$$\begin{pmatrix} \begin{pmatrix} \mathbf{L} \end{pmatrix}_{p} \end{pmatrix} = \begin{pmatrix} \mathbf{L} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \end{pmatrix}_{p} \begin{pmatrix} \mathbf{L} \end{pmatrix}_{p} \begin{pmatrix} \mathbf{L} \end{pmatrix}_{p} \begin{pmatrix} \mathbf{L} \end{pmatrix}_{p} \end{pmatrix}_{$$