$$-F^{01} = F^{10} = \partial^1 A^0 - \partial^0 A^1 = -\frac{\partial}{\partial x^1}\left(\frac{V}{c}\right) - \frac{1}{c}\frac{\partial A^1}{\partial t} = \frac{1}{c}\left[-\nabla V - \frac{\partial \underline{A}}{\partial t}\right]_1 = \frac{E_1}{c}$$

$$-F^{02} = F^{20} = \partial^2 A^0 - \partial^0 A^2 = -\frac{\partial}{\partial x^2}\left(\frac{V}{c}\right) - \frac{1}{c}\frac{\partial A^2}{\partial t} = \frac{1}{c}\left[-\nabla V - \frac{\partial \underline{A}}{\partial t}\right]_2 = \frac{E_2}{c}$$

... and similarly for $-F^{03} = F^{30} = \frac{E_3}{c}$

{Note that: $\partial^i = \frac{\partial}{\partial x_i} = -\frac{\partial}{\partial x^i}$ (for $i = 1, 2, 3$)}

$$-F^{21} = F^{12} = \partial^1 A^2 - \partial^2 A^1 = -\frac{\partial A^2}{\partial x^1} - \left(-\frac{\partial}{\partial x^2}\right) A^1 = -\left[\nabla \times \underline{A}\right]_3 = -B_3$$

$$-F^{13} = F^{31} = \partial^3 A^1 - \partial^1 A^3 = -\frac{\partial A^1}{\partial x^3} - \left(-\frac{\partial}{\partial x^1}\right) A^3 = -\left[\nabla \times \underline{A}\right] = -B_2$$

and similarly for $-F^{32} = F^{23} = -B_1$