

APEX 3 SERIES MIG PENDANT

MECHANIZED WELDING, MODULAR APPLICATION



FULL FUNCTIONALITY, INTELLIGENT OPERATOR EXPERIENCE

All welding inputs for the APEX®/ HELIX® platform can be programmed through the ergonomic, hand-held, digital control pendant. Its icon-based interface, full-color screen and minimal number of buttons simplify the control and monitoring of each weld. The large, well-lit screen is easily viewed in both low light and direct sunlight situations. Primary inputs include a dedicated steering knob in the center and two toggle switches on either side. When powered on, the APEX system immediately initializes the attached weld head.

Supervisors can prepare MIG programs and test the parameters before striking the arc. They can also test all non-weld functions such as travel, gas purge/flow and oscillation. Operators assigned user codes can simply log in, start a weld program and begin steering the weld head on the track. Troubleshooting can be accomplished remotely with a digital SnapShot of the system, and single or multiple welding programs are easily copied and stored on a USB.

Processes »

MIG, Pulsed MIG, Flux-Cored, GMAW-STT®

Applications »

Fabrication, Pipeline, Power Generation, Pressure Vessels, Process Pipe Structural

Product Numbers »

MIG PENDANT K52113-1

PRODUCT PROGRAM FEATURES

The APEX 3 Series MIG Control Pendant, an essential component of each APEX/HELIX welding system, is designed around full functionality and easy operator experience. The APEX/HELIX MIG system can be used for all welding positions as well as with certain positioners for 1G applications.

With just a few hours of training, the MIG Control Pendant can give an amateur welder confidence to skillfully use the system. Experienced welders will appreciate the quality and consistency of each weld and find each job is completed faster.

The buttons, toggle switches and navigation controls respond to icons indicating each function. Menu controls are easily accessed from the idle, test or weld screens. Once the MIG Control Pendant is programmed, an operator can simply login, watch the weld and steer.

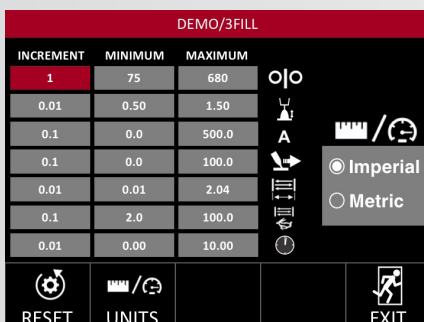
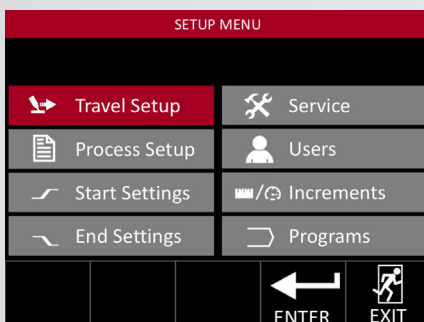
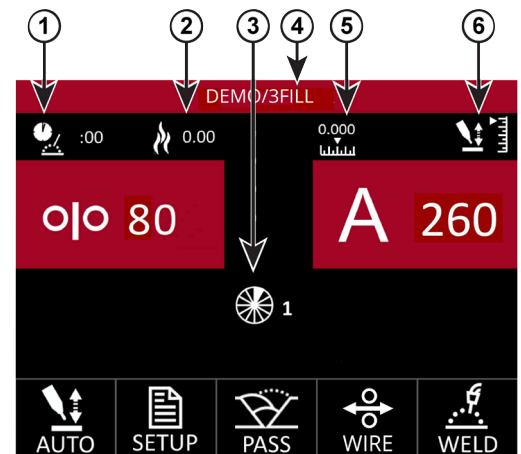


The APEX 30M Ready Pak
K52165-2

MIG Control Pendant Weld Screens

With its full-color screen and icon-based interface, the APEX MIG Control Pendant offers “plug and play” programming that’s simple to learn and easy to use.

- 1. Arc Time** - Tracks a weld cycle time
- 2. Heat Input** - Records heat input of a current weld cycle
- 3. Sector** - Indicates the current sector in an orbital welding program
- 4. Program Name** - Customizable program name and recorded weld pass information
- 5. Oscillation Location** - Placement of the torch in relation to the oscillation width
- 6. Torch Height** - Relative location of the height axis.



MIG Control Pendant Setup Screen (Supervisor Access)

Setup Menu - Allows authorized users to access all parameters for welding

Travel Setup - From this screen the operator can change the travel direction, the type of track, the size of the track and the size of the pipe.

Process Setup - Selects variables of each weld process

Start Setting - Programmed to start the weld – can include preflow, upslope and wire feed

End Settings - Programmed to end the weld – can include postflow, downslope and wire retract

Service Menu - Access to software information, change and verify motion settings, and troubleshoot the system

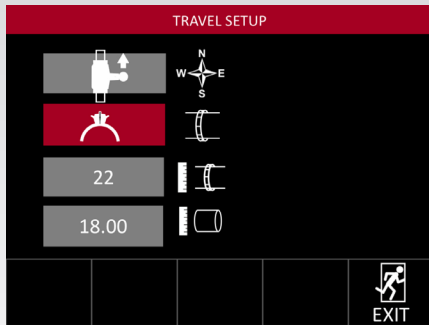
Users - Data specific to operator and supervisor codes for the system

Increments - Used to set variables such as:

- Wire Feed Speed
- Voltage or Trim
- Amperage
- Oscillation Width and Oscillation Speed
- Travel Speed
- Imperial or metric units
- Dwell Time

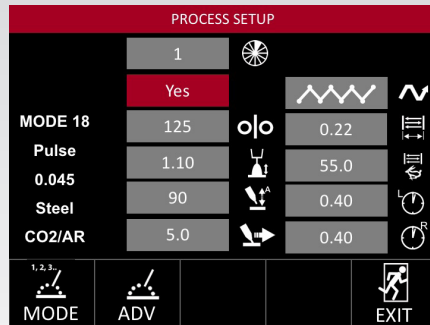
Programs - Where all programs are saved, loaded or deleted

Simply Program and Steer



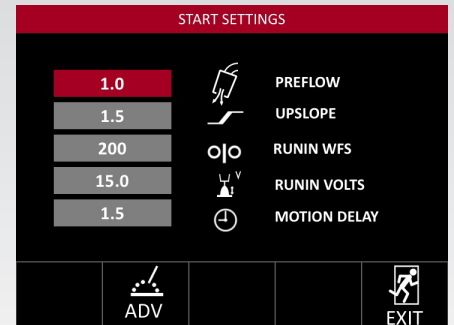
MIG Control Pendant Travel Setup

Operators can identify and change parameters of the track type, track size and the pipe diameter. System automatically gauges electrode travel speed for precise heat input calculations.



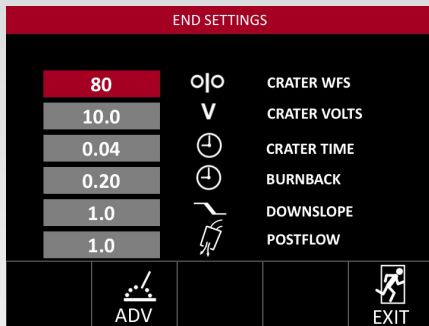
Process Setup

Operator scan select from various options to determine the variables in the weld. Certain options can be set up for every weld and every sector.



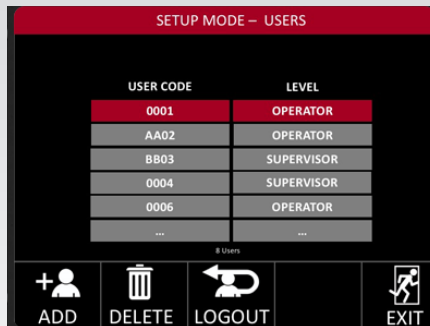
Start Settings

Programs the system to execute each function at the start of the weld such as preflow, upslope and wire feed speed. This releases the operator from critical process timing.



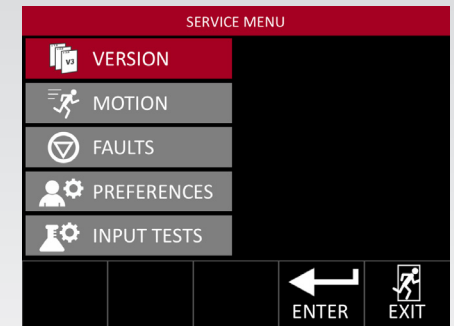
End Settings

Allows the user to adjust the end settings specific to the program, such as postflow, downslope and torch retract. This provides consistent pass tie-ins.



Operator Permissions

Only those with supervisor access are able to view the users screen and determine the operators's level of access. A supervisor can add, change or delete operator access.



Service Menu

A supervisor can access MIG Control Pendant capabilities such as:

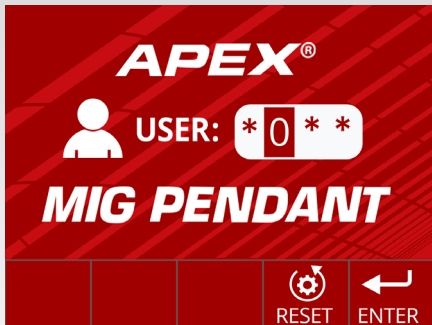
- Version - shows the user information about the installed software and hardware
- Motion - allows the user to select certain motions and behaviors of the weld system
- Faults - monitors the shielding gas and cooling water
- Preferences - provides access to Exit Hold Down for quick returns to weld program in progress, and Production Monitoring for saving completed weld programs to a USB device.
- Input Tests - determines if the pendant input devices are working correctly

The APEX/HELIX control pendant offers the most adaptive welding software on the market. Its architecture can be modified from MIG to TIG to Laser. Working and testing the pendant software with welders on-site, Lincoln Electric engineers have designed an intuitive controller that transforms data into actionable information. Its capabilities are continually improving and expanding.

With just a few hours of training, welders will find they can complete quality orbital and flat track welding jobs far more efficiently. After using the APEX/HELIX control pendant with the APEX 30S or 30M Controller for the first time, you'll understand why this is the technology that's moving mechanized welding into the future of industrial automation.

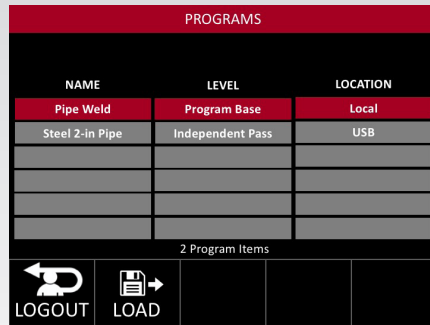
If you're looking to increase productivity, improve quality and manage costs, call (800) 770-0063 or visit us at: OrbitalSales@LincolnElectric.com for a free consultation and to schedule a demonstration of the APEX/HELIX orbital welding system at your business or in our company welding labs.

START WELDING IN THREE EASY STEPS



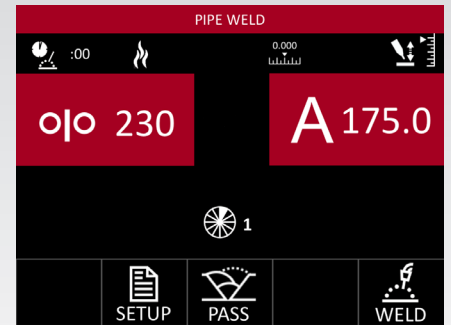
STEP 1: Operator Log In

Operators log into the system using his or her user code. Each code is assigned by the supervisor. Once the code is initiated, pressing "Enter" will load the welding PROGRAMS screen.



STEP 2: Load Program

The PROGRAMS screen will list the welding programs that are found local or inserted on the USB in the controller. The operator chooses the assigned program and pushes the LOAD button.



STEP 3: Begin Welding

Once the program is loaded, the operator can immediately begin welding.

CUSTOMER ASSISTANCE POLICY

The business of The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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