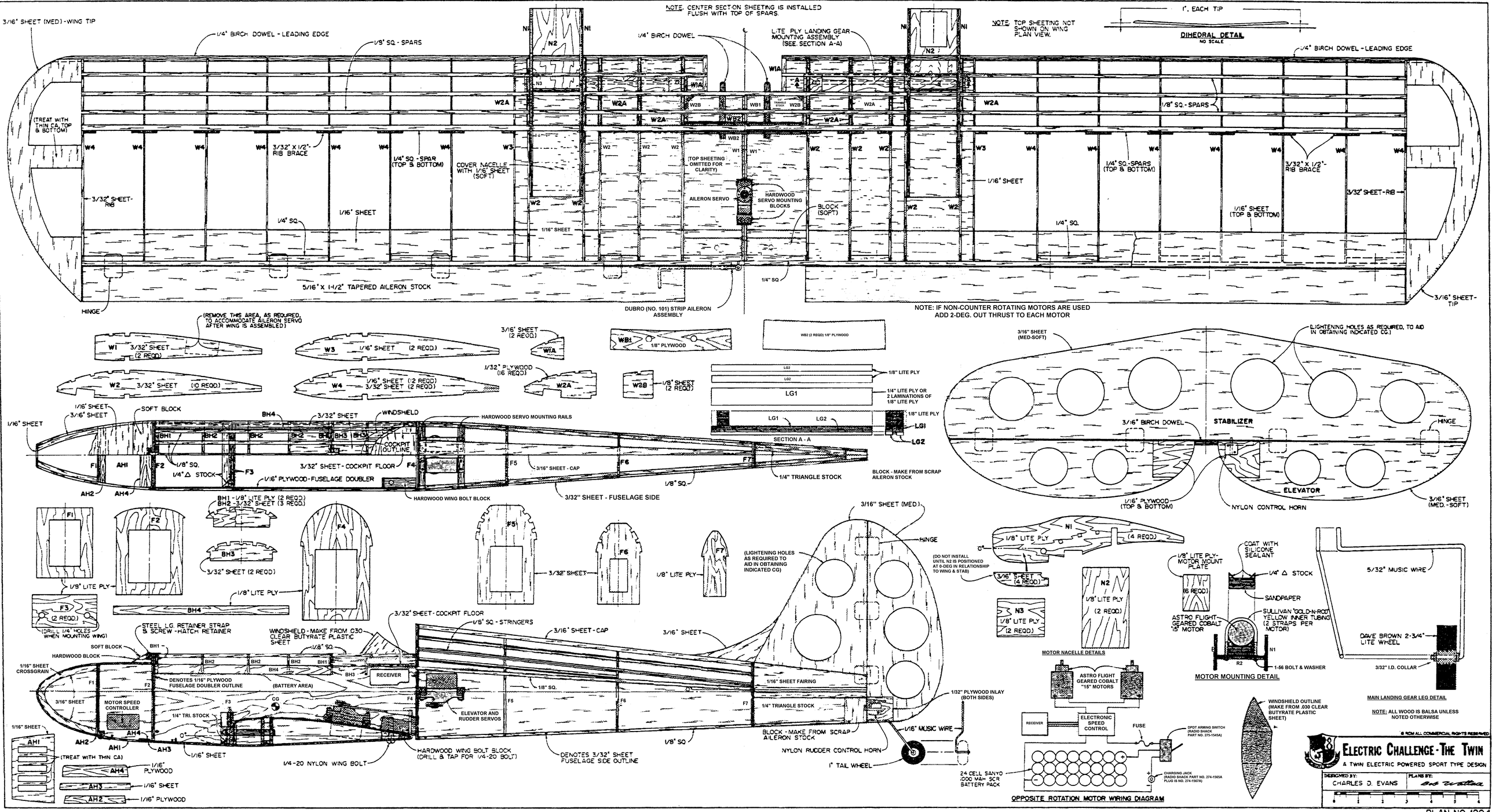
NOTE: CENTER SECTION SHEETING IS INSTALLED FLUSH WITH TOP OF SPARS.
NOTE: TOP SHEETING NOT SHOWN ON WING PLAN VIEW.
DIHEDRAL DETAIL
NO SCALE
1" EACH TIP
3/16" SHEET (MED) - WING TIP
1/4" BIRCH DOWEL - LEADING EDGE
1/8" SQ. - SPARS
1/4" BIRCH DOWEL
LITE PLY LANDING GEAR MOUNTING ASSEMBLY (SEE SECTION A-A)
1/8" SQ. - SPARS
(TREAT WITH THIN CA, TOP & BOTTOM)
3/32" X 1/2" RIB BRACE
1/4" SQ. - SPAR (TOP & BOTTOM)
COVER NACELLE WITH 1/16" SHEET (SOFT)
(TOP SHEETING OMITTED FOR CLARITY)
1/4" SQ. - SPARS (TOP & BOTTOM)
3/32" X 1/2" RIB BRACE
3/32" SHEET - RIB
1/16" SHEET
1/4" SQ.
AILERON SERVO
HARDWOOD SERVO MOUNTING BLOCKS
BLOCK (SOFT)
1/16" SHEET (TOP & BOTTOM)
5/16" X 1-1/2" TAPERED AILERON STOCK
HINGE
DUBRO (NO. 101) STRIP AILERON ASSEMBLY
3/16" SHEET - TIP
NOTE: IF NON-COUNTER ROTATING MOTORS ARE USED ADD 2-DEG. OUT THRUST TO EACH MOTOR
(REMOVE THIS AREA, AS REQUIRED, TO ACCOMMODATE AILERON SERVO AFTER WING IS ASSEMBLED)
W1 3/32" SHEET (2 REQD)
W3 1/16" SHEET (2 REQD.)
3/16" SHEET (2 REQD.)
W1A
WB1 1/8" PLYWOOD
WB2 (2 REQD) 1/8" PLYWOOD
1/32" PLYWOOD (16 REQD)
W2 3/32" SHEET (10 REQD)
W4 1/16" SHEET (2 REQD) 3/32" SHEET (2 REQD)
W2A
W2B 1/8" SHEET (2 REQD)
LG2
1/8" LITE PLY
LG1
1/4" LITE PLY OR 2 LAMINATIONS OF 1/8" LITE PLY
SECTION A - A
3/16" SHEET (MED-SOFT)
(LIGHTENING HOLES AS REQUIRED TO AID IN OBTAINING INDICATED CG.)
3/16" BIRCH DOWEL
STABILIZER
HINGE
ELEVATOR
1/16" PLYWOOD (TOP & BOTTOM)
NYLON CONTROL HORN
3/16" SHEET (MED.-SOFT)
1/16" SHEET
3/16" SHEET
SOFT BLOCK
BH4
3/32" SHEET
WINDSHIELD
HARDWOOD SERVO MOUNTING RAILS
BH1
BH2
BH3
COCKPIT OUTLINE
F1
AH1
F2
1/8" SQ.
1/4" Δ STOCK
F3
3/32" SHEET - COCKPIT FLOOR
F4
F5
3/16" SHEET - CAP
F6
F7
1/16" PLYWOOD - FUSELAGE DOUBLER
1/8" SQ.
1/4" TRIANGLE STOCK
BLOCK - MAKE FROM SCRAP AILERON STOCK
AH2
AH4
HARDWOOD WING BOLT BLOCK
3/32" SHEET - FUSELAGE SIDE
BH1 - 1/8" LITE PLY (2 REQD)
BH2 - 3/32" SHEET (3 REQD)
BH3
3/32" SHEET (2 REQD)
BH4
1/8" LITE PLY
F3 (2 REQD)
(DRILL 1/4" HOLES WHEN MOUNTING WING)
3/32" SHEET
1/8" LITE PLY
3/16" SHEET (MED.)
HINGE
(LIGHTENING HOLES AS REQUIRED TO AID IN OBTAINING INDICATED CG)
STEEL LG. RETAINER STRAP & SCREW - HATCH RETAINER
WINDSHIELD - MAKE FROM .030 CLEAR BUTYRATE PLASTIC SHEET
3/32" SHEET - COCKPIT FLOOR
1/8" SQ. - STRINGERS
3/16" SHEET - CAP
3/16" SHEET
SOFT BLOCK
HARDWOOD BLOCK
1/16" SHEET CROSSGRAIN
DENOTES 1/16" PLYWOOD FUSELAGE DOUBLER OUTLINE
(BATTERY AREA)
RECEIVER
1/16" SHEET FAIRING
MOTOR SPEED CONTROLLER
1/4" TRI. STOCK
CG
ELEVATOR AND RUDDER SERVOS
1/4" TRIANGLE STOCK
1/32" PLYWOOD INLAY (BOTH SIDES)
BLOCK - MAKE FROM SCRAP AILERON STOCK
1/16" MUSIC WIRE
NYLON RUDDER CONTROL HORN
1" TAIL WHEEL
1/8" SQ
1/4-20 NYLON WING BOLT
HARDWOOD WING BOLT BLOCK (DRILL & TAP FOR 1/4-20 BOLT)
DENOTES 3/32" SHEET FUSELAGE SIDE OUTLINE
(TREAT WITH THIN CA)
1/16" PLYWOOD
1/16" SHEET
AH4
AH3
AH2
N1
1/8" LITE PLY
(4 REQD)
(DO NOT INSTALL UNTIL N2 IS POSITIONED AT 0-DEG IN RELATIONSHIP TO WING & STAB)
3/16" SHEET (4 REQD)
N2
1/8" LITE PLY (2 REQD)
N3
1/8" LITE PLY (2 REQD)
MOTOR NACELLE DETAILS
1/8" LITE PLY - MOTOR MOUNT PLATE
(6 REQD)
COAT WITH SILICONE SEALANT
1/4" Δ STOCK
SANDPAPER
ASTRO FLIGHT GEARED COBALT "15" MOTOR
SULLIVAN "GOLD-N-ROD" YELLOW INNER TUBING (2 STRAPS PER MOTOR)
N1
R2
1-56 BOLT & WASHER
MOTOR MOUNTING DETAIL
5/32" MUSIC WIRE
DAVE BROWN 2-3/4" LITE WHEEL
3/32" I.D. COLLAR
MAIN LANDING GEAR LEG DETAIL
NOTE: ALL WOOD IS BALSA UNLESS NOTED OTHERWISE
ASTRO FLIGHT GEARED COBALT "15" MOTORS
RECEIVER
ELECTRONIC SPEED CONTROL
FUSE
DPDT ARMING SWITCH (RADIO SHACK PART NO. 275-1545A)
CHARGING JACK (RADIO SHACK PART NO. 274-1565A PLUG IS NO. 274-1567A)
24 CELL SANYO 1000 MAH SCR BATTERY PACK
OPPOSITE ROTATION MOTOR WIRING DIAGRAM
WINDSHIELD OUTLINE (MAKE FROM .030 CLEAR BUTYRATE PLASTIC SHEET)
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ELECTRIC CHALLENGE - THE TWIN
A TWIN ELECTRIC POWERED SPORT TYPE DESIGN
DESIGNED BY:
CHARLES D. EVANS
PLANS BY:
Bob Wallace
PLAN NO. 100