split, VRF (brief overview for context)
- Components and functions:
  - Indoor unit, outdoor unit, interconnecting pipework
  - Control wiring and condensate management
- Refrigerant types and line sizing overview
- Tools and equipment used in installation

## Module 3 – Pre-Installation Planning & Site Assessment (10:45 – 12:15)

- Selecting suitable locations for indoor and outdoor units
- Assessing structure, load-bearing, and access
- Pipe routing and drain considerations
- Electrical requirements and isolators
- Preparation of materials and pre-installation checklist
- Demonstration:
  - Measuring and marking up wall brackets
  - Drilling and fixing mounts safely

## **Module 4 – Practical Installation Session (13:00 – 15:30)**

- Hands-on workshop session covering:
- Mounting indoor and outdoor units
- Flaring, brazing (if applicable), and connecting refrigerant pipework
- Leak testing with nitrogen pressure test
- Evacuation using vacuum pump and micron gauge
- Electrical wiring and control connections
- Condensate drain setup and testing

(Trainer supervision and feedback throughout)

## **Module 5 – Commissioning & Testing (15:45 – 16:30)**

- Pre-start checks and electrical verification
- System start-up procedure
- Checking refrigerant pressures, superheat/subcooling
- Measuring airflow and temperature differentials
- Documentation and commissioning sheets

## **Module 6 – Troubleshooting, Best Practice & Wrap-Up (16:30 – 17:00)**

- Common installation issues and how to avoid them
- Maintenance recommendations for customers
- Q&A and discussion of real-world installation scenarios
- Review of key learning outcomes
- Issue of attendance certificate

## **Materials & Resources Provided**

- Training manual / handout with diagrams
- Installation checklists and commissioning forms
- Tool list and setup guide
- Example risk assessment templates