

# MatchMaker™ Instructions

JRPA915

## FUNCTIONS (cont'd)

There are 5 open ports on the end of the MatchMaker, labeled 1, 2, 3, 4 and Batt.

- Ports 1 and 2 are for variable speed servo cycling.
- Ports 3 and 4 are for Servo Centering and positioning the servo at any point in its travel.
- Batt is to attach a 4.8 to 6.0V battery pack for a power source.

## FEATURES

- Allows the precise digital centering of up to 2 servos at a time to help with setup on the building bench.
- Allows for the cycling of up to two separate servos at a time at variable speed rates.
- Perfect for finding erratic servo behavior in the cycling mode.

## SPECIFICATIONS

- Size: 1.54"L X .75"H X .50" W
- Weight .32 oz
- Operating Voltage 4.8—6.0V

## INTRODUCTION

Thank you for the purchase of JR's newest high-value accessory, the MatchMaker™. The MatchMaker is designed to provide ultra-precise centering of up to two servos during setup of the control systems without transmitter and receiver active, and/or variable speed cycling of up to 2 separate servos at the same time.

## FUNCTIONS

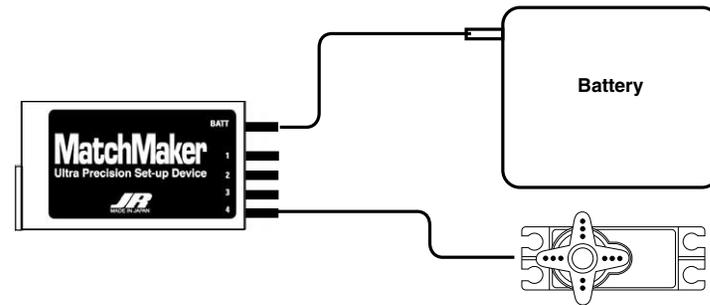
The various functions of the MatchMaker servo-testing device are accessed through the various plug-in ports and the rotary dial found on the end of the case.

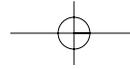
The Rotary dial serves two functions.

- When used in the servo setup mode, the rotary dial provides for the precise centering of the servo when the dial is rotated to the center of its travel. This center-point is easily identified by a positive detent in the rotary dial.
- When used in the cycling mode, the rotary dial serves to vary the speed that the servos cycle from end point to end point. Rotating the dial clockwise will increase the speed of the servo cycling, and rotating counter-clockwise will decrease that speed.

## CONNECTIONS

- To access the variable speed servo cycling and testing functions, connect one or two servos to ports 1 or 2.
- To access the servo centering and adjustment functions, connect one or two servos to ports 3 or 4.
- Connect a charged 4.8V (4-cell) or 6.0V (5-cell) battery pack to the Batt port to provide power for the setup or cycling/testing functions.





## USING THE MATCHMAKER

### Variable Speed Servo Cycling Mode

A great diagnostic feature of the MatchMaker™ is to use its variable rate cycling mode to identify glitches and/or stutter points in your servo's movement. By plugging into either port 1 or 2, and rotating the dial clockwise to slow the rotation, you can readily see any steps, stops, or jumps in the movement of your servo. At the indication of any one of these issues we suggest that you return the servo to your repair station for maintenance, as there may be a geartrain problem, a servo pot problem, or a motor problem.

Another great feature of the variable speed cycling mode is the ability to check the actual operating speeds of two identical servos. This would also be helpful when matching two servos for use on

one control surface. By attaching an elongated pointer to each of two servo arms, attaching these to two identical servos, and plugging both servos into the MatchMaker in ports 1 and 2, one can easily see a difference in speed by observing the movement of the elongated pointers.

### Servo Centering and Adjustment Mode

One of the best functions of the MatchMaker is finding the center of the servo travel so that your servo arms can be attached to the servo output gear with the correct orientation without using a transmitter and receiver! To accomplish this, simply center the rotary dial at the center detent and plug the servo(s) into either port 3 or 4. It is usually best to have the output arm of the servo parallel to the servo horn on the surface or

function to be activated. This insures that there will be equal movement of the surface and/or function on either side of the center-point of travel. Most servo brands have an odd number of teeth on the splined servo output gear. What this allows is that, by rotating the servo arm you plan to use by 90, 180 or 270 degrees, you are sure to find the perfect position that will give you the alignment you are seeking.

By rotating the rotary dial on the MatchMaker to either extreme, you will find the travel end points of the servo. You can use this feature to match the extremes of the servo travel to the desired surface travel. You can set the surfaces as close to nominal as you can mechanically, and then fine-tune the arrangement with the end-point

adjustment feature found in most of today's computer radios. And all without ever turning on your transmitter or using a receiver!

Another great feature of the servo travel mode is the ability to check and see if the actual end points of two identical servos match. This would be helpful when matching two servos for use on one control surface, etc. By attaching an elongated pointer to each of two servo arms, attaching these to two identical servos, and plugging both servos into the MatchMaker in ports 1 and 2, one can easily see a difference in servo position at any point in the travel by observing the movement of the elongated pointers.

## WARRANTY COVERAGE

Your new equipment is warranted to the original purchaser against manufacturer defects in material and workmanship for 3 years from the date of purchase. During this period, Horizon Service Center will repair or replace, at their discretion, any component that is found to be factory-defective at no cost to the purchaser. This warranty is limited to the original purchaser of the unit and is not transferable.

This warranty does not apply to any unit that has been improperly used, mishandled, abused, or to any unit that has been repaired or altered by any unauthorized agencies. Under no circumstances will the buyer be entitled to consequential or incidental damages. This limited warranty provides

specific legal rights, along with other rights that may vary from state to state. As with all fine electronic equipment, do not subject your unit to extreme temperatures, humidity or moisture. Do not leave it in direct sunlight for long periods of time.

## REPAIR SERVICE INSTRUCTIONS

### Warranty Repair

To receive warranty repair service, you must include a legible photocopy of your original dated sales receipt to verify the proof of purchase date. Providing that warranty conditions have been met, your equipment will be repaired without charge.

### Normal Non-Warranty Repairs

Should your repair cost exceed 50% of the retail purchase cost, you will be provided with an estimate advising you of your options.

Within your letter, advise us of the payment method you prefer to use. Horizon service center accepts Visa or MasterCard. Please include your card number and expiration date. Mail your system to:

Horizon Service Center  
4105 Fieldstone Road  
Champaign, Illinois 61822  
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