

Cover Memorandum

Notes for Draft 1: Usability Test Script

ENERGY STAR® Specification for Residential Climate Controls

This document was circulated during the December 14, 2010, ENERGY STAR Climate Controls stakeholder meeting.

During this face to face meeting, Climate Controls stakeholders brought devices to “test drive” the draft usability test method. During this exercise, stakeholders offered a number of excellent suggestions to improve the script, which will be addressed in subsequent revisions of both the test method and script.

For the test script, stakeholder feedback fell into three general categories that included:

- 1) **Reexamining task order.** For example, test participants are likely to have already determined the room temperature and setpoint prior to starting Task 3, which requires them to identify and read these values aloud.
- 2) **Modify terminology.** In particular, the current use of the term “Away” for the energy saving mode might not be appropriate for all climate control manufacturers’ climate control models and could add confusion to the test.
- 3) **Adding clarifying language.** One option: clarify Task 2 by incorporating and defining an initial setpoint for the test administrator.

Text on the following pages has not been revised and is representative of the hard-copies circulated during the December 14, 2010, stakeholder meeting.

Please submit any additional comments to EPA by January 30, 2010, via e-mail: ClimateControls@energystar.gov.



ENERGY STAR® Program Requirements Product Specification for Residential Climate Controls

Usability Test Script — DRAFT (Dec-2010)

2 1 OVERVIEW

3 This document is for use by test administrators conducting usability panel testing of
4 Residential Climate Controls. It provides a detailed script for test administrators to follow in
5 order to provide instructions to panelists.

6 For definitions, usability test panel selection, and test procedure, see reference document
7 below.

8 2 DEFINITIONS

- 9 • Test Administrator: the individual(s) conducting Residential Climate Control usability
10 testing.
11

12 3 REFERENCE DOCUMENT

- 13 • ENERGY STAR Residential Climate Controls Test Method — Usability
14

15 4 IMPORTANT NOTES FOR TEST ADMINISTRATOR

16 Please note the following:
17

- 18 • Test administrators shall follow the test procedure in Section 6, of the reference
19 document above.
- 20 • Test administrators shall not influence the panelists in any way, including:
21 – Verbal statements or cues beyond the script outlined below.
22 – Body movements or hand gestures that could assist or dissuade an individual
23 completing a task.
24 – Facial expressions or eye movements that would indicate what buttons to push
25 or where to find specific information beyond what is read to the panelist.
- 26 • Test administrators shall read the prescribed scripts in a clear, slow, and methodical
27 manner to ensure that the panelist understands what is being requested of them.
- 28 • Verbal instructions shall be provided to each panelist individually immediately prior to the
29 start of each task. In order to ensure test impartiality, panelists waiting to begin testing
30 shall be prevented from hearing the verbal instructions given by the test administrator to
31 the current panelist.
32

33 5 TEST ADMINISTRATOR SCRIPTS

34 All scripts to be read aloud are in quotation marks and *italic* font.

35
36 Specific, individualized directions to be given by the test administrator are in parentheses and
37 non-italic font (e.g., location of written user documentation).

38
39 Specific commands to be used within the test (e.g., times up) are in **italic bold** font.

40

41 A) Introduction Script:

42 *“Hello, you will be asked to perform six tasks by interacting with this Residential Climate*
43 *Control (indicate location and gesture with one hand). Please note that these products are*
44 *more commonly referred to as Programmable Thermostats and are used to control heating,*
45 *ventilation and air conditioning equipment. I will be taking notes while you are performing*
46 *these tasks and recording how long each task takes to complete.*

47 *I cannot answer any questions or influence your actions in any way. If you do not*
48 *understand the instructions for any task, please let me know and I will reread the*
49 *instructions for that task a second time. After reading the instruction, please attempt to*
50 *perform the task. Written user documentation is available for your use, here (describe*
51 *location and gesture with one hand), should you wish to use it.*

52 *Once you have completed a task, please say ‘**Task done**’ and I will verify.*

53 *There is a time limit for completion of each task. If you cannot complete any one task in the*
54 *allotted time, I will say ‘**Time is up**’ and we will move to the next task until all six are*
55 *completed.*

56 *I may need to adjust the Climate Control between tasks.*

57 *Let’s begin.”*

58 B) Task 1 Script: Set Date & Time

59 Before providing instructions for this task, ensure the Climate Control has been configured
60 with an incorrect date and time, is in HVAC Heat mode, and has the default or home screen
61 displayed.

62 *“The date and time is currently incorrect on the Climate Control. When I say ‘Begin,’ please*
63 *enter this date and time into the Climate Control (indicate direction where clock and*
64 *calendar is located). When finished, say ‘Task done.’ **Begin.**”*

65 Start the timer and monitor the Task 1 time limit. If the time limit expires, say “**Time is**
66 **up.**” When the panelist says “**Task done**” stop the timer, verify task correctness and
67 record results as outlined in the reference document.

68 C) Task 2 Script: Turn on Heat

69 Before providing instructions for this task, configure the Climate Control to HVAC Off mode,
70 with the default or home screen displayed.

71 “*The Climate Control is currently turned off. When I say ‘Begin,’ please adjust the Climate*
72 *Control to heat the room to 68°F.*” When finished, say ‘Task done.’ **Begin.**”

73 Start the timer and monitor the Task 2 time limit. If the time limit expires, say “**Time is**
74 **up.**” When the panelist says “**Task done**” stop the timer, verify task correctness and
75 record results as outlined in the reference document.

76 D) Task 3 Script: Identify Room Temperature and Setpoint

77 Before providing instructions for this task, configure the Climate Control to HVAC Heat
78 mode, with the default or home screen displayed.

79 “*When I say Begin, please read aloud the current room temperature and the set*
80 *temperature, also called the active setpoint. When finished, say ‘Task done.’ Begin.*”

81 Start the timer and monitor the Task 3 time limit. If the time limit expires, say “**Time is**
82 **up.**” When the panelist says “**Task done**” stop the timer, verify task correctness and
83 record results as outlined in the reference document.

84 E) Task 4 Script: Activate/Cancel Away Mode

85 Before providing instructions for this task, configure the Climate Control to HVAC Cool mode
86 with the default program schedule active and the default or home screen displayed.

87 “*When I say Begin, please set the Climate Control to Away Mode as if you were leaving the*
88 *house for work. Once activated, verbally announce ‘Away mode activated.’ Next, cancel*
89 *Away Mode as if you returned home from work. Then, verbally announce ‘Away mode*
90 *cancelled – Task done.’*”

91 *Once again; first activate Away Mode and announce ‘Away mode activated.’ Second,*
92 *cancel Away Mode and announce ‘Away mode cancelled – Task done.’ **Begin.***”

93 Start the timer and monitor the Task 4 time limit. You will also need to verify proper
94 setting of Away Mode as the panelist is instructed to cancel it immediately after
95 activation. If the time limit expires, say “**Time is up.**” When the panelist says “**Away**
96 **mode cancelled – Task done**” stop the timer, verify task correctness and record results
97 as outlined in the reference document.

98

99 F) Task 5 Script: Modify Program Schedule

100 Before providing instructions for this task, configure the Climate Control to HVAC Heat mode
101 with the default ENERGY STAR program schedule active and the default or home screen
102 displayed.

103

104 Provide the panelist a printout of the Residential Climate Control – Program Modifications
105 (Table 2 of the reference document).

106 *“When I say Begin please modify and save the Climate Control program schedule. Change
107 only the times and setpoints on the days indicted in Table 2, which I’ve provided you. Then,
108 verbally announce ‘Task done.’ **Begin**”*

109 Start the timer and monitor the Task 5 time limit. If the time limit expires, say “**Time is**
110 **up.**” When the panelist says “**Task done**” stop the timer, verify task correctness and
111 record results as outlined in the reference document.

112 G) Task 6 Script: Identify Energy Rate Tier

113 Before providing instructions for this task, collect the sheet of paper from Task 5 and
114 configure the Climate Control to HVAC Heat mode with the default or home screen
115 displayed.

116 *“Please identify and read aloud the current electricity price, or price tier. Then, verbally
117 announce “**Task done.**”*

118 Start the timer and monitor the Task 6 time limit. If the time limit expires, say “**Time is**
119 **up.**” When the panelist says “**Task done**” stop the timer, verify task correctness and
120 record results as outlined in reference document.

121 H) Exit Script:

122 *“You have completed all six tasks and this concludes our testing. Thank you. We appreciate
123 your participation in this testing program. Please return to the (insert appropriate
124 destination—example: front desk) before you leave.”*