$$\mathcal{A}_L = 0, \quad \mathcal{A}_R = (\mathcal{A}_R^{n_1})_{U(1)} = \frac{\alpha_Y}{\pi} \frac{\delta_{RR}}{m_R^2} f_{1n} \left(\frac{|M_1|^2}{m_R^2} \right),$$