

# Weld Set Reference: Z143312

## Power Wave® S350/i400/S500 SI

Steel			Stainless			AISI 4043			General		
Process	Gas Type	Mode	Process	Gas Type	Mode	Process	Gas Type	Mode	Process	Gas Type	Mode
<b>0.8mm Wire Size</b>			<b>0.8mm Wire Size</b>			<b>1.0mm Wire Size</b>			<b>Stick/Tig/Gouge</b>		
CV	CO <sub>2</sub>	93	CV	Argon Mix	61	Pulse on Pulse®	Argon	98	Stick Soft		1
CV	Argon Mix	94	CV	Ar He CO <sub>2</sub>	63	<b>1.2mm Wire Size</b>			Stick Crisp		2
Pulse	Argon Mix	95	Pulse	Ar He CO <sub>2</sub>	64	CV	Argon	71	Stick Pipe		4
Precision Pulse™	Argon Mix	410	Pulse	Argon Mix	66	Pulse	Argon	72	Tig	Argon	3
<b>0.9mm Wire Size</b>			<b>0.9mm Wire Size</b>			<b>1.6mm Wire Size</b>			Tig - Pulse	Argon	8
CV	CO <sub>2</sub>	138	CV	Argon Mix	29	CV	Argon	73	Gouging	Compressed Air	9
CV	Argon Mix	139	Pulse	Argon Mix	30	Pulse	Argon	74	<b>Wire Welding (Non-Synergic)</b>		
Pulse	Argon Mix	140	Precision Pulse™	Argon Mix	421	Pulse on Pulse®	Argon	100	CV	Gas Shielded	5
RapidArc®	Argon Mix	141	<b>1.0mm Wire Size</b>			<b>AIMg 5356</b>			FCAW-S	Self Shielded	6
Precision Pulse™	Argon Mix	411	CV	Argon Mix	31	<b>1.0mm Wire Size</b>			FCAW-G	Gas Shielded	7
<b>1.0mm Wire Size</b>			CV	Ar He CO <sub>2</sub>	33	<b>1.0mm Wire Size</b>			Power Mode®	Gas Shielded	40
CV	CO <sub>2</sub>	10	Pulse	Ar He CO <sub>2</sub>	34	<b>1.0mm Wire Size</b>			<b>Nickel Alloy</b>		
CV	Argon Mix	11	Pulse	Argon Mix	36	CV	Argon	151	<b>1.0mm Wire Size</b>		
Pulse	Argon Mix	12	Precision Pulse™	Argon Mix	422	Pulse	Argon	152	Pulse	Argon Helium	170
RapidArc®	Argon Mix	13	<b>1.2mm Wire Size</b>			<b>1.2mm Wire Size</b>			<b>1.2mm Wire Size</b>		
Precision Pulse™	Argon Mix	412	CV	Argon Mix	41	Pulse on Pulse®	Argon	101	Pulse	Argon Helium	175
<b>1.2mm Wire Size</b>			CV	Ar He CO <sub>2</sub>	43	<b>1.2mm Wire Size</b>			<b>Copper</b>		
CV	CO <sub>2</sub>	20	Pulse	Ar He CO <sub>2</sub>	44	CV	Argon	75	<b>1.0mm Wire Size</b>		
CV	Argon Mix	21	Pulse	Argon Mix	46	Pulse	Argon	76	Pulse	Argon Helium	198
Pulse	Argon Mix	22	Precision Pulse™	Argon Mix	423	Pulse on Pulse®	Argon	102	<b>1.2mm Wire Size</b>		
RapidArc®	Argon Mix	18	<b>Metal Core</b>			<b>1.6mm Wire Size</b>			<b>Silicon Bronze</b>		
Precision Pulse™	Argon Mix	413	<b>1.2mm Wire Size</b>			<b>1.6mm Wire Size</b>			<b>1.0mm Wire Size</b>		
<b>1.4mm Wire Size</b>			CV	Argon Mix	81	<b>Flux Core</b>			<b>1.0mm Wire Size</b>		
CV	CO <sub>2</sub>	24	Pulse	Argon Mix	82	<b>1.2mm Wire Size</b>			Pulse	Argon	192
CV	Argon Mix	25	<b>1.4mm Wire Size</b>			<b>1.2mm Wire Size</b>			<b>LINCOLN® ELECTRIC</b>		
Pulse	Argon Mix	26	Pulse	Argon Mix	84	CV	CO <sub>2</sub>	90	<b>THE WELDING EXPERTS</b>		
RapidArc®	Argon Mix	27	<b>1.6mm Wire Size</b>			CV	Argon Mix	91	<b>World's Leader in Welding and Cutting Products</b>		
<b>1.6mm Wire Size</b>			CV	Argon Mix	85	<b>1.6mm Wire Size</b>			<b>WEB SITE: www.lincolnelectric.com</b>		
CV	Argon Mix	107	Pulse	Argon Mix	86	<b>1.6mm Wire Size</b>			<b>4/25/2014</b>		
Pulse	Argon Mix	108	<b>1.6mm Wire Size</b>			<b>1.6mm Wire Size</b>					
<b>1.6mm Wire Size</b>			<b>1.6mm Wire Size</b>			<b>1.6mm Wire Size</b>					

# Weld Set Reference: Z143312\*

## Power Wave® S350/S500 SI

\*Modes listed on this page are only available on power sources compatible with either the Power Wave STT® Module or Power Wave® Advanced Module

Steel STT®			Stainless STT®		
Process	Gas Type	Mode	Process	Gas Type	Mode
<b>0.9mm Wire Size</b>			<b>0.9mm Wire Size</b>		
STT® - Non-Synergic	CO <sub>2</sub>	304	STT® - Non-Synergic	Argon Mix	344
STT® - Non-Synergic	Argon Mix	305	STT® - Non-Synergic	He Ar CO <sub>2</sub>	345
STT® - Synergic	CO <sub>2</sub>	324	STT® - Synergic	Argon Mix	364
STT® - Synergic	Argon Mix	325	STT® - Synergic	He Ar CO <sub>2</sub>	365
<b>1.0mm Wire Size</b>			<b>1.0mm Wire Size</b>		
STT® - Non-Synergic	CO <sub>2</sub>	306	STT® - Non-Synergic	Argon Mix	346
STT® - Non-Synergic	Argon Mix	307	STT® - Non-Synergic	He Ar CO <sub>2</sub>	347
STT® - Synergic	CO <sub>2</sub>	326	STT® - Synergic	Argon Mix	366
STT® - Synergic	Argon Mix	327	STT® - Synergic	He Ar CO <sub>2</sub>	367

Rapid X™					
Steel		Stainless		Metal Core	
Process	Gas Type	Mode	Process	Gas Type	Mode
<b>1.0mm</b>		<b>1.0mm</b>		<b>1.2mm</b>	
Rapid X™	Argon Mix	273	Rapid X™	Argon Mix	283
<b>1.2mm</b>		<b>1.2mm</b>		Rapid X™	
Rapid X™	Argon Mix	274	Rapid X™	Argon Mix	284



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# Weld Set Reference: Z143312\*

## Power Wave® Advanced Module

\*Modes listed on this page are only available on power sources compatible with the Power Wave® Advanced Module

<b>AISi 4043</b>		
Process	Gas Type	Mode
<b>1.2mm Wire Size</b>		
AC Pulse	Argon	393
<b>1.6mm Wire Size</b>		
AC Pulse	Argon	394
<b>AlMg 5356</b>		
<b>1.2mm Wire Size</b>		
AC Pulse	Argon	398
<b>1.6mm Wire Size</b>		
AC Pulse	Argon	399

<b>General</b>		
Process	Gas Type	Mode
<b>Stick/Tig/Gouge</b>		
HF Start Tig	Argon	375
HF Start Tig - Pulse	Argon	376
Touch Start AC GTAW	Argon	377
HF Start AC GTAW	Argon	378



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# Weld Set Reference: Z143312\*

## Power Wave® Tandem MIG™

\*Modes listed on this page are only available on power sources compatible with the Autodrive 19® Tandem controller.

<b>Synchronized Tandem MIG™</b>		
<b>Steel</b>		
Process	Gas Type	Mode
<b>1.0mm Wire Size</b>		
Synchronized Pulse Lead	Argon Mix	402
Synchronized Pulse Trail	Argon Mix	403
<b>1.2mm Wire Size</b>		
Synchronized Pulse Lead	Argon Mix	404
Synchronized Pulse Trail	Argon Mix	405
<b>1.4mm Wire Size</b>		
Synchronized Pulse Lead	Argon Mix	406
Synchronized Pulse Trail	Argon Mix	407

<b>Hot Wire Tandem MIG™</b>		
<b>Steel</b>		
Process	Gas Type	Mode
<b>1.0mm Wire Size</b>		
Synchronized Pulse Trail	Argon Mix	461
<b>1.2mm Wire Size</b>		
Synchronized Pulse Trail	Argon Mix	462
<b>1.4mm Wire Size</b>		
Synchronized Pulse Trail	Argon Mix	463



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Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	Arc Control
1	SMAW	Stick Soft				Arc Force, Hot Start
2	SMAW	Stick Crisp				Arc Force, Hot Start
3	GTAW	Touch Start TIG			Argon	Hot Start
4	SMAW	Stick Pipe				Arc Force
5	GMAW	CV			Gas Shielded	Pinch
6	FCAW-S	CV			Self Shielded	Pinch
7	FCAW-G	CV			Gas Shielded	Pinch
8	GTAW-P	Tig - Pulse			Argon	Frequency, Background, Hot Start
9	CAG	Gouging			Compressed Air	
10	GMAW	CV	1.0	Steel	CO <sub>2</sub>	Pinch
11	GMAW	CV	1.0	Steel	Argon Mix	Pinch
12	GMAW-P	Pulse	1.0	Steel	Argon Mix	UltimArc™
13	GMAW-P	RapidArc®	1.0	Steel	Argon Mix	UltimArc™
18	GMAW-P	RapidArc®	1.2	Steel	Argon Mix	UltimArc™
20	GMAW	CV	1.2	Steel	CO <sub>2</sub>	Pinch
21	GMAW	CV	1.2	Steel	Argon Mix	Pinch
22	GMAW-P	Pulse	1.2	Steel	Argon Mix	UltimArc™
24	GMAW	CV	1.4	Steel	CO <sub>2</sub>	Pinch
25	GMAW	CV	1.4	Steel	Argon Mix	Pinch
26	GMAW-P	Pulse	1.4	Steel	Argon Mix	UltimArc™
27	GMAW-P	RapidArc®	1.4	Steel	Argon Mix	UltimArc™
29	GMAW	CV	0.9	Stainless	Argon Mix	Pinch
30	GMAW-P	Pulse	0.9	Stainless	Argon Mix	UltimArc™
31	GMAW	CV	1.0	Stainless	Argon Mix	Pinch
33	GMAW	CV	1.0	Stainless	Ar He CO <sub>2</sub>	Pinch
34	GMAW-P	Pulse	1.0	Stainless	Ar He CO <sub>2</sub>	UltimArc™
36	GMAW-P	Pulse	1.0	Stainless	Argon Mix	UltimArc™
40	GMAW	Power Mode®			Gas Shielded	Pinch
41	GMAW	CV	1.2	Stainless	Argon Mix	Pinch
43	GMAW	CV	1.2	Stainless	Ar He CO <sub>2</sub>	Pinch
44	GMAW-P	Pulse	1.2	Stainless	Ar He CO <sub>2</sub>	UltimArc™
46	GMAW-P	Pulse	1.2	Stainless	Argon Mix	UltimArc™
61	GMAW	CV	0.8	Stainless	Argon Mix	Pinch
63	GMAW	CV	0.8	Stainless	Ar He CO <sub>2</sub>	Pinch
64	GMAW-P	Pulse	0.8	Stainless	Ar He CO <sub>2</sub>	UltimArc™
66	GMAW-P	Pulse	0.8	Stainless	Argon Mix	UltimArc™
71	GMAW	CV	1.2	AlSi	Argon	Pinch
72	GMAW-P	Pulse	1.2	AlSi	Argon	UltimArc™
73	GMAW	CV	1.6	AlSi	Argon	Pinch
74	GMAW-P	Pulse	1.6	AlSi	Argon	UltimArc™
75	GMAW	CV	1.2	AlMg	Argon	Pinch
76	GMAW-P	Pulse	1.2	AlMg	Argon	UltimArc™
77	GMAW	CV	1.6	AlMg	Argon	Pinch
78	GMAW-P	Pulse	1.6	AlMg	Argon	UltimArc™
81	GMAW	CV	1.2	Metal Core	Argon Mix	Pinch
82	GMAW-P	Pulse	1.2	Metal Core	Argon Mix	UltimArc™
84	GMAW-P	Pulse	1.4	Metal Core	Argon Mix	UltimArc™
85	GMAW	CV	1.6	Metal Core	Argon Mix	Pinch
86	GMAW-P	Pulse	1.6	Metal Core	Argon Mix	UltimArc™
90	FCAW-G	CV	1.2		CO <sub>2</sub>	Pinch
91	FCAW-G	CV	1.2		Argon Mix	Pinch
93	GMAW	CV	0.8	Steel	CO <sub>2</sub>	Pinch
94	GMAW	CV	0.8	Steel	Argon Mix	Pinch
95	GMAW-P	Pulse	0.8	Steel	Argon Mix	UltimArc™
98	GMAW-P	Pulse on Pulse®	1.0	AlSi	Argon	Frequency
99	GMAW-P	Pulse on Pulse®	1.2	AlSi	Argon	Frequency
100	GMAW-P	Pulse on Pulse®	1.6	AlSi	Argon	Frequency
101	GMAW-P	Pulse on Pulse®	1.0	AlMg	Argon	Frequency
102	GMAW-P	Pulse on Pulse®	1.2	AlMg	Argon	Frequency
103	GMAW-P	Pulse on Pulse®	1.6	AlMg	Argon	Frequency
107	GMAW	CV	1.6	Steel	Argon Mix	Pinch
108	GMAW-P	Pulse	1.6	Steel	Argon Mix	UltimArc™
138	GMAW	CV	0.9	Steel	CO <sub>2</sub>	Pinch
139	GMAW	CV	0.9	Steel	Argon Mix	Pinch
140	GMAW-P	Pulse	0.9	Steel	Argon Mix	UltimArc™
141	GMAW-P	RapidArc®	0.9	Steel	Argon Mix	UltimArc™
151	GMAW	CV	1.0	AlMg	Argon	Pinch
152	GMAW-P	Pulse	1.0	AlMg	Argon	UltimArc™
170	GMAW-P	Pulse	1.0	Ni Chrome	Argon Helium	UltimArc™
175	GMAW-P	Pulse	1.2	Ni Chrome	Argon Helium	UltimArc™
192	GMAW-P	Pulse	1.0	Si Bronze	Argon	UltimArc™
196	GMAW-P	Pulse	1.2	Copper	Argon Helium	UltimArc™
198	GMAW-P	Pulse	1.0	Copper	Argon Helium	UltimArc™
410	GMAW-P	Precision Pulse™	0.8	Steel	Argon Mix	UltimArc™
411	GMAW-P	Precision Pulse™	0.9	Steel	Argon Mix	UltimArc™
412	GMAW-P	Precision Pulse™	1.0	Steel	Argon Mix	UltimArc™
413	GMAW-P	Precision Pulse™	1.2	Steel	Argon Mix	UltimArc™
421	GMAW-P	Precision Pulse™	0.9	Stainless	Argon Mix	UltimArc™
422	GMAW-P	Precision Pulse™	1.0	Stainless	Argon Mix	UltimArc™
423	GMAW-P	Precision Pulse™	1.2	Stainless	Argon Mix	UltimArc™

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\*Modes listed on this page are only available on power sources compatible with either the Power Wave STT<sup>®</sup> Module  
or Power Wave<sup>®</sup> Advanced Module

Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	Arc Control
273	GMAW-P	Rapid X™	1.0	Steel	Argon Mix	UltimArc™
274	GMAW-P	Rapid X™	1.2	Steel	Argon Mix	UltimArc™
283	GMAW-P	Rapid X™	1.0	Stainless	Argon Mix	UltimArc™
284	GMAW-P	Rapid X™	1.2	Stainless	Argon Mix	UltimArc™
294	GMAW-P	Rapid X™	1.2	Metal Core	Argon Mix	UltimArc™
304	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	0.9	Steel	CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
305	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	0.9	Steel	Argon Mix	Peak, Background, Tailout, Hot Start
306	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.0	Steel	CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
307	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.0	Steel	Argon Mix	Peak, Background, Tailout, Hot Start
308	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.2	Steel	CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
309	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.2	Steel	Argon Mix	Peak, Background, Tailout, Hot Start
324	STT <sup>®</sup>	Synergic STT <sup>®</sup>	0.9	Steel	CO <sub>2</sub>	UltimArc™, Hot Start
325	STT <sup>®</sup>	Synergic STT <sup>®</sup>	0.9	Steel	Argon Mix	UltimArc™, Hot Start
326	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.0	Steel	CO <sub>2</sub>	UltimArc™, Hot Start
327	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.0	Steel	Argon Mix	UltimArc™, Hot Start
328	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.2	Steel	CO <sub>2</sub>	UltimArc™, Hot Start
329	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.2	Steel	Argon Mix	UltimArc™, Hot Start
344	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	0.9	Stainless	Argon Mix	Peak, Background, Tailout, Hot Start
345	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	0.9	Stainless	He Ar CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
346	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.0	Stainless	Argon Mix	Peak, Background, Tailout, Hot Start
347	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.0	Stainless	He Ar CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
348	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.2	Stainless	Argon Mix	Peak, Background, Tailout, Hot Start
349	STT <sup>®</sup>	Non Synergic STT <sup>®</sup>	1.2	Stainless	He Ar CO <sub>2</sub>	Peak, Background, Tailout, Hot Start
364	STT <sup>®</sup>	Synergic STT <sup>®</sup>	0.9	Stainless	Argon Mix	UltimArc™, Hot Start
365	STT <sup>®</sup>	Synergic STT <sup>®</sup>	0.9	Stainless	He Ar CO <sub>2</sub>	UltimArc™, Hot Start
366	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.0	Stainless	Argon Mix	UltimArc™, Hot Start
367	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.0	Stainless	He Ar CO <sub>2</sub>	UltimArc™, Hot Start
368	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.2	Stainless	Argon Mix	UltimArc™, Hot Start
369	STT <sup>®</sup>	Synergic STT <sup>®</sup>	1.2	Stainless	He Ar CO <sub>2</sub>	UltimArc™, Hot Start



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Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	Arc Control
375	GTAW	HF Start GTAW			Argon	Hot Start
376	GTAW-P	HF Start GTAW-P			Argon	Frequency, Background, Hot Start
377	AC GTAW	Touch Start AC GTAW			Argon	AC Frequency, AC Balance, DC Offset, Hot Start
378	AC GTAW	HF Start AC GTAW			Argon	AC Frequency, AC Balance, DC Offset, Hot Start
393	AC GMAW-P	AC Pulse	1.2	AlSi	Argon	UltimArc™
394	AC GMAW-P	AC Pulse	1.6	AlSi	Argon	UltimArc™
398	AC GMAW-P	AC Pulse	1.2	AlMg	Argon	UltimArc™
399	AC GMAW-P	AC Pulse	1.6	AlMg	Argon	UltimArc™



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\*Modes listed on this page are only available on power sources compatible with the Autodrive 19® Tandem controller.

Mode	Process	Procedure	Wire Size	Wire Type	Gas Type	Arc Control
402	GMAW-P	Synchronized Pulse Lead	1.0	Steel	Argon Mix	UltimArc™
403	GMAW-P	Synchronized Pulse Trail	1.0	Steel	Argon Mix	UltimArc™
404	GMAW-P	Synchronized Pulse Lead	1.2	Steel	Argon Mix	UltimArc™
405	GMAW-P	Synchronized Pulse Trail	1.2	Steel	Argon Mix	UltimArc™
406	GMAW-P	Synchronized Pulse Lead	1.4	Steel	Argon Mix	UltimArc™
407	GMAW-P	Synchronized Pulse Trail	1.4	Steel	Argon Mix	UltimArc™
461	HW-GMAW	Synchronized Pulse Trail	1.0	Steel	Argon Mix	
462	HW-GMAW	Synchronized Pulse Trail	1.2	Steel	Argon Mix	
463	HW-GMAW	Synchronized Pulse Trail	1.4	Steel	Argon Mix	



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