

XL220 Switch Settings, all Versions, 4.00.00 and Higher

Updated: March 10, 2025

Switch #	OFF	ON
1	Feed-to-Stop (All Presses)	Non-Stop (All Presses)
2	Die Boost outputs active ¹ (shear and all presses/notches)	Press Up outputs active (shear and all presses/notches)
3	Single-Speed (All Presses)	Two-Speed (All Presses)
4	Disable hole-punch press (for conduit reinforcement punching)	Enable hole-punch press (for conduit reinforcement punching)
7	No second sensor used	Enable second sensor ²
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
11	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
12	Sys Ready Input DISABLED	Sys Ready Input ENABLED ⁴
Switch 5	Switch 6	Description
OFF	OFF	No vee-notches or end-notches
ON	OFF	One inline vee-notch & one inline end-notch,
OFF	ON	One downstream vee-notch & one downstream end-notch ³
ON	ON	Two inline vee-notches & two inline end notches

Notes:

1. Die boost outputs are only allowed during non-stop mode.
2. DIP switch 7 is only valid when the downstream notcher is enabled. The first sensor is for the end notches the encoder is reset on both transitions of the sensor. The first end notch occurs relative to the OFF to ON transition and the trailing notch occurs relative to the ON to OFF transition. The encoder count for the end notches is reset on both transitions. The second sensor is for the V notches. All V-notches occur relative to the OFF to ON transition of the second sensor.
3. Down-stream notches only allowed during non-stop mode.
4. Beginning in version 4.68.00. Enables a Sys Ready Input that must be ON before Machine operations are allowed. Note!!! The use of this input is not to be used as a substitute for external, safety rated, e-stop protection.

XL220 Inputs & Outputs Version 4..** and Higher**

IO#	Inputs	Outputs
1	Jog Forward	Fast
2	Jog Reverse	Slow
3	Run	Reverse
4	Not Used Sys Ready	Run
5	Setup Lockout	Item Complete
6	Manual Shear	Forward
7	Manual Hole-Punch	Reserved (Print Flush)
8	Tail Out (Inverted Sheet Detect)	Reserved (Print Trigger)
9	Shear Press Complete	Shear Press Down
10	Vee-Notch Press 1 Complete	Vee-Notch Press Down
11	End-Notch Press 1 Complete	End-Notch Press Down
12	Vee-Notch Press 2 Complete	Hole-Punch Press Down
13	End-Notch Press 2 Complete	Shear Press Up Boost
14	Hole-Punch Press Complete	Vee-Notch Press Up Boost
15	Not Used	End-Notch Press Up Boost
16	Manual Vee-Notch	Hole-Punch Press Up Boost
17	Manual End-Notch	Notch Die Select (Gag)
18	Jog Forward (Downstream Notch)	Hole-Punch Center Die Select (Gag)
19	Jog Reverse (Downstream Notch)	Hole-Punch Outer Die Select (Gag)
20	Edge-Detect 2 (Downstream Notch)	Hole Punch Offset Shift (Gag)
21	Run-Enable (Downstream Notch)	Hole-Punch Damper Die Select (Gag)
22	Not Used	Blank Sheet Indicator
23	Not Used	Forward Feed (Downstream Notch)
24	Edge-Detect 1 (Downstream Notch)	Reverse Feed (Downstream Notch)
50	Slow Run	N.A.
51	Scrap Part	N.A.
52	SL343 Prg. Inhibit	N.A.
53	SL338 Prg. Inhibit	Scanner Verify
54	SL328 Prg. Inhibit	N.A.
55	SL342 Prg. Inhibit	N.A.
56	Bundle	N.A.

Notes:

1. All inputs and outputs pertaining to the *Vee-Notch & End-Notch* presses, *Downstream Notch* presses, and the *Hole-Punch* press are only active when the corresponding functionality has been enabled via the machine configuration (dip-switch) settings.

XL220 Encoder Input Assignments Version 4..** and Higher**

Encoder Input #	Description
1	Material (line) encoder for shear press and in-line notch/punch presses.
2	Reserved
3	First material (line) encoder for down-stream notch presses (corresponds with edge-detect 1 input).
4	Second material (line) encoder for down-stream notch presses (optional, corresponds with edge-detect 2 input).

XL220CL Switch Settings

Switch #	OFF	ON
3	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
4	Disable hole-punch press (for conduit reinforcement punching)	Enable hole-punch press ¹ (for conduit reinforcement punching)
7	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
8	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
9	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
10	NOT USED – MUST BE OFF	NOT USED – MUST BE OFF
12	Standard Closed Loop	Selective Closed Loop ²
Switch 1	Switch 2	Description
OFF	OFF	Feed-to-Stop, One Encoder ¹
ON	OFF	Feed-to-Stop, Two Encoders ¹
OFF	ON	Single-Speed Die Accelerator
ON	ON	Two-Speed Die Accelerator
Switch 5	Switch 6	Description
OFF	OFF	No vee-notches or end-notches ¹
ON	OFF	One inline vee-notch & one inline end- notch, ¹
OFF	ON	Invalid Configuration
ON	ON	Two inline vee-notches & two inline end notches ¹

Notes:

1. Punching and Notching are only allowed in Feed-to-Stop mode.
2. Selective Closed Loop is only available in Feed to Stop Mode. Using the Tail Out input, it selectively operates in Open Loop while Tailed Out and Closed Loop when material is detected.

XL220CL Inputs & Outputs Version 4..** and Higher**

IO#	Inputs	Outputs
1	Jog Forward Jog Die Forward	Fast/Fwd
2	Jog Reverse Jog Die Reverse	Slow Stopping
3	Run	Reverse
4	Emergency Stop (E-Stop)	Run
5	Setup Lockout	Item Complete
6	Manual Shear	Drive Enable
7	Manual Hole-Punch	Reserved (Print Flush)
8	Tail Out (Inverted Sheet Detect)	Reserved (Print Trigger)
9	Shear Press Complete	Shear Press Down
10	Vee-Notch Press 1 Complete	Vee-Notch Press Down
11	End-Notch Press 1 Complete	End-Notch Press Down
12	Vee-Notch Press 2 Complete	Hole-Punch Press Down
13	End-Notch Press 2 Complete	Shear Press Up Boost
14	Hole-Punch Press Complete	Vee-Notch Press Up Boost
15	Not Used	End-Notch Press Up Boost
16	Manual Vee-Notch	Hole-Punch Press Up Boost
17	Manual End-Notch	Notch Die Select (Gag)
18	Not Used	Hole-Punch Center Die Select (Gag)
19	Not Used	Hole-Punch Outer Die Select (Gag)
20	Not Used	Hole Punch Offset Shift (Gag)
21	Reserved (Asynch. Print Detect)	Hole-Punch Damper Die Select (Gag)
22	Feed Ok Die Home	Blank Sheet Indicator
23	Slow Run ²	Forward Feed (Downstream Notch)
24	Not Used	Reverse Feed (Downstream Notch)
50	Slow Run ³	N.A.
51	Scrap Part	N.A.
52	SL343 Prg. Inhibit	N.A.
53	SL338 Prg. Inhibit	Scanner Verify
54	SL328 Prg. Inhibit	N.A.
55	SL342 Prg. Inhibit	N.A.
56	Bundle	N.A.

Notes:

1. All inputs and outputs pertaining to the *Vee-Notch & End-Notch* presses and the *Hole-Punch* press are only active when the corresponding functionality has been enabled via the machine configuration (dip-switch) settings.
2. Active in Closed Loop Feed to Stop
3. Active in Non-Stop Die Accelerator mode only

XL220CL Encoder Input Assignments Version 4..** and Higher**

Mode	Encoder 1	Encoder 2
Feed to Stop	Motor Encoder (Feeder)	Line Encoder (when 2-encoder option is used)
Die Accelerator	Line Encoder	Motor Encoder (Die Accelerator)