$$\mathrm{ru}^{-1}_{V^*} \fatsemi (\mathrm{Id}_{V^*} \otimes \eta_V) \fatsemi \mathrm{as}^{-1}_{V^*,V,V^*} \fatsemi (\epsilon_V \otimes \mathrm{Id}_{V^*}) \fatsemi \mathrm{lu}_{V^*} = \mathrm{Id}_{V^*}$$