forward: x — $\mathrm{BN}_{\gamma,\beta}$ — y — ϕ — z — $\textsc{Conv}$

$\hat{x}$ — $\pi^{-1}_{\gamma,\beta}$ — y — ϕ^{-1}

backward: $\frac{\partial L}{\partial x}$ — $\mathrm{BN}^*_{\gamma,\beta}$ — $\frac{\partial L}{\partial y}$ — ϕ — $\frac{\partial L}{\partial z}$ — $\textsc{Conv}$