NOTE ON PERFORMANCE TESTING

Performance Profile Sheet(s) are included in a format that can be easily photocopied for each trainee. This examination is designed to measure competency in the tasks taught in each module.

Please note the number of tasks to be tested while teaching each module. Each trainee should be tested on all the tasks listed on the Performance Profile Sheet(s). Before performance testing, the instructor should brief the trainees on:

- Test objectives and criteria
- Safety precautions
- Procedures for each task to be tested

The instructor administering the performance testing should also do the following:

- Ensure that all of the needed equipment is available and operating properly.
- Set up the testing stations.
- Organize and administer the test in a way that allows for optimal performance.
- Complete the Performance Profile Sheet(s) for each trainee by assigning a pass/fail score for each listed task. Include the testing date and start and end times for each task in the rating boxes.
- Monitor adherence to all safety regulations and precautions.
- Provide adequate supervision to prevent injuries.
- Take immediate and effective action to remedy any emergency.

Performance Testing

If Performance Testing is done as part of the NCCER Standardized Craft Training Program, the following conditions must be met:

1. The Craft Instructor must hold valid NCCER instructor certification.
2. The training must be delivered through an Accredited Training Sponsor recognized by NCCER.
3. The specific performance testing must be completed successfully.
4. The results of the testing must be recorded and submitted to the local Accredited Training Sponsor for approval through NCCER’s Registry system.

Certified Plus Credential

If the sponsor is working through an NCCER-Accredited Assessment Center, candidates who successfully pass performance testing may be eligible for a Certified Plus credential. A number of NCCER’s Performance Profiles cross over to NCCER’s Assessment Performance Verifications and may be completed simultaneously. Note that two other important conditions are required for the Certified Plus credential:

1. Candidates must first pass the associated written assessment.
2. An NCCER-Accredited Assessment Administrator must sign off on the Performance Verification before it is submitted to NCCER.
Module Number: 03101 V5 has no Performance Profile Sheet; performance testing is not required for this module.
Module Number: 03102 V5 has no Performance Profile Sheet; performance testing is not required for this module.
# PERFORMANCE PROFILE SHEET

Craft: HVAC Level One  
Module: 03106  
Module Title: Basic Electricity

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>TASK</th>
<th>RATING</th>
<th>DATE</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>1. Use the proper instrument to measure voltage in an energized circuit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>2. Use the proper instrument to measure current in an energized circuit.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3. Use the proper instrument to measure resistance.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4. Use a multimeter to check circuit continuity.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2, 4</td>
<td>5. Assemble and test low- and high-voltage series and parallel circuits using a transformer and selected control and load devices.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Rating Levels: (1) Passed: performed task  (2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

 Recognition: When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.
## Performance Profile Sheet

**Craft:** HVAC  
**Module:** 03108  
**Module Title:** Introduction to Heating

### Trainee Name:

__________________________________________________________________________

### Training Program Sponsor:

__________________________________________________________________________

### Instructor:

__________________________________________________________________________

**Rating Levels:**  
(1) Passed: performed task  
(2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

**Recognition:** When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.

<table>
<thead>
<tr>
<th>Objective</th>
<th>Task</th>
<th>Rating</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1. Identify the components of included-draft and condensing furnaces and describe their functions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2. Perform common maintenance tasks on a gas furnace, including air filter replacement and temperature measurements.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# PERFORMANCE PROFILE SHEET

**Craft:** HVAC  
**Module:** 03107  
**Module Title:** Introduction to Cooling

---

**TRAINEE NAME:**   
**TRAINING PROGRAM SPONSOR:**   
**INSTRUCTOR:**   

---

**Rating Levels:** (1) Passed: performed task  (2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

**Recognition:** When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.

## OBJECTIVE TASK RATING DATE START TIME END TIME

<table>
<thead>
<tr>
<th>Objective</th>
<th>Task</th>
<th>Rating</th>
<th>Date</th>
<th>Start Time</th>
<th>End Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Measure temperatures in an operating cooling system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2. Calibrate a set of refrigerant gauges and thermometers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3. Connect a refrigerant gauge manifold and properly calculate subcooling and superheat on an operating system using a temperature probe.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4. Identify refrigerant using cylinder color codes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3, 4</td>
<td>5. Identify compressors, condensers, evaporators, metering devices, controls, and accessories.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**PERFORMANCE PROFILE SHEET**

Craft: HVAC
Module: 03109
Module Title: Air Distribution Systems

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**TRAINEE NAME:** ________________________________

**TRAINING PROGRAM SPONSOR:** ________________________________

**INSTRUCTOR:** ________________________________

**Rating Levels:**
- (1) Passed: performed task
- (2) Failed: did not perform task

Be sure to list the date the testing for each task was completed.

**Recognition:** When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.

---

<table>
<thead>
<tr>
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<th>DATE</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Use a manometer to measure static pressure in a duct system.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Use a velometer to measure the velocity of airflow at the output of air system supply diffusers and registers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Use a velometer to calculate system cfm.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4. Read and interpret equivalent length charts and required air volume/duct size charts.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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HVAC — Module 03109 V5 Performance Profile
## PERFORMANCE PROFILE SHEET

Craft: HVAC  
Module: 03103  
Module Title: Basic Copper and Plastic Piping Practices

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>TASK</th>
<th>RATING</th>
<th>DATE</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1. Cut and bend copper tubing.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 2         | 2. Safely join copper tubing using mechanical fittings.  
   a. Flare tubing and complete a flared connection.  
   b. Use a compression fitting and ferrule to make a connection.  
   c. Use a swaging tool to swage a piece of tubing. | | | | |
| 3         | 3. Cut and join lengths of plastic pipe. | | | | |

Rating Levels: (1) Passed: performed task  (2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

Recognition: When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.
# PERFORMANCE PROFILE SHEET

Craft: HVAC  
Module: 03104  
Module Title: Soldering and Brazing

## TRAINEE NAME:  

## TRAINING PROGRAM SPONSOR:  

## INSTRUCTOR:  

**Rating Levels:**  
(1) Passed: performed task  
(2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

**Recognition:**  
When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>TASK</th>
<th>RATING</th>
<th>DATE</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1. Properly set up and shut down oxyacetylene equipment.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2. Properly set up and shut down an acetylene single tank.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>3. Properly prep and safely solder copper tubing in various planes, using various fittings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>4. Properly prep and safely braze copper tubing using various fittings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## PERFORMANCE PROFILE SHEET

Craft: HVAC  
Module: 03105  
Module Title: Basic Carbon Steel Piping Practices

<table>
<thead>
<tr>
<th>OBJECTIVE</th>
<th>TASK</th>
<th>RATING</th>
<th>DATE</th>
<th>START TIME</th>
<th>END TIME</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1. Cut, ream, and thread steel pipe.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1, 2</td>
<td>2. Join lengths of threaded pipe using selected fittings.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Rating Levels:**  
(1) Passed: performed task  
(2) Failed: did not perform task  
Be sure to list the date the testing for each task was completed.

**Recognition:**  
When testing for the NCCER Training Program, record performance testing results and submit them to your Training Program Sponsor through the Registry System.