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Availability, price and specification subject to change without prior notice.

Speed Controller Summary

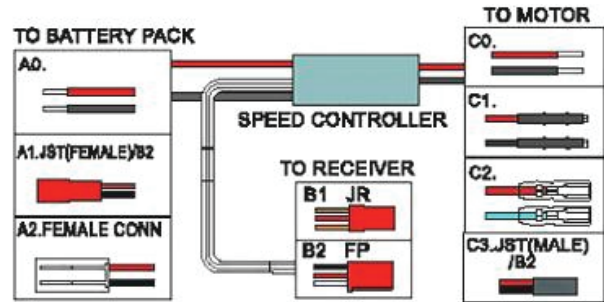
Model	Size mm (in) L x W x H	Weight (g/oz)		Heat Sink		Auto-Cut	BEC	Con. Current	Battery Range	Notes
		w/Wire	w/o Wire	Size	Weight					
ICS50	16.0 x 10.5 x 5.1 (0.62" x 0.41" x 0.20")	4.5g (0.15 oz)	1.0g (0.03 oz)			4.2V	5V / 1A	2A / 4A Max.	5 – 8 cells (6V – 9.6V)	
ICS50E						3.2V			3 – 8 cells (3.6V – 9.6V)	
ESC050						5.4V & 8.1V			2S & 3S (Li-Po)	
ICS100	21.5 x 10.5 x 5.5 (0.84" x 0.41" x 0.21")	5.0g (0.17 oz)	2.0g (0.07 oz)			4.2V	5V / 1A	5A / 8A Max.	5 – 8 cells (6V – 9.6V)	
GS100						4.2V			5 – 8 cells (6V – 9.6V)	Brake
ICS100E						3.2V			3 – 8 cells (3.6V – 9.6V)	
GS100E						3.2V			3 – 8 cells (3.6V – 9.6V)	Brake
ESC100						5.4V / 8.1V			2S & 3S (Li-Po)	
ESC100G						5.4V / 8.1V			2S & 3S (Li-Po)	Brake
ICS300	25.5 x 12.5 x 9.0 (1.0" x 0.49" x 0.35")	10.0g (0.35 oz)	4.0g (0.14 oz)	12.0 x 21.0 x 6.0 (0.47" x 0.83" x 0.24")	2.0g (0.07 oz)	4.2V	5V / 1.2A	5A / 8A Max.	5 – 8 cells (6V – 9.6V)	
ICS300E						3.2V			3 – 8 cells (3.6V – 9.6V)	
ESC300						5.4V / 8.1V			2S & 3S (Li-Po)	
ICS400	32 x 21.5 x 9 (1.26" x 0.85" x 0.35")	17.0g (0.6 oz)	4.0g (0.141 oz)	15.0 x 21.0 x 6 (0.59" x 0.83" x 0.24")	3.0g (0.106 oz)	4.2V	5V / 1.2A	15A / 25A Max.	5 – 8 cells (6V – 9.6V)	
ICS400S						4.2V			5 – 8 cells (6V – 9.6V)	Switch
GS400						4.2V			5 – 8 cells (6V – 9.6V)	Brake
GS400S						4.2V			5 – 8 cells (6V – 9.6V)	Brake Switch
ICS400E						3.2V			3 – 8 cells (3.6V – 9.6V)	
GS400E						3.2V			3 – 8 cells (3.6V – 9.6V)	Brake
ICS400H									3 – 8 cells (3.6V – 9.6V)	Helix
ESC400						5.4V / 8.1V			2S & 3S (Li-Po)	
ESC400G						5.4V / 8.1V			2S & 3S (Li-Po)	Brake
ICS480	25.5 x 12.5 x 9.0 (1.0" x 0.49" x 0.35")	14.0g (0.49 oz)	4.0g (0.14 oz)	12.0 x 21.0 x 6.0 (0.47" x 0.83" x 0.24")	2.0g (0.07 oz)	4.2V	5V / 1.2A	15A / 25A Max.	5 – 8 cells (6V – 9.6V)	
ICS480E						3.2V			3 – 8 cells (3.6V – 9.6V)	
ESC480						5.4V / 8.1V			2S & 3S (Li-Po)	
ICS600	38.0 x 23.0 x 9.0 (1.5" x 0.91" x 0.35")	20.0g (0.71 oz)	6.0g (0.21 oz)	19.0 x 31.0 x 6.0 (0.75" x 1.22" x 0.24")	6.0g (0.212 oz)	4.2V	5V / 1.2A	30A / 45A Max.	5 – 8 cells (6V – 9.6V)	
GS600						4.2V			5 – 8 cells (6V – 9.6V)	Brake
ICS600E						3.2V			3 – 8 cells (3.6V – 9.6V)	
GS600E						3.2V			3 – 8 cells (3.6V – 9.6V)	Brake
ICS600H									3 – 8 cells (3.6V – 9.6V)	Helix
ESC600						5.4V / 8.1V			2S & 3S (Li-Po)	
ESC600G	5.4V / 8.1V	2S & 3S (Li-Po)	Brake							

Reset: Throttle Lowest

Notes: **E:** Low Auto Cut (3.2V) **G:** Forward and Brake **S:** w/Switch **H:** For Helix (w/o Auto Cut)

Model	Motor	Auto-Cut	BEC	On-Off Switch	Reset Switch	Con. Current	Battery
ICH100	130	Yes	Yes	Yes	Yes	5A	5 – 8 cells (6V – 9.6V)
ICH400	130	Yes	Yes	Yes	Yes	15A	5 – 8 cells (6V – 9.6V)

GWS μ -Con ESC50



Size:	16.0mm x 10.5mm x 5.1mm (0.62"x0.41"x0.20")	
Weight:	w/Wire:	4.5g (0.15 oz)
	w/o Wire:	1.0g (0.03 oz)
Heat Sink:	Size:	N/A
	Weight:	N/A

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS50	4.2V	5V/1A	2A/4A Max.	5-8 cells (6V - 9.6V)
ICS50E	3.2V			3-8 cells (3.6V - 9.6V)
ESC050	5.4V & 8.1V			2S & 3S (Li-Po)

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

OPERATION AND PRECAUTIONS:

1. Connect the speed controller to the receiver throttle channel and the motor as per the wiring diagram.
2. First, turn on your transmitter, then connect the battery pack.
3. Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
4. If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 2 to activate the speed controller.
5. Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and will also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.

WARNING:

Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICS50E/F	Speed Controller • 2.8KHz • Futaba/C3/A1 Connector	\$10.50	A	
GW/ICS50E/J	Speed Controller • 2.8KHz • JR/C3/A1 Connector	\$10.50	A	
GW/ICS50/F	Speed Controller • 2.8KHz • Futaba/C3/A1 Connector • 4.2V Auto Cut	\$11.38	A	
GW/ICS50/J	Speed Controller • 2.8KHz • JR/C3/A1 Connector • 4.2V Auto Cut	\$11.38	A	
GWESC050	Speed Controller • Futaba/C3/A1 Connector • For Li-Po Batteries	\$13.13	A	
GWESC050A	Speed Controller • JR/C3/A1 Connector • For Li-Po Batteries	\$13.13	A	

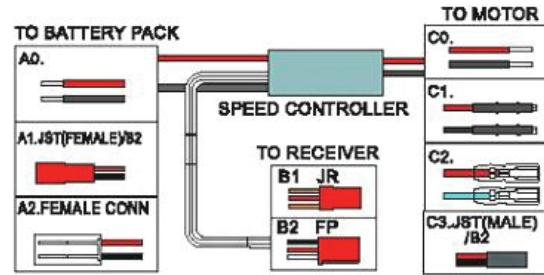
CTN Package:

Qty. Per CTN:	
Size (L x W x H):	

GWS μ -Con ESC100



2KHz High Frequency Rate



Size:	21.5mm x 10.5mm x 5.5mm	(0.84"x0.41"x0.21")
Weight:	w/Wire:	5.0g (0.17 oz)
	w/o Wire:	2.0g (0.07 oz)
Heat Sink:	Size:	N/A
	Weight:	N/A

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS100	4.2V	5V/1A	5A/8A Max.	5-8 cells (6V - 9.6V)
ICS100E	3.2V			3-8 cells (3.6V - 9.6V)
ESC100	5.4V & 8.1V			2S & 3S (Li-Po)
GS100	4.2V			5-8 cells (6V - 9.6V)
GS100E	3.2V			3-8 cells (3.6V - 9.6V)
ESC100G	5.4V & 8.1V			2S & 3S (Li-Po)

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

OPERATION AND PRECAUTIONS:

1. Connect the speed controller to the receiver throttle channel and the motor as per the wiring diagram.
2. First, turn on your transmitter, then connect the battery pack.
3. Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
4. If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 2 to activate the speed controller.
5. Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and will also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.

WARNING:

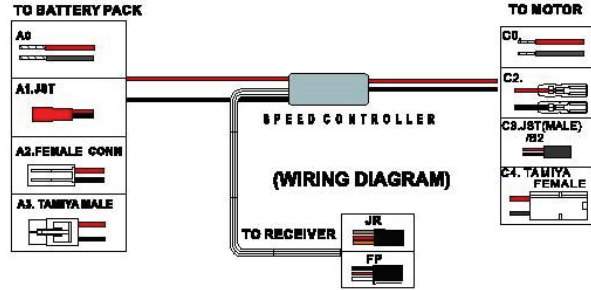
Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICS100E/F	Speed Controller • Futaba/C3/A1 Connector • 3.2V Auto Cut	\$13.13	A	
GW/ICS100E/J	Speed Controller • JR/C3/A1 Connector • 3.2V Auto Cut	\$13.13	A	
GW/ICS100/F	Speed Controller • Futaba/C3/A1 Connector • 4.2V Auto Cut	\$14.00	A	
GW/ICS100/J	Speed Controller • JR/C3/A1 Connector • 4.2V Auto Cut	\$14.00	A	
GW/GS100E/F	Speed Controller • Futaba/C3/A1 Connector • w/Brake • 3.2V Auto Cut	\$14.88	A	
GW/GS100E/J	Speed Controller • JR/C3/A1 Connector • w/Brake • 3.2V Auto Cut	\$14.88	A	
GW/GS100/F	Speed Controller • Futaba/C3/A1 Connector • w/Brake • 4.2V Auto Cut	\$15.75	A	
GW/GS100/J	Speed Controller • JR/C3/A1 Connector • w/Brake • 4.2V Auto Cut	\$15.75	A	
GWESC100	Speed Controller • Futaba/C3/A1 Connector • For Li-Po Batteries	\$15.75	A	
GWESC100A	Speed Controller • JR/C3/A1 Connector • For Li-Po Batteries	\$15.75	A	
GWESC100GA	Speed Controller • JR/C3/A1 Connector • w/Brake • For Li-Po Batteries	\$17.50	A	
GWESC100G	Speed Controller • Futaba/C3/A1 Connector • w/Brake • For Li-Po Batteries	\$17.50	A	

CTN Package:

Qty. Per CTN:	
Size (L x W x H):	

GWS μ-Con ESC300



Size:	25.5mm x 12.5mm x 9.0mm (1.00"x0.49"x0.35")	
Weight:	w/Wire:	10.0g (0.35 oz)
	w/o Wire:	4.0g (0.14 oz)
Heat Sink:	Size:	12x21x6 (mm) (0.47x0.83x0.24 in)
	Weight:	2.0g (0.07 oz)

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS300	4.2V	5V/1.2A	8A/15A Max.	5-8 cells (6V - 9.6V)
ICS300E	3.2V			3-8 cells (3.6V - 9.6V)
ESC300	5.4V & 8.1V			2S & 3S (Li-Po)

Max. current used with Heat Sink

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

(OPERATION AND PRECAUTIONS)

- Attach suitable connectors (optional) on the motor wires on the speed controller. Otherwise, solder the motor wires directly to the motor. Be sure that the orange silicone wire is positive (+) and the blue silicone wire is negative (-). connectors come with the regular wires, the red wire is positive (+) and the black wire is negative (-).
- Attach quality connectors on the silicone wires that will match to the connectors from the battery pack. The pink silicone wire is positive (+) and the green silicone wire is negative (-).
- Connect the speed controller signal wires to the receiver throttle channel.
- First turn on your transmitter, then, connect the battery pack.
- Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
- If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 4 to activate the speed controller.
- LED Display:

All off =	Not activated / Auto-cut
Green on =	Ready / Brake (for GS version)
Red on =	Full throttle
Red flash =	Reset
- Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.
- For better efficiency and maximum performance, we recommend installing the heat sink (supplied).
- Cut the shrink tubing and attach the head sink on the name plate (ICS-400, 600) or power MOS FET (ICS-300 · 480).

WARNING:

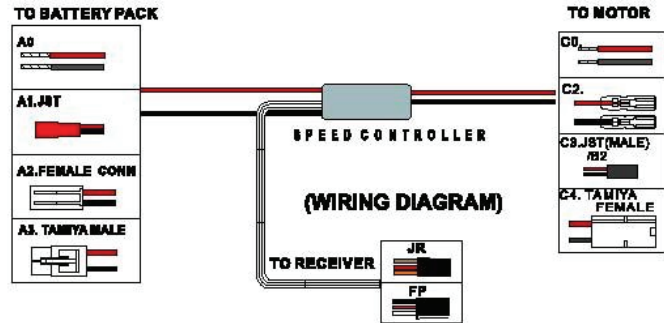
Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

Part Number	Description	MSRP	Dealer	Ib/Ctn
GW/ICS300E/F	Speed Controller • Futaba/C3/A1 Connector • 3.2V Auto Cut	\$10.50	A	
GW/ICS300E/J	Speed Controller • JR/C3/A1 Connector • 3.2V Auto Cut	\$10.50	A	
GW/ICS300/F	Speed Controller • Futaba/C3/A1 Connector • 4.2V Auto Cut	\$10.50	A	
GW/ICS300/J	Speed Controller • JR/C3/A1 Connector • 4.2V Auto Cut	\$10.50	A	
GWESC300	Speed Controller • Futaba/C3/A1 Connector • For Li-Po Batteries	\$12.25	A	
GWESC300A	Speed Controller • JR/C3/A1 Connector • For Li-Po Batteries	\$12.25	A	

CTN Package:

Qty. Per CTN:	
Size (L x W x H):	

GWS μ -Con ESC400



Size:	32.0mm x 21.5mm x 9.0mm	(1.26"x0.85"x0.35")
Weight:	w/Wire:	17.0g (0.6 oz)
	w/o Wire:	4.0g (0.14 oz)
Heat Sink:	Size:	15x21x6 (mm) (0.59x0.83x0.24 in)
	Weight:	3.0g (0.106 oz)

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS400	4.2V	5V/1.2A	15A/25A Max.	5-8 cells (6V - 9.6V)
ICS400S	4.2V			5-8 cells (6V - 9.6V)
ICS400E	3.2V			3-8 cells (3.6V - 9.6V)
ICS400H	N/A			3-8 cells (3.6V - 9.6V)
GS400	4.2V			5-8 cells (6V - 9.6V)
GS400S	4.2V			5-8 cells (6V - 9.6V)
GS400E	3.2V			3-8 cells (3.6V - 9.6V)
ESC400	5.4V & 8.1V			2S & 3S (Li-Po)
ESC400G	5.4V & 8.1V			2S & 3S (Li-Po)

Max. current used with Heat Sink

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

(OPERATION AND PRECAUTIONS)

- Attach suitable connectors (optional) on the motor wires on the speed controller. Otherwise, solder the motor wires directly to the motor. Be sure that the orange silicone wire is positive (+) and the blue silicone wire is negative (-). connectors come with the regular wires, the red wire is positive (+) and the black wire is negative (-).
- Attach quality connectors on the silicone wires that will match to the connectors from the battery pack. The pink silicone wire is positive (+) and the green silicone wire is negative (-).
- Connect the speed controller signal wires to the receiver throttle channel.
- First turn on your transmitter, then, connect the battery pack.
- Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
- If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 4 to activate the speed controller.
- LED Display:

All off =	Not activated / Auto-cut
Green on =	Ready / Brake (for GS version)
Red on =	Full throttle
Red flash =	Reset
- Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.
- For better efficiency and maximum performance, we recommend installing the heat sink (supplied).
- Cut the shrink tubing and attach the head sink on the name plate (ICS-400, 600) or power MOS FET (ICS-300 - 480).

WARNING:

Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

GWS μ -Con ESC400

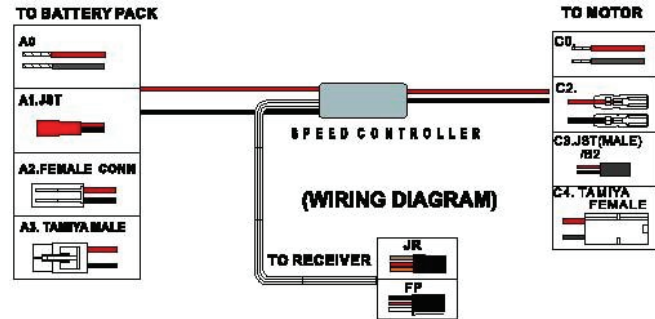
Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICS400E/F	Speed Controller • Futaba/C0/A0 Connector • 3.2V Auto Cut	\$21.00	A	
GW/ICS400E/J	Speed Controller • JR/C0/A0 Connector • 3.2V Auto Cut	\$21.00	A	
GW/ICS400H/F	Speed Controller • Futaba/C0/A0 Connector • For Helix	\$21.00	A	
GW/ICS400H/J	Speed Controller • JR/C0/A0 Connector • For Helix	\$21.00	A	
GW/ICS400/F	Speed Controller • Futaba/C0/A0 Connector • 4.2V Auto Cut	\$21.88	A	
GW/ICS400/J	Speed Controller • JR/C0/A0 Connector • 4.2V Auto Cut	\$21.88	A	
GW/ICS400S/F	Speed Controller • Futaba/C0/A0 Connector • w/Switch • 4.2V Auto Cut	\$22.75	A	
GW/ICS400S/J	Speed Controller • JR/C0/A0 Connector • w/Switch • 4.2V Auto Cut	\$22.75	A	
GW/GS400E/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • 3.2V Auto Cut	\$22.75	A	
GW/GS400E/J	Speed Controller • JR/C0/A0 Connector • w/Brake • 3.2V Auto Cut	\$22.75	A	
GW/GS400/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • 4.2V Auto Cut	\$23.63	A	
GW/GS400/J	Speed Controller • JR/C0/A0 Connector • w/Brake • 4.2V Auto Cut	\$23.63	A	
GW/GS400S/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • w/Switch • 4.2V Auto Cut	\$25.38	A	
GW/GS400S/J	Speed Controller • JR/C0/A0 Connector • w/Brake • w/Switch • 4.2V Auto Cut	\$25.38	A	
GWESC400	Speed Controller • Futaba/C0/A0 Connector • For Li-Po Batteries	\$23.63	A	
GWESC400A	Speed Controller • JR/C0/A0 Connector • For Li-Po Batteries	\$23.63	A	
GWESC400G	Speed Controller • Futaba/C0/A0 Connector • w/Brake • For Li-Po Batteries	\$25.38	A	
GWESC400GA	Speed Controller • JR/C0/A0 Connector • w/Brake • For Li-Po Batteries	\$25.38	A	

CTN Package:

Qty. Per CTN:

Size (L x W x H):

GWS μ-Con ESC480



Size:	25.5mm x 12.5mm x 9.0mm	(1.00"x0.49"x0.35")
Weight:	w/Wire:	14.0g (0.49 oz)
	w/o Wire:	4.0g (0.14 oz)
Heat Sink:	Size:	12x21x6 (mm) (0.47x0.83x0.24 in)
	Weight:	2.0g (0.07 oz)

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS480	4.2V	5V/1.2A	15A/25A Max.	5-8 cells (6V - 9.6V)
ICS480E	3.2V			3-8 cells (3.6V - 9.6V)
ESC480	5.4V & 8.1V			2S & 3S (Li-Po)

Max. current used with Heat Sink

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

(OPERATION AND PRECAUTIONS)

- Attach suitable connectors (optional) on the motor wires on the speed controller. Otherwise, solder the motor wires directly to the motor. Be sure that the orange silicone wire is positive (+) and the blue silicone wire is negative (-). connectors come with the regular wires, the red wire is positive (+) and the black wire is negative (-).
- Attach quality connectors on the silicone wires that will match to the connectors from the battery pack. The pink silicone wire is positive (+) and the green silicone wire is negative (-).
- Connect the speed controller signal wires to the receiver throttle channel.
- First turn on your transmitter, then, connect the battery pack.
- Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
- If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 4 to activate the speed controller.
- LED Display:

All off =	Not activated / Auto-cut
Green on =	Ready / Brake (for GS version)
Red on =	Full throttle
Red flash =	Reset
- Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.
- For better efficiency and maximum performance, we recommend installing the heat sink (supplied).
- Cut the shrink tubing and attach the head sink on the name plate (ICS-400, 600) or power MOS FET (ICS-300 - 480).

WARNING:

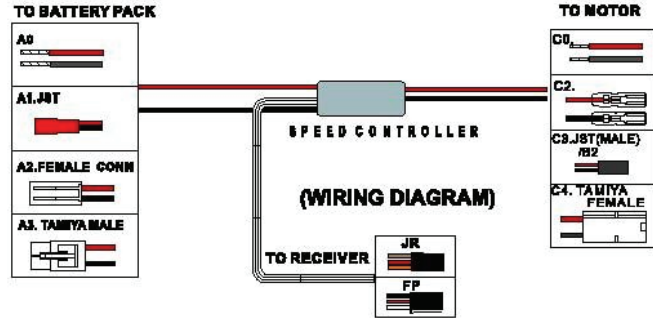
Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICS480E/F	Speed Controller • Futaba/C2/A2 Connector • 3.2V Auto Cut	\$14.00	A	
GW/ICS480E/J	Speed Controller • JR/C2/A2 Connector • 3.2V Auto Cut	\$14.00	A	
GW/ICS480/F	Speed Controller • Futaba/C2/A2 Connector • 4.2V Auto Cut	\$14.00	A	
GW/ICS480/J	Speed Controller • JR/C2/A2 Connector • 4.2V Auto Cut	\$14.00	A	
GWESC480	Speed Controller • Futaba/C2/A2 Connector • For Li-Po Batteries	\$15.75	A	
GWESC480A	Speed Controller • JR/C2/A2 Connector • For Li-Po Batteries	\$15.75	A	

CTN Package:

Qty. Per CTN:	
Size (L x W x H):	

GWS μ -Con ESC600



Size:	38.0mm x 23.0mm x 9.0mm (1.5"x0.91"x0.35")	
Weight:	w/Wire:	20.0g (0.71 oz)
	w/o Wire:	6.0g (0.21 oz)
Heat Sink:	Size:	19x31x6 (mm) (0.75x1.22x0.24 in)
	Weight:	6.0g (0.212 oz)

Model	Auto-Cut	BEC	Con. Current	Battery Range
ICS600	4.2V	5V/1.2A	30A/45A Max.	5-8 cells (6V - 9.6V)
ICS600E	3.2V			3-8 cells (3.6V - 9.6V)
ICS600H	N/A			3-8 cells (3.6V - 9.6V)
GS600	4.2V	5V/1.2A	30A/45A Max.	5-8 cells (6V - 9.6V)
GS600E	3.2V			3-8 cells (3.6V - 9.6V)
ESC600	5.4V & 8.1V			2S & 3S (Li-Po)
ESC600G	5.4V & 8.1V			2S & 3S (Li-Po)

Max. current used with Heat Sink

The GWS 'Li' speed controller are designed specifically for lithium-iron or lithium-polymer battery (2S & 3S). These controllers have automatic cutoff with auto detection for 2 or 3 cells lithium battery. This circuit provides the correct cutoff voltage for the number of cells to avoid over-discharging, then leaving the remaining capacity for a safe landing.

(OPERATION AND PRECAUTIONS)

- Attach suitable connectors (optional) on the motor wires on the speed controller. Otherwise, solder the motor wires directly to the motor. Be sure that the orange silicone wire is positive (+) and the blue silicone wire is negative (-). connectors come with the regular wires, the red wire is positive (+) and the black wire is negative (-).
- Attach quality connectors on the silicone wires that will match to the connectors from the battery pack. The pink silicone wire is positive (+) and the green silicone wire is negative (-).
- Connect the speed controller signal wires to the receiver throttle channel.
- First turn on your transmitter, then, connect the battery pack.
- Move the throttle stick to the lowest position and wait for a second, and then push the stick upward to start the motor running. If you don't keep the stick at the lowest position for a second, or the input battery voltage is too low (below 6V), the speed controller will not activate for your safety.
- If the motor would not start to run, adjust the throttle trim downward. If the speed controller still does not activate, disconnect the battery pack first and turn your transmitter off, then switch the reversing switch on your transmitter. Repeat the same procedure from 4 to activate the speed controller.
- LED Display:

All off =	Not activated / Auto-cut
Green on =	Ready / Brake (for GS version)
Red on =	Full throttle
Red flash =	Reset
- Cut off - The motor cutoff will occur when the input battery voltage drops below 5.4 volts (2S) or 8.1 volts (3S) for more than one half second, and also occur if the signal from the transmitter is lost, or if the radio noise becomes excessive. Once motor cutoff has occurred, moving the throttle to the braking position (full off for two seconds) will rearm the controller. This will allow restart of the motor at low throttle after cutoff has occurred.
- For better efficiency and maximum performance, we recommend installing the heat sink (supplied).
- Cut the shrink tubing and attach the head sink on the name plate (ICS-400, 600) or power MOS FET (ICS-300 · 480).

WARNING:

Repeated restarting of the motor may drain the battery to the point where the radio receiver will stop operating, resulting in a loss of control of the model.

GWS μ -Con ESC600

Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICS600E/F	Speed Controller • Futaba/C0/A0 Connector • 3.2V Auto Cut	\$25.38	A	
GW/ICS600E/J	Speed Controller • JR/C0/A0 Connector • 3.2V Auto Cut	\$25.38	A	
GW/ICS600H/F	Speed Controller • Futaba/C0/A0 Connector • For Helix	\$24.50	A	
GW/ICS600H/J	Speed Controller • JR/C0/A0 Connector • For Helix	\$24.50	A	
GW/ICS600/F	Speed Controller • Futaba/C0/A0 Connector • 4.2V Auto Cut	\$26.25	A	
GW/ICS600/J	Speed Controller • JR/C0/A0 Connector • 4.2V Auto Cut	\$26.25	A	
GW/ICS600S/F	Speed Controller • Futaba/C0/A0 Connector • w/Switch • 4.2V Auto Cut	\$28.00	A	
GW/ICS600S/J	Speed Controller • JR/C0/A0 Connector • w/Switch • 4.2V Auto Cut	\$28.00	A	
GW/GS600E/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • 3.2V Auto Cut	\$27.13	A	
GW/GS600E/J	Speed Controller • JR/C0/A0 Connector • w/Brake • 3.2V Auto Cut	\$27.13	A	
GW/GS600/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • 4.2V Auto Cut	\$28.00	A	
GW/GS600/J	Speed Controller • JR/C0/A0 Connector • w/Brake • 4.2V Auto Cut	\$28.00	A	
GW/GS600S/F	Speed Controller • Futaba/C0/A0 Connector • w/Brake • w/Switch • 4.2V Auto Cut	\$29.75	A	
GW/GS600S/J	Speed Controller • JR/C0/A0 Connector • w/Brake • w/Switch • 4.2V Auto Cut	\$29.75	A	
GWESC600	Speed Controller • Futaba/C0/A0 Connector • For Li-Po Batteries	\$28.00	A	
GWESC600A	Speed Controller • JR/C0/A0 Connector • For Li-Po Batteries	\$28.00	A	
GWESC600G	Speed Controller • Futaba/C0/A0 Connector • w/Brake • For Li-Po Batteries	\$29.75	A	
GWESC600GA	Speed Controller • JR/C0/A0 Connector • w/Brake • For Li-Po Batteries	\$29.75	A	

CTN Package:

Qty. Per CTN:

Size (L x W x H):

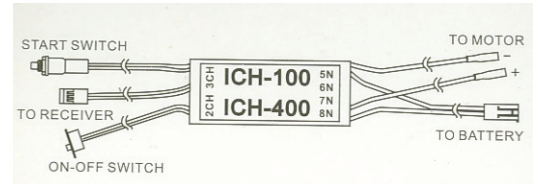
GWS ICH – Micro Speed Controller



ICH100



ICH400



Model	Motor	Auto-Cut	BEC	On-Off Switch	Reset Switch	Con. Current	Battery
ICH100	130	Yes	Yes	Yes	Yes	5A	5 – 8 cells (6V – 9.6V)
ICH400	380	Yes	Yes	Yes	Yes	15A	5 – 8 cells (6V – 9.6V)

OPERATION AND PRECAUTIONS:

1. Refer to the drawing for the wiring and installation
2. When installing the receiver, keep the receiver away from the motor and the motor power wires as far as possible.
3. Turn switch to 2-ch (spring type) or 3-ch (ratchet type) and select the suitable battery pack selection switches (5N/6.0V, 6N/7.2V, 7N/8.4V, or 8N/9.6V) on the speed controller.
4. Move the throttle stick up to the middle position and turn on ON-OFF switch, then push the start button. If the motor runs at the middle speed, it indicates that the speed controller is functioning properly.

WARNING:

- It is essential to stay within the parameters of the specification.
- Be sure to observe the proper polarity on the connectors and receiver sockets.
- Always disconnect the Ni-CD battery pack from the speed controller during charging and when aircraft is not in use. Plug in the battery pack just before attempting flight.
- Do not get the speed controller wet.
- Avoid shorting the circuit on the speed controller.

Part Number	Description	MSRP	Dealer	lb/Ctn
GW/ICH100F	Speed Controller • Futaba/C3/A1 Connector	\$10.50	A	
GW/ICH100J	Speed Controller • JR/C3/A1 Connector	\$10.50	A	
GW/ICH400F	Speed Controller • Futaba/C0/A2 Connector	\$14.00	A	
GW/ICH400J	Speed Controller • JR/C0/A2 Connector	\$14.00	A	

CTN Package:

Qty. Per CTN:

Size (L x W x H):

Connector Type

Speed Controller ↔ Motor



TAMIYA FEMALE



TAMIYA MALE



Speed Controller ↔ Battery



JST



JST



TAMIYA FEMALE



TAMIYA MALE