

***i* YOUR TECHNOLOGY COMPANY**



***PROMOTION* CONTROLS**



The Future Of Shape-Cutting Productivity Is Here

J.P. Kinos

*ProMotion Controls
President*

ProMotion Controls is committed to being the "the future of shape-cutting productivity."

Hardware and software solutions that are unmatched in the industry and a mission statement promising increased productivity beyond that of any other shape-cutting control manufacturer today are just the beginning.

Every great company is supported by a great team of specialists. ProMotion Controls is no exception. Our team is unsurpassed in the industry, having over 100 years of combined shape-cutting expertise.

Best Regards,

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The ProMotion Controls Specialist Team "Over 100 Years Of Shape-Cutting Experience"



Todd H. Critoph, VP Sales & Marketing

Todd joined the ProMotion team in summer 2007, bringing over 20 years of experience in machine building. Todd holds multiple degrees in engineering and has worked for various companies, including United Technologies, Gemcore, ATSI, Oden Corporation, and most recently with Koike Aronson for over 9 years.



Markus Lahdensuo, Software Director

Markus has served ProMotion Controls as software team leader for over 10 years. He is a major part of the reason why the iCNC is recognized for world-class software, combining advanced intelligence with Techno-Simplicity™. Prior to joining ProMotion, Markus worked for the Technical University of Tampere, Finland.



Peter Spillekom, European Sales Manager

Peter is responsible for the sale of ProMotion Controls, ProMotion Nest software, iDrives, and associated products for shape-cutting machinery throughout Europe. He has an extensive welding background, holding positions with companies such as Lincoln/Smitweld in the Netherlands, ESAB in Sweden, Hobart Brothers in Troy, Ohio, and Koike Europe.



Tim A. Schultz, Marketing Manager

Tim has led ProMotion Controls marketing communications since the company launched U.S. operations in 2002. With over 20 years experience in the welding market place, Tim has helped numerous welding companies achieve their communication goals, including Burny CMC, Wescan and Western Enterprises.



Randy T. May, Technical Service Specialist

Randy is responsible for the service, repair and support of ProMotion Controls full line of shape cutting control equipment throughout the Americas. He is also responsible for the training and support of ProMotion OEMs. For end users, Randy assists in thermal cutting machine field retrofits, startup and field integration. Randy has an extensive background in industrial machinery.

ProMotion® Shape-Cutting Controls

ProMotion® iCNC®

The ProMotion® iCNC® combines simplicity and advanced intelligence in a PC-based shape-cutting control and plasma-cutting control.

There is an iCNC Control configuration available for thermal cutting with plasma and another iCNC Control configuration for use with shape-cutting machines having both oxy-fuel and plasma flame-cutting capabilities.

Numerous features empower machine operators with shop-floor shape-cutting control:

- Dual microprocessor technology provides true multitasking.
- Direct download from DXF files.
- Easy part program creation and nesting
- Optional Productivity Tools and Automatic Interlocking Nesting.



iCNC for Plasma



iCNC for Oxyfuel & Plasma

ProMotion® HVAC

With Techno-Simplicity™ in software and user interface, the ProMotion HVAC CNC combines affordability, simplicity and advanced intelligence in a PC-based shape-cutting control and plasma-cutting control solution. Specially designed for the HVAC industry, the HVAC CNC is ideal for use with shape-cutting machines for sheet metal and liner cutting.



New LogiTRACE Unfolding Software makes cutting sheet metal for piping and ductwork easy and error-free. The software provides immediate and automatic 3D views of how entered data translates into unfolded parts and final products. Operators are able to input a wide range of order processing information, make changes on-the-fly and easily save processed data into DXF files.

ProMotion® iQ

ProMotion® iQ offers the same capability as our iCNC but without the 15" touch-screen display and front panel switches. We recommend the iQ for customers who prefer creating their own display solutions or for customers who prefer creating their own operator panel with switching. On-Screen Software Switches are also available to reduce hardware costs and streamline design.



ProMotion® Open Frame

The ProMotion® Open Frame is the engine driving the iCNC and iQ. Offered on a single mounting plate, the Open Frame is well suited for OEMs who want to benefit from the ultimate in core technology, but want to design the surrounding technology and control look-and-feel themselves.



ProMotion® Upgrade Kit

An upgrade kit is now available for older ProMotion Controllers originally made with GX1 and 786 front CPU motherboards, including the iCNC, uCNC, uCNC Plus, KarCNC, and KarCNCx .



The Upgrade Kit HS-862 increases both the clock speed of the CPU and the RAM, providing smoother, more reliable Windows® operations. In addition, using the upgraded CPU, you can now take advantage of either our Level1 or Level 2 optional software packages, increasing productivity with these advanced productivity tools:

Level One Productivity Tool Software includes a Bridging Tool, Chain Cutting, Lead-in and Lead-out, a Plate Editor, a Cost Calculator Tool and a Scrap Cutting Tool.

Level Two Software includes everything in Level One plus Automatic Interlocking Software on full sheets, multiple sheets, plate remnants and round plate. Also includes Group Nesting and the ability to freeze a part in the nest.

ProMotion® Nest Software

ProMotion Nest Software is available for use with iCNC Shape Cutting Controls, plasma cutting controls and in the office with PCs operating on a Windows-based platform.

Standard advanced features to maximize productivity include a Macro Shape Library for easy shape creation. ProMotion Nest reads both DXF drawings and ESSI/EIA coded programs, eliminating the need for operators to redraw shapes created by CAD. The point-and-click software also simplifies other operator capabilities, including the pierce point setting, cutting directions, cutting order, chain cutting, copying, mirroring, moving and more.



You can also order ProMotion Nest Software with your choice of various Productivity Tools to maximize shape-cutting productivity even more. That includes a cost-saving Cost Calculator, an Interlocking Shapes and Parts Bridging capability, and an Expanded Lead In/Lead-Out capability:

- Cost Calculator provides better steel plate utilization with better quoting and job estimation, more effective material management and procurement.
- An Interlocking Shapes and Parts Bridging module reduces consumable costs by enabling operators to cut multiple parts in a nested plate with one pierce.
- Other advanced options include a remnant plate stock management database, automatic torch spacing, multi-torch nesting, and microCAD and feedrate.
- Ask a ProMotion Controls application specialist how you can "Build Your Own ProMotion Nest Software" to customize your own installation.

Also, check out our complete suite of ProMotion Nest Software solutions, including new 3D HVAC LogiTRACE Unfolding Software and our new ProMotion® iHC™ Plasma Torch Height Control System Software.

ProMotion® iDrives

ProMotion Controls, in co-operation with Kollmorgen Servotronics and Koike Aronson, has developed a high-performance new digital AC Drive Amplifier System for shape-cutting machinery. New ProMotion AC iDrives are reliable, affordable and offer a wide dynamic speed range with full digital repeatability. They are the first AC Drives designed to work with a variety of motors, a wide range of motor sizes, and from small to large machines, providing up to a 2 kW power output.



ProMotion AC iDrives are available in two or three-axis configurations and fit easily inside any ProMotion iCNC, providing built-in performance-matched design savings.

- Smooth and precise motion control: Reliable. Affordable.
- The first AC Drives in the industry designed to accommodate a wide range of small to large motors, and for the smallest to the largest shape-cutting machines!

ProMotion® iHC™

By automatically maintaining a consistent and set distance between the torch tip and plate, the ProMotion® iHC™ Plasma Torch Height Control System improves quality and productivity while reducing costs.



Plasma Torch Height Control System

The first fully-integrated system for plasma, including torch height control software and lifter motor amplifiers inside the ProMotion® iCNC®, the iHC System provides built-in cost savings. It is designed to accommodate up to 2 plasma lifters exceptionally fast and with accuracy:

- Automatically measures arc voltage in 0.02V increments
- Once set, an automatic system empowers the operator to perform other duties, saving time while increasing productivity.
- With arc cutting stability much better than 1V, cut quality is precise and accurate.

DE 1 E2 C001 PA4 S2

Controller type:

This identifies the type of controller
 DE = ProMotion iCNC/DUO 15" Touch Screen/Cooler
 DB = ProMotion iQ Controllers
 DC = Open Frame ProMotion Controllers
 UE = Koike 15" Touch Screen/Cooler

Power voltage:

1 = 100/115 VAC
 2 = 230 VAC

Drive arrangement:

First digit specifies the amplifier.
 E = No built in drives (uses external drives out J5)
 A = Built in AMC 70V/400W PWM DC Servo Amplifiers
 B = Built in AMC 30V/180W PWM DC Servo Amplifiers
 C = Built in AMC 20V/120W PWM DC Servo Amplifiers
 Z = Built in 1 kW Digital AC OFDL Servo Amplifiers
 Second digit specifies the number of axis
 2 = Two axis system
 3 = Three axis system

I/O configuration and switches:

C000 = Connector Card (J1, J2, J3, J4 and J5) only.
 C001 = Connector Card and additional Small Relay Card (J10), no switches.
 C002 = Connector Card with Large Relay Card and switches for 6 stations (J9)
 C003 = Single Plasma configuration w. 4 op-con switches.
 C004 = 4 Oxy, 2 Plasma, marker, ignitor, water spray and station selects.
 C005 = Same as C004 but for 24V outputs instead of 115/230 VAC
 C006 = 8 Oxy or 7 Oxy + 1 Plasma, marker, ignitor and station selects.
 C007 = 8 Oxy or 7 Oxy + 1 Plasma, marker, ignitor, station selects and torch spacing.

Processors used in the controller:

PA = stands for background CPU, different power connector and setup (HS862)

Last digit is:




A = GX1 comparable processor (not software upgradeable)
 B = Faster processor (not software upgradeable)
 4 = 1.3GHz Windows processor (software upgradeable)

Software installed when shipped from the factory:


SO = The simplest version available
 S1 = Software with the Productivity Tools
 S2 = Software with Productivity Tools and Automatic Interlocking Nesting

iCNC® Controls I/O Configuration *	Part No.	List Price
ProMotion® iCNC® With Connector and 8-relay card for: IHS, Low & High Preheat, Cutting Oxygen, Plasma On, Ignition, Marker, Cooler 	DE1E2C001 PA4SO	**
ProMotion® iCNC® Single Plasma With Single Plasma Integrated Operator Console, Cooler 	DE1E2C003 PA4SO DE1Z2C003 PA4SO DE1Z3C003 PA4SO	** ** **
ProMotion® iCNC® 4/2 With Multi Process Integrated Operator Console, 4 Oxyfuel Station Selects, 2 Plasma Station Selects, 1 Marker, Ignitor, Water Spray, Cooler 	DE1E2C004 PA4SO DE1Z2C004 PA4SO DE1Z3C004 PA4SO	** ** **
ProMotion® iCNC® 6 With Configurable Multi Process Integrated Operator Console 6 Torch Station Selects and Relay Card Assembly, Cooler 	DE1E2C002 PA4SO	**
ProMotion® iCNC® 8 With Configurable Multi Process Integrated Operator Console, 8 Oxy or 7 Oxy + 1 Plasma, Marker, Ignitor, Station Selects, Cooler 	DE1E2C005 PA4SO	**
ProMotion® iCNC® 8A With Configurable Multi Process Integrated Operator Console, 8 Oxy or 7 Oxy + 1 Plasma, Marker, Ignitor, Station Selects w/Torch Spacing, Cooler 	DE1E2C006 PA4SO	**





*Connector Kits Available – See Page 10

iCNC® Option Description *	Part No.	List Price
Pull Out Keyboard with Mouse House 	DAAMH101USKB	**
ProMotion® iQ Single Plasma configured with I/O C003 set up 	DB1E2C001...	**
ProMotion® Open Frame Low voltage I/O C000 set up with J1, J2, J4 and J5 	DC1E2C001...	**

*Connector Kits Available – See Page 10

iCNC® UPGRADE KIT	Part No.	List Price
ProMotion® CPU Upgrade Kit 	ROM4060	**
ProMotion® CPU Software Upgrade Kit	CPU, Software	**

**Consult ProMotion Controls for the most current pricing.

iCNC® Software Option Descriptions	Part No.	List Price
ProMotion® Productivity Tool Software Level 1- Ordered with CNC Includes: Bridging Tool, Chain Cutting, Expanded lead in - lead out modifying tool, Plate editor, Scrap Cutting Tool, Cost Calculator Module Ordered Separate	 PA4S1 UA-S1	 ** **
ProMotion® Automatic Nesting Software Level 2 - Ordered with CNC Includes: Automatic Interlocking Nesting on single and multiple sheets, remnant nesting, nesting on round plates, parts inside part nesting, freeze part during nest, group nesting, automatic fill remaining plate feature Ordered Separate (Includes Level 1)	 PA4S2 UA-S2	 ** **

Drive Configuration Descriptions	Part No.	List Price
2-Axis External Drives - Connection only (no drives)	E2	No Charge
3-Axis External Drives - Connection only Synchronization Software/Hardware (no drives)	E3	**
2-Axis - Internal 400 Watts PWMAMC DC Drives	A2	**
3- Axis Internal 400 Watts PWM AMC DC Drives with Synch. Software and Hardware	A3	**
2-Axis - Internal 1KW Kollmorgan AC Drives	Z2	**
3- Axis Internal 1KW Kollmorgan AC Drives with Synchronization Software and Hardware	Z3	**



Connector Kit Descriptions*	Part No.	List Price
C000 Connector (1x37pin, 1x24pin, both female)	CO-C000	**
C001 Connector (1x37pin, 2x24pin, all female)	CO-C001	**
C002 Connector (2x37pin, 1x24pin, all female)	CO-C002	**
C003 Connector (1x37pin, 1x9pin, both male connectors)	CO-C003	**
C004 Connector (6x37pin, 2x9pin, 1x14pin, all male)	CO-C004	**
C005/6 Connector (8x37pin, 1x9pin, 1x14pin, all male)	CO-C005	**
Station I/O Connector / 37 pins / clamp (single male connector)	CO-37	**
Limit/Marker Connector / 9 pins / clamp (single male connector)	CO-9	**
Gas Solenoid Connector / 14 pins / clamp (single male connector)	CO-14	**

*No encoder or motor cable connectors

Integrated Plasma Torch Height Control* Part No.	List Price
Integrated Plasma Torch Height Control Board with 1 AC Amplifier	To Come **
Motor/Cable Set (one set required for each amplifier)	To Come **
Additional AC Amplifier (installed with above THC Control Board)	To Come **
Voltage Divider	To Come **
Torch Lifter	To Come **



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Motor/Gearbox/Cables*/Connector Kits	Part No.	List Price
DC Motor SEM MT22R2-19-B5 with Motor Mounted Encoder	SEMMT22R2	**
AC Motor AKM43KBKCNR-00 with Mounted Resolver	AKM43K-xx	**
AC Motor AKM41HBKCNR-00 with Mounted Resolver	AKM41H-xx	**
Planetary Gearbox 10:1 NTP34-010-0-RM09307 for AC Motors	NTP34-010-307	**
Planetary Gearbox 25:1 NTP34-025-0-RM09307 for AC Motors	NTP34-025-307	**
Planetary Gearbox 10:1 NTP34-010-0-RM09028 for SEM Motors (DC)	NTP34-010-028	**
Planetary Gearbox 25:1 NTP34-025-0-RM09028 for SEM Motors (DC)	NTP34-025-028	**
Other Ratios Available On Request		
Armature-Tach-Encoder cables (for DC motor) xx=length in M (05,08,10,15 to 18)	CO-A2NORO1-xx	**
Motor power cable to AKM43K (for AC motor) 10 foot	4340-xx-1200	**
Motor power cable to AKM43K (for AC motor) 30 foot	4340-xx-3600	**
Motor power cable to AKM43K (for AC motor) 50 foot	4340-xx-6000	**
Resolver cable to AKM43K (for AC Motor) 10 foot	3341-xx-1200	**
Resolver cable to AKM43K (for AC Motor) 30 foot	3341-xx-3600	**
Resolver cable to AKM43K (for AC Motor) 50 foot	3341-xx-6000	**

*Cables available in 5 foot lengths. Consult factory for pricing.

iCNC® Software Module Options*	Part No.	List Price
Feed Rate Module	UA-SFEED	**
Advanced Marking w/Text Generator Software Module	UA-SMARK	**
EIA/ESSI Code Generator Module	UA-SE1A	**
Multi-torch Nesting Software Module	UA-SMTORCH	**
Remnant Plate Database Software Module	UA-SPLATE	**
DSTV Input Module	UA-SDSTV	**
Productivity Tool Software Level 1	UA-S1	**
Automatic Nesting Level 2	UA-S2	**

*Ordered with iCNC or at a later date

Off-Line Office Software & Modules	Part No.	List Price
Standard Software Package with AutoNest & EIA out	PMBUNDLE	**
Automatic Nesting Module	PMAUTONEST	**
Micro Cad Software Module	PMMICRO	**
Kerf Offset Module	PMKERF	**
Feed Rate Module	PMSPEED	**
Advanced Marking w/ Text Software Module	PMADVMARK	**
Cost Calculator Software	PMCOST	**
Multi-torch Nesting Software Module	PMMULTITORCH	**
Remnant Plate Database	PMREMNANT	**
DSTV Input Module	PMSDSTV	**
2nd Dongle 60% less of the total of first license	2NDSEATDONGLE	**
1 Yr. Software Maintenance Agreement	PMSOFTWAREMA	**

**Consult ProMotion Controls for the most current pricing.

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