```r
# Data processing for GR4J (with Q for calibration)
prep <- PrepGR(DatesR      = ts_obs$Date,
               Precip      = ts_obs$Ptot,
               PotEvap     = ts_obs$Evap,
               Qobs        = ts_obs$Qmmd,
               HydroModel = "GR4J",
               CemaNeige   = FALSE)

# Parameter set to test
i_param_gr4j <- c(X1 = 350, X2 = 0, X3 = 90, X4 = 1.4)

# Rainfall-runoff simulation on the calibration period
i_sim_manu <- SimGR(PrepGR  = prep,
                    Param   = param_gr4j,
                    WupPer  = c("1999-01-01", "2000-12-31"),
                    SimPer  = c("2001-01-01", "2010-12-31"),
                    EffCrit = "NSE",
                    verbose = TRUE)

# Get the criterion value
GetCrit(i_sim_manu)

# Graphical assessment of the calibration performance
plot(i_sim_manu)
```