

High Frequency Hyper Digital Electronic Speed control

Please read this manual carefully for safe use of this product.

- 1. **Note on Usage** * In this manual, warnings are classified into two levels depending on the severity of " the danger posed by failure to observe the proper procedure, as follows "

Warning!

Failure to observe the matter discussed in such an item poses a serious threat of danger or severe injury.

•This product is only designed for use with radio controlled models. •Do not use for any other purpose. •Ensure all equipment is connected correctly. Loose connections may cause loss of control. •Ensure other users are not operating on your frequency before turning on the power switch. Interference may be caused if other drivers are using the same frequency. •Do not use the model during thunderstorms - there is a possibility of lightning striking the antenna. •Do not use the model in the rain or in a location where water might get on it. The unit may become wet and cause loss of control. •Do not run the model when you experience difficulties in concentration through tiredness, alcohol or medication. The misjudgment may result in an accident. •Ensure Ni-cd battery is disconnected after use. Accidental switching on of the unit may cause fire or cause the model to run out of control. •When storing the transmitter, batteries and model, ensure they are kept out of children's reach. Do not allow to come into contact with chemicals.

Caution!

Failure to observe the matter discussed in such an item poses a possibility of injury and a great likelihood of damage to the equipment or property.

•Do not short-circuit the battery terminals. It is dangerous and could cause a fire or explosion. •Ensure genuine KO Propo products are used for transmitter, receiver, servo and other option parts. We cannot assume any responsibility for the use of other company's products with this unit. •Always switch on the transmitter first, then the ESC, when turning off after use, always switch off ESC first followed by the transmitter. •Otherwise receiver catches the noise and the car may run out of control. •Do not touch the motor or ESC as heat is generated and may result in burning.

"From the view of quality for radio controlled model, we cannot assume any responsibility for the result by use of our products, please understand in advance."

Installation

Attach KSC-1200F to chassis plate using double sided tape.
"In case of crash during use, always install the switch in a safe place"

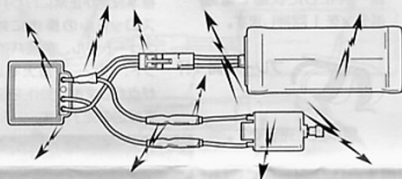
Join the connector

Caution!

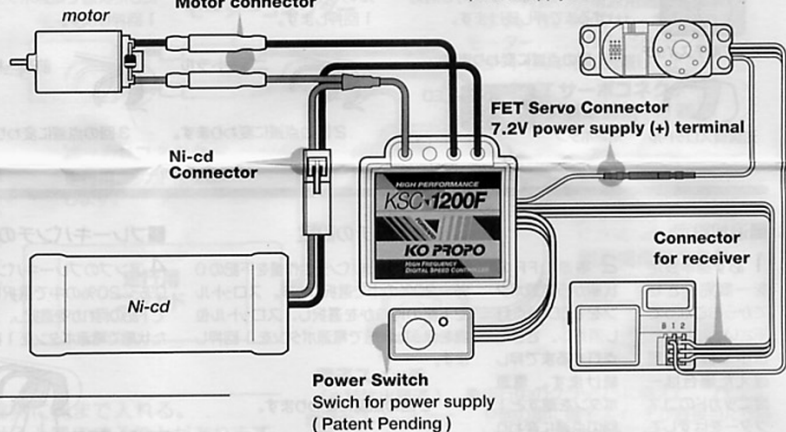
Install KSC-1200F away from antenna lead or receiver (especially crystal position).

Connect to Motor
Red to (+)
Green to (-)

In case of connecting KO Propo 7.2V servo, connect* to blue-coloured extra power supply terminal



Note that where electrical currents that can cause noise exist i.e. motor, speed controller, Ni-cd, and cables, the antenna must be routed away from such devices to prevent possible interference. Location of a high frequency speed controller requires careful attention to these factors.



Warning!

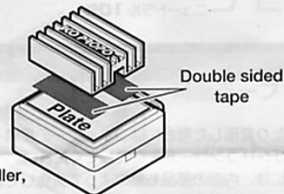
Ensure all connectors for the receiver, servo and switch are plugged together correctly.

Overheating

High temperature will make speed controller inefficient. In order to ensure best conditions by controlling increased temperature, it may be necessary to install heat sink and to make a ventilation slot in the bodyshell.

Installation of Heat Sink

For safety, please disconnect Ni-cd battery. Remove dust and dirt from heat sink (using alcohol cleaner). Attach double sided tape to heatsink before attaching to plate.

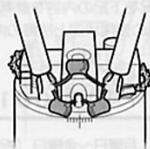


Heat by overload will activate the heat protector within the speed controller, which will stop operation to prevent further problems.

Motor Maintenance

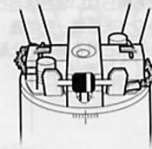
Installation of noise filter condenser

KSC1200F is a High Frequency Speed Controller. In order to control high frequency noise, install noise filter condenser to motor before use.



Installation of included schotki diode

Schotki diode has polarity. Install marked side to positive connection. (In this case, positive terminal is for the connection of red wire from the speed controller)



Connect to Negative(-) Connect to positive(+)

Caution!

Ensure correct set up of correct gear ratio, motor or rotating parts.
★Heat protector will be activated and cause the speed controller to stop operating.

Caution!

★Incorrect connection of schotki diode will damage the speed controller and may render it unusable.

Caution!

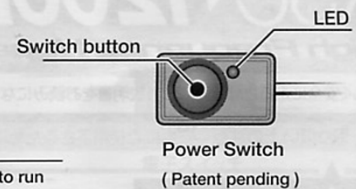
★After the initial installation, be sure to perform normal set up procedure. Without normal set up procedure, the unit may not work correctly.

Power Switch

The power switch for KSC-1200F is a 'touch type' which offers advantage over a mechanical switch

To switch on Ensure transmitter battery and model Ni-cd batteries are fully charged. Ensure correct connection. Press and hold touch button until LED flashes. holding further will enter the set up menu.

To switch off Press and hold touch button until LED goes out



Warning!

Ensure Ni-cd is disconnected when not in use. Accidental switching on may cause the model to run out of control.

Caution!

Always ensure transmitter is switched on first followed by model. When switching off ensure model is switched off first, followed by the transmitter. Incorrect procedure may cause the model to run out of control.

Setting up

△ Forward punch △ Brake punch ▽ Forward Only ▽ Forward and reverse preset factory settings.

△ Forward punch

Improves response to forward side of throttle

△ Brake punch

Improves response of brake

Better response does not mean better performance.
Set after actual running.

First make standard setting

Before start setting

Connect speed controller referring to previous 'installation' column

Change both transmitter and model battery before use.

Switch on at transmitter side

Factory preset for KO transmitter is 100%

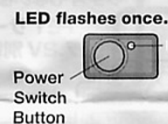
If the throttle turning angle has been adjusted at the transmitter return to factory default settings.

Ensure ABS and Acceleration functions are disabled on your transmitter.

Normal Set Up



1 *Press and hold the power switch until the LED lights, goes out and release.



2 Press the switch once whilst the throttle position is at neutral.



3 Press the switch once whilst the throttle is at the forward position.



4 Press the switch once whilst the throttle is at the reverse position.



End of Set Up.
Move on to additional set up for punch setting, forward only mode setting. (Factory setting is forward and reverse)

Additional Set Up

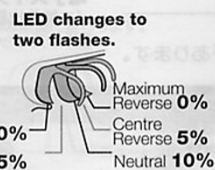
1 Normal set up procedure should be completed first. If there is any mistake during set up, disconnect the Nicad battery and do it again.

2 Press and hold the power switch button - LED will light, go off and flash once.



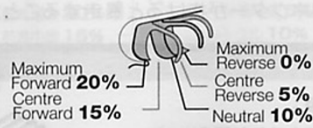
Set up for Forward Punch

3 Press the switch once at the following throttle positions. Forward Punch can be selected between 0%-20%.



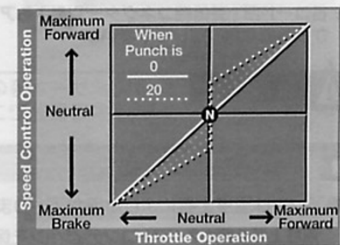
Set up for Brake Punch

4 Press the switch once at the following throttle positions. Brake Punch can be selected between 0%-20%.



End of Additional Set Up

Ensure normal set up is performed if Punch or Forward only mode is changed.



Repairs

After long use wear can occur on the cable connector. This may result in a loose connection between Ni-cd and speed controller. Dirt can cause the same effect.

Please change connector (ensuring polarity).

Should the case suffer heat damage, we would suggest you return it for inspection to KO Propo Service Dept. - initial components may also be heat damaged.

Should the unit become wet, please dry thoroughly. We suggest you to return it for inspection to KO Propo Service Dept.

If the item still does not function correctly, once again refer to this instruction manual for further checking.

If the fault persists, please contact our Service Dept.

When consulting, please place following information in detail.

- Name of TX, RX, servo, motor, Ni-cd, chassis
- Situation when trouble occurred
- Your Name, address or phone (or fax) number we can contact to

KONDO KAGAKU CO.,LTD.

4-17-7, Higashi-Nippori, Arakawa-ku, Tokyo, 116-0014, Japan

For more information **Phone:03-3807-7751**

Business hours: From Monday to Friday (Except for Sundays, and Japanese national holiday)
9 : 00AM-12 : 00PM , 1 : 00PM-5 : 00PM

Technical data based on standard data for each parts

- Operation method: CPU control
- Maximum peak current: 1200A
- BEC voltage: 6V
- Dimension: 32.5x33x1.5mm
- Operation input voltage: 7.2-8.4V
- Continuous peak current: 300A
- Maximum BEC current: 2A
- Gross weight: 47g
- Drive frequency: 1KHz
- Suitable motor: the motor which has 15turns, or less