



Power Wave 455M

Weld Set Reference: Z073101i

Steel			Stainless			Aluminum 4043			Aluminum 5356		
Procedure	Gas Type	Mode	Procedure	Gas Type	Mode	Procedure	Gas Type	Mode	Procedure	Gas Type	Mode
.030 Wire Size			.030 Wire Size			.035 Wire Size			.035 Wire Size		
CV	CO ₂	93	CV	Argon Mix	61	CV	Argon	148	CV	Argon	151
CV	Argon Mix	94	CV	He Ar CO ₂	63	Pulse	Argon	149	Pulse	Argon	152
Pulse	Argon Mix	95	Pulse	He Ar CO ₂	64	Pulse on Pulse	Argon	98	Pulse on Pulse	Argon	101
			Pulse	Argon CO ₂	66	3/64 Wire Size			3/64 Wire Size		
			Pulse	Argon O ₂	62	CV	Argon	71	CV	Argon	75
.035 Wire Size			.035 Wire Size			Pulse	Argon	72	Pulse	Argon	76
CV	CO ₂	10	CV	Argon Mix	31	Pulse on Pulse	Argon	99	Pulse on Pulse	Argon	102
CV	Argon Mix	11	CV	He Ar CO ₂	33	1/16 Wire Size			1/16 Wire Size		
Pulse Crisp	Argon Mix	12	Pulse	He Ar CO ₂	34	CV	Argon	73	CV	Argon	77
Pulse Soft	Argon Mix	14	Pulse	Argon CO ₂	36	Pulse	Argon	74	Pulse	Argon	78
Pulse RapidArc	Argon CO ₂	13	Pulse	Argon O ₂	32	Pulse on Pulse	Argon	100	Pulse on Pulse	Argon	103
.045 Wire Size			.045 Wire Size			Flux Core			Silicon Bronze		
CV	CO ₂	20	CV	Argon Mix	41	.045 Wire Size			.035 Wire Size		
CV	Argon Mix	21	CV	He Ar CO ₂	43	CV	CO ₂	90	Pulse	Argon	192
Pulse Crisp	Argon Mix	22	Pulse	He Ar CO ₂	44	CV	Argon CO ₂	91	Nickel Alloy		
Pulse Soft	Argon Mix	19	Pulse	Argon CO ₂	46	Metal Core			.035 Wire Size		
Pulse RapidArc	Argon CO ₂	18	Pulse	Argon O ₂	42	.045 Wire Size			.045 Wire Size		
.052 Wire Size			General			CV	Argon CO ₂	81	Pulse	Ar He	170
CV	CO ₂	24	Stick/Tig/Gouge			Pulse	Argon CO ₂	82	.045 Wire Size		
CV	Argon Mix	25	Stick Soft		1	Pulse RapidArc	Argon CO ₂	87	Pulse	Ar He	175
Pulse Crisp	Argon Mix	26	Stick Crisp		2	.052 Wire Size					
Pulse Soft	Argon Mix	28	Touch Start TIG	Argon	3	CV	Argon CO ₂	83			
Pulse RapidArc	Argon CO ₂	27	Gouging		9	Pulse	Argon CO ₂	84			
1/16 Wire Size			Wire Welding (Non Synergic)			Pulse RapidArc	Argon CO ₂	88			
CV	Argon Mix	107	CV MIG		5	1/16 Wire Size					
Pulse	Argon Mix	108	FCAW-SS	Self Shielded	6	CV	Argon CO ₂	85			
			Power mode		40	Pulse	Argon CO ₂	86			
						Pulse RapidArc	Argon CO ₂	89			



Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	WFS/Amps	Volts/Trim	ArcControl
1	SMAW	Stick Soft				5 ~ 570 A		Arc Force
2	SMAW	Stick Crisp				5 ~ 570 A		Arc Force
3	GTAW	Touch Start TIG			Argon	5 ~ 570 A		n/a
5	GMAW	CV MIG (Non Syn)				50 ~ 1200 ipm	10.0 ~ 45.0 V	Pinch
6	FCAW-S	FCAW-SS (Non Syn)			Self Shielded	50 ~ 1200 ipm	10.0 ~ 45.0 V	Pinch
9	GOUGING	Gouging				60 ~ 570 A		Arc Force
10	GMAW	CV	0.035	Steel	CO2	50 ~ 1200 ipm	7.0 ~ 55.5 V	Pinch
11	GMAW	CV	0.035	Steel	Argon Blends	50 ~ 1200 ipm	7.0 ~ 55.5 V	Pinch
12	GMAW-P	Pulse - Crisp	0.035	Steel	Argon Blends	50 ~ 1200 ipm	0.50 ~ 1.50	Wave Control
13	GMAW-P	Pulse - RapidArc	0.035	Steel	Argon CO2	100 ~ 800 ipm	0.50 ~ 1.50	Wave Control
14	GMAW-P	Pulse - Soft	0.035	Steel	Argon Blends	50 ~ 1200 ipm	0.50 ~ 1.50	Wave Control
18	GMAW-P	Pulse - RapidArc	0.045	Steel	Argon CO2	100 ~ 600 ipm	0.50 ~ 1.50	Wave Control
19	GMAW-P	Pulse - Soft	0.045	Steel	Argon Blends	50 ~ 800 ipm	0.50 ~ 1.50	Wave Control
20	GMAW	CV	0.045	Steel	CO2	75 ~ 800 ipm	8.3 ~ 58.5 V	Pinch
21	GMAW	CV	0.045	Steel	Argon Blends	50 ~ 1200 ipm	7.0 ~ 58.5 V	Pinch
22	GMAW-P	Pulse - Crisp	0.045	Steel	Argon Blends	50 ~ 1200 ipm	0.50 ~ 1.50	Wave Control
24	GMAW	CV	0.052	Steel	CO2	50 ~ 600 ipm	8.5 ~ 55.5 V	Pinch
25	GMAW	CV	0.052	Steel	Argon Blends	50 ~ 600 ipm	7.0 ~ 51.0 V	Pinch
26	GMAW-P	Pulse - Crisp	0.052	Steel	Argon Blends	50 ~ 700 ipm	0.50 ~ 1.50	Wave Control
27	GMAW-P	Pulse - RapidArc	0.052	Steel	Argon CO2	100 ~ 550 ipm	0.50 ~ 1.50	Wave Control
28	GMAW-P	Pulse - Soft	0.052	Steel	Argon Blends	50 ~ 700 ipm	0.50 ~ 1.50	Wave Control
31	GMAW	CV	0.035	Stainless	Argon Blends	75 ~ 800 ipm	6.8 ~ 46.5 V	Pinch
32	GMAW-P	Pulse	0.035	Stainless	Argon Oxy	65 ~ 770 ipm	0.50 ~ 1.50	Wave Control
33	GMAW	CV	0.035	Stainless	He Ar CO2	75 ~ 800 ipm	9.0 ~ 57.0 V	Pinch
34	GMAW-P	Pulse	0.035	Stainless	He Ar CO2	75 ~ 770 ipm	0.50 ~ 1.50	Wave Control
36	GMAW-P	Pulse	0.035	Stainless	Argon CO2	65 ~ 770 ipm	0.50 ~ 1.50	Wave Control
40	GMAW	Power Mode (Non Syn)				0.1 ~ 15.0 kW		Pinch
41	GMAW	CV	0.045	Stainless	Argon Blends	50 ~ 700 ipm	6.8 ~ 46.5 V	Pinch
42	GMAW-P	Pulse	0.045	Stainless	Argon Oxy	50 ~ 600 ipm	0.50 ~ 1.50	Wave Control
43	GMAW	CV	0.045	Stainless	He Ar CO2	50 ~ 700 ipm	8.5 ~ 61.5 V	Pinch
44	GMAW-P	Pulse	0.045	Stainless	He Ar CO2	80 ~ 600 ipm	0.50 ~ 1.50	Wave Control
46	GMAW-P	Pulse	0.045	Stainless	Argon CO2	50 ~ 600 ipm	0.50 ~ 1.50	Wave Control
61	GMAW	CV	0.030	Stainless	Argon Blends	75 ~ 800 ipm	6.5 ~ 40.5 V	Pinch
62	GMAW-P	Pulse	0.030	Stainless	Argon Oxy	90 ~ 770 ipm	0.50 ~ 1.50	Wave Control
63	GMAW	CV	0.030	Stainless	He Ar CO2	75 ~ 800 ipm	9.0 ~ 55.5 V	Pinch
64	GMAW-P	Pulse	0.030	Stainless	He Ar CO2	100 ~ 770 ipm	0.50 ~ 1.50	Wave Control
66	GMAW-P	Pulse	0.030	Stainless	Argon CO2	80 ~ 770 ipm	0.50 ~ 1.50	Wave Control
71	GMAW	CV	3/64	Aluminum 4043	Argon	125 ~ 750 ipm	6.5 ~ 49.5 V	Pinch
72	GMAW-P	Pulse	3/64	Aluminum 4043	Argon	85 ~ 700 ipm	0.50 ~ 1.50	Wave Control
73	GMAW	CV	1/16	Aluminum 4043	Argon	75 ~ 500 ipm	6.5 ~ 45.0 V	Pinch
74	GMAW-P	Pulse	1/16	Aluminum 4043	Argon	60 ~ 350 ipm	0.50 ~ 1.50	Wave Control
75	GMAW	CV	3/64	Aluminum 5356	Argon	125 ~ 750 ipm	6.3 ~ 45.0 V	Pinch
76	GMAW-P	Pulse	3/64	Aluminum 5356	Argon	85 ~ 700 ipm	0.50 ~ 1.50	Wave Control
77	GMAW	CV	1/16	Aluminum 5356	Argon	135 ~ 500 ipm	6.5 ~ 51.0 V	Pinch
78	GMAW-P	Pulse	1/16	Aluminum 5356	Argon	75 ~ 500 ipm	0.50 ~ 1.50	Wave Control
81	GMAW	CV	0.045	Metal Core	Argon CO2	100 ~ 650 ipm	7.3 ~ 52.5 V	Pinch
82	GMAW-P	Pulse	0.045	Metal Core	Argon CO2	50 ~ 650 ipm	0.50 ~ 1.50	Wave Control
83	GMAW	CV	0.052	Metal Core	Argon CO2	80 ~ 550 ipm	7.0 ~ 51.0 V	Pinch
84	GMAW-P	Pulse	0.052	Metal Core	Argon CO2	50 ~ 600 ipm	0.50 ~ 1.50	Wave Control
85	GMAW	CV	1/16	Metal Core	Argon CO2	70 ~ 450 ipm	7.5 ~ 52.5 V	Pinch
86	GMAW-P	Pulse	1/16	Metal Core	Argon CO2	50 ~ 450 ipm	0.50 ~ 1.50	Wave Control
87	GMAW-P	Pulse - RapidArc	0.045	Metal Core	Argon CO2	100 ~ 600 ipm	0.50 ~ 1.50	Wave Control
88	GMAW-P	Pulse - RapidArc	0.052	Metal Core	Argon CO2	100 ~ 500 ipm	0.50 ~ 1.50	Wave Control
89	GMAW-P	Pulse - RapidArc	1/16	Metal Core	Argon CO2	75 ~ 350 ipm	0.50 ~ 1.50	Wave Control
90	FCAW-GS	CV	0.045	Outershield	CO2	200 ~ 800 ipm	12.5 ~ 55.5 V	Pinch
91	FCAW-GS	CV	0.045	Outershield	Argon CO2	200 ~ 625 ipm	11.5 ~ 45.0 V	Pinch
93	GMAW	CV	0.03	Steel	CO2	90 ~ 770 ipm	8.3 ~ 41.3 V	Pinch
94	GMAW	CV	0.030	Steel	Argon Blends	80 ~ 1200 ipm	7.3 ~ 55.5 V	Pinch
95	GMAW-P	Pulse	0.030	Steel	Argon Blends	65 ~ 1200 ipm	0.50 ~ 1.50	Wave Control
98	GMAW-P	Pulse on Pulse	0.035	Aluminum 4043	Argon	125 ~ 600 ipm	0.50 ~ 1.50	Modulation Freq
99	GMAW-P	Pulse on Pulse	3/64	Aluminum 4043	Argon	85 ~ 400 ipm	0.50 ~ 1.50	Modulation Freq
100	GMAW-P	Pulse on Pulse	1/16	Aluminum 4043	Argon	65 ~ 300 ipm	0.50 ~ 1.50	Modulation Freq
101	GMAW-P	Pulse on Pulse	0.035	Aluminum 5356	Argon	140 ~ 700 ipm	0.50 ~ 1.50	Modulation Freq
102	GMAW-P	Pulse on Pulse	3/64	Aluminum 5356	Argon	85 ~ 550 ipm	0.50 ~ 1.50	Modulation Freq
103	GMAW-P	Pulse on Pulse	1/16	Aluminum 5356	Argon	75 ~ 350 ipm	0.50 ~ 1.50	Modulation Freq
107	GMAW	CV	1/16	Steel	Argon Blends	50 ~ 400 ipm	7.5 ~ 51.0 V	Pinch
108	GMAW-P	Pulse - Crisp	1/16	Steel	Argon Blends	50 ~ 400 ipm	0.50 ~ 1.50	Wave Control
148	GMAW	CV	0.035	Aluminum 4043	Argon	150 ~ 750 ipm	6.5 ~ 42.0 V	Pinch
149	GMAW-P	Pulse	0.035	Aluminum 4043	Argon	125 ~ 700 ipm	0.50 ~ 1.50	Wave Control
151	GMAW	CV	0.035	Aluminum 5356	Argon	175 ~ 750 ipm	6.0 ~ 37.5 V	Pinch
152	GMAW-P	Pulse	0.035	Aluminum 5356	Argon	140 ~ 700 ipm	0.50 ~ 1.50	Wave Control
170	GMAW-P	Pulse - Non Adaptive	0.035	Ni Alloy	Argon Helium	80 ~ 700 ipm	0.50 ~ 1.50	Wave Control
175	GMAW-P	Pulse - Non Adaptive	0.045	Ni Alloy	Argon Helium	75 ~ 550 ipm	0.50 ~ 1.50	Wave Control
192	GMAW-P	Pulse	0.035	Si Bronze	Argon	80 ~ 700 ipm	0.50 ~ 1.50	Wave Control

N.A., N.B
N.A., N.B
N.A., N.B
N.A., N.B
N.A., N.B
N.A., N.B

N.A., N.B

Notes: All GMAW-P procedures accept Trim input of 1.00 ± 0.50 (2 decimal places)
This may require resetting the weld mode with Fanuc robots or rescaling Trim input in PLC programs when updating from earlier weld sets.

Wire feed speed range is dependent on limits of selected wire feeder.

N.A. May not be available on machines equipped with analog interface.

N.B. Not fully supported by Fanuc/DeviceNet implementation.



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