$[SENSOR]$

$MaxReadings == [smax : SENSOR \nrightarrow \mathbb{Z}]$

$$
\begin{array}{l}
\rule{3cm}{0.4pt}\ KeepMaxReadingOk \rule{6cm}{0.4pt} \\
\Delta MaxReadings \\
s? : SENSOR;\ r? : \mathbb{Z} \\
\hline
s? \in \operatorname{dom} smax \\
smax\ s? < r? \\
smax' = smax \oplus \{s? \mapsto r?\} \\
\end{array}
$$

$KeepMaxReadingE1 ==$
  $[\Xi MaxReadings;\ s? : SENSOR \mid$
  $s? \notin \operatorname{dom} smax]$

$$
\begin{array}{l}
\rule{3cm}{0.4pt}\ KeepMaxReadingE2 \rule{6cm}{0.4pt} \\
\Xi MaxReadings \\
s? : SENSOR;\ r? : \mathbb{Z} \\
\hline
s? \in \operatorname{dom} smax \\
r? \leq smax\ s? \\
\end{array}
$$

$KeepMaxReading ==$
  $KeepMaxReadingOk$
  $\vee\ KeepMaxReadingE1$
  $\vee\ KeepMaxReadingE2$