

Errata for J. D. Jackson, Classical Electrodynamics, 3rd edition (2002-2006)

[These are typos and other corrections or improvements subsequent to all the errata incorporated up to the eighth printing in 2002.]

- p. 72 - Seven lines above Eq.(2.59) - Replace $y \leq 0$ by $y \geq 0$.
- p. 98 - Equation (3.18) - Delete the parenthesis (after $l(l+1)$ in the integrand.
- p. 147 - last line of Eq.(4.11) - argument of Y_{lm} should be (ϑ, φ) , not (φ, ϑ) .
- p. 177 - line above Eq.(5.7) - Add "(in Gaussian units multiply right-hand side by $1/c$)"
- p. 177 - line above Eq.(5.8) - Change to read "(5.4) and (5.7) with $k = \mu_0/4\pi$:"
- p. 178 - last line of Sect. 5.2 - Add new sentence "Note that in Gaussian units, both (5.12) and (5.13) have an added factor $1/c$ on the right hand side. "
- p. 211 - line above (5.141) - Replace the whole line with " in the definition of the magnetic force (5.7). In SI units Faraday's law (5.136) therefore reads "
- p. 232 - Problem 5.28 - the definition of k^2 should be $k^2 = 4ab/[(a+b)^2 + d^2]$.
- p. 241 - Running Head should read Lorenz, not Lorentz.
- p. 242 - in line above (6.27), after \mathbf{J} add "at a fixed time".
- in Eqs.(6.27) and (6.28) add (\mathbf{x}, t) as arguments to the \mathbf{J} 's on the left and add (\mathbf{x}', t) to the \mathbf{J} 's in the integrals on the right.
- p. 296 - Left-hand side of last equation should read $\mathbf{B}(\mathbf{x}, t)$.
- p. 298 - In unnumbered equation in the middle of the page, the first exponential factor on the RHS has an incorrect subscript $\cdot \mathbf{x}$ in the exponent. Change $e^{-k\mathbf{n} \cdot \mathbf{x}}$ to $e^{-k\mathbf{n} \cdot \mathbf{x}}$
- p. 306 - last paragraph of Section 7.3:
- line above (7.42) - Delete the word "both"
- second equation in (7.42) - add \pm in front of both expressions on RHS.
- Replace the last two sentences with "For the reflected wave the upper (lower) sign holds for polarization parallel (perpendicular) to the plane of incidence. For $n' > n$ there is thus a phase reversal for the reflected wave at normal incidence (See Fig. 7.6).
- p. 380 - last line, unnumbered equation - The first factor on the RHS should read $\exp[i\mathbf{k} \cdot \mathbf{S}(\mathbf{x}_0)/c]$, not $\exp[i\mathbf{k} \cdot \mathbf{S}(\mathbf{x}_0)]$.

- p. 410, second equation - there should be a factor of r in the denominator.
- p. 451 - Problem 9.6(b) - The expression for $\mathbf{B}(\mathbf{x}, t)$ should be multiplied by c to decrease the powers of c in the denominators by one power each.
- p. 519 - unnumbered equation below (11.7) - denominator on right should be c' , not c .
- p. 577 - Problem 11.28 - At the beginning of line 3, replace boldface \square' with \square' .
- p. 599 - Eq.(12.84) - last expression on the right should have $1/c$ in front of the integral.