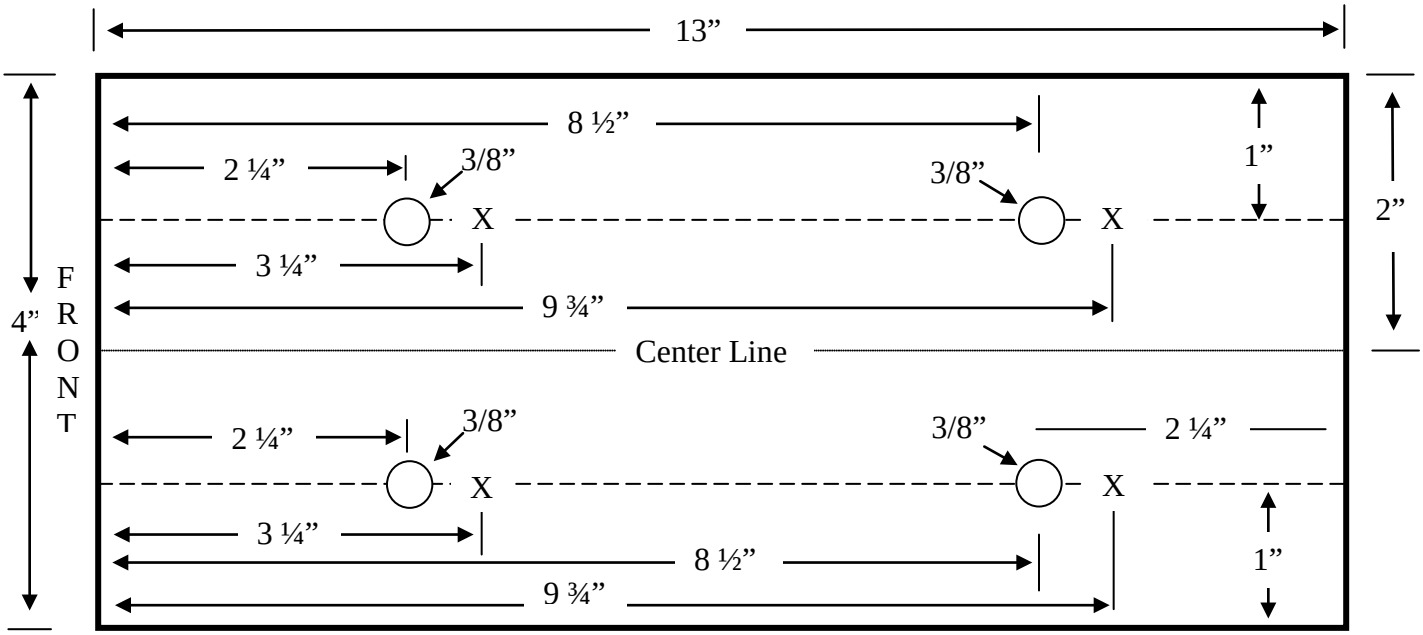
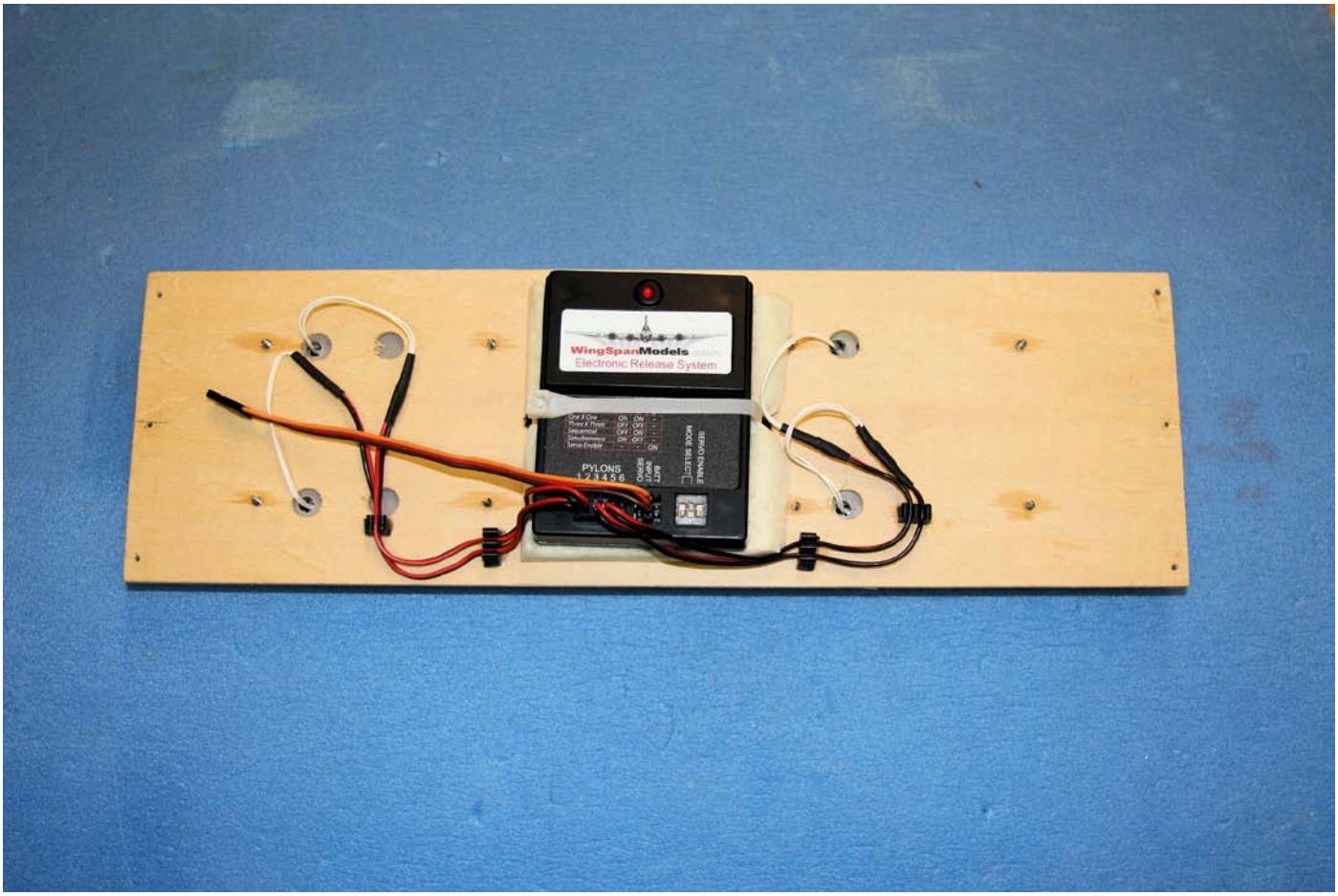
ESM B-25

Installation of WingSpan Models electronic bomb release system.

IF YOU ARE NEW TO MODELING SEEK HELP WITH THIS PROJECT AS IT REQUIRES A HIGH DEGREE OF BUILDING SKILL AND KNOWLEDGE OF CONSTRUCTION.

1. Bomb platform is made out of 1/8th plywood 13”x 4”.
2. Draw two lines one inch in from both edges on the long side.
3. Mark one end as the front. Measure from the front end 3 ½ inches and mark a point on both lines drawn in step one. (see diagram below).
4. Measure from the front along the lines drawn in step one 9 ¾ inches. Mark these points. (see diagram below).
5. The points marked in steps 3 and 4 are the centers for the release mechanism.
6. Measure from the front along the lines drawn in steps 3 and 4, 2 1/4 inches and 8 ½ inches. Mark these points. Drill a 3/8th hole at these four points. These are for the control wires to pass through.
7. Mount all four release mechanisms with the screws provided. Make sure they are facing the correct way. The blunt or non tapered end is the front.
8. This completes the installation of the release mechanisms.
9. Mount the electronics module on the top side with foam. This completes the bomb drop electronics installation.





Bomb bay doors.

1. Mark the center of the bomb bay section front to rear. Draw a line front to back.
2. Measure inches from the front and draw a line 90 degrees to the center line. Make this line two inches on either side of center. This will be the front edge of the bomb bay doors.
3. Measure inches form the front and draw a line 90 degrees to the center line. Make this line two inches on either side of center. This will be the rear of the doors.
4. Draw a line from the ends of the two inch lines in the front to the ends of the two inch lines in the rear. When you are done you will have a rectangle 4 inches by 13 inches.
5. Drill a 1/8th inch hole at all four corners of the rectangle. Drill a 1/8th inch hole at the center of the front line and rear line.
6. It is suggested that you reinforce the inside of the opening with 1/8th x ½ inch hard wood. Center the wood over the edges of the doors. Use 30

minute epoxy. This will give support to the doors when you cut them out. The holes will give you the location of the edges and make it easy to line up the hard wood edges.

7. After the epoxy has cured cut out the doors with cut-off wheel. Keep the cuts as straight as possible.
8. Next make a front and rear bulkhead and epoxy them in using 30 minute. The front bulkhead wants to be on the front side of the hard wood strip and 90 degrees to the hard wood strip. The rear bulkhead is mounted to the rear of the hard wood strip and 90 degrees to the hard wood strip. Make sure that the inside distance is 13 inches.
9. Next cut a strip of hard wood and epoxy to the bulkheads xxx inches from the outside of the bomb bay opening. This is the cleat to mount the bomb bay platform you made earlier.
10. Hinging will be left up to the modeler. A good set of off-set hinges will work but takes a bit of trial and error to get them just right.
11. Trial fit the bomb platform. It should be a snug fit. When satisfied screw in place with three # 4 wood screws front and rear.
12. When the doors are closed they will be very close to the bombs so check the clearance.
13. The doors are operated by a servo in the front and rear with a “y” going to the control module. Build the linkage to according to diagram #4.