$$K_{90}^{1} = \begin{bmatrix} \mathbf{i}\sqrt{3} & \frac{\left(3-\mathbf{i}\sqrt{3}\right)U}{2\,t} \\ \frac{-\mathbf{i}}{2}\left(-3\,\mathbf{i}+\sqrt{3}\right)U & \mathbf{i}\sqrt{3} \\ \hline t & \end{bmatrix}$$