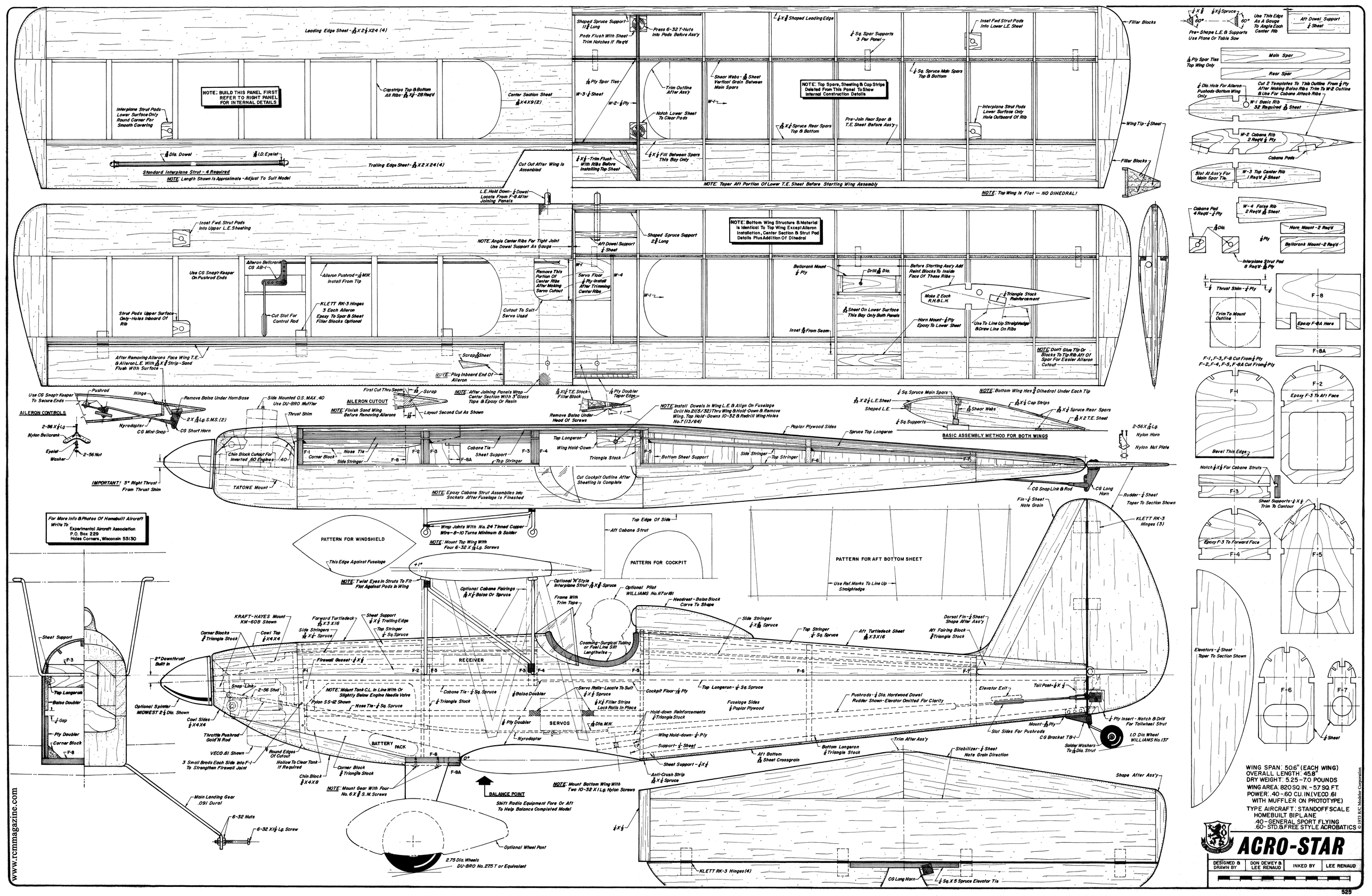
NOTE: BUILD THIS PANEL FIRST REFER TO RIGHT PANEL FOR INTERNAL DETAILS
Leading Edge Sheet - 3/32 X 2 1/2 X 24 (4)
Capstrips Top & Bottom All Ribs - 3/32 X 1/4 - 28 Req'd
Center Section Sheet 3/32 X 4 X 9 (2)
Interplane Strut Pads - Lower Surface Only Round Corner For Smooth Covering
Dia. Dowel
I.D. Eyelet
Standard Interplane Strut - 4 Required
NOTE: Length Shown Is Approximate - Adjust To Suit Model
Trailing Edge Sheet - 3/32 X 2 X 24 (4)
Cut Out After Wing Is Assembled
L.E. Hold Down - 1/4 Dowel Locate From F-6 After Joining Panels
Shaped Spruce Support 11/8 Long
Pads Flush With Sheet Trim Notches If Req'd
Press 6-32 T-Nuts Into Pads Before Ass'y
1/16 Ply Spar Ties
W-3 - 1/4 Sheet
W-2 - 1/4 Ply
Trim Outline After Ass'y
Notch Lower Sheet To Clear Pads
1/4 X 1/4 - Trim Flush With Ribs Before Installing Top Sheet
1/4 X 1/4 Fill Between Spars This Bay Only
1/4 X 3/8 Shaped Leading Edge
1/4 Sq. Spar Supports 3 Per Panel
Shear Webs - 3/32 Sheet Vertical Grain Between Main Spars
W-1
NOTE: Top Spars, Sheeting & Cap Strips Deleted From This Panel To Show Internal Construction Details
1/4 X 1/4 Spruce Rear Spars Top & Bottom
Pre-Join Rear Spar & T.E. Sheet Before Ass'y
Inset Fwd Strut Pads Into Lower L.E. Sheet
1/4 Sq. Spruce Main Spars Top & Bottom
Interplane Strut Pads Lower Surface Only Hole Outboard Of Rib
Filler Blocks
Wing Tip - 1/4 Sheet
NOTE: Taper Aft Portion Of Lower T.E. Sheet Before Starting Wing Assembly
NOTE: Top Wing Is Flat — NO DIHEDRAL!
1/4 X 1/4 Spruce
Use This Edge As A Gauge To Angle Each Center Rib
60°
Pre-Shape L.E. & Supports Use Plane Or Table Sow
Aft Dowel Support 1/4 Sheet
1/4 Ply Spar Ties Top Wing Only
Main Spar
Rear Spar
1/4 Dia. Hole For Aileron Pushods - Bottom Wing Only
Cut 2 Templates To This Outline From 1/4 Ply After Making Balsa Ribs Trim To W-2 Outline & Use For Cabana Attach Ribs
W-1 Basic Rib 32 Required 3/32 Sheet
W-2 Cabana Rib 2 Req'd 1/4 Ply
Cabana Pads
Slot At Ass'y For Main Spar Tie
W-3 Top Center Rib 1 Req'd 1/4 Sheet
Cabana Pad 4 Req'd - 1/4 Ply
W-4 False Rib 2 Req'd 3/32 Sheet
Dia.
1/4 Ply
Horn Mount - 2 Req'd
Bellcrank Mount - 2 Req'd
Interplane Strut Pad 8 Req'd 3/32 Ply
Thrust Shim - 1/4 Ply
Trim To Mount Outline
F-8
Epoxy F-8A Here
F-8A
F-1, F-3, F-9 Cut From 1/4 Ply
F-2, F-4, F-5, F-8A Cut From 1/4 Ply
F-1
F-2
Epoxy F-3 To Aft Face
Bevel This Edge
Notch 1/4 X 1/4 For Cabana Struts
F-3
Sheet Supports - 1/4 X 1/4 Trim To Contour
Epoxy F-3 To Forward Face
F-4
F-5
Elevators - 1/4 Sheet Taper To Section Shown
F-6
F-7
1/4 Sheet
Inset Fwd. Strut Pads Into Upper L.E. Sheeting
NOTE: Angle Center Ribs For Tight Joint Use Dowel Support As Gauge
Aft Dowel Support 1/4 Sheet
Shaped Spruce Support 2 1/2 Long
NOTE: Bottom Wing Structure & Material Is Identical To Top Wing Except Aileron Installation, Center Section & Strut Pad Details Plus Addition Of Dihedral
Use CG Snap'r Keeper On Pushrod Ends
Aileron Bellcrank CG AB-1
Aileron Pushrod - 1/4 MW. Install From Tip
Remove This Portion Of Center Ribs After Making Servo Cutout
Servo Floor 1/4 Ply - Install After Trimming Center Ribs
Cutout To Suit Servo Used
Strut Pads Upper Surface Only - Holes Inboard Of Rib
Cut Slot For Control Rod
KLETT RK-3 Hinges 3 Each Aileron Epoxy To Spar & Sheet Filler Blocks Optional
Bellcrank Mount 1/4 Ply
Drill 3/16 Dia.
Before Starting Ass'y Add Reinf. Blocks To Inside Face Of These Ribs
Make 2 Each R.H. & L.H.
1/4 Triangle Stock Reinforcement
3/32 Sheet On Lower Surface This Bay Only Both Panels
Inset 1/16 From Seam
Horn Mount - 1/4 Ply Epoxy To Lower Sheet
Use To Line Up Straightedge & Draw Line On Ribs
NOTE: Don't Glue Tip Or Blocks To Tip Rib Aft Of Spar For Easier Aileron Cutout
After Removing Ailerons Face Wing T.E. & Aileron L.E. With 3/8 X 3/8 Strip - Sand Flush With Surface
Scrap 3/32 Sheet
NOTE: Plug Inboard End Of Aileron
AILERON CONTROLS
Use CG Snap'r Keeper To Secure Ends
Pushrod
Hinge
Remove Balsa Under Horn Base
2-56 X 1/4 Lg.
Nylon Bellcrank
Eyelet
Washer
2-56 Nut
Nyrodapter
CG Mini-Snap
2 X 3/8 Lg. S.M.S. (2)
CG Short Horn
Side Mounted O.S. MAX .40 Use DU-BRO Muffler
Thrust Shim
AILERON CUTOUT
NOTE: Finish Sand Wing Before Removing Ailerons
First Cut Thru Seam
Scrap
Layout Second Cut As Shown
NOTE: After Joining Panels Wrap Center Section With 3" Glass Tape & Epoxy Or Resin
1/8 X 1/4 T.E. Stock Filler Block
1/8 Ply Doubler Taper Edge
Remove Balsa Under Head Of Screws
NOTE: Install Dowels In Wing L.E. & Align On Fuselage Drill No. 21 (5/32) Thru Wing & Hold-Down & Remove Wing. Top Hold-Downs 10-32 & Redrill Wing Holes No. 7 (13/64)
1/4 Sq. Spruce Main Spars
NOTE: Bottom Wing Has 3° Dihedral Under Each Tip
3/32 X 2 1/2 L.E. Sheet
Shaped L.E.
1/4 Sq. Supports
3/8 Shear Webs
3/32 X 1/4 Cap Strips
3/32 X 1/4 Spruce Rear Spars
3/32 X 2 T.E. Sheet
BASIC ASSEMBLY METHOD FOR BOTH WINGS
2-56 X 1/4 Lg.
Nylon Horn
Nylon Nut Plate
Chin Block Cutout For Inverted .60 Engines
.40
IMPORTANT! 3° Right Thrust From Thrust Shim
TATONE Mount
Corner Block
Nose Tie
Side Stringer
F-1
F-2
F-3
F-8
F-8A
Cabana Tie
Sheet Support
Top Stringer
Top Longeron
Wing Hold-Down
Triangle Stock
Cut Cockpit Outline After Sheeting Is Complete
Bottom Sheet Support
Side Stringer
Top Stringer
F-6
F-7
Poplar Plywood Sides
Spruce Top Longeron
NOTE: Epoxy Cabana Strut Assemblies Into Sockets After Fuselage Is Finished
CG Snap Link & Rod
CG Long Horn
Rudder - 1/4 Sheet Taper To Section Shown
Fin - 1/4 Sheet Note Grain
KLETT RK-3 Hinges (3)
For More Info & Photos Of Homebuilt Aircraft Write To: Experimental Aircraft Association P.O. Box 229 Hales Corners, Wisconsin 53130
PATTERN FOR WINDSHIELD
This Edge Against Fuselage
Wrap Joints With No. 24 Tinned Copper Wire - 8-10 Turns Minimum & Solder
NOTE: Mount Top Wing With Four 6-32 X 1/2 Lg. Screws
Top Edge Of Side
Aft Cabana Strut
PATTERN FOR COCKPIT
PATTERN FOR AFT BOTTOM SHEET
Use Ref. Marks To Line Up Straightedge
+1°
NOTE: Twist Eyes In Struts To Fit Flat Against Pods In Wing
Optional Cabana Fairings 3/8 X 1/4 Balsa Or Spruce
Optional 'N' Style Interplane Strut - 3/8 X 1/4 Spruce
Optional Pilot WILLIAMS No. 117 or 181
Frame With Trim Tape
Headrest - Balsa Block Carve To Shape
Sheet Support
KRAFT-HAYES Mount KM-60B Shown
Forward Turtledeck 3/32 X 3 X 16
Sheet Support 1/4 X 1/4 Trailing Edge
Corner Blocks 3/8 Triangle Stock
Cowl Top 1/4 X 4 X 4
Side Stringers 3/32 X 1/4 Spruce
Top Stringer 1/4 Sq. Spruce
Coaming - Surgical Tubing or Fuel Line Slit Lengthwise
Side Stringer 1/4 X 1/8 Spruce
Top Stringer 1/4 Sq. Spruce
Aft Turtledeck Sheet 3/32 X 3 X 16
Dorsal Fin - 1/4 Sheet Shape After Ass'y
Aft Fairing Block 3/8 Triangle Stock
2° Downthrust Built In
Firewall Gusset - 1/4 X 1/4
RECEIVER
Top Longeron
Balsa Doubler
1/4 Gap
Ply Doubler
Corner Block
F-8
Snap-Link
2-56 Stud
NOTE: Mount Tank C.L. In Line With Or Slightly Below Engine Needle Valve
Pylon SS-12 Shown
Nose Tie - 1/4 Sq. Spruce
Cabana Tie - 1/4 Sq. Spruce
Triangle Stock
Balsa Doubler
Servo Rails - Locate To Suit 1/4 X 1/4 Spruce
3/32 X 1/4 Filler Strips Lock Rails In Place
Cockpit Floor - 1/8 Ply
Top Longeron - 1/4 Sq. Spruce
Fuselage Sides 1/8 Poplar Plywood
Pushrods - 1/4 Dia. Hardwood Dowel Rudder Shown - Elevator Omitted For Clarity
Elevator Exit
Tail Post - 1/4 X 1/4
Optional Spinner MIDWEST 2 1/2 Dia. Shown
Cowl Sides 1/4 X 4 X 4
Throttle Pushrod Gold 'N Rod
VECO .61 Shown
3 Small Brads Each Side Into F-1 To Strengthen Firewall Joint
Round Edges Of Cutout
Hollow To Clear Tank If Required
Corner Block 3/8 Triangle Stock
Chin Block 3/8 X 4 X 8
BATTERY PACK
SERVOS
1/8 Ply Doubler
1/8 Dia. M.W.
Nyrodapter
Hold-down Reinforcements 1/4 Triangle Stock
Wing Hold-down - 1/4 Ply
Support - 1/4 Sheet
Sheet Support - 1/4 X 1/4
Anti-Crush Strip 3/8 X 1/4 Spruce
Aft Bottom 3/32 Sheet Crossgrain
Bottom Longeron 1/4 Triangle Stock
Trim After Ass'y
Stabilizer - 1/4 Sheet Note Grain Direction
Slot Sides For Pushrods
Mount - 3/8 Ply
CG Bracket TB-1
Ply Insert - Notch & Drill For Tailwheel Strut
I.D. Dia. Wheel WILLIAMS No. 137
Solder Washers To 1/8 Dia. Strut
1/4 Sheet
Shape After Ass'y
NOTE: Mount Gear With Four No. 6 X 3/8 S.M. Screws
BALANCE POINT
Shift Radio Equipment Fore Or Aft To Help Balance Completed Model
NOTE: Mount Bottom Wing With Two 10-32 X 1 Lg. Nylon Screws
Main Landing Gear .091 Dural
6-32 Nuts
6-32 X 1 1/2 Lg. Screw
Optional Wheel Pant
2.75 Dia. Wheels DU-BRO No. 275 T or Equivalent
1/4 X 1/4
KLETT RK-3 Hinges (4)
CG Long Horn
1/4 Sq. X 5 Spruce Elevator Tie
WING SPAN: 50.6" (EACH WING)
OVERALL LENGTH: 45.8"
DRY WEIGHT: 5.25-7.0 POUNDS
WING AREA: 820 SQ.IN. - 57 SQ.FT.
POWER: .40-.60 CU.IN. (VECO .61 WITH MUFFLER ON PROTOTYPE)
TYPE AIRCRAFT: STANDOFF SCALE HOMEBUILT BIPLANE
.40 - GENERAL SPORT FLYING
.60 - STD. & FREE STYLE ACROBATICS
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ACRO-STAR
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