

Supplemental Errata in Chapman Text

- On page 45, Example 1-10, Equation (1-61) should have, $6\angle 30^\circ$ for \mathbf{I} , $6\angle -30^\circ$ for \mathbf{I}^* and $720\angle -30^\circ$ VA. The final answer is correct.
- In Problem 1-19, $\mathbf{V} = 120\angle 0^\circ$.
- In the solution to Example 2-1, the subscript “L” is mysteriously dropped starting in part (c), page 71.
- p104 “j” missing in Fig 3-16 on primary side inductor.
- (3-51) L_{OC} should be I_{OC}
- Example 3-2 table: bottom equation should be $P_{OC} = 400\text{W}$
- In Problem 5-18, assume the motor is part of a 60 Hz system.
- A sentence in the last full paragraph on page 275 should read, “Notice that at this time the generator is actually operating at a slightly leading power factor, so the load is acting as a capacitor, supplying reactive power.”
- Equation (7-6) in Example 7-1 should read

$$\begin{aligned} n_m &= (1 - s)n_{sync} \\ &= (1 - 0.05)(1800\text{r/min}) = 1710\text{r/min} \end{aligned}$$

- On page 300 and 301, replace all instances of a_{eff} with a_{LR} , as a_{eff} was used for a different constant on page 296.
- In Example 7-2, the text in Solution a. should read: The air-gap power is just the input power minus the stator I^2R losses and core losses.
- In Example 7-3, the parameter R_M of 26.3Ω should be labeled X_M .
- In Problem 7-13, first sentence, “in parallel” should be “in series.”
- Equation (8-24) should have $P_{in} - P_{loss}$ in numerator.
- Page 453, just before (9-18), should have $d\lambda = d\phi$ instead of $d\lambda = dx$.
- Last words of page 455 should be “in Figure 9-5.”
- In Example 9-1, part (d) resistance per kilometer is given twice as 0.225 ohms, rather than 0.0225. Also, resistance should be doubled for the two conductors, as is done with inductance and capacitance for single-phase.
- Page 470, phrase preceding (9-63) should read, “and substituting into Equation (9-53),” since the left-hand side of the equation just before the phrase could/should be written as

$$I_R \cos \theta_R = \frac{V_S \sin \delta}{X_L}$$

- Page 473 item 2. should have $|\mathbf{V}_R|/|\mathbf{V}_S| \geq 0.95$.
- Example 9-3 should have 210-kV line, not 220-kV.

- Example 9-4 is also 210-kV.
- Equation (10-6) on page 496 should have $\frac{V_{LL,base}^2}{S_{3\phi,base}}$
- Page 498, right-hand side of (10-12) should be 0.0238 per unit
- Equations (10-13) and (10-14) on page 498 should have $\left(\frac{13.8kV}{13.2kV}\right)^2$ for voltage ratios.
- (10-35) on page 505 should be $\mathbf{I}_1 = (\mathbf{V}_1 - \mathbf{V}_2)Y_{line1}$
- Problem 10-7, Line 3 has $R = 5\Omega, X = 30\Omega$.
- Equation (11-13), page 519 should have $\left[\frac{-0.3+j0.2}{\mathbf{V}_{2,old}^*} - [(-0.3846 + j1.9231)\mathbf{V}_1]\right]$ for bracketed term.
- Page 527, “speed-up” number 1 is actually part of normal Gauss-Seidel, so don’t think of it as an add-on; you can’t be doing Gauss-Seidel without it.
- In both (11-29) and (11-31) on page 537, the minus signs should be removed in front of the \mathbf{VI}^* products.
- Page 553, Table 11-10 should have, in the P column: 40,30,50,15 and 30 MW in order, top to bottom. The Q column should read, similarly, 25,20,35,5 and 15 MVAR.
- Page 598, (13-36) should have, as last term, $3\mathbf{V}_{A2}\mathbf{I}_{A2}^*$.
- Page 610, right side of (13-51) should begin with $-Z_0\mathbf{I}_{A1} + \dots$
- Caption of Figure 13-17 should read “For a double line-to-ground fault,...”
- Problem 13-6, Each line should be $R = 8\Omega, X_1 = X_2 = 40\Omega, X_0 = 80\Omega$.