



# Power Wave 655R

## Weld Set Reference: Z00045J

Steel			Stainless			Aluminum 4043			Aluminum 5356		
Procedure	Gas Type	Mode	Procedure	Gas Type	Mode	Procedure	Gas Type	Mode	Procedure	Gas Type	Mode
<b>.030 Wire Size</b>			<b>.030 Wire Size</b>			<b>.035 Wire Size</b>			<b>.035 Wire Size</b>		
CV	Argon Mix	94	CV	Argon Mix	61	CV	Argon	148	CV	Argon	151
Pulse	Argon Mix	95	CV	He Ar CO <sub>2</sub>	63	Pulse	Argon	149	Pulse	Argon	152
			Pulse	Argon CO <sub>2</sub>	66	<b>3/64 Wire Size</b>			<b>3/64 Wire Size</b>		
			Pulse	Argon O <sub>2</sub>	62	CV	Argon	71	CV	Argon	75
<b>.035 Wire Size</b>			<b>.035 Wire Size</b>			Pulse	Argon	72	Pulse	Argon	76
CV	CO <sub>2</sub>	10	CV	Argon Mix	31	<b>1/16 Wire Size</b>			<b>1/16 Wire Size</b>		
CV	Argon Mix	11	CV	He Ar CO <sub>2</sub>	33	CV	Argon	73	CV	Argon	77
Pulse Crisp	Argon Mix	12	Pulse	He Ar CO <sub>2</sub>	34	Pulse	Argon	74	Pulse	Argon	78
Pulse Soft	Argon Mix	14	Pulse	Argon CO <sub>2</sub>	36	<b>Metal Core</b>			<b>General</b>		
			Pulse	Argon O <sub>2</sub>	32	<b>.045 Wire Size</b>			<b>Wire Welding (Non Synergic)</b>		
<b>.045 Wire Size</b>			<b>.045 Wire Size</b>			<b>.045 Wire Size</b>			<b>Wire Welding (Non Synergic)</b>		
CV	CO <sub>2</sub>	20	CV	Argon Mix	41	CV	Argon CO <sub>2</sub>	81	<b>CV MIG</b>		
CV	Argon Mix	21	CV	He Ar CO <sub>2</sub>	43	Pulse	Argon CO <sub>2</sub>	82	<b>FCAW-SS Self Shielded</b>		
Pulse Crisp	Argon Mix	22	Pulse	He Ar CO <sub>2</sub>	44	<b>.052 Wire Size</b>			<b>Power mode</b>		
Pulse Soft	Argon Mix	19	Pulse	Argon CO <sub>2</sub>	46	CV	Argon CO <sub>2</sub>	83	<b>5</b>		
			Pulse	Argon O <sub>2</sub>	42	Pulse	Argon CO <sub>2</sub>	84	<b>6</b>		
<b>.052 Wire Size</b>			<b>1/16 Wire Size</b>			<b>1/16 Wire Size</b>			<b>40</b>		
CV	CO <sub>2</sub>	24	CV	Argon CO <sub>2</sub>	51	CV	Argon CO <sub>2</sub>	85			
CV	Argon Mix	25	CV	Argon O <sub>2</sub>	52	Pulse	Argon CO <sub>2</sub>	86			
Pulse Crisp	Argon Mix	26	Pulse	Argon CO <sub>2</sub>	55	<b>5/64 Wire Size</b>					
Pulse Soft	Argon Mix	28	Pulse	Argon O <sub>2</sub>	56	CV	Argon CO <sub>2</sub>	87			
<b>1/16 Wire Size</b>						Pulse	Argon CO <sub>2</sub>	88			
CV	Argon Mix	107									
Pulse	Argon Mix	108									



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Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	WFS/Amps	Volts/Trim	ArcControl
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
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	0.500 - 1.500	Wave Control
14	GMAW-P	Pulse - Soft	0.035	Steel	Argon Blends	55 - 1200 ipm	0.500 - 1.500	Wave Control
19	GMAW-P	Pulse - Soft	0.045	Steel	Argon Blends	50 - 1200 ipm	0.500 - 1.500	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	0.500 - 1.500	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 - 770 ipm	0.500 - 1.500	Wave Control
28	GMAW-P	Pulse - Soft	0.052	Steel	Argon Blends	50 - 700 ipm	0.500 - 1.500	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	0.500 - 1.500	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	0.500 - 1.500	Wave Control
36	GMAW-P	Pulse	0.035	Stainless	Argon CO2	65 - 770 ipm	0.500 - 1.500	Wave Control
40	GMAW	Power Mode (Non Syn)				0.2 - 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	0.500 - 1.500	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	0.500 - 1.500	Wave Control
46	GMAW-P	Pulse	0.045	Stainless	Argon CO2	50 - 600 ipm	0.500 - 1.500	Wave Control
51	GMAW	CV	1/16	Stainless	Argon Oxy	55 - 485 ipm	7.5 - 46.7 V	Pinch
52	GMAW-P	Pulse	1/16	Stainless	Argon Oxy	50 - 500 ipm	0.500 - 1.500	Wave Control
55	GMAW	CV	1/16	Stainless	Argon CO2	100 - 500 ipm	7.5 - 45.8 V	Pinch
56	GMAW-P	Pulse	1/16	Stainless	Argon CO2	50 - 285 ipm	0.500 - 1.500	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	0.500 - 1.500	Wave Control
63	GMAW	CV	0.030	Stainless	He Ar CO2	75 - 800 ipm	9.0 - 55.5 V	Pinch
66	GMAW-P	Pulse	0.030	Stainless	Argon CO2	80 - 770 ipm	0.500 - 1.500	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	80 - 700 ipm	0.500 - 1.500	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	75 - 350 ipm	0.500 - 1.500	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	80 - 700 ipm	0.500 - 1.500	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	0.500 - 1.500	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	0.500 - 1.500	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	0.500 - 1.500	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	0.500 - 1.500	Wave Control
87	GMAW	CV	5/64	Metal Core	Argon CO2	125 - 300 ipm	12.5 - 48.0 V	Wave Control
88	GMAW-P	Pulse	5/64	Metal Core	Argon CO2	50 - 300 ipm	0.500 - 1.500	Wave Control
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	0.500 - 1.500	Wave Control
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	0.500 - 1.500	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 - 800 ipm	0.500 - 1.500	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	115 - 800 ipm	0.500 - 1.500	Wave Control

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

N.A., N.B

Notes: All GMAW-P procedures accept Trim input of 1.000 ± 0.500 (3 decimal places)

This may require resetting the weld mode with Fanuc robots or rescaling Trim input in PLC programs when updating 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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