

ERRATA SHEET FOR FIRST PRINTING

ASHRAE/IES STANDARD 90.1-1989
ENERGY EFFICIENT DESIGN OF NEW BUILDINGS EXCEPT LOW-RISE RESIDENTIAL BUILDINGS

Rev. September 7, 1990

The following errata and editorial clarifications have been incorporated in the second printing of ASHRAE/IES 90.1-1989:

Table 10-4a, p. 92. Reformat Table 10-4a as shown below to make it more intelligible to readers. This editorial clarification stems from the official interpretations decided by SSPC 90R at its Atlanta meeting and involves only editorial clarifications, including the rewording of footnote (a); inserting a new column No. 4 heading entitled, "Efficiency Rating," revising the wording of the column No. 2 heading, revising the formulas under the Minimum Performance and Jan. 1, 1992 headings by multiplying out and collecting the constants, and inserting a sentence at the beginning of footnote (b).

Table 10-4a
Standard Rating Conditions and Minimum Performance,
Packaged Terminal Air Conditioners and Heat Pumps
— Air-Cooled, Electrically Operated^a

Reference Standards ^c	Category TACs & PTAC H.P.'s	Sub-Category & Rating Condition (Outdoor Temp.)	Efficiency Rating	Minimum Performance ^b	Jan. 1, 1992
ARI 310-87 ^d	Cooling Mode	Standard Rating (95°F db)	EER	10.0 - (0.19 × Cap./1000)	10.0 - (0.16 × Cap./1000)
		Low Temp. Rating (82°F db)	EER	12.0 - (0.23 × Cap./1000)	12.2 - (0.20 × Cap./1000)
ARI 380-87 ^e	Heating Mode	Standard Rating (47°F db/43°F wb)	COP	2.9 - (0.03 × Cap./1000)	2.9 - (0.026 × Cap./1000)

^a For multi-capacity equipment the minimum performance shall apply to each capacity step provided. Multi-capacity refers to manufacturer published ratings for more than one capacity mode allowed by the product's controls.

^b Cap. means the rated cooling capacity of the product in Btu/h in accordance with the cited ARI Standard. If the unit's capacity is less than 7000 Btu/h, use 7000 Btu/h in the calculation. If the unit's capacity is greater than 15000 Btu/h, use 15000 Btu/h in the calculation.

^c For detailed references, please see Section 1.4.

Table 11-1, p. 97: Add footnote (c) to the W/ft² requirement listed in two places in Table 11-1, worded as follows:

"° Tank exterior surface area."

Subsection 3.4 Definitions, gross exterior wall area, p. 3: Relocate the parenthetical expression to follow the words "opaque wall" in the first line of the last sentence.

Subsection 3.4 Definitions, illuminance, p. 4: In line 3, delete the word "multiplied."

Subsection 3.4 Definitions, thermal resistance (R), p. 7: Change the last comma to a semicolon.

Tables 10-1 through 10-9, pp. 91-95. In the table captions, correct the format and punctuation similar to the Table 10-4a revised caption as shown on page 1 above. For example, the caption for Table 10-1 should be changed as follows:

"Standard Rating Conditions and Minimum Performance, Unitary Air Conditioners and Heat Pumps - Air-Cooled, Electrically-Operated, <135,000 Btu/h Cooling Capacity - Except Packaged Terminal and Room Air Conditioners"

Table 10-3, p. 92: In the column heading "Reference Standard, change the footnote reference letter:

From: °
To: °

Table 10-6, p. 94. For the listing under column heading "Jan. 1, 1992" and the row "Heat Pumps" for >760,000 Btu/h, change the listed value to reflect the value in the Third Public Review Draft:

From: 8.2
To: 8.7

Table 13-7, p. 110. Interchange the two column headings in Table 13-7.

Fig. B-5, p. 126: The title imprinted on the bottom of the template should be changed:

From: ENVELOPE SYSTEM PERFORMANCE COMPLIANCE CALCULATION PROGRAM
To: LIGHTING COMPLIANCE CALCULATION PROGRAM

Label on 3-1/2" Diskettes: Change wording on label for 3-1/2 " diskettes:

From: Appendixes B and C
To: Appendixes B and D

Labels on 3-1/2 and 5-1/4" Diskettes: Change the program names wherever they appear on the executable program diskette labels to include the revision number, as necessary to execute the program:

From: LTGSTD

ENVSTD

To: LTGSTD21

ENVSTD21

Change the program names wherever they appear on the source code diskette labels:

From: LTGSTD
ENVSTD

To: C SOURCE CODE FOR LTGSTD VER 2.1
C SOURCE CODE FOR ENVSTD VER 2.1