

SKYLEADER CLUBMAN SUPER

DIGITAL PROPORTIONAL CONTROL SYSTEM

INSTRUCTIONS

PLEASE READ THIS LEAFLET CAREFULLY and follow our recommendations for the installation and use of this equipment.

THIS SYSTEM REQUIRES NO ADJUSTMENT OR MAINTENANCE.
DO NOT TAMPER WITH IT: UNDER NO CIRCUMSTANCES LET
UNQUALIFIED PERSONS ATTEMPT ANY ADJUSTMENTS OF THE
SYSTEM - THIS VOIDS THE GUARANTEE.

COMPATIBILITY

It should be noted that previous models of Skyleader equipment CANNOT be operated by the Clubman Super transmitter. Similarly, the Clubman Super receiver is not compatible with previous transmitters, there will be a marked drop in range. Previous servos of the following type manufactured by ourselves can be used with the Clubman Super system. Logictrol MM3, Orbit PS3, FB3 low powered (RED) and high powered (YELLOW), Kraft KPS12 and SRC 1 black servos. Three and four wire servos should not be mixed in an installation.

BATTERIES AND CHARGING PROCEDURE

As supplied the equipment may be operated for a short time, but before attempting to fly the batteries should be charged overnight, (8-10 hours). NOTE: The transmitter can only be charged by the SKYLEADER CHARGER. The dual charger provided uses a double insulated transformer system which does not require an earth. The twin mains lead should therefore be connected to a suitable fused (1 amp) mains plug. It should be noted that the brown wire goes to the live pin and the blue wire to the neutral pin of the plug. Check to see that the charger operating voltage is correct for your supply.

TO CHARGE COMPLETE SYSTEM PROCEED AS FOLLOWS:

MAKE SURE THAT BOTH TRANSMITTER AND RECEIVER ARE SWITCHED OFF.

Connect charger to transmitter via the DIN 3 pin plug which plugs directly into the bottom of the transmitter. Connect charger to receiver battery by connecting small 3 way connector to mating connector on short fly lead from switch. With both connections made, the light emitting diodes on the charger will light up to indicate that the batteries are being charged. The two charging outlets are independent and therefore can be used separately. A full charge, from flat, is obtained in 10 hours, but the batteries can be left on considerably longer with no ill effects. The systems continuous operating time, with fully charged batteries, is approximately 3 hours. The transmitter meter is an indicator of relative output when the transmitter aerial is fully extended. Make a note of this reading for future reference. If, during after use, this reading is substantially lower than normal, check battery state and/or range.

SERVO IDENTIFICATION

Some servos are identified with a small spot. These servos have a reversed action when used in the same channel output as a non-spot servo. This feature can be used to ensure the correct operation of control surfaces particularly in the case of strip aileron installations where servo direction is important. It should be noted that conversion of a servo from rotary to rack operation effectively reverses the servo direction.

INSTALLATION

MORE TROUBLE IS CAUSED BY IMPROPER INSTALLATION OF EQUIPMENT THAN ANYTHING ELSE, FOLLOW THESE INSTRUCTIONS CAREFULLY AND MAKE A NEAT AND TIDY INSTALLATION.

We recommend the use of the servo trays provided to give adequate protection to your servos from vibration. Full instructions are shown on the installation card provided in the tray packs. Should you decide not to use the trays, it is essential that the servos are mounted with the rubber grommets supplied. Use either round head wood screws or self tapping screws at least $\frac{1}{2}$ " long, these are tightened until the heads just touch the grommets. Over tightening will subject the servo to vibration. Push rods and linkages should move freely without binding or sticking. Avoid metal to metal connections which may generate severe electrical noise interference which could prevent proper operation of the system. Do not use full length metal push rods, use a piece of hard Balsa with short pieces of 16 s.w.g. wire bound and glued to the ends. For the engine control, a full length wire or cable can be used running in a nylon tube. Use a nylon kwik link from the wire to the engine throttle control arm. Be sure that no servo jams against a mechanical stop before reaching its limit, particularly the engine servo. This will cause excessive battery drain and possible servo failure. The receiver power pack should be wrapped in foam rubber and stowed carefully in the nose of the aircraft. The receiver switch should be mounted on the side opposite to the exhaust. The receiver should be wrapped in FOAM RUBBER - NOT PLASTIC, and installed loosely in the fuselage; Do not compress foam rubber too much.

KEEP THE RECEIVER CASE AWAY FROM METAL PUSH RODS AND SERVOS. KEEP THE RECEIVER AERIAL AS FAR AS POSSIBLE FROM THE PUSH RODS, SERVOS, ETC.

Usually the aerial can be conveniently routed directly from the receiver compartment through the top of the fuselage and back to the top of the fin. A small rubber band can be tied on the end of the aerial and hooked on to the top of the fin to maintain tension on the aerial. Improper routing of the receiver aerial or mounting of the receiver can reduce the operating range of the system. DO NOT ALTER THE AERIAL LENGTH AS THIS IS PART OF THE Rf TUNING OF THE RECEIVER.

BENCH CHECK

After charging the batteries, connect up the power supply and servos to the receiver block. The plugs on the servos and battery pack are polarised. One pin is set apart from the other three pins - to prevent reversal of the plug when inserting into the block - UNLESS FORCED - accidental reversal of the plug will not damage the system, but the servo will not work. Place the receiver on a flat surface with block at bottom as shown in diagram 'A'. The battery pack plug is then inserted into the far LEFT socket followed by the servos the order of which is dependent on how many channels your equipment has and which mode you fly. Refer to the table of connections on diagram 'A'. An extension lead is permanently wired in for the aileron servo on 4, 5, and 7 channel outfits. It is advisable always to switch the transmitter ON before the receiver and the receiver OFF before the transmitter. Close range operation with the transmitter aerial removed, retracted or extended, may cause peculiar operation due to transmitter leak through or reflected signals from objects in the room. IGNORE THIS.

SERVOS

The Skylander SRC 1 is the first really miniature servo to offer the modeller the choice of rotary or rack output. Each servo is supplied as a rotary output with the choice of three output devices. Location of the output device is by the well tried splined cone which gives you minute incremental adjustment. In addition, the holes in the output discs have been located in such a way as to give further minute adjustment. To change the servo from rotary to rack output, remove output device and four top case screws. Carefully lift off top cover, leaving behind all gears and divider plate located in main centre body; plug servo into receiver and turn receiver and transmitter on, which will centre the electronics. Place two racks in position against exposed gear and line up ends of racks with scribed lines on divider plate. This is to ensure that the racks are both central and in the middle of the slots when the new top is put into position. Carefully position the new rack top cover over racks and locate on main centre body, replace the four screws. WARNING! DO NOT OVER TIGHTEN THESE OR YOU WILL BREAK THEM: USE A SMALL SCREWDRIVER WITH MINIMUM PRESSURE. TURN THE RECEIVER AND TRANSMITTER OFF.

RANGE AND VIBRATION CHECK

DO NOT RANGE CHECK WHEN OTHER EQUIPMENT IS FLYING OR BEING USED AS THIS COULD GIVE YOU A MISLEADING RESULT. It is good practice to occasionally check the ground range of the system. The first check-out should be with the aerial fully retracted when you should obtain reliable operation at approximately 75 paces, although you may notice a slight jittering of the servos before you reach this distance. This is a combination of a weak signal and the highly sensitive centring of the servos which are hunting to find their positive centre. This slight jittering at weak signal strength does not detract from the performance of the equipment. Having established that you have the necessary ground range with retracted aerial, remove aerial, stand close by model and operate controls. Back away from model slowly and controls should operate between 5-10 feet away. This then gives you a standard distance for the future checks before you fly. Should the aerial-off range decrease, check batteries.

FLYING

If possible, enlist the aid of an experienced proportional flyer to perform the initial flying and trimming of your aircraft. Whilst flying, do not touch the transmitter aerial and try not to point the aerial directly at the aircraft more than is necessary. The aerial's radiation pattern is weakest in the direction in which it is pointing. Normally the field strength is adequate, but if interference does occur, point the aerial in another direction to obtain full signal strength.

INSTRUCTOR/STUDENT TRAINING SYSTEM

This facility can be used with previous SLX or CLUBMAN transmitters provided that an extra adaptor lead is used.

- 1) Connect two transmitters together with the special lead.
- 2) The MASTER transmitter must be on the SAME FREQUENCY as the model you wish to fly.
- 3) Remove crystal from STUDENT transmitter and switch both transmitters ON. At this point the MASTER will have control.
- 4) Depress and hold the control button on the MASTER transmitter and the STUDENT will now have control. For MASTER to regain control, immediately release control button.

FREQUENCY CHANGE

The frequency of your Skyleader system can be changed by simply removing the transmitter crystal (under cap of TOP of case near aerial) and receiver crystal (pulls out from TOP of receiver case) and replacing with a matched pair of SKYLEADER crystals, obtainable from SKYLEADER RADIO CONTROL LTD., OR THEIR OFFICIAL AGENTS.
WARNING! DO NOT USE OTHER MAKES OF CRYSTALS.

Due to the precise tuning of this system and the differences that occur between makes of crystals, the equipment could be put off tune and not function correctly. Make sure, when installing new crystals, that the crystal marked 'T' is placed in the transmitter and the crystal marked 'R' in the receiver.
DON'T FORGET TO CHANGE YOUR TRANSMITTER PENNANT.

GUARANTEE

The Clubman system is guaranteed against defective workmanship and components for a period of 6 months from date of purchase. Evidence of tampering with the system, modifications or crash damage automatically voids the guarantee.

KEEP YOUR SALES INVOICE AS EVIDENCE OF DATE OF PURCHASE.

We, at SKYLEADER, hope that your CLUBMAN SUPER will give you satisfaction. If you have any problems or need servicing please do not hesitate to communicate with us. We are also interested to hear of your successes.

This equipment requires a model radio control licence issued by the Ministry of Posts and Telecommunications, Waterloo Bridge House, Waterloo Road, London S.E.1. The cost is £1.50 for five years.

SKYLEADER RADIO CONTROL LTD. AIRPORT HOUSE, PURLEY WAY, CROYDON.CRO OXZ.
TEL: 01 686 6688 or 0700

REPAIRS

TO ENSURE THE BEST POSSIBLE SERVICE PLEASE FOLLOW THESE INSTRUCTIONS

- 1) Return the complete system, even is you suspect only one part is faulty.
- 2) Completely separate the system from your installation. Do not send receiver taped in foam or servos mounted on trays etc., Label servos as to function.
- 3) If any changes have been made to the system which will interfere with factory check procedures, these may be altered to factory standards at yout expense.
- 4) Make a list of items returned and write a brief description of the difficulties encountered, enclose in an envelope and tape to the back of transmitter. Carefully pack all items in the polystyrene container supplied and then place in the cardboard outer carton and seal up.
- 5) Your equipment should be sent by INSURED POST.
- 6) Be sure to state your name and address - PRINT IN BLOCK CAPITALS PLEASE.
- 7) Your equipment will normally be returned by C.O.D. post. If this is not convenient, please make it absolutely clear in your letter. We will then send you your bill and as soon as we receive your remittance the equipment will be returned to you. You may, if you wish, send us a crossed blank cheque and we will fill in the amount due.

FIRST CLASS POST IS AVAILABLE ON REQUEST AT AN EXTRA COST.

CLUEMAN SUPER

DIAGRAM 'A'

Number of Channels	Mode	Socket 1	Socket 2	Socket 3	Socket 4	Socket 5	Socket 6	Socket 7
2	Left Hand Motor	Power	Motor	Rudder/Aileron	-	-	-	-
3	Left Hand Motor	Power	Motor	Elevator	Rudder/Aileron	-	-	-
3	Right Hand Motor	Power	Elevator	Motor	Rudder/Aileron	-	-	-
4	Left Hand Motor	Power	Rudder	Elevator	Motor	-	-	-
5	Left Hand Motor	Power	Rudder	Motor	Elevator	U/C Switch	-	-
5	Right Hand Motor	Power	Rudder	Elevator	Motor	U/C Switch	-	-
7	Left Hand Motor	Power	Rudder	Motor	Elevator	U/C Switch	Aux 1	Aux 2
7	Right Hand Motor	Power	Rudder	Elevator	Motor	U/C Switch	Aux 1	Aux 2

