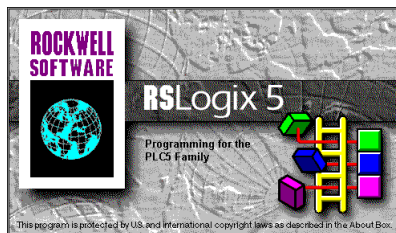


TEST BENCH ONE



Test Bench One

Processor Information

Processor Type: PLC5/15 B G 6912

Processor Name: TB1

Total Memory Used: 5892 WORDS

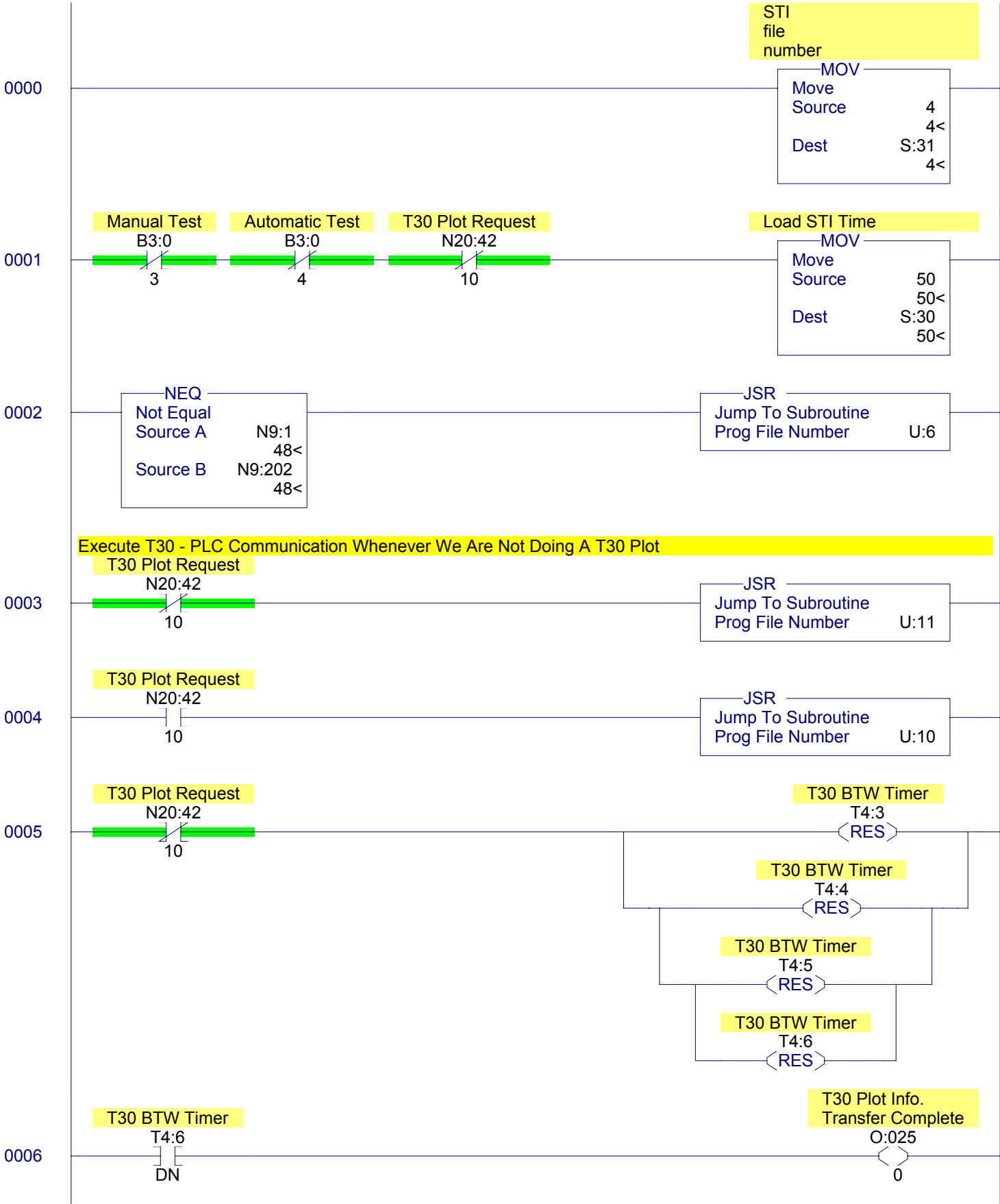
Program Files: 12

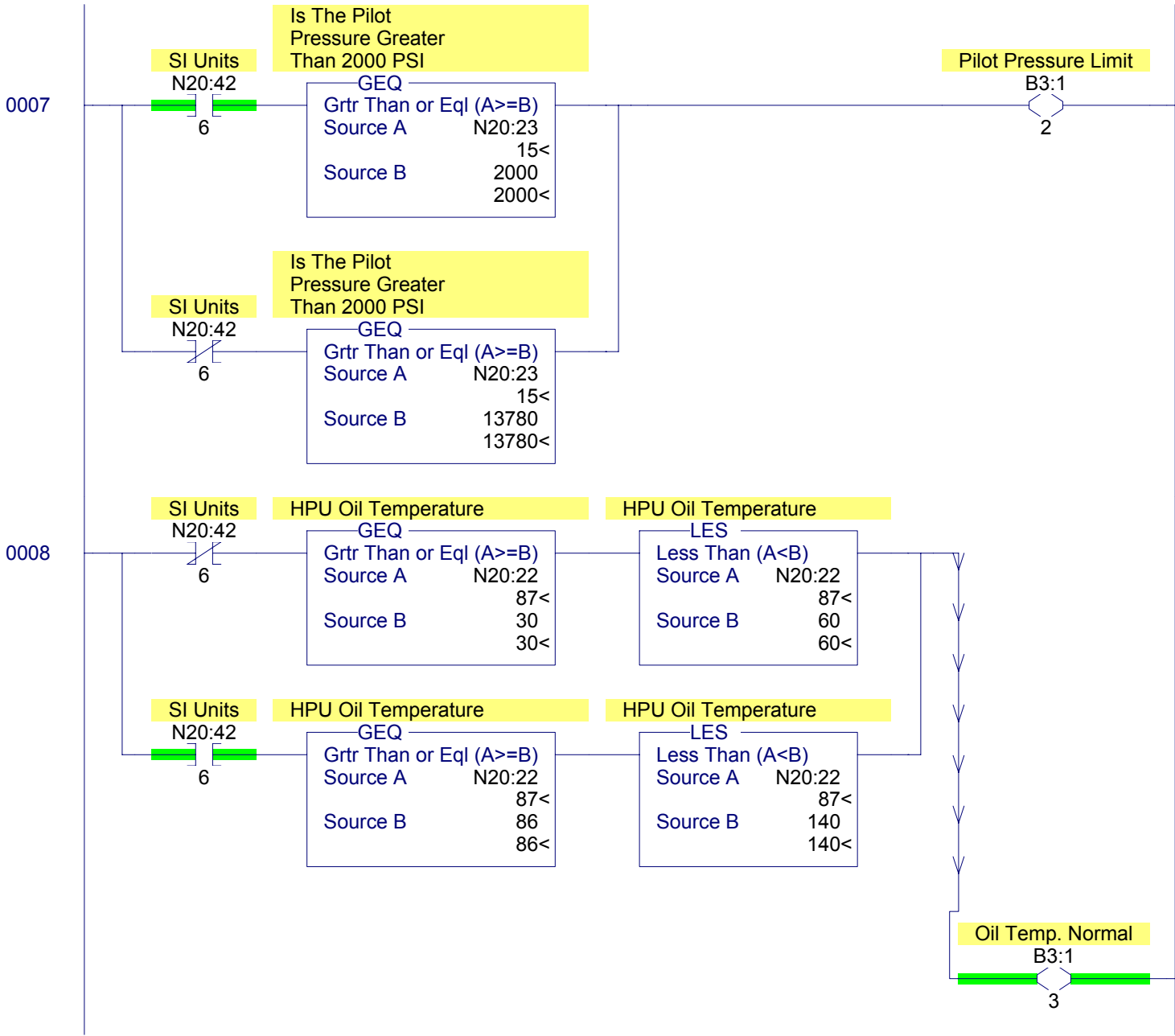
Data Files: 61

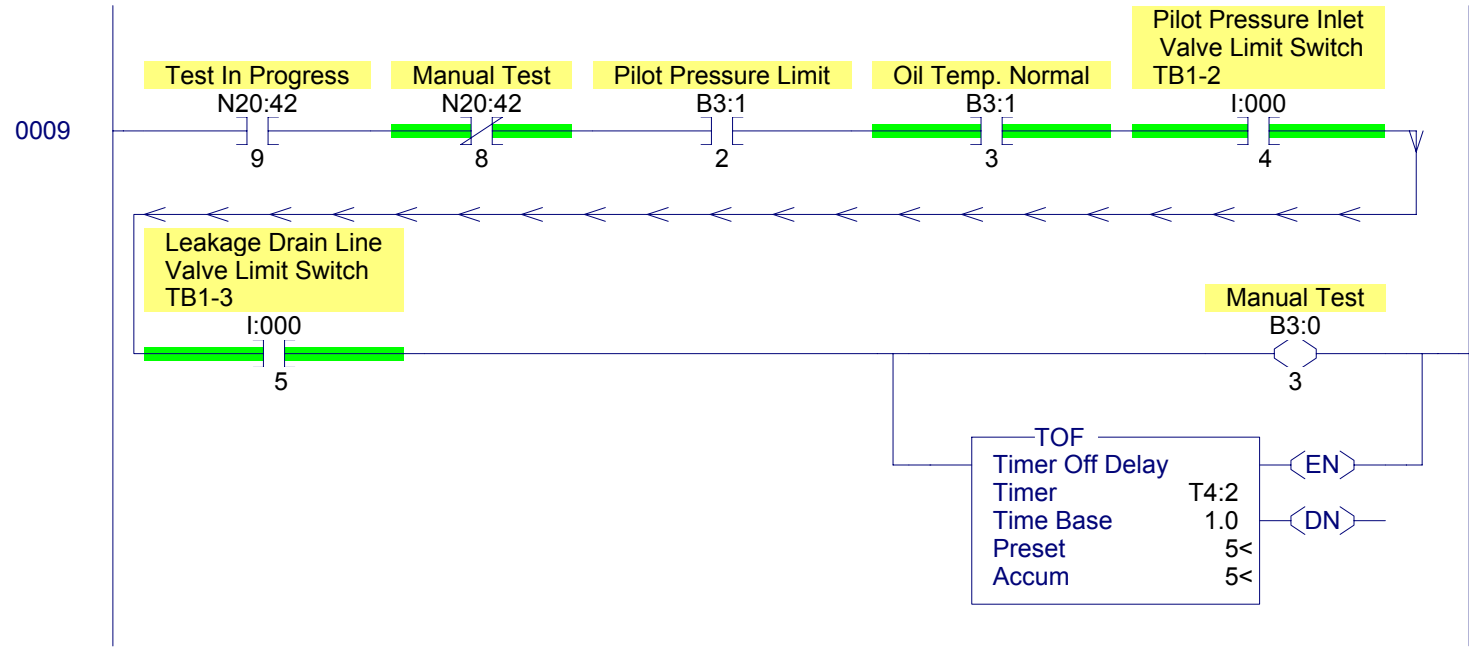
TB1**Chassis 1**

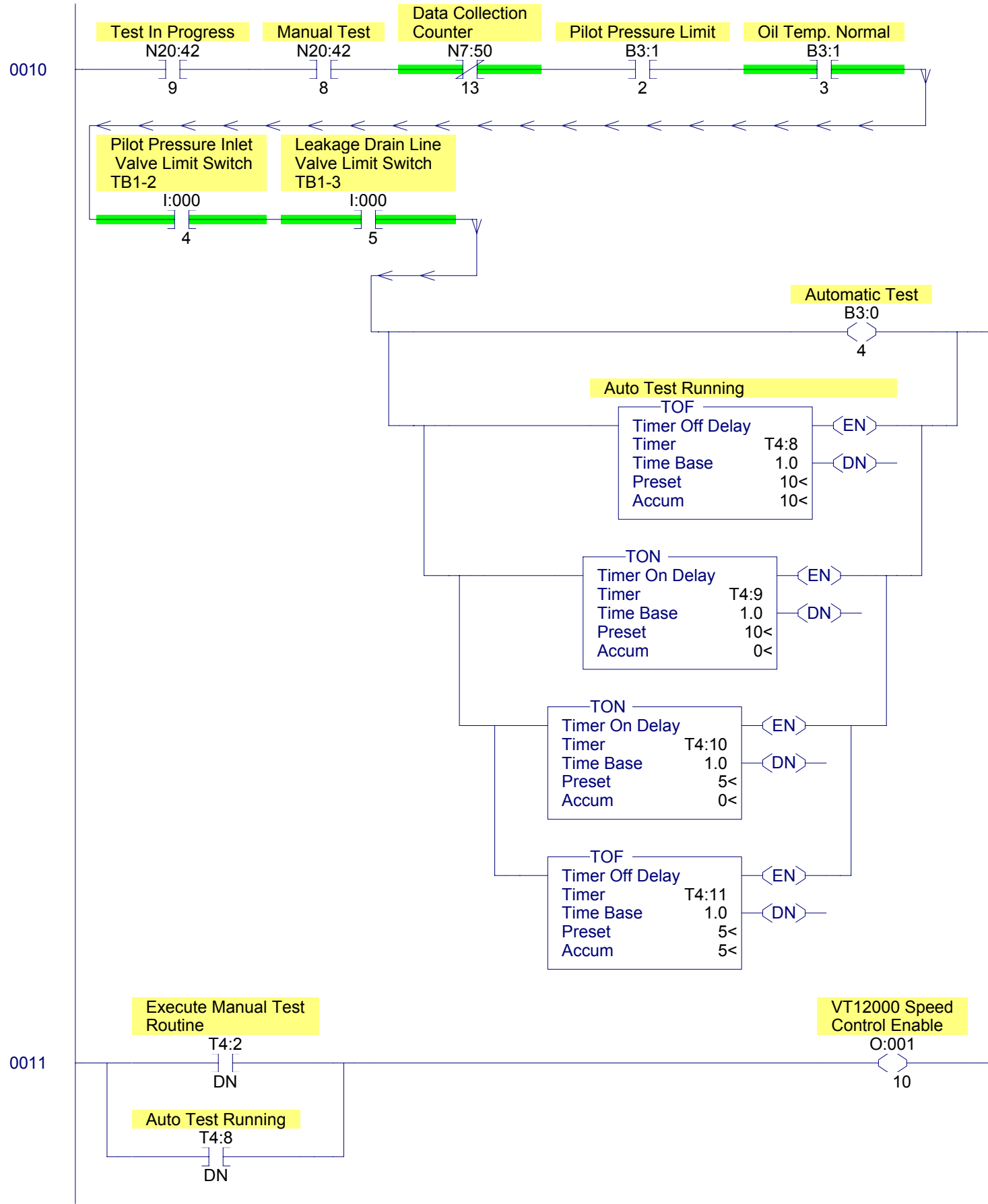
Rack: 0
Size: 8 Slot Chassis
Addressing Mode: 1 Slot

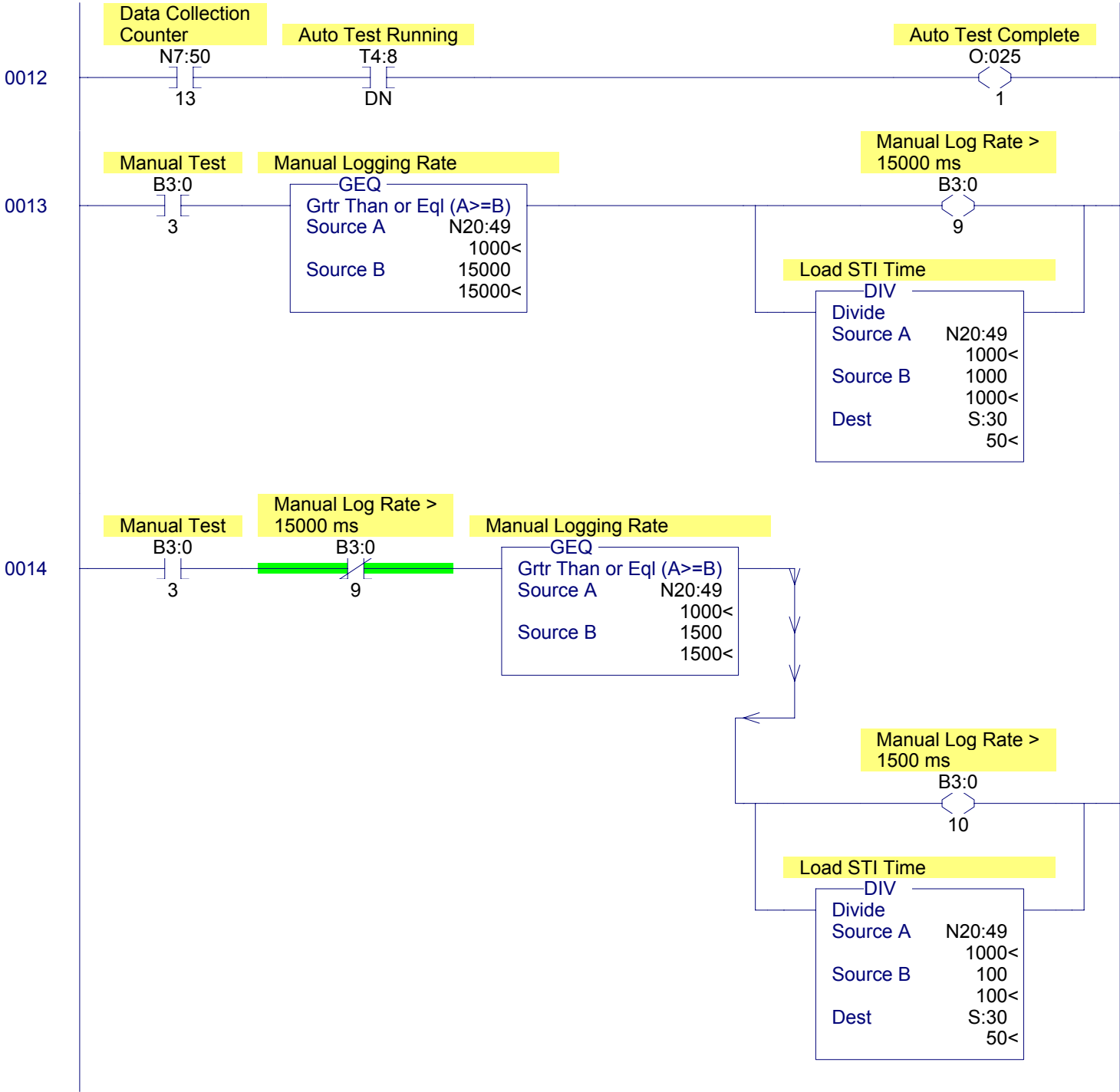
<u>Slot</u>	<u>Module Type</u>	<u>Module Description</u>
0	1771-IBD	10-30v DC 16pt Input
1	1771-OB	10-60v DC 16pt Output
2	1771-IBD	10-30v DC 16pt Input
3		
4	1771-IFE	12 Bit Analog Input (or IFE/A)
5		
6	1771-IFE	12 Bit Analog Input (or IFE/A)
7	1771-OFE	12 Bit Analog Output

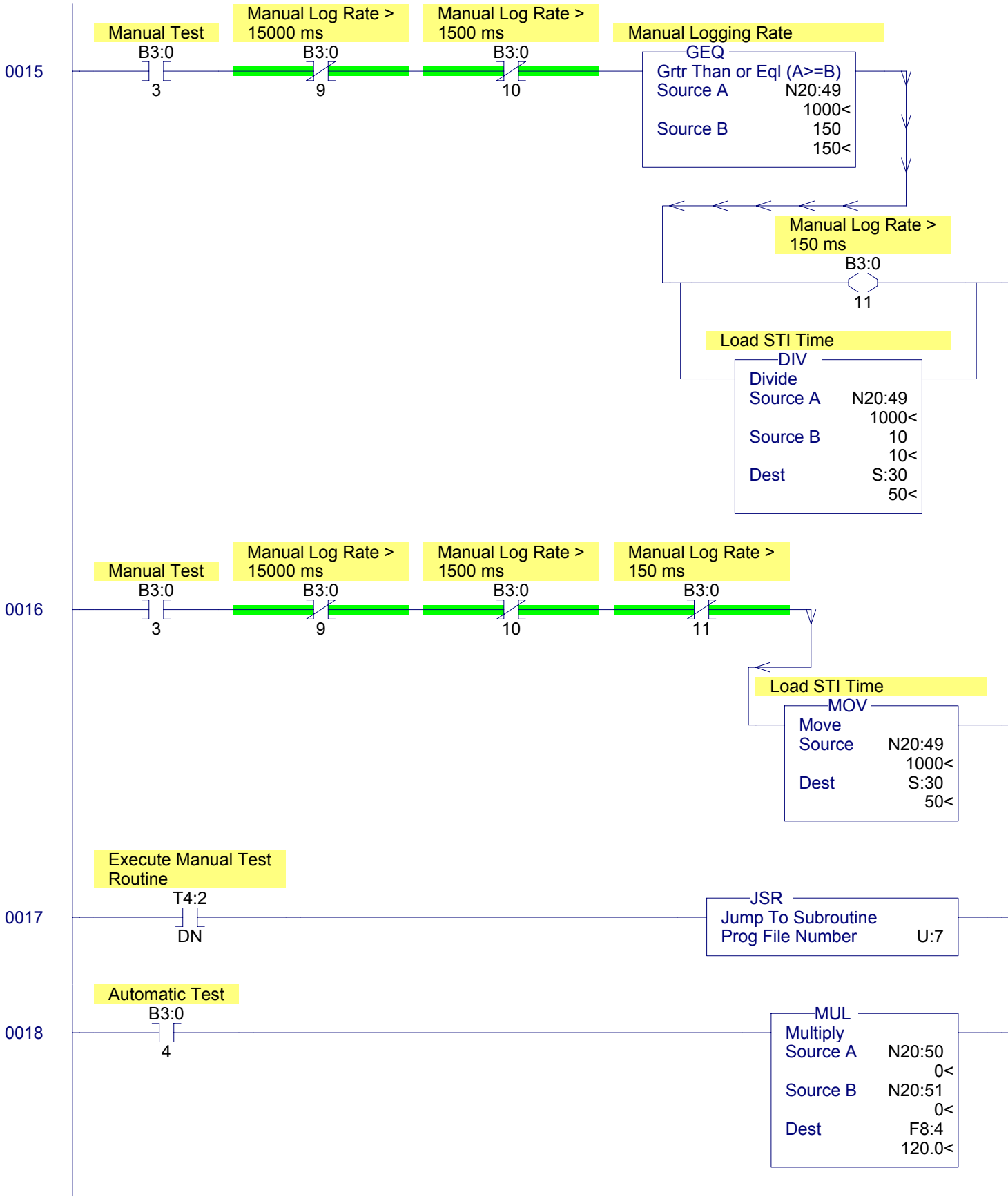


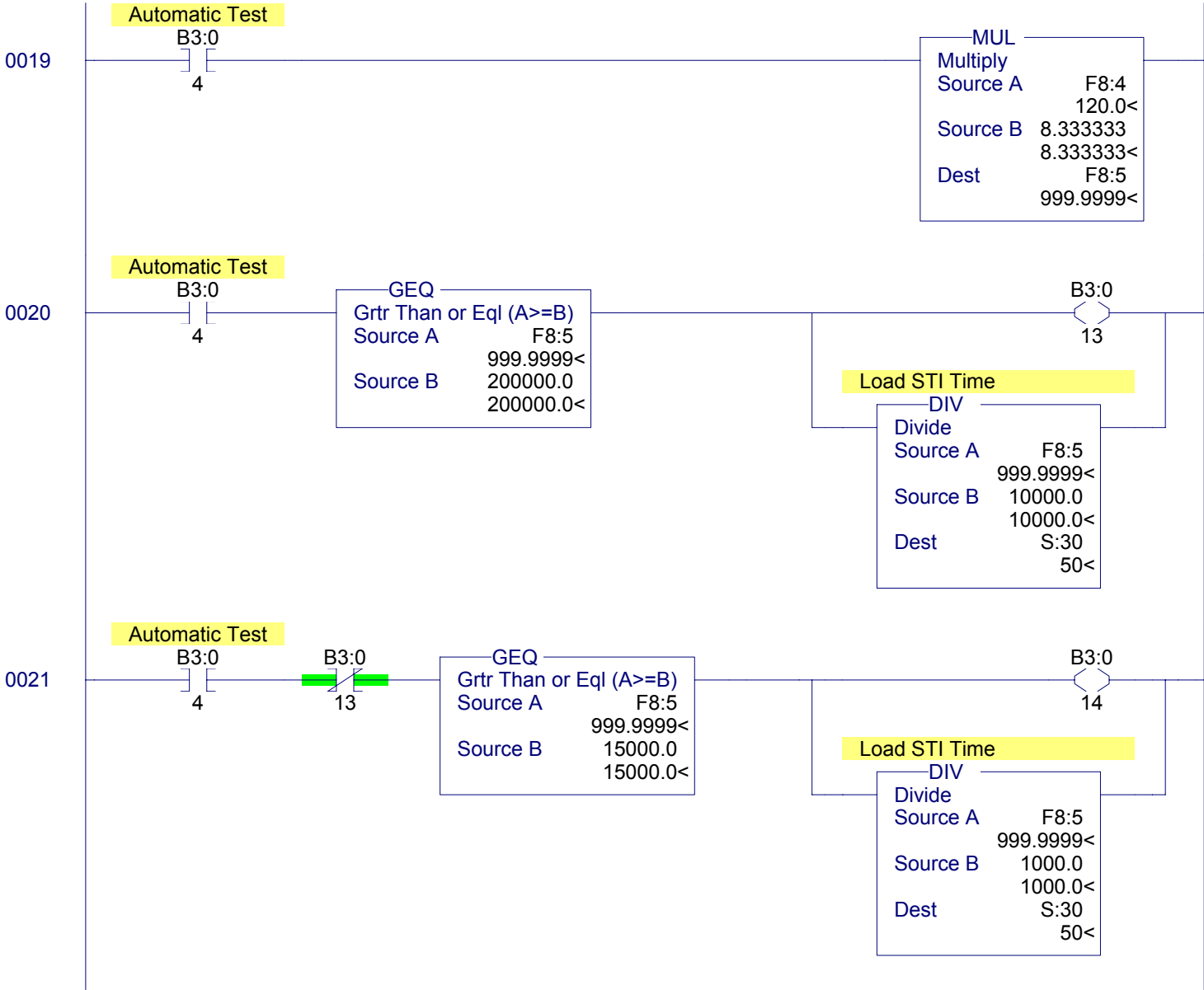


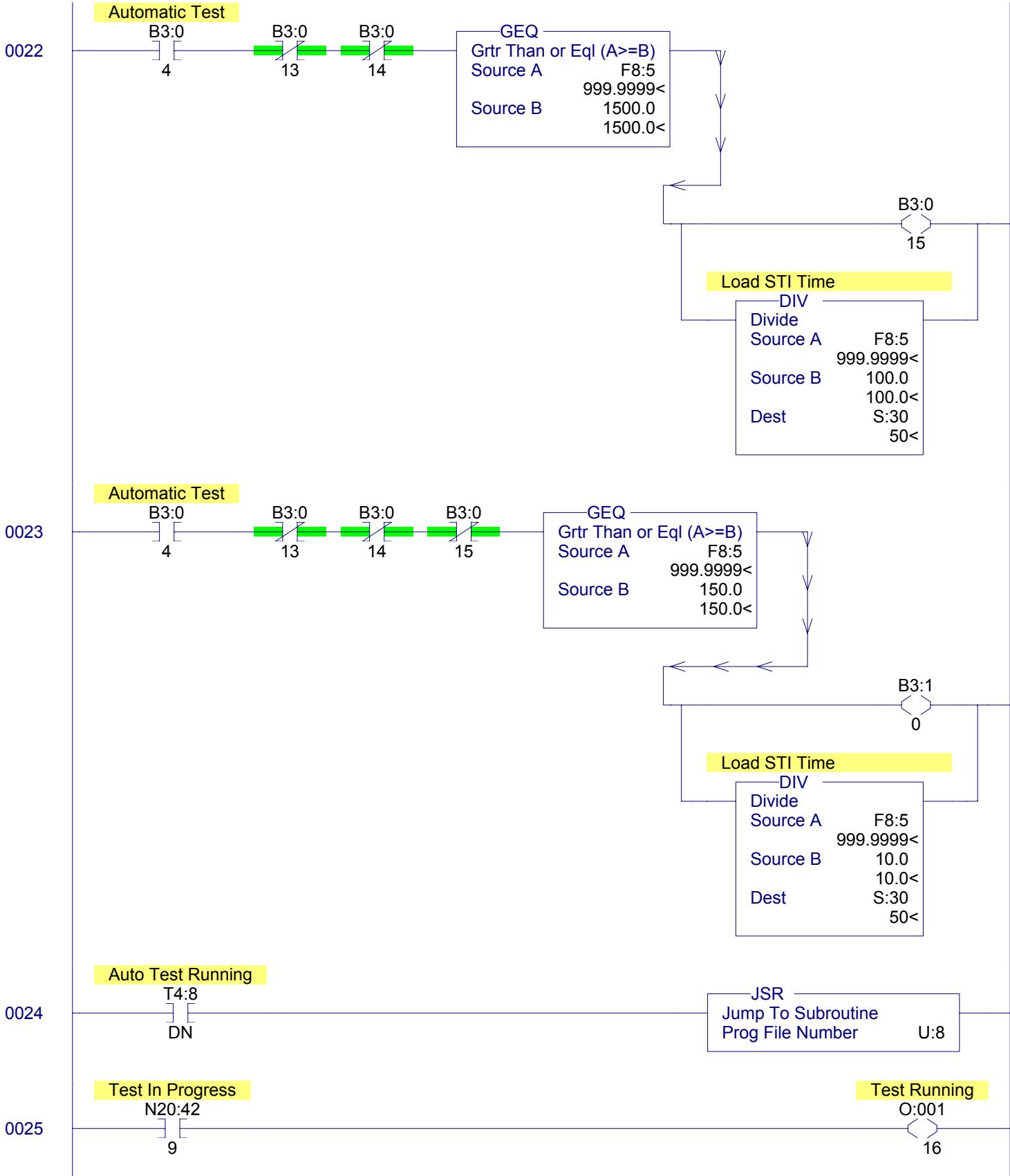


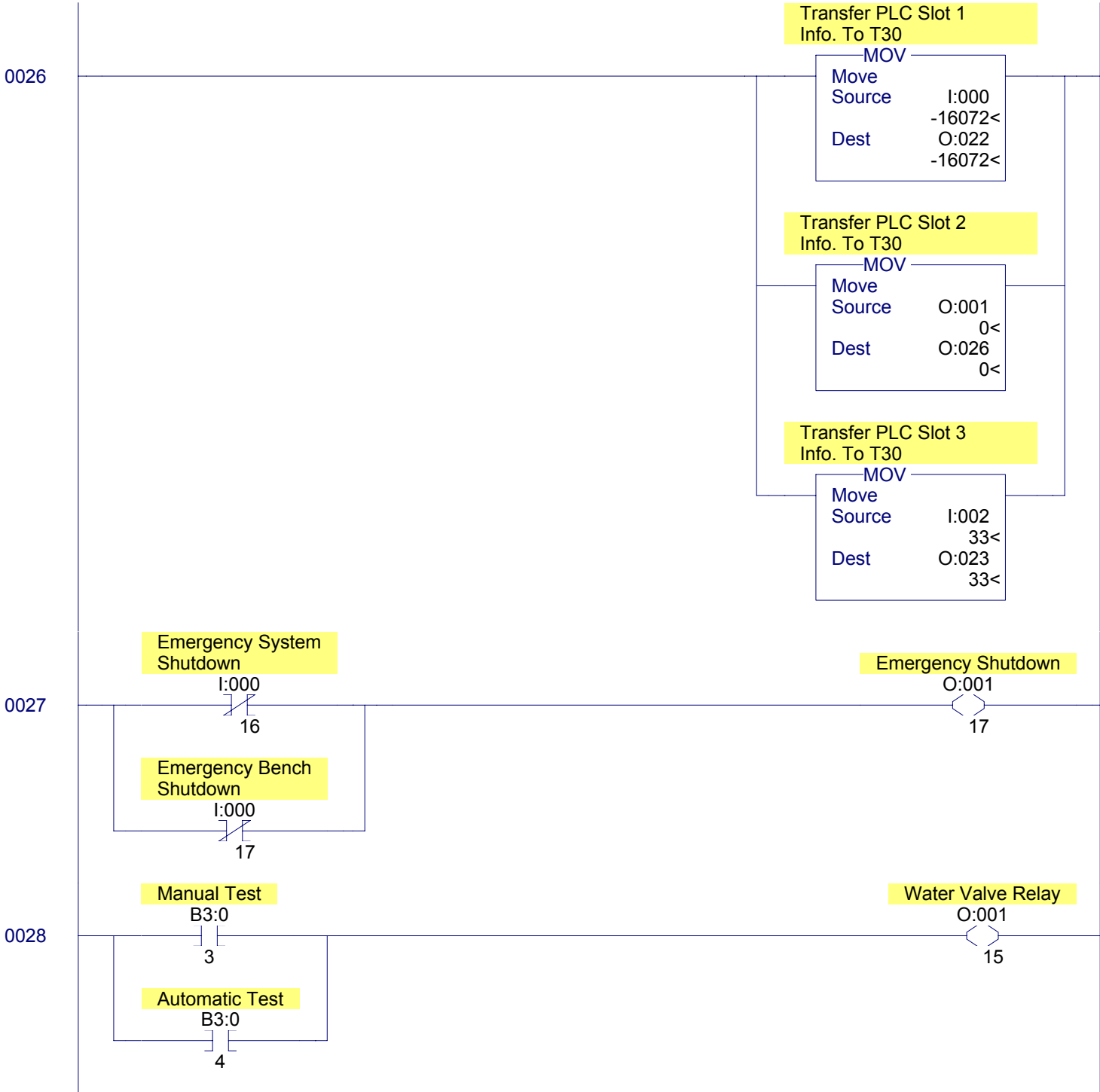


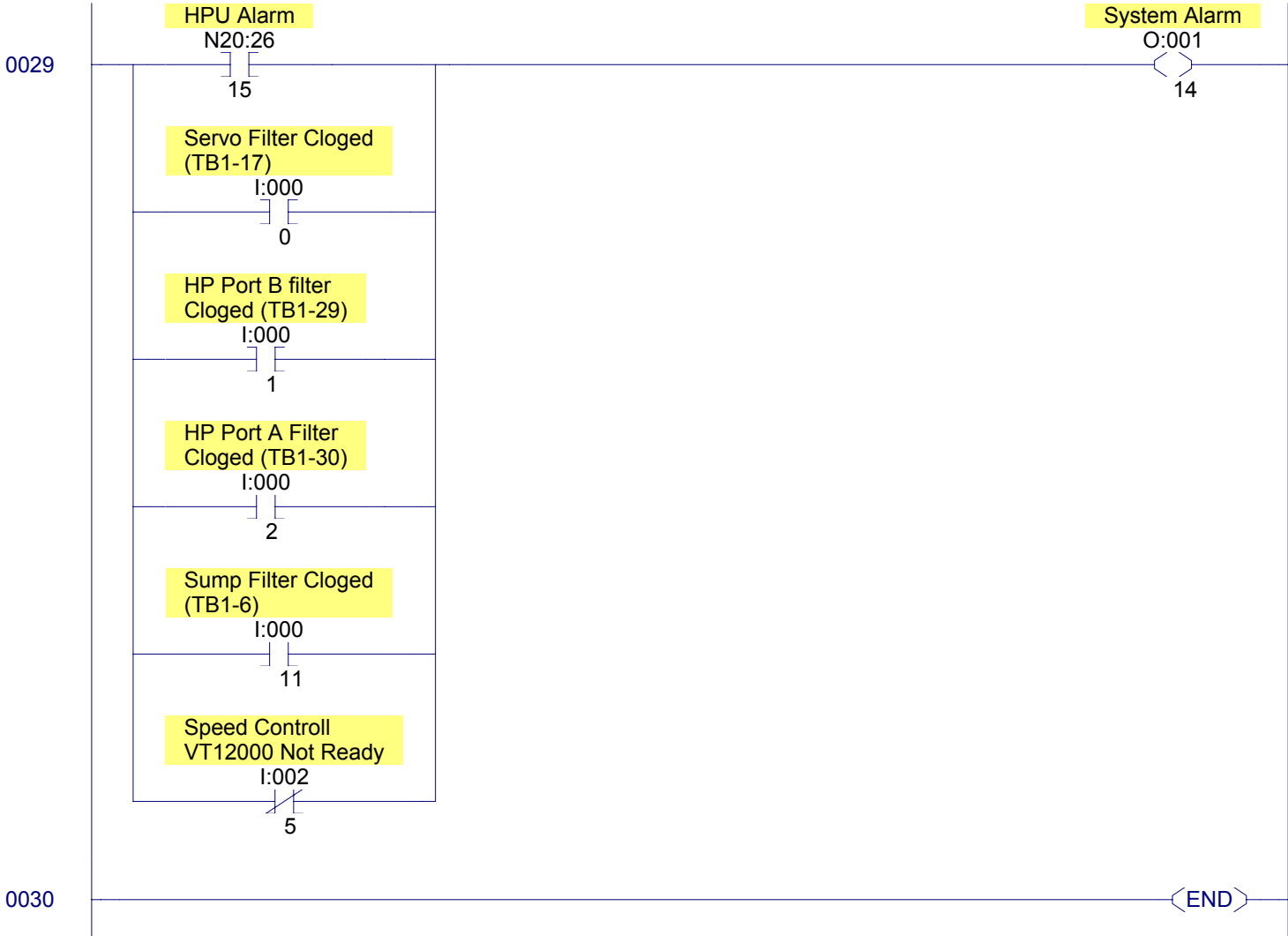


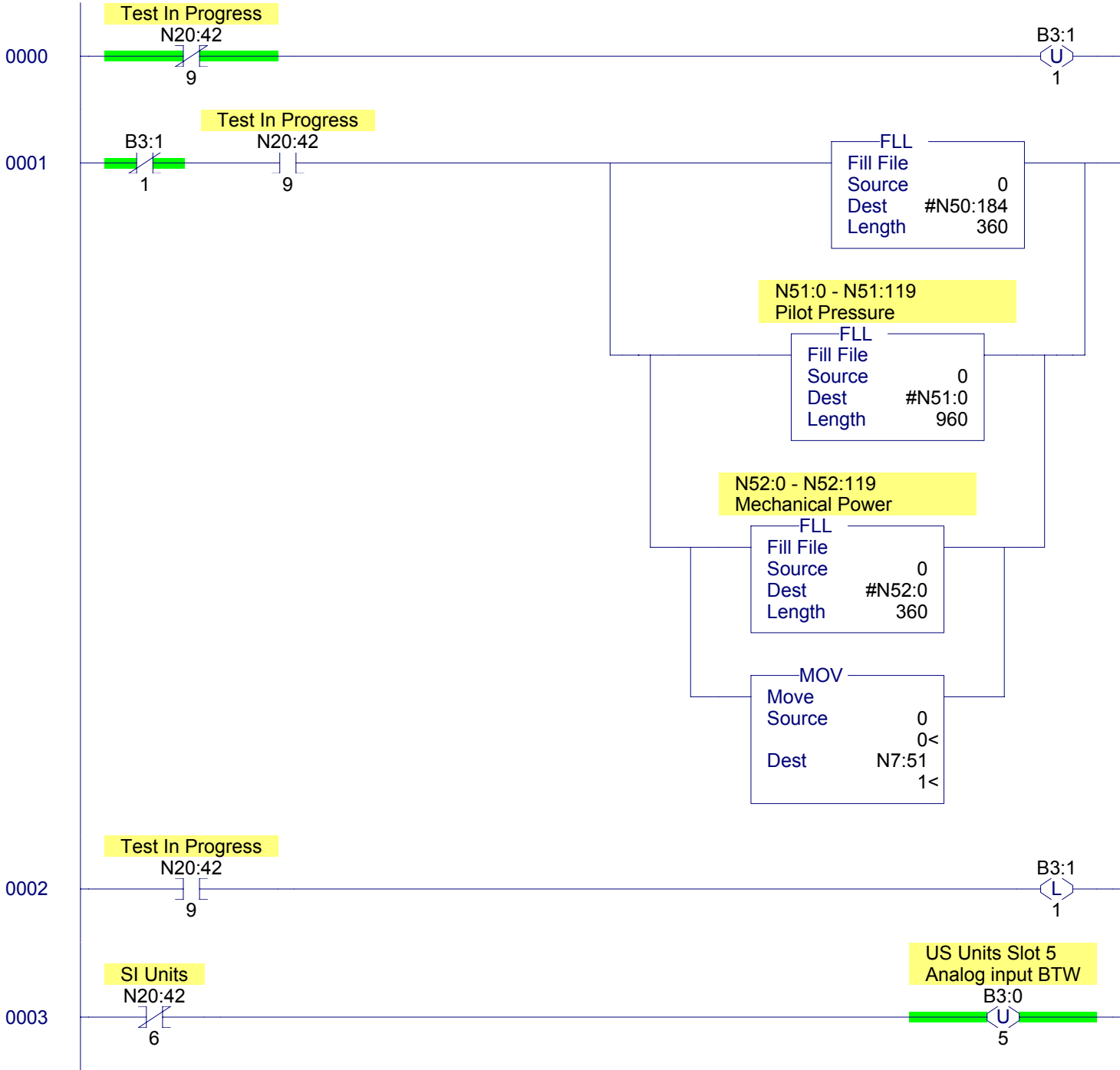


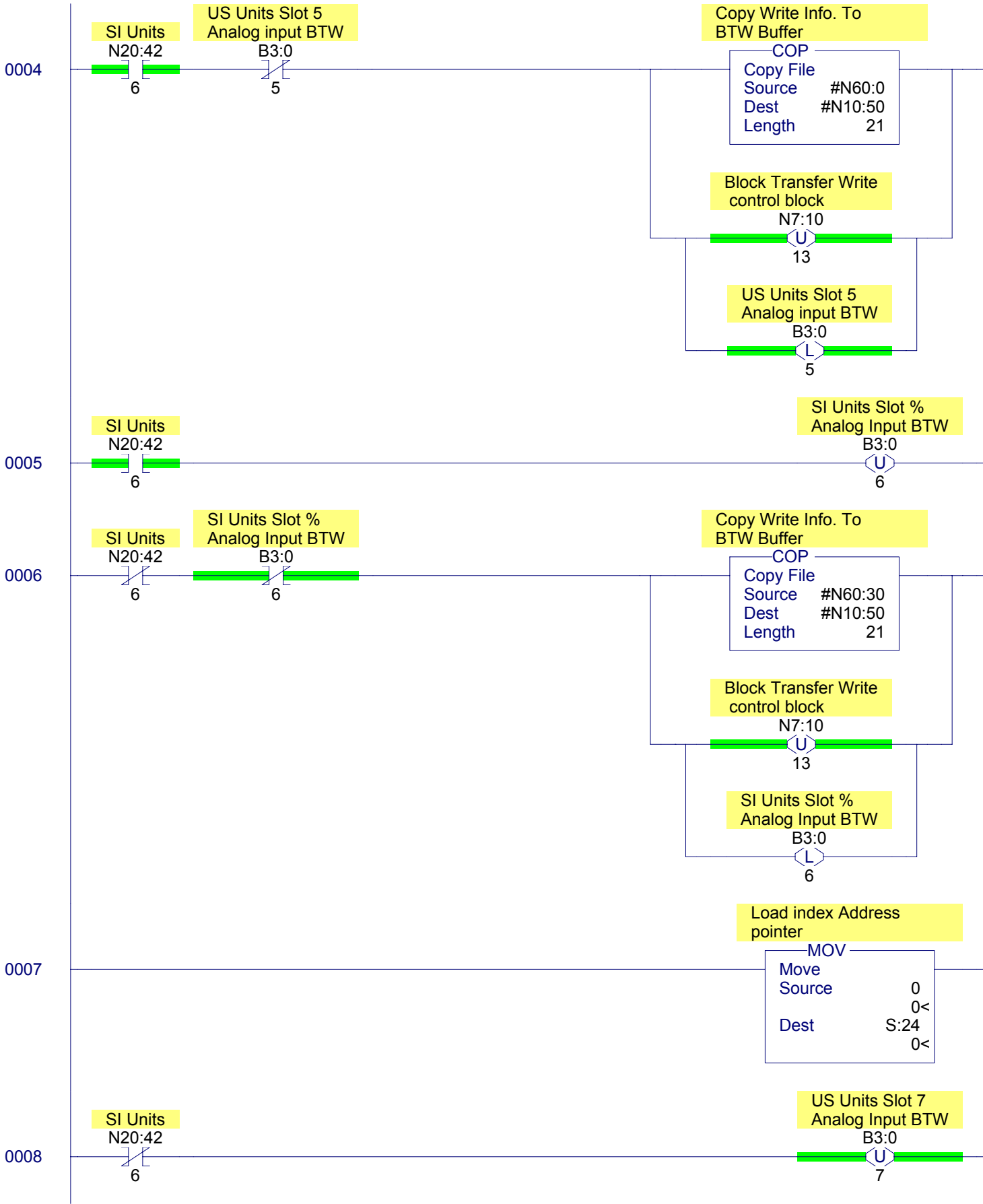


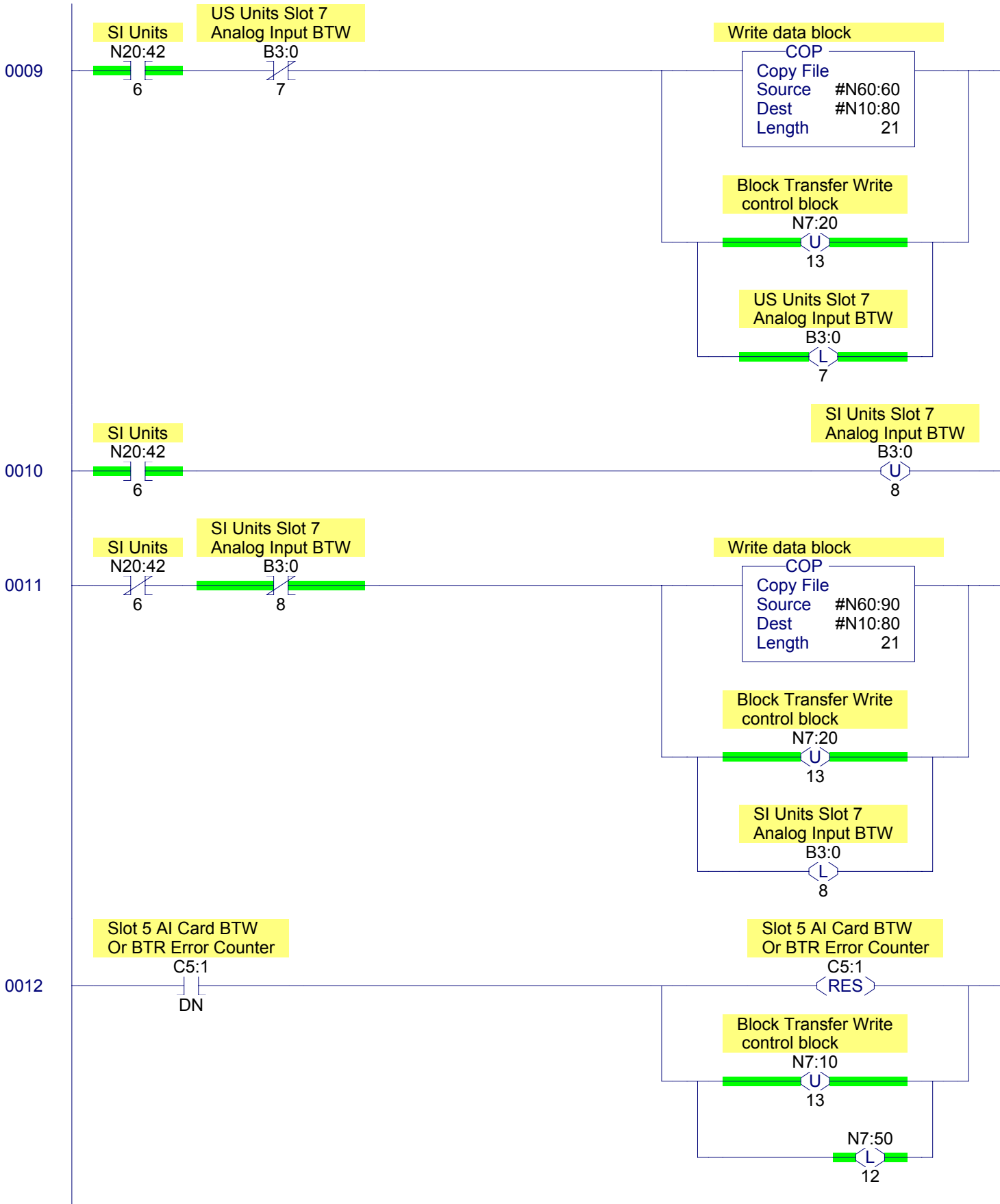


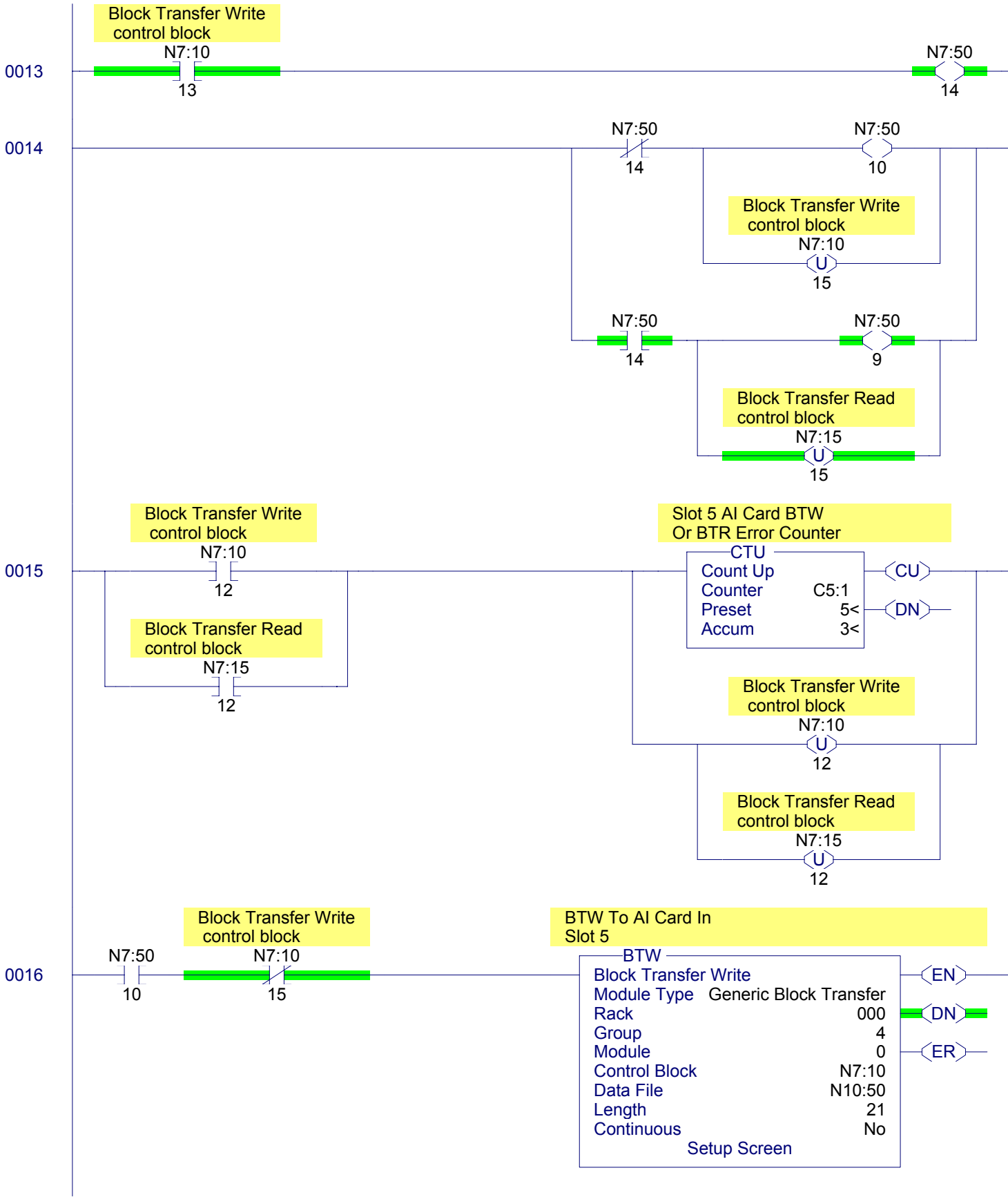


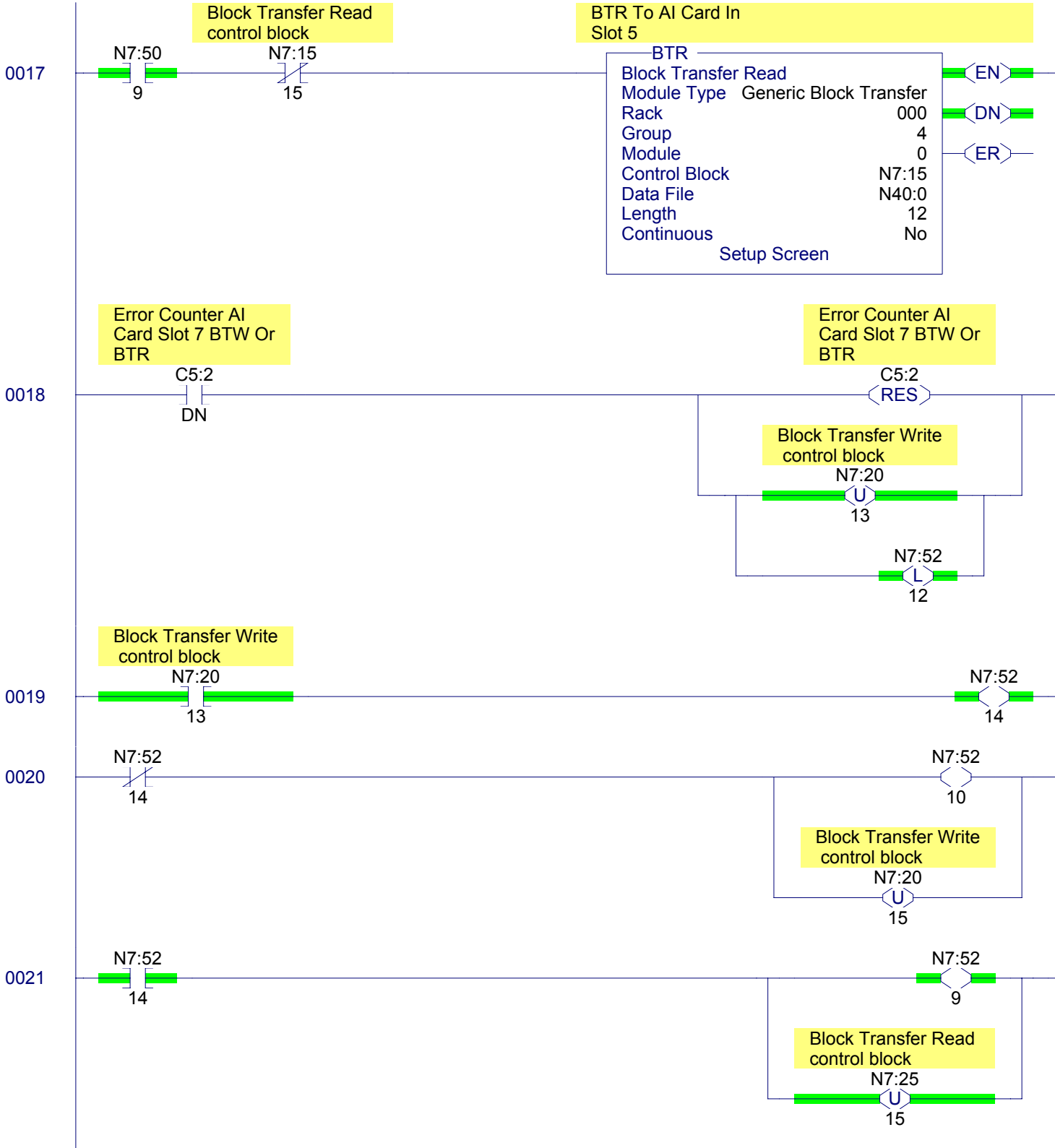


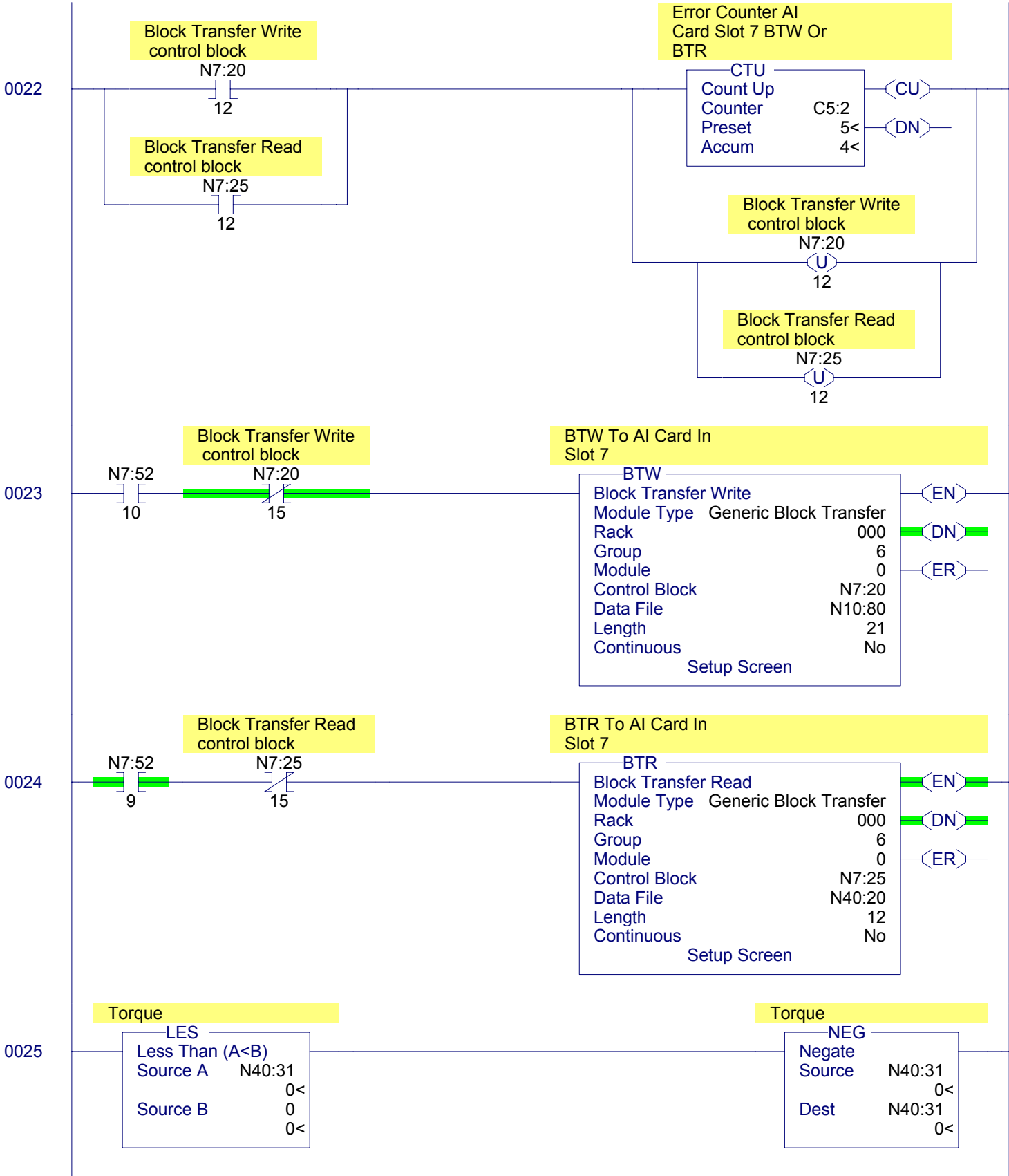












The Following 3 Rungs Calculate The Input Power To The Pump Or Motor

0026

MUL

Multiply

Source A N40:4
 1<

Source B N40:31
 0<

Dest F8:7
 0.0<

0027

SI Units

N20:42

6

DIV

Divide

Source A F8:7
 0.0<

Source B 5252.0
 5252.0<

Dest F8:8
 0.0<

0028

SI Units

N20:42

6

DIV

Divide

Source A F8:7
 0.0<

Source B 9549.0
 9549.0<

Dest F8:8
 0.0<

0029

LES

Less Than (A<B)

Source A F8:8
 0.0<

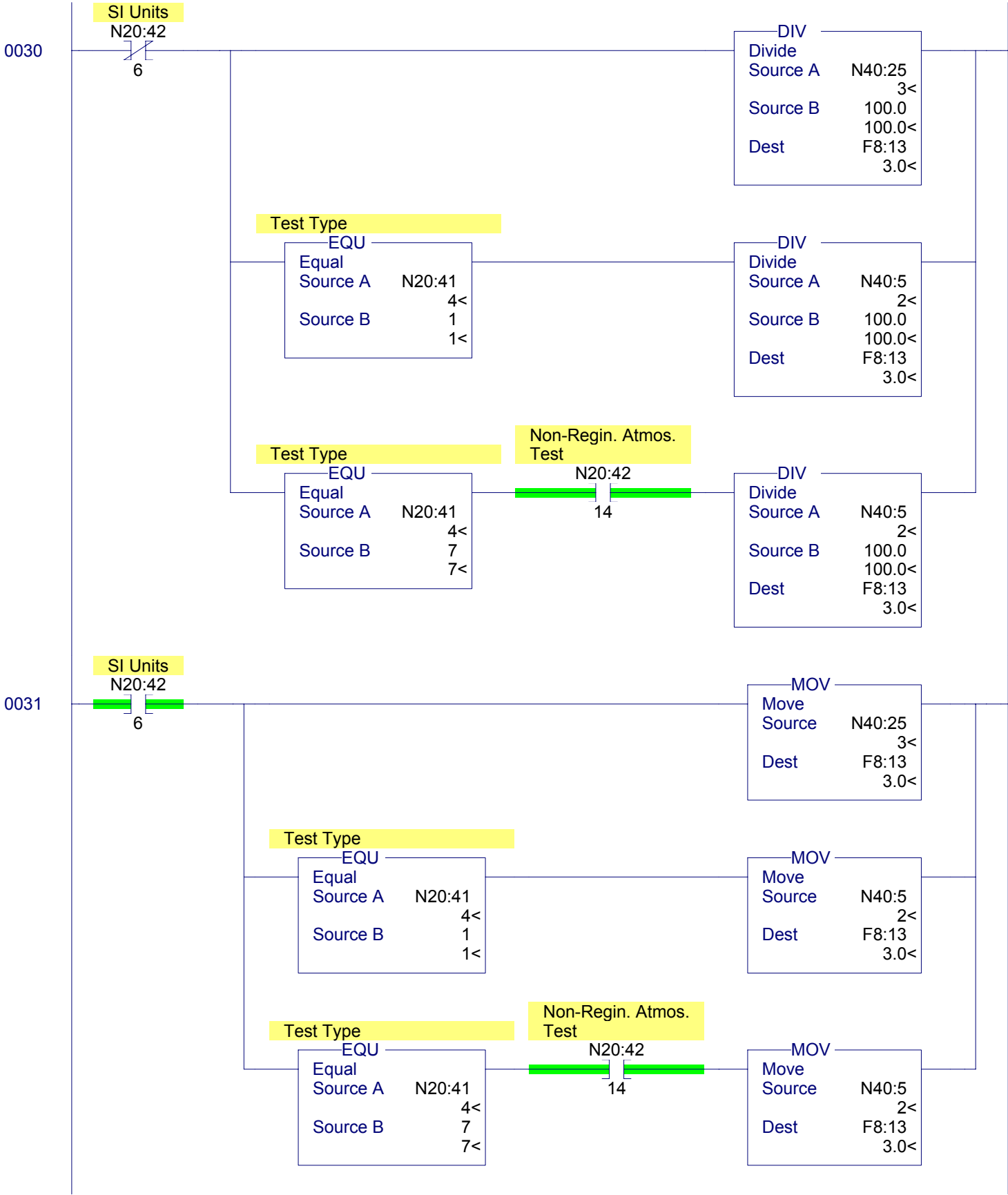
Source B 0.0
 0.0<

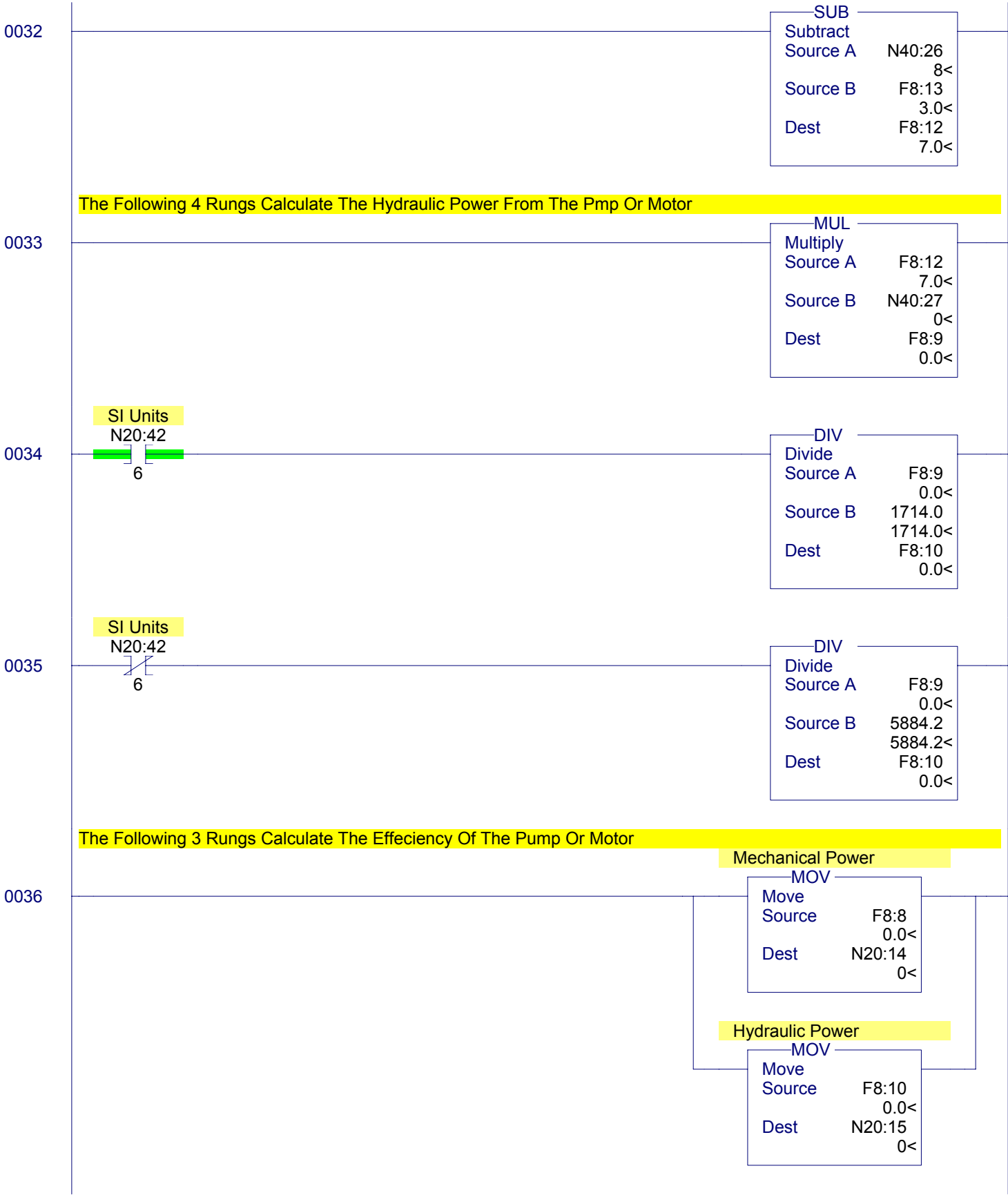
NEG

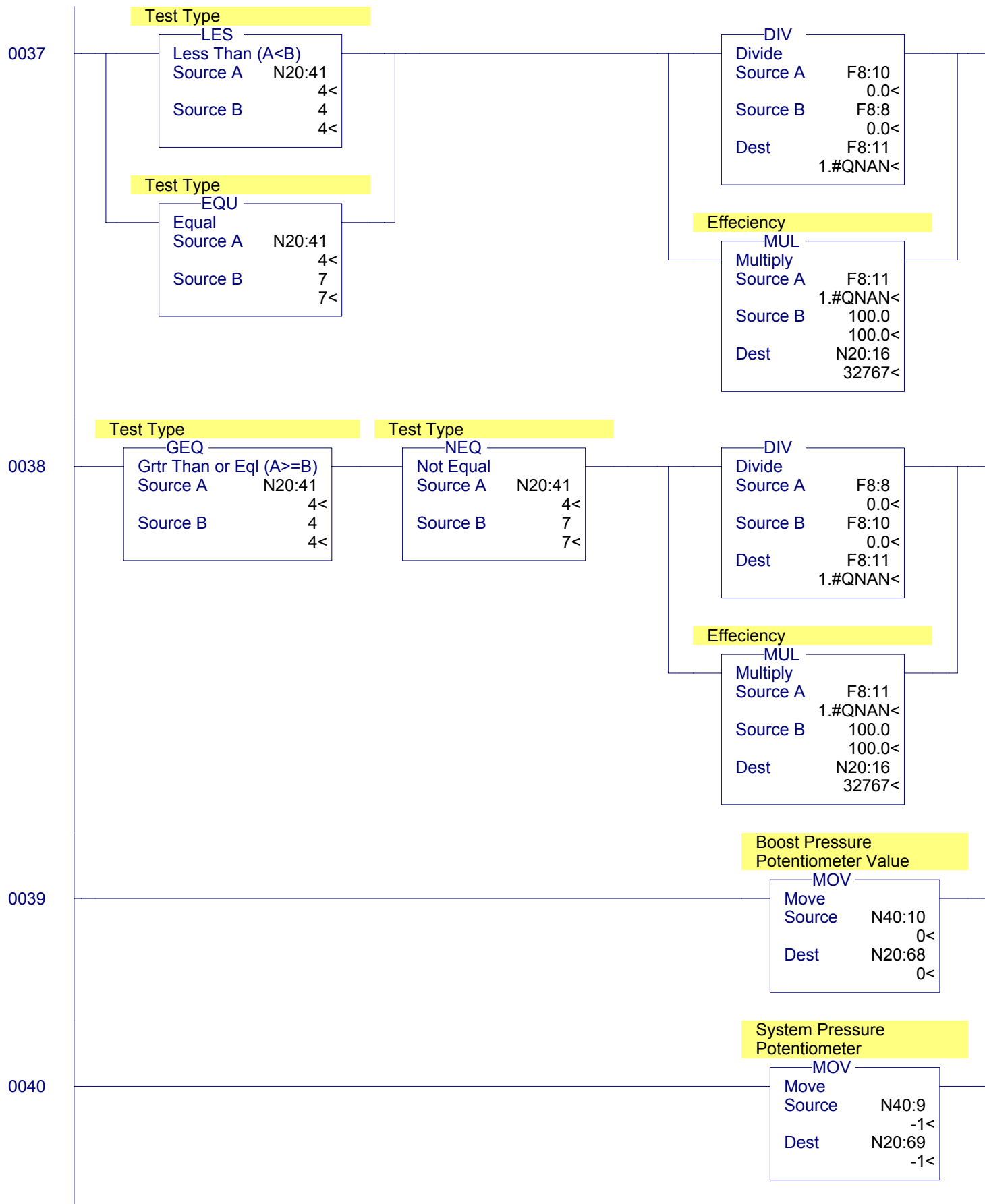
Negate

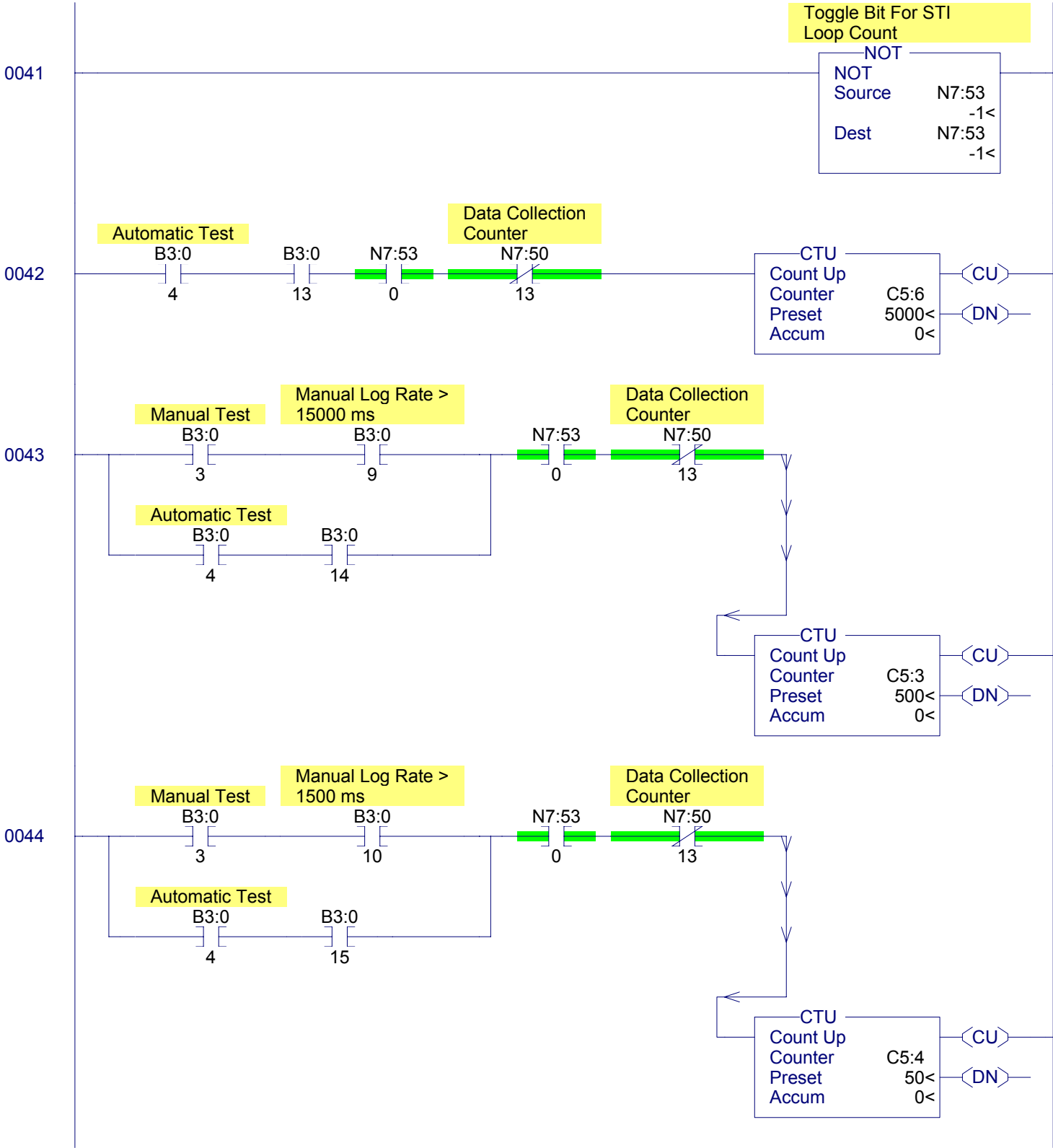
Source F8:8
 0.0<

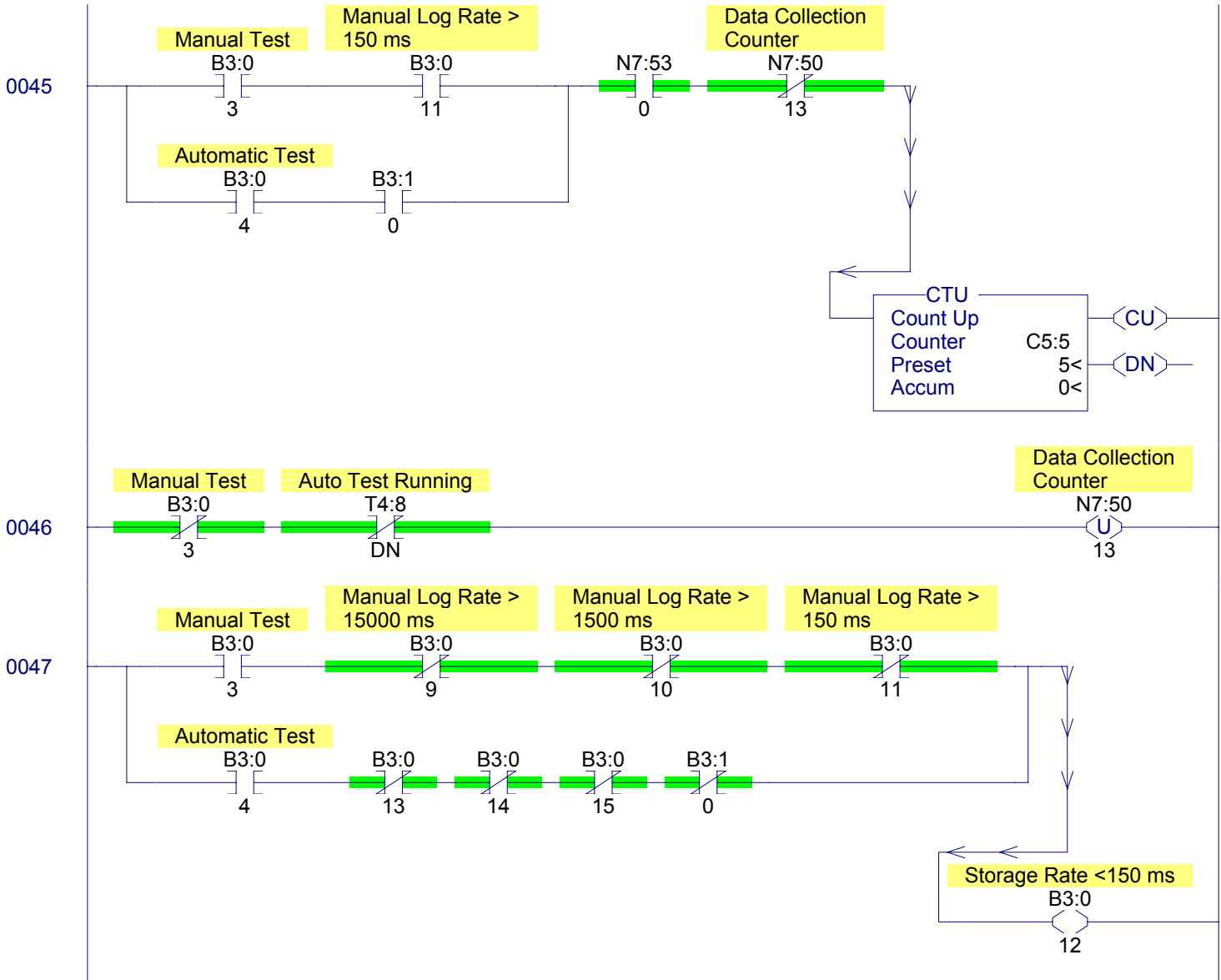
Dest F8:8
 0.0<

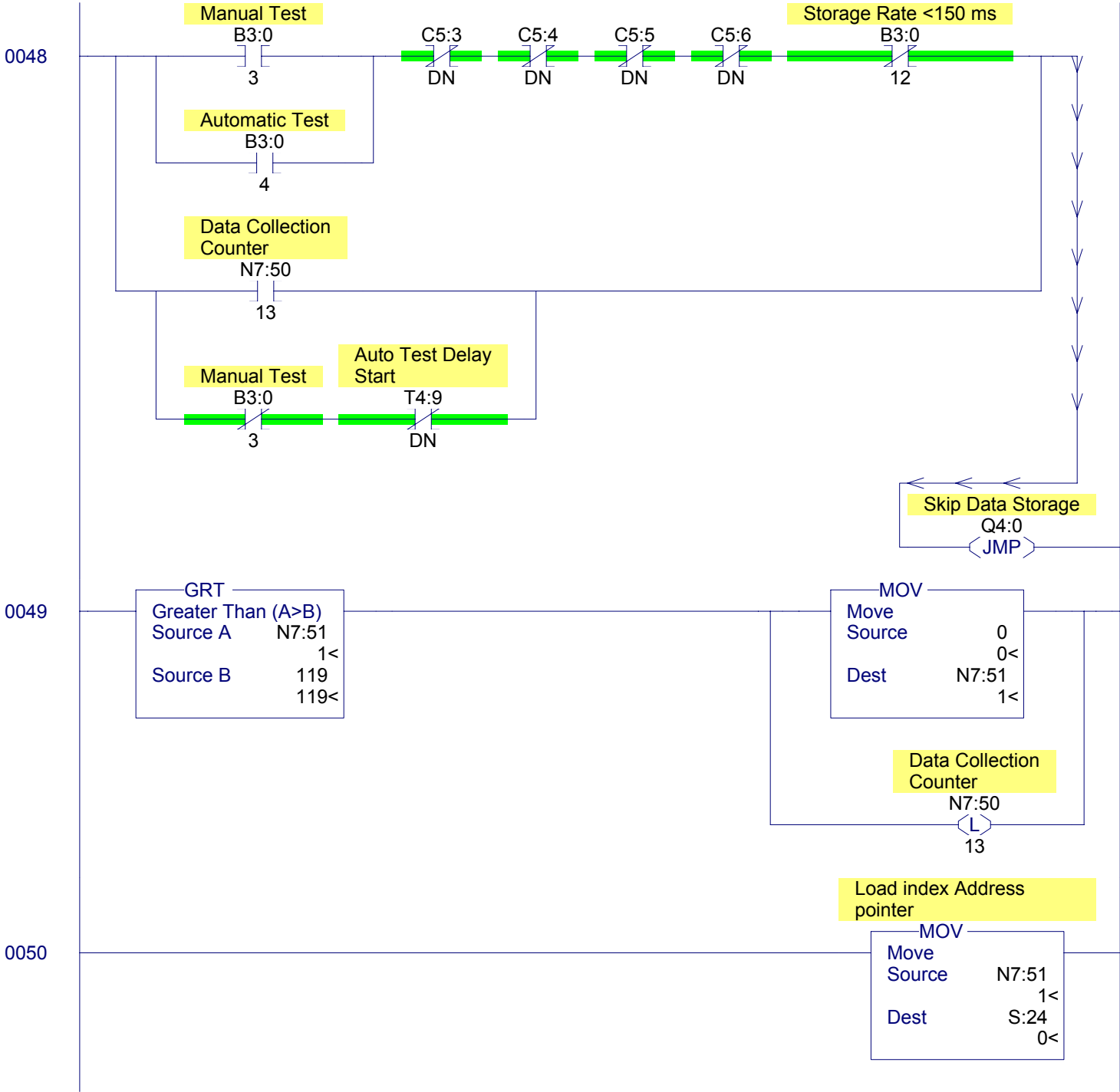












0051

N50:304 - N50:423
Suction Pressure

MOV
Move
Source N40:5
2<
Dest #N50:304
2<

MOV
Move
Source N40:6
1<
Dest #N50:424
1<

N50:544 - N50:663
Servo Pressure

MOV
Move
Source N40:7
28<
Dest #N50:544
28<

N51:0 - N51:119
Pilot Pressure

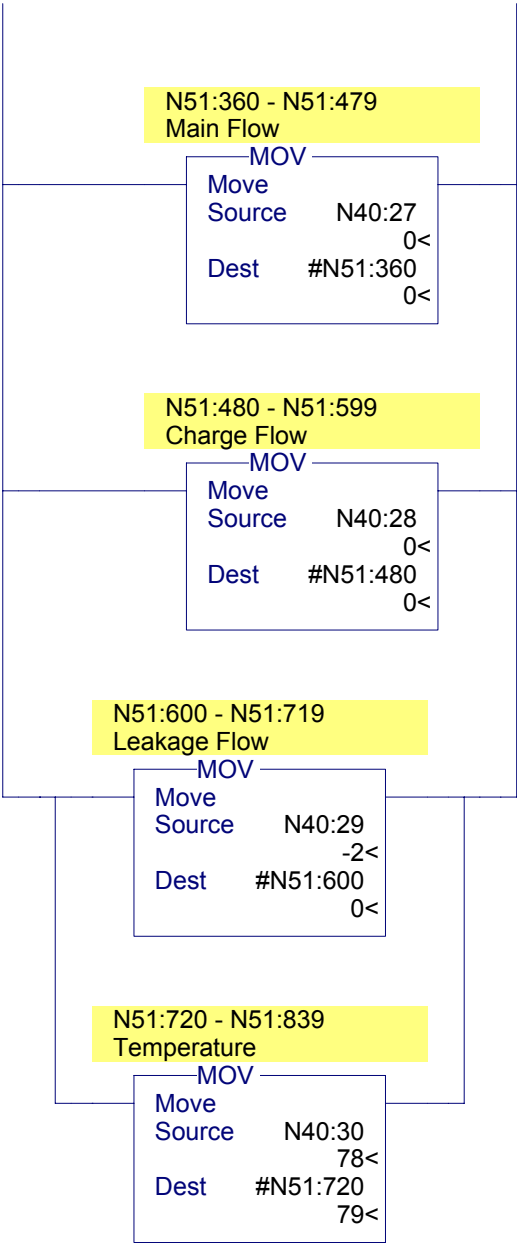
MOV
Move
Source N40:24
0<
Dest #N51:0
0<

N51:120 - N51:239
Low Pressure

MOV
Move
Source N40:25
3<
Dest #N51:120
90<

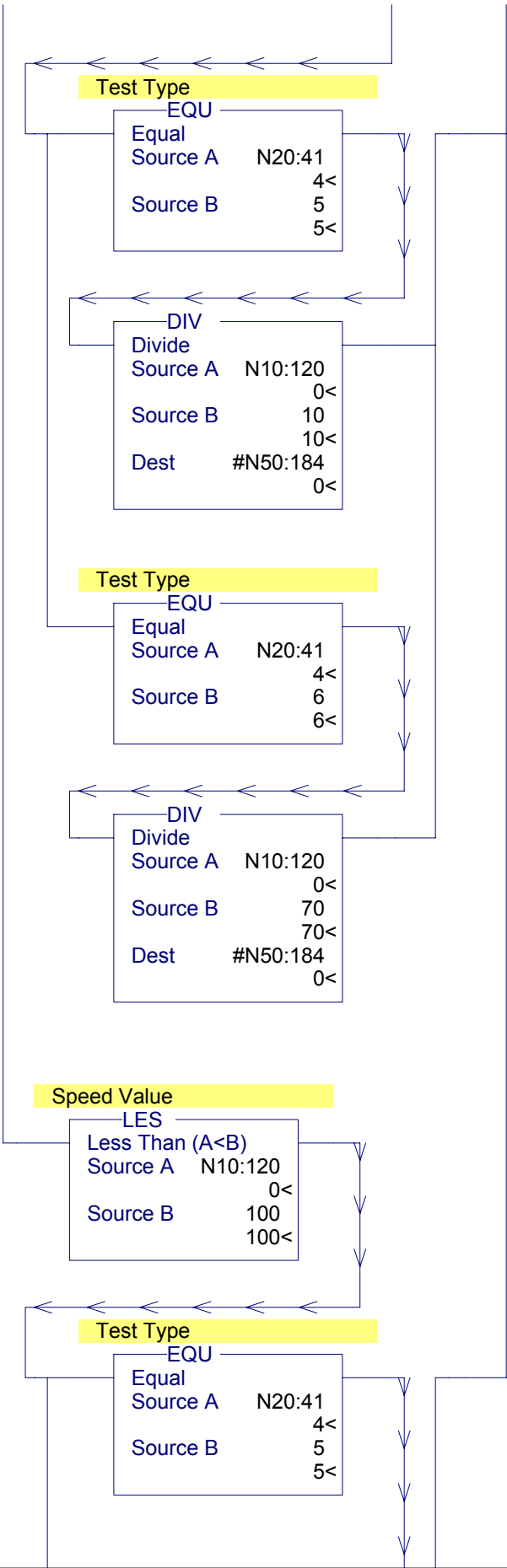
N51:240 - N51:359
Main Pressure

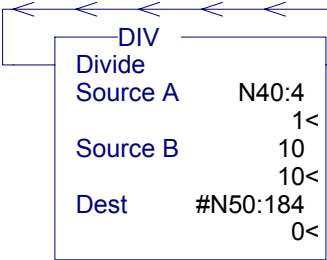
MOV
Move
Source N40:26
8<
Dest #N51:240
919<



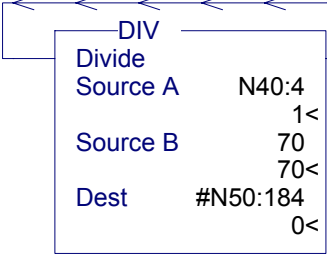
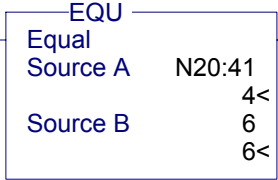
0052 -

-

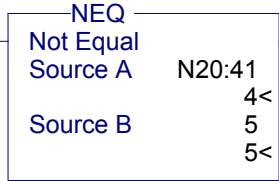




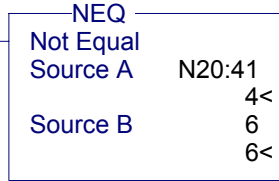
Test Type



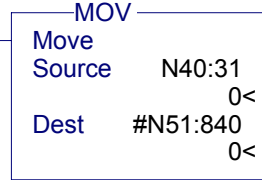
Test Type



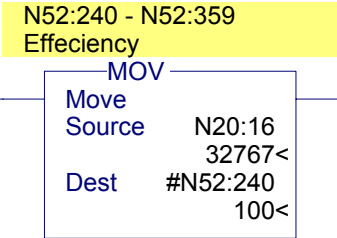
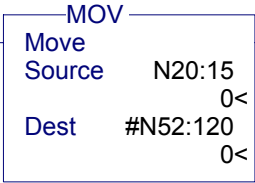
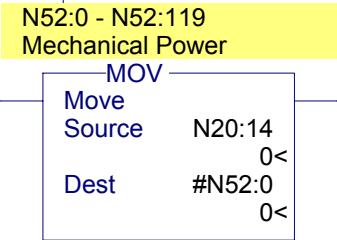
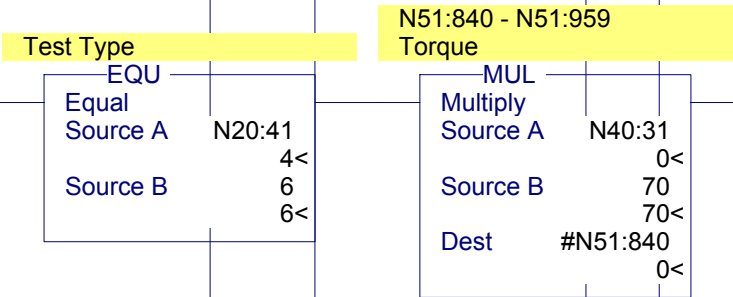
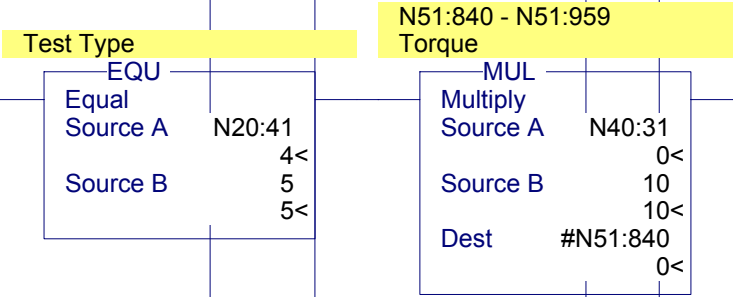
Test Type

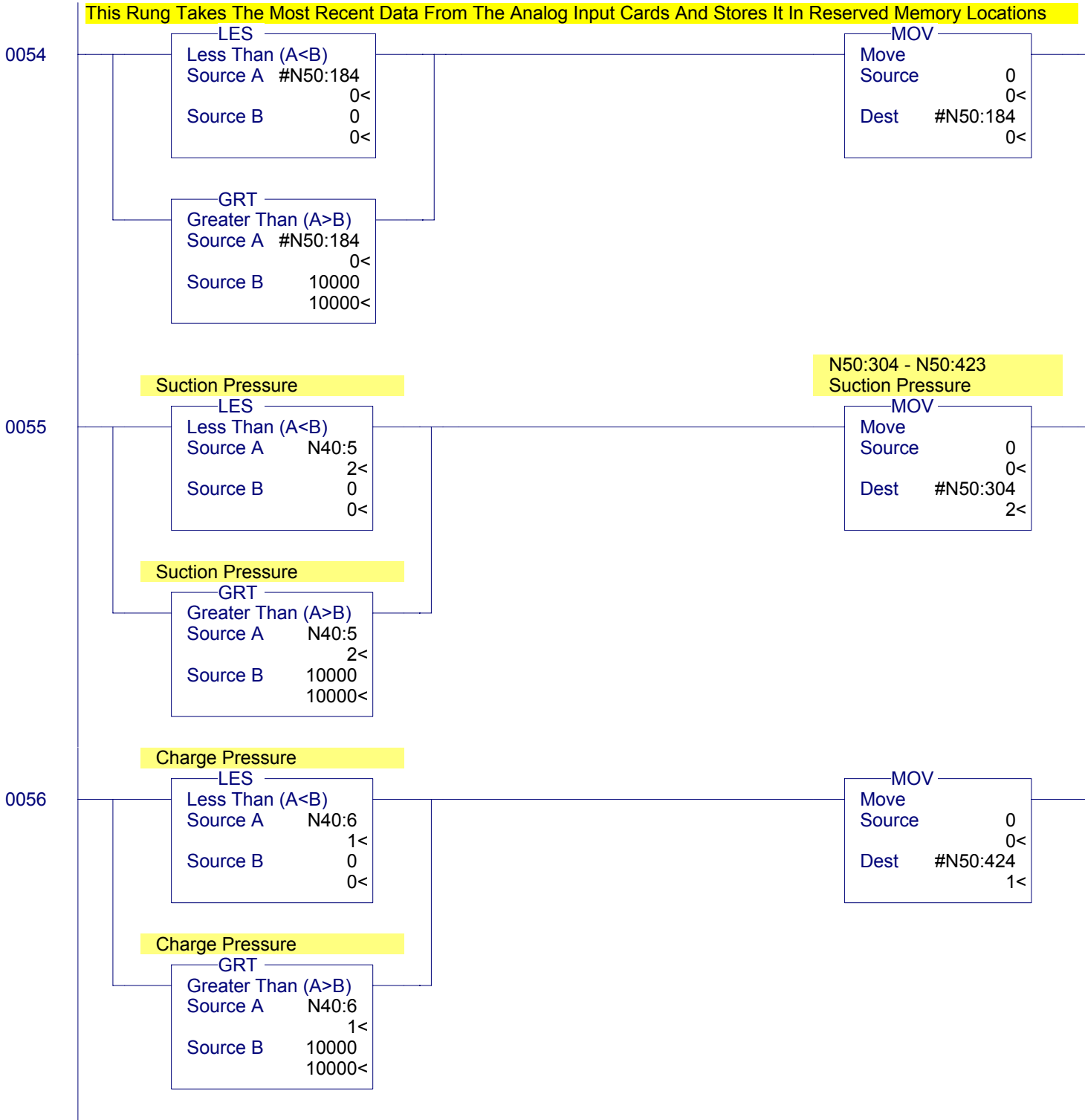


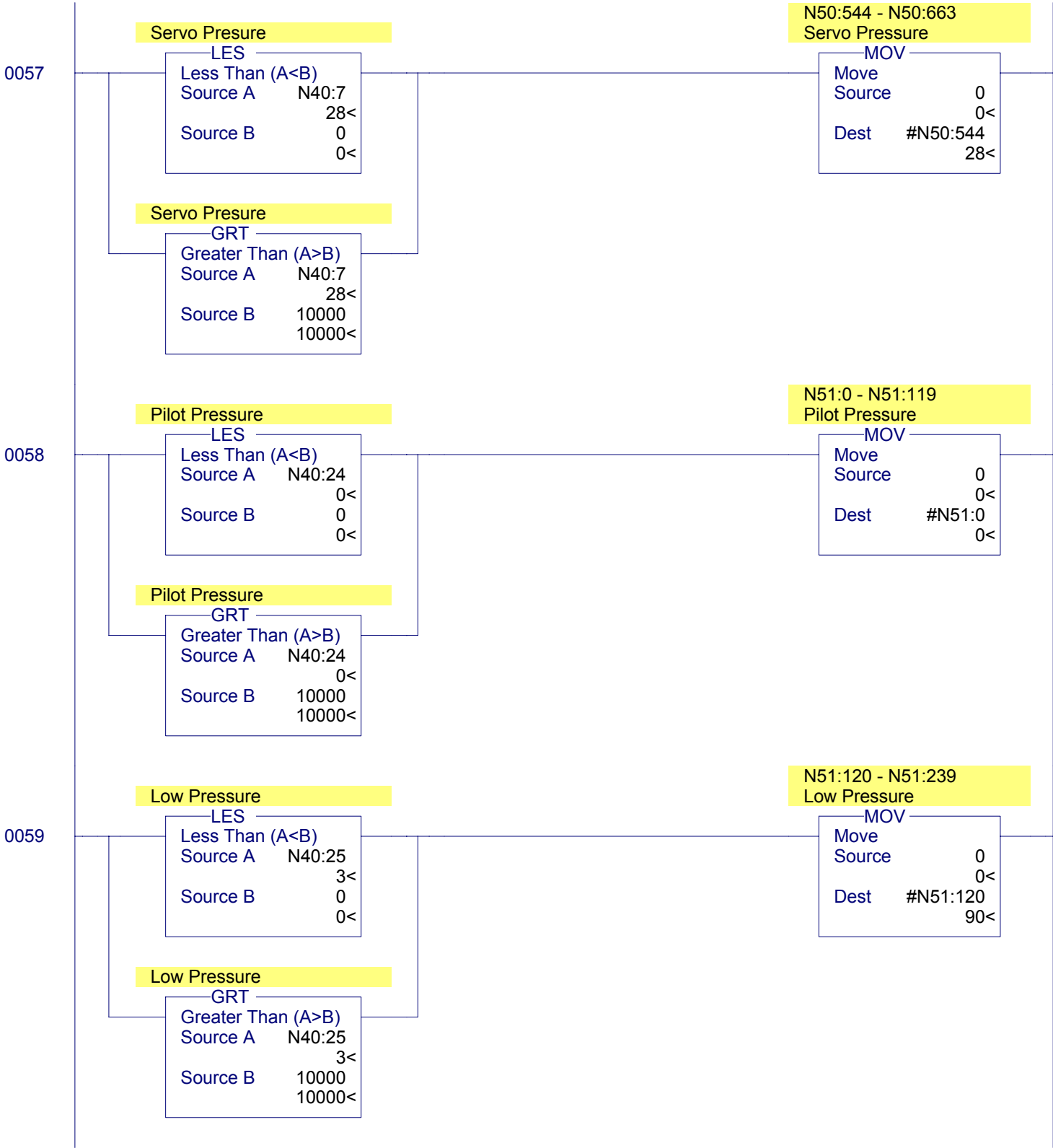
N51:840 - N51:959
Torque

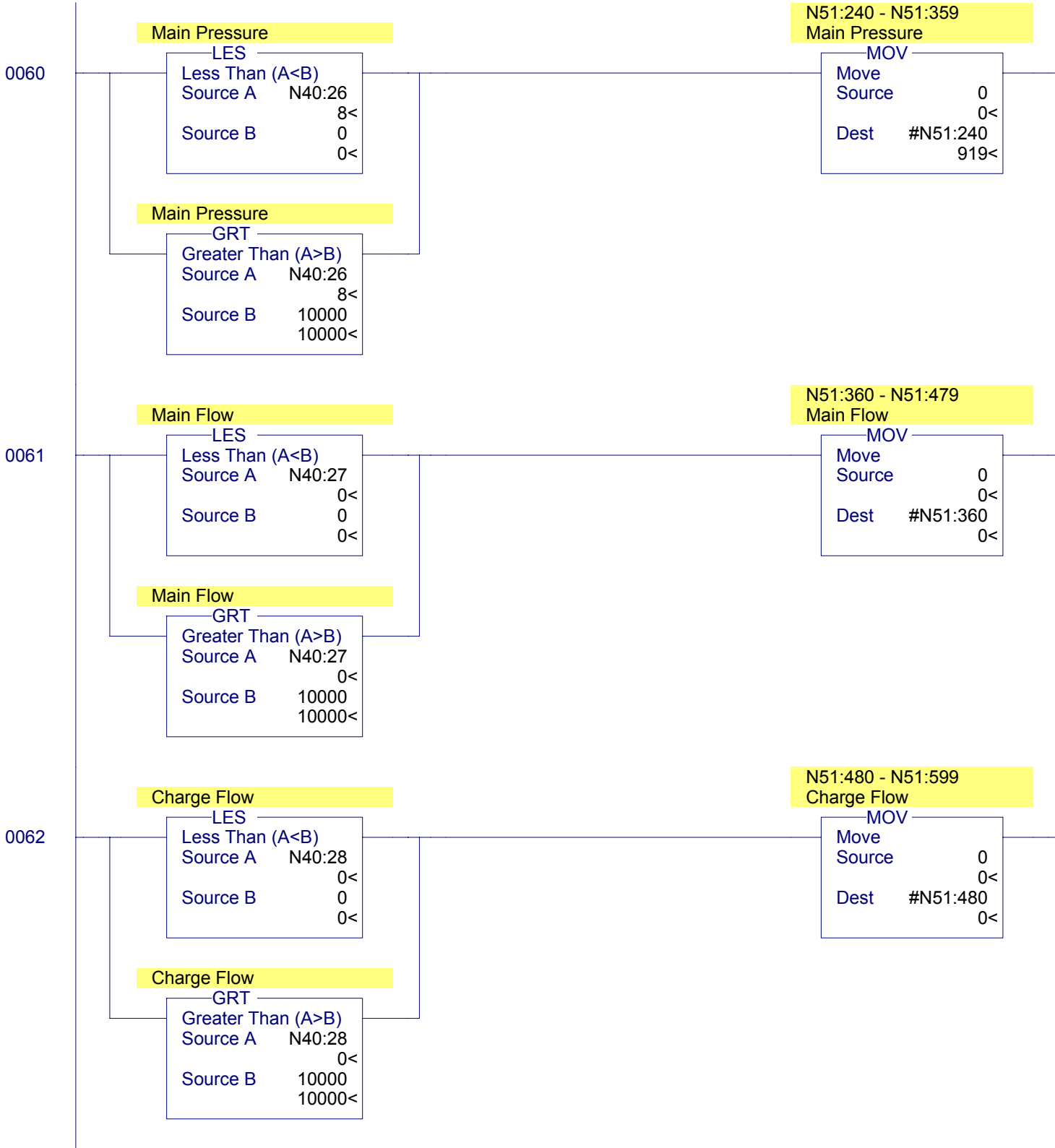


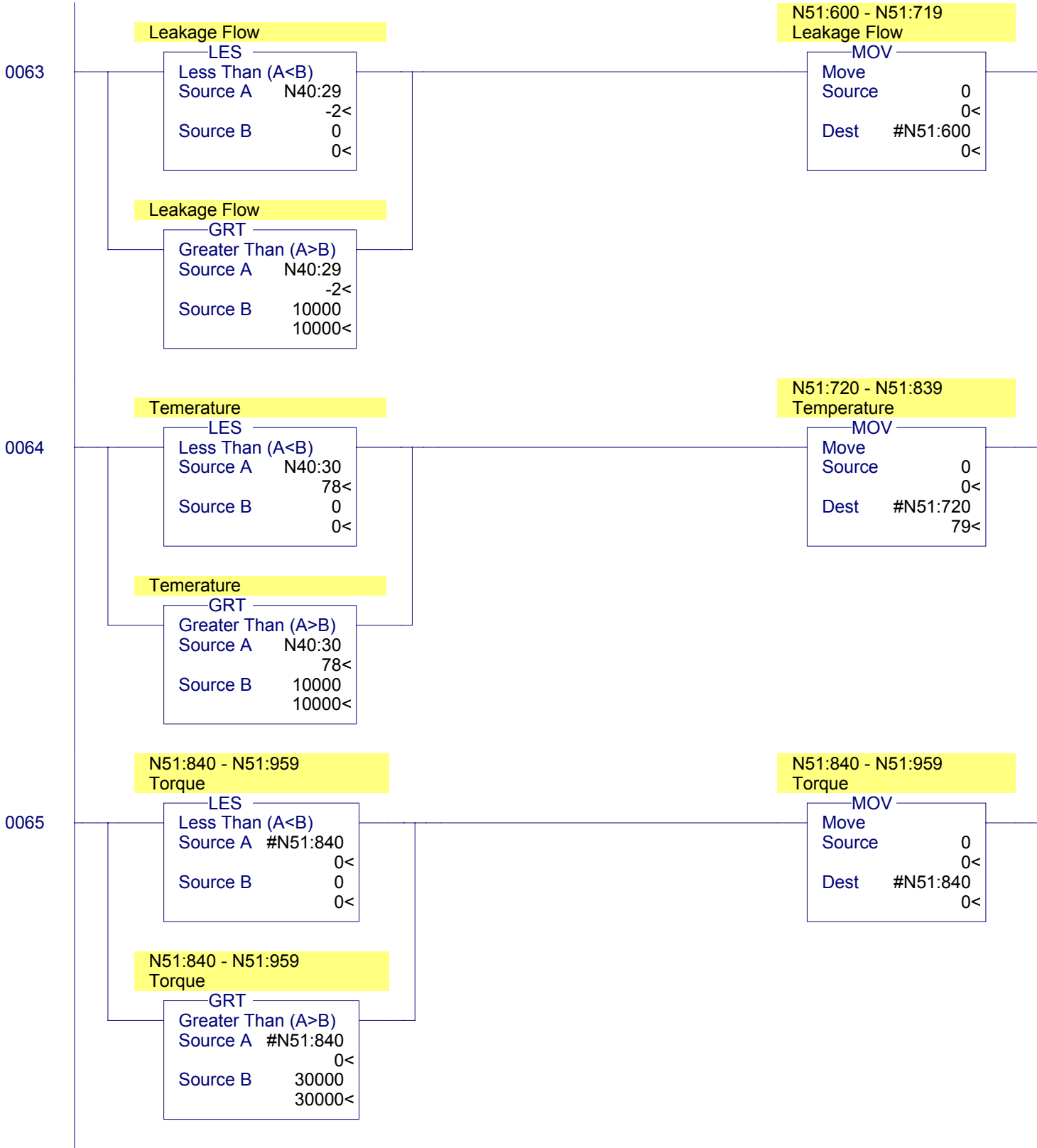
0053

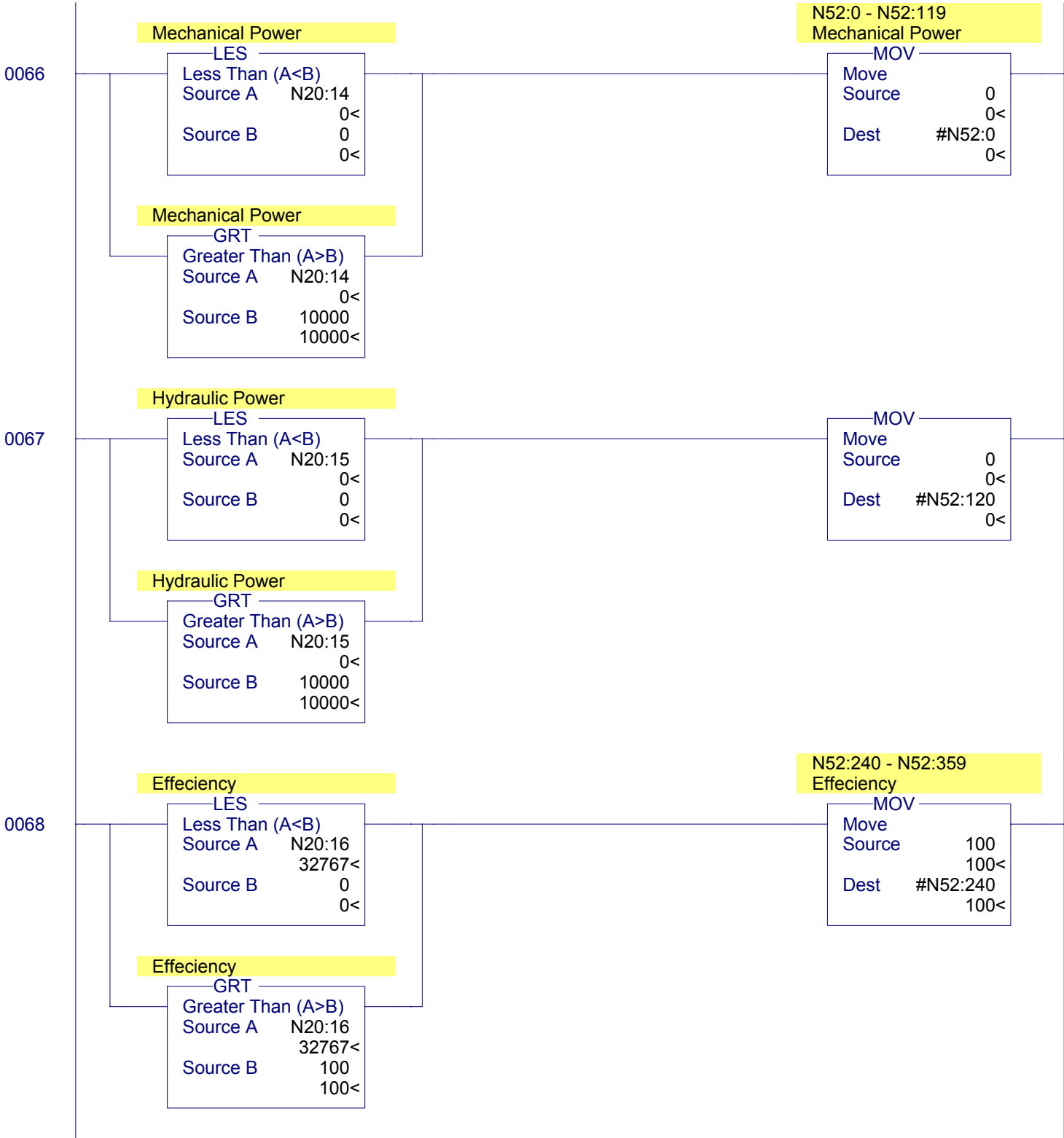


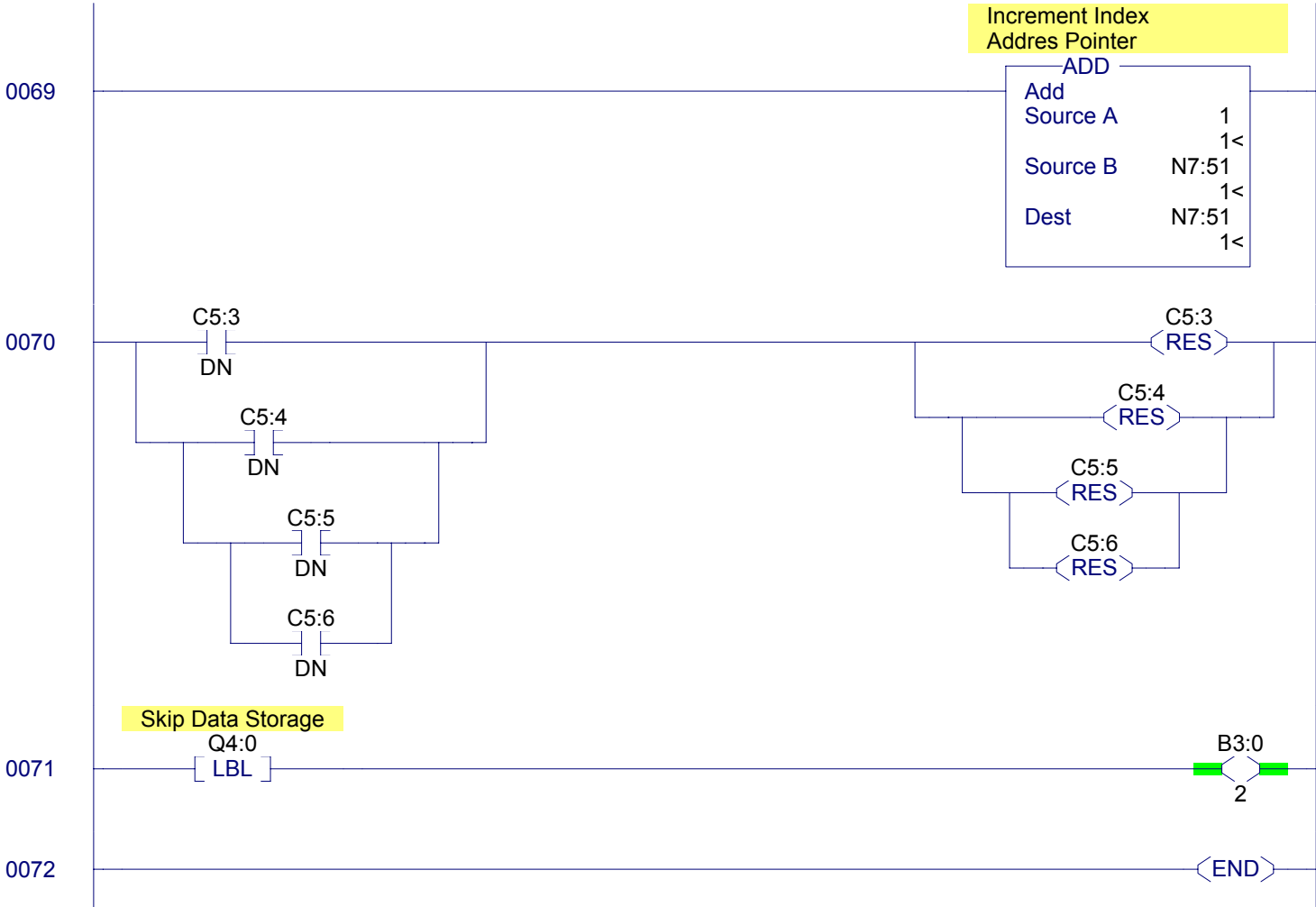


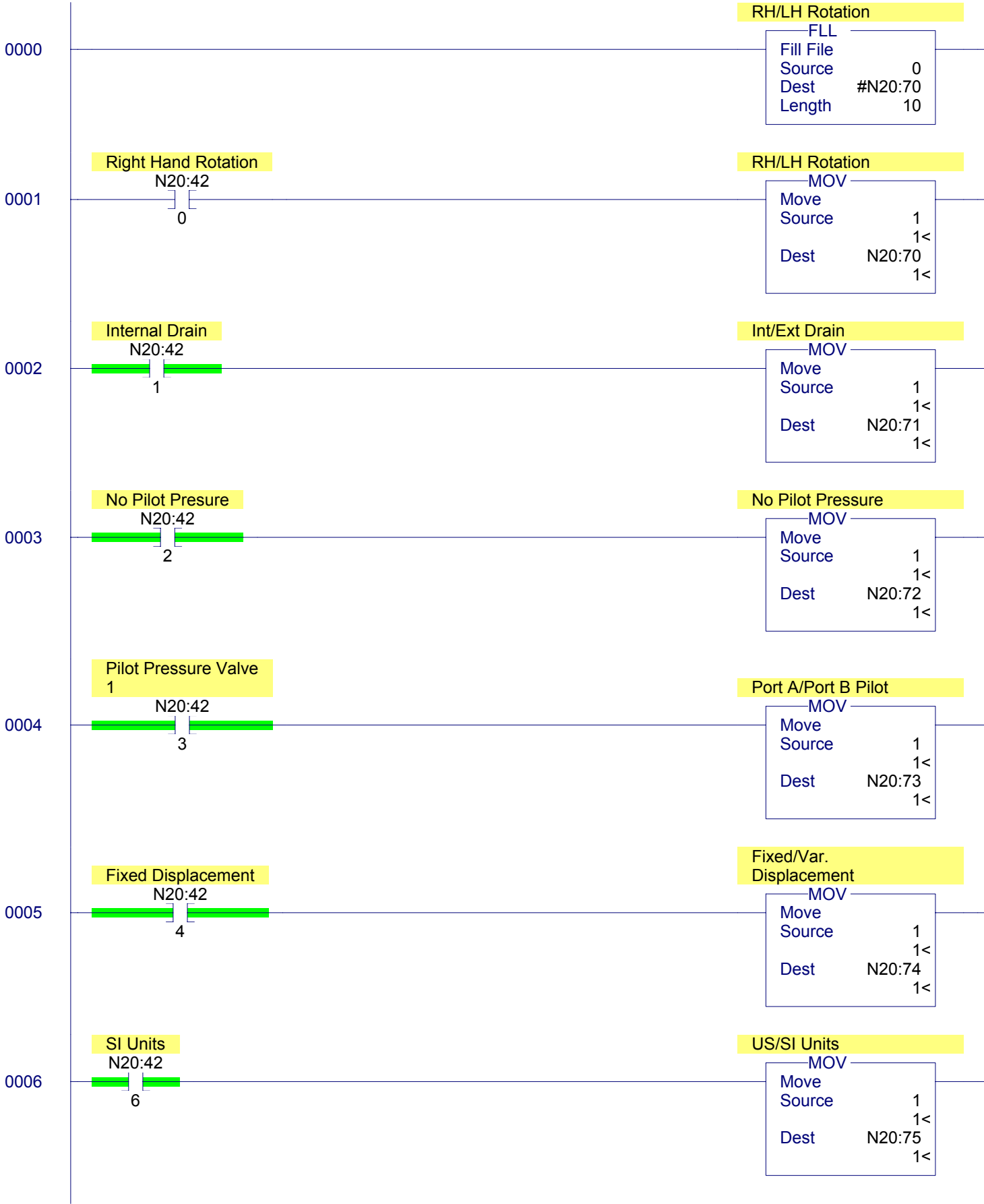


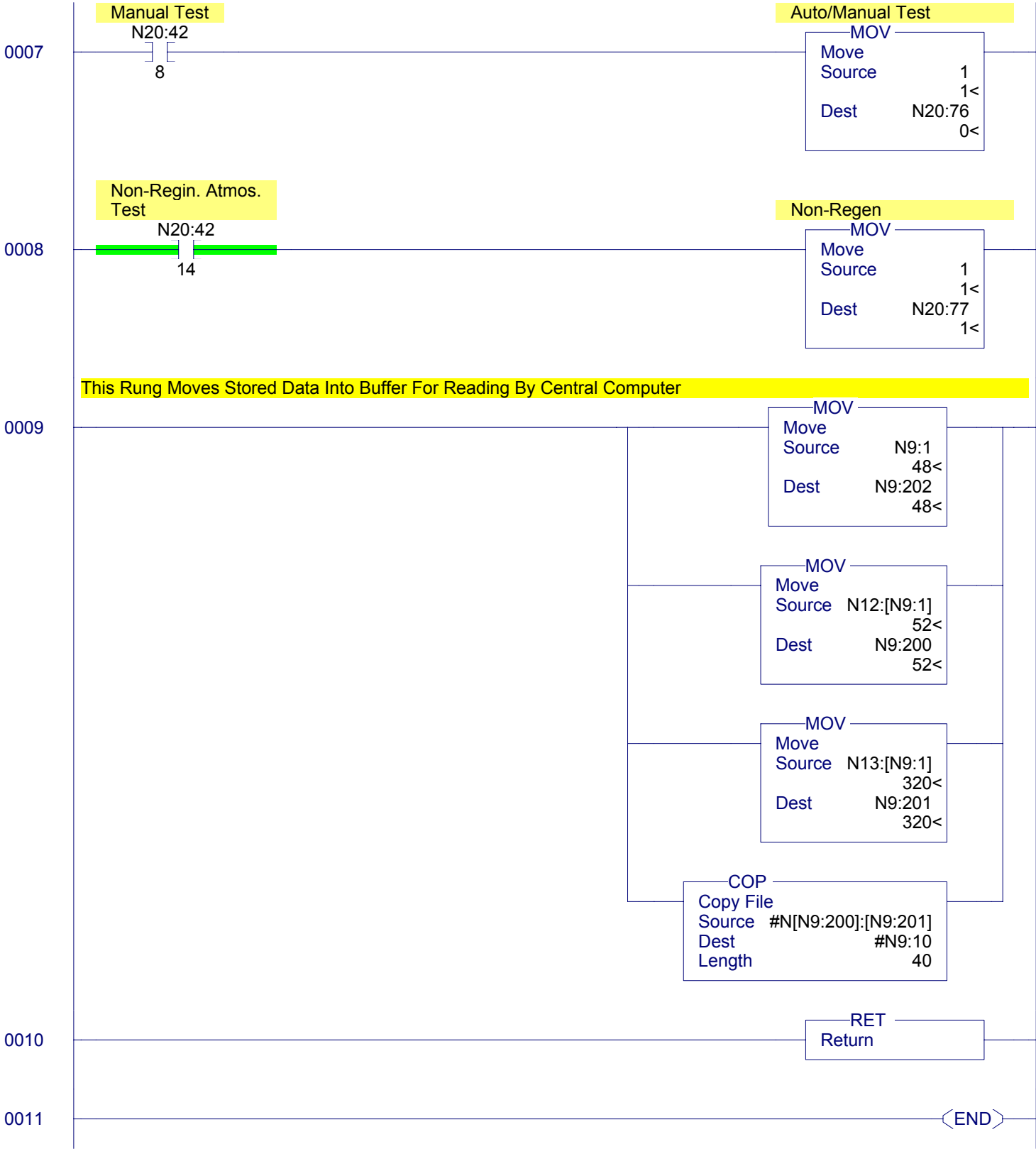


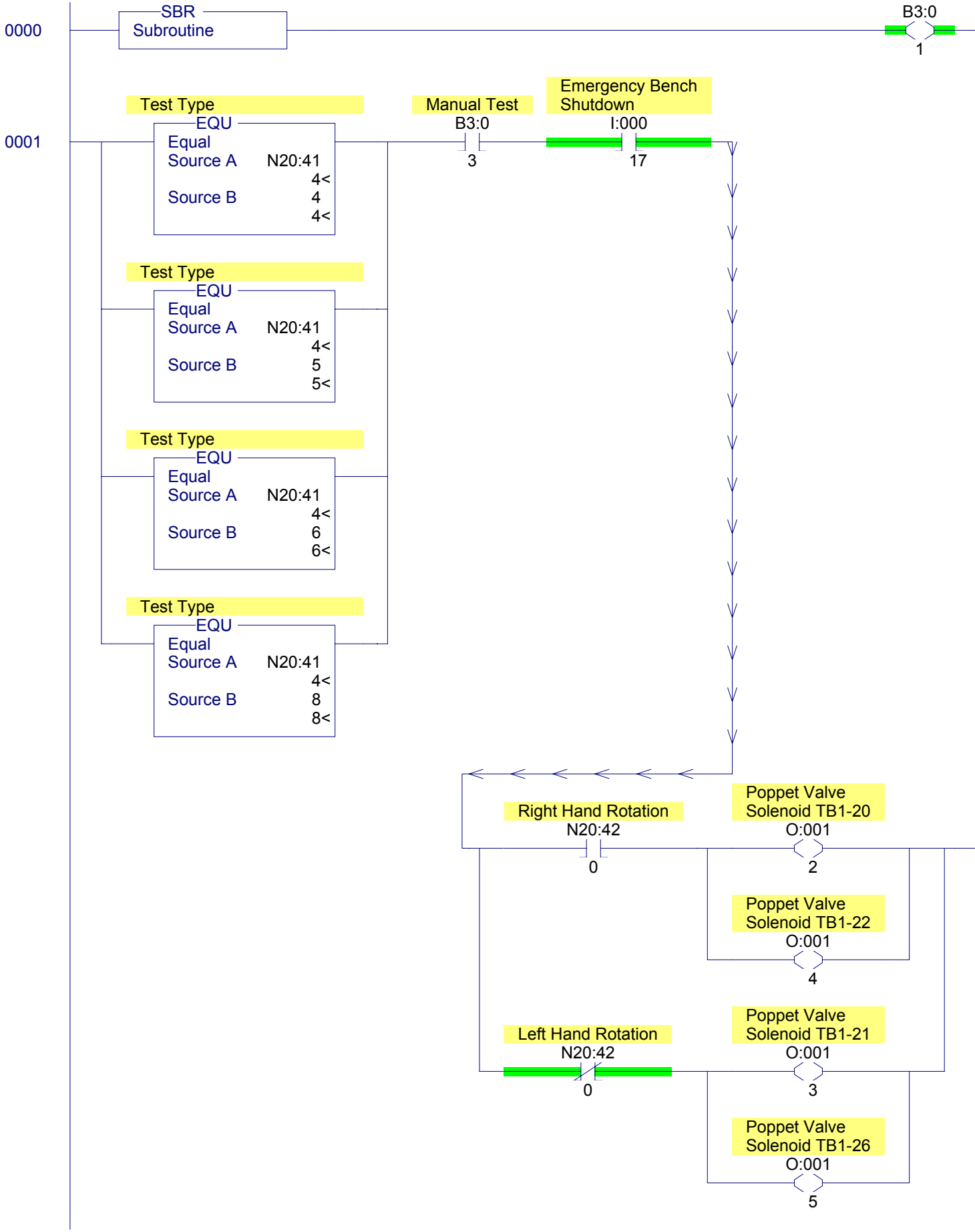


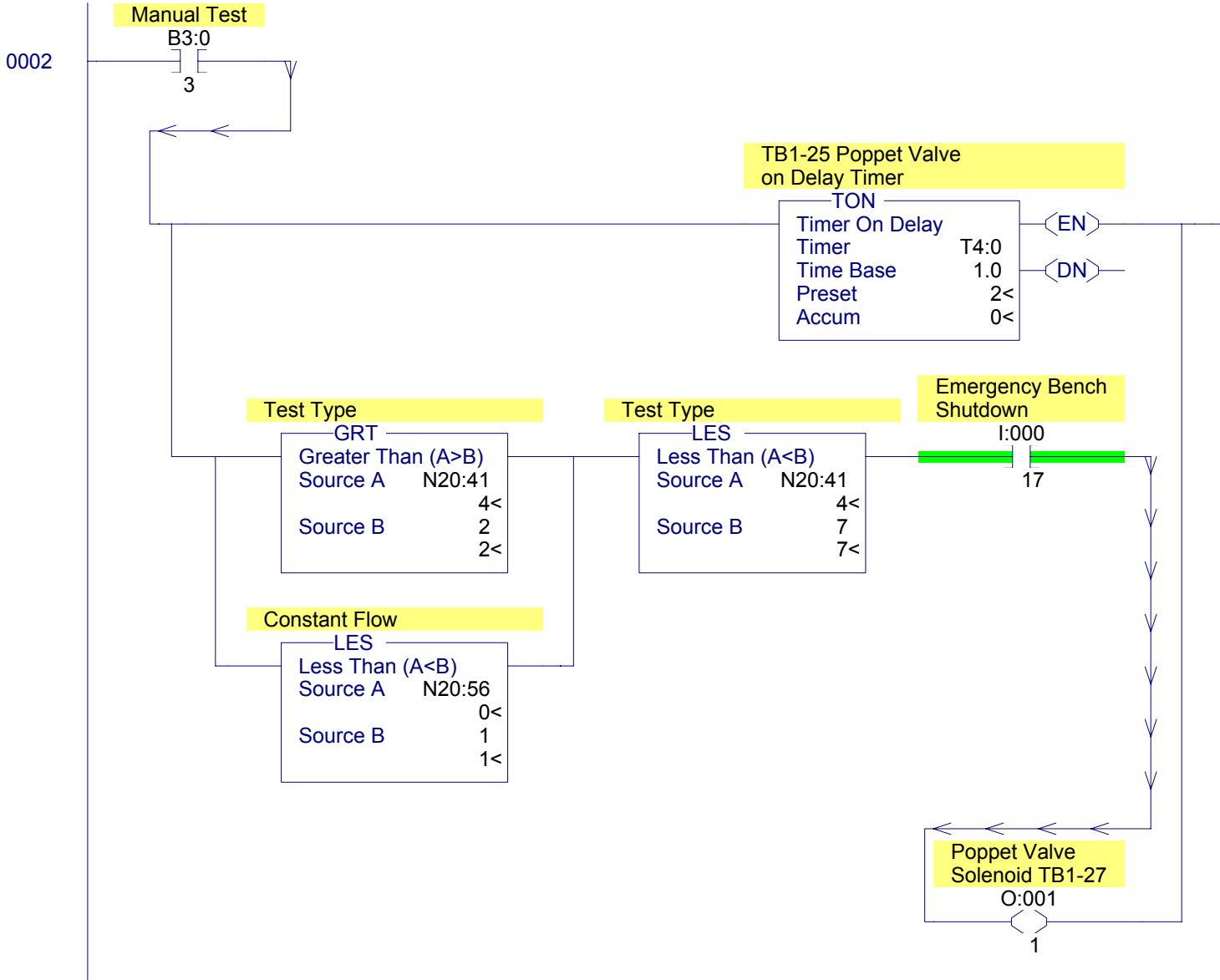


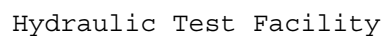


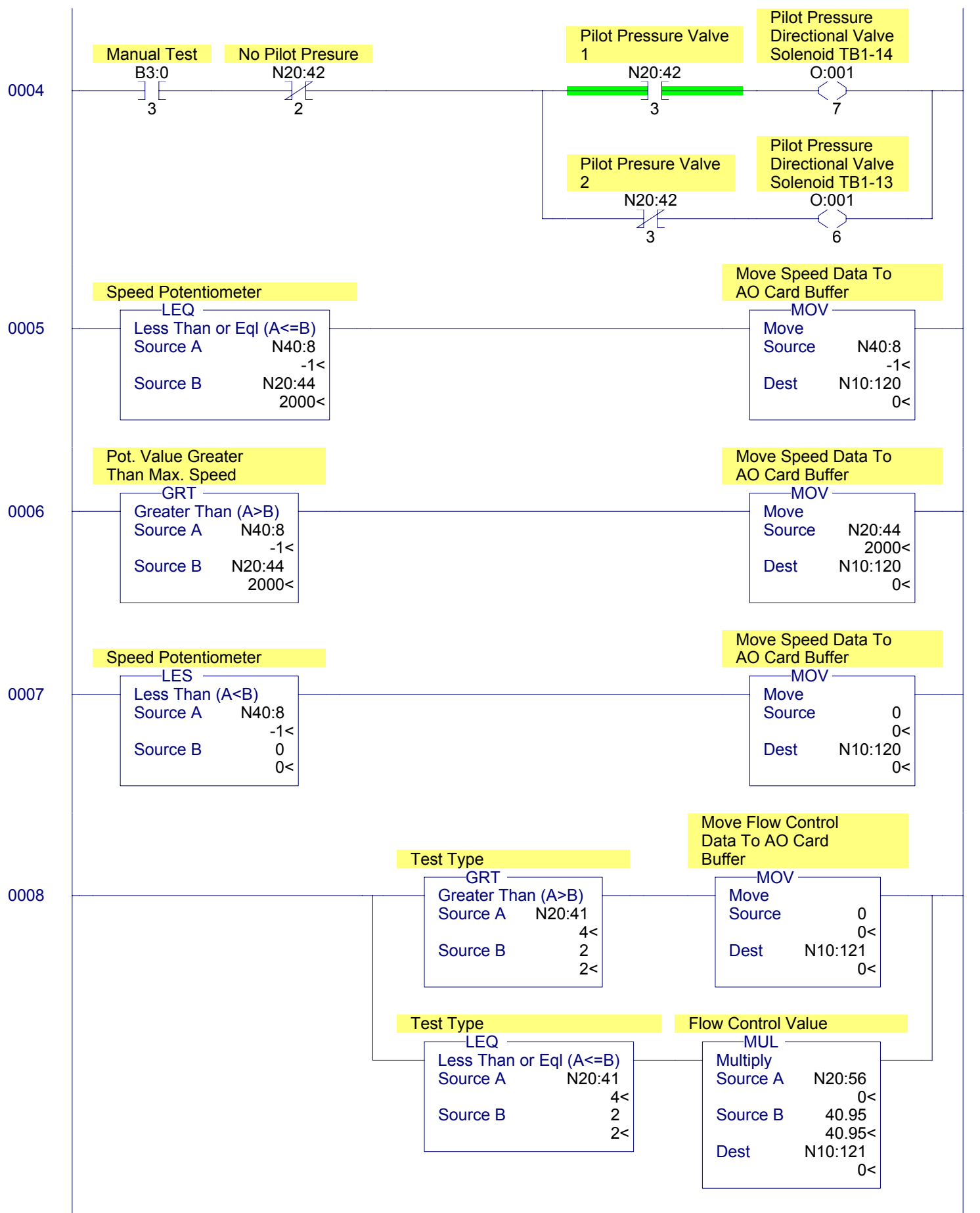


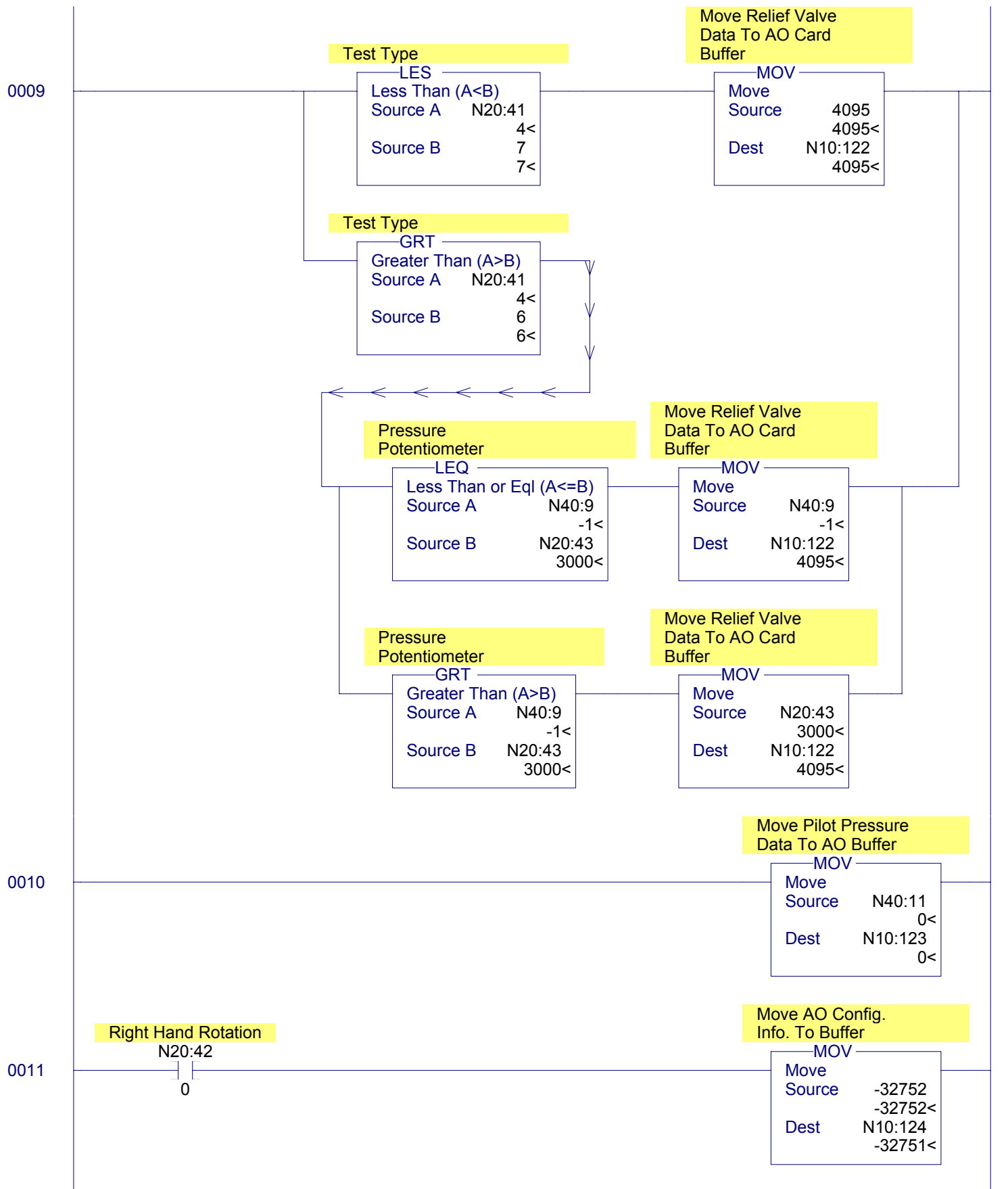


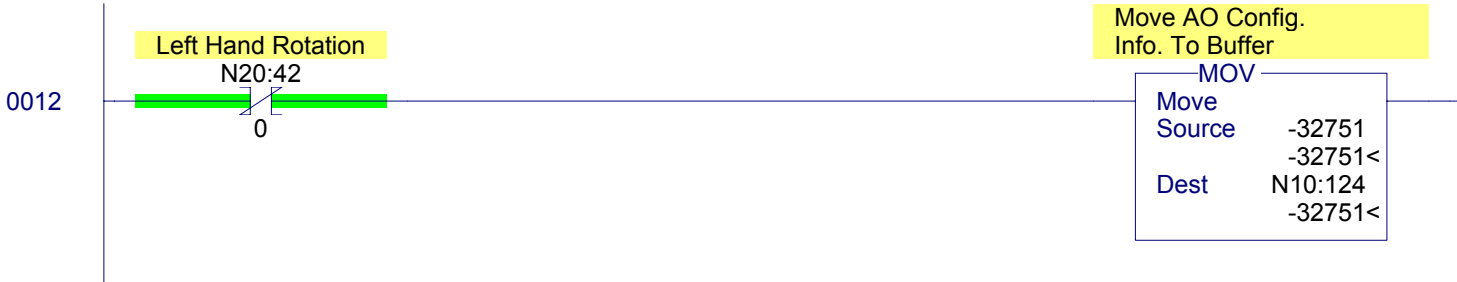












0013

Minimum Speed Scale
Value

MOV
Move
Source 4000
4000<
Dest N10:125
4000<

Maximum Speed Scale
Value

MOV
Move
Source 4000
4000<
Dest N10:126
4000<

Minimum Flow Scale
Value

MOV
Move
Source 0
0<
Dest N10:127
0<

Maximum Flow Scale
Value

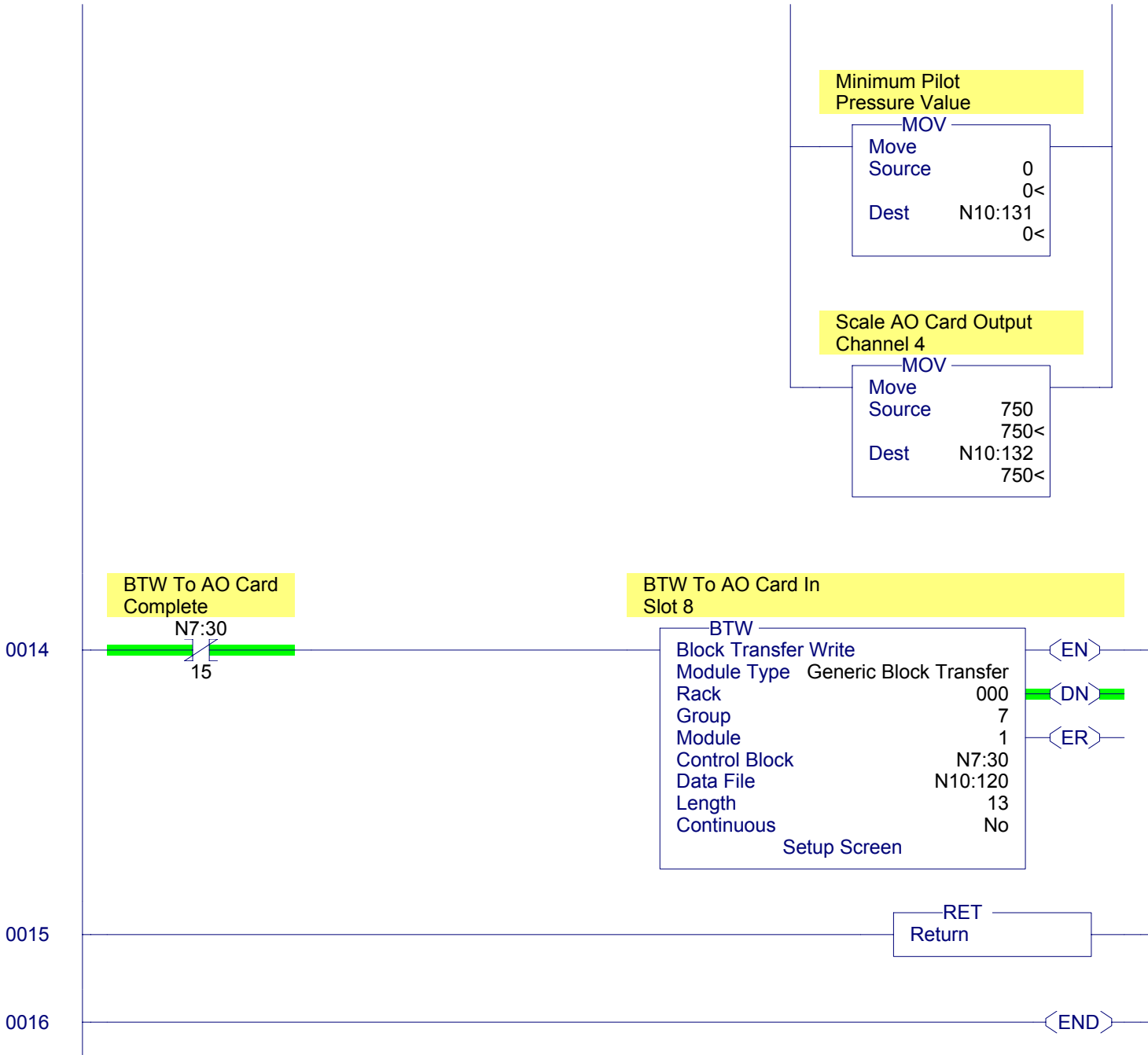
MOV
Move
Source 5000
5000<
Dest N10:128
5000<

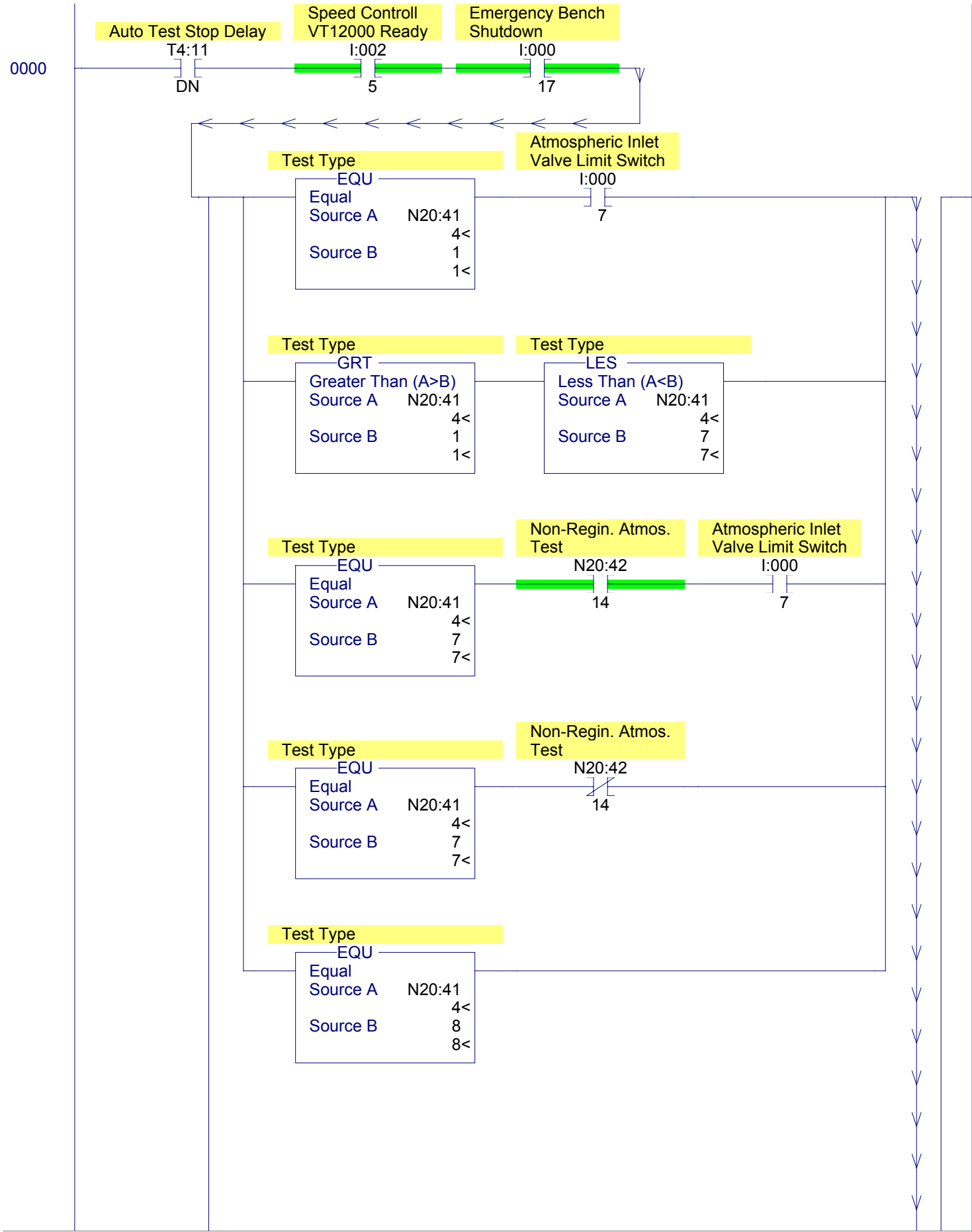
Minimum Pressure
Scale Value

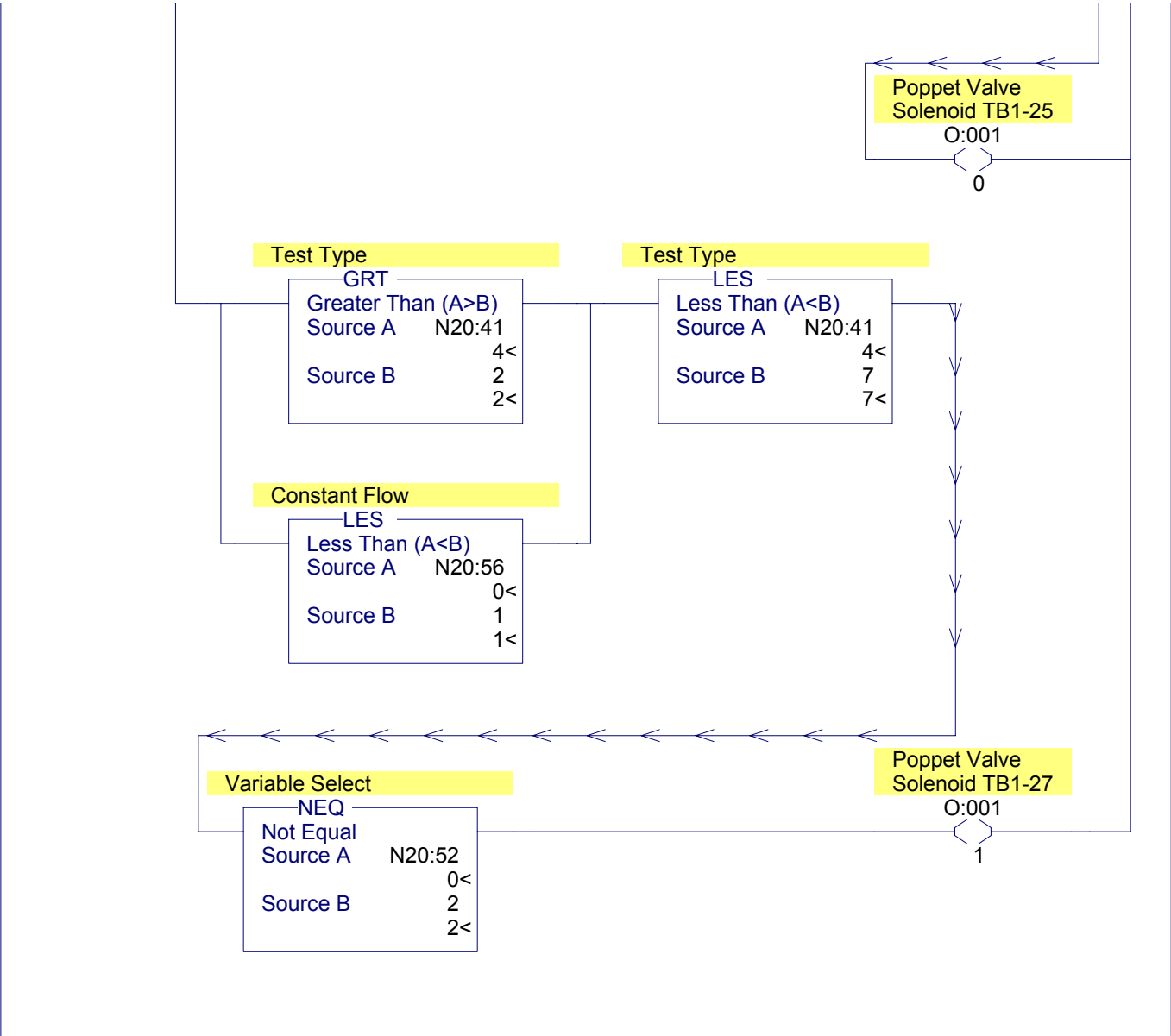
MOV
Move
Source 0
0<
Dest N10:129
0<

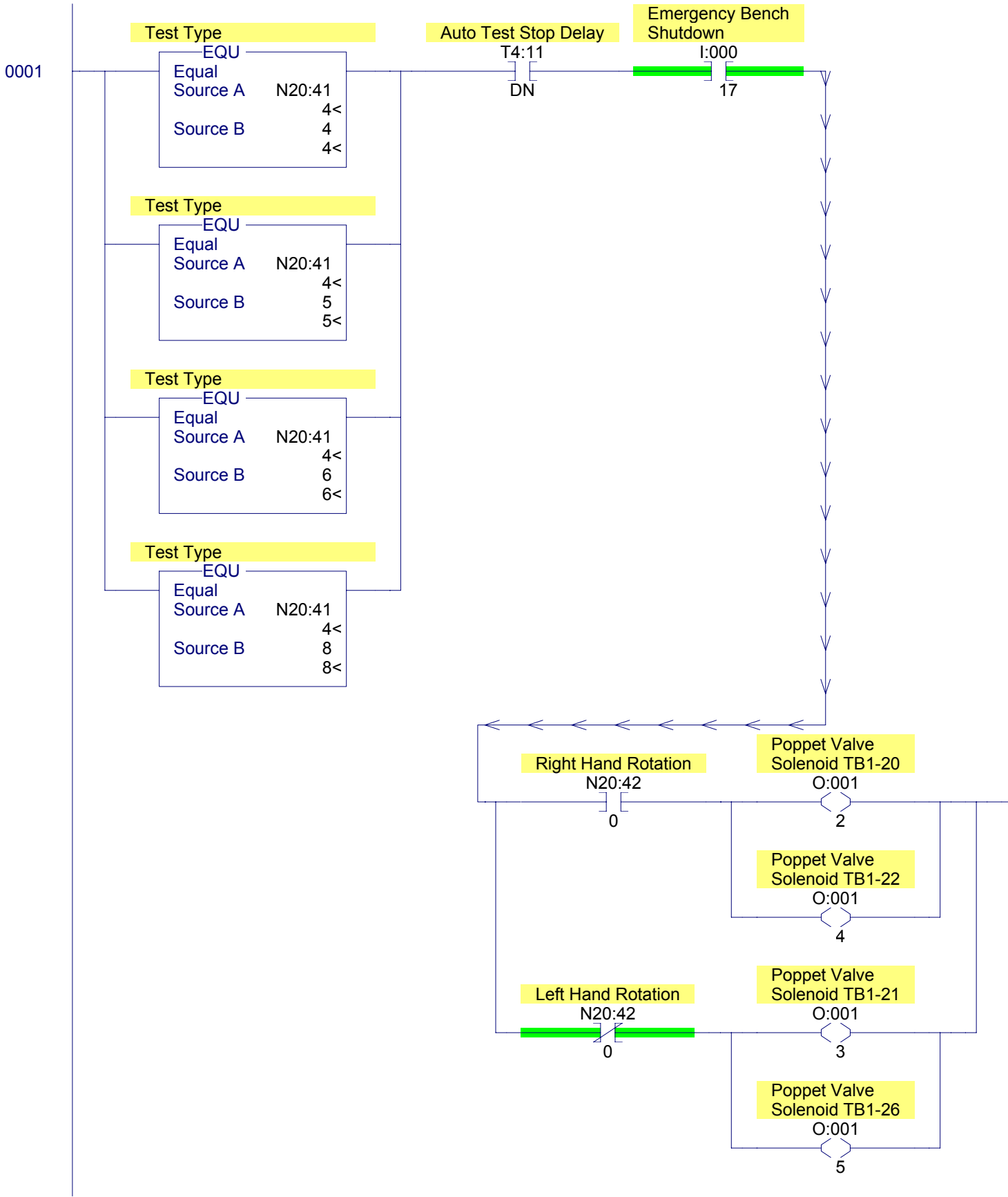
Maximum Pressure
Scale Value

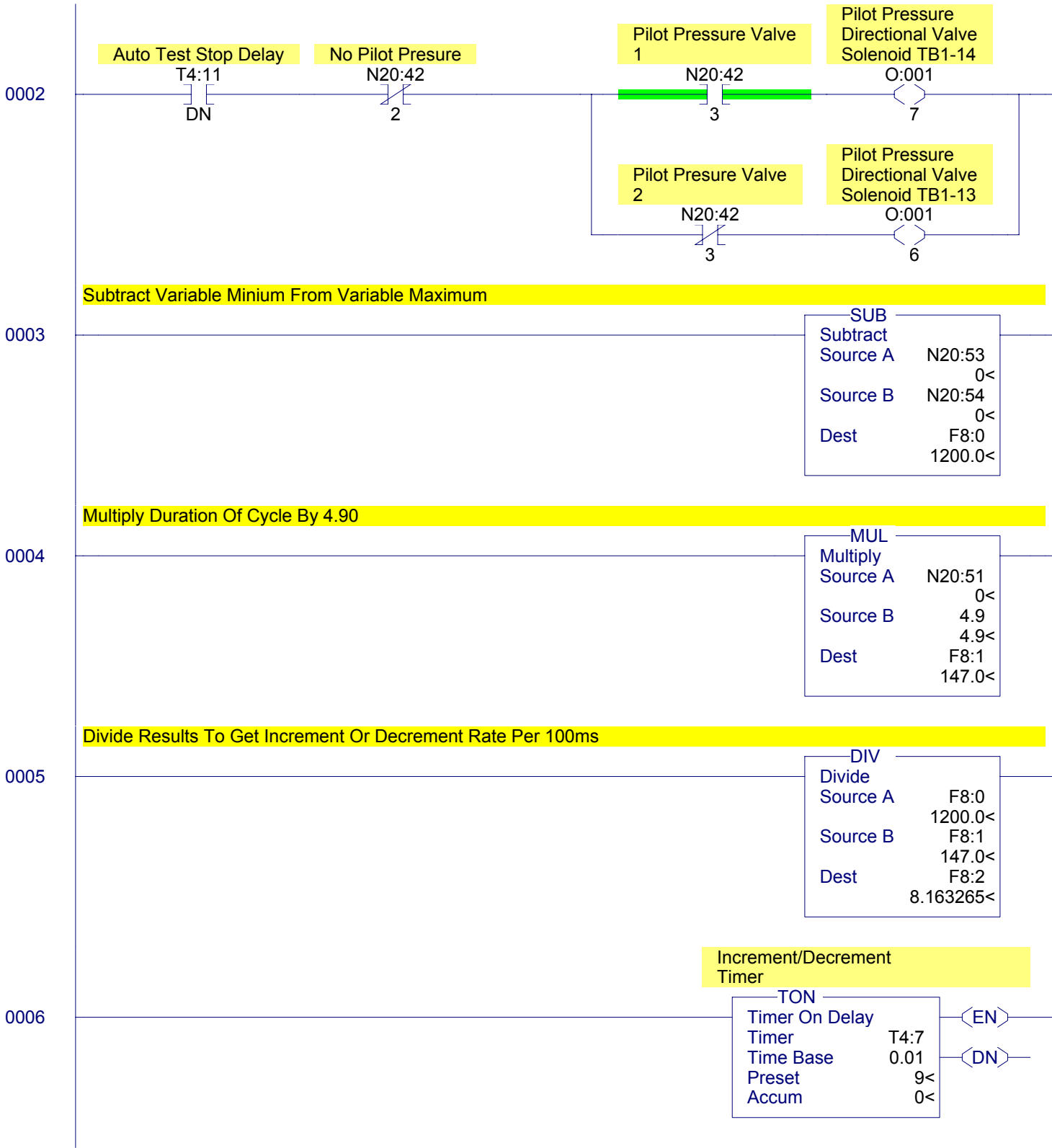
MOV
Move
Source 5000
5000<
Dest N10:130
5000<

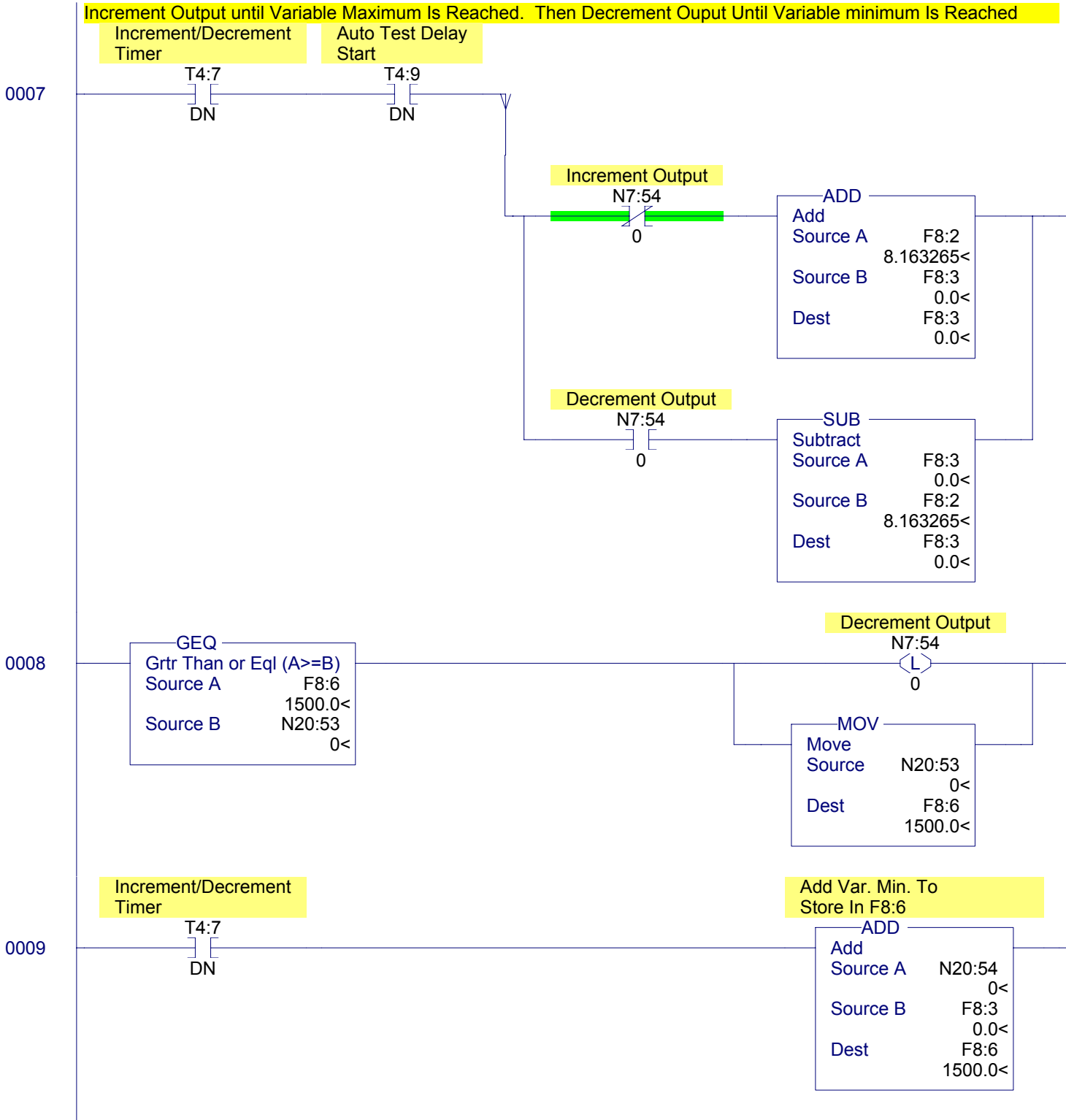




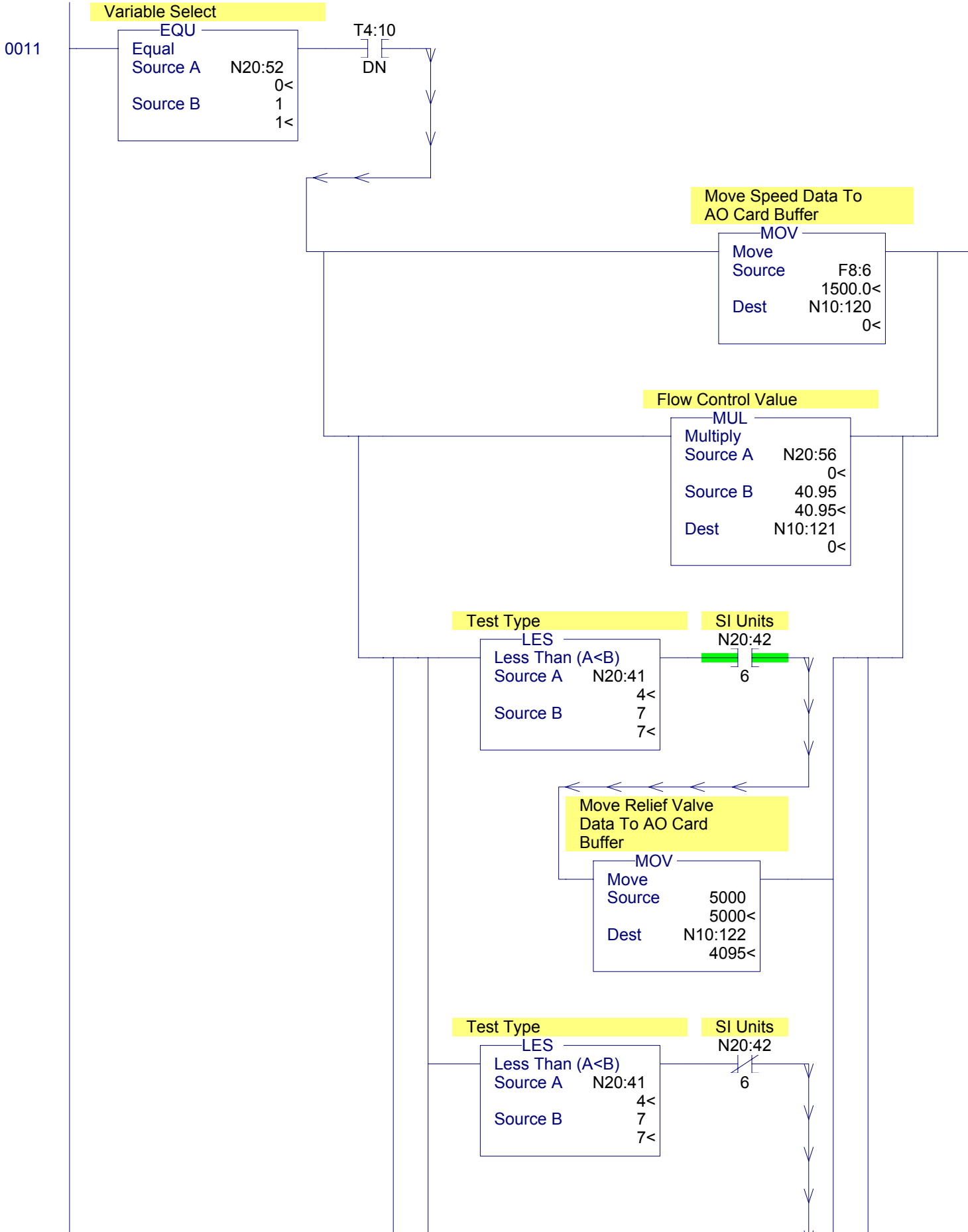


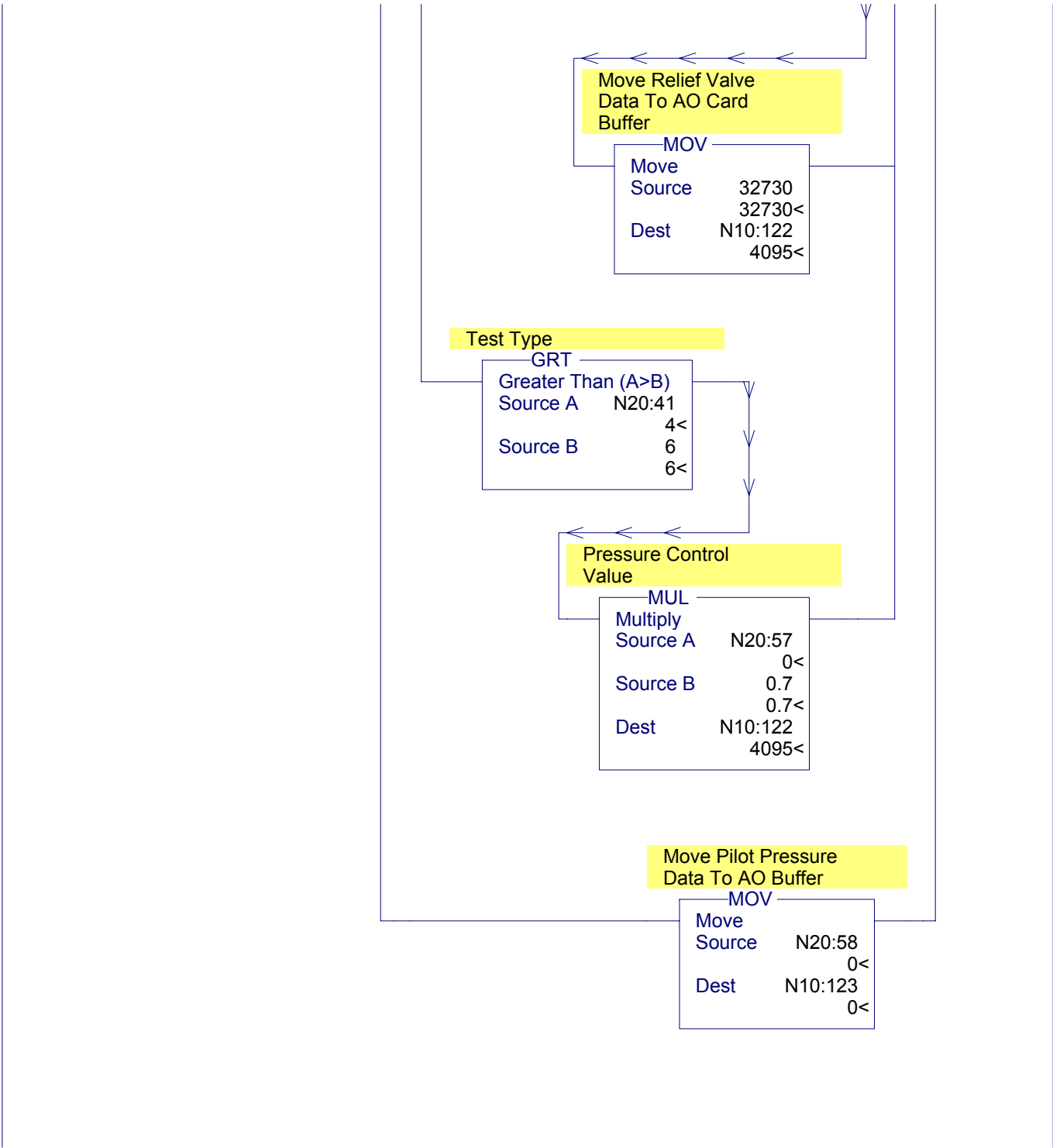


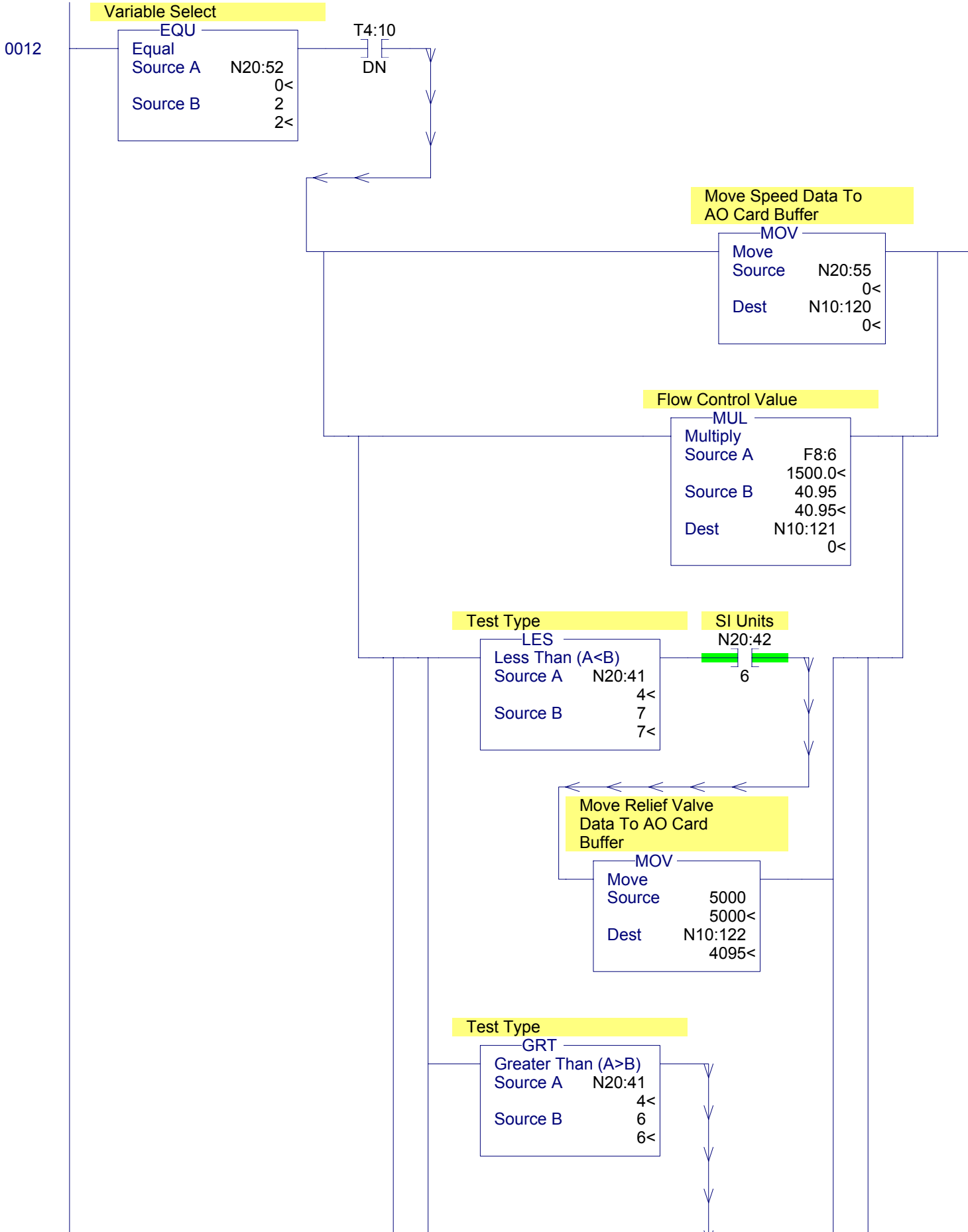


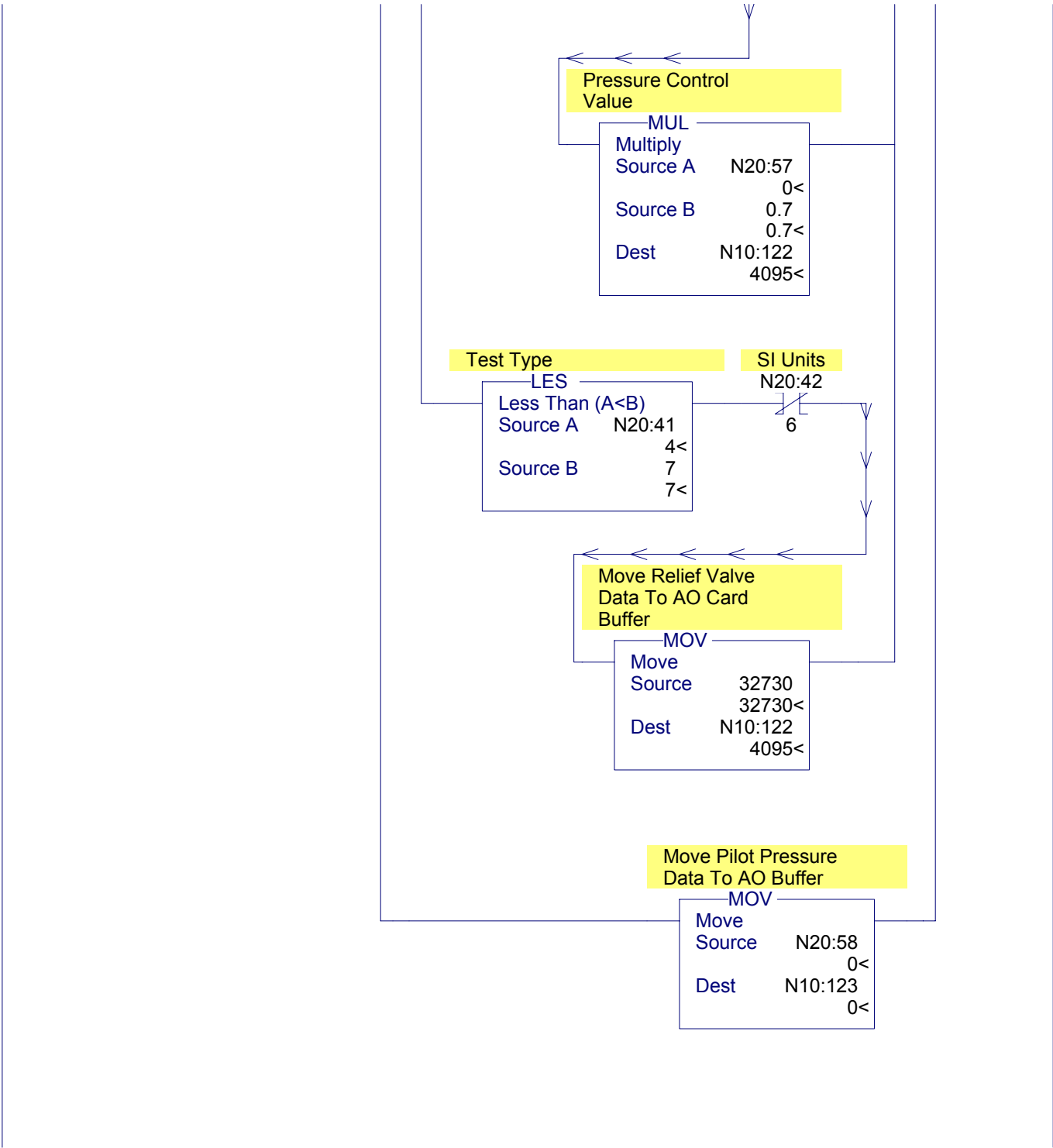


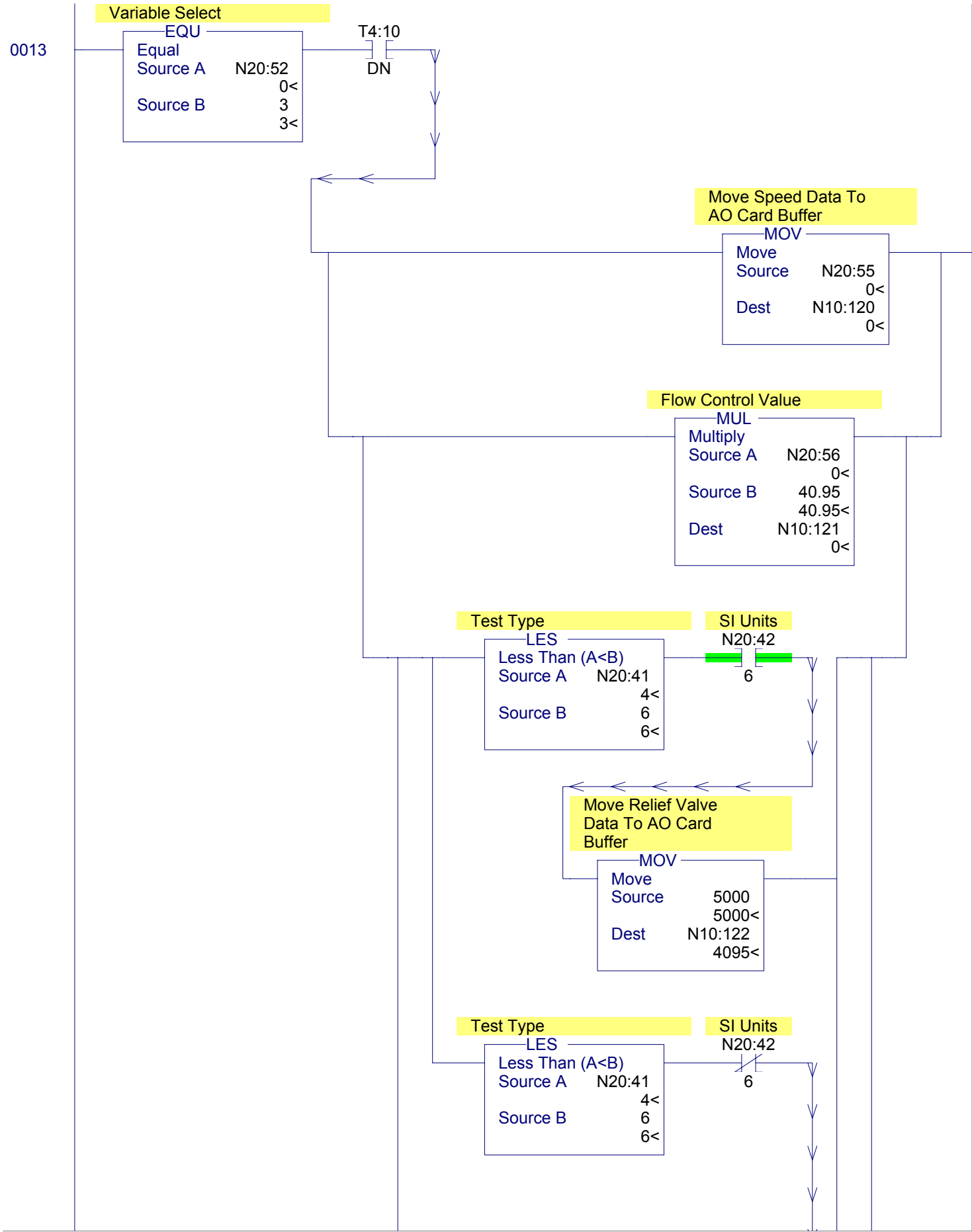


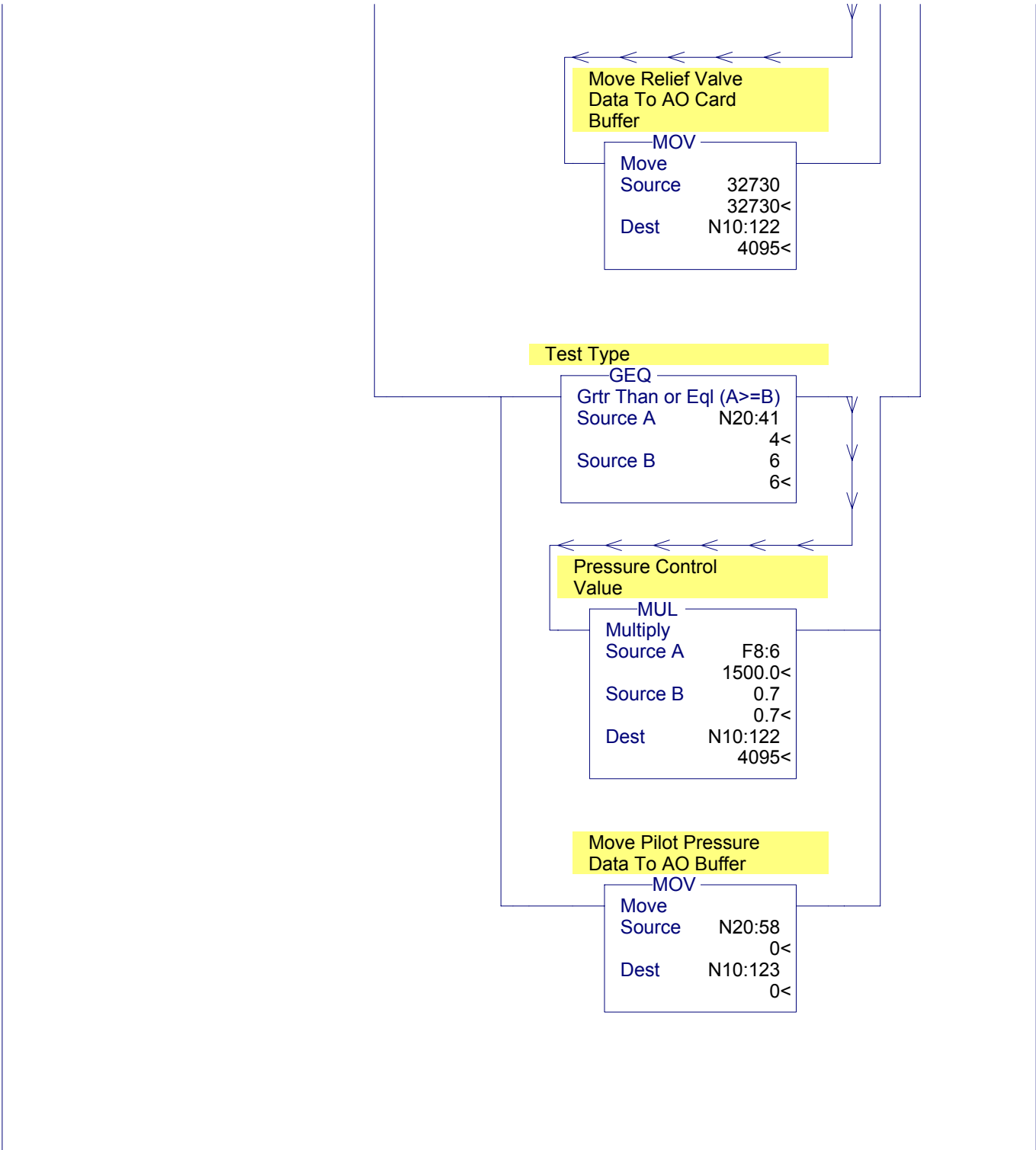


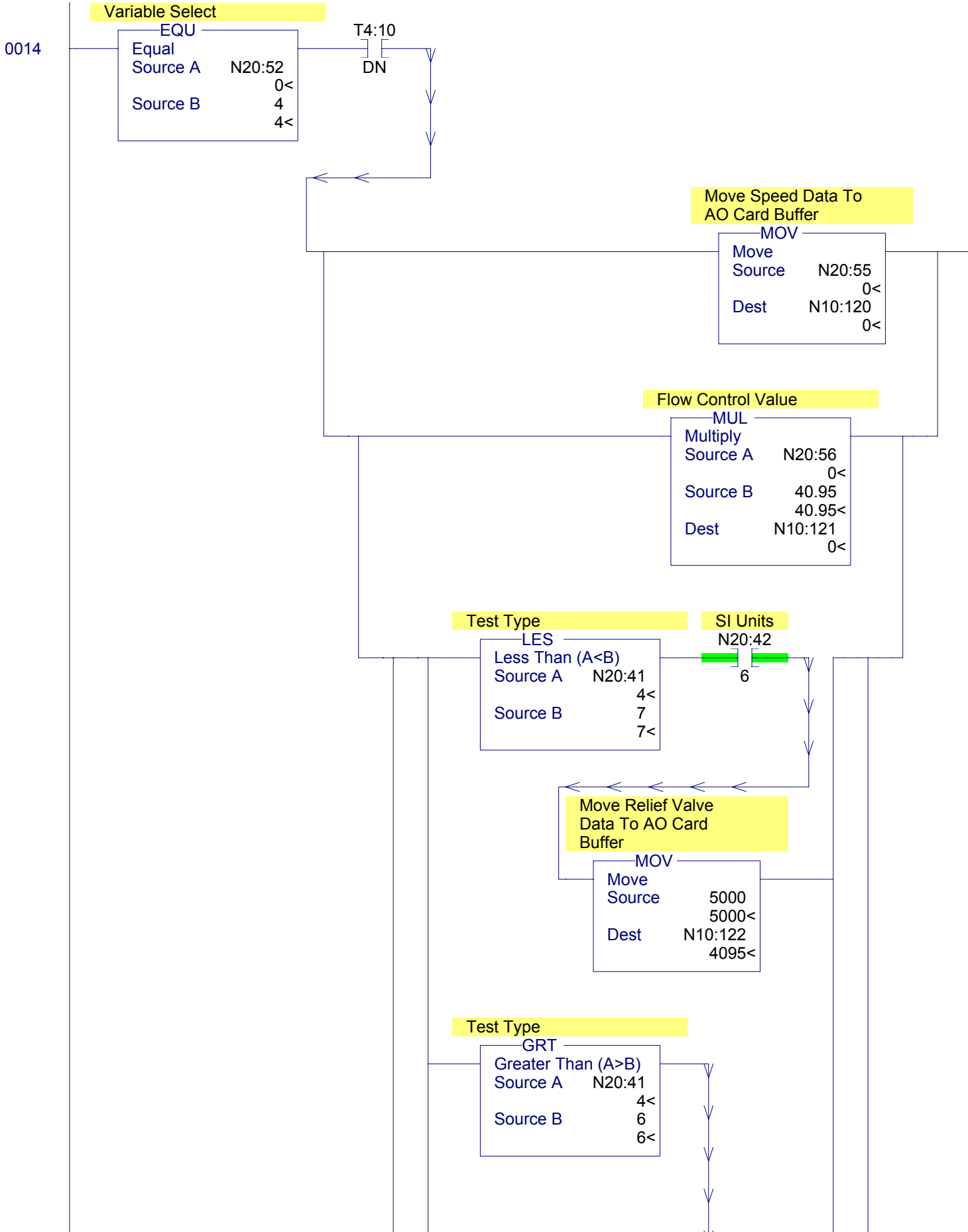


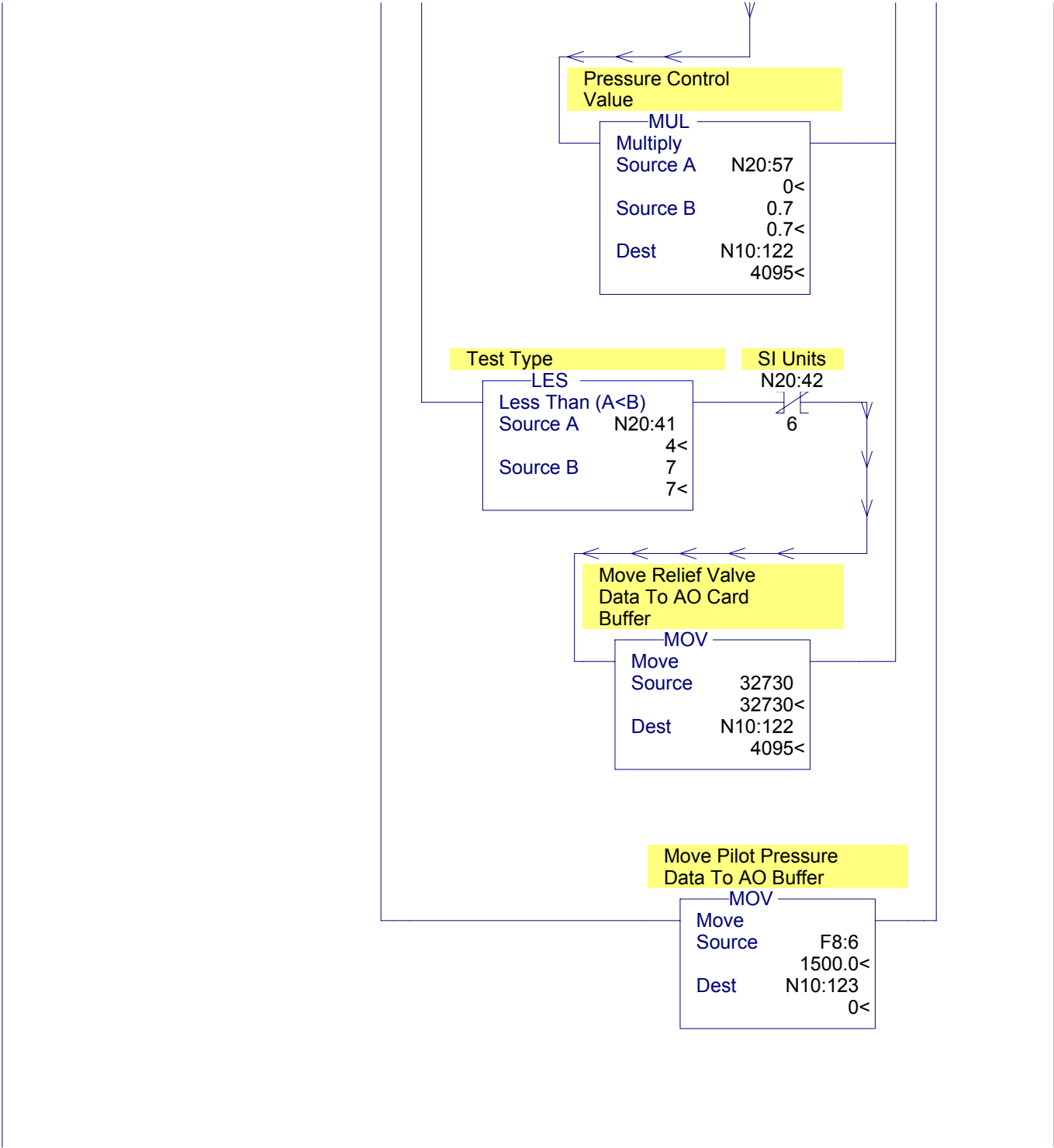


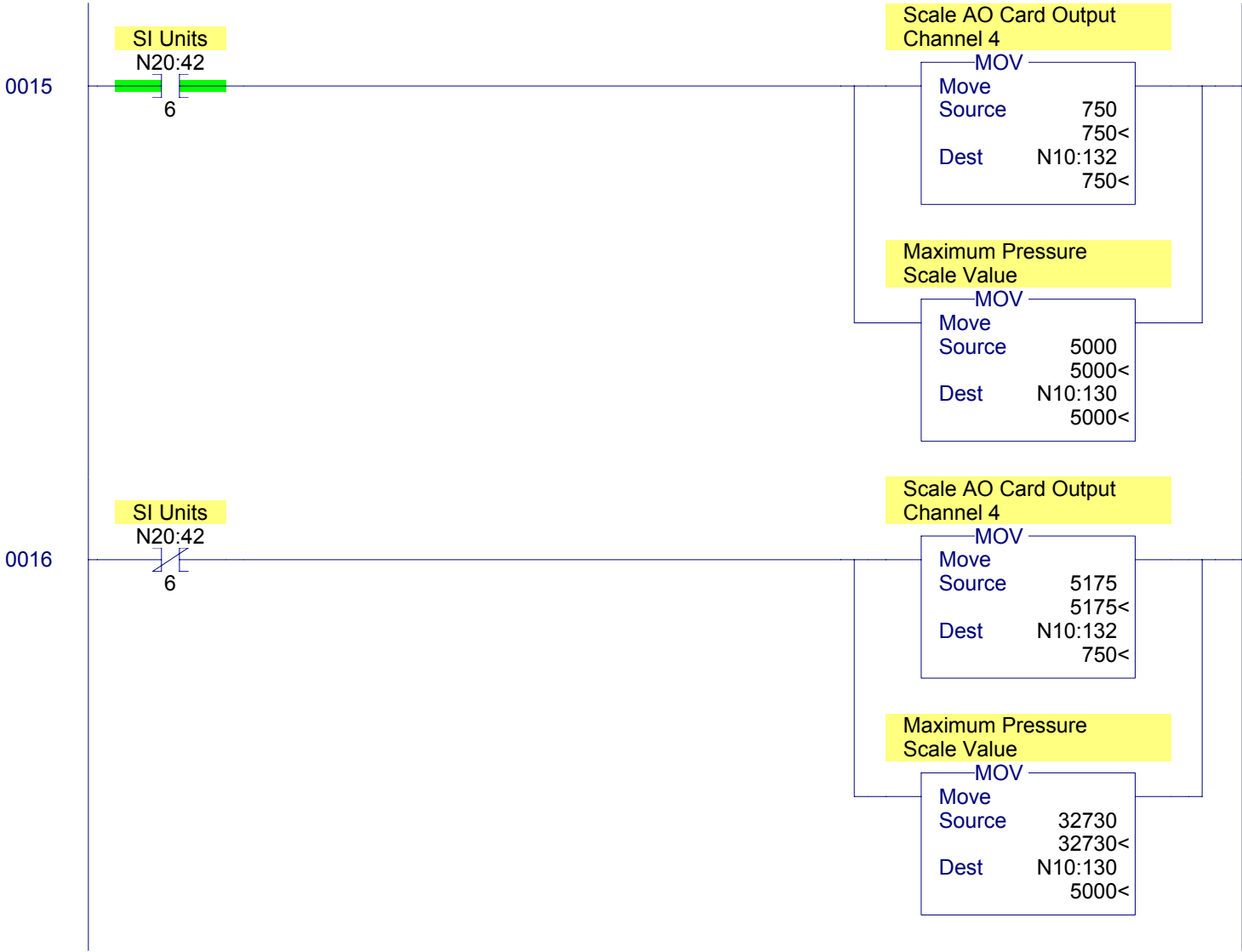


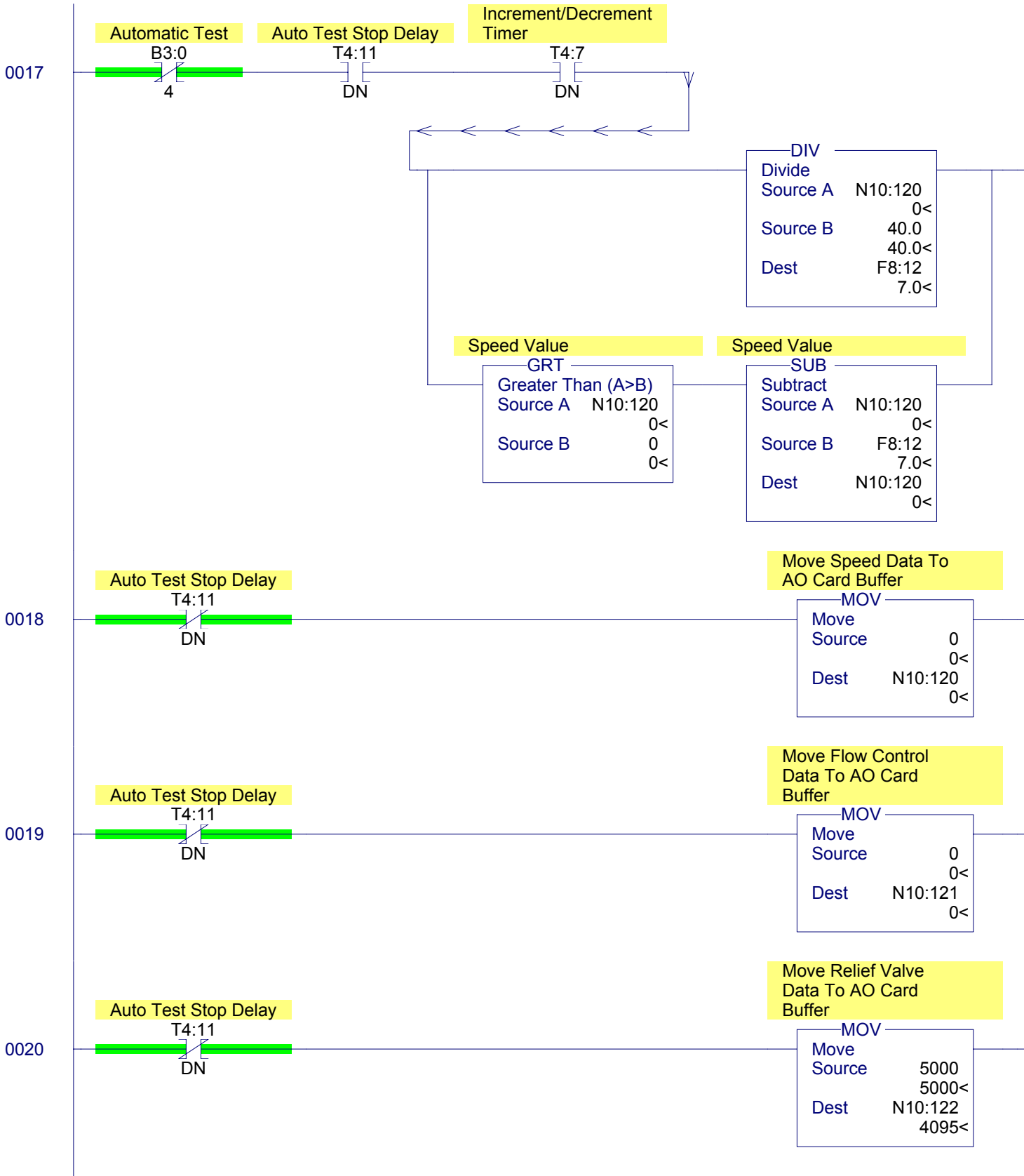


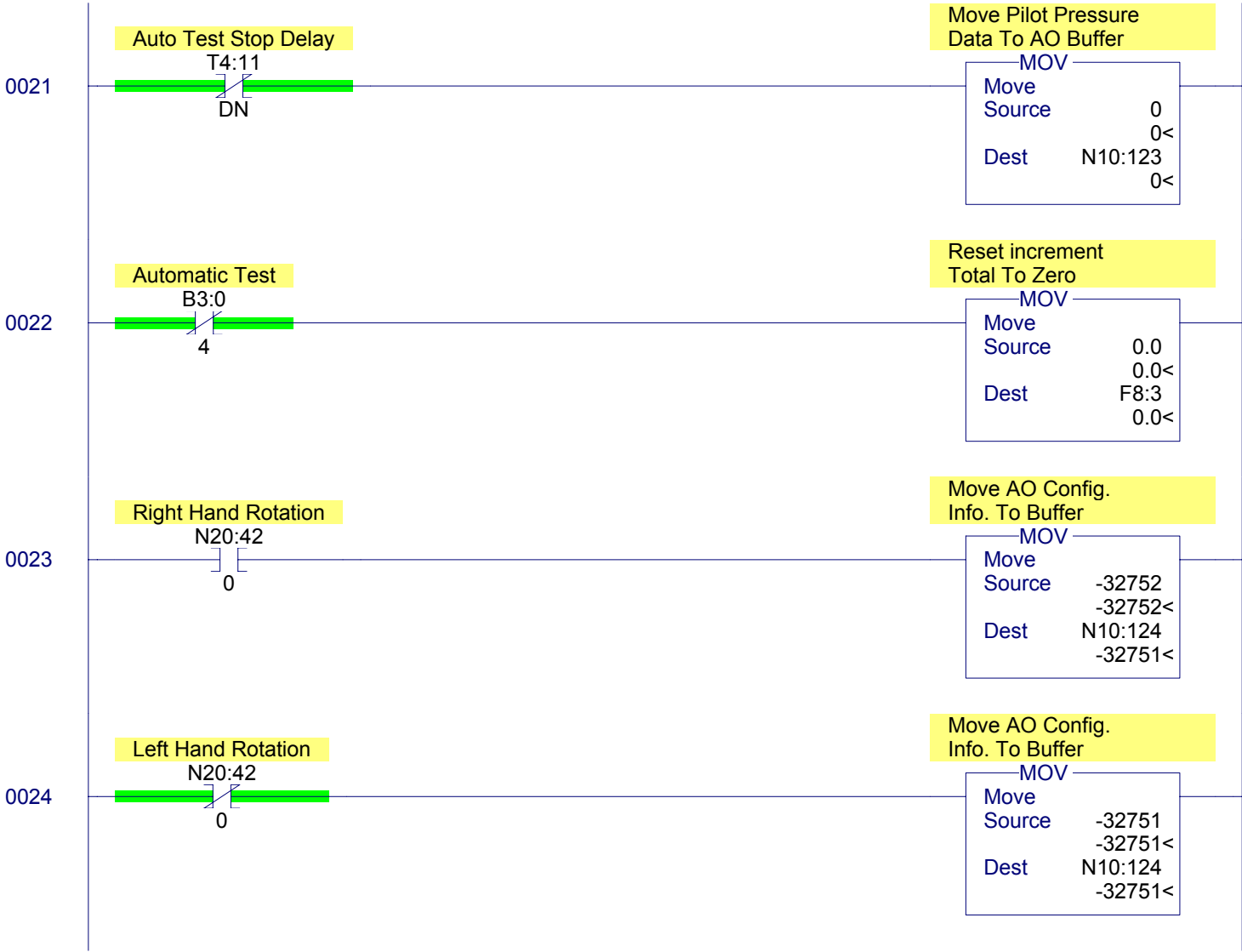












0025

Minimum Speed Scale Value

MOV

Move

Source4000

4000<

DestN10:125

4000<

Maximum Speed Scale Value

MOV

Move

Source4000

4000<

DestN10:126

4000<

Minimum Flow Scale Value

MOV

Move

Source0

0<

DestN10:127

0<

Maximum Flow Scale Value

MOV

Move

Source5000

5000<

DestN10:128

5000<

Minimum Pressure Scale Value

MOV

Move

Source0

0<

DestN10:129

0<

Minimum Pilot Pressure Value

MOV

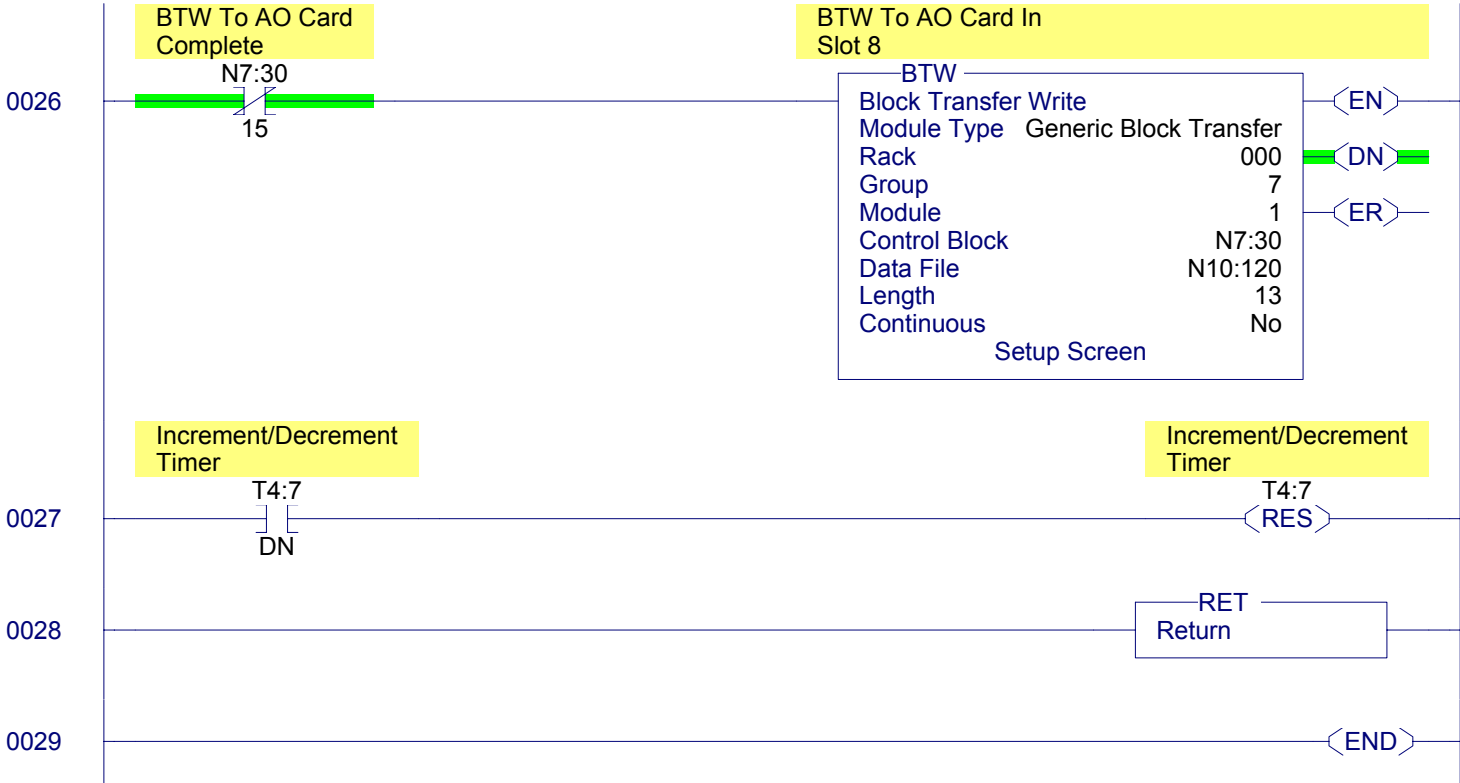
Move

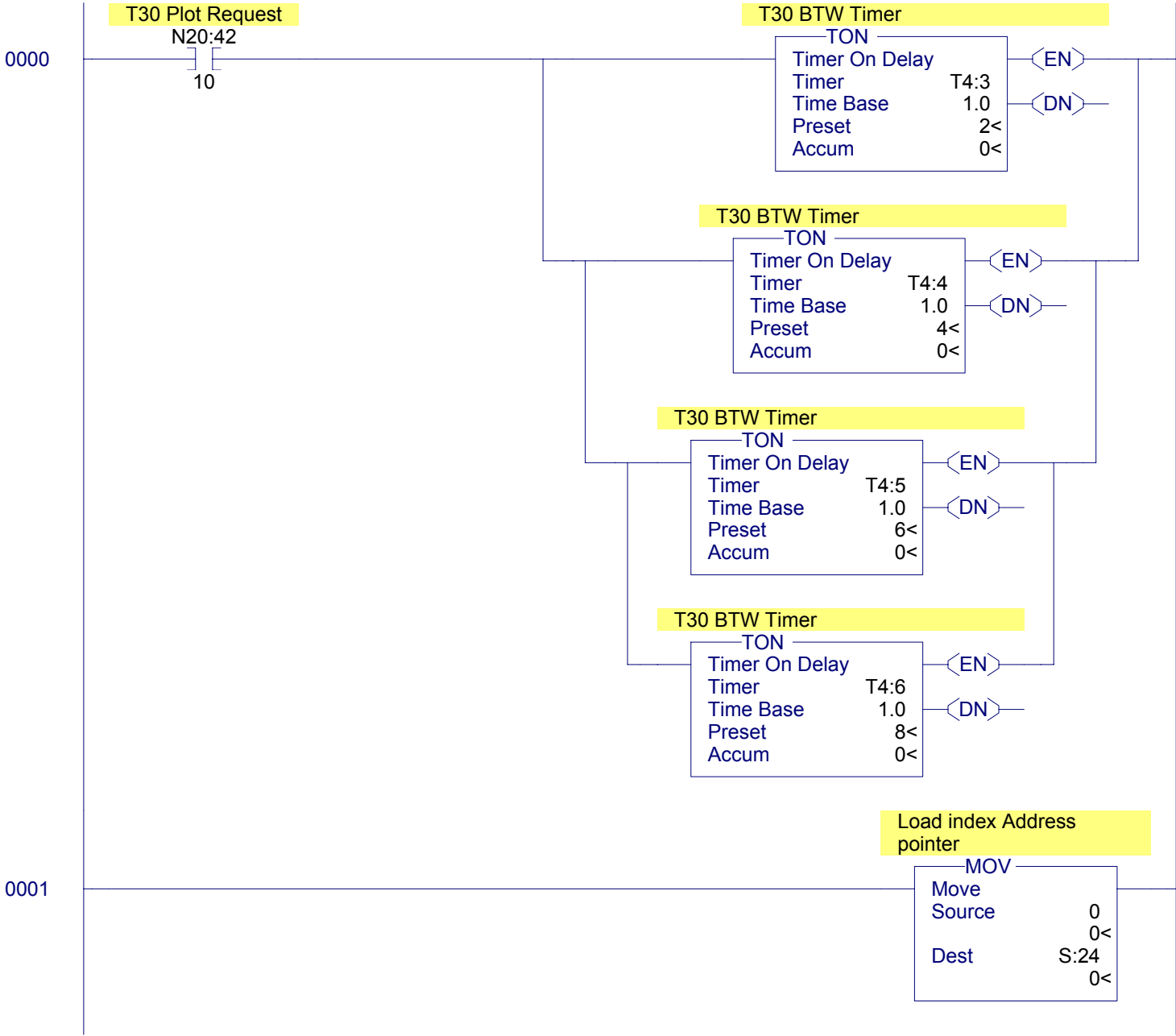
Source0

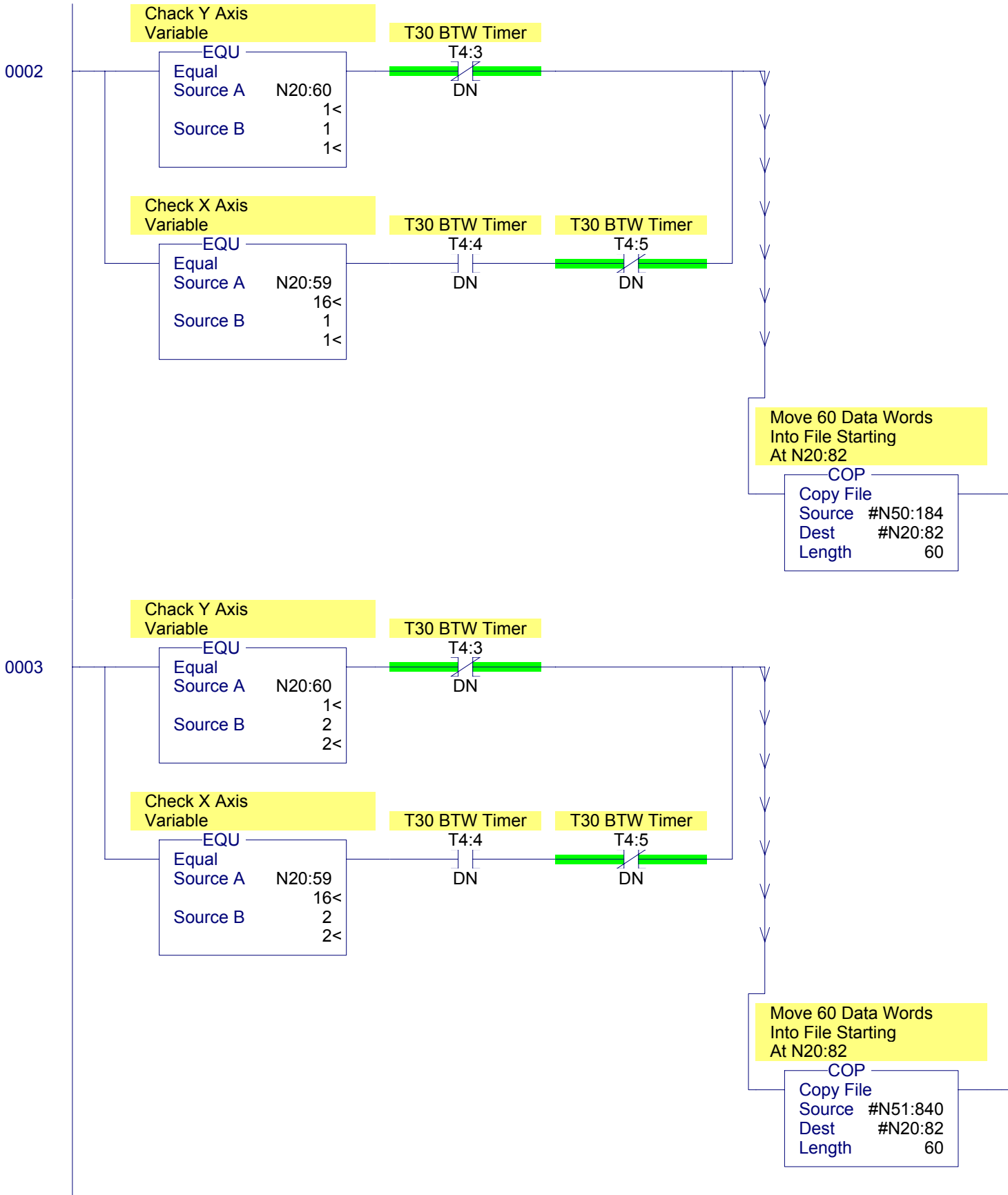
0<

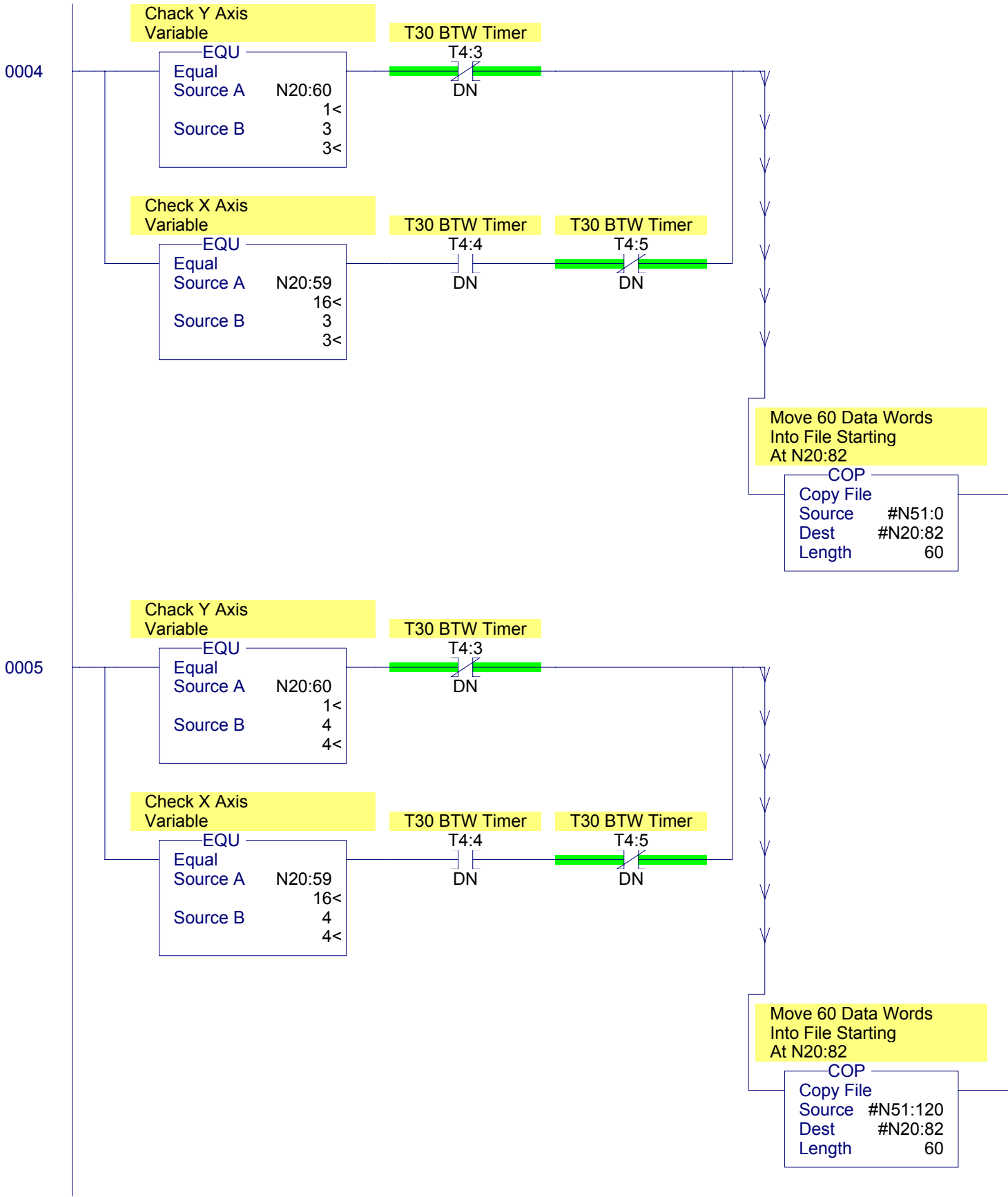
DestN10:131

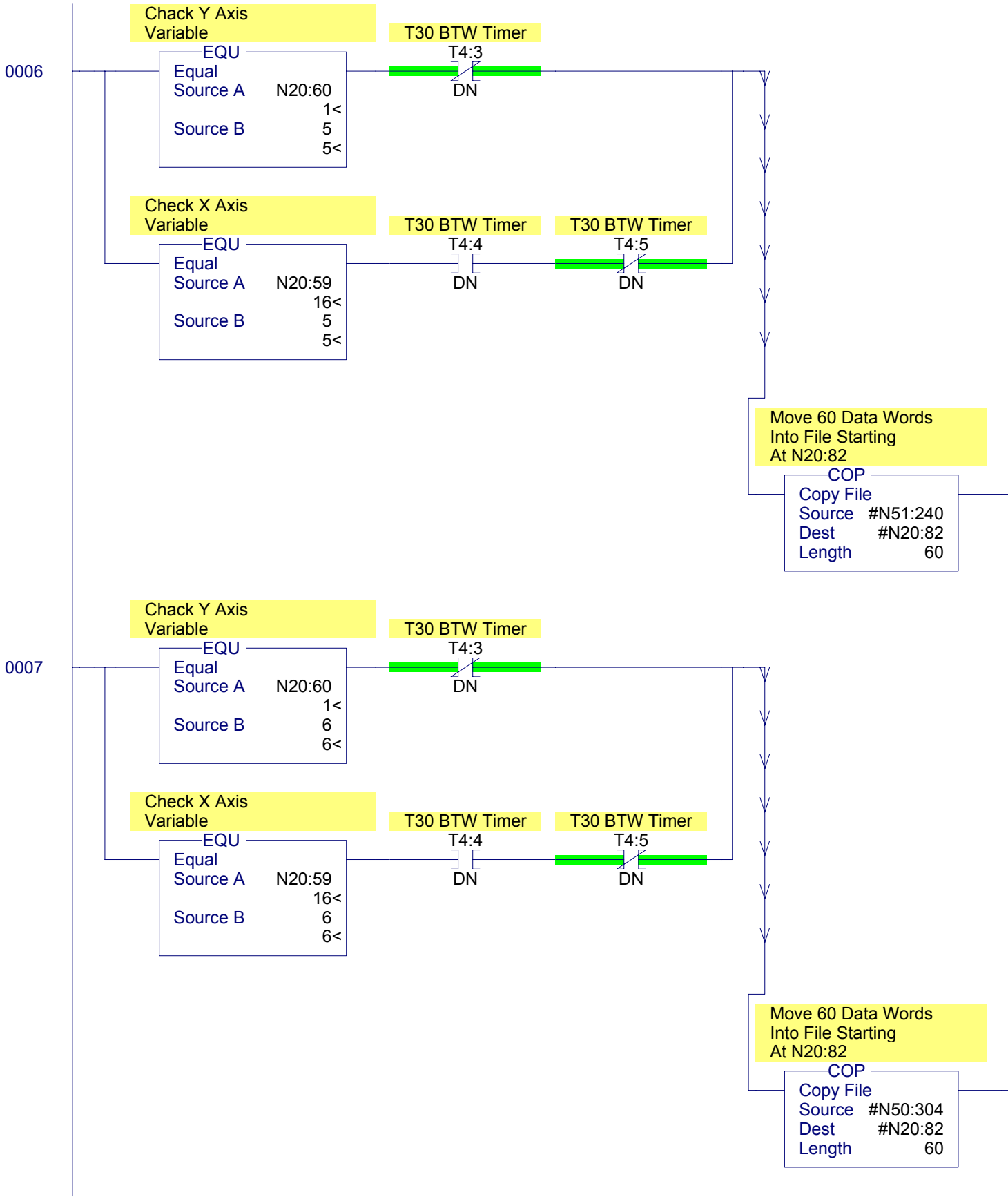
0<

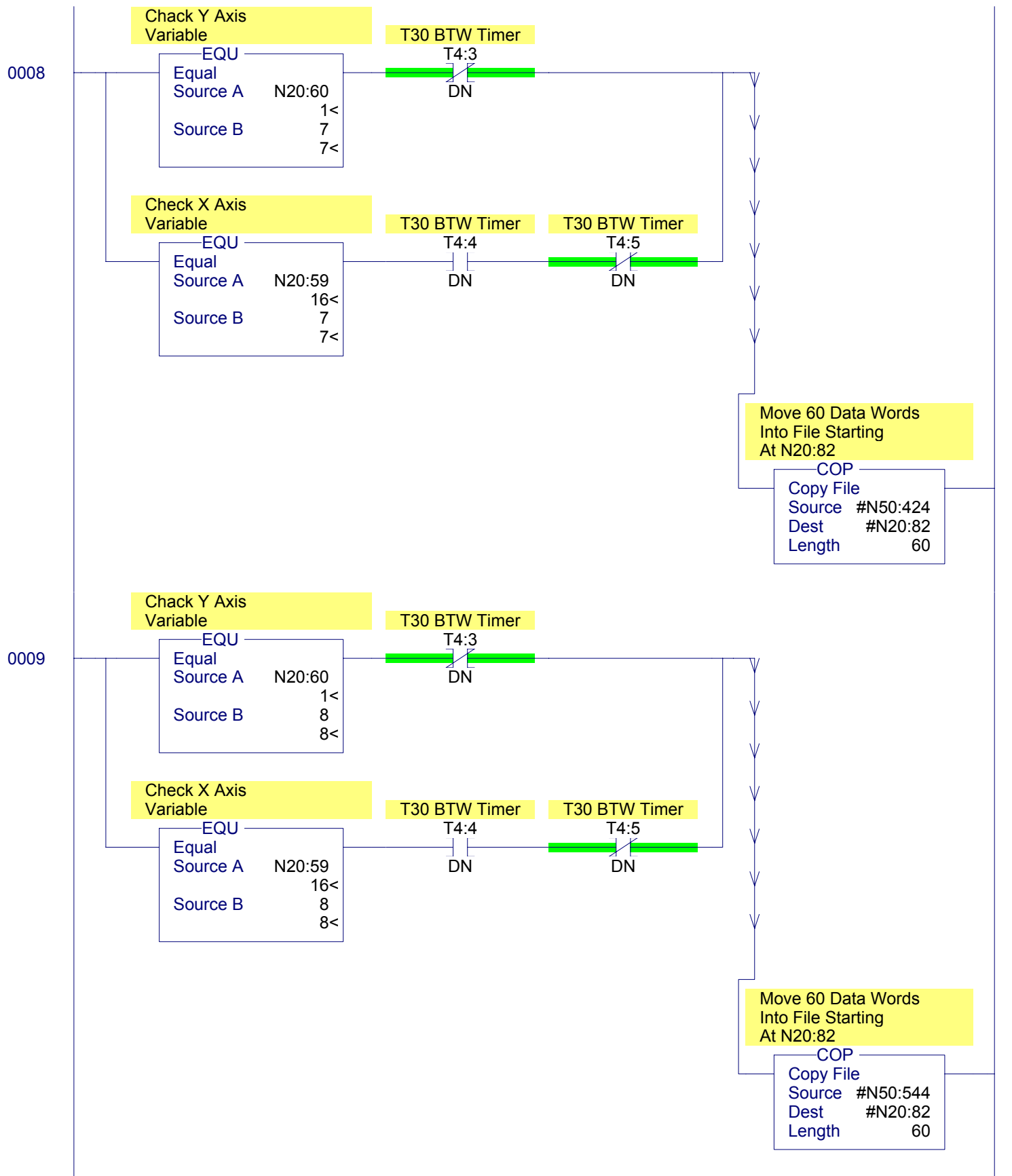


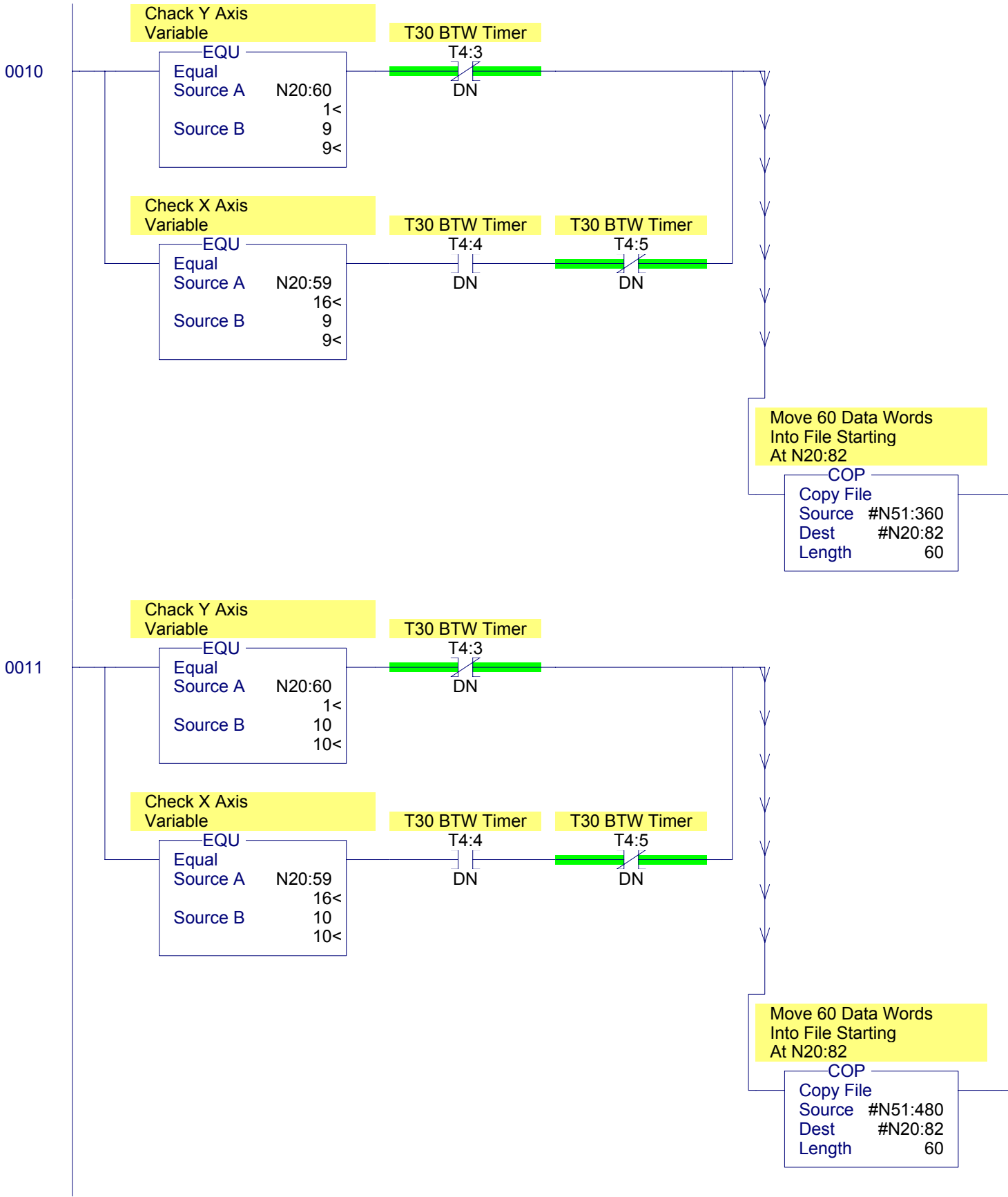


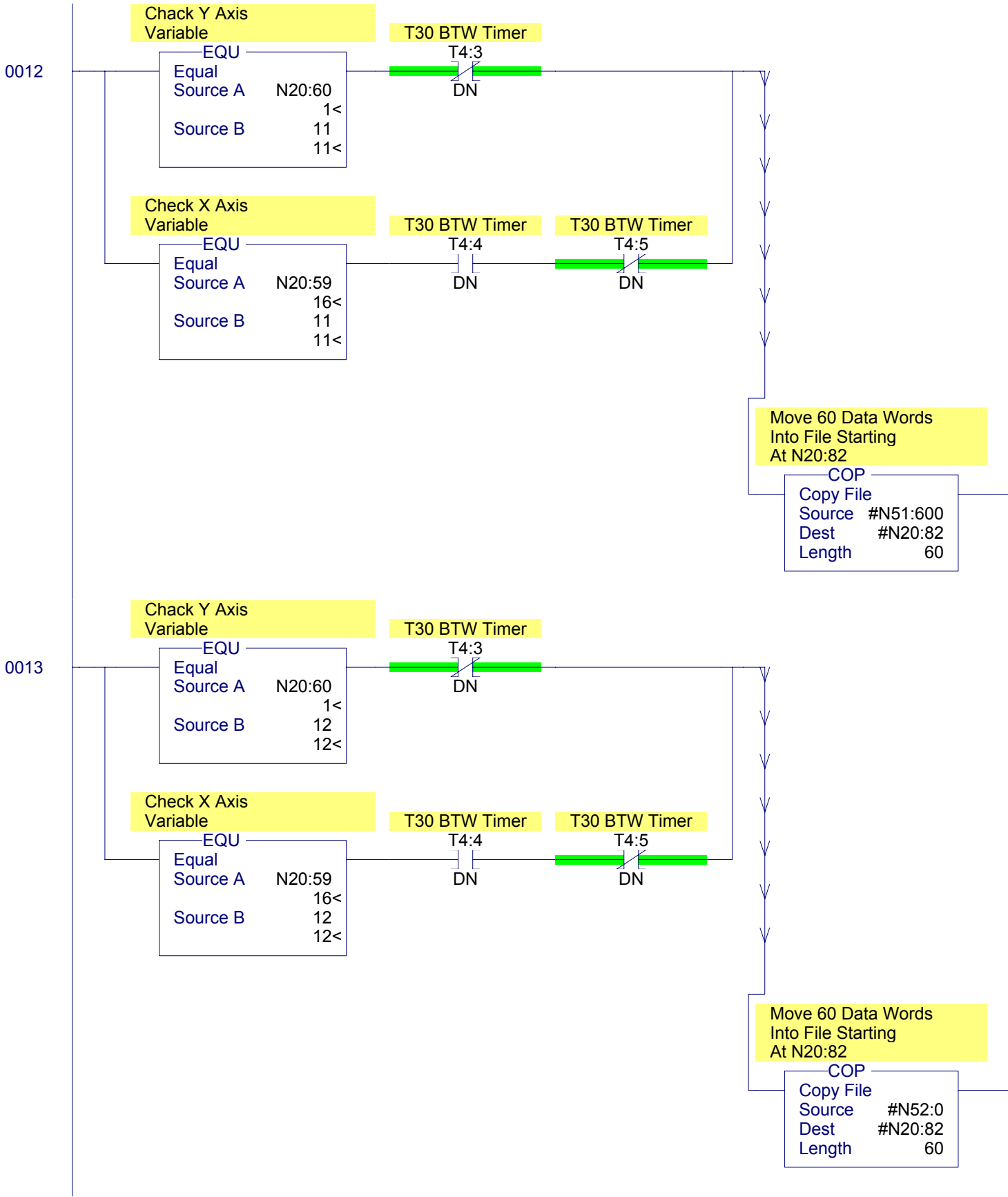


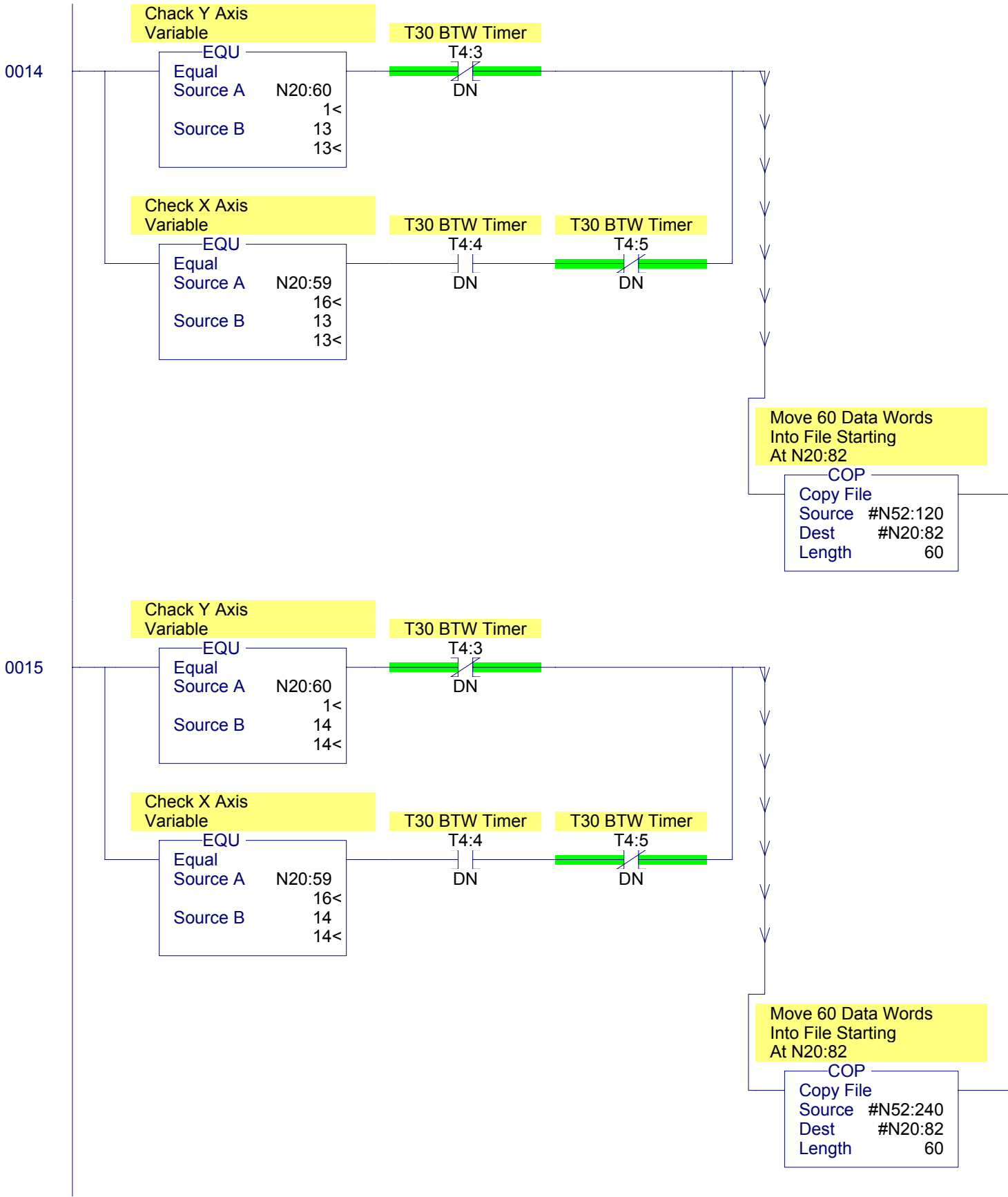


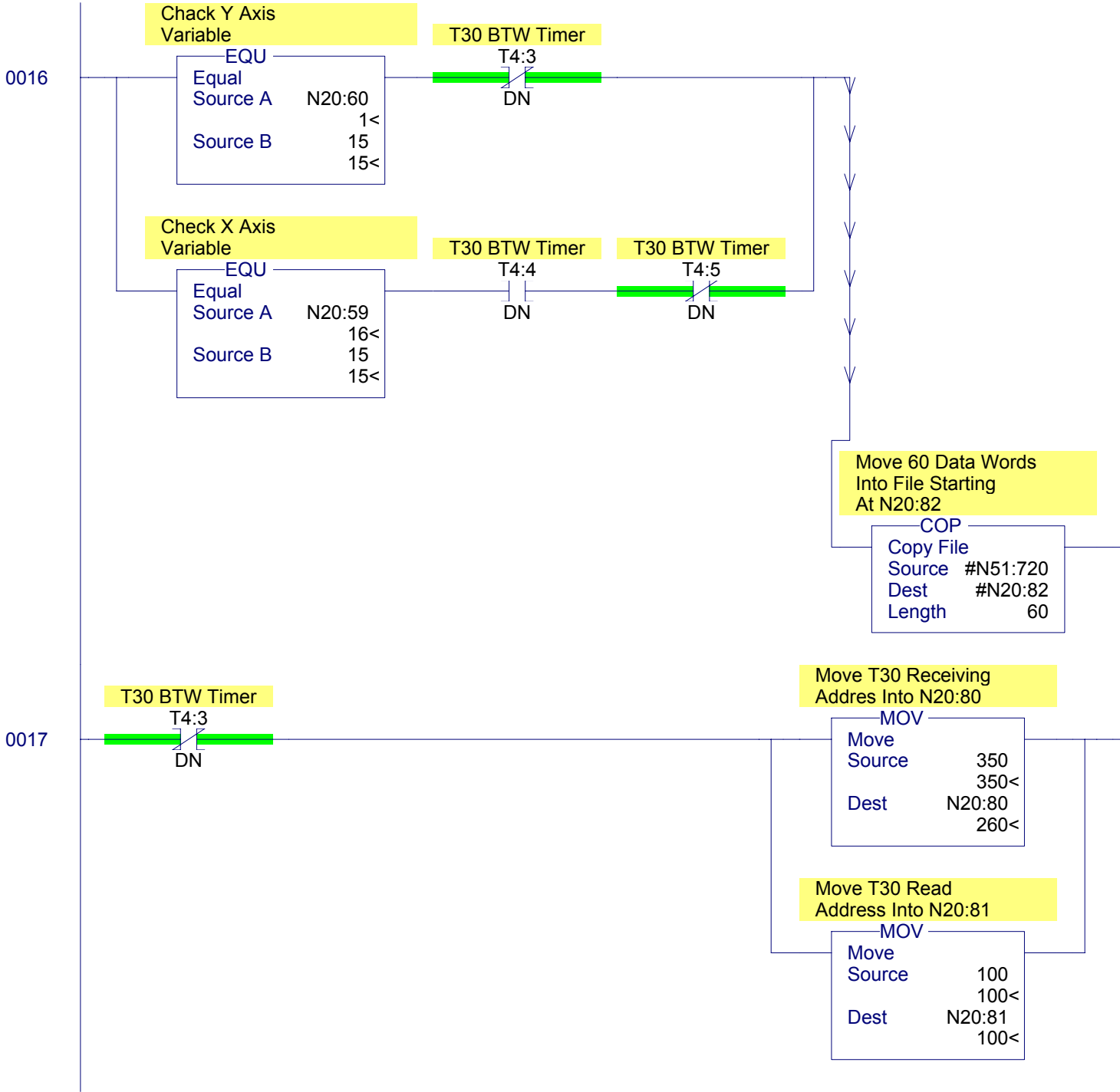


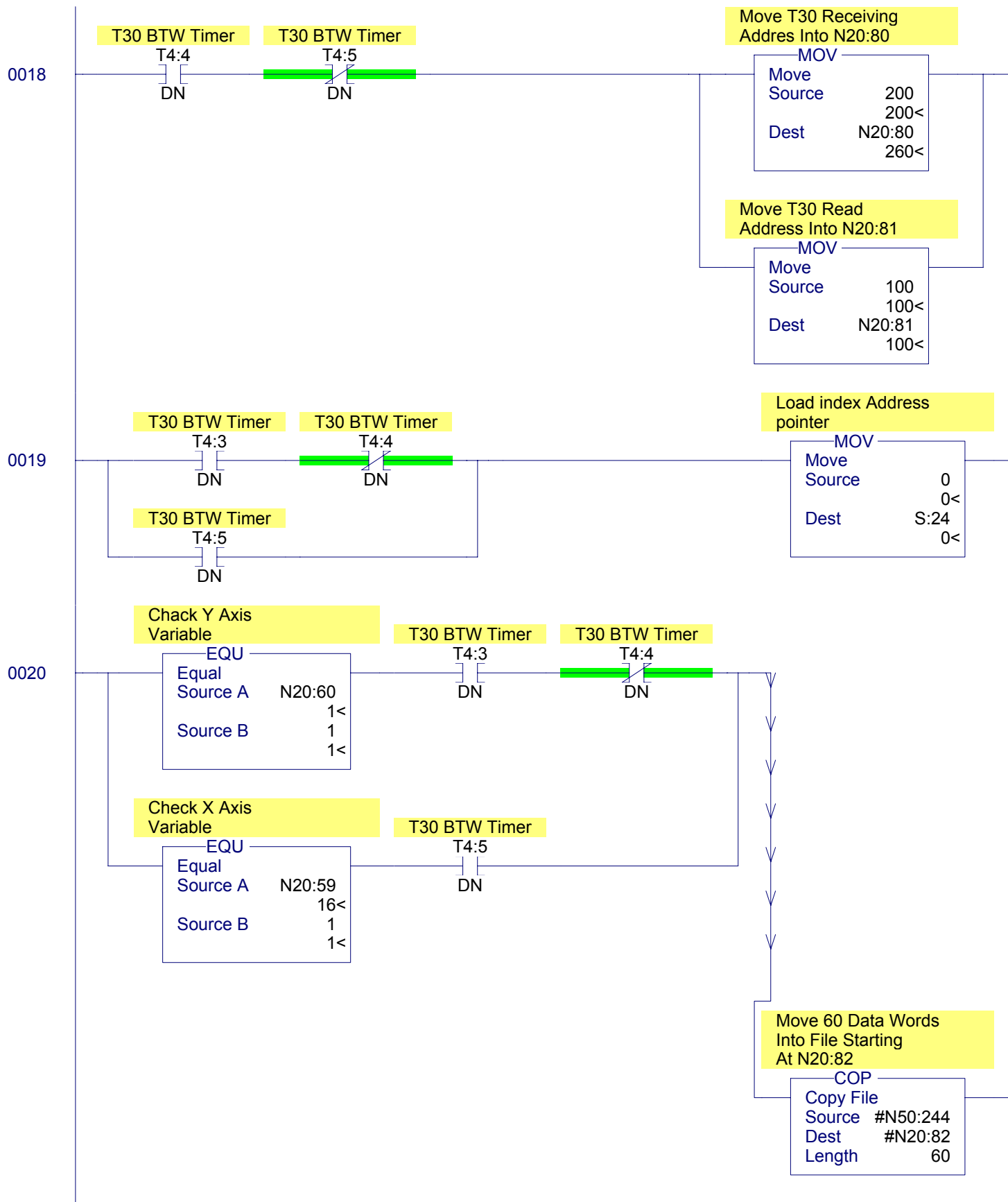


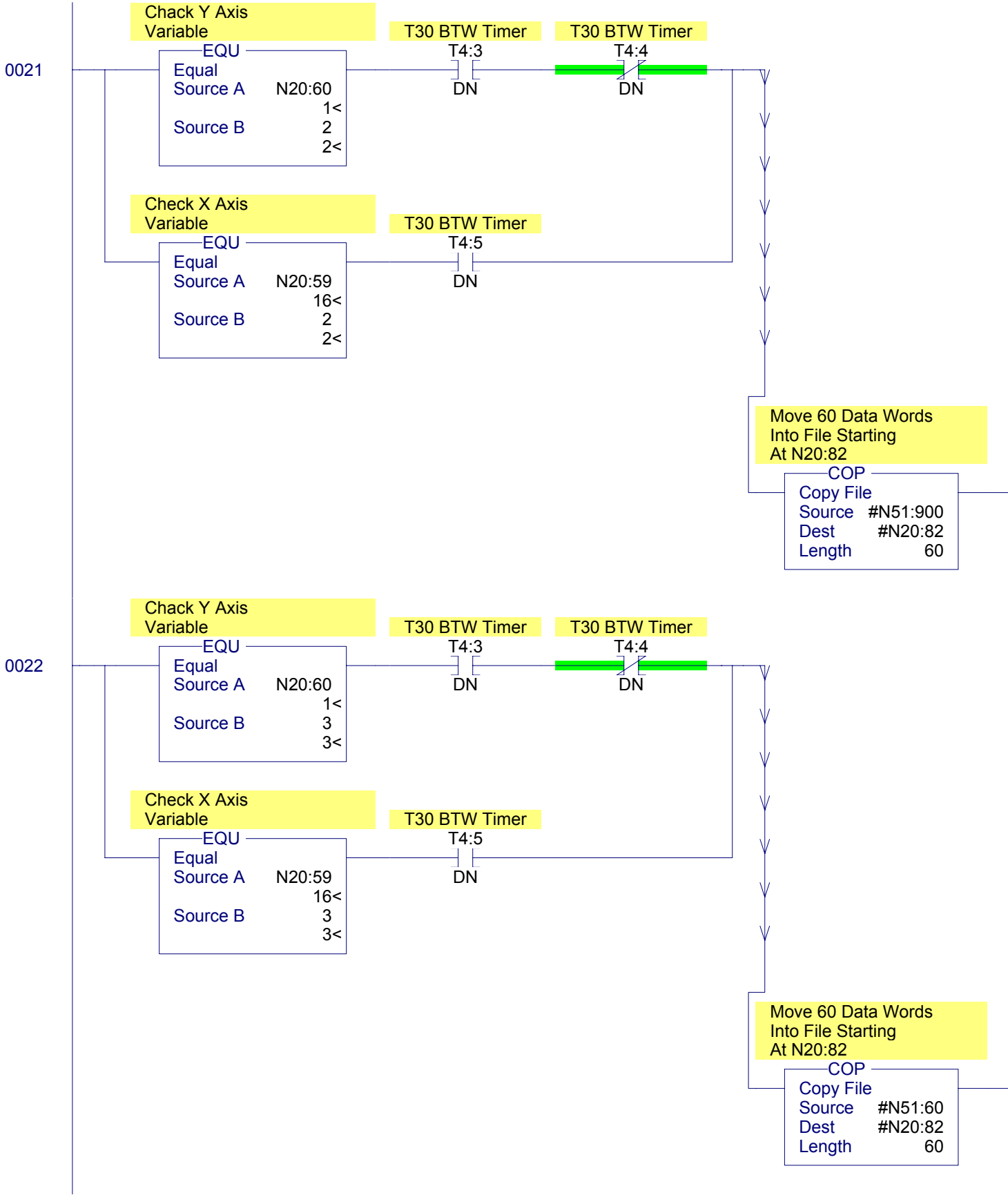


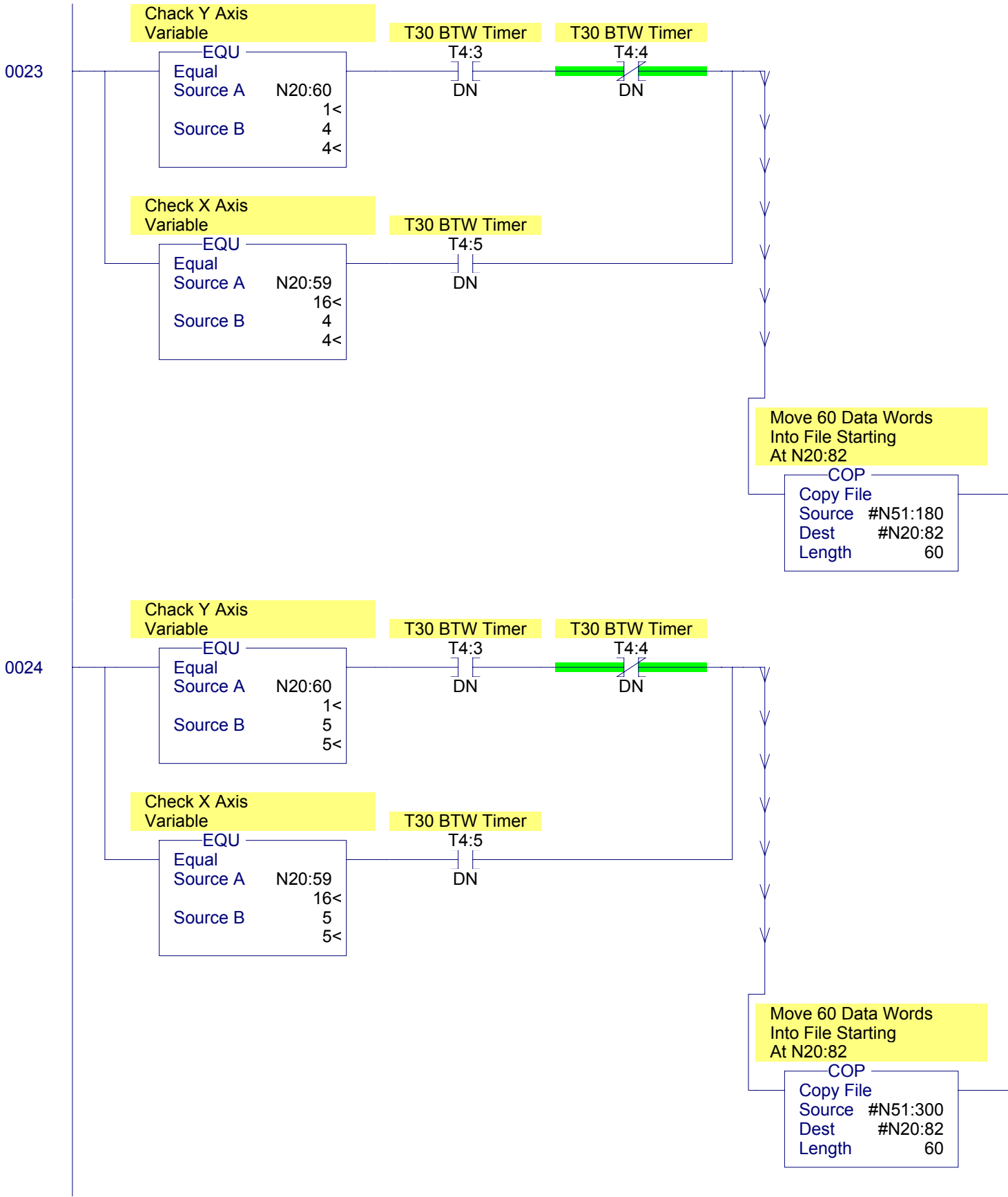


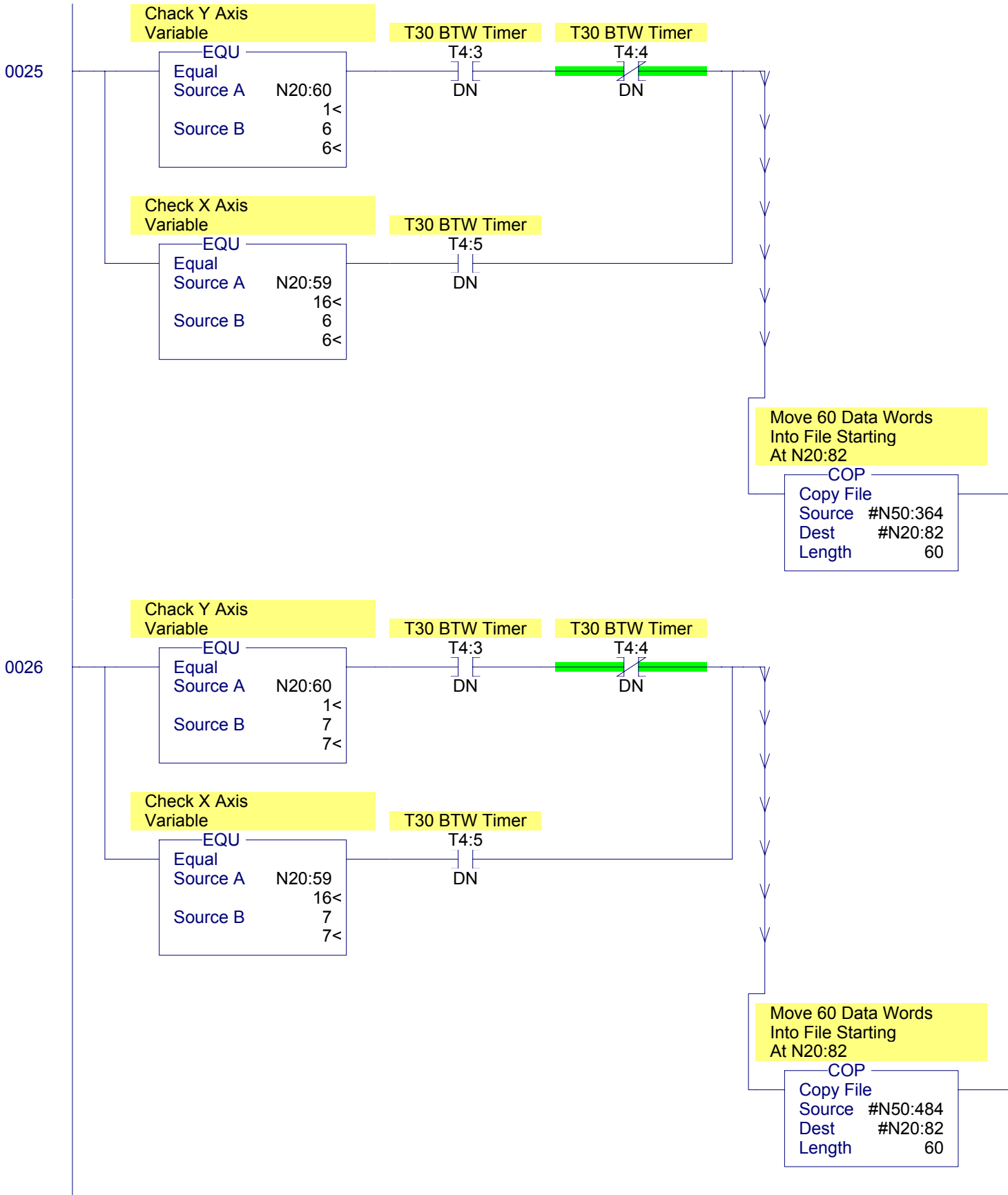


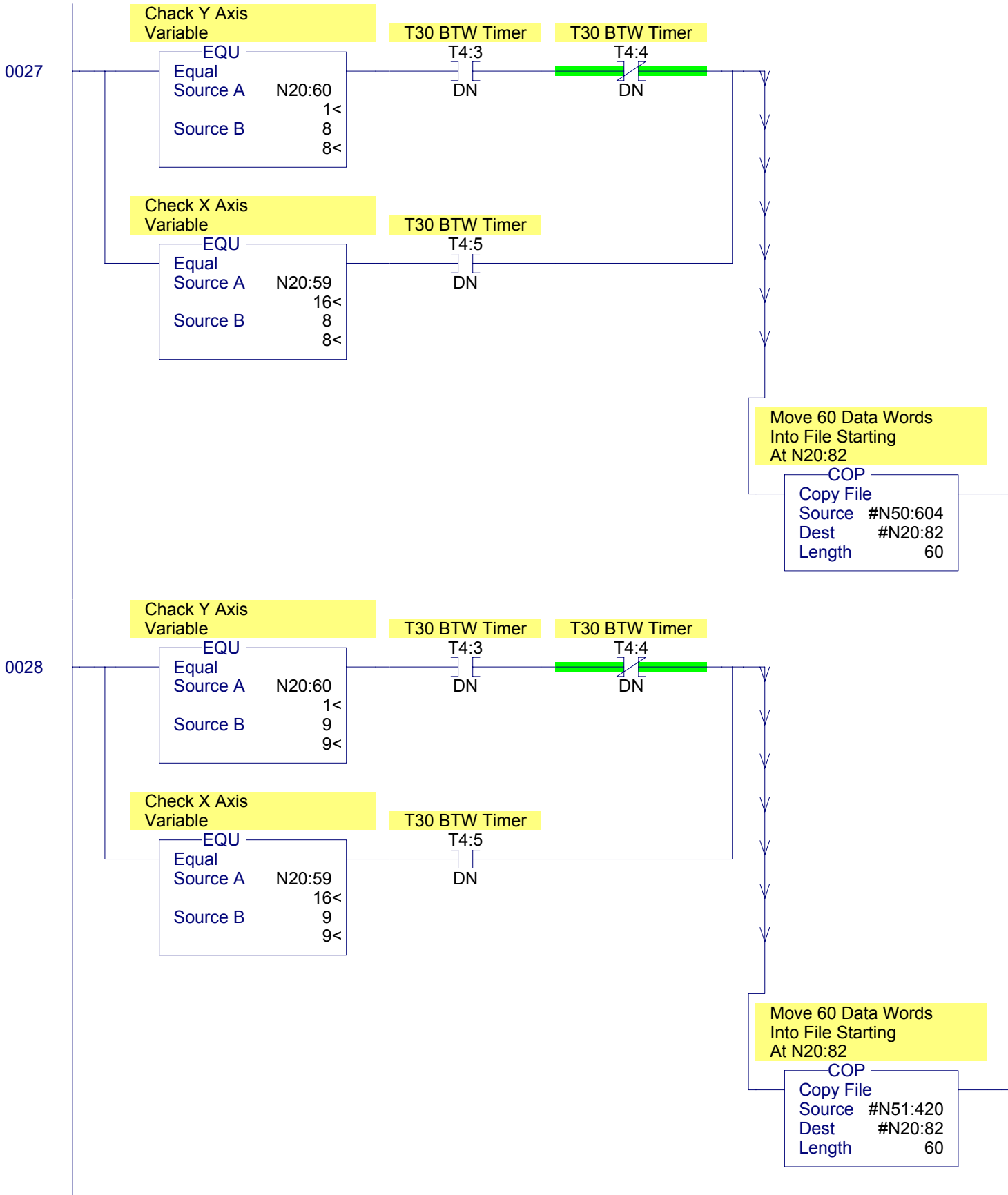


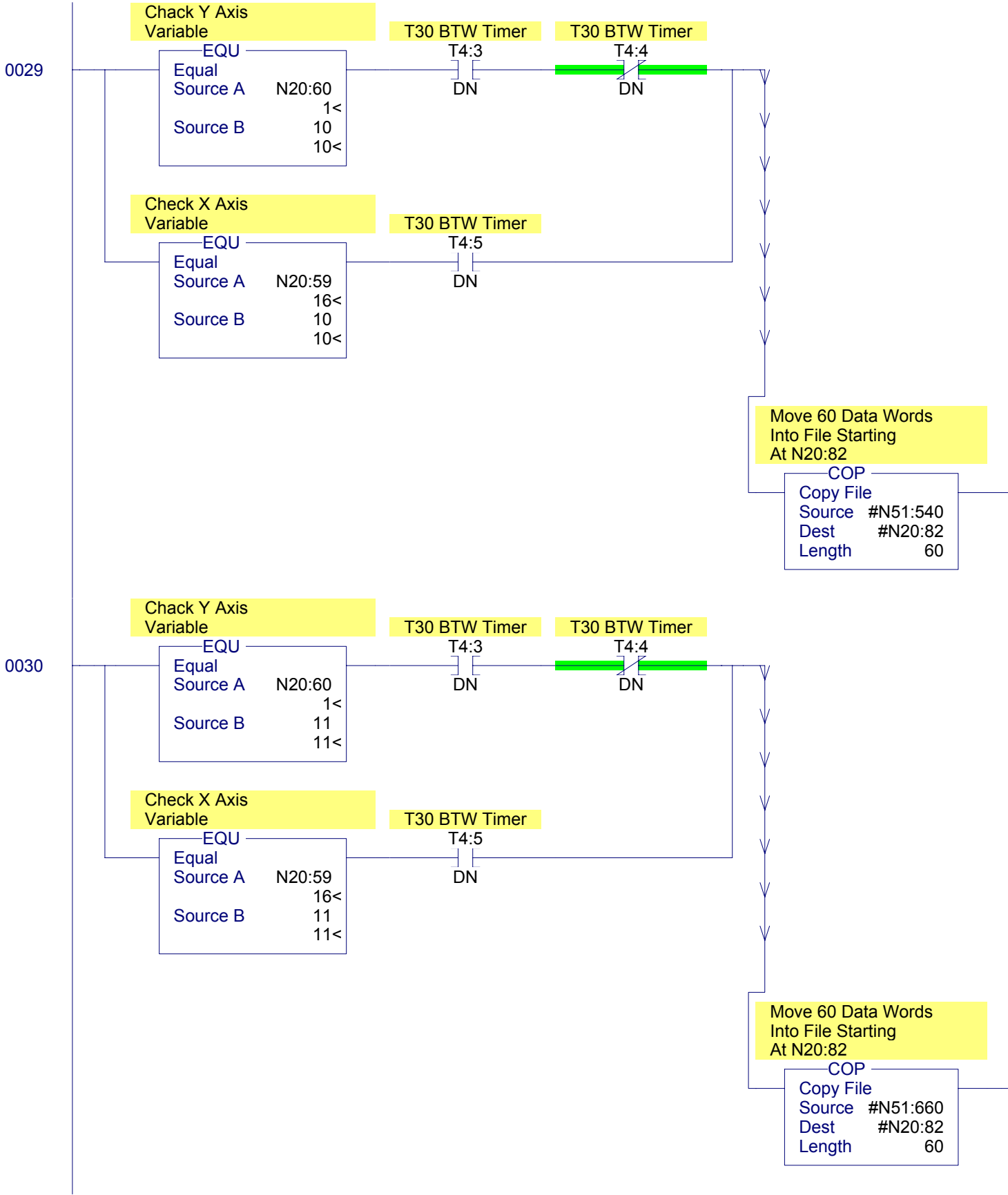


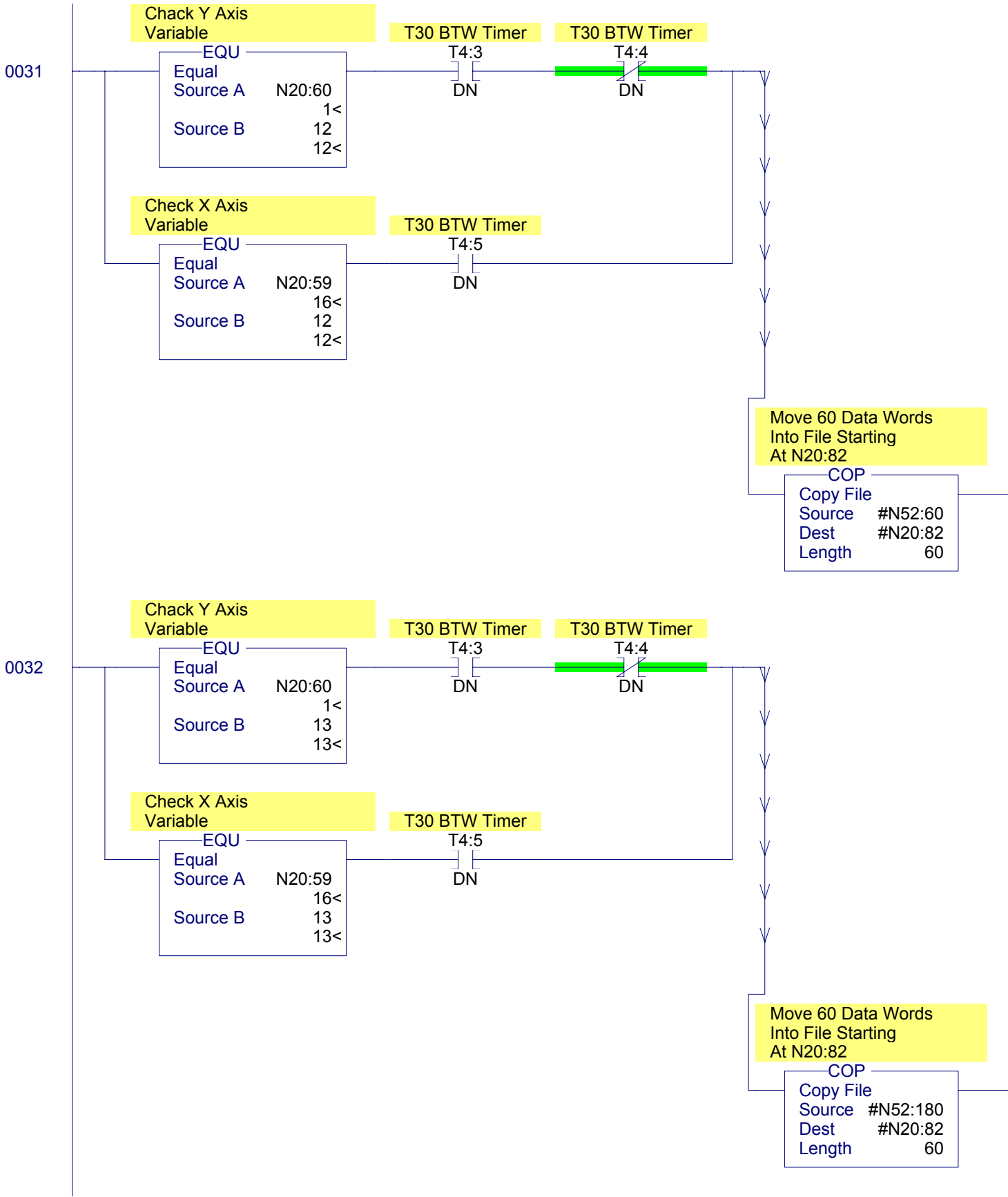


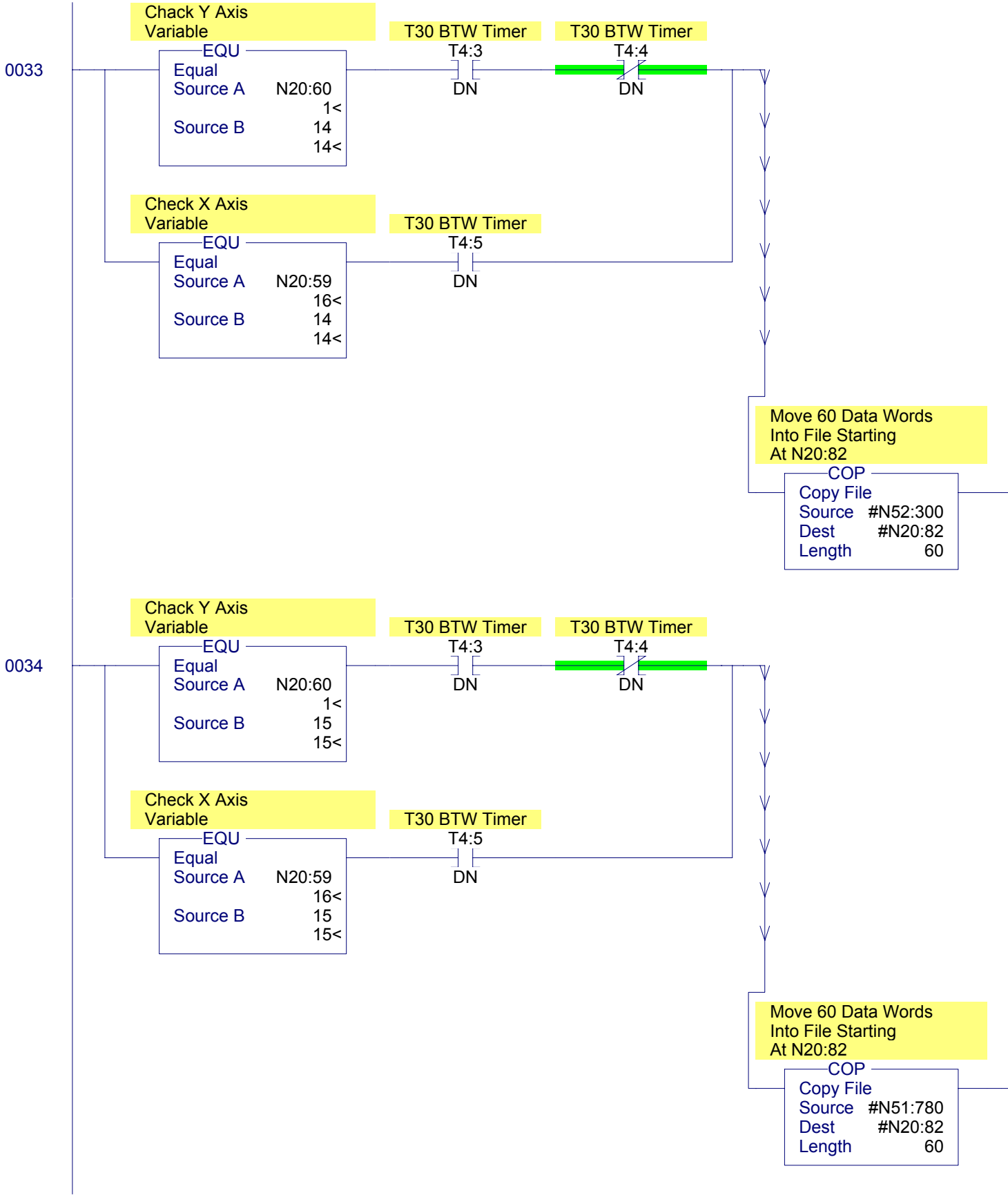


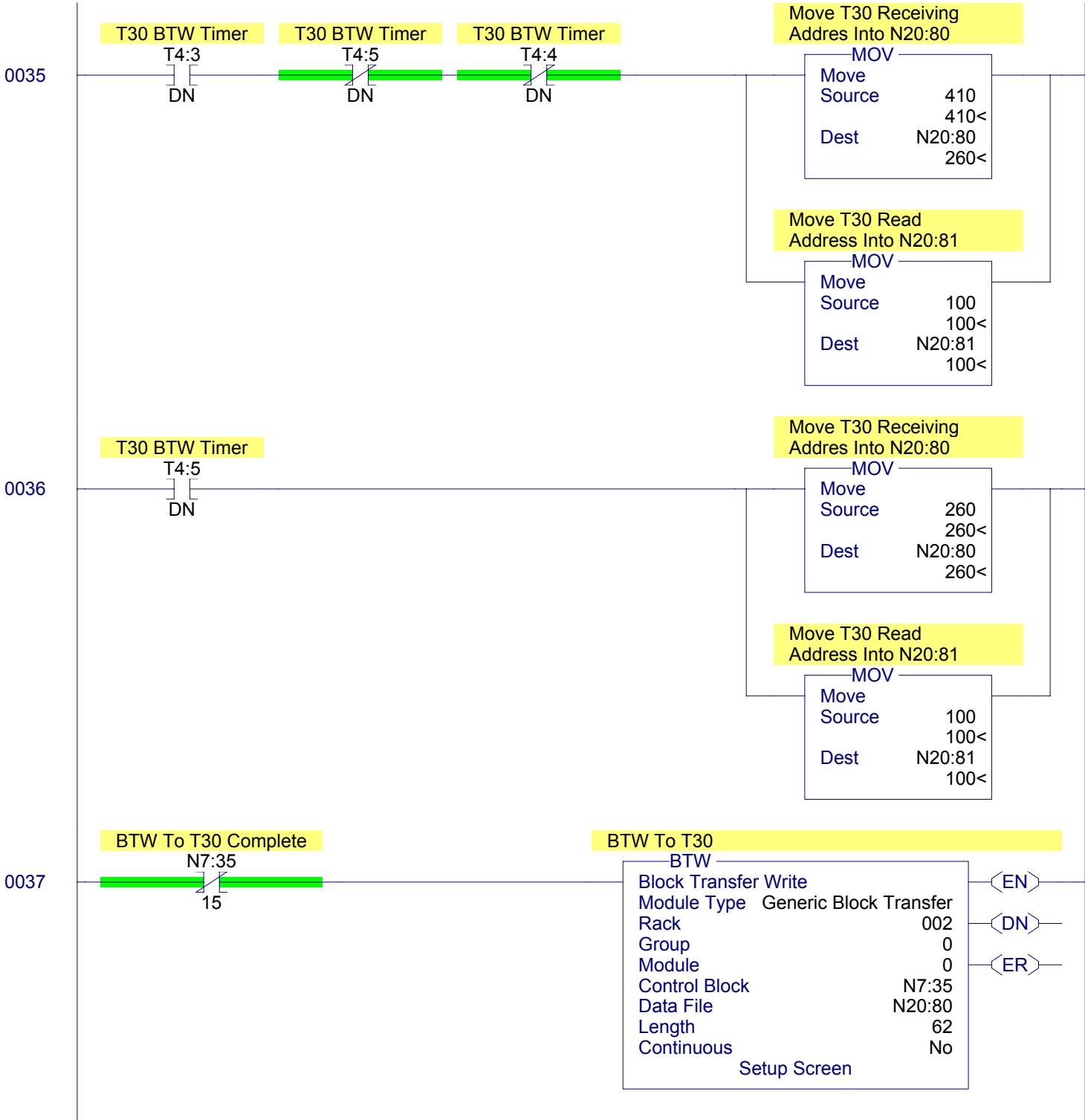


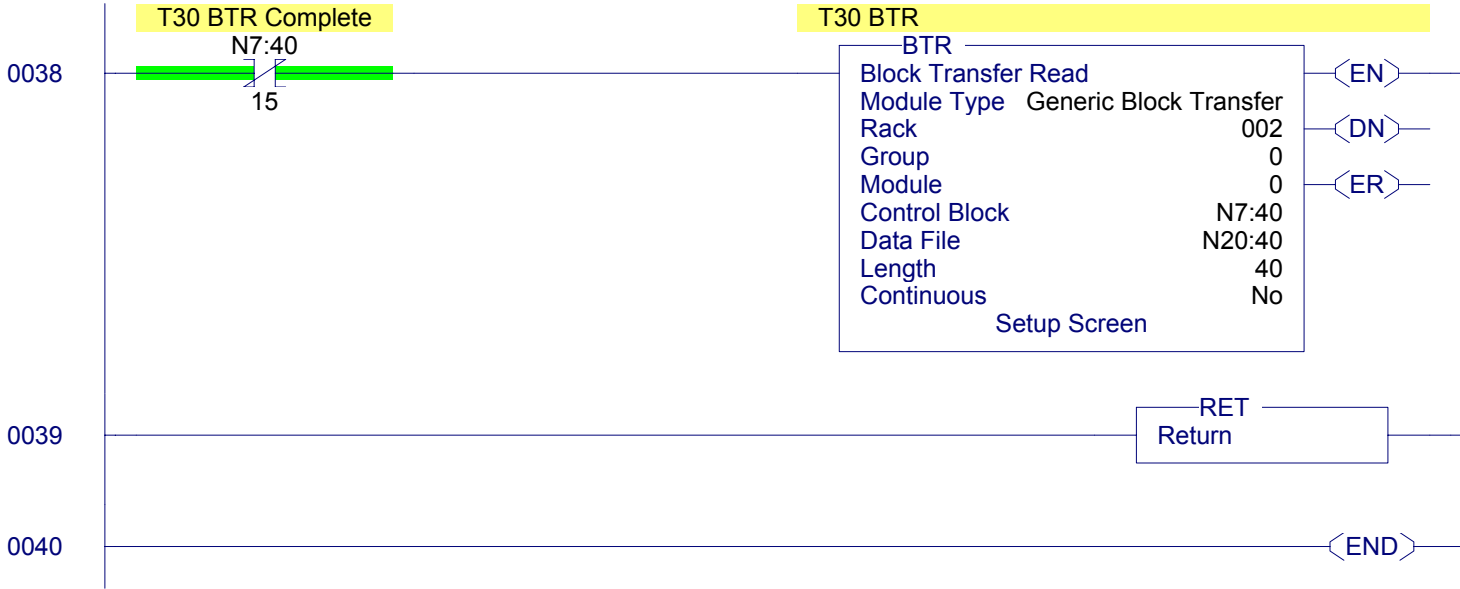


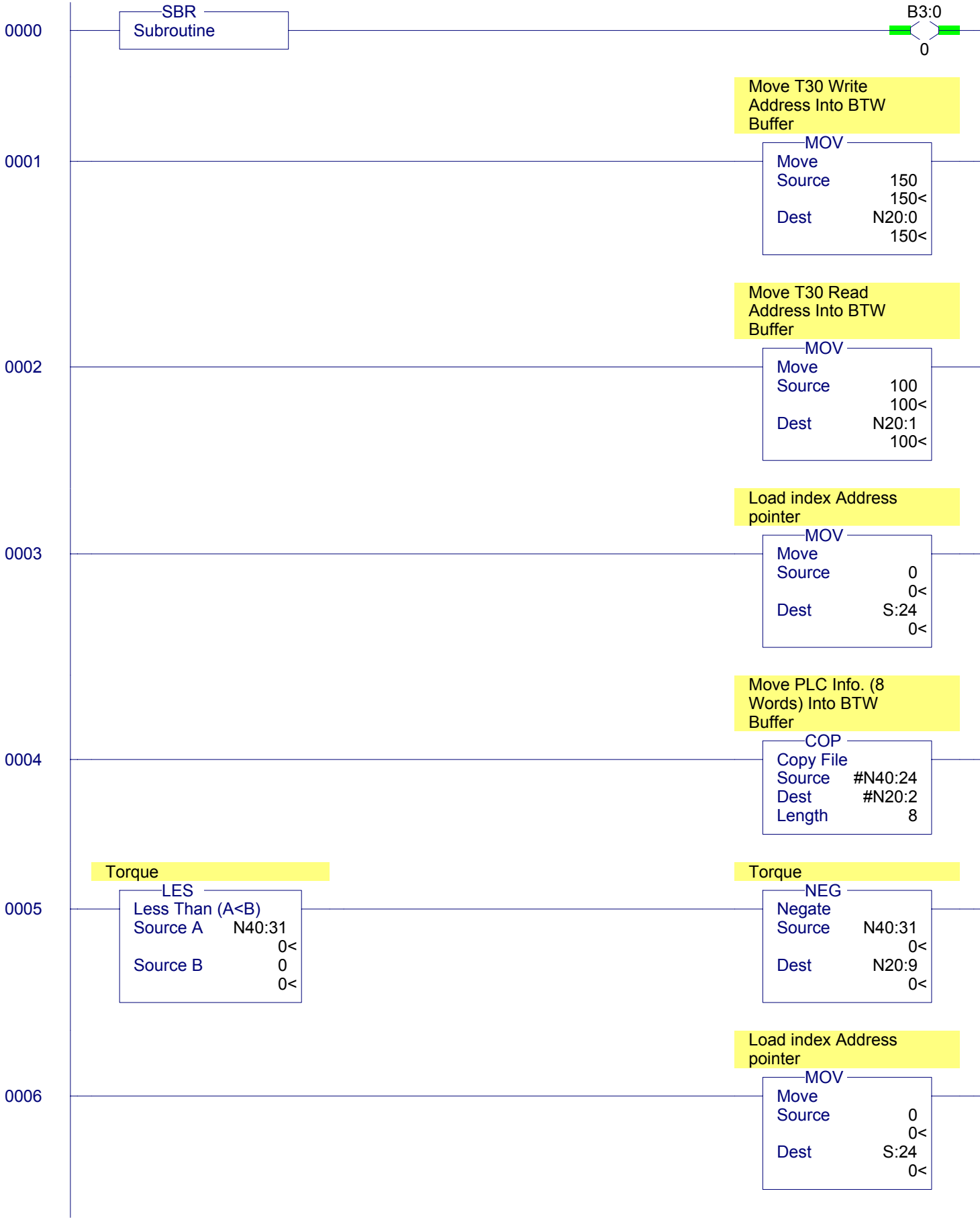


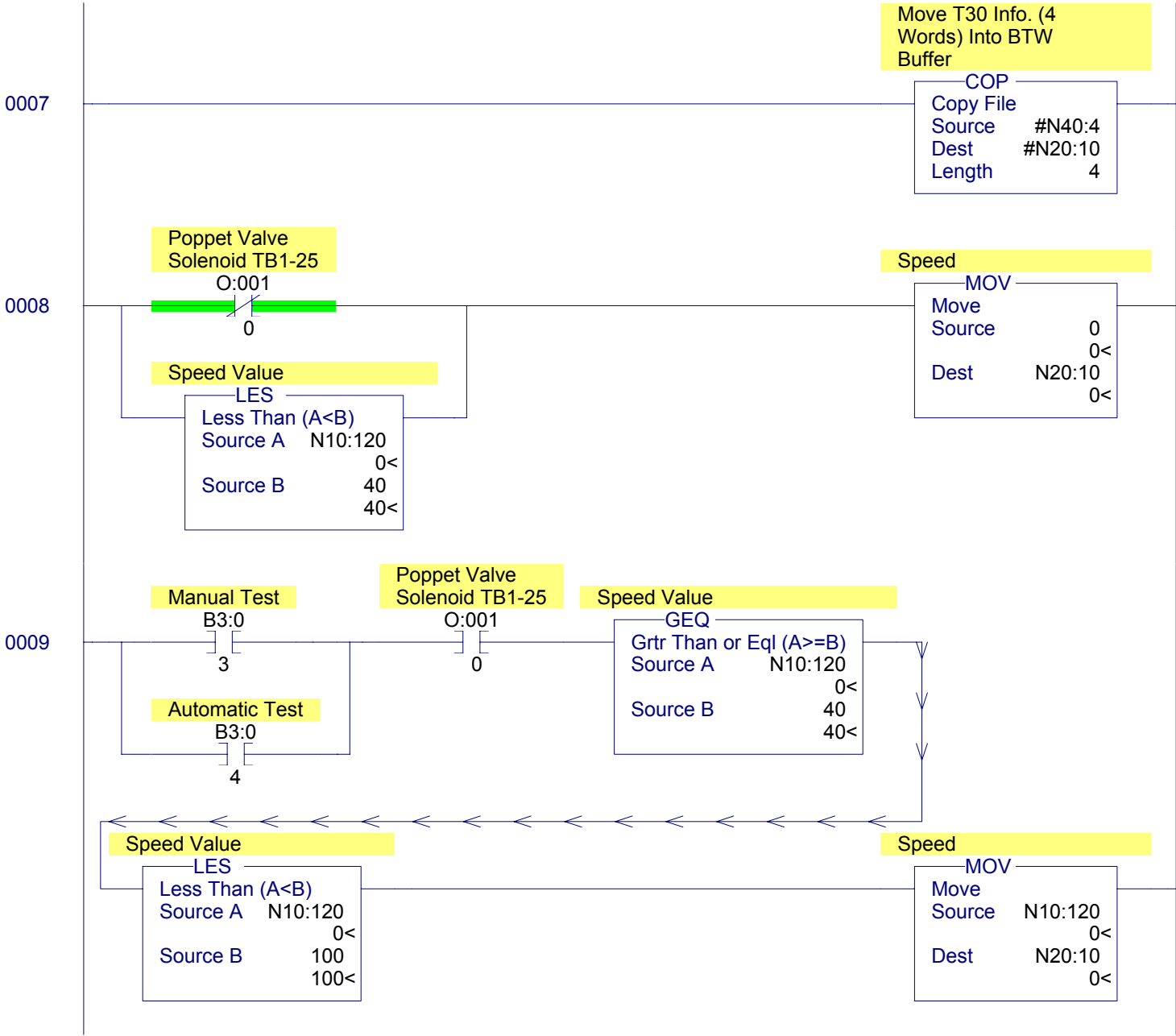


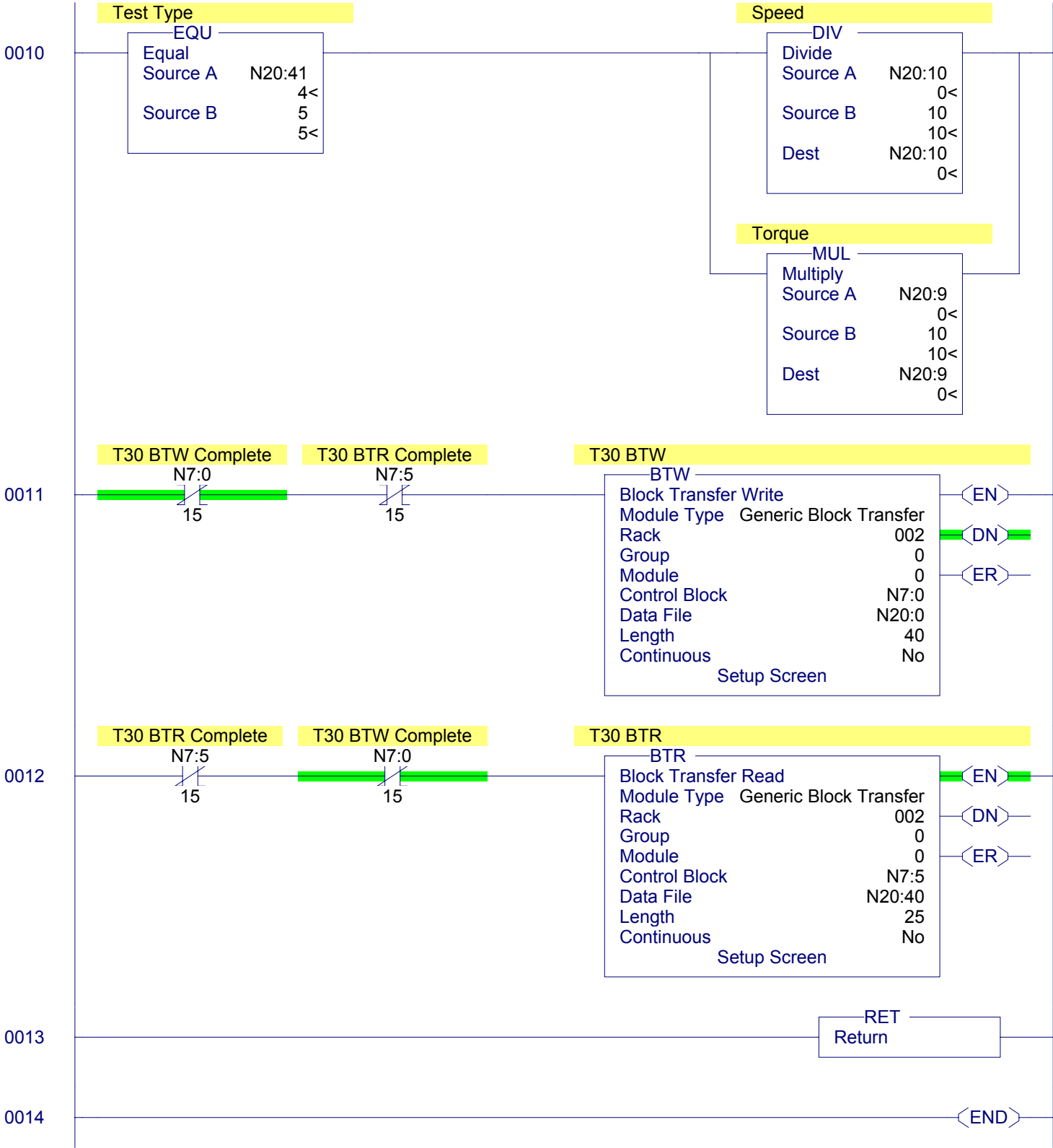












Test Bench One

File T4

Offset	EN	TT	DN	BASE	PRE	ACC	(Symbol) Description
T4:0	0	0	0	1.0 sec	2	0	TB1-25 Poppet Valve on Delay Timer
T4:1	0	0	0	1.0 sec	10	0	
T4:2	0	0	0	1.0 sec	5	5	
T4:3	0	0	0	1.0 sec	2	0	T30 BTW Timer
T4:4	0	0	0	1.0 sec	4	0	T30 BTW Timer
T4:5	0	0	0	1.0 sec	6	0	T30 BTW Timer
T4:6	0	0	0	1.0 sec	8	0	T30 BTW Timer
T4:7	0	0	0	.01 sec	9	0	Increment/Decrement Timer
T4:8	0	0	0	1.0 sec	10	10	Auto Test Running
T4:9	0	0	0	1.0 sec	10	0	
T4:10	0	0	0	1.0 sec	5	0	
T4:11	0	0	0	1.0 sec	5	5	
T4:12	0	0	0	.01 sec	0	0	
T4:13	0	0	0	.01 sec	0	0	
T4:14	0	0	0	.01 sec	0	0	
T4:15	0	0	0	.01 sec	0	0	
T4:16	0	0	0	.01 sec	0	0	
T4:17	0	0	0	.01 sec	0	0	
T4:18	0	0	0	.01 sec	0	0	
T4:19	0	0	0	.01 sec	0	0	
T4:20	0	0	0	.01 sec	4800	0	
T4:21	1	1	0	.01 sec	100	84	

Test Bench One

File C5

Offset	CU	CD	DN	OV	UN	PRE	ACC	(Symbol)	Description
C5:0	0	0	0	0	0	999	67		
C5:1	0	0	0	0	0	5	3	Slot 5 AI Card BTW Or BTR Error Counter	
C5:2	0	0	0	0	0	5	4	Error Counter AI Card Slot 7 BTW Or BTR	
C5:3	0	0	0	0	0	500	0		
C5:4	0	0	0	0	0	50	0		
C5:5	0	0	0	0	0	5	0		
C5:6	0	0	0	0	0	5000	0		

Test Bench One

File F8

Offset	0	1	2	3	4
F8:0	1200	147	8.163265	0	120
F8:5	999.9999	1500	0	0	0
F8:10	0	1.#QNAN	7	3	0

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
B3:0/3			Manual Test			
B3:0/4			Automatic Test			
B3:0/5			US Units Slot 5 Analog input BTW			
B3:0/6			SI Units Slot 5 Analog Input BTW			
B3:0/7			US Units Slot 7 Analog Input BTW			
B3:0/8			SI Units Slot 7 Analog Input BTW			
B3:0/9			Manual Log Rate > 15000 ms			
B3:0/10			Manual Log Rate > 1500 ms			
B3:0/11			Manual Log Rate > 150 ms			
B3:0/12			Storage Rate <150 ms			
B3:1/2			Pilot Pressure Limit			
B3:1/3			Oil Temp. Normal			
C5:1			Slot 5 AI Card BTW Or BTR Error Counter			
C5:2			Error Counter AI Card Slot 7 BTW Or BTR			
F8:3						
F8:6						
I:000/0			Servo Filter Clogged (TB1-17)			
I:000/1			HP Port B filter Clogged (TB1-29)			
I:000/2			HP Port A Filter Clogged (TB1-30)			
I:000/3			HP Inlet Valve Limit Switch			
I:000/4			Pilot Pressure Inlet Valve Limit Switch TB1-2			
I:000/5			Leakage Drain Line Valve Limit Switch TB1-3			
I:000/6			Flushing Line Valve Limit Switch			
I:000/7			Atmospheric Inlet Valve Limit Switch			
I:000/10			LP Inlet Valve Limit Switch			
I:000/11			Sump Filter Clogged (TB1-6)			
I:000/16			Emergency System Shutdown			
I:000/17			Emergency Bench Shutdown			
I:002/0			Speed Deviation <= 2%			
I:002/1			+ - 15 Volt Power Supply OK			
I:002/2			Speed Deviation >= 5%			
I:002/3			Speed >=110%			
I:002/4			Acceleration To High			
I:002/5			Speed Controll VT12000 Ready			
N7:0			T30 BTW			
N7:0/15			T30 BTW Complete			
N7:5			T30 BTR			
N7:5/15			T30 BTR Complete			
N7:10			Block Transfer Write control block			
N7:15			Block Transfer Read control block			
N7:20			Block Transfer Write control block			
N7:25			Block Transfer Read control block			
N7:30			BTW To AO Card In Slot 8			
N7:30/15			BTW To AO Card Complete			
N7:35			BTW To T30			
N7:35/15			BTW To T30 Complete			
N7:40			T30 BTR			
N7:40/15			T30 BTR Complete			
N7:50/13			Data Collection Counter			
N7:51						
N7:53						
N7:54/0			Decrement Output			
N10:50			Write data block			
N10:80			Write data block			
N10:120			Speed Value			
N10:121			Flow Control Value			
N10:122			Pressure Control Value			
N10:123			Pilot Pressure Value			
N10:124			Configuration			
N10:125			Minimum Speed Scale Value			
N10:126			Maximum Speed Scale Value			
N10:127			Minimum Flow Scale Value			
N10:128			Maximum Flow Scale Value			
N10:129			Minimum Pressure Scale Value			
N10:130			Maximum Pressure Scale Value			
N10:131			Minimum Pilot Pressure Value			
N10:132			Maximum Pilot Pressure Value			
N20:0			Destination Write Address			
N20:1			Destination Read Address			
N20:2			Pilot Pressure			
N20:3			Low Pressure			
N20:4			Main Pressure			
N20:5			Main Flow			
N20:6			Charge Flow			
N20:7			Leakage Flow			
N20:8			Temperature			
N20:9			Torque			
N20:10			Speed			
N20:11			Suction Pressure			
N20:12			Charge Pressure			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
N20:13			Servo Pressure			
N20:14			Mechanical Power			
N20:15			Hydraulic Power			
N20:16			Effeciency			
N20:22			HPU Oil Temperature			
N20:23			HPU Pilot Pressure			
N20:24			MCC PLC Slot 1 Status			
N20:25			MCC PLC Slot 3 Status			
N20:26			MCC PLC Slot 4 Status			
N20:26/15			HPU Alarm			
N20:27			HP1 Pressure			
N20:28			HP2 Pressure			
N20:40			T30 Read Starting Address			
N20:41			Test Type			
N20:42			Bit Information			
N20:42/0			Right Hand Rotation			
N20:42/1			Internal Drain			
N20:42/2			No Pilot Presure			
N20:42/3			Pilot Pressure Valve 1			
N20:42/4			Fixed Displacement			
N20:42/6			SI Units			
N20:42/8			Manual Test			
N20:42/9			Test In Progress			
N20:42/10			T30 Plot Request			
N20:42/14			Non-Regin. Atmos. Test			
N20:43			Maximum Pressure			
N20:44			Maximum Speed			
N20:45			Maximum Displacement			
N20:46			Max Speed At Max Displacement			
N20:47			Max Speed At Min Displacement			
N20:49			Manual Logging Rate			
N20:50			Number Of Cycles			
N20:51			Duration Of Cycle			
N20:52			Variable Select			
N20:53			Variable Maximum			
N20:54			Variable Minimum			
N20:55			Constant Speed			
N20:56			Constant Flow			
N20:57			Constant Pressure			
N20:58			Constant pilot Pressure			
N20:59			T30 Plot X Axis Variable			
N20:60			T30 Plot Y Axis Variable			
N20:68			Boost Pressure Potentiometer Value			
N20:69			System Pressure Potentiometer			
N20:70			RH/LH Rotation			
N20:71			Int/Ext Drain			
N20:72			No Pilot Pressure			
N20:73			Port A/Port B Pilot			
N20:74			Fixed/Var. Displacement			
N20:75			US/SI Units			
N20:76			Auto/Manual Test			
N20:77			Non-Regen			
N20:80			T30 Receiving Address			
N20:81			T30 Read Address			
N20:82						
N40:0			Diagnostics			
N40:0/0			Power up bit			
N40:1			Data Under Range			
N40:2			Data Over Range			
N40:3			Data Polarity			
N40:4			Speed			
N40:5			Suction Pressure			
N40:6			Charge Pressure			
N40:7			Servo Presure			
N40:8			Speed Potentiometer			
N40:9			Pressure Potentiometer			
N40:10			Boost Pressure Potentiometer			
N40:11			Pilot Pressure Potentiometer			
N40:20			Diagnostics			
N40:20/0			Power up bit			
N40:21			Data Under Range			
N40:22			Data Over Range			
N40:23			Data Polarity			
N40:24			Pilot Pressure			
N40:25			Low Pressure			
N40:26			Main Pressure			
N40:27			Main Flow			
N40:28			Charge Flow			
N40:29			Leakage Flow			
N40:30			Temerature			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
N40:31			Torque			
N50:0			N50: 184 - N50:303 Speed			
N50:304			N50:304 - N50:423 Suction Pressure			
N50:544			N50:544 - N50:663 Servo Pressure			
N51:0			N51:0 - N51:119 Pilot Pressure			
N51:120			N51:120 - N51:239 Low Pressure			
N51:240			N51:240 - N51:359 Main Pressure			
N51:360			N51:360 - N51:479 Main Flow			
N51:480			N51:480 - N51:599 Charge Flow			
N51:600			N51:600 - N51:719 Leakage Flow			
N51:720			N51:720 - N51:839 Temperature			
N51:840			N51:840 - N51:959 Torque			
N52:0			N52:0 - N52:119 Mechanical Power			
N52:90			N52:120 - N52:239 Hydraulic Power			
N52:240			N52:240 - N52:359 Efficiency			
N60:0			Configuration			
N60:1			Configuration			
N60:2			Configuration			
N60:3			Configuration			
N60:4			Configuration			
N60:5			Minimum Speed			
N60:6			Maximum Speed			
N60:7			Minimum Suction Pressure			
N60:8			Maximum Suction Pressure			
N60:9			Minimum Charge Pressure			
N60:10			Maximum Charge Pressure			
N60:11			Minimum Servo Pressure			
N60:12			Maximum Servo Pressure			
N60:13			Minimum Speed Potentiometer			
N60:14			Maximum Speed Potentiometer			
N60:15			Minimum Pressure Potentiometer			
N60:16			Maximum Pressure Potentiometer			
N60:17			Minimum Boost Pressure Potentiometer			
N60:18			Maximum Boost Pressure Potentiometer			
N60:19			Minimum Pilot Pressure Potentiometer			
N60:20			Maximum Pilot Pressure Potentiometer			
N60:30			Configuration			
N60:31			Configuration			
N60:32			Configuration			
N60:33			Configuration			
N60:34			Configuration			
N60:35			Minimum Speed			
N60:36			Maximum Speed			
N60:37			Minimum Suction Pressure			
N60:38			Maximum Suction Pressure			
N60:39			Minimum Charge Pressure			
N60:40			Maximum Charge Pressure			
N60:41			Minimum Servo Pressure			
N60:42			Maximum Servo Pressure			
N60:43			Minimum Speed Potentiometer			
N60:44			Maximum Speed Potentiometer			
N60:45			Minimum Pressure Potentiometer			
N60:46			Maximum Pressure Potentiometer			
N60:47			Minimum Boost Pressure Potentiometer			
N60:48			Maximum Boost Pressure Potentiometer			
N60:49			Minimum Pilot Pressure Potentiometer			
N60:50			Maximum Pilot Pressure Potentiometer			
N60:60			Configuration			
N60:61			Configuration			
N60:62			Configuration			
N60:63			Configuration			
N60:64			Configuration			
N60:65			Minimum Pilot Pressure			
N60:66			Maximum Pilot Pressure			
N60:67			Minimum LP1			
N60:68			Maximum LP1			
N60:69			Minimum Main Pressure			
N60:70			Maximum Main Pressure			
N60:71			Minimum Main Flow			
N60:72			Maximum Main Flow			
N60:73			Minimum Charge Flow			
N60:74			Maximum Charge Flow			
N60:75			Minimum Leakage Flow			
N60:76			Maximum Leakage Flow			
N60:77			Minimum Temperature			
N60:78			Maximum Temperature			
N60:79			Minimum Torque			
N60:80			Maximum Torque			
N60:90			Configuration			
N60:91			Configuration			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
N60:92			Configuration			
N60:93			Configuration			
N60:94			Configuration			
N60:95			Minimum Pilot Pressure			
N60:96			Maximum Pilot Pressure			
N60:97			Minimum LPl			
N60:98			Maximum LPl			
N60:99			Minimum Main Pressure			
N60:100			Maximum Main Pressure			
N60:101			Minimum Main Flow			
N60:102			Maximum Main Flow			
N60:103			Minimum Charge Flow			
N60:104			Maximum Charge Flow			
N60:105			Minimum Leakage Flow			
N60:106			Maximum Leakage			
N60:107			Minimum Temperature			
N60:108			Maximum Temperature			
N60:109			Minimum Torque			
N60:110			Maximum Torque			
O:001/0			Poppet Valve Solenoid TB1-25			
O:001/1			Poppet Valve Solenoid TB1-27			
O:001/2			Poppet Valve Solenoid TB1-20			
O:001/3			Poppet Valve Solenoid TB1-21			
O:001/4			Poppet Valve Solenoid TB1-22			
O:001/5			Poppet Valve Solenoid TB1-26			
O:001/6			Pilot Pressure Directional Valve Solenoid TB1-13			
O:001/7			Pilot Pressure Directional Valve Solenoid TB1-14			
O:001/10			VT12000 Speed Control Enable			
O:001/14			System Alarm			
O:001/15			Water Valve Relay			
O:001/16			Test Running			
O:001/17			Emergency Shutdown			
O0000:0022			T30 Buffer			
O0000:0023			T30 Buffer			
O:025/0			T30 Plot Info. Transfer Complete			
O:025/1			Auto Test Complete			
O0000:0026			T30 Buffer			
Q4:0			Skip Data Storage			
S:0/0			Processor arithmetic carry flag			
S:0/1			Processor arithmetic underflow/ overflow flag			
S:0/2			Processor arithmetic zero flag			
S:0/3			Processor arithmetic sign flag			
S:1/0			Bad RAM CHECKSUM at power up			
S:1/1			PLC-5 in RUN mode			
S:1/2			PLC-5 in TEST mode			
S:1/3			PLC-5 in PROG mode			
S:1/4			PLC-5 is burning an EEPROM			
S:1/5			Download- ing in progress			
S:1/6			Test edits enabled			
S:1/7			Mode switch in REMOTE			
S:1/8			Forces enabled			
S:1/9			Forces present			
S:1/10			EEPROM success- fully Burned			
S:1/11			Perform- ing online program- ming			
S:1/12			Processor is in DEBUG mode			
S:1/13			User program CHECKSUM done			
S:1/14			Last scan of ladder or SFC step			
S:1/15			First scan of ladder or SFC step			
S:7/0			Rack 0 Faulted			
S:7/1			Rack 1 Faulted			
S:7/2			Rack 2 Faulted			
S:7/3			Rack 3 Faulted			
S:7/4			Rack 4 Faulted			
S:7/5			Rack 5 Faulted			
S:7/6			Rack 6 Faulted			
S:7/7			Rack 7 Faulted			
S:7/8			Block Xfer queue to rack 0 is full			
S:7/9			Block Xfer queue to rack 1 is full			
S:7/10			Block Xfer queue to rack 2 is full			
S:7/11			Block Xfer queue to rack 3 is full			
S:7/12			Block Xfer queue to rack 4 is full			
S:7/13			Block Xfer queue to rack 5 is full			
S:7/14			Block Xfer queue to rack 6 is full			
S:7/15			Block Xfer queue to rack 7 is full			
S:8			Last program scan time ladder & SFC			
S:9			Maximum program scan time ladder & SFC			
S:10/0			Battery is bad or missing			
S:10/1			DH+ active node table changed			
S:10/2			STI overlap			
S:10/3			EEPROM trans- ferred			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
S:10/4			Edits prevent SFC continuing			
S:10/5			Invalid I/O status file			
S:10/6			Memory cartridge battery low			
S:10/7			No more command blocks exist			
S:10/9			No MCP was configured to run			
S:10/10			MCP not allowed			
S:10/11			PII word number isn't in local rack			
S:10/12			User PII routine overlap			
S:10/13			No command block exists to get PII			
S:10/14			Arithmetic overflow occurred			
S:10/15			SFC lingering action overlap			
S:11/0			Bad program file			
S:11/1			Bad address in ladder program			
S:11/2			Programmer error			
S:11/3			SFC Fault			
S:11/4			Program assembly error			
S:11/5			Powerup protection fault			
S:11/6			Error not defined			
S:11/7			User generated fault			
S:11/8			Watchdog timer fault			
S:11/9			Bad system config- uration			
S:11/10			Hardware Error			
S:11/11			MCP file does not exist or is not ladder			
S:11/12			PII file does not exist or is not ladder			
S:11/13			STI file does not exist or is not ladder			
S:11/14			Fault file does not exist or is not ladder			
S:11/15			Non ladder file			
S:12			Fault Code			
S:13			Program file where fault occurred			
S:14			Rung number where fault occurred			
S:16			I/O status file			
S:17/0			Queue full between local and remote I/O			
S:17/1			Queue full servicing channel 1A			
S:17/2			Queue full servicing channel 1B			
S:17/3			Queue full servicing channel 2A			
S:17/4			Queue full servicing channel 2B			
S:17/5			No modem on serial port			
S:17/6			Remote I/O is greater than image size			
S:17/8			ASCII instruct- ion error			
S:17/9			Duplicate node address			
S:18			Real time clock YEAR			
S:19			Real time clock MONTH			
S:20			Real time clock DAY			
S:21			Real time clock HOUR			
S:22			Real time clock MINUTE			
S:23			Real time clock SECOND			
S:24			Indexed Addressing Offset			
S:25			Adapter Image File			
S:26/0			SFC Restart/ Continue			
S:26/1			Start-up protect- ion after power loss			
S:26/2			Local rack is 1 if set or 0 if bit = 0			
S:26/3			Complement Rack Mode			
S:27/0			Rack 0 Inhibit			
S:27/1			Rack 1 Inhibit			
S:27/2			Rack 2 Inhibit			
S:27/3			Rack 3 Inhibit			
S:27/4			Rack 4 Inhibit			
S:27/5			Rack 5 Inhibit			
S:27/6			Rack 6 Inhibit			
S:27/7			Rack 7 Inhibit			
S:27/8			Rack 0 Reset			
S:27/9			Rack 1 Reset			
S:27/10			Rack 2 Reset			
S:27/11			Rack 3 Reset			
S:27/12			Rack 4 Reset			
S:27/13			Rack 5 Reset			
S:27/14			Rack 6 Reset			
S:27/15			Rack 7 Reset			
S:28			Watchdog Timer Setpoint			
S:29			Fault routine file number			
S:30			STI setpoint (interval)			
S:31			STI file number			
S:32/0			Rack 10 Faulted			
S:32/1			Rack 11 Faulted			
S:32/2			Rack 12 Faulted			
S:32/3			Rack 13 Faulted			
S:32/4			Rack 14 Faulted			
S:32/5			Rack 15 Faulted			
S:32/6			Rack 16 Faulted			
S:32/7			Rack 17 Faulted			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
S:32/8			Block Xfer queue to rack 10 is full			
S:32/9			Block Xfer queue to rack 11 is full			
S:32/10			Block Xfer queue to rack 12 is full			
S:32/11			Block Xfer queue to rack 13 is full			
S:32/12			Block Xfer queue to rack 14 is full			
S:32/13			Block Xfer queue to rack 15 is full			
S:32/14			Block Xfer queue to rack 16 is full			
S:32/15			Block Xfer queue to rack 17 is full			
S:33/0			Rack 10 Inhibit			
S:33/1			Rack 11 Inhibit			
S:33/2			Rack 12 Inhibit			
S:33/3			Rack 13 Inhibit			
S:33/4			Rack 14 Inhibit			
S:33/5			Rack 15 Inhibit			
S:33/6			Rack 16 Inhibit			
S:33/7			Rack 17 Inhibit			
S:33/8			Rack 10 Reset			
S:33/9			Rack 11 Reset			
S:33/10			Rack 12 Reset			
S:33/11			Rack 13 Reset			
S:33/12			Rack 14 Reset			
S:33/13			Rack 15 Reset			
S:33/14			Rack 16 Reset			
S:33/15			Rack 17 Reset			
S:34/0			Rack 20 Faulted			
S:34/1			Rack 21 Faulted			
S:34/2			Rack 22 Faulted			
S:34/3			Rack 23 Faulted			
S:34/4			Rack 24 Faulted			
S:34/5			Rack 25 Faulted			
S:34/6			Rack 26 Faulted			
S:34/7			Rack 27 Faulted			
S:34/8			Block Xfer queue to rack 20 is full			
S:34/9			Block Xfer queue to rack 21 is full			
S:34/10			Block Xfer queue to rack 22 is full			
S:34/11			Block Xfer queue to rack 23 is full			
S:34/12			Block Xfer queue to rack 24 is full			
S:34/13			Block Xfer queue to rack 25 is full			
S:34/14			Block Xfer queue to rack 26 is full			
S:34/15			Block Xfer queue to rack 27 is full			
S:35/0			Rack 20 Inhibit			
S:35/1			Rack 21 Inhibit			
S:35/2			Rack 22 Inhibit			
S:35/3			Rack 23 Inhibit			
S:35/4			Rack 24 Inhibit			
S:35/5			Rack 25 Inhibit			
S:35/6			Rack 26 Inhibit			
S:35/7			Rack 27 Inhibit			
S:35/8			Rack 20 Reset			
S:35/9			Rack 21 Reset			
S:35/10			Rack 22 Reset			
S:35/11			Rack 23 Reset			
S:35/12			Rack 24 Reset			
S:35/13			Rack 25 Reset			
S:35/14			Rack 26 Reset			
S:35/15			Rack 27 Reset			
S:46			PII file number			
S:47			PII module group to examine			
S:48			PII bit mask			
S:48/0			PII Module Bit 1=Monitor 0=Ignore			
S:49			PII compare value			
S:49/0			PII Bit 1=false to true, 0= true to false			
S:50			PII down count			
S:51			PII return mask			
S:52			PII accum- ulator			
S:53			STI last scan time			
S:54			STI max scan time			
S:55			PII last scan time			
S:56			PII max scan time			
S:79/0			Main control program A disable bit			
S:79/1			Main control program B disable bit			
S:79/2			Main control program C disable bit			
S:79/3			Main control program D disable bit			
S:79/4			Main control program E disable bit			
S:79/5			Main control program F disable bit			
S:79/6			Main control program G disable bit			
S:79/7			Main control program H disable bit			
S:79/8			Main control program I disable bit			
S:79/9			Main control program J disable bit			
S:79/10			Main control program K disable bit			

Test Bench One

Address/Symbol Database

Address	Symbol	Scope	Description	Sym Group	Dev. Code	ABV
S:79/11			Main control program L disable bit			
S:79/12			Main control program M disable bit			
S:79/13			Main control program N disable bit			
S:79/14			Main control program O disable bit			
S:79/15			Main control program P disable bit			
S:80			Main control program A file number			
S:81			Program A scan time			
S:82			Program A maximum scan time			
S:83			Main control program B file number			
S:84			Program B scan time			
S:85			Program B maximum scan time			
S:86			Main control program C file number			
S:87			Program C scan time			
S:88			Program C maximum scan time			
S:89			Main control program D file number			
S:90			Program D scan time			
S:91			Program D maximum scan time			
S:92			Main control program E file number			
S:93			Program E scan time			
S:94			Program E maximum scan time			
S:95			Main control program F file number			
S:96			Program F scan time			
S:97			Program F maximum scan time			
S:98			Main control program G file number			
S:99			Program G scan time			
S:100			Program G maximum scan time			
S:101			Main control program H file number			
S:102			Program H scan time			
S:103			Program H maximum scan time			
S:104			Main control program I file number			
S:105			Program I scan time			
S:106			Program I maximum scan time			
S:107			Main control program J file number			
S:108			Program J scan time			
S:109			Program J maximum scan time			
S:110			Main control program K file number			
S:111			Program K scan time			
S:112			Program K maximum scan time			
S:113			Main control program L file number			
S:114			Program L scan time			
S:115			Program L maximum scan time			
S:116			Main control program M file number			
S:117			Program M scan time			
S:118			Program M maximum scan time			
S:119			Main control program N file number			
S:120			Program N scan time			
S:121			Program N maximum scan time			
S:122			Main control program O file number			
S:123			Program O scan time			
S:124			Program O maximum scan time			
S:125			Main control program P file number			
S:126			Program P scan time			
S:127			Program P maximum scan time			
T4:0			TB1-25 Poppet Valve on Delay Timer			
T4:2/DN			Execute Manual Test Routine			
T4:3			T30 BTW Timer			
T4:4			T30 BTW Timer			
T4:5			T30 BTW Timer			
T4:6			T30 BTW Timer			
T4:7			Increment/Decrement Timer			
T4:8			Auto Test Running			
T4:9/DN			Auto Test Delay Start			
T4:11/DN			Auto Test Stop Delay			

Test Bench One

Instruction Comment Database

Address	Instruction	Description
F8:3	MOV	Reset increment Total To Zero
F8:6	LES	Output Less Than Variable Minimum
F8:6	ADD	Add Var. Min. To Store In F8:6
I:002/5	XIO	Speed Controll VT12000 Not Ready
N7:10	BTW	BTW To AI Card In Slot 5
N7:15	BTR	BTR To AI Card In Slot 5
N7:20	BTW	BTW To AI Card In Slot 7
N7:25	BTR	BTR To AI Card In Slot 7
N7:51	ADD	Increment Index Address Pointer
N7:53	NOT	Toggle Bit For STI Loop Count
N7:54/0	XIO	Increment Output
N10:50	COP	Copy Write Info. To BTW Buffer
N10:120	MOV	Move Speed Data To AO Card Buffer
N10:121	MOV	Move Flow Control Data To AO Card Buffer
N10:122	MOV	Move Relief Valve Data To AO Card Buffer
N10:123	MOV	Move Pilot Pressure Data To AO Buffer
N10:124	MOV	Move AO Config. Info. To Buffer
N10:132	MOV	Scale AO Card Output Channel 4
N20:0	MOV	Move T30 Write Address Into BTW Buffer
N20:1	MOV	Move T30 Read Address Into BTW Buffer
N20:2	COP	Move PLC Info. (8 Words) Into BTW Buffer
N20:10	COP	Move T30 Info. (4 Words) Into BTW Buffer
N20:23	GEQ	Is The Pilot Pressure Greater Than 2000 PSI
N20:42/0	XIO	Left Hand Rotation
N20:42/3	XIO	Pilot Presure Valve 2
N20:59	EQU	Check X Axis Variable
N20:60	EQU	Chack Y Axis Variable
N20:80	MOV	Move T30 Receiving Addres Into N20:80
N20:81	MOV	Move T30 Read Address Into N20:81
N20:82	COP	Move 60 Data Words Into File Starting At N20:82
N40:8	GRT	Pot. Value Greater Than Max. Speed
O:022	MOV	Transfer PLC Slot 1 Info. To T30
O:023	MOV	Transfer PLC Slot 3 Info. To T30
O:026	MOV	Transfer PLC Slot 2 Info. To T30
S:24	MOV	Load index Address pointer
S:30	DIV	Load STI Time
S:30	MOV	Load STI Time