$$(x_1 \otimes x_0) \otimes x_1 \qquad\qquad x_1 \otimes (x_1 \otimes x_1)$$

$$\downarrow{\scriptstyle \rho_{x_1} \otimes 1_{x_1}} \qquad\qquad\qquad \downarrow{\scriptstyle 1_{x_1} \otimes \rho^{-1}_{x_1 \otimes x_1}}$$

$$x_1 \otimes x_1 \qquad\qquad x_1 \otimes \big((x_1 \otimes x_1) \otimes x_0\big)$$