

$$\begin{array}{ccccc}
 & & C_{d\mathbb{Z}}^{\infty} & \xrightarrow{\square} & C_{d\mathbb{Z}}^{\infty} & \xrightarrow{M^{\#}} & \mathfrak{H} \mid C_{d\mathbb{Z}}^2 \\
 & \nearrow & & & & & \\
 C_{d\mathbb{Z}}^{\infty} & & & & & & \\
 & \searrow & & & & & \\
 & & C_{d\mathbb{Z}}^{\infty} & \xrightarrow{\square} & C_{d\mathbb{Z}}^{\infty} & & \\
 & & & & & &
 \end{array}$$