OPERATING AND INSTALLATION INSTRUCTIONS FOR THE BRAMCO REGENT "8" and REGENT "6" SIMULTANEOUS RECEIVERS

It is suggested that the receiver be thoroughly bench tested before putting it into operation. The operator should thoroughly acquaint himself with the opertion of this receiver as it represents a new concept in multi-channel radio equipment. Clear instructions are furnished with each receiver.

The first step is the wiring of the power cable. The diagram should be carefully followed to avoid mistakes. A mistake in connecting the batteries can seriously damage your receiver. Above all, do not connect the B battery backwards as it may ruin the transistors in the set. Use only high quality compenents such as those furnished in the installation kit.

After the receiver has been wired, it may be turned on for the initial tune up. When the receiver is first turned on with no carrier present, the idle current will be 4 m. a. or less. Turn on an unmodulated (no tone) carrier. With the carrier on, tune the tuning slug in the receiver until the idle current suddenly drops to 1 m.a. (This idle current will depend on the receiver, some may idle as high as 2 m.a., but this is a normal condition and has no harmful effects on the transmitter. This tuning slug is accessible through the hole in the end of the case adjuacent totha antenna lead out. A special tool is provided in the installtionkit, with which you can tune the slug. Do not attempt to use long nose pliers or anything makeshift or metal. This may damage the slug, besides the fact that the tuning will be changed when the metal is removed. Also, note that the tuning adjustment has been put in a location which makes it easy to tune while installed in a plane. While tuning the slug you will note that as you pass through the peak, it will broad. This has been purposely made quite broad for the operator to une. Before operating, the receiver in a plane,it should be range checked for at least 1,000 feet. First check with the transmitter on, but no control on the control box should be pushed while checking idling current at this distance. At this distance the receiver will have to be more accurately tuned. This is because you are out of the swamping area of the receiver. After you have reached a normal idle, have someone press one of the tones on the transmitter and the receiver current should jump to approximately 8 to 10 m.a. Do not attempt to tune the receiver while a reed is vibrating. At this distance all of your simultaneous controls should be tried also, to make sure that the transmitter balance control and the control box is tuned properly. It is very important that the receiver should be range checked at at least 1,000 feet.

Anyone of the relays marked #1, 2, 3 and 4 can be operated simultaneously with any one of the remaining #5, 6, 7 and 8. However, relay #4 and 5 are sometimes difficult to operate simulteneously. This will come naturally if you practice tuning enough. If simultaneous operation becomes erratic and sometime fails to operate, but all channels are operating very well separately, this is usually caused by one of two things. Either the A battery in the transmitter has dropped to 1.2 volts or the B battery in the receiver has dropped below 36 volts. It is recommended that the Battery in the receiver be changed when it drops to 38 volts. The A battery in the transmitter should be changed to 1.25.

The reed contactors are all factory adjusted for best performance. If for some reason it becomes necessary to readjust them, use the following procedure: Lift the contact all of the way off of the reed. This is most easily accomplished by prying it up with a small screw drivdr. Then make the reed vibrate full amplitude by tuning the pots in the control box as per the transmitter instructions. With the reed vibrating full amplitude, push the contactor down until the reed vibrates half of its free running amplitude. Follow this method on all contacts which require readjustment. This is the only adjustment necessary on the reed bank.

The relays on the receiver may require occasional attention if operated in an extremely dirty atmosphere. Faulty relay operation is signified by erratic servo operation when the servo batteries are fully charged. The relays used in this receiver were especially designed for it. They use a special scrubbing action on the contacts and if care is not exercised in cleaning them, they can be permanently damaged. DO NOT use sandpaper or any such abrasive materials. Also, do not use carbon tetrachloride. The best cleaner for these relays is a Western Electric No. 265C contact burnisher. If you cannot buy or borrow one, the next best thing to use is a piece of cellophane off of a cigarette package.

The condition of the batteries is also important to the operation of the receiver. Always use the freshest batteries obtainable. Weak batteries cause slowly creeping battery current, erratic relay operation, lack of range, etc. Do not allow your B battery to go lower than 38 volts or the A battery lower than 1 volt.

Recommended receiver batteries:

A - batteries: 1 standard pencell - 1 1/2 volts.
B - batteries: 1 Burgess U30 or equivalent - 45 volts

When wiring the power cables into the plane, use only rosin core solder. Do not allow wires to hang loosely in the fuselage. Tack them down with pli-o-bond or a similaar cement. Do not run the antenna lead near any metal objects.

Your Regent receiver should be shock mounted with 3/8" or 1/2" foam rubber. This should be glued directly to the bottom of the receiver with pli-o-bond cement. It is also suggested that the receiver should be mounted vertically in the plane. Mounting the receiver in a vertical position eliminates almost all of the vibration produced by the engine. This same procedure should be used in high speed boats, where there is gas power or terrific vibration. In electric boats the receiver can be mounted in any position for your convenience. The use of foam rubber is not necessary in electric powered boats.

There is no wiring diagram for the boat servo installations. However, the airplane servo diagram can be used as follows: The elevator servo on the diagram should be changed to forward and reverse servo and the wires leading to the servo, #2 and 4 should be omitted. The rudder servo remains the same, except if a positionable rudder action is desired, then #2 and 4 wires from the servo should be omitted. A positionable servo is most desired in a boat, even at high speeds exceeding 60 mph. However, the rudder on a fast boat should be very deep. For example, on a 36" boat, powered by a hot .60 motor, the recommended rudder size is 4" deep and 3/4" wide with approximately 20° movement in either direction from center.

The throttle servo remains the same. On a gas powered boat, it could be linked directly to a Bramco throttle. On an electric powered boat, the throttle servo can be linked to a rheostat, size depending on the size of the motor being used. Example: A Pittman Panther will use a 6 Ohm rheostat rated at 25 watts. The aileron servo can be used for additional controls, such as anchor or boom, etc. Also on boats, the A and B battery for the receiver can be larger in size as weight isn't as important as it is in an airplane. Keep the voltage the same, 1 1/2 volts for A battery and 45 volts.

It is highly recommended that the recommendations and hook-ups of the servos be wired as specified by the servo manufacturer. However, all the servo battery wires can be combined into one cable according to their color coding. Example: All red wires can be tied together into one common red cable leading to the batteries. The same goes for the white and the black. This eliminates quite a bit of additional wiring. If four servos are to be used, it is recommended that the wires are size No. 20 stranded.

Before flying with the receiver, make a final checkout with the engine running. If everything operates erratically, loosen up the shock mountings. Never allow the receiver to touch anything in the fuselage as it may transmit vibration from the engine to the receiver.

We want to take this opportunity to wish you many, many happy hours of trouble-free flying, with the world's finest radio control equipment.

All Bramco radio equipment is fully guaranteed for one year against defective components and workmanship. This guarantee is automatically voided if either the transmitter or receiver has been tampered with. If for any reason the receiver has to be sent back to the factory, please include $5.00 to cover the cost of servicing and handling. If components are to be added through no fault of the manufacturer, additional charges will be made accordingly. If the receiver is damaged beyond repair, a new one can be had by sending in one-half the amount of the original retail price of the receiver, plus the damaged receiver, and a new one will be shipped directly to you.

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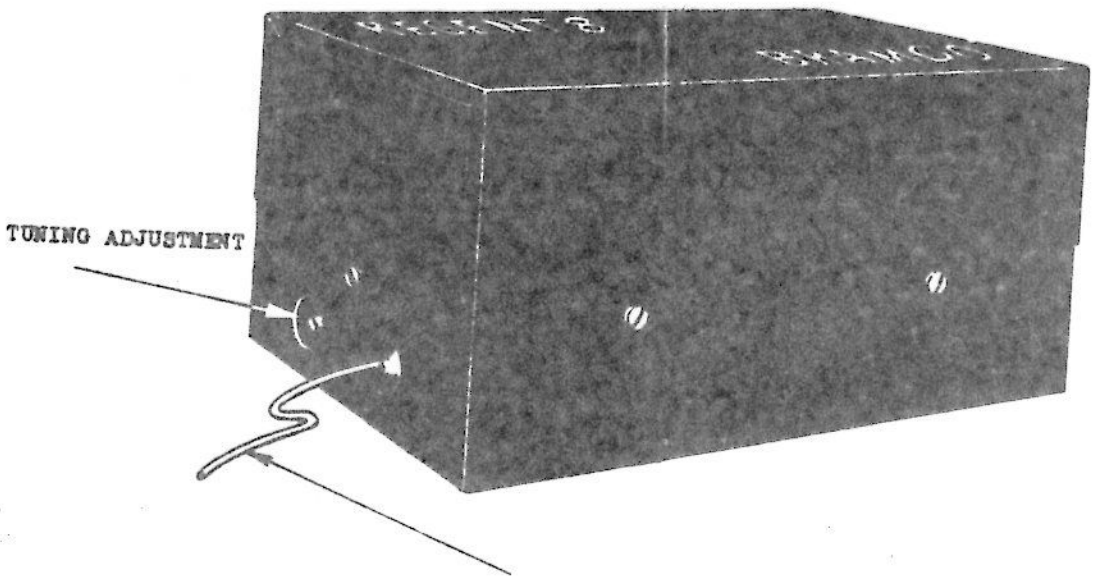
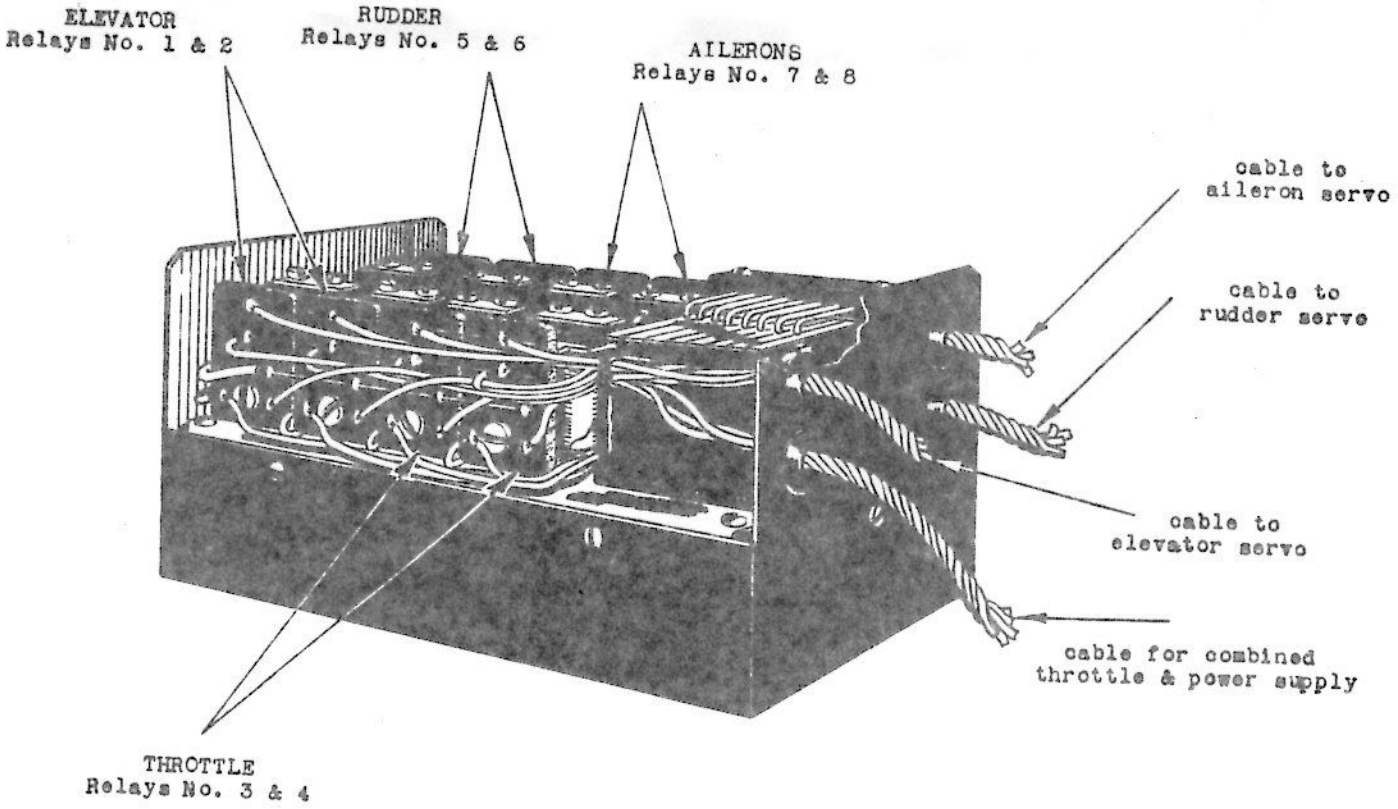
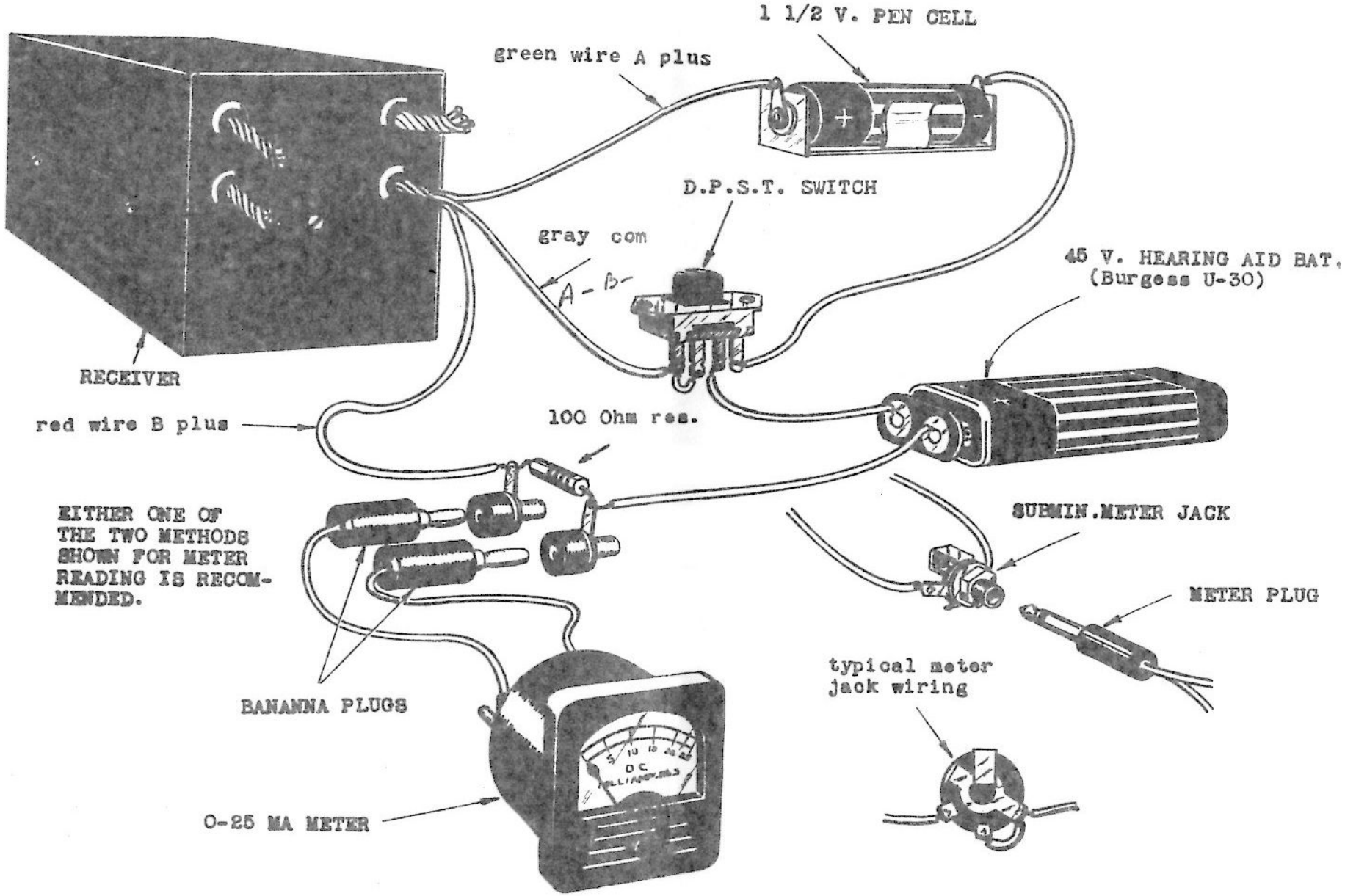
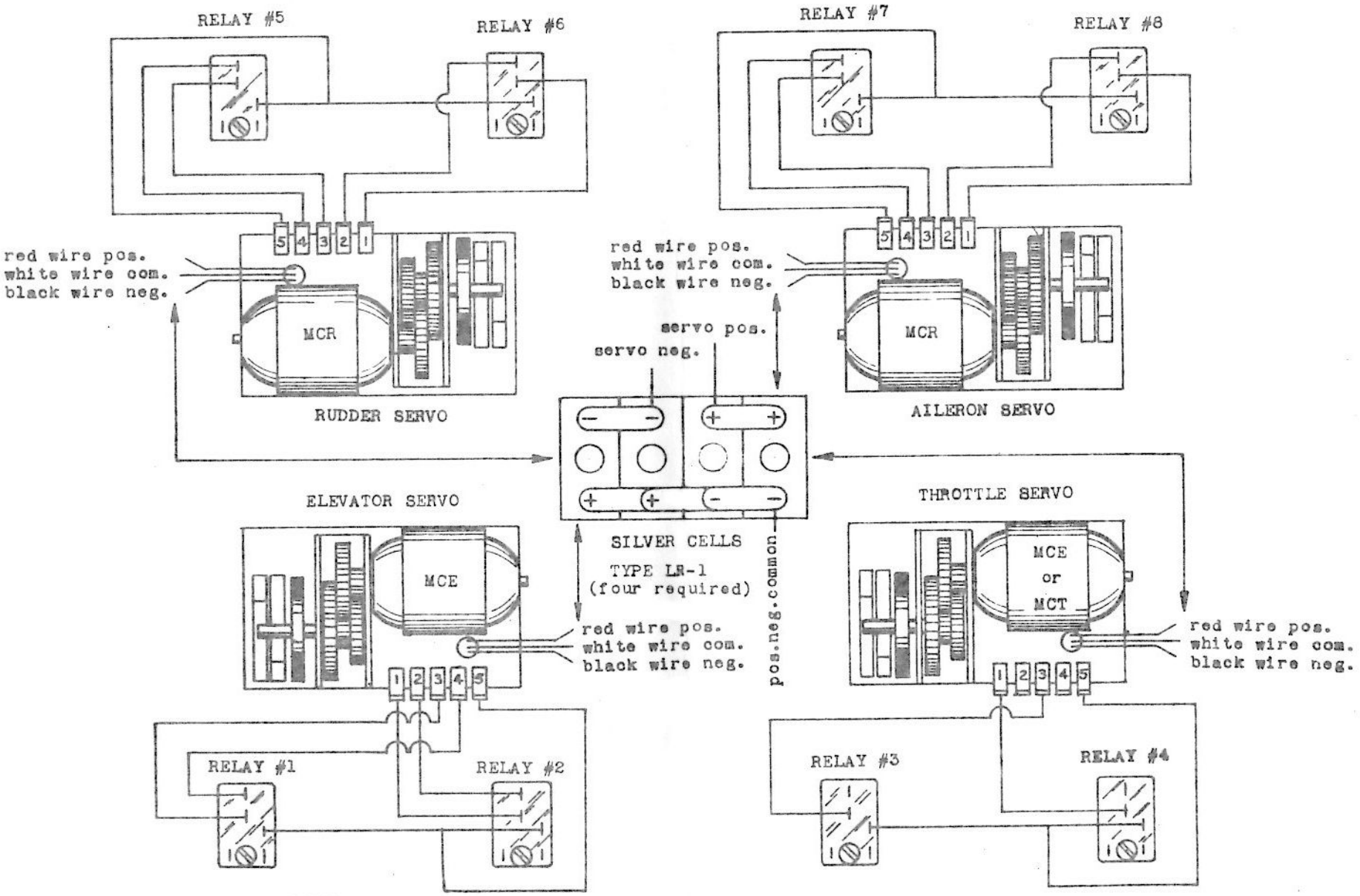
DETAILED DRAWINGS FOR WIRING YOUR BRANCO REGENT RECEIVER





POWER SUPPLY WIRING DIAGRAM FOR THE BRAMCO REGENT '8' and REGENT '6' RECEIVERS





SERVO WIRING DIAGRAM FOR BRAMCO REGENT '8' AND REGENT '6' RECEIVERS