

INSTRUCTIONS FOR INSTALLATION AND OPERATION OF BABCOCK MOTOR SPEED CONTROL AND SEQUENCE REVERSING RELAY

The BABCOCK Motor Speed Control and Sequence Reversing Relay is designed to provide complete control of the propelling motor in radio controlled boats and vehicles. Operation is relatively simple. It is operated from the relay contacts of a single channel radio receiver, from the relay contacts of one channel of a multiple channel radio receiver, or from the 3rd position switch of a BABCOCK Super Compound Escapement. When the Motor Speed Control and Sequence Reversing Relay is connected as shown in Fig. 1, the operation is slow reverse, stop, slow forward, stop, slow reverse, stop, full forward, stop, in that order. One pulse from the radio channel is required to move one position where the rotating wheel will remain until another pulse is received. It is not necessary to hold down the command button on the transmitter once the desired motor speed and direction are obtained. If motor rotation is opposite from that desired, the motor leads or motor battery leads should be reversed.

The BABCOCK Motor Speed Control and Sequence Reversing Relay should be mounted on a horizontal surface, since the armature return is accomplished through gravity rather than a spring. This feature eliminates critical adjustments and assures long trouble-free operation. Normal rocking or listing of a boat model will not effect operation.

The resistor in Fig. 1 controls the slow speed of the motor. Two 1.5 ohm resistors are supplied with your relay. For one Pittman #9001 motor, use both of these resistors in series. For one Pittman #9002 motor, use one of these resistors only. For two Pittman #9002 motors, use both resistors in parallel. The connections for the resistors are fully shown in Fig. 1. For other types and sizes of motors, various size resistors may be inserted until the desired slow speed is obtained.

The auxiliary contact on top of the unit operates each time and as long as the transmitted control signal is received. This contact may be used to operate a bell signal or other device. The return wire from the auxiliary device should be attached to a solder lug under the head of one of the relay mounting screws.

The maximum current rating of the motor control contacts is 10 amperes at six volts. The auxiliary contact rating is 5 amperes. The actuating coil requires three volts at 1 amp for operation. Minimum size battery would be composed of two size "D" dry cells. The motor drive battery may be tapped to provide the 3 volts for operating the actuating coil.

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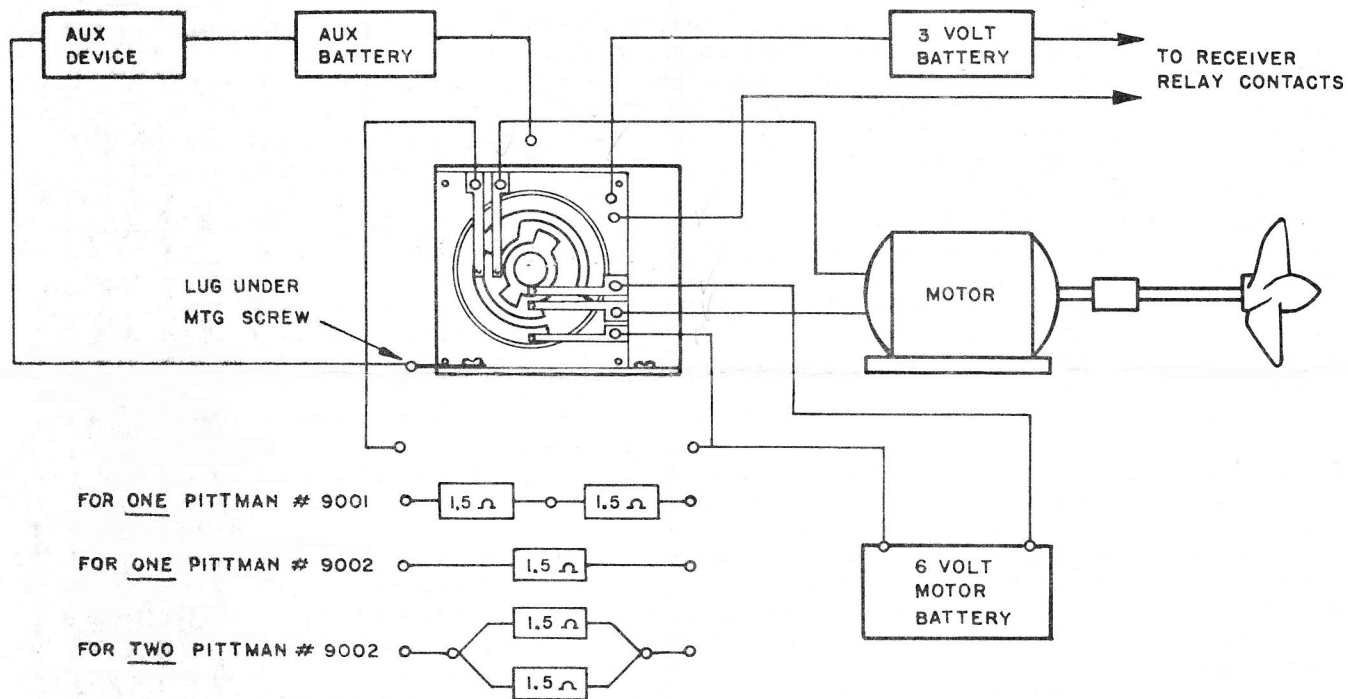


Figure 1. Schematic Diagram