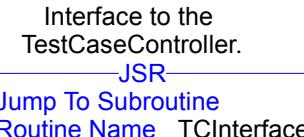


0



MCFG_Yaskawa: Motion Axis Configuration & Status Information
(MUST BE TIED DIRECTLY TO POWER RAIL; "ALWAYS ON")

Motion Axis
Configuration &
Status

1

MCFG_Yaskawa

Motion Axis Configuration & Status

MCFG_Yaskawa	A1_CFG	...
Axis_IN	A1_SigmaLogic:I	EN
Axis_OUT	A1_SigmaLogic:O	DN
Axis	Axis_01	ER
ParameterResolution	TC_Resolution	HB
FeedRateOverride	TC_FeedrateOverride	CommFLT
		SvPrmOK
PositionFB	0.995	SvRDY
SpeedFB	0.0	SvON
TorqueFB	0.0	SvSTL
ServoAlarmCode	16#0000	SvALM
ServoWarningCode	16#0000	SvWRN
ControllerAlarmCode	0	SvABT
ApplicationErrorCode	0	CntrALM
SigmaLogicSoftware	140707	AppER
SigmaLogicFirmware	30072	AOI_Active

Servo Axis Status Bits

2

Motion Axis
Configuration &
Status Servo On
A1_CFG.SvON

Axis01_PL_ServoOn

3

Motion Axis
Configuration &
Status Servo Ready
A1_CFG.SvRDY

Axis01_PL_ServoReady

4

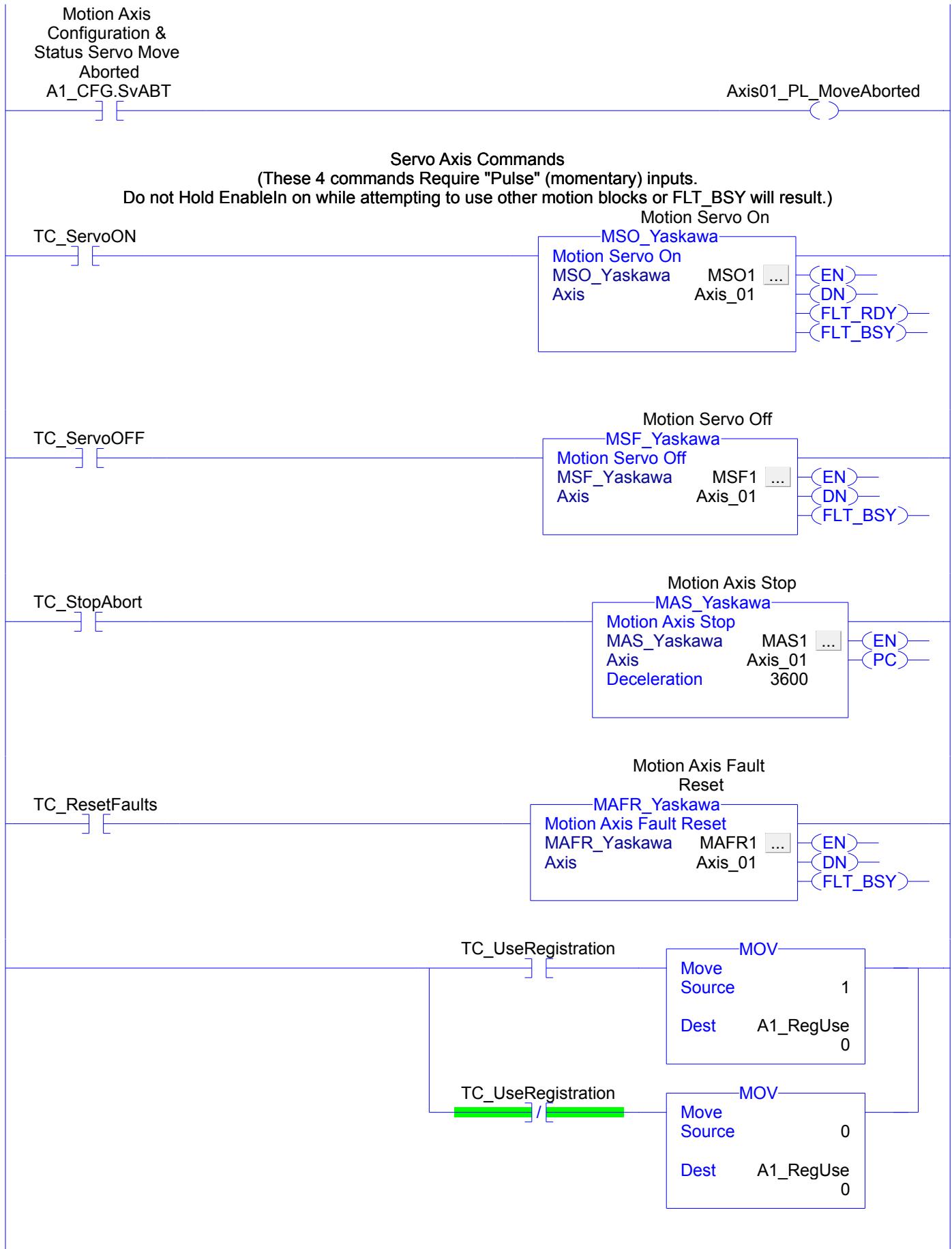
Motion Axis
Configuration &
Status Servo Alarm
A1_CFG.SvALM

Axis01_PL_ServoAlarm

5

Motion Axis
Configuration &
Status Servo Warning
A1_CFG.SvWRN

Axis01_PL_ServoWarning



MAM_Yaskawa: Move Command for a Relative or Absolute Move, with or without Registration.
(Requires a constant "ON" input for movement after all parameters are set)

Motion Axis Move

TC_Move

12

MAM_Yaskawa

Motion Axis Move

MAM_Yaskawa

MAM1

...

Axis

Axis_01

Move_Type

TC_MoveType

0

Position

TC_TargetPosition

0.0

Speed

TC_Speed

0.0

Accel_Rate

TC_Accel

0.0

Decel_Rate

TC_Decel

0.0

RegistrationUse

A1_RegUse

0

Reg_Position

TC_RegDistance

0.0

Reg_Speed

TC_RegSpeed

0.0

Reg_Accel

TC_RegAccel

0.0

Reg_Decel

TC_RegDecel

0.0

Axis_FaultCode

0

EN

DN

IP

ER

PC

RegDN

RegIP

RegER

RegPC

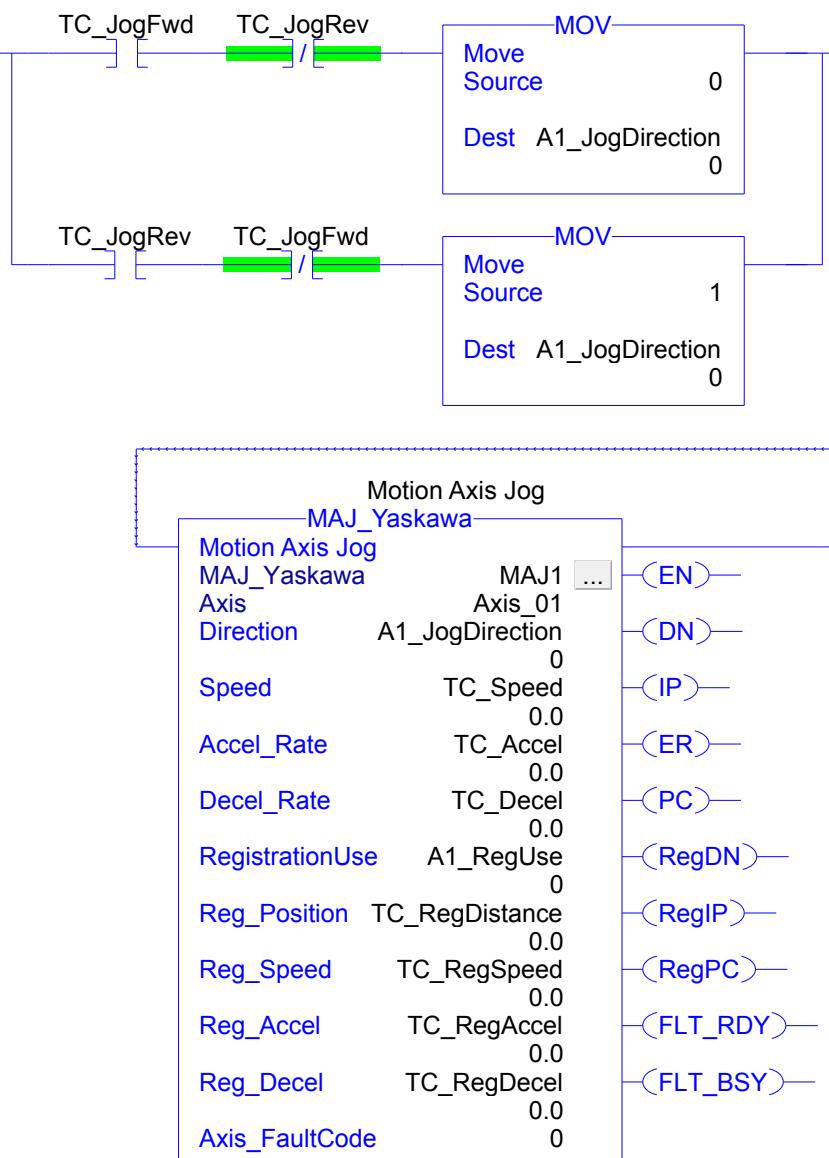
FLT_PRM

FLT_RDY

FLT_BSY

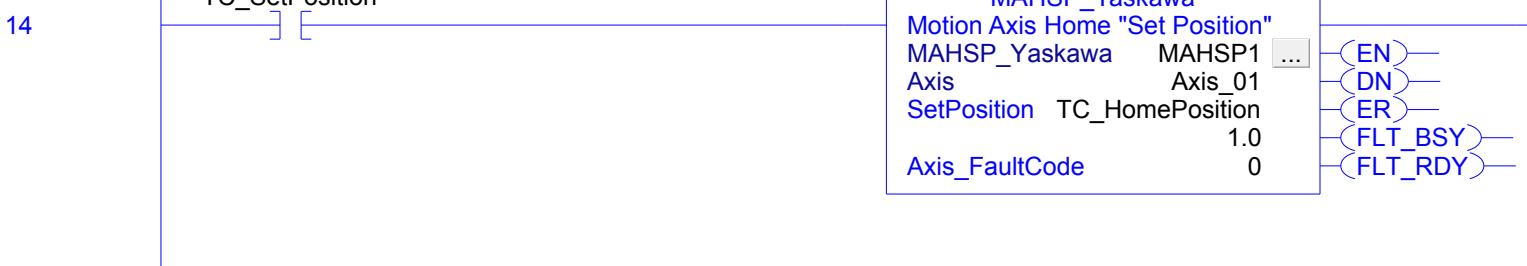
Jog Command
 (Requires a constant "ON" input for movement after all parameters are set)
 Releasing the EnableIN will stop the axis automatically.

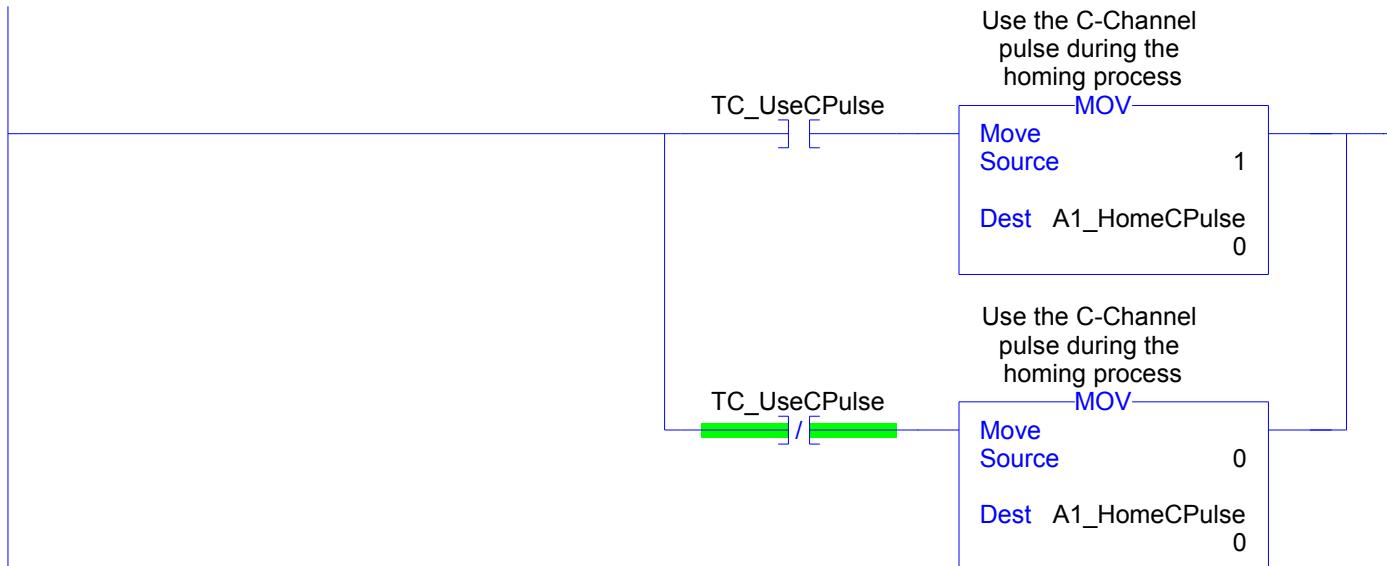
13



Homing Command to Set the Current Axis Position to Input Parameter.
 (Can also be done with MAH_Yaskawa, Home Type = 0)

14

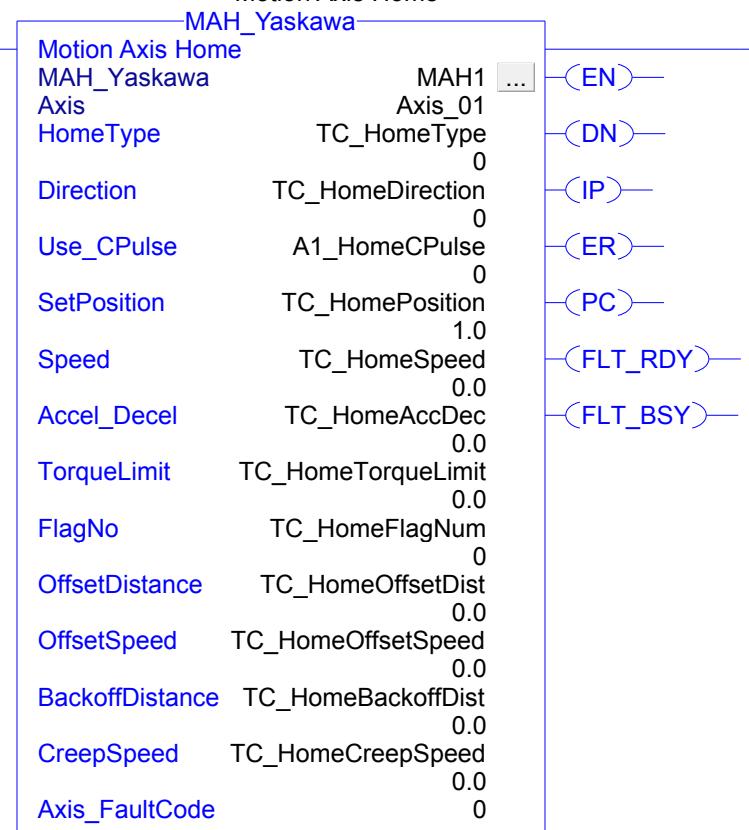


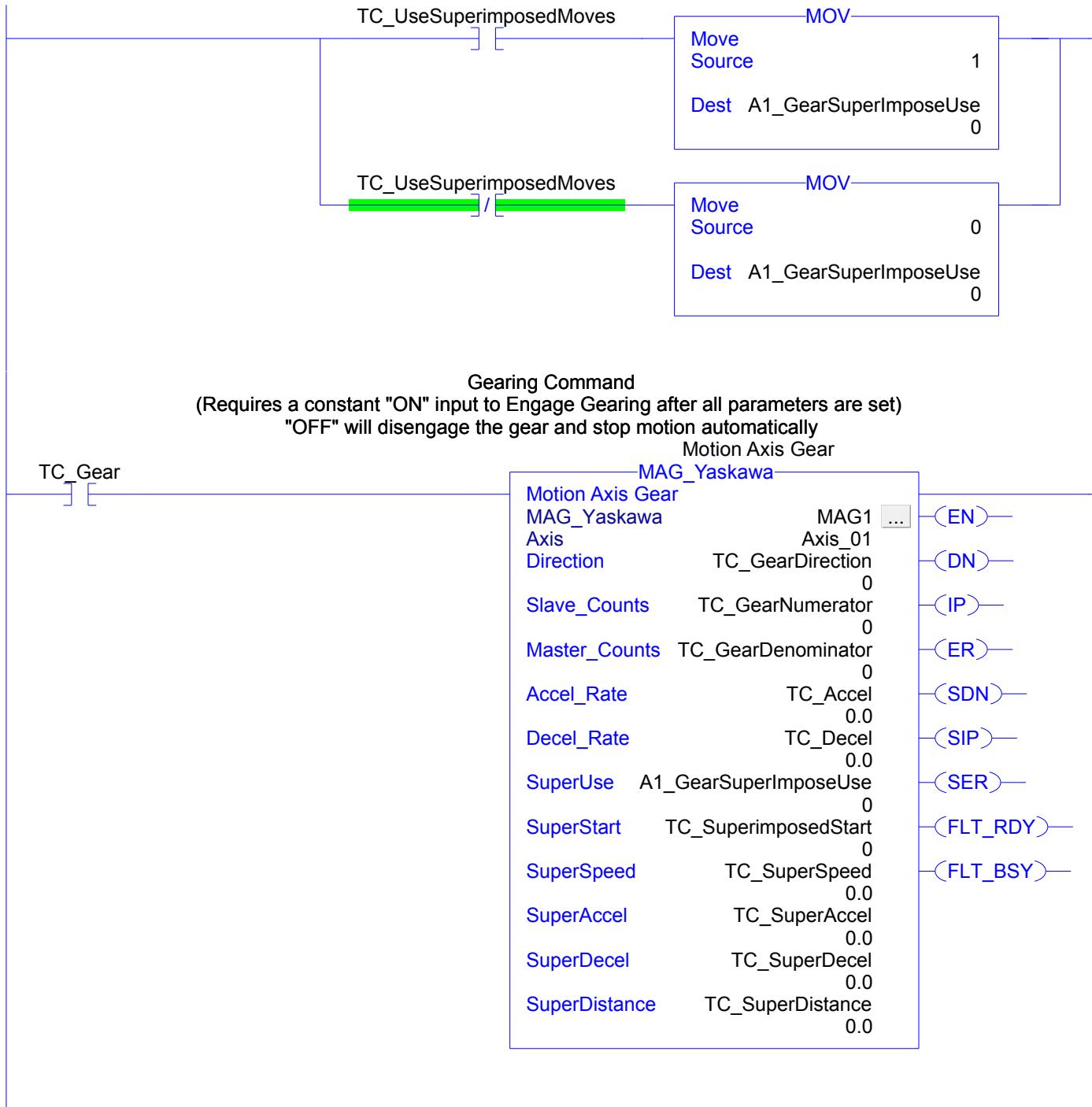


Homing Command; Hard Stop, Overtravel Switch, or Flag
(Requires a constant "ON" input for Homing after all parameters are set)

Motion Axis Home

TC_HomeSearch





Move Command for a Blended Move
 (Requires a constant "ON" input for movement after all parameters are set)
 Both position inputs are specified as Absolute position from Zero

Motion Axis Blend

TC_Blend

MAB_Yaskawa

Motion Axis Blend	
MAB_Yaskawa	
Axis	MAB1 Axis_01
Blend1_Accel	TC_Accel 0.0
Blend1_Decel	TC_Decel 0.0
Blend1_Speed	TC_Speed 0.0
Blend1_Position	TC_TargetPosition 0.0
Blend2_Accel	TC_BlendAccel2 0.0
Blend2_Decel	TC_BlendDecel2 0.0
Blend2_Speed	TC_BlendSpeed2 0.0
Blend2_Position	TC_BlendPosition2 0.0
MoveBlend1ErrorCode	0
MoveBlend2ErrorCode	0

TC_SeqRun

Motion Sequence Run

MSQR_Yaskawa

Motion Sequence Run	
MSQR_Yaskawa	MSQR1 ...
Axis	Axis_01
StepNumber	TC_SeqStepNum 0
SeqPause	TC_SeqPause 0
SeqResume	TC_SeqResume 0
SeqCancel	TC_SeqCancel 0
CurrentStep	0

Command to Edit the Speed or Distance (or both) of a specified Step Number in the Sequence Table of the SigmaLogic axis.

(Requires a constant "ON" input for editing after all parameters are set)

Motion Sequence Edit

21 TC_SeqEdit

MSQE_Yaskawa

Motion Sequence Edit	MSQE1	[...]
MSQE_Yaskawa	Axis	Axis_01
SeqEditType	TC_SeqEditType	0
SeqEditStepNo	TC_SeqEditStepNum	0
SeqEditSpeed	TC_Speed	0.0
SeqEditDistance	TC_TargetPosition	0.0

(EN)

(DN)

(ER)

(FLT_BSY)

Command to run a High Speed Index
(Requires a constant "ON" input for movement after all parameters are set)

Motion Axis High Speed Index

22 TC_HighSpeedIndexRun

MHSI_Yaskawa

Motion Axis High Speed Index	MHSI1	[...]
MHSI_Yaskawa	Axis	Axis_01
MoveMode	TC_HSIMoveMode	0
MoveType	TC_HSIMoveType	0
RepeatNumber	TC_HSIRepeatNumber	0
CalcMethod	TC_HSICalcMethod	0
Distance	TC_HSIDistance	0.0
Speed	TC_HSISpeed	0.0
Accel	TC_HSIAccel	0.0
MoveTime	TC_HSIMoveTime	0
DwellTime	TC_HSIDwellTime	0
Direction	TC_HSIDirection	0
TriggerFlagAssign	TC_HSITriggerFlagNum	0
MovingFlagAssign	TC_HSIMovingFlagNum	0
DwellingFlagAssign	TC_HSIDwellingFlagNum	0
DoneFlagAssign	TC_HSIDoneFlagNum	0
Axis_FaultCode		0

(EN)

(DN)

(IP)

(ER)

(MV)

(DW)

(FLT_RDY)

(FLT_BSY)

23 TC_TorqueMode

Command to run the axis in Torque Mode

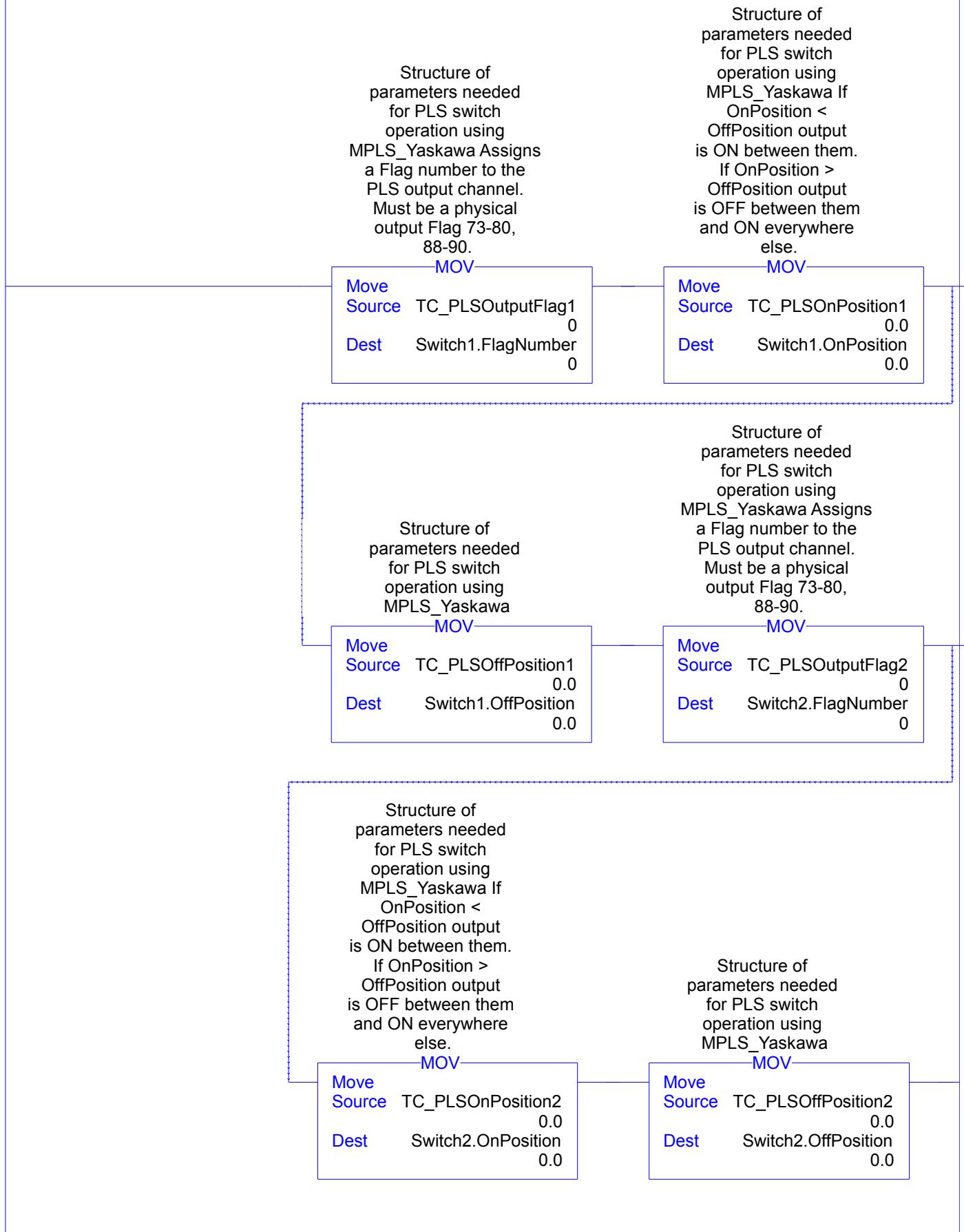
(Requires a constant "ON" input for movement after all parameters are set.)

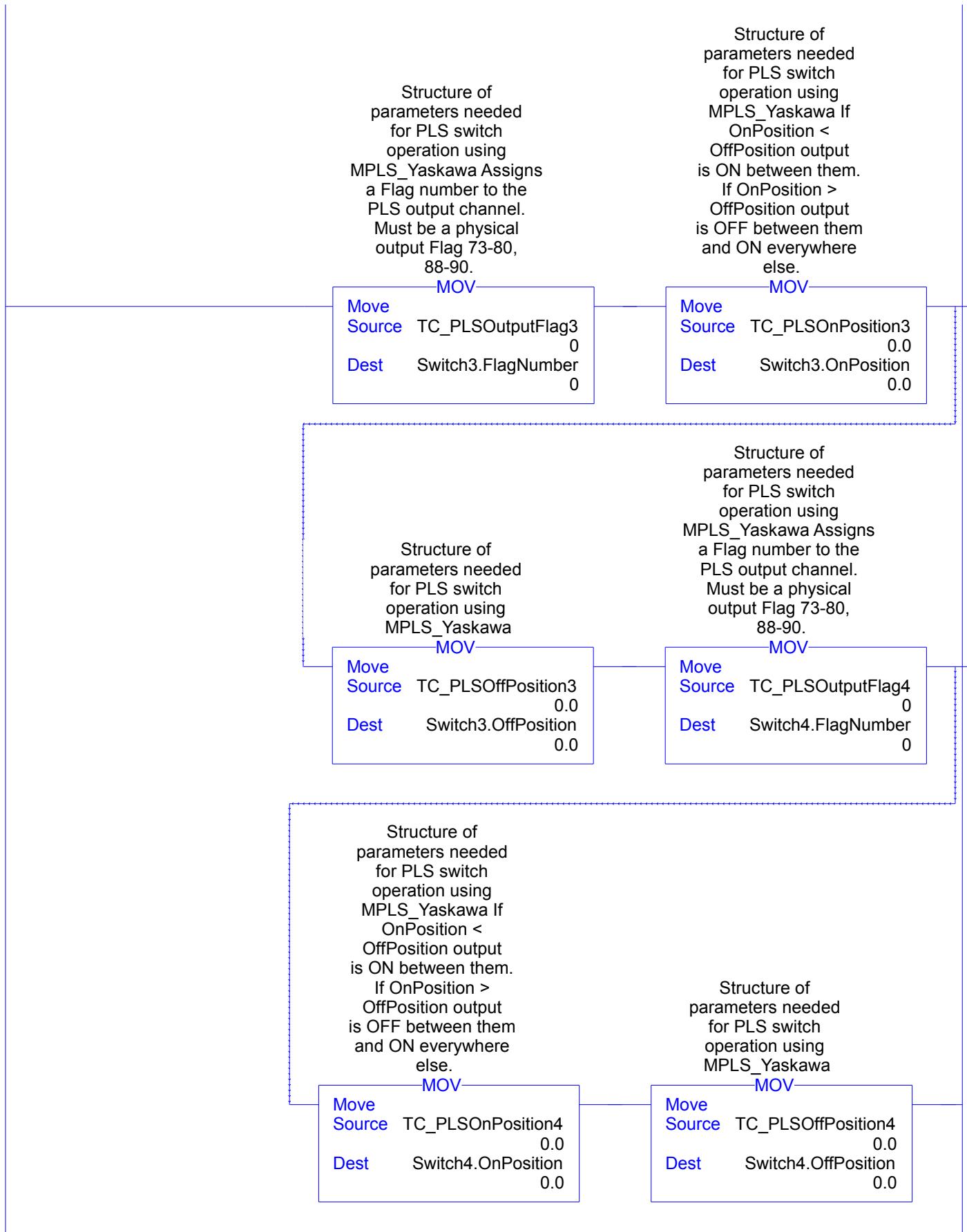
Setting EnableIn to "OFF" will stop the axis and full torque will be applied to hold position.)

Axis Torque Control

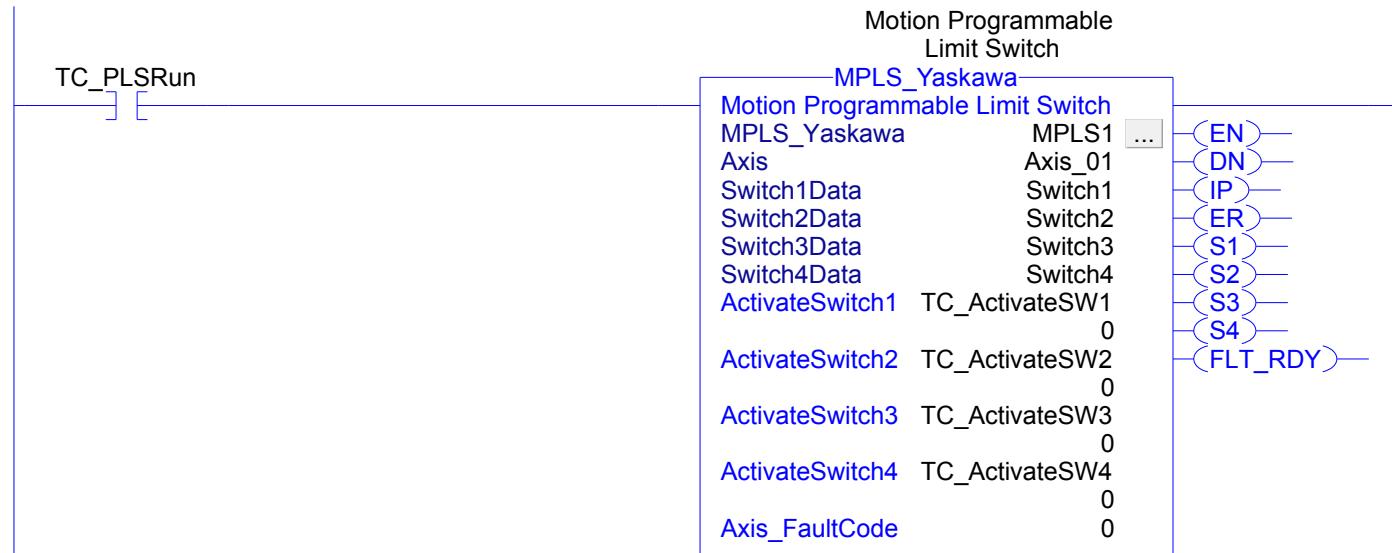
MTRQ_Yaskawa	
MTRQ_Yaskawa	MTRQ1 ...
Axis	Axis_01
Torque_Limit	TC_TorqueLimit 0.0
Torque_Ramp	TC_TorqueRamp 0.0
Speed_Limit	TC_TorqueSpeedLimit 0.0
Accel_Rate	TC_Accel 0.0
Decel_Rate	TC_Decel 0.0
Axis_FaultCode	0

Command to enable Programmable Limit Switch Outputs
 (Requires a constant "ON" input after all parameters are set.
 Output On and Off positions and compensation may be changed on the fly.
 Flag numbers cannot be changed on the fly or improper operation will be observed)

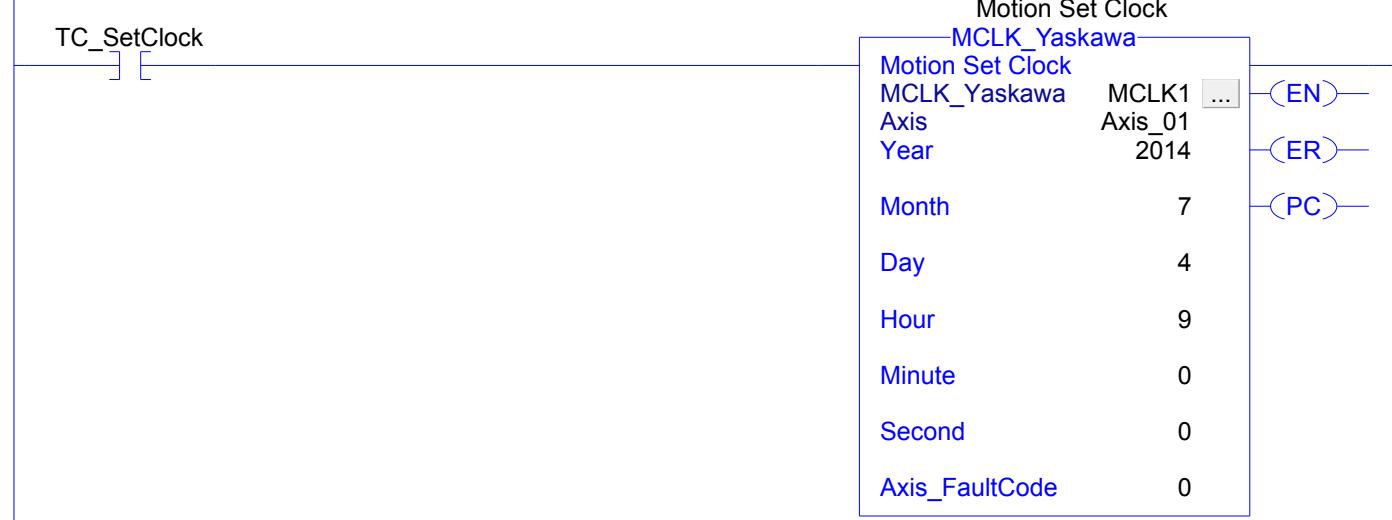




26



27



Write to the Controller Digital Outputs
as commanded by the Test Case Controller.
Only the lower bits 0-7 are used.

Yaskawa SigmaLogic
Axis Structure
Digital Output
commands.

Bits 0-7 correspond
to CN13 Digital
Outputs 0-7, used as
Flag 73-80.

Bits 8-10 correspond
to CN1 Digital
Outputs 0-2 used as
Flag 88-90"

BTD

Bit Field Distribute	TC_DOCmd
Source	0
Source Bit	0
Dest Axis_01.O.DigitalOutCommandBits	0
Dest Bit	0
Length	16

28

(End)