

$$\delta[n] \longrightarrow \boxed{\text{LIT}} \longrightarrow h_0[n] = h[n]$$

$$\delta[n+1] \longrightarrow \boxed{\text{LIT}} \longrightarrow h_{-1}[n] = h[n+1]$$

$$\delta[n-1] \longrightarrow \boxed{\text{LIT}} \longrightarrow h_1[n] = h[n-1]$$

$$\vdots$$

$$\vdots$$

$$\vdots$$

$$\delta[n-k] \longrightarrow \boxed{\text{LIT}} \longrightarrow h_k[n] = h[n-k]$$