The Resolver Based PressCommander Clutch/ Brake OSHA Control with Complete Press Automation Built-In (shown with Standard Display)

**The User Friendly
PressCommander ™
(shown above with Standard Display)
Available in _any_ control
panel layout or retrofits
easily into an existing control panel.**

Standard Safety / Automation Features:

- Exceeds OSHA 1910.217 & ANSI B11.1-2009
- Quick and Easy Installation
- Control Reliable Design (Triple CPU Redundancy)
- Incorporates dual logic power supplies
- Heavy duty resolver with self-checking input on every press cycle with 30' of resolver cabling supplied standard
- Complete system diagnostics and programming in plain English/Spanish by a four line by twenty character vacuum fluorescent display
- Optional: 10.1" color touchscreen display replaces the standard display shown.
- Can control up to four sets of operator stations
- Operates at 24VDC, 110VAC, or 240VAC / 440VAC
- Major faults such as E-Stop, motion, brake monitor, and sensor faults are handled by two force-guided relays (Form B safety relays)
- Modes of operation: off--inch--single--continuous
- Continuous ARM; top stop, anti-tie down and anti-repeat
- System start/stop functions
- SPM Range -1 to 500
- Password and supervisory controlled keyed selector switch for security of data entry
- Interrupted stroke provision with indicator
- Inch mode monitoring
- Crank angle and speed readout (SPM)
- Time-based brake monitor

- Built-in motion detector and drift fault
- 90º and 270º stop time tester/meter built-in
- Built-in variable speed compensation
- Servo-feed interface built-in
- Six optically isolated die protection inputs that can be either AC or DC (sourcing or sinking) (Expandable)
- Six limit switch outputs can be set to cycle (non-timed) two times per crank rotation by setting an open/close crank angle (Expandable)
- The last three limit switch outputs can be set for timed, non-timed, delay, hold, or cycle two times per crank revolution.
- Six PLS (programmable limit switch) output relays are small, high speed, and high capacity. These outputs can be controlled by the press crank angle position, dwell time, number of strokes or any combination of the above. (Expandable)
- Optional "Expander" board provides an additional six Die Inputs and six Programmable Outputs.
- 100 job memory (removable)
- Stroke, batch, quality, and part counters
- Batch counter output relay
- Die protection output relay (opens when there is a fault)
- Speed output relay (opens when press speed falls out of the max/min parameters)
- Auxiliary output relay (customer assigned usage)
- Optional Ethernet or CAN network
- Remote monitoring with Ethernet
- PC Link to allow offline job creation and storage
- Optional Tonnage Monitoring
- Two-year warranty
- Made in the USA

Optional - 10.1" Touchscreen replaces Standard Display shown above left. Includes Production Monitoring to create OEE.

(For Custom Programming & Remote Field Upgrades, please consult factory at service@pressroomelectronics.com or (630) 443-9320.)

PressCommander Options - Resolver Based
Utilizes the Standard Display

Additional Die Protection Inputs and PLS (programmable limit switch outputs)

Expander Board #52-279 adds additional 6 Die inputs and 6 Dry relay contact outputs (At time of order) - Increases the PressCommander die protection from six (6) to twelve (12) station die protection. Also increases the PressCommander programmable limit switch capacity from six (6) to twelve (12) programmable limit switches with mechanical relay (dry) outputs.

Expander power supply board #52-280 (At time of order) - Power Supply Board that stacks under the PressCommander Expander Board (52-279) and is required to power the Expander Board functions. **Request Both Part Numbers (52-279 and 52-280) at time of order if expansion is desired.**

Main Power Disconnects
Fused main power Disconnect (IEC or NEMA)
Refer to *Component* section of this catalog for voltage, sizing and part numbers for starters and main power disconnects.

Magnetic Motor Starters
Magnetic Motor Starters are available in IEC or NEMA design formats
Fwd/Rev switchgear with Motor start/stop pushbuttons and legend plates included with Reversing Starter purchase.
Motor start/stop pushbutton and legend plate included with Non-Reversing Starter purchase.
Refer to Component section of this catalog for voltage, sizing and part numbers of the appropriate size starter.

Remote Master Control Station (Free standing operator control station) PressCommander Standard Display Extender System.
Moves all the switchgear and the standard display unit into a separate 12" x 14" x 8" box that can be placed closer to the operator. The control boards, optional starter(s), optional disconnect remain in a separate Control panel whose size is dictated by the size of the starter(s) & disconnect.
NOTE: Cables are available in 15', 25', 35', and 50' lengths. These cables should never be cut between the Remote Master Control Station and Control panel. 15' cable is supplied standard for the Standard Display remote mater control station.

Extension Cables for Remote Master Control Stations located over 15' (4.5m) with Standard Display from control panel.

Part# 53-456 is a 25' Remote Standard Display Extender System (when the Standard Display unit is located 25' from the PressCommander Board Stack)

Part# 53-457 is a 35' Remote Standard Display Extender System (when the Standard Display unit is located 35' from the PressCommander Board Stack)

Part# 53-458 is a 50' Remote Standard Display Extender System (when the Standard Display unit is located 50' from the PressCommander Board Stack)

Part #35-111   Ethernet option for the PressCommander Standard Display

PressCommander Options - Resolver Based

Micro-Inching Function (includes key switch on/off)

Light Guard on/off supervisory controlled key switch (up to four curtains)

Multiple operator station control key switch

Bar Turnover Function (includes key switch on/off)

Die Block receptacle outlet

Shutdown timer (software based)

110VAC outlet or 220 VAC outlet (specify load)

NEMA style indicators & switchgear on control panel to replace IEC style supplied standard

SHUT HEIGHT INDICATOR:

Provides the capability to read the shut height to within .001 inch and will display the position of the slide. Each tool/die setting is saved under the job number. Shut Height Monitoring requires a shut height interface board (Part# 52-298) and a linear sensor for slide position measurement.

Choose a length below: A magnet and two mounting brackets are supplied standard with all linear sensors.

<u>Size</u>

4" -   Part# 40-009

8" -   Part# 40-010

12" -   Part# 40-011

16" -   Part# 40-012

24" -   Part# 40-013

AUTOMATIC EXTERNAL TRIP:
                PCS-10 without IEC switchgear (at time of purchase)
                PCS-20 with IEC switchgear (key switches & push buttons)

30-012   24vdc @ 2.2A power supply (90-260vac In) 3.9" L x 3.8" W x 1.4" H (99.1mm x 96.5mm x 35.6mm)
                for powering sensors or other auxiliary devices

CONTINUOUS ON DEMAND:
                PCS-10 without IEC switchgear (at time of purchase)
                PCS-20 with IEC switchgear (key switches & push buttons)

Custom Software Programming (one time fee).

REMOTE MONITORING: (internet based)

Ethernet 100baseT with built in Web page Server (with downtime monitor and logging)

Wireless Ethernet (Wi-Fi) Bridge - Part # 39-154

GUARDING:

Safety Light Curtain (up to four sets of pylons, specify size) (Visit www.pinnaclesystems.com for models available)

HYDRAULIC OVERLOAD:

Press will stop when output opens, then allows the press to be moved in the inch mode with the input still open.

CUSTOMIZED SOFTWARE PROGRAMMING:

Software can be upgraded in the field with a laptop computer.

PressCommander Options - Resolver Based

CLUTCH-BRAKE TIME DELAY HUB OPTION:
Provides the press control with a separate relay for the CLUTCH and a separate relay for the BRAKE to allow for a time delay between each, and to be control reliable.
Consists of the following:

      1 -   Safety HUB (Part# 53-448) running the Clutch-Brake program
      1 -   24VDC Power Supply (Part# 30-012)
      2 -   Safety Relays for HUB channel D (Part # 52-278)

PEAK TONNAGE MONITORING: (add suffix T1,T2,T3,or T4 to Presscommander Model#)
T1 - One channel monitoring with strain sensor and cable
T2 - Two channel monitoring with strain sensor and cable
T3 - Three channel monitoring with strain sensor and cable
T4 - Four channel monitoring with strain sensor and cable

SIGNATURE TONNAGE ANALYSIS MONITORING (Requires 10.1" Touchscreen - Part # 39-151)

Add suffix: T1-S, T2-S, T3-S, T4-S to the PressCommander Model.

T1-S -   One channel monitoring with strain sensor and cable
T2-S -   Two channel monitoring with strain sensor and cable
T3-S -   Three channel monitoring with strain sensor and cable
T4-S -   Four channel monitoring with strain sensor and cable

Part# 39-151   10.1" color touchscreen replaces the Standard PressCommander four line vacuum fluorescent display mounted onto NEMA 12 (IP 64) control panel. Includes Production Monitoring to create OEE.

Remote Master Control Station with 10.1" color touchscreen
Moves all the switchgear and the touchscreen until into a separate 12" x 14" x 8" box that can be placed closer to the operator. The control boards, optional starter(s), optional disconnect remain in a separate control panel whose size is dictated by the size of the starter(s) and disconnect. This requires the Ethernet option to be installed on the Touchscreen.

Part# 43-027 (Required)   Ethernet cable to connect the Remote Master Control 10.1" color touchscreen to the control panel that contains the control boards, optional starters and disconnects. Specify length needed in feet.

Optional Touchscreen features and capabilities on the following pages.

PressCommander Proposal/Ordering Guide
Resolver Based Controls (All Models/Styles)

Please complete the form on the next two pages and email it to the Pressroom Sales Department at sales@pressroomelectronics.com.
You may also fax the form to (412) 262-1197. We also have an electronic version of this form available on our website www.pressroomelectronics.com.

Name _____

Email _____

Company _____

Punch Press Manufacturer _____

Address _____

Model # _____   Serial # _____

City _____

Shop # _____   Press Speed (SPM) _____

State _____ Zip _____

Voltage _____   Cycle _____   Phase _____

Phone _____

Fax _____

*All PressCommander Models include clutch/brake and integrated automation control capability, standard display, resolver and 30' (9.1m) of connector ended resolver cable.

☐ **PCS-05**

*Components as stated above.

☐ **PCS-08**

*Components plus switches, legend plates, indicators and push buttons.

☐ **PCS-10**

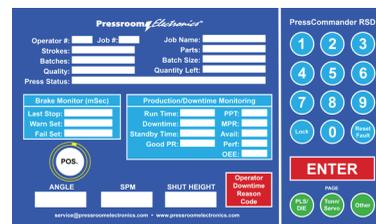*Components mounted on a blackplate. Prewired to terminal strip.

☐ **PCS-20**

*Components mounted on a backplate and prewired to terminal strip. Includes all switches, legend plates, indicators and push buttons.

☐ **PCS-2000**

*Components housed in a NEMA 12 (IP64) steel control panel. Prewired to terminal strip.

☐ **Optional Touchscreen Display**

Replaces standard display in all PCS Models. Part #39-151.

PressCommander Proposal/Ordering Guide
Resolver Based Controls with Standard Display (All Models/Styles)

1 to 500 SPM Press Speed	**Above 500 SPM Press Speed**
Qty.	Qty.
☐ **PCS-05**	☐ **PCS-05-OPTO**
☐ **PCS-08**	☐ **PCS-08-OPTO**
☐ **PCS-10**	☐ **PCS-10-OPTO**
☐ **PCS-20**	☐ **PCS-20-OPTO**
☐ **PCS-2000**	☐ **PCS-2000-OPTO**

Specify Operator Control Location on Control Panel: Specify Operator Control Location on Control Panel:
☐ Left End   ☐ Panel Door   ☐ Right End   ☐ Left End   ☐ Panel Door   ☐ Right End

☐ **PCS-2000-SFP PressCommander Small Form Package**

The PCS-2000-SFP comes in a 12" x 14" x 8" NEMA 12 Control box and is the same price as a base PCS-2000 unit. It is based on a standard PCS-2000 which comes in a 20" x 20" x 8" box (going up in size depending on options). The SFP does not come with the step-down transformer and is not for customers who require additional options (i.e. Starter(s) , Disconnect, etc.). The SFP is for customers who already have a Panel for high voltage/high current equipment, and want the Controls to be closer to the operator.
NOTE: There is no cable length limitation between the SFP and the high voltage equipment control panel.

☐ **PCS-4000 (1 to 500 SPM Press Speed)**   or   ☐ **PCS-4000-OPTO (Above 500 SPM Press Speed)**

Specify Operator Control Location (for either model):
☐ Left End   ☐ Panel Door   ☐ Right End

☐ **Fused Main Power Disconnect** - Refer to Main Power Disconnect Section
     Mounted on control panel _____ AMP
     Choose Style: ☐ IEC   ☐ NEMA   Part#_____

☐ **Main Motor Magnetic Motor Starter** - Refer to Main Power Disconnect Section
     Choose Style: ☐ IEC   ☐ NEMA
     Choose: ☐ Rev   ☐ Non-Rev
     _____ HP   _____ Full Load Amps   Part#_____
     Includes on/off push buttons and keyed selector switch forward/reverse when applicable.

☐ **Ram Adjust Magnetic Motor Starter** - Refer to Main Power Disconnect Section
     Choose Style: ☐ IEC   ☐ NEMA
     _____ HP   _____ Full Load Amps   Part#_____
     Includes up/down push buttons and keyed selector switch forward/reverse when applicable.

☐ **Accessory Magnetic Motor Starter** - Refer to Main Power Disconnect Section
     Choose Style: ☐ IEC   ☐ NEMA
     Choose: ☐ Rev   ☐ Non-Rev
     _____ HP   _____ Full Load Amps   Part#_____
     Includes on/off push buttons and keyed selector switch forward/reverse when applicable.

PressCommander Proposal/Ordering Guide
Resolver Based Controls with Standard Display (All Models/Styles)

Qty.

☐ **Micro-Inching Feature**

☐ **Automatic External Trip**

☐ **Continuous On Demand**

☐ **Light Curtain On/Off Key Switch**
 Supervisory controlled for maintenance or set-up.

☐ **Multiple Operator Stations Control**
 Keyed selector switch on/off mounted on control panel to turn additional operator stations on/off.

☐ **Bar Turnover Function**
 Permits manual rotation of the flywheel with the clutch engaged for die setting. Controlled by keyswitch on/off

☐ **Open Space Inside Control Panel**
 For mounting additional customer supplied components.
 Specify desired space:
 _____ X _____

☐ **Console Mounted Controls**
 Consult factory for specifics.

☐ **Die Block Receptacle Outlet**
 Female receptacle for an electrical interlock on a die block.

☐ **110VAC Outlet**
 Panel mounted 110VAC outlet for powering lights, press auxiliary equipment etc.

☐ **220VAC Outlet**
 Panel mounted 220VAC outlet for powering lights, press auxiliary equipment etc.

☐ **Shut Down Timer**
 Automatically shuts off the punch press when not in use. Length of time is customer adjustable.

☐ **Hydraulic Overload**
 Press will stop when output opens, then allows the press to be moved in the inch mode with the input still open.

☐ **Part# 30-012**
 24VDC @ 2.2 A power(90-26 VAC in)
 3.9" Long x 3.8" Wide x 1.4" High (99 mm x 96 mm x 35.6 mm) for powering sensors, or other auxiliary devices.

Qty.

☐ **Clutch-Brake Time Delay HUB Option**
 Provides the control with a separate relay for the CLUTCH and a separate relate for the BRAKE to allow for a time delay between each, and to be control reliable. Consists of the following:
 (1) Safety HUB (Part# 53-448 running the Clutch-Brake program
 (1) 24VDC Power Supply (Part#30-012)
 (2) Safety Relays for HUB channel D (Part# 52-278)

☐ **Peak Tonnage Monitoring (check option below)**
 ☐ **T1** - One channel monitoring with strain sensor and cable.
 ☐ **T2** - Two channel monitoring with strain sensors and cables.
 ☐ **T3** - Three channel monitoring with strain sensors and cables.
 ☐ **T4** - Four channel monitoring with strain sensors and cables.

☐ **Signature Tonnage Analysis Monitoring**
 Requires Touchscreen Part #39-151 (check option below)
 ☐ **T1-S** - One channel monitoring with strain sensor and cable.
 ☐ **T2-S** - Two channel monitoring with strain sensors and cables.
 ☐ **T3-S** - Three channel monitoring with strain sensors and cables.
 ☐ **T4-S** - Four channel monitoring with strain sensors and cables.

☐ **Safety Light Curtain**
 Model SS Solid State Outputs Safety Light Curtain
 Specify Size - 4" (101mm) to 64" (1625mm) guarded zone in 4" (101mm) increments.

 ☐ 4   ☐ 8   ☐ 12   ☐ 16   ☐ 20   ☐ 24

 ☐ 28   ☐ 32   ☐ 36   ☐ 40   ☐ 44   ☐ 48

 ☐ 52   ☐ 56   ☐ 60   ☐ 64

☐ **Shut Height Monitor**
 Requires interface board Part# 52-298
 Choose a length below: A magnet and two mounting brackets are supplied standard with all linear sensors.
 Size
 ☐ 4" -   Part# 40-009
 ☐ 8" -   Part# 40-010
 ☐ 12" -   Part# 40-011
 ☐ 16" -   Part# 40-012
 ☐ 24" -   Part# 40-013
 Consult factory for longer lengths.

PressCommander Proposal/Ordering Guide
Resolver Based Controls (For Standard Display models)

Additional Die Protection Inputs and PLS (programmable limit switch outputs) for all models.

☐ **Expander Board #52-279**
Adds additional 6 Die inputs and 6 Dry relay contact outputs (At time of order) - Increases the Press Commander die protection from six (6) to twelve (12) station die protection. Also increases the PressCommander programmable limit switch capacity from six (6) to twelve (12) programmable limit switches with mechanical relay (dry) outputs.

☐ **Expander power supply board #52-280 (At time of order)**
Power Supply Board that stacks under the PressCommander Expander Board (52-279) and is required to power the Expander Board functions.

Request Both Part Numbers (52-279 and 52-280) at time of order if expansion is desired.

For Models that utilize the Standard Display

☐ **Remote Master Control Station**
(Free standing operator control station) PressCommander Standard Display Extender System. Moves all the switchgear and the standard display unit into a separate 12" x 14" x 8" box that can be placed closer to the operator. The control boards, optional starter(s), optional disconnect remain in a separate Control panel whose size is dictated by the size of the starter(s) & disconnect.
NOTE: Cables are available in 15', 25', 35', and 50' lengths. These cables should never be cut between the Remote Master Control Station and Control panel. 15' cable is supplied standard for the Standard Display remote mater control station.

☐ **Extension Cables for Remote Master Control Stations located over 15' (4.5m) with Standard Display from control panel.**
☐ Part# 53-456 is a 25' Remote Standard Display Extender System
(when the Standard Display unit is located 25' from the PressCommander Board Stack)

☐ Part# 53-457 is a 35' Remote Standard Display Extender System
(when the Standard Display unit is located 35' from the PressCommander Board Stack)

☐ Part# 53-458 is a 50' Remote Standard Display Extender System
(when the Standard Display unit is located 50' from the PressCommander Board Stack)

☐ **Part #35-111   Ethernet option for the PressCommander Standard Display**

PressCommander Proposal/Ordering Guide
Resolver Based Controls (For Touchscreen Display models)

☐ **Part# 39-151**

10.1" color touchscreen replaces the Standard PressCommander four line vacuum florescent display. Available for all PressCommander models. Includes Downtime and Production Monitoring System.

☐ **Remote Master Control Station with 10.1" color touchscreen**

Moves all the switchgear and the touchscreen until into a separate 12" x 14" x 8" box that can be placed closer to the operator. The control boards, optional starter(s), optional disconnect remain in a separate control panel whose size is dictated by the size of the starter(s) and disconnect. This requires the Ethernet option to be installed on the Touchscreen.

☐ **Part# 43-027 (Required)**

Ethernet cable to connect the Remote Master Control 10.1" color touchscreen to the control panel that contains the control boards, optional starters and disconnects.
Specify length needed in feet. _____

☐ **Touchscreen Downtime and Production Monitoring for Overall Equipment Effectiveness (OEE).**

Requires Touchscreen Part# 39-151

20 Downtime Codes - Downtime codes are user programmable and customized to need. Downtime codes can be activated either by touching the appropriate touchscreen button **OR** Automatically via the machine circuit signal that induced the machine to stop. This capability provides an exceptional granular fault cause for machine operational analysis.
Production Monitoring is supplied standard with the Touchscreen.

If machine induced automatic signalling is desired to activate a specific downtime code (such as die protection, tonnage monitoring, shortfeed, misfeed etc.) One of the following input/output interface boards are required.

☐ Part# 52-320
Provides the capability for six (6) downtime codes to be activated automatically by existing machine control electrics.

☐ Part# 52-321
Provides the capability for sixteen (16) downtime codes to be activated automatically by existing machine control electrics.

*Note - Part# 52-320 and 52-321
Includes six (6) dry contact relays that can be used to signal stack lights, alarms etc.
Relay Ratings: 5A @ 250 VAC • 5A @ 30 VDC • Coil: 12 VDC

Additional Die Protection Inputs and PLS (programmable limit switch outputs) for all models.

☐ **Expander Board #52-279**

Adds additional 6 Die inputs and 6 Dry relay contact outputs (At time of order) - Increases the Press Commander die protection from six (6) to twelve (12) station die protection. Also increases the PressCommander programmable limit switch capacity from six (6) to twelve (12) programmable limit switches with mechanical relay (dry) outputs.

☐ **Expander power supply board #52-280 (At time of order)**

Power Supply Board that stacks under the PressCommander Expander Board (52-279) and is required to power the Expander Board functions.

Request Both Part Numbers (52-279 and 52-280) at time of order if expansion is desired.