FUNCTION\_BLOCK CMD\_MONITOR

VAR\_INPUT AUTO\_CMD : BOOL ; (\* Automated command \*)

AUTO\_MODE : BOOL ; (\* AUTO\_CMD enable \*)

MAN\_CMD : BOOL ; (\* Manual Command \*)

MAN\_CMD\_CHK : BOOL ; (\* Negated MAN\_CMD to debounce \*)

T\_CMD\_MAX : TIME ; (\* Max time from CMD to FDBK \*)

FDBK : BOOL ; (\* Confirmation of CMD completion

by operative unit \*)

ACK : BOOL ; (\* Acknowledge/cancel ALRM \*)

END\_VAR

VAR\_OUTPUT CMD : BOOL ; (\* Command to operative unit \*)

ALRM : BOOL ; (\* T\_CMD\_MAX expired without FDBK \*)

END\_VAR

VAR CMD\_TMR : TON ; (\* CMD-to-FDBK timer \*)

ALRM\_FF : SR ; (\* Note over-riding S input: \*)

END\_VAR (\* Command must be cancelled before

"ACK" can cancel alarm \*)

(\* Function Block Body \*)

LD T\_CMD\_MAX

ST CMD\_TMR.PT (\* Store an input to the TON FB \*)

LD AUTO\_CMD

AND AUTO\_MODE

OR( MAN\_CMD

ANDN AUTO\_MODE

ANDN MAN\_CMD\_CHK

)

ST CMD

IN CMD\_TMR (\* Invoke the TON FB \*)

LD CMD\_TMR.Q

ANDN FDBK

ST ALRM\_FF.S1 (\* Store an input to the SR FB \*)

LD ACK

R ALRM\_FF (\* Invoke the SR FB \*)

LD ALRM\_FF.Q1

ST ALRM

END\_FUNCTION\_BLOCK