

**NOTES: (SEE INSTALLATION & OPERATION MANUAL LMENIM 3306 FOR DETAILS)**  
 CIRCUIT SHOWN WITH VALVE IN FULLY CLOSED POSITION AND WITH POWER OFF.

- REMOTE INPUTS**  
 SIGNAL THRESHOLD - MINIMUM "ON" 19.2V AC/DC  
 MAXIMUM "OFF" 5.0V AC/DC  
 MAX LOAD - 10 mA / 110V AC  
 2 mA / 24V DC  
 REQUIRED CONTROL SIGNAL DURATION = 350ms MIN.  
 INPUTS 0,1,2 ARE FIELD CONFIGURABLE FOR  
 CLOSE/OPEN INHIBIT, USER INPUT OR ESD.  
 IN ADDITION, INPUT 2 MAY BE CONFIGURED  
 FOR CSE REMOTE SELECTION INDICATION.  
 DEFAULT INPUT CONFIGURATION:  
 INPUT 0 - ESD,  
 INPUT 1 - OPEN INHIBIT,  
 INPUT 2 - CLOSE INHIBIT.

- REMOTE INPUT JUMPERS**  
 JUMPERS CAN BE USER WIRED TO CONNECT DIG COMMONS #1, 2 & 3 (AS NEEDED). THE 3 REMOTE WIRING GROUPS ARE ELECTRICALLY ISOLATED, INTERNALLY. ONLY A SINGLE POWER SOURCE MAY BE USED TO POWER ANY ONE GROUP BUT DIFFERENT SOURCES MAY POWER DIFFERENT GROUPS. IF DIFFERENT SOURCES ARE USED, ENSURE THAT THE POLARITIES ARE CORRECT.

- DEFAULT [S] SETTINGS**  
 THE DEFAULT OPERATING CONFIGURATION FOR THE "S" OUTPUTS ARE SHOWN IN THE TABLE BELOW. THE CONTACT STATES SHOWN IN THE SCHEMATIC REPRESENT A FULLY CLOSED VALVE. SEE OPERATION MANUAL FOR ALTERNATE CONFIGURATIONS.

OUTPUT SWITCH	VALVE POSITION		FUNCTION
	FULL CLOSE	FULL OPEN	
S1a	█	---	CLOSE LIMIT
S1b	---	█	
S2a	---	█	OPEN LIMIT
S2b	█	---	

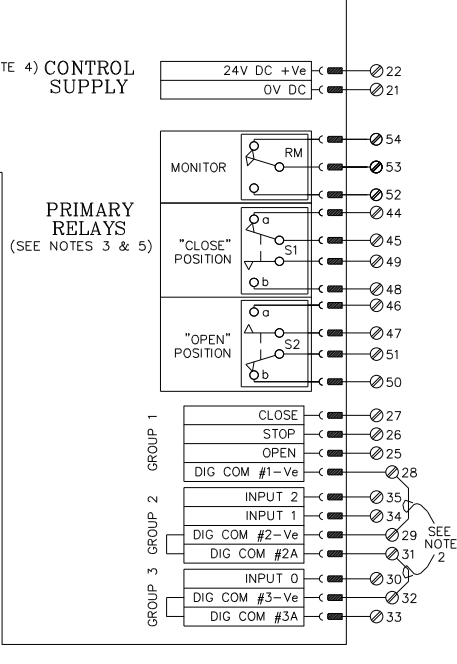
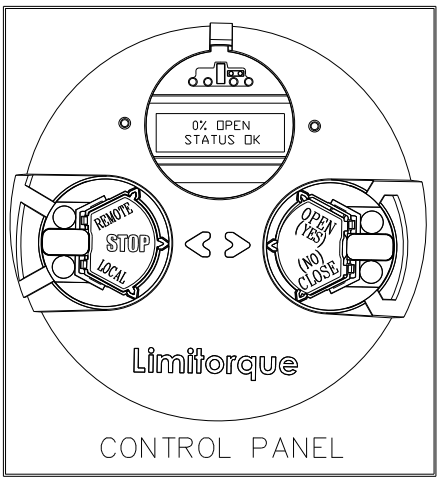
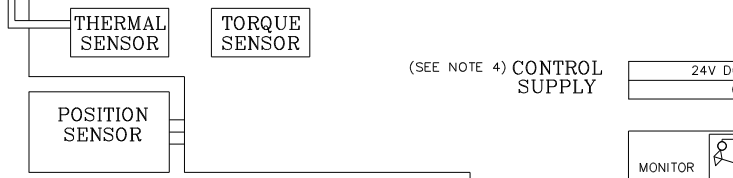
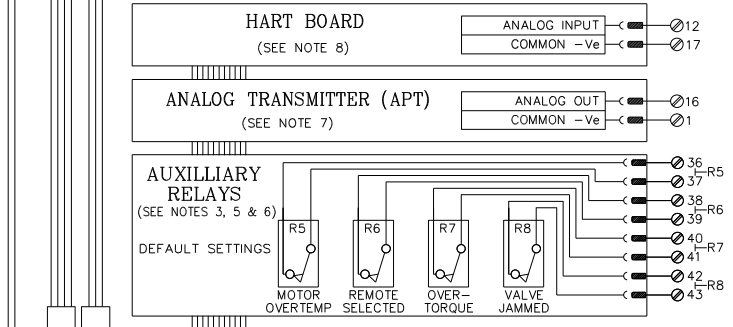
--- OPEN CONTACT  
 █ CLOSED CONTACT

- MAXIMUM EXTERNAL LOAD**  
 TERMINALS 21 AND 22 (24 VDC)  
 - 5W MAX. EXT. LOAD
- CONTACT RATINGS**  
 S1, S2- 0.5 AMP @ 125 VAC, 2 AMPS @ 30 VDC (RESISTIVE)  
 MONITOR- 0.5 AMP @ 125 VAC, 2 AMPS @ 30 VDC (RESISTIVE)  
 R5-R8- 5 AMPS @ 250 VAC OR 30 VDC (RESISTIVE)

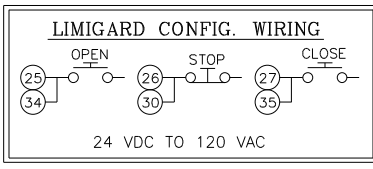
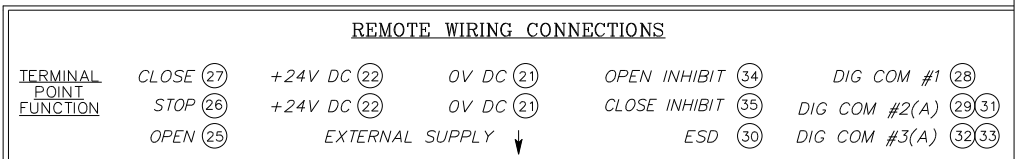
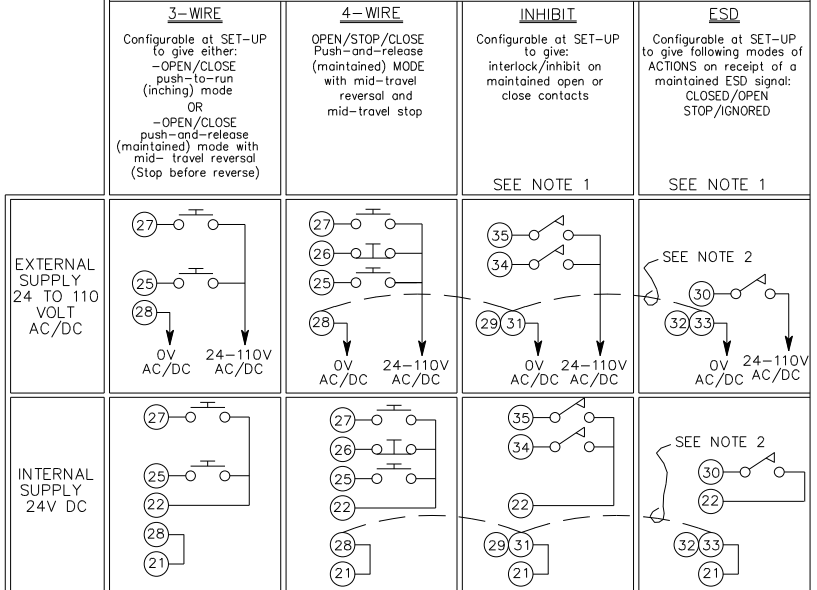
- RELAY BOARDS**  
 SET JUMPER J1 TO POSITION 3-4 ON THE RELAY BOARD. CONNECT 22-PIN CONNECTOR WITH YELLOW WIRES TO J3 ON THE RELAY BOARD.

- APT OR ATT EXTERNAL LOAD**  
 4-20 mA OUTPUT SIGNAL - 600 OHMS MAX.  
 0-10 VDC OUTPUT SIGNAL - 1000 OHMS MAX.  
 SET JUMPERS JP1 AND JP2 TO POSITION 2-3 ON ANALOG BOARD.  
 THE SQUARE 4-PIN CONNECTOR WITH BLUE WIRES SHOULD BE CONNECTED TO J1 ON THE ANALOG BOARD.

- HART**  
 NOMINAL ANALOG INPUT CURRENT 4-20mA, 30mA MAX.  
 ANALOG INPUT SIGNAL LOAD - 300 OHMS.  
 SET JUMPERS JP1 AND JP2 TO POSITION 1-2 ON HART BOARD.  
 THE 3-PIN CONNECTOR WITH BLUE WIRES CONNECTS TO J3 ON HART BOARD.  
 HART TERMINAL CONNECTIONS:  
 TERMINAL 12 ----- LOOP(+)  
 TERMINAL 17 ----- LOOP(-)



**(-) NEGATIVE COMMON**



DRAWN	DATE	Limitorque Actuation Systems 5114 WOODALL ROAD, LYNCHBURG, VIRGINIA 24506-1318	
RAC	11/10/10	TITLE	QX WIRING DIAGRAM
CHECKED	DATE	Hart No CS	
ZKC	11/12/10	APT (Analog Position Transmitter)	
APPROVED	DATE	DC Voltage	
MAD	11/15/10	OB, OS w/ opt (4) 5A. (1) 2A monitor relay	
UNIT TYPE	QX	DWG. NO.	WD-QX-320810-00000
REV	00H	SHEET	1 OF 1