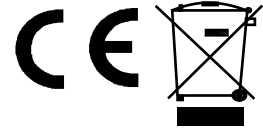


Fail Safe



Specifications.

Size.	34mm x 24mm x 15mm
Construction.	Boxed
Connections.	Via Fly Leads with plugs and sockets. Wired for Futaba/JR
Supply Voltage.	2.5v to 10.0v DC.
Supply Current.	9mA Approx., plus servo current. @ 4.8v
Output.	Follows input except during fail safe operation when signal width is adjustable between 1 and 2mS in 256 steps.

Description.

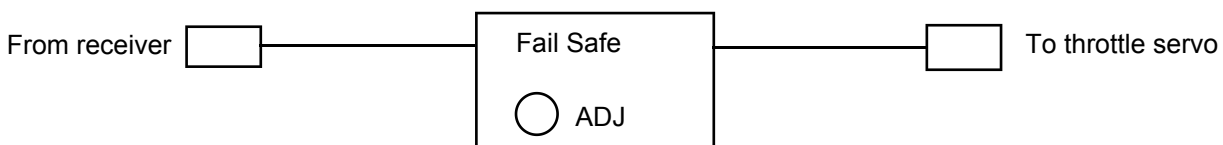
This module is a micro computer controlled signal monitoring system. Two main failure modes are checked for, corrupt signals and total signal loss.

As each servo pulse is received it is measured and only passed to the servo if it is within a pre-set width band. Any pulses that fail this test cause the computer to repeat the last valid pulse received, this will be repeated 66 times (approximately 2 seconds) before entering fail-safe mode. A valid pulse during the period prior to entering fail safe mode will reset the failure counter. Once fail-safe mode has been entered the computer will only exit upon receipt of 20 valid pulses (approximately 0.5 seconds).

If no pulses are received within 30mS (nominal frame rate plus 5mS) the computer will repeat the last valid pulse received, this will be repeated 66 times before entering fail-safe mode. A valid pulse during the period prior to entering fail-safe mode will reset the failure counter. Once fail-safe mode has been entered the computer will only exit upon receipt of 20 valid pulses.

Once the computer enters fail-safe mode it will generate a pulse whose width is determined by the user set switch, any pulse size between 1 and 2mS can be set.

To set up the fail-safe servo position first connect the fail-safe between the receiver and the servo, switch on the TX and RX and check servo operation, then switch off the TX and the servo will move to a set position, adjustment of the fail-safe position can now be carried out. (A jeweller's screwdriver is best)



Standard receiver wiring connections.

Lead function	Futaba	JR/New Sanwa	Hitec	Sanwa (old)
Positive = +	Red	Red	Red	3
Negative = -	Black	Brown	Brown	2
Signal	White	Orange	Yellow	1

Please refer to your equipment instructions for wiring codes if they are not listed.

WARNING

1. Do **NOT** reverse positive and negative wires. (Red and Black)
2. **ALWAYS** remove power from the unit before connecting or disconnecting any input or output connection, Failure to observe this instruction can damage both the unit or the equipment it is connected to.
3. **ALWAYS** range check when adding to or changing the control system of a model.
4. S.M. Services (UK) Ltd products are tested for use on the UK 35 Mhz aircraft frequency, use on other frequencies should not be a problem, however use on frequencies other than 35 Mhz is at the users risk.
If you have any questions or problems with this product please contact us, we are here to help you.

Your Guarantee

S.M. Services (UK) Ltd guarantee all products for 1 year from date of purchase. During this time S.M. Services (UK) Ltd will repair or replace all defective products free of charge, except for Units subject to fair wear and tear, or units that are subject to crash damage. To qualify for benefits under the guarantee you must have installed and used the product in accordance with S.M. Services (UK) Ltd instructions. Consequential losses and accidental damage to the product are not covered by the guarantee. S.M. Services (UK) Ltd cannot be held responsible for results of using our products for any purpose other than those described in the relevant instructions.

Returns

Any returned products ordered in error or are not required will if returned unopened in original product packaging within 28 days from date of purchase be subject to a full refund less shipping charges and a 5% handling charge. All other returns will be subject to a full refund less shipping charges and a 20% handling charge.