string_no = 1

String_no <= 4

unarmed

YES

INT_Cabtime[string_no,no of cabinets closed] = INT_Time

NO

BYTE_CAB_COUNT= 0

BYTE_CAB_COUNT < 32

(INT_Cabtime[String,BYTE_CAB_COUNT] + 30) > INT_TIME

YES

BYTE_CAB_COUNT++

NO

BYTE_OPEN_CABS_ALLOWED = BYTE_CAB_COUNT

BYTE_CAB_COUNT = 32

BYTE_OPEN_CABS_ALLOWED <= BYTE_MAX_CABS_IN_STRING[STRING_NO]

YES

no_of_cabinets_closed <= BYTE_OPEN_CABS_ALLOWED

YES

TEXT# = “STRING # PROTECTED”

NO

TEXT# = “STRING # ALARM”

ALARM = TRUE

NO

TEXT# = “OPEN CABINETS EXCEED MAX CABINTS IN STRING #”

ALARM = TRUE

string_no++