



MULTI-PROCESS

PRO-PLUS® 400MST
PRO-PLUS® 400MSTW



PROCESS	MIG	FLUX CORED	STICK	LIFT TIG	SCRATCH TIG	CAG
Part Number	Rated Output @ Duty Cycle		Output Range		Dimensions (H x W x D)	Net Weight
10-3054 (208-230 / 460V, 1/3 ph, 50/60 Hz)	400 MST	400 A / 36 V @ 25%, 3 ph 300 A / 32 V @ 60%, 3 ph 280 A / 31 V @ 25%, 1 ph	5 - 400 Amps, 3 ph 5 - 280 Amps, 1 ph		16.9" x 8.3" x 16.5" 430 x 210 x 420 (mm)	60.8 lbs. (27.6 kg)
10-3055 (208-230 / 400 / 460 / 575V, 1/3 ph, 50/60 Hz)	400 MSTW	210 A / 28 V @ 60%, 1 ph				64.2 lbs. (29.2 kg)

The Pro-Plus® 400MST and 400MSTW are designed to withstand the rigors in today's portable industrial welding machine environment. Built small, lightweight and tough, the Pro-Plus® only exposes to the elements a single dial weld output control and process selection button, for the ultimate operator user-friendly condition. All other controls, covered and protected by an easy access door, may be reached when needed.

Welding with MIG & Flux Cored wires, Stick, Lift & Scratch TIG and Carbon Arc Gouging is easy, just select the welding process through the process key. Programmable controls allow for the maximum flexibility, featuring local or remote control of the contractor and amps or volts. Inductance control and material selection on MIG. Hot start, hot current and arc control on Stick. Pulsation controls and slope controls on Lift or Scratch TIG. Five welding programs can be saved for your toughest applications.

With the Smart Logic® Technology, the proper input voltage requirement can be matched with just the flip of a switch, no tools required and will prevent damage if the machine is accidentally installed to the improper voltage. The world voltage Pro-Plus® 400MSTW accepts any power configuration, 208/230/400/460/575V, 1/3 Phase, 50/60 Hz. With the energy efficient Pro-Plus® you will always have the right machine for the job.

Machine Specifications

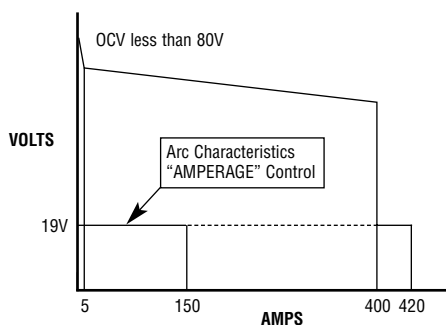
Output Range	5-400 Amps, 1 or 3 Phase (CC) 10-36 Volts, 1 or 3 Phase (CV)
Maximum OCV	80 V for 230 / 460 V
Input Frequency	50 / 60 Hz
Approvals	UL, CENELEC EN50199 EMC, IEC 974-1

GOT POWER™

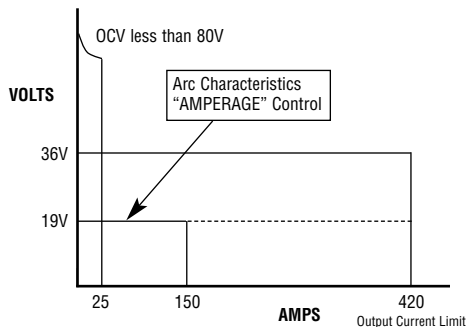
Features	Benefits
Multi-Process	You always have the right machine for your welding application
World-Wide Voltage	Accepts any power configuration in the world, not tools required changing input voltage
Smart Logic®	Eliminates damage if the machine is accidentally installed to the improper voltage
Programmable	Ability to program your toughest welding applications and save five distinct programs
Durable	Control dials protected and meet IP23S water test, able to withstand the toughest outdoor requirements
Portable	Easy to carry, less than 65 lbs.
Powerful	5-400 DC Amps , enough power for virtually all your applications
Inverter	Digital control design insures maximum energy efficiency, saving you electric costs

	Duty Cycle	Output Amp	Output Voltage	No. Phase	Input Voltage (VAC)							kVA	kW
					208 Input Amps	230 Input Amps	380 Input Amps	400 Input Amps	415 Input Amps	460 Input Amps	575 Input Amps		
Max Output	25%	400	36	3	61	55	33	32	30	27	22	22.6	16.9
	60%	300	32	3	40	37	32	21	20	18	15	15.1	11.3
No Load				3	1.4	1.3	0.8	0.7	0.7	0.6	0.5	0.5	0.3
Max Output	25%	280	31	1	68	65	-	-	-	-	-	-	-
	60%	210	28	1	51	48	-	-	-	-	-	-	-
No Load				1	1.6	1.5	-	-	-	-	-	-	-

Volt-Ampere Curves



CC Volt-Ampere Curve



CV Volt-Ampere Curve

Control Panels

Front Panel

- Amperage/Voltage Control** – The amperage / voltage control selects the desired amperage or open circuit voltage within the entire range of the welding power source. Rotating this control in a clockwise direction increases the amperage or voltage output.
- Amperage LED** – During welding, it indicates welding Amperage, otherwise, the set current.
- Voltage LED** – During welding, it indicates welding voltage, otherwise, the set voltage.
- Welding mode LED** – Indicates the current welding mode. The modes vary by pressing the "PROCESS" key.
- Process Key** – Can change the welding mode. Every time you press the button, the mode changes in the following order... STICK - LIFT TIG - HF TIG - SCRATCH - MIG.
- Save Key** – Used to store the welding parameter into the internal memory of the welding machine.
- Load Key** – Used to recall prior 'saved' welding parameter from the internal memory of the welding machine.
- UP/DOWN Keys** – Use these buttons to change the setting of each parameter.
- Select Key** – Use when you change the selection of the parameter. Ever time you press the button, the possible parameter is shown on "LCD Display."

- LCD Display** – Displays the parameter during the welding parameter setting. Also, if there is a failure, the error is indicated on the display.
- Positive Terminal** – 50mm DIN-Style female receptacle.
- Negative Terminal** – 50mm DIN-Style female receptacle
- 14-Pin Receptacle** – Used for remote contactor, amperage controls and wire feeder controls.

Rear Panel

- 24V Circuit Breaker** – Push to reset. Controls 24V power source for wire feeders controlled through 14-Pin receptacle.
- 115V Circuit Breaker** – Push to reset. Controls 115V power source for wire feeders controlled through 14-Pin receptacle.
- Primary Power Switch** – Placing the Primary Power Switch (circuit breaker) located on the rear panel to the ON position energizes the welding power source.
- Voltage Selector** – Manual slide switch selects the proper input voltage range. If this slide switch is not set to the position that matches the input voltage from the electrical source, the Smart Logic will inhibit welding power source turn on and the corresponding warning message will be displayed.
- Input Cable** – 10 feet



Ordering Information

	Part No.
Pro-Plus® 400MST 208-230 / 460 VAC – 1/3 Phase, 50/60 Hz	10-3054

Pro-Plus® 400MSTW 208-230 / 400 / 460 / 575 VAC – 1/3 Phase, 50/60 Hz	10-3055
---	---------

ACCESSORIES

TIG KIT ARCAIR® TIG TORCH w/ valve, accessory kit, 10 ft. gas hose VICTOR® regulator, 12 ft. work cable w/ ground clamp and attached dinse connectors	10-4080
--	---------

STICK KIT (Dinse Kit, part #205785-001 also required) Two 30 ft. #2 cable w/electrode holder, ground clamp and lugs (200-250 amps)	410877-001
Two 30 ft. 1/0 cable w/electrode holder, ground clamp and lugs (300 amps)	410877-002

HAND PENDANT 25 ft. (7.6m) 14 pin (male) to 14 pin (female)	10-2005
---	---------

FOOT CONTROL 15 ft. (4.6m) 14 pin (male) to 14 pin (female)	10-2008
25 ft. (7.6m) 14 pin (male) to 14 pin (female)	10-2007

	Part No.
DINSE KIT 50mm - two males	205785-001
DINSE CONNECTOR 50mm - Male for additional torches and leads	10-2020
DINSE TIG BLOCK Air cooled (#26 style) 7/8-14 R.H.	10-2023
Air cooled (#17 style) 3/8-24 R.H.	10-2028
Water cooled (#18 style) 7/8-14 L.H.	10-2027
TORCH SWITCH 25 ft. (7.6m) 14 pin (male) - torch mounted	10-2001
25 ft. (7.6m) 14 pin (male) - adapts to 5/8" – 7/8" (16mm - 22mm) torch handles	10-2002
25 ft. (7.6m) 14 pin (male) - adapts to 7/8" – 1-1/8" (22mm - 29mm) torch handles	10-2003
25 ft. (7.6m) 14 pin (male) - adapts to 1-1/8" – 1-3/8" (29mm - 35mm) torch handles	10-2004
EXTENSION CABLE 3 ft. (90cm) 14 pin (male) to 14 pin (female)	10-2030
15 ft. (4.6m) 14 pin (male) to 14 pin (female)	10-2031
25 ft. (7.6m) 14 pin (male) to 14 pin (female)	10-2032
50 ft. (15.2m) 14 pin (male) to 14 pin (female)	10-2033
75 ft. (22.8m) 14 pin (male) to 14 pin (female)	10-2034
100 ft. (30.4m) 14 pin (male) to 14 pin (female)	10-2035
Running Gear	10-4035

WORLD HEADQUARTERS: Suite 300, 16052 Swingley Ridge Road • St. Louis, MO 63017 • 636-728-3000



2200 Corporate Drive • Troy, OH 45373
CUSTOMER SERVICE: 800-255-5846 • FAX 800-332-0946



International Customer Service
Oakville, Ontario, Canada
Ph: (1) 905-827-9777
Fax: (1) 905-827-9797

Thermadyne Canada
Oakville, Ontario Canada
Ph: (1) 905-827-1111
Fax: (1) 905-827-3648

Thermadyne UK
Chorley, England
Ph: (44) 1257-261755
Fax: (44) 1257-224800

Thermadyne Asia Sdn. Bhd.
Kuala Lumpur, Malaysia
Ph: (603) 6092-2988
Fax: (603) 6092-1085

Cigweld Australia
Melbourne, Australia
Ph: (61) 3-9474-7400
Fax: (61) 3-9474-7510

Unique Welding Alloys
Johannesburg, South Africa
Ph: (27) 11-917-3600
Fax: (27) 11-917-8580

Thermadyne Victor Brasil
Rio de Janeiro, Brazil
Ph: (55) 21-2-485-8990
Fax: (55) 21-2-485-8735

Thermadyne Middle East
Dubai, United Arab Emirates
Ph: (971) 4-332-9060
Fax: (971) 4-332-5484

Thermadyne de Mexico
Mexico City, Mexico
Ph: (52) 55-5657-9494
Fax: (52) 55-5648-8805

Thermadyne Japan
Osaka, Japan
Ph: (81) 6-4809-8411
Fax: (81) 6-4809-8412

Thermadyne Italia
Milan, Italy
Ph: (39) 039-204-991
Fax: (39) 039-204-9922

Thermadyne Chile
Santiago, Chile
Ph: (56) 2-557-2465
Fax: (56) 2-557-5349