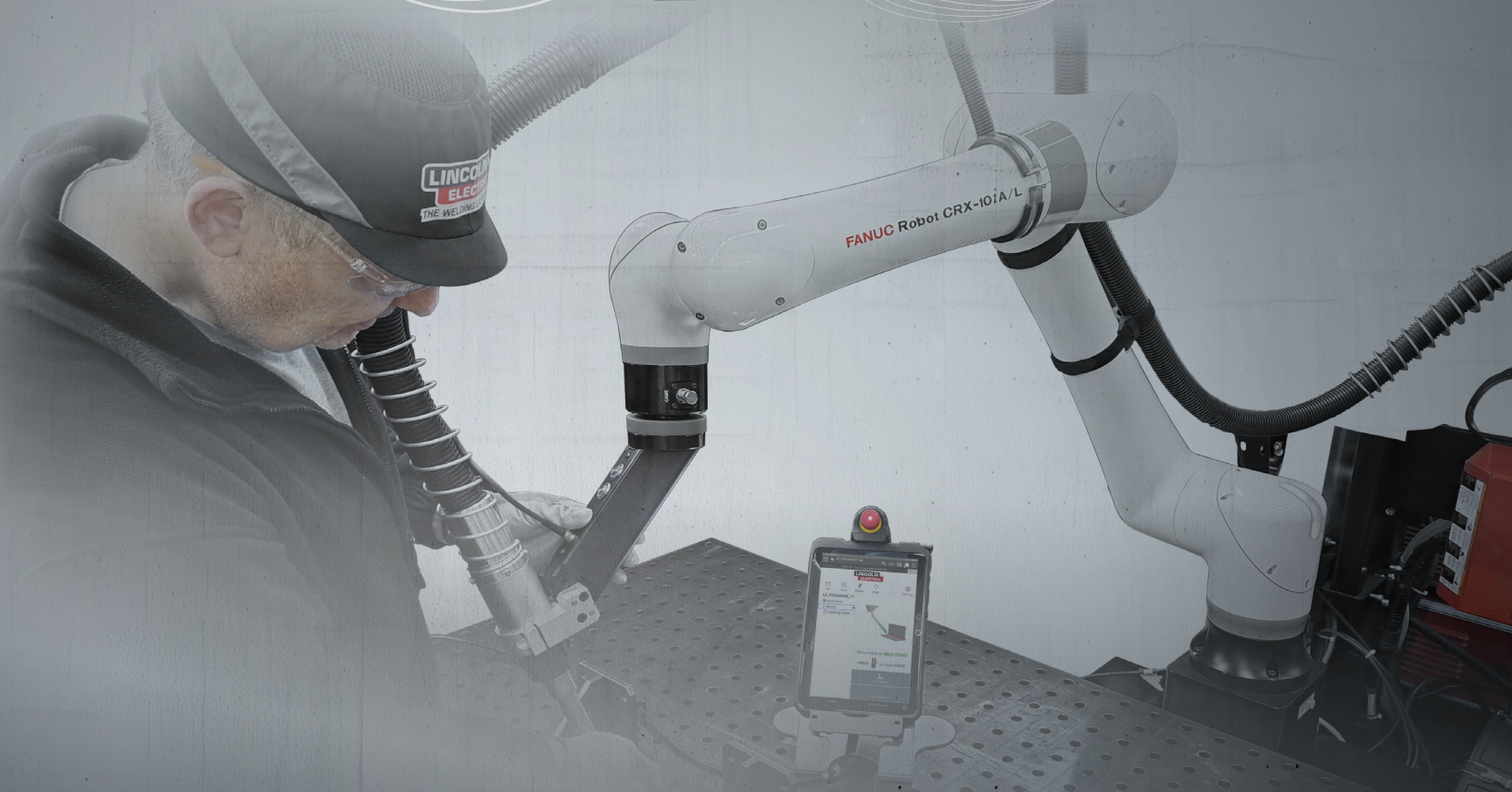
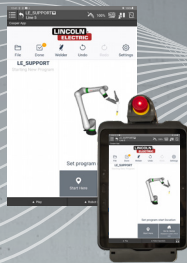
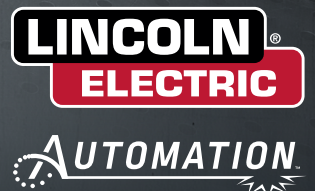


# COOPER COBOT

## INTEGRATOR PACKAGES



**CLICK CLICK WELD**  
Understanding Drives Solutions  
[www.lincolnelectric.eu](http://www.lincolnelectric.eu)



# COOPER COBOT INTEGRATOR PACKAGE

The Cooper® Cobot Integrator Package allows you to customize your solution

## Composition:

- FANUC® CRX® 10iA/L or 25iA
- Cooper™ App
- PowerWave® robotic power source
- Wire drive control cable 3.6m and Spool D300mm 16 kg holder
- Ethernet cable between Cobot and Power Source

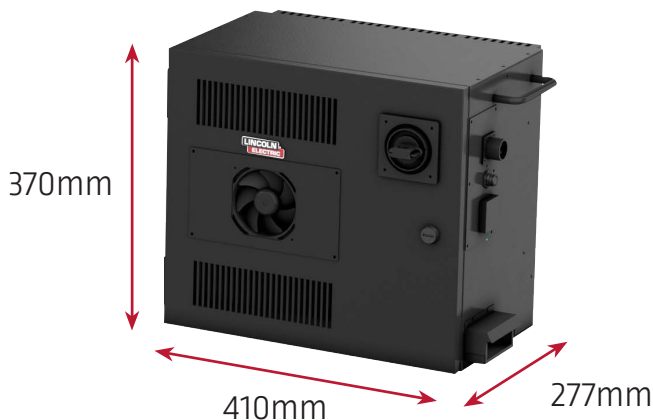
## COLLABORATIVE ROBOT FANUC CRX SERIES

### INDUSTRIAL COLLABORATIVE ROBOT

- Ergonomic design
- 10 kg payload for FANUC CRX 10iA/L and 25 kg payload for 25iA
- 1418 mm reach for FANUC CRX 10iA/L
- 1889 mm reach for CRX 25iA
- Force sensors on each axis
- Through arm cabling I/O
- IP67

### Integrated Safety

**Contact Stop**  
Stop on simple contact



### MAINTENANCE FREE

- Motors, gears, grease
- Cables, sensors

### SAFETY FEATURES REPLACE TRADITIONAL SYSTEM DESIGN

- Smooth surfaces
- Power & force limits
- Speed & separation monitoring
- Soft impact design

### FORCE SENSORS BUILT DIRECTLY INTO THE ROBOT ON EACH AXIS

- Remove the need for traditional sensors and fencing, without reducing safety to operators
- Easy to implement, easy to bring the weld anywhere you need it

### R-30IB MINI PLUS CONTROLLER

- Lightweight controller supports 200-240VAC single phase 50/60 Hz

**EIGHT  
YEARS**

**ZERO  
MAINTENANCE**

\*Battery Replacement every 1-2 years

# THE COOPER APP

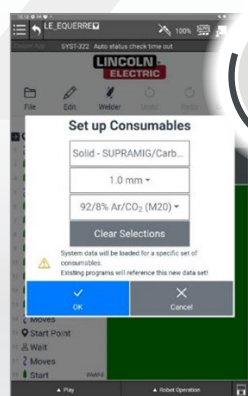
## EASY TO PROGRAM AND OPERATE

- No robotic programming experience required
- Auto air motion recording
- Languages: English, French, Italian, Spanish, German, Polish, Portuguese and more in development
- Integrated welding modes for Power Wave robotic power source

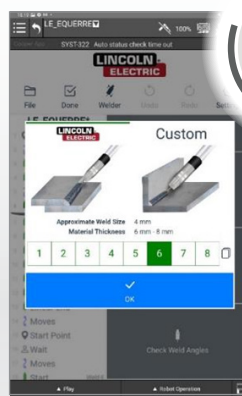
## WELD BY NUMBERS™

Select your consumables, type of wire, diameter, gas mixture and weld size. Start welding.

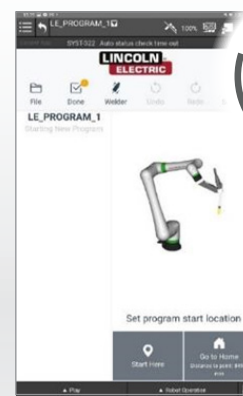
AIR MOTION RECORDING



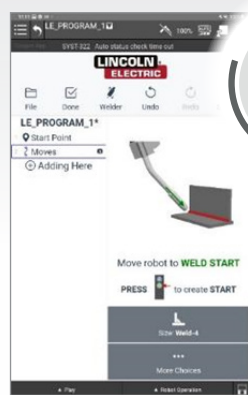
EASY SETUP



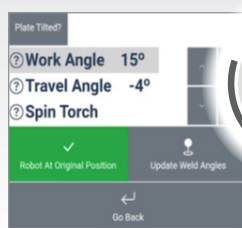
WELD BY NUMBERS



AUTO AIR MOTION RECORDING



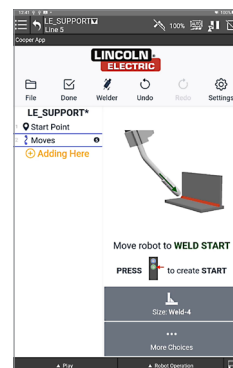
SIMPLIFIED PROGRAMMING



TORCH ANGLE QUICK SET



WELD PATTERNING



## CLICK CLICK WELD with Smart Torch

Smart Torch design provides an ergonomic grip for users to easily move the collaborative robotic arm. The integrated buttons allow users to program from the torch.



# POWER WAVE R450 INSTALLATION

The Power Wave R450 robotic power source is a welding system with the fastest travel speeds, lowest spatter generation, superior gap bridging, & excellent penetration profiles.

Three-phase inverter source for pulsed MIG welding on carbon steels, stainless steels and aluminum, it delivers 450A at 100% [500A at 60% ]

## Principles for welding process control:

- Implement with high performance welding arc thanks to **Waveform Control Technology**
- Verify by monitoring productivity and quality with **CheckPoint** software



Optimize your arc performance to deliver the right process for any application

Beyond conventional CV or Pulsed modes, Power Wave R450 integrates unique process.



INDUSTRY LEADING  
**5-YEAR WARRANTY**

## Power Wave R450

## With Advance module

ALUMINIUM	STEEL & STAINLESS STEEL	<p><b>RapidArc</b><sup>®</sup> Maximizing weld travel speeds</p> <ul style="list-style-type: none"> <li>• Industry's premier waveform for high-speed welding</li> <li>• Increase travel speeds up to 50%</li> <li>• Reduce spatter up to 15%</li> </ul>	<p><b>Rapid X</b><sup>®</sup> High speed, low spatter, low heat input, no trade-offs</p> <ul style="list-style-type: none"> <li>• Revolutionises the productivity of welding</li> <li>• Increase travel speeds up to 40%</li> <li>• Reduce spatter by 30%</li> </ul>
	STEEL	<p><b>Precision Pulse</b><sup>™</sup> Pulse performance for jobs demanding flexibility</p> <ul style="list-style-type: none"> <li>• Improved out of position welds over standard pulse</li> <li>• Enhanced puddle control for improved operator confidence</li> <li>• Controlled heat input</li> <li>• Improves welds in tight joints</li> </ul>	<p><b>AC-STT</b><sup>™</sup> Industry's superior thin gauge solution</p> <ul style="list-style-type: none"> <li>• Proven STT<sup>®</sup> waveform with controlled AC balance</li> <li>• Excellent heat-input control</li> <li>• No burn through, no spatter</li> <li>• Minimal spatter</li> <li>• Excellent gap bridging</li> </ul>
	STEEL & NICKEL	<p><b>Pulse-on-Pulse</b><sup>®</sup> TIG appearance. MIG productivity</p> <ul style="list-style-type: none"> <li>• Excellent heat input control especially on thin materials (less than 7 mm thick)</li> <li>• Eliminates in-line weaving</li> <li>• Improve operator appeal for any skill level</li> <li>• Use when appearance and productivity matter using aluminium</li> </ul>	<p><b>STT</b><sup>®</sup> Industry proven root pass solution</p> <ul style="list-style-type: none"> <li>• Simplify open root welding for any operator skill level</li> <li>• Eliminates common burn-through &amp; lack of fusion issues.</li> <li>• Larger bead, flat face, back bead, excellent fusion</li> </ul>
ALUMINIUM		<p><b>AC Aluminium Pulse</b> Improved Aluminium productivity and quality</p> <ul style="list-style-type: none"> <li>• Increase travel speeds up to 40%</li> <li>• Increase deposition up to 75%</li> <li>• Improves gap bridging capabilities</li> <li>• Decrease burn-through</li> </ul>	<p><b>UltimArc</b><sup>®</sup> Control</p>

**Hyperfill**<sup>®</sup>  
Bigger welds Faster, easier

HyperFill redefines high deposition welding, making larger welds, faster and more easily. The HyperFill twin-wire MIG solution revolutionize the heavy fabrication productivity, pushing the limits of the single wire without changing.





**Increased deposition rates**  
Usable deposition rates increase up to 50% while maintaining process ease-of-use.



# TORCH KIT

## SELECT YOUR TORCH KIT:

- Air-cooled torch LE550A, for steel/stainless steel applications with use below 300A
- Water-cooled torch LE550W, for steel/stainless steel applications for intensive use
- Water-cooled torch LE550W HYPERFILL, for steel/stainless steel applications for intensive use
- Water-cooled torch B500W, for steel/stainless steel/aluminum applications for intensive use
- Fume extraction water-cooled torch FX500W, for steel/stainless steel applications for intensive use

Magnum PRO		W500	FX500
			
Conventional			Fume extraction
300A@100%		500A@100%	
Air Cooled		Water cooled	
Steel / Stainless		Steel / Stainless Aluminium	Steel / Stainless
0.8 - 1.2 mm	HYPERFILL®	0.8 - 1.6 mm	

### AIR-COOLED TORCH LE550A KIT



- Magnum PRO Air-cooled torch LE550A, length 3.3m
- Harness collars
- Smart programming bracket



### WATER-COOLED TORCH LE550W KIT



- Magnum PRO water cooled torch length 3.3m
- Harness torch holder
- Harness collars
- Smart programming bracket



### WATER-COOLED TORCH LE550W HYPERFILL® KIT



- Magnum PRO water cooled torch length 3.3m
- Harness torch holder
- Smart programming bracket
- Gateway pendant and an activation card
- Second Spool D300mm 16 kg holder



### WATER-COOLED TORCH B500W KIT



- Water cooled torch B500W length 3.3m
- Harness torch holder
- Harness collars
- Smart programming bracket



### WATER-COOLED TORCH FX500W KIT



- Fume extraction water cooled torch Linc-Gun FX500W length 3.5m
- Harness torch holder
- Harness collars
- Smart programming bracket



Torch will be delivered with the Smart programming bracket, making the programming faster and easier

Blue button to enable the moves

Green button to

- Indicate the welding points
- Actions validations



# OPTIONAL ADVANCED FUNCTIONS

## THICK PLATE PACKAGES

The optional package THICK PLATE PACKAGE includes advanced functions:  
Touch Sensing + Through Arc Seam Tracking + Multi-Pass.



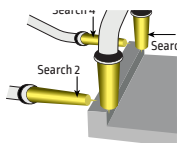
### Touch Sensing\*

Touch Sensing is a detection system for relocating program trajectories.

Touch Sensing works by using the welding wire to make electrical contact with the workpiece.

The robot records position data and then automatically makes adjustments to the entire weld path before the arc begins. Touch Sensing allows registrations in one, two or three dimensions.

Touch Sensing will increase the cycle time due to the execution of the search routines but will ensure the correct position of the wire placement. The additional time generally varies from 3 to 5 seconds per point sought. Additionally, for detection to be most effective, the part must have defined and accurate reference surfaces or edges for the sensor to find.



### Multi-Pass

The Multi-Pass function is used to simplify multi-pass welding sequence programming by recording one trajectory and then a list of welding passes.



The welding passes are staggered in a welding menu, which makes it possible to change the position of the torch and the welding parameters for each pass.



### Through Arc Seam Tracking\*

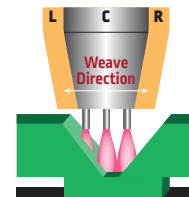
Through Arc Seam Tracking (TAST), is a software for tracking welding joints.

The TAST function uses welding current feedback to determine the vertical position of the torch.

When the distance between the contact tip and the part increases, the current decreases, conversely if the distance between the contact tip and the part decreases, the current increases. TAST corrects variations in the vertical position of the torch in real time to maintain a constant tip/piece distance. Similarly, TAST uses weld current feedback combined with a torch weaving to determine the lateral position of the torch in the weld joint.

In the center of the joint, the welding current is at a minimum. As the torch weaving reaches an edge of the joint, the arc current increases. If the current values of the edges of the joints are not balanced, it is because the torch is moving away from the weld joint, TAST then makes the necessary corrections in order to balance the currents of each edge of the joint to be welded.

TAST allows the correction of imperfect welding joints, the configuration of system variables remains precise and requires a deep understanding of the welding process.



\*Thick Plate Weld required (software package)

### COBOT KIT, COMPOSED OF

- CRX COBOT, FANUC Cabinet and Tablet • Cooper App Software ONLY • Power Wave R450 • Feeder arlink length 3.6m
- Spool D300mm 16kg holder • Ethernet connection

AS-RM-91506600	COOPER COBOT KIT CRX10IA/L PWR450
AS-RM-91506601	COOPER COBOT KIT CRX10IA/L PWR450 S
AS-RM-91506605	COOPER COBOT KIT CRX25IA PWR450
AS-RM-91506606	COOPER COBOT KIT CRX25IA PWR450 S

"S" in designation means "Thick Plate Package" included

### OPTIONS

- Advance Module • Aluminum kits

### TORCH KITS, COMPOSED OF

- Welding torch and collars • Harness Feeder to Power Source
- Smart programming bracket • AutoDrive® wire feeder (4R100 or 4R200 for HYPERFILL) • Coolarc 50 for the water torches
- Additional Spool D300mm 16kg holder for HYPERFILL
- Gateway kit if HYPERFILL

AS-RM-91506610	COOPER COBOT KIT LE550A TORCH
AS-RM-91506670	COOPER COBOT KIT LE550W TORCH
AS-RM-91506690	COOPER COBOT KIT LE550HYP TORCH
AS-RM-91506630	COOPER COBOT KIT B500W TORCH
AS-RM-91506650	COOPER COBOT KIT FX500W TORCH



#### INTEGRATOR'S RESPONSIBILITY

Lincoln Electric supply a set of parts that are CE marked in accordance with applicable European legislation. The Cobot is a partly completed Machine in the sense of Directive 2006/42/EC. Therefore, it is up to the integrator to perform the CE marking after incorporation. It is the integrator's responsibility to carry out the specific risk analysis for the entire machinery where parts will be installed, to compile the technical file, to provide the entire instruction, to apply the CE mark according to the directives and regulations. The packages must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the relevant directives and comply with the laws in force in the country of destination.

#### About Lincoln Electric

Lincoln Electric is the world leader in the engineering, design, and manufacturing of advanced arc welding solutions, automated joining, assembly and cutting systems, plasma and oxy-fuel cutting equipment, and has a leading global position in brazing and soldering alloys. Lincoln is recognized as the Welding Expert™ for its leading materials science, software development, automation engineering, and application expertise, which advance customers' fabrication capabilities to help them build a better world. Headquartered in Cleveland, Ohio, Lincoln has 71 manufacturing locations in 20 countries and a worldwide network of distributors and sales offices serving customers in over 160 countries. For more information about Lincoln Electric and its products and services, visit the Company's website at <https://www.lincolnelectric.com>.

#### CUSTOMER ASSISTANCE POLICY

The business of Lincoln Electric is manufacturing and selling high quality welding equipment, automated welding systems, consumables, cutting equipment and EV charging systems. Our challenge is to meet the needs of our customers, who are experts in their fields, and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or technical information about their use of our products. Our employees respond to inquiries to the best of their ability based on information and specifications 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, or to provide engineering advice in relation to a specific situation or application. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or communications. Moreover, the provision of such information or technical information does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or technical information, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose or any other equivalent or similar warranty is specifically disclaimed.

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