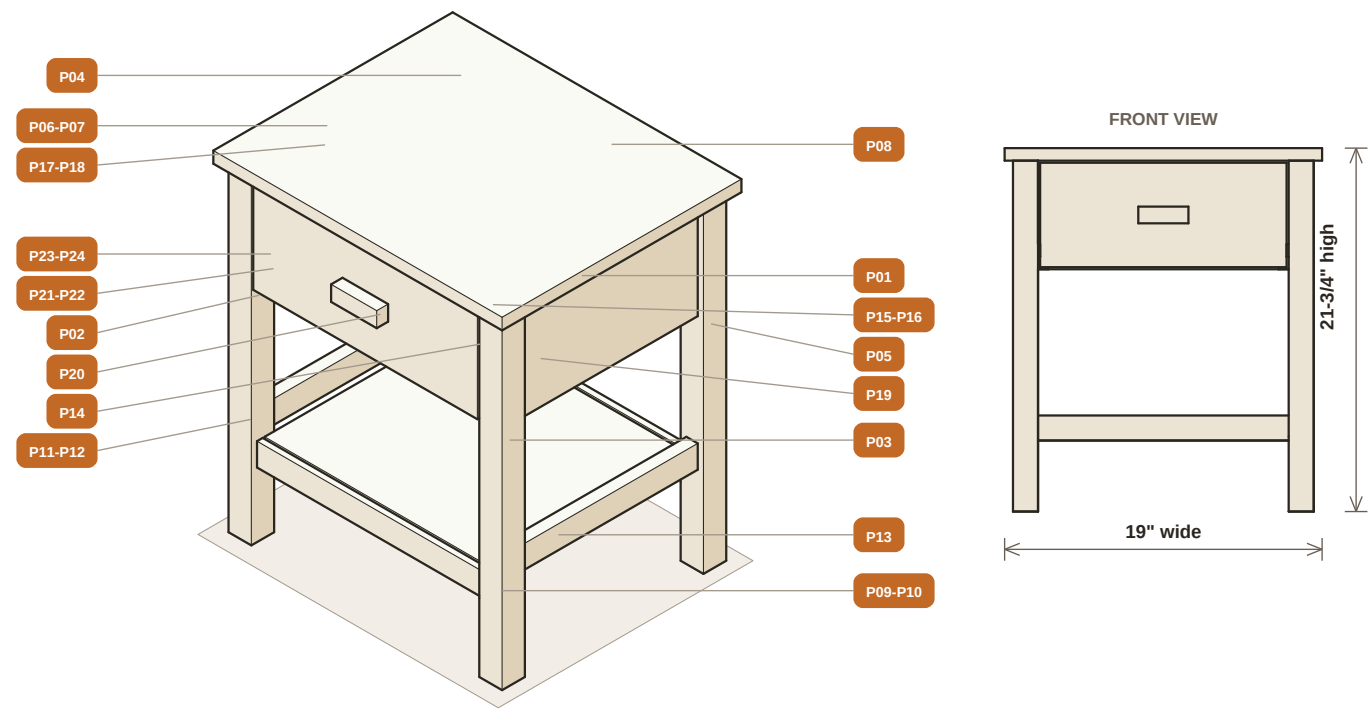


Neutral Wood Side Table

24 parts / 30 joints / Power tools



Overall 19" wide x 16" deep x 21-3/4" high

How to use this guide

1	Shopping list	Buy the stock, hardware and tools.	p. 2
2	Cutting list	Cut every blank to size and write its P number on it.	p. 3
3	Part layouts	Mark DATUM 0 on each blank, then every joint from it.	p. 5
4	Joint details	Both halves of each joint, dimensioned.	p. 20
5	Machine setups	Cut every joint that shares a setting together. Test on scrap first.	p. 26
6	Assembly	Dry-fit each glue-up, then glue them in the order shown.	p. 32
7	Review & joint finder	Settle the open items before you cut. Find any joint by its number.	p. 37
8	Box-joint templates	At the back: print at 100%, cut out and stick one round each board end.	p. 39

Review before cutting: 0 joint errors; 0 warnings; 1 part without modeled attachment; 1 software geometry note (2 parts).
Details are in Review & coverage.

Dimensions are inches to the nearest 1/64. * marks a value finer than 1/16: set it with a gauge, a test cut or the mating part, not a tape. P01 names a part, J1 a joint, S1 a machine setup. Drawings are not to scale: use the numbers.

Shopping list

Stock, hardware and tools for this build

Solid lumber

Stock	Parts	Net board feet	Buy about	Longest part	Widest part
Neutral Wood, 1-1/2" thick finished	P02-P05	1.31	1.7	21"	1-1/2"
Neutral Wood, 3/4" thick finished	P01, P06-P14, P20-P22	5.18	6.7	19"	15-3/4"
Neutral Wood, 1/2" thick finished	P15-P18, P23-P24	1.03	1.3	14-5/8"	5-1/2"

Buy about adds 30% to the net board feet for defects, milling and saw kerf. It is a rule of thumb; adjust it for your lumber. Buy boards at least as long and wide as the longest and widest part in each row.

Wider than most boards (over 7-1/4"): P01 Table Top, P13 Lower Shelf. Glue up a panel from narrower boards or buy wide stock.

Sheet goods

Buy 1 x Plywood 1/4" / 0.25 in: 24 x 48 in

Stock option	Sheets	Purchased area	Unplaced
24 x 48 in	1	8 sq ft	0
48 x 48 in	1	16 sq ft	0
48 x 96 in	1	32 sq ft	0

Hardware

Qty	Item
6	#6 1" flat head, coarse thread
6	#8 1-1/2" flat head, coarse thread
4	#8 1" flat head, coarse thread
2	#6 1-1/4" flat head, coarse thread

Tools (Power tools)

- 1/2" bit
 - Bench chisels
 - Box-joint jig with a 1/2" key
 - Countersink
 - Drill/driver
- Router or drill press
 - Router table with a straight bit and stop blocks
 - Table saw or router table
 - Table saw with dado stack
 - Tenoning jig or a tall fence

Modeled material estimate: \$45.58, from the project's material prices. It is not a retail quote.

Cutting list

Finished sizes. Cut every blank, then write its P number on it.

Ref	Part	Qty	Length	Width	Layout page
Neutral Wood / 3/4" thick					
P01	Table Top	1	19"	15-3/4"	p. 5
P06-P07	Upper Rail (2)	2	13-3/4"	6-1/2"	p. 10
P08	Upper Back Rail	1	17"	6-1/2"	p. 11
P09-P10	Lower Rail (2)	2	17"	1-1/2"	p. 12
P11-P12	Lower Rail (2)	2	13-3/4"	1-1/2"	p. 13
P13	Lower Shelf	1	15"	13"	p. 14
P14	Flush Drawer Fascia	1	14-3/4"	6-1/4"	p. 14
P20	Drawer Pull	1	3"	1"	p. 18
P21-P22	Drawer Runner (2)	2	11-3/4"	1"	p. 18
Neutral Wood / 1-1/2" thick					
P02	Front Left Leg	1	21"	1-1/2"	p. 6
P03	Front Right Leg	1	21"	1-1/2"	p. 7
P04	Back Left Leg	1	21"	1-1/2"	p. 8
P05	Back Right Leg	1	21"	1-1/2"	p. 9
Neutral Wood / 1/2" thick					
P15-P16	Drawer Wall (2)	2	14-5/8"	5-1/2"	p. 15
P17-P18	Drawer Wall (2)	2	10-3/4"	5-1/2"	p. 16
P23-P24	Drawer Guide (2)	2	11-3/4"	3/4"	p. 19
Plywood 1/4" / 1/4" thick					
P19	Drawer Bottom	1	14-1/16"	10-3/16"	p. 17

Blanks are the finished sizes. Leave room for the saw kerf between parts when you mark up a board; never add it to a part.

Mill each board flat, straight and square before marking it. Label every blank with its P number and keep it through machining and assembly.

Pencil the sheet: mark DATUM 0 at the original top-left corner. Measure every printed X along the top and every Y down the left from that same corner. Extend light dotted guides with a square and straightedge.

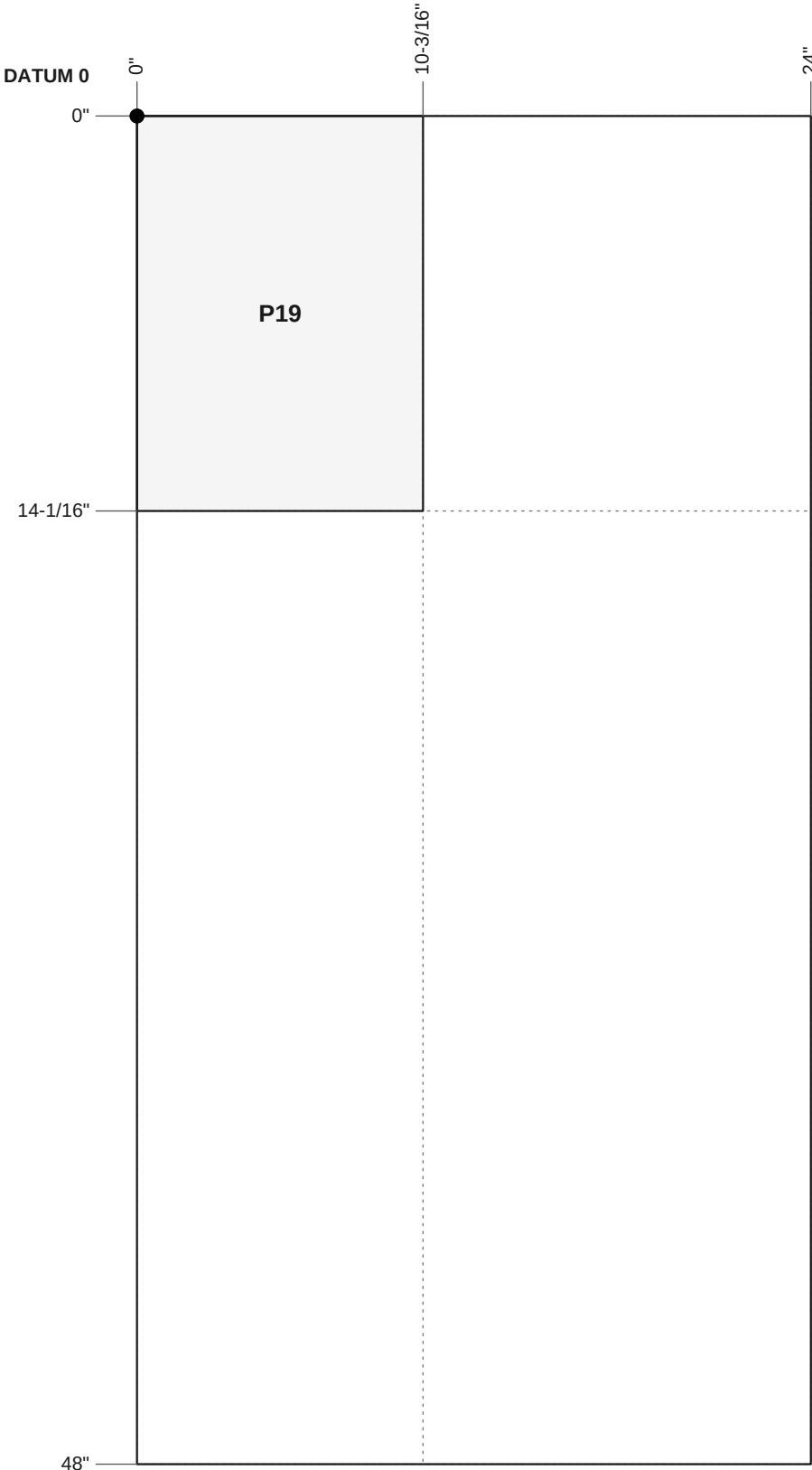
Darken each part rectangle and label it KEEP plus its P reference. Check its width and length against the cutting list. Cut on the waste side of the KEEP edge; never center the blade on the line. Plan supported cuts before separating the sheet.

Mark sheet 1 of 1

24" x 48" / Plywood 1/4" / 0.25 in / Blade 3.175 mm / Gap 1/8"

X: measure RIGHT from 0 along TOP edge

Y: measure DOWN from 0 along LEFT edge / Plywood grain down



Dotted = light pencil guides, NOT cuts. Solid = KEEP edges. White gaps = waste.
Use written inches, never paper scale. * = precise decimal inches.
Match part references to the cutting list / coordinate schedule.

Snapshot 773a0938 / Packet 2aea6fb2

Part layouts

Mark DATUM 0 on each blank, then every feature from it

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

DATUM 0 is the corner every number on a card starts from: L along the length from the datum end, W across from the datum edge, T into the board from the datum face. The DATUM line on each card says which corner that is in the finished piece.

Each view looks straight at the named face, drawn as the part sits: the title says which side is up. Filled areas open on that face; dashed outlines are on the far side. Hatched is cut away; a tenon is drawn over its waste. * = finer than 1/16.

Cut in this order lists each part's work as gauge settings, recesses first. The table under it gives every position from DATUM 0, for marking out.

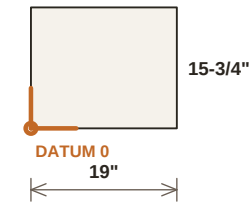
On shaped parts the hatched area is waste, and lettered points mark each corner of the outline. An angle on an end is measured from a square cut (the miter saw or gauge setting); on a long edge it is the taper, measured from the edge.

P01 Table Top

19" long x 15-3/4" wide x 3/4" thick / Neutral Wood
DATUM 0: left end / back edge / bottom face of P01 as it sits in the piece, seen from the front.



LOOKING AT THE BOTTOM FACE / FRONT EDGE AT THE TOP



No joinery on this part. How it is attached is not modeled: decide that before you build (see Review & coverage).

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P02 Front Left Leg

21" long x 1-1/2" wide x 1-1/2" thick / Neutral Wood
Handed: P03 is the mirror image. Lay it out from its own card, never by flipping this one.
DATUM 0: bottom end / left face / back face of P02 as it sits in the piece, seen from the front.

LOOKING AT THE BACK FACE / RIGHT FACE AT THE TOP

LOOKING AT THE RIGHT FACE / FRONT FACE AT THE TOP

CUT IN THIS ORDER

1

Mortises in the back face (2), for Upper Left Rail P06 and Lower Left Rail P11

All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.

J1, Upper Left Rail P06: starts 15-1/2" from the bottom end, 4-1/2" long (1" from the top end)

J11, Lower Left Rail P11: starts 6" from the bottom end, 1" long

Setups S1, S7

2

Mortise in the right face, for Lower Front Rail P09

1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.

J7, Lower Front Rail P09: starts 4-1/2" from the bottom end, 1" long

Setups S1, S7

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J1	Mortise for Upper Left Rail P06	back face / L 15-1/2" to 20" / W 1/2" to 1"	4-1/2" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J7	Mortise for Lower Front Rail P09	right face / L 4-1/2" to 5-1/2" / T 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J11	Mortise for Lower Left Rail P11	back face / L 6" to 7" / W 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

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Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

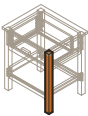
Grain runs this way

*

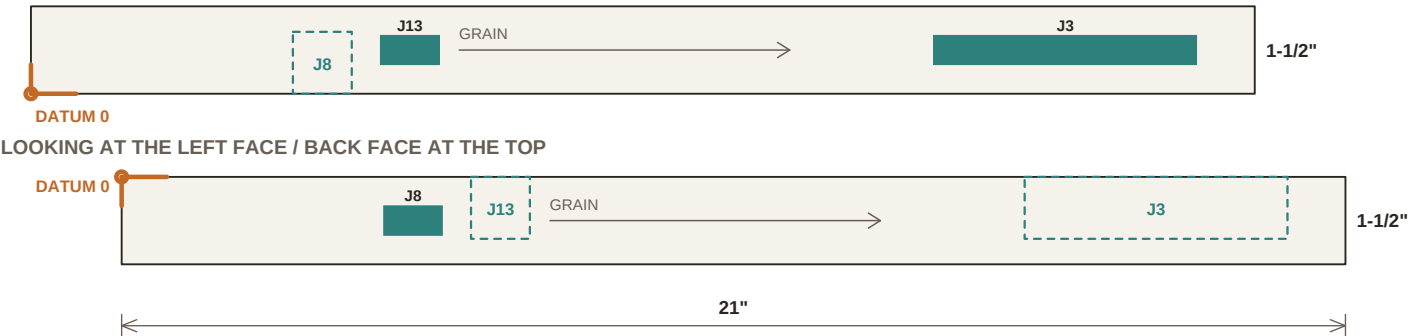
Finer than 1/16": use a gauge

P03 Front Right Leg

21" long x 1-1/2" wide x 1-1/2" thick / Neutral Wood
Handed: P02 is the mirror image. Lay it out from its own card, never by flipping this one.
DATUM 0: bottom end / left face / back face of P03 as it sits in the piece, seen from the front.



LOOKING AT THE BACK FACE / RIGHT FACE AT THE TOP



CUT IN THIS ORDER

- 1

Mortises in the back face (2), for Upper Right Rail P07 and Lower Right Rail P12
All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.
J3, Upper Right Rail P07: starts 15-1/2" from the bottom end, 4-1/2" long (1" from the top end)
J13, Lower Right Rail P12: starts 6" from the bottom end, 1" long
Setups S1, S7
- 2

Mortise in the left face, for Lower Front Rail P09
1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.
J8, Lower Front Rail P09: starts 4-1/2" from the bottom end, 1" long
Setups S1, S7

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J3	Mortise for Upper Right Rail P07	back face / L 15-1/2" to 20" / W 1/2" to 1"	4-1/2" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J8	Mortise for Lower Front Rail P09	left face / L 4-1/2" to 5-1/2" / T 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J13	Mortise for Lower Right Rail P12	back face / L 6" to 7" / W 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P04 Back Left Leg

21" long x 1-1/2" wide x 1-1/2" thick / Neutral Wood
Handed: P05 is the mirror image. Lay it out from its own card, never by flipping this one.
DATUM 0: bottom end / left face / back face of P04 as it sits in the piece, seen from the front.

LOOKING AT THE FRONT FACE / LEFT FACE AT THE TOP

LOOKING AT THE RIGHT FACE / FRONT FACE AT THE TOP

CUT IN THIS ORDER

1

Mortises in the front face (2), for Upper Left Rail P06 and Lower Left Rail P11

All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.

J2, Upper Left Rail P06: starts 17-7/8" from the bottom end, 2-1/8" long (1" from the top end)

J12, Lower Left Rail P11: starts 6" from the bottom end, 1" long

Setups S1, S7

2

Mortises in the right face (2), for Upper Back Rail P08 and Lower Back Rail P10

All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.

J5, Upper Back Rail P08: starts 15-1/2" from the bottom end, 2-1/8" long (3-3/8" from the top end)

J9, Lower Back Rail P10: starts 4-1/2" from the bottom end, 1" long

Setups S1, S7

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J2	Mortise for Upper Left Rail P06	front face / L 17-7/8" to 20" / W 1/2" to 1"	2-1/8" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J5	Mortise for Upper Back Rail P08	right face / L 15-1/2" to 17-5/8" / T 1/2" to 1"	2-1/8" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J9	Mortise for Lower Back Rail P10	right face / L 4-1/2" to 5-1/2" / T 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J12	Mortise for Lower Left Rail P11	front face / L 6" to 7" / W 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

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Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P05 Back Right Leg

21" long x 1-1/2" wide x 1-1/2" thick / Neutral Wood
Handed: P04 is the mirror image. Lay it out from its own card, never by flipping this one.
DATUM 0: bottom end / left face / back face of P05 as it sits in the piece, seen from the front.

LOOKING AT THE FRONT FACE / LEFT FACE AT THE TOP

LOOKING AT THE LEFT FACE / BACK FACE AT THE TOP

CUT IN THIS ORDER

1

Mortises in the front face (2), for Upper Right Rail P07 and Lower Right Rail P12
All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.
J4, Upper Right Rail P07: starts 17-7/8" from the bottom end, 2-1/8" long (1" from the top end)
J14, Lower Right Rail P12: starts 6" from the bottom end, 1" long
Setups S1, S7

2

Mortises in the left face (2), for Upper Back Rail P08 and Lower Back Rail P10
All 1/2" wide, centred, 1/2" in from each face, 1-1/16" deep. Laid out at the tenon's size.
J6, Upper Back Rail P08: starts 15-1/2" from the bottom end, 2-1/8" long (3-3/8" from the top end)
J10, Lower Back Rail P10: starts 4-1/2" from the bottom end, 1" long
Setups S1, S7

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J4	Mortise for Upper Right Rail P07	front face / L 17-7/8" to 20" / W 1/2" to 1"	2-1/8" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J6	Mortise for Upper Back Rail P08	left face / L 15-1/2" to 17-5/8" / T 1/2" to 1"	2-1/8" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J10	Mortise for Lower Back Rail P10	left face / L 4-1/2" to 5-1/2" / T 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7
J14	Mortise for Lower Right Rail P12	front face / L 6" to 7" / W 1/2" to 1"	1" × 1/2" / 1-1/16" deep / fit its tenon	S1, S7

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

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Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

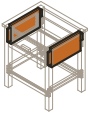
DATUM 0: numbers start here

Grain runs this way

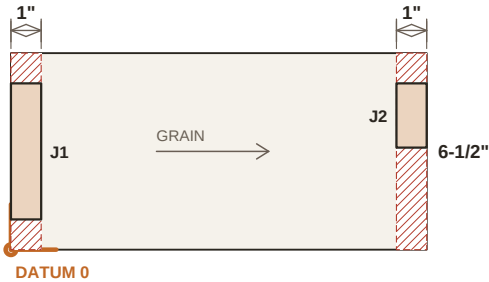
* Finer than 1/16": use a gauge

P06-P07 Upper Rail (2)

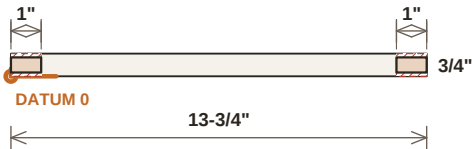
13-3/4" long x 6-1/2" wide x 3/4" thick / Neutral Wood / make 2
2 identical parts (P06-P07). Lay each one out the same way; the joints decide how each sits.
DATUM 0: front end / bottom edge / left face of P06 as it sits in the piece, seen from the front.



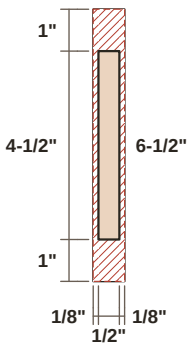
LOOKING AT THE RIGHT FACE / TOP EDGE UP



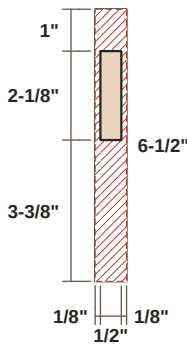
LOOKING AT THE BOTTOM EDGE / RIGHT FACE AT THE TOP



FRONT END



BACK END



CUT IN THIS ORDER

- 1

Tenon the front end, 1" long, into Front Left Leg P02

Shoulder line 1" from the end.
Cheeks: 1/8" off each face, leaving 1/2" thick.
Edges: 1" off each edge, leaving 4-1/2" wide.
Setups S2, S3, S7
- 2

Tenon the back end, 1" long, into Back Left Leg P04

Shoulder line 1" from the end.
Cheeks: 1/8" off each face, leaving 1/2" thick.
Edges: 3-3/8" off the bottom edge, 1" off the top edge, leaving 2-1/8" wide.
Setups S2, S4, S7
- 3

Fit each tenon to its mortise

Try it in its mortise before glue-up. Pare the cheeks for a snug fit; leave the shoulders alone.

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J1	Tenon into Front Left Leg P02	front end / W 1" to 5-1/2" / T 1/8" to 5/8"	4-1/2" × 1/2" × 1" long	S2, S3, S7
J2	Tenon into Back Left Leg P04	back end / W 3-3/8" to 5-1/2" / T 1/8" to 5/8"	2-1/8" × 1/2" × 1" long	S2, S4, S7
J27	Pilot holes from Drawer Runner P21-P22	drilled through P21 at assembly	3 pilot holes	S11
J29	Pilot holes from Drawer Guide P23-P24	drilled through P23 at assembly	3 pilot holes	S10

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P08 Upper Back Rail

17" long x 6-1/2" wide x 3/4" thick / Neutral Wood

DATUM 0: left end / bottom edge / back face of P08 as it sits in the piece, seen from the front.

LOOKING AT THE FRONT FACE / TOP EDGE UP

LOOKING AT THE BOTTOM EDGE / FRONT FACE AT THE TOP

LOOKING AT THE LEFT END (BOTH ENDS ALIKE)

CUT IN THIS ORDER

1

Tenon both ends, 1" long, into Back Left Leg P04 and Back Right Leg P05

Shoulder line 1" from each end.
Cheeks: 1/8" off each face, leaving 1/2" thick.
Edges: 1" off the bottom edge, 3-3/8" off the top edge, leaving 2-1/8" wide.
Setups S2, S5, S7

2

Fit each tenon to its mortise

Try it in its mortise before glue-up. Pare the cheeks for a snug fit; leave the shoulders alone.

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J5, J6	Tenon, both ends, into Back Left Leg P04 and Back Right Leg P05	both ends / W 1" to 3-1/8" / T 1/8" to 5/8"	2-1/8" × 1/2" × 1" long	S2, S5, S7

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

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Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P09-P10 Lower Rail (2)

17" long x 1-1/2" wide x 3/4" thick / Neutral Wood / make 2
2 identical parts (P09-P10). Lay each one out the same way; the joints decide how each sits.
DATUM 0: left end / bottom edge / back face of P09 as it sits in the piece, seen from the front.

LOOKING AT THE BACK FACE / TOP EDGE UP (datum end on the right)

LOOKING AT THE TOP EDGE / FRONT FACE AT THE TOP (datum end on the right)

LOOKING AT THE LEFT END (BOTH ENDS ALIKE)

CUT IN THIS ORDER

1

Stopped rabbet for Lower Shelf P13
3/4" wide x 3/8" deep
top edge + back face / L 1" to 16" / W 3/4" to 1-1/2" / T 0" to 3/8"
Setup S8

2

Tenon both ends, 1" long, into Front Left Leg P02 and Front Right Leg P03
Shoulder line 1" from each end.
Cheeks: 1/8" off each face, leaving 1/2" thick.
Edges: 1/4" off each edge, leaving 1" wide.
Setups S2, S6, S7

3

Fit each tenon to its mortise
Try it in its mortise before glue-up. Pare the cheeks for a snug fit; leave the shoulders alone.

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J7, J8	Tenon, both ends, into Front Left Leg P02 and Front Right Leg P03	both ends / W 1/4" to 1-1/4" / T 1/8" to 5/8"	1" x 1/2" x 1" long	S2, S6, S7

J19	Stopped rabbet for Lower Shelf P13	top edge + back face / L 1" to 16" / W 3/4" to 1-1/2" / T 0" to 3/8"	3/4" wide x 3/8" deep	S8
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Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

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Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

Finer than 1/16": use a gauge

P11-P12 Lower Rail (2)

13-3/4" long x 1-1/2" wide x 3/4" thick / Neutral Wood / make 2
2 identical parts (P11-P12). Lay each one out the same way; the joints decide how each sits.
DATUM 0: front end / bottom edge / left face of P11 as it sits in the piece, seen from the front.

LOOKING AT THE RIGHT FACE / TOP EDGE UP

LOOKING AT THE BOTTOM EDGE / RIGHT FACE AT THE TOP

LOOKING AT THE FRONT END (BOTH ENDS ALIKE)

CUT IN THIS ORDER

- 1 Tenon both ends, 1" long, into Front Left Leg P02 and Back Left Leg P04**
Shoulder line 1" from each end.
Cheeks: 1/8" off each face, leaving 1/2" thick.
Edges: 1/4" off each edge, leaving 1" wide.
Setups S2, S6, S7
- 2 Fit each tenon to its mortise**
Try it in its mortise before glue-up. Pare the cheeks for a snug fit; leave the shoulders alone.

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J11, J12	Tenon, both ends, into Front Left Leg P02 and Back Left Leg P04	both ends / W 1/4" to 1-1/4" / T 1/8" to 5/8"	1" × 1/2" × 1" long	S2, S6, S7

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

13 / 41

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

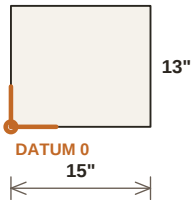
 Finer than 1/16": use a gauge

P13 Lower Shelf

15" long x 13" wide x 3/4" thick / Neutral Wood
DATUM 0: left end / back edge / bottom face of P13 as it sits in the piece, seen from the front.



LOOKING AT THE BOTTOM FACE / FRONT EDGE AT THE TOP



EXACT POSITIONS FROM DATUM 0

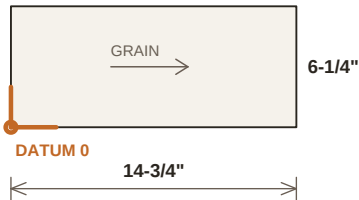
Ref	Feature	Where	Size	Setup
J19	Fits into	the stopped rabbet in P09 (no cut on this part)	enters 1/4"	-
J20	Fits into	the stopped rabbet in P10 (no cut on this part)	enters 1/4"	-

P14 Flush Drawer Fascia

14-3/4" long x 6-1/4" wide x 3/4" thick / Neutral Wood
DATUM 0: left end / bottom edge / back face of P14 as it sits in the piece, seen from the front.



LOOKING AT THE FRONT FACE / TOP EDGE UP



CUT IN THIS ORDER

- 1
- Clearance holes (2) into Drawer Pull P20
2 × #6 1-1/4" / drill sizes on the joint card
#1 at L 6-3/8", W 3-1/8", T 0" / #2 at L 8-3/8", W 3-1/8", T 0"
Setup S10

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J25	Clearance holes into Drawer Pull P20	#1 at L 6-3/8", W 3-1/8", T 0" / #2 at L 8-3/8", W 3-1/8", T 0"	2 × #6 1-1/4" / drill sizes on the joint card	S10
J26	Pilot holes from Drawer Front Wall P15	drilled through P15 at assembly	4 pilot holes	S11

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

Finer than 1/16": use a gauge

P15-P16 Drawer Wall (2)

14-5/8" long x 5-1/2" wide x 1/2" thick / Neutral Wood / make 2
2 identical parts (P15-P16). Lay each one out the same way; the joints decide how each sits.
DATUM 0: left end / bottom edge / back face of P15 as it sits in the piece, seen from the front.

LOOKING AT THE BACK FACE / TOP EDGE UP (datum end on the right)

CUT IN THIS ORDER

1

Stopped groove in the back face, L 1/2" to 14-1/8" from the left end
For Drawer Bottom P19: 1/4" wide, 1/4" deep, 1/4" from the bottom edge.
Setup S9

2

Box-joint sockets (5) with Drawer Wall P17-P18
5 sockets 1/2" wide
left end / L 0" to 1/2"
Box joints

3

Box-joint sockets (5) with Drawer Wall P17-P18
5 sockets 1/2" wide
right end / L 14-1/8" to 14-5/8"
Box joints

4

Clearance holes (4) into Flush Drawer Fascia P14
4 × #8 1" / drill sizes on the joint card
#1 at L 1-1/2", W 2-3/4", T 0" / #2 at L 5-3/8", W 2-3/4", T 0" / #3 at L 9-1/4", W 2-3/4", T 0" / #4 at L 13-1/8", W 2-3/4", T 0"
Setup S11

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J15	Box-joint sockets with Drawer Wall P17-P18	left end / L 0" to 1/2"	5 sockets 1/2" wide	Box joints
J16	Box-joint sockets with Drawer Wall P17-P18	right end / L 14-1/8" to 14-5/8"	5 sockets 1/2" wide	Box joints
J21	Stopped groove for Drawer Bottom P19	back face / L 1/2" to 14-1/8" / W 1/4" to 1/2" / T 0" to 1/4"	1/4" wide × 1/4" deep	S9
J26	Clearance holes into Flush Drawer Fascia P14	#1 at L 1-1/2", W 2-3/4", T 0" / #2 at L 5-3/8", W 2-3/4", T 0" / #3 at L 9-1/4", W 2-3/4", T 0" / #4 at L 13-1/8", W 2-3/4", T 0"	4 × #8 1" / drill sizes on the joint card	S11

Model note: see Review & coverage [p. 37](#)

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

15 / 41

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

Finer than 1/16": use a gauge

P17-P18 Drawer Wall (2)

10-3/4" long x 5-1/2" wide x 1/2" thick / Neutral Wood / make 2
2 identical parts (P17-P18). Lay each one out the same way; the joints decide how each sits.
DATUM 0: front end / bottom edge / left face of P17 as it sits in the piece, seen from the front.

LOOKING AT THE RIGHT FACE / TOP EDGE UP

CUT IN THIS ORDER

1

Stopped groove in the right face, L 1/2" to 10-1/4" from the front end
For Drawer Bottom P19: 1/4" wide, 1/4" deep, 1/4" from the bottom edge.
Setup S9

2

Box-joint sockets (6) with Drawer Wall P15-P16
6 sockets 1/2" wide
front end / L 0" to 1/2"
Box joints

3

Box-joint sockets (6) with Drawer Wall P15-P16
6 sockets 1/2" wide
back end / L 10-1/4" to 10-3/4"
Box joints

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J15	Box-joint sockets with Drawer Wall P15-P16	front end / L 0" to 1/2"	6 sockets 1/2" wide	Box joints
J17	Box-joint sockets with Drawer Wall P15-P16	back end / L 10-1/4" to 10-3/4"	6 sockets 1/2" wide	Box joints
J23	Stopped groove for Drawer Bottom P19	right face / L 1/2" to 10-1/4" / W 1/4" to 1/2" / T 1/4" to 1/2"	1/4" wide × 1/4" deep	S9

Snapshot 773a0938 / Packet 2aea6fb2

Dimensions in inches · verify tooling, workholding, grain and stock before cutting

16 / 41

Part layouts (continued)

KEY

-  Cut opening on this face
-  Cut on the far side
-  Waste, cut away
-  Tenon left standing

 DATUM 0: numbers start here

 Grain runs this way

 * Finer than 1/16": use a gauge

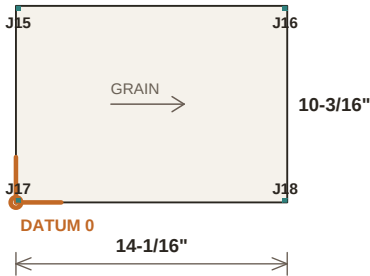
P19 Drawer Bottom

14-1/16" long x 10-3/16" wide x 1/4" thick / Plywood 1/4"

DATUM 0: left end / back edge / bottom face of P19 as it sits in the piece, seen from the front.



LOOKING AT THE BOTTOM FACE / FRONT EDGE AT THE TOP



CUT IN THIS ORDER

- 1

Corner relief

15/64"* x 7/32"* x 1/4"

left end + front edge / L 0" to 15/64"* / W 9-31/32"* to 10-3/16" / full thickness
- 2

Corner relief

15/64"* x 7/32"* x 1/4"

right end + front edge / L 13-53/64"* to 14-1/16" / W 9-31/32"* to 10-3/16" / full thickness
- 3

Corner relief

15/64"* x 7/32"* x 1/4"

left end + back edge / L 0" to 15/64"* / W 0" to 7/32"* / full thickness
- 4

Corner relief

15/64"* x 7/32"* x 1/4"

right end + back edge / L 13-53/64"* to 14-1/16" / W 0" to 7/32"* / full thickness

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J15	Corner relief	left end + front edge / L 0" to 15/64"* / W 9-31/32"* to 10-3/16" / full thickness	15/64"* x 7/32"* x 1/4"	-
J16	Corner relief	right end + front edge / L 13-53/64"* to 14-1/16" / W 9-31/32"* to 10-3/16" / full thickness	15/64"* x 7/32"* x 1/4"	-
J17	Corner relief	left end + back edge / L 0" to 15/64"* / W 0" to 7/32"* / full thickness	15/64"* x 7/32"* x 1/4"	-
J18	Corner relief	right end + back edge / L 13-53/64"* to 14-1/16" / W 0" to 7/32"* / full thickness	15/64"* x 7/32"* x 1/4"	-
J21	Fits into	the stopped groove in P15 (no cut on this part)	enters 7/32"*	-
J22	Fits into	the stopped groove in P16 (no cut on this part)	enters 7/32"*	-
J23	Fits into	the stopped groove in P17 (no cut on this part)	enters 7/32"*	-
J24	Fits into	the stopped groove in P18 (no cut on this part)	enters 7/32"*	-

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

Grain runs this way

*

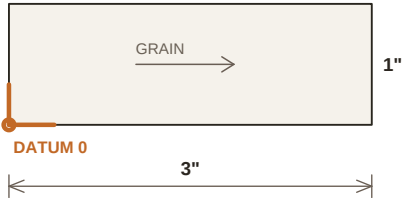
Finer than 1/16": use a gauge

P20 Drawer Pull

3" long x 1" wide x 3/4" thick / Neutral Wood
DATUM 0: left end / bottom edge / back face of P20 as it sits in the piece, seen from the front.



LOOKING AT THE FRONT FACE / TOP EDGE UP

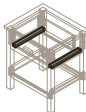


EXACT POSITIONS FROM DATUM 0

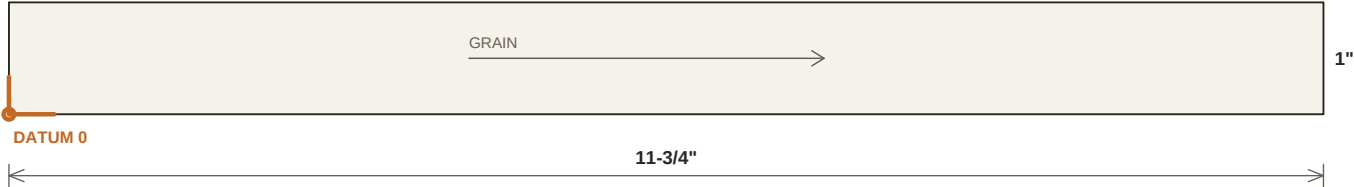
Ref	Feature	Where	Size	Setup
J25	Pilot holes from Flush Drawer Fascia P14	drilled through P14 at assembly	2 pilot holes	S10

P21-P22 Drawer Runner (2)

11-3/4" long x 1" wide x 3/4" thick / Neutral Wood / make 2
2 identical parts (P21-P22). Lay each one out the same way; the joints decide how each sits.
DATUM 0: front end / left edge / bottom face of P21 as it sits in the piece, seen from the front.



LOOKING AT THE BOTTOM FACE / RIGHT EDGE AT THE TOP



CUT IN THIS ORDER

- 1
- Clearance holes (3) into Upper Rail P06-P07

3 × #8 1-1/2" / drill sizes on the joint card

#1 at L 10-1/4", W 1", T 3/8" / #2 at L 5-7/8", W 1", T 3/8" / #3 at L 1-1/2", W 1", T 3/8"

Setup S11

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J27	Clearance holes into Upper Rail P06-P07	#1 at L 10-1/4", W 1", T 3/8" / #2 at L 5-7/8", W 1", T 3/8" / #3 at L 1-1/2", W 1", T 3/8"	3 × #8 1-1/2" / drill sizes on the joint card	S11

Part layouts (continued)

KEY

Cut opening on this face

Cut on the far side

Waste, cut away

Tenon left standing

DATUM 0: numbers start here

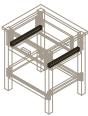
Grain runs this way

*

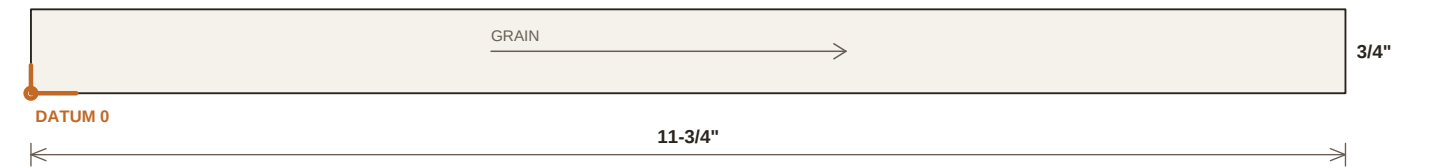
 Finer than 1/16": use a gauge

P23-P24 Drawer Guide (2)

11-3/4" long x 3/4" wide x 1/2" thick / Neutral Wood / make 2
2 identical parts (P23-P24). Lay each one out the same way; the joints decide how each sits.
DATUM 0: front end / bottom edge / left face of P23 as it sits in the piece, seen from the front.



LOOKING AT THE RIGHT FACE / TOP EDGE UP



CUT IN THIS ORDER

- 1
- Clearance holes (3) into Upper Rail P06-P07**

3 × #6 1" / drill sizes on the joint card

#1 at L 10-1/4", W 3/8", T 1/2" / #2 at L 5-7/8", W 3/8", T 1/2" / #3 at L 1-1/2", W 3/8", T 1/2"

Setup S10

EXACT POSITIONS FROM DATUM 0

Ref	Feature	Where	Size	Setup
J29	Clearance holes into Upper Rail P06-P07	#1 at L 10-1/4", W 3/8", T 1/2" / #2 at L 5-7/8", W 3/8", T 1/2" / #3 at L 1-1/2", W 3/8", T 1/2"	3 × #6 1" / drill sizes on the joint card	S10

Joint details

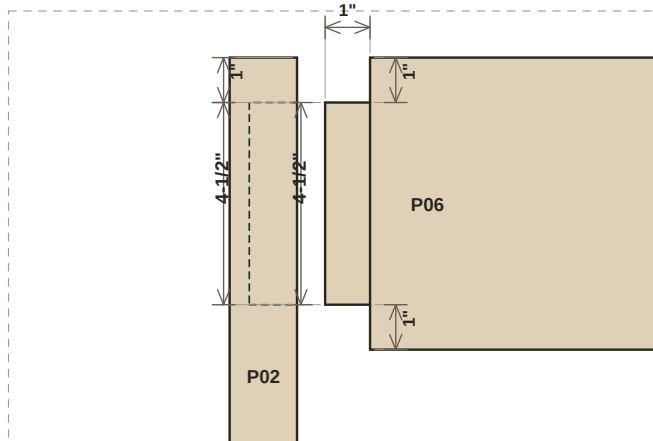
Each joint pulled apart and seated in section, each groove in section and along its part, dimensioned.

J1, J3 **Mortise and tenon**

P06 -> P02 / Upper Left Rail -> Front Left Leg

Tenon 4-1/2" x 1/2" x 1" long. Mortise 1-1/16" deep in the back face of P02, 1" from the top end.

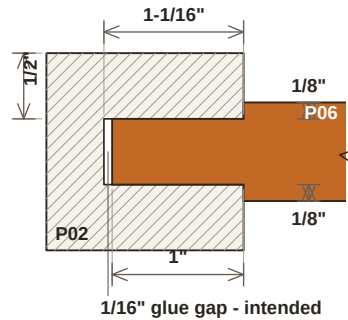
PULLED APART, SEEN FROM THE LEFT



Mortise 4-1/2" long: 1" from the top end, 15-1/2" from the bottom end (DATUM 0).
Dashed: the mortise inside P02.

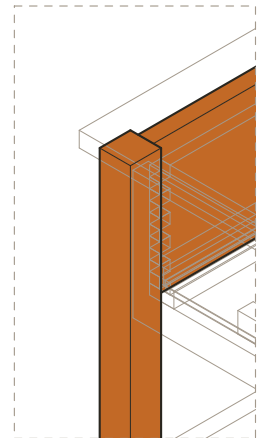
Shoulders 1" off each edge, on the front end of P06.

SEATED, IN SECTION



Mortise centred, 1/2" in from each face. Cheeks 1/8" off each face of P06. Tenon 1" into a 1-1/16" mortise.

WHERE IT GOES



Cut with setups S1, S2, S3, S7.

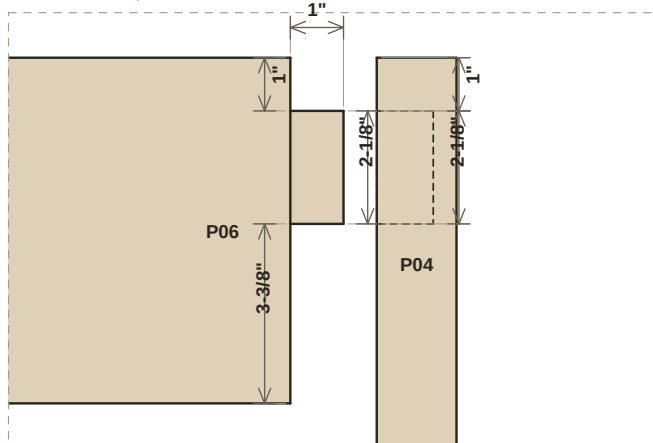
2x identical

J2, J4 Mortise and tenon

P06 -> P04 / Upper Left Rail -> Back Left Leg

Tenon 2-1/8" x 1/2" x 1" long. Mortise 1-1/16" deep in the front face of P04, 1" from the top end.

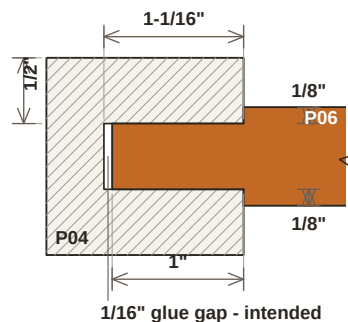
PULLED APART, SEEN FROM THE LEFT



Mortise 2-1/8" long: 1" from the top end, 17-7/8" from the bottom end (DATUM 0).
Dashed: the mortise inside P04.

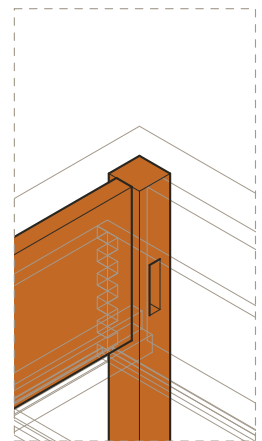
Shoulders 3-3/8" off the bottom edge, 1" off the top edge, on the back end of P06.

SEATED, IN SECTION



Mortise centred, 1/2" in from each face. Cheeks 1/8" off each face of P06. Tenon 1" into a 1-1/16" mortise.

WHERE IT GOES



Cut with setups S1, S2, S4, S7.

2x identical

Joint details (continued)

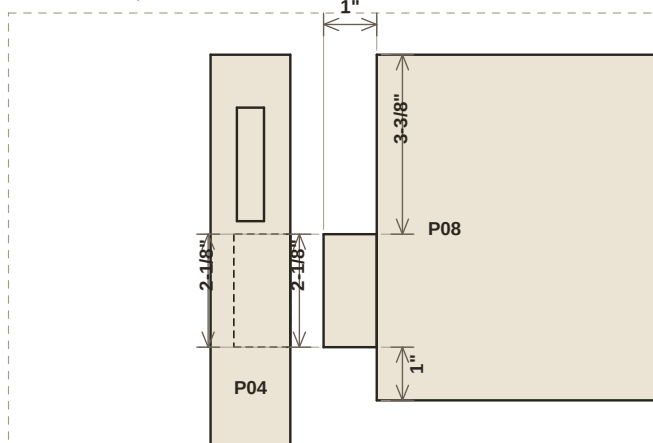
J5-J6 Mortise and tenon

2x identical

P08 -> P04 / Upper Back Rail -> Back Left Leg

Tenon 2-1/8" × 1/2" × 1" long. Mortise 1-1/16" deep in the right face of P04, 3-3/8" from the top end.

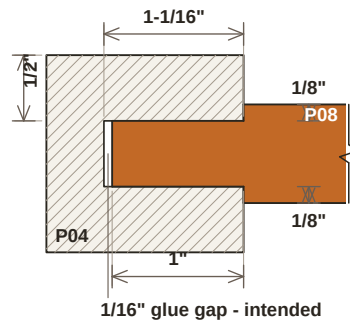
PULLED APART, SEEN FROM THE FRONT



Mortise 2-1/8" long: 3-3/8" from the top end, 15-1/2" from the bottom end (DATUM 0). Dashed: the mortise inside P04.

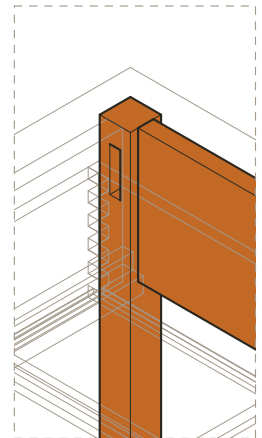
Shoulders 1" off the bottom edge, 3-3/8" off the top edge, on the left end of P08.

SEATED, IN SECTION



Mortise centred, 1/2" in from each face. Cheeks 1/8" off each face of P08. Tenon 1" into a 1-1/16" mortise.

WHERE IT GOES



Cut with setups S1, S2, S5, S7.

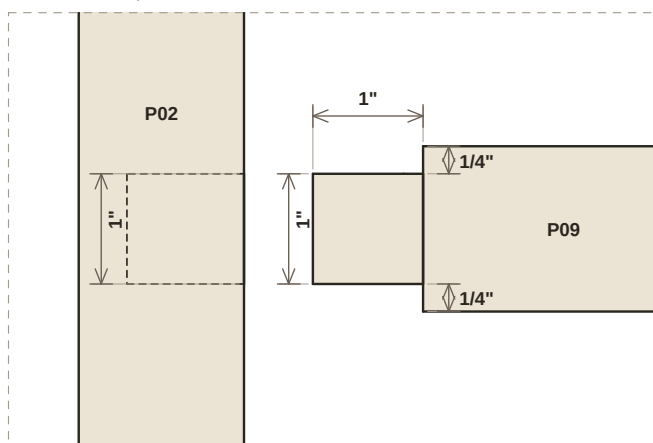
J7-J14 Mortise and tenon

8x identical

P09 -> P02 / Lower Front Rail -> Front Left Leg

Tenon 1" × 1/2" × 1" long. Mortise 1-1/16" deep in the right face of P02, 4-1/2" from the bottom end (DATUM 0).

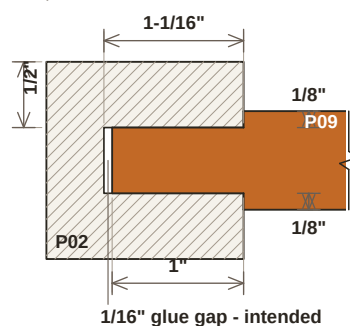
PULLED APART, SEEN FROM THE FRONT



Mortise 1" long: 15-1/2" from the top end, 4-1/2" from the bottom end (DATUM 0). Dashed: the mortise inside P02.

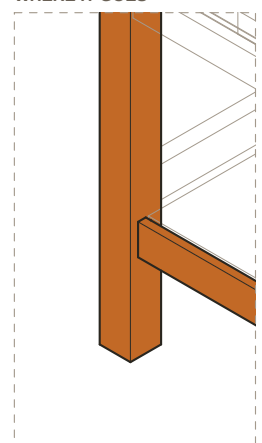
Shoulders 1/4" off each edge, on the left end of P09.

SEATED, IN SECTION



Mortise centred, 1/2" in from each face. Cheeks 1/8" off each face of P09. Tenon 1" into a 1-1/16" mortise.

WHERE IT GOES



Cut with setups S1, S2, S6, S7.

Joint details (continued)

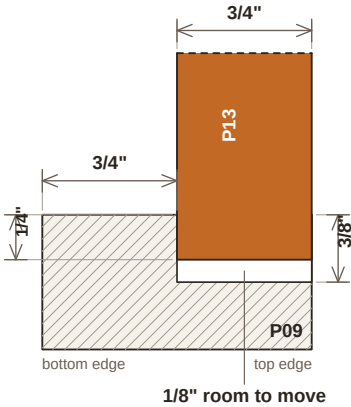
J19-J20 Stopped rabbet

2x identical

P13 -> P09-P10 / Lower Shelf -> Lower Front Rail, Lower Back Rail

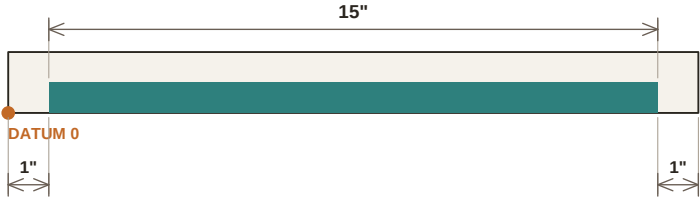
Stopped rabbet 3/4" wide x 3/8" deep in the back face of P09 and the front face of P10, at the top edge.

SECTION ACROSS THE RABBET



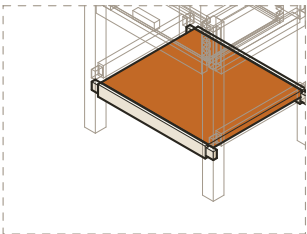
No cut on P13: it enters the rabbet 1/4", leaving 1/8" room to move.
Floating: no glue, so it can move.

ALONG P09, LOOKING AT ITS BACK FACE



Starts 1" from the left end (DATUM 0), stops 1" from the right end: 15" long.

WHERE IT GOES



Cut with setups S8.

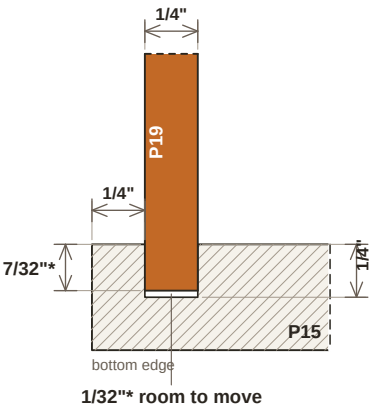
J21-J22 Stopped groove

2x identical

P19 -> P15-P16 / Drawer Bottom -> Drawer Front Wall, Drawer Back Wall

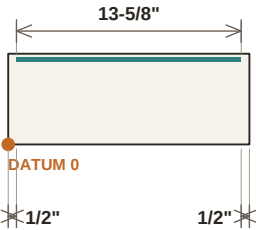
Stopped groove 1/4" wide x 1/4" deep in the back face of P15 and the front face of P16, 1/4" from the bottom edge.

SECTION ACROSS THE GROOVE



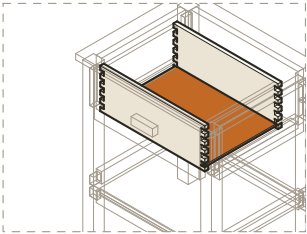
No cut on P19: it enters the groove 7/32"*, leaving 1/32"* room to move.
Floating: no glue, so it can move.

ALONG P15, LOOKING AT ITS BACK FACE



Starts 1/2" from the left end (DATUM 0), stops 1/2" from the right end: 13-5/8" long.

WHERE IT GOES

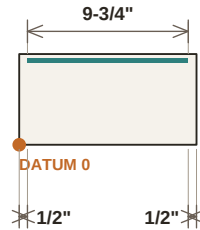


Cut with setups S9.

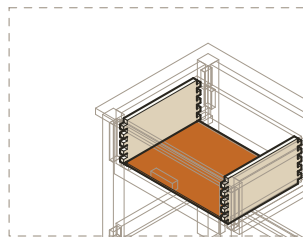
2x identical

Stopped groove 1/4" wide x 1/4" deep in the right face of P17 and the left face of P18, 1/4" from the bottom edge.

ALONG P17, LOOKING AT ITS RIGHT FACE

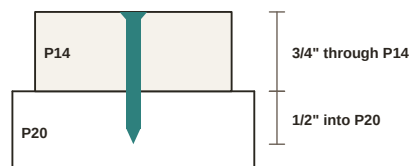


WHERE IT GOES

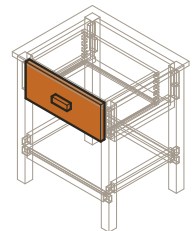


No cut on P19: it enters the groove $7/32''$ *, leaving $1/32''$ room to move.
Floating: no glue, so it can move.

HOLES IN P14 / LOOKING AT THE FACE THE SCREWS ENTER



WHERE IT GOES



Each joint takes 2 x #6 x 1-1/4" flat-head screws. Drill the clearance holes in P14 first and countersink. Clamp P14 in place, drill each pilot through its hole into P20, then drive the screws. Test the pilot size on scrap of the same wood first.

Cut with setups S10.

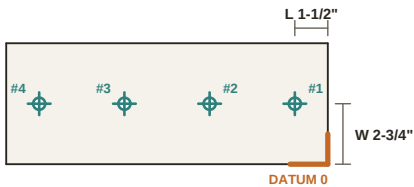
Joint details (continued)

J26 Screwed

P15 -> P14 / Drawer Front Wall -> Flush Drawer Fascia

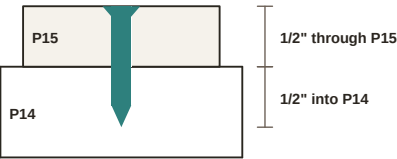
4 × #8 1" flat through the front edge

HOLES IN P15 / LOOKING AT THE FACE THE SCREWS ENTER



P15 is 14-5/8" x 5-1/2" on this face

SECTION THROUGH ONE SCREW



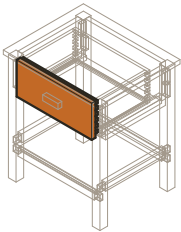
DRILL	BIT	WHERE AND HOW DEEP
Clearance hole	11/64"	through P15 (1/2")
Countersink	countersink bit	P15, on the face the screw enters, until the head sits flush
Pilot hole	3/32" softwood / 7/64" hardwood	1/2" deep into P14, drilled through the P15 hole

Each joint takes 4 x #8 x 1" flat-head screws. Drill the clearance holes in P15 first and countersink. Clamp P15 in place, drill each pilot through its hole into P14, then drive the screws. Test the pilot size on scrap of the same wood first.

JOINTS ON THIS CARD	PARTS	HOLES FROM DATUM 0 OF THE NEAR PART
J26	P15 -> P14	#1 L 1-1/2", W 2-3/4" / #2 L 5-3/8", W 2-3/4" / #3 L 9-1/4", W 2-3/4" / #4 L

Cut with setups S11.

WHERE IT GOES



J27-J28 Screwed

P21-P22 -> P06-P07

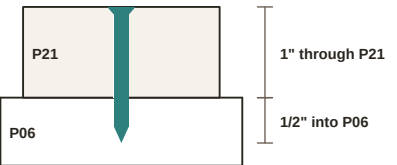
3 × #8 1-1/2" flat through the back edge

HOLES IN P21 / LOOKING AT THE FACE THE SCREWS ENTER



P21 is 11-3/4" x 3/4" on this face; dashed edge = part continues

SECTION THROUGH ONE SCREW



DRILL	BIT	WHERE AND HOW DEEP
Clearance hole	11/64"	through P21 (1")
Countersink	countersink bit	P21, on the face the screw enters, until the head sits flush
Pilot hole	3/32" softwood / 7/64" hardwood	1/2" deep into P06, drilled through the P21 hole

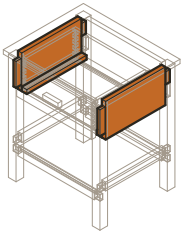
Each joint takes 3 x #8 x 1-1/2" flat-head screws. Drill the clearance holes in P21 first and countersink. Clamp P21 in place, drill each pilot through its hole into P06, then drive the screws. Test the pilot size on scrap of the same wood first.

JOINTS ON THIS CARD	PARTS	HOLES FROM DATUM 0 OF THE NEAR PART
J27	P21 -> P06	#1 L 10-1/4", T 3/8" / #2 L 5-7/8", T 3/8" / #3 L 1-1/2", T 3/8"
J28	P22 -> P07	#1 L 10-1/4", T 3/8" / #2 L 5-7/8", T 3/8" / #3 L 1-1/2", T 3/8"

Cut with setups S11.

2 joints, drilled alike

WHERE IT GOES



Joint details (continued)

J29-J30 Screwed

P23-P24 -> P06-P07

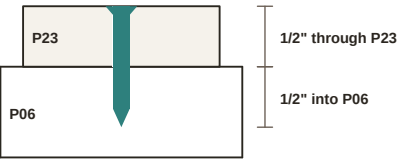
3 × #6 1" flat through the back edge

HOLES IN P23 / LOOKING AT THE FACE THE SCREWS ENTER



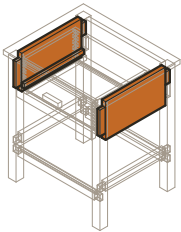
P23 is 11-3/4" x 3/4" on this face; dashed edge = part continues

SECTION THROUGH ONE SCREW



2 joints, drilled alike

WHERE IT GOES



DRILL	BIT	WHERE AND HOW DEEP
Clearance hole	9/64"	through P23 (1/2")
Countersink	countersink bit	P23, on the face the screw enters, until the head sits flush
Pilot hole	5/64" softwood / 3/32" hardwood	1/2" deep into P06, drilled through the P23 hole

Each joint takes 3 x #6 x 1" flat-head screws. Drill the clearance holes in P23 first and countersink. Clamp P23 in place, drill each pilot through its hole into P06, then drive the screws. Test the pilot size on scrap of the same wood first.

JOINTS ON THIS CARD	PARTS	HOLES FROM DATUM 0 OF THE NEAR PART
J29	P23 -> P06	#1 L 10-1/4", W 3/8" / #2 L 5-7/8", W 3/8" / #3 L 1-1/2", W 3/8"
J30	P24 -> P07	#1 L 10-1/4", W 3/8" / #2 L 5-7/8", W 3/8" / #3 L 1-1/2", W 3/8"

Cut with setups S10.

Machine setups

Power tools / set the machine once, then cut every part listed

Before any joinery

- 1. Mill every board flat, square and to the finished thickness on the cut list before any joinery is cut. Joinery referenced off a twisted board is twisted.
- 2. Mark a face side and a face edge on each board and take every measurement from those two surfaces throughout.
- 3. Cut every part to its finished length before any joinery: tenon shoulders are set from the ends and every layout is measured from DATUM 0.

S1 Cut the mortise

Cutter 1/2" / Fence 1/2", centred / Depth 1-1/16"

Parts	Setting	Joints	Qty	Layout page
P02 Front Left Leg	Length 4-1/2"	J1	1	p. 6
P02 Front Left Leg	Length 1"	J7, J11	2	p. 6
P03 Front Right Leg	Length 4-1/2"	J3	1	p. 7
P03 Front Right Leg	Length 1"	J8, J13	2	p. 7
P04 Back Left Leg	Length 2-1/8"	J2, J5	2	p. 8
P04 Back Left Leg	Length 1"	J9, J12	2	p. 8
P05 Back Right Leg	Length 2-1/8"	J4, J6	2	p. 9
P05 Back Right Leg	Length 1"	J10, J14	2	p. 9

Router with a 1/2" straight or spiral bit and an edge guide, in passes of about 1/8"; or a hollow-chisel mortiser; or drill the waste out on the drill press and pare the walls to the lines. Lay each mortise out at its tenon's length. Cut the mortises before the tenons: it is far easier to fit a tenon to a mortise than the other way round. The mortise is 1/16" deeper than the tenon is long. That is deliberate: it gives glue somewhere to go so the shoulders can still pull tight.

Check: Cut one, then fit an offcut milled to the tenon thickness. Adjust before cutting the rest.

Watch out: The model's mortise is the tenon plus 0.010" of fit clearance for CNC files. With a router or mortiser the mortise is the width of the cutter, 1/2"; lay each length out at its tenon's width (the Length column) and fit each tenon to the mortise you actually cut.

S2 Cut the tenon cheeks

Blade height 1/8" / Stop 1" from the blade

J1-J14 (14 joints) on P06-P12

Dado stack, board flat on the table. Cut one cheek, flip the board face-for-face and cut the other at the same blade height - the tenon then lands centred even if the stock is a hair over or under thickness.

Machine setups (continued)

S3 Cut the edge shoulders

Blade height 1" / Stop 1" from the blade

J1, J3 (2 joints) on P06-P07

Stand the board on edge against the fence or a tenoning jig and take the narrow shoulders at the same stop setting.

S4 Saw off the edge shoulder waste

Shoulders 3-3/8" and 1" / Stop 1" from the end

J2, J4 (2 joints) on P06-P07

At least one shoulder is taller than a dado stack reaches (2"). With the cheeks cut, saw along the tenon's edge from the end grain down to the shoulder line on the bandsaw or with a tenon saw, then saw across at the shoulder line and pare both faces to the lines.

Check: Offer the tenon to its mortise edge-on: it should enter over its full width without rocking.

S5 Saw off the edge shoulder waste

Shoulders 1" and 3-3/8" / Stop 1" from the end

J5-J6 (2 joints) on P08

At least one shoulder is taller than a dado stack reaches (2"). With the cheeks cut, saw along the tenon's edge from the end grain down to the shoulder line on the bandsaw or with a tenon saw, then saw across at the shoulder line and pare both faces to the lines.

Check: Offer the tenon to its mortise edge-on: it should enter over its full width without rocking.

S6 Cut the edge shoulders

Blade height 1/4" / Stop 1" from the blade

J7-J14 (8 joints) on P09-P12

Stand the board on edge against the fence or a tenoning jig and take the narrow shoulders at the same stop setting.

S7 Reconcile the corners

Corner radius 1/4"

J1-J14 (14 joints) on P02-P12

A routed mortise has ends rounded to the bit's radius, 1/4". Square them with a chisel, or round the tenon's edges to the same radius with a rasp - pick one and do every joint in this setup the same way. A mortise drilled and pared, or cut with a hollow chisel, is square already.

Check: Dry-fit. The shoulders should close with no light showing before any glue is opened.

Machine setups (continued)

S8 Cut the stopped rabbet

Bit 3/4" / Bit height 3/8" / Stops 1" from each end

Parts	Face	Where	Offset	For	Joints	Qty	Layout page
P09 Lower Front Rail	-	top edge + back face / L 1" to 16" / W 3/4" to 1-1/2" / T 0" to 3/8"	-	Lower Shelf P13	J19	1	p. 12
P10 Lower Back Rail	-	top edge + front face / L 1" to 16" / W 3/4" to 1-1/2" / T 3/8" to 3/4"	-	Lower Shelf P13	J20	1	p. 12

Router table with a 3/4" straight bit (or a rabbeting bit) and stop blocks clamped to the fence at both ends of the cut. Lower the part onto the spinning bit against the start block, feed to the stop block and lift off; never pull the part backwards. A dado stack cannot stop a cut cleanly - its blade leaves a long curved ramp at each end. Square the rounded ends to your marks with a chisel. It stops short of both ends of the board: mark each stop on the part, not on the drawing. It is cut 3/8" deep: 1/4" for the part it houses plus 1/8" at the bottom for that solid panel to swell into across its grain.

Check: Set the width from the mating board: 3/4" is what the model says the partner measures, and real stock is rarely exactly that.

S9 Cut the stopped groove

Bit 1/4" / Bit height 1/4" / Fence 1/4" from the nearer edge / Stops 1/2" from each end

Parts	Face	Where	Offset	For	Joints	Qty	Layout page
P15 Drawer Front Wall	back face	L 1/2" to 14-1/8" from the left end	1/4" from the bottom edge	Drawer Bottom P19	J21	1	p. 15
P16 Drawer Back Wall	front face	L 1/2" to 14-1/8" from the left end	1/4" from the bottom edge	Drawer Bottom P19	J22	1	p. 15
P17 Drawer Left Wall	right face	L 1/2" to 10-1/4" from the front end	1/4" from the bottom edge	Drawer Bottom P19	J23	1	p. 16
P18 Drawer Right Wall	left face	L 1/2" to 10-1/4" from the front end	1/4" from the bottom edge	Drawer Bottom P19	J24	1	p. 16

Router table with a 1/4" straight bit and stop blocks clamped to the fence at both ends of the cut. Lower the part onto the spinning bit against the start block, feed to the stop block and lift off; never pull the part backwards. A dado stack cannot stop a cut cleanly - its blade leaves a long curved ramp at each end. Square the rounded ends to your marks with a chisel. It stops short of both ends of the board: mark each stop on the part, not on the drawing. It is cut 1/4" deep: 7/32"* for the part it houses plus 1/32"* at the bottom as fit clearance.

Check: Set the width from the mating board: 1/4" is what the model says the partner measures, and real stock is rarely exactly that.

S10 Drill and drive

Clearance hole 9/64"* through the near part / Pilot hole 5/64"* (softwood) or 3/32"* (hardwood) into the far part

Parts	Setting	Joints	Qty	Layout page
P14 Flush Drawer Fascia -> P20 Drawer Pull	Screws 2 x #6 1-1/4" flat	J25	1	p. 14
P23-P24 Drawer Guide (2) -> P06-P07 Upper Rail (2)	Screws 3 x #6 1" flat	J29-J30	2	p. 19

The clearance hole is what pulls the joint tight: without it the near board rides on the threads and holds the parts apart. Pilot depth at least the length of the screw in the far part - this species splits if you skip it.

Check: Clamp the joint closed before drilling so the parts cannot shift as the screw pulls.

Machine setups (continued)

S11 Drill and drive

Clearance hole 11/64"* through the near part / Pilot hole 3/32"* (softwood) or 7/64"* (hardwood) into the far part

Parts	Setting	Joints	Qty	Layout page
P15-P16 Drawer Wall (2) -> P14 Flush Drawer Fascia	Screws 4 x #8 1" flat	J26	1	p. 15
P21-P22 Drawer Runner (2) -> P06-P07 Upper Rail (2)	Screws 3 x #8 1-1/2" flat	J27-J28	2	p. 18

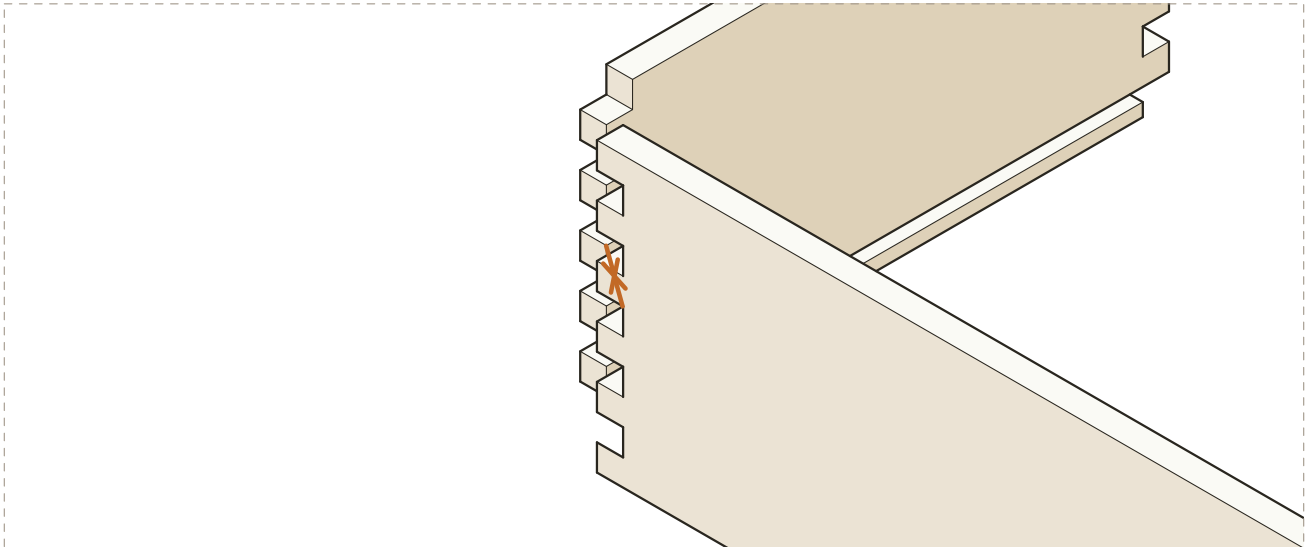
The clearance hole is what pulls the joint tight: without it the near board rides on the threads and holds the parts apart. Pilot depth at least the length of the screw in the far part - this species splits if you skip it.

Check: Clamp the joint closed before drilling so the parts cannot shift as the screw pulls.

J15-J18 / box-joint setup

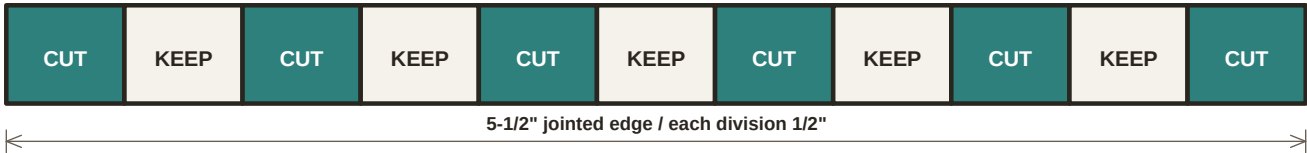
4 joint pairs / 11 alternating divisions, not 11 sockets per board

J15: P17 + P15 / J16: P18 + P15 / J17: P17 + P16 / J18: P18 + P16



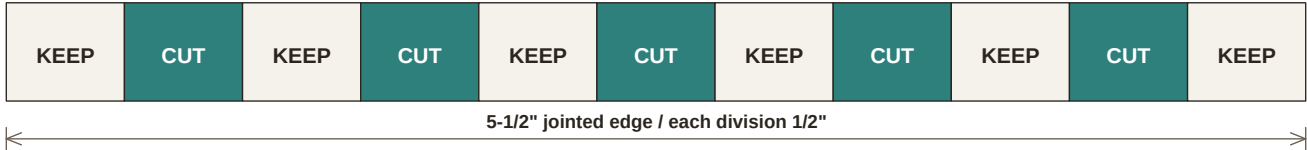
Joint detail window / parts continue beyond frame. CUT / KEEP is shown in the patterns below.

P17 Drawer Left Wall: 6 sockets / 5 fingers kept



From seam start: first socket 0"; repeat 1". Finished engagement 1/2"; tool depth 33/64" (includes 1/64" proud allowance).

P15 Drawer Front Wall: 5 sockets / 6 fingers kept



From seam start: first socket 1/2"; repeat 1". Finished engagement 1/2"; tool depth 33/64" (includes 1/64" proud allowance).

J15-J18 / cut & check

Use the flat pattern to confirm the starting finger/socket on EACH part

Part	Socket starts from seam 0	Socket width	Band / cut length	Finished / tool depth
P17 Drawer Left Wall	0", 1", 2", 3", 4", 5"	1/2"	1/2"	1/2" / 33/64"
P15 Drawer Front Wall	1/2", 1-1/2", 2-1/2", 3-1/2", 4-1/2"	1/2"	1/2"	1/2" / 33/64"

Joint	Part / end to cut	Seam 0 on stock	First socket / repeat
J15	P17 / datum end (L 0" to 1/2")	W = 0"	0" / 1"
J15	P15 / datum end (L 0" to 1/2")	W = 0"	1/2" / 1"
J16	P18 / datum end (L 0" to 1/2")	W = 0"	0" / 1"
J16	P15 / far end (L 14-1/8" to 14-5/8")	W = 0"	1/2" / 1"
J17	P17 / far end (L 10-1/4" to 10-3/4")	W = 0"	0" / 1"
J17	P16 / datum end (L 0" to 1/2")	W = 0"	1/2" / 1"
J18	P18 / far end (L 10-1/4" to 10-3/4")	W = 0"	0" / 1"
J18	P16 / far end (L 14-1/8" to 14-5/8")	W = 0"	1/2" / 1"

Mark the seam-start reference edge and the correct end of each board. Transfer that reference consistently to the opposite end; do not assume a flipped board uses the same pattern.

POWER: Use a box-joint jig referenced to the marked seam start. Set socket width to 1/2" and indexing repeat to 1". Use the tool depth for each member, not the finished engagement. Test the first A/B pair on matching scrap.

CHECK: The socket count is the number of removed spaces on that member. Match the actual counts above for this joint. The pair should seat without forcing. Trim the proud ends flush after assembly.

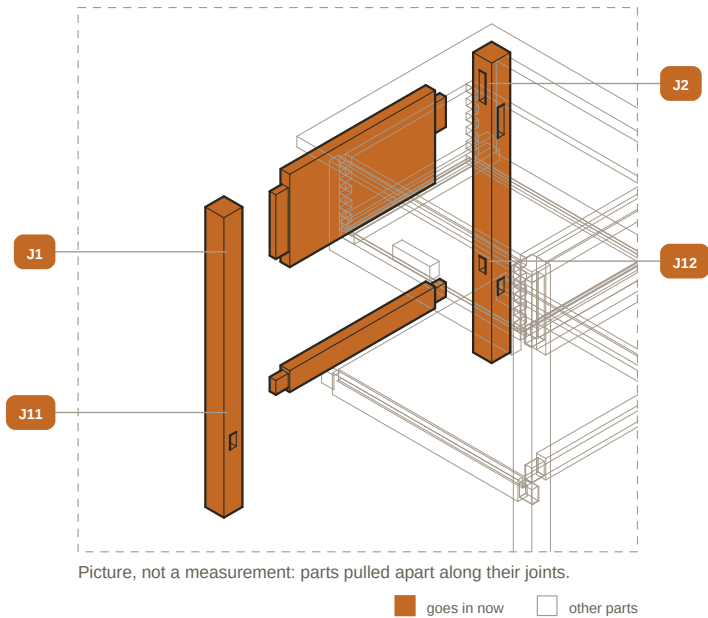
Full-size templates to stick round each board end, at the back of this guide: [p. 39](#)

Assembly

Dry-fit each glue-up, then glue them in this order

- 1. Dry-fit first, every time: assemble each glue-up without glue, check it, then take it apart in order.
- 2. Have clamps set to size and cauls ready before opening the glue. Check that captured parts can still go in before a frame closes.
- 3. Glue-ups are a suggested order from the joint graph. Let each one cure before the next one loads it.

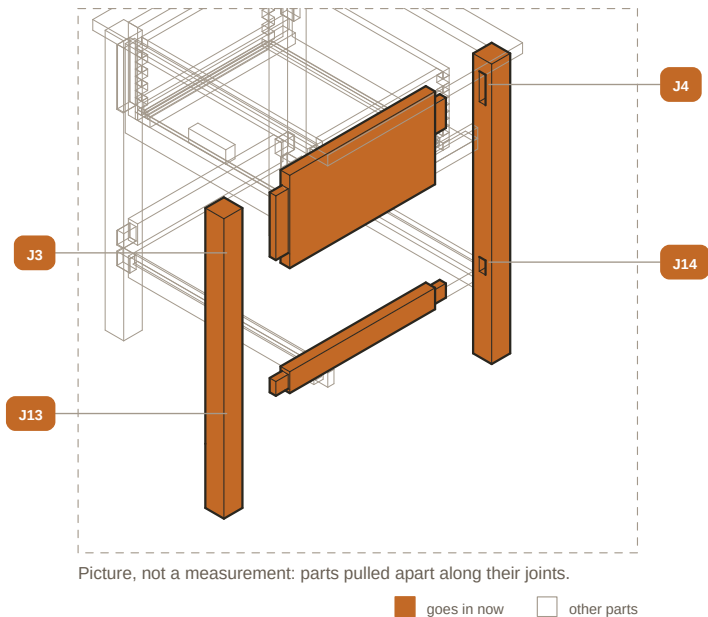
Glue-up 1 Left frame



Part	Goes into	Joints	Page
P06 Upper Left Rail	P02 Front Left Leg, P04 Back Left Leg	J1-J2 Mortise and tenon	p. 20
P11 Lower Left Rail	P02 Front Left Leg, P04 Back Left Leg	J11-J12 Mortise and tenon	p. 21

Mortise and tenon: test-fit each one, then glue and clamp.
Check: shoulders closed, diagonals equal within 1/16 in, and the assembly sits flat before the glue sets.

Glue-up 2 Right frame

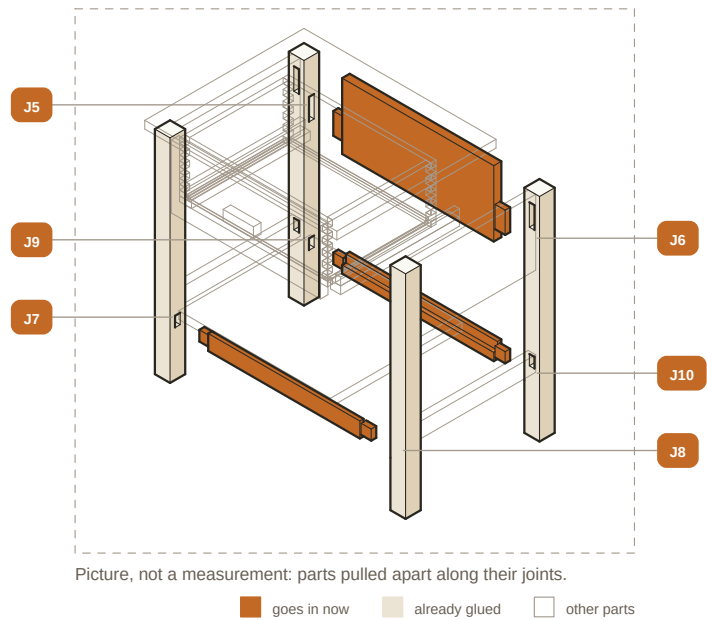


Part	Goes into	Joints	Page
P07 Upper Right Rail	P03 Front Right Leg, P05 Back Right Leg	J3-J4 Mortise and tenon	p. 20
P12 Lower Right Rail	P03 Front Right Leg, P05 Back Right Leg	J13-J14 Mortise and tenon	p. 21

Mortise and tenon: test-fit each one, then glue and clamp.
Check: shoulders closed, diagonals equal within 1/16 in, and the assembly sits flat before the glue sets.

Assembly (continued)

Glue-up 3 Side Table Frame: join the frames

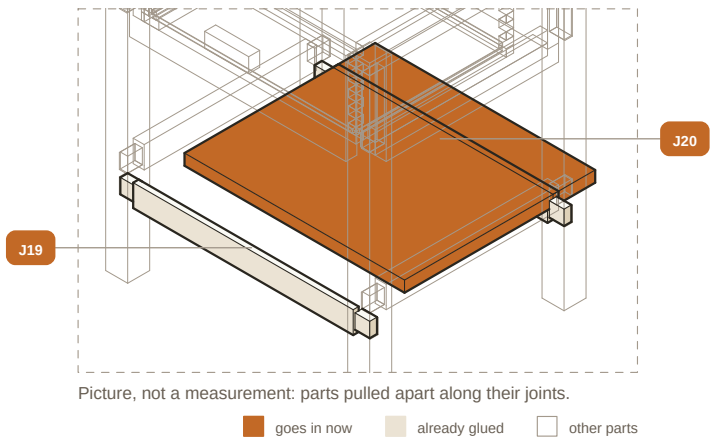


Part	Goes into	Joints	Page
P08 Upper Back Rail	P04 Back Left Leg, P05 Back Right Leg	J5-J6 Mortise and tenon	p. 21
P09 Lower Front Rail	P02 Front Left Leg, P03 Front Right Leg	J7-J8 Mortise and tenon	p. 21
P10 Lower Back Rail	P04 Back Left Leg, P05 Back Right Leg	J9-J10 Mortise and tenon	p. 21

Mortise and tenon: test-fit each one, then glue and clamp.

Check: shoulders closed, diagonals equal within 1/16 in, and the assembly sits flat before the glue sets.

Install Install Lower Shelf



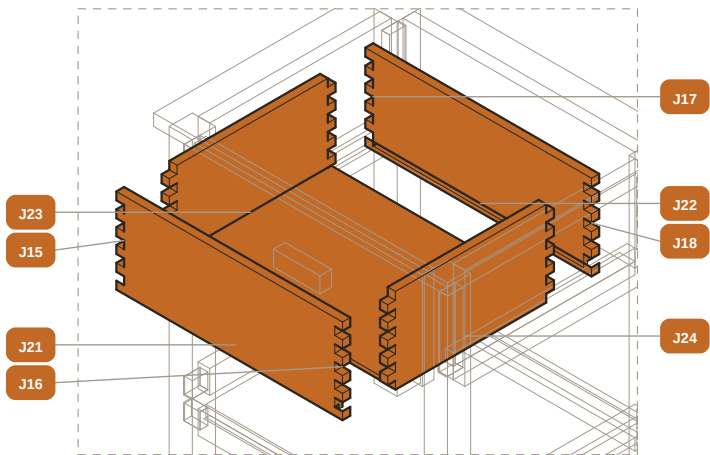
Part	Goes into	Joints	Page
P13 Lower Shelf	P09 Lower Front Rail, P10 Lower Back Rail	J19-J20 Stopped rabbet, floating	p. 22

Floating: P13 Lower Shelf goes in with no glue, so it can move.

Check: the panel sits fully home and can still move.

Assembly (continued)

Glue-up 4 Four-wall Drawer



Picture, not a measurement: parts pulled apart along their joints.

goes in now other parts

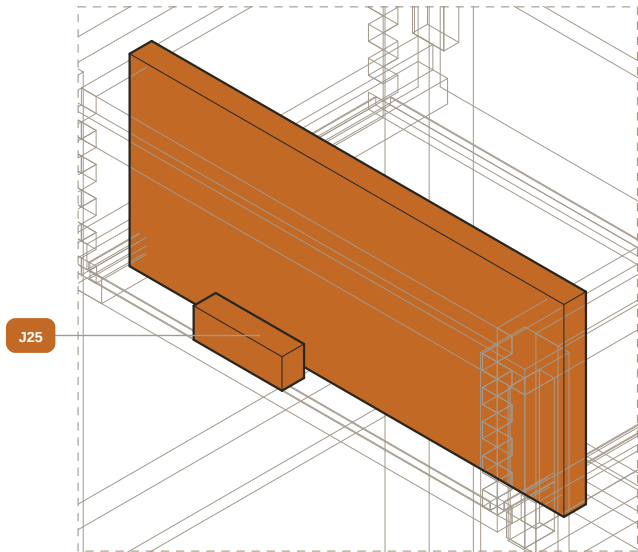
Part	Goes into	Joints	Page
P17 Drawer Left Wall	P15 Drawer Front Wall, P16 Drawer Back Wall	J15, J17 Box joint	p. 30
P18 Drawer Right Wall	P15 Drawer Front Wall, P16 Drawer Back Wall	J16, J18 Box joint	p. 30
P19 Drawer Bottom	P15 Drawer Front Wall, P16 Drawer Back Wall, P17 Drawer Left Wall, P18 Drawer Right Wall	J21-J24 Stopped groove, floating	p. 22

Box joints: glue the fingers; clamp across each corner.

Floating: P19 Drawer Bottom goes in with no glue, so it can move.

Check: shoulders closed, diagonals equal within 1/16 in, and the assembly sits flat before the glue sets.

Glue-up 5 Fascia and Pull



Picture, not a measurement: parts pulled apart along their joints.

goes in now other parts

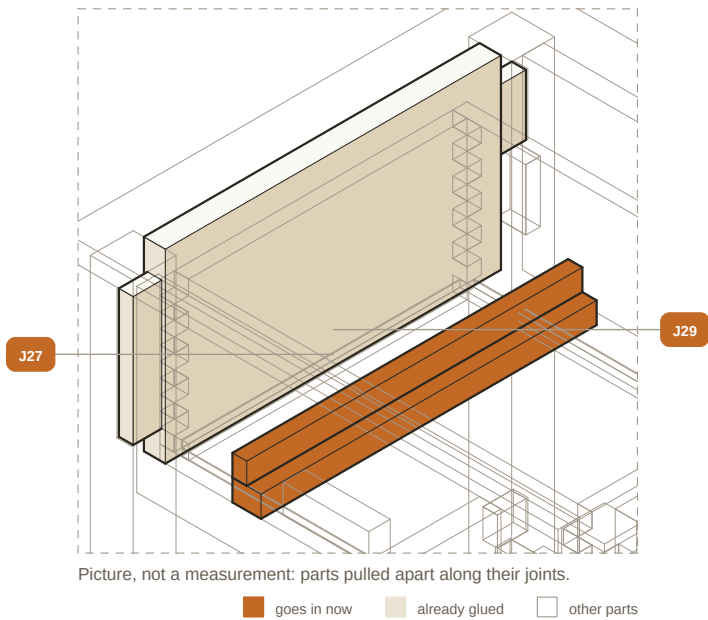
Part	Goes into	Joints	Page
P14 Flush Drawer Fascia	P20 Drawer Pull	J25 Screwed	p. 23

J25: 2 × #6 1-1/4" coarse through Flush Drawer Fascia into Drawer Pull

Check: clamp the parts before drilling so they cannot shift as the screws pull.

Assembly (continued)

Glue-up 6 Screw Left Drawer Runner and Left Drawer Guide to Upper Left Rail



Part	Goes into	Joints	Page
P21 Left Drawer Runner	P06 Upper Left Rail	J27 Screwed	p. 24

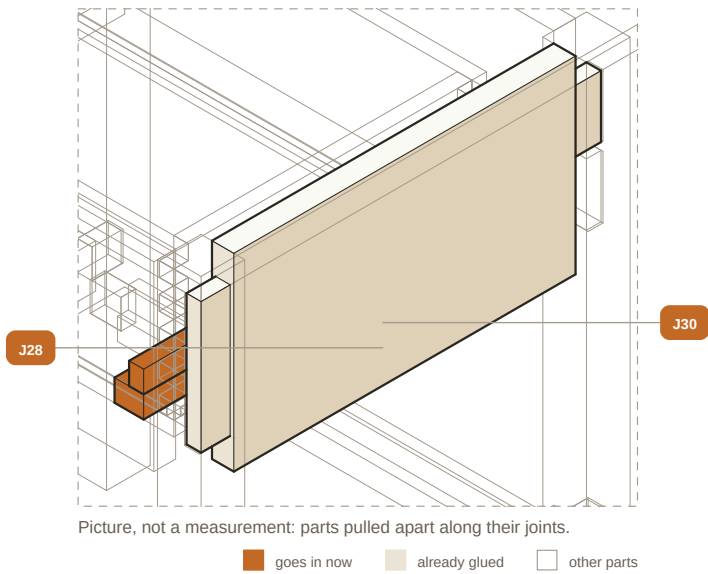
P23 Left Drawer Guide	P06 Upper Left Rail	J29 Screwed	p. 25
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J27: 3 × #8 1-1/2" coarse through Left Drawer Runner into Upper Left Rail

J29: 3 × #6 1" coarse through Left Drawer Guide into Upper Left Rail

Check: clamp the parts before drilling so they cannot shift as the screws pull.

Glue-up 7 Screw Right Drawer Runner and Right Drawer Guide to Upper Right Rail



Part	Goes into	Joints	Page
P22 Right Drawer Runner	P07 Upper Right Rail	J28 Screwed	p. 24

P24 Right Drawer Guide	P07 Upper Right Rail	J30 Screwed	p. 25
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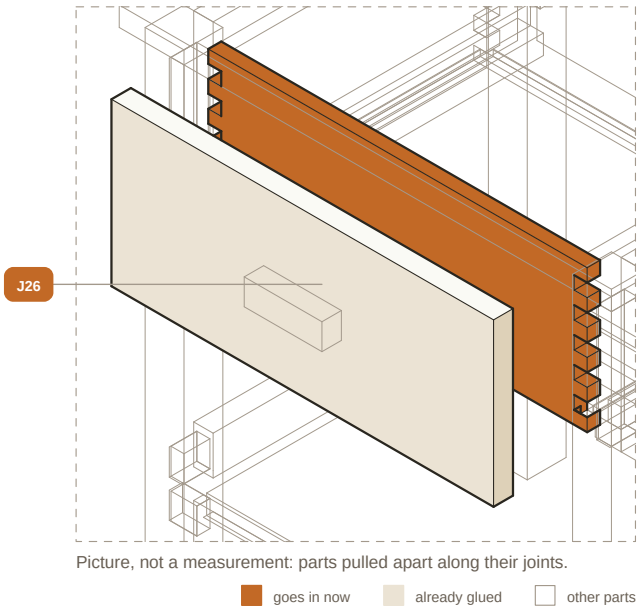
J28: 3 × #8 1-1/2" coarse through Right Drawer Runner into Upper Right Rail

J30: 3 × #6 1" coarse through Right Drawer Guide into Upper Right Rail

Check: clamp the parts before drilling so they cannot shift as the screws pull.

Assembly (continued)

Glue-up 8 Screw Drawer Front Wall to Flush Drawer Fascia



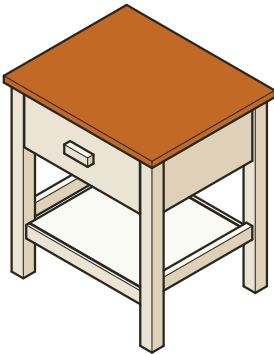
Part	Goes into	Joints	Page
P15 Drawer Front Wall	P14 Flush Drawer Fascia	J26 Screwed	p. 24

J26: 4 × #8 1" coarse through Drawer Front Wall into Flush Drawer Fascia

Check: clamp the parts before drilling so they cannot shift as the screws pull.

Not joined Unattached parts

Not joined in the model: P01 Table Top. Decide how it is attached before you build.
A solid-wood part over about 12 in wide moves across its width with the seasons.
Attach it with fasteners that allow that movement.



Final fit-up

The model does not join these units to each other: P02-P13, P21-P24; P14-P20. Fit them together as your design requires.

Review & coverage

Settle these before you cut; every part and operation is accounted for

Decide before you build

Refs	Item
P01	Table Top: no modeled attachment. Decide how this part is held.

Model notes

Software checks on the modeled shapes. Printed dimensions come from the cut definitions; if a part looks wrong in the app, review it before cutting.

Refs	Note
J15	The housing cuts in Drawer Left Wall and Drawer Front Wall stop at the box-joint fingers; the housed panel is notched to match.
J16	The housing cuts in Drawer Right Wall and Drawer Front Wall stop at the box-joint fingers; the housed panel is notched to match.
J17	The housing cuts in Drawer Left Wall and Drawer Back Wall stop at the box-joint fingers; the housed panel is notched to match.
J18	The housing cuts in Drawer Right Wall and Drawer Back Wall stop at the box-joint fingers; the housed panel is notched to match.
J25	Pilot 5/64" (softwood) or 3/32" (hardwood) in Drawer Pull, clearance 9/64" in Flush Drawer Fascia
J26	Pilot 3/32" (softwood) or 7/64" (hardwood) in Flush Drawer Fascia, clearance 11/64" in Drawer Front Wall
J27	Pilot 3/32" (softwood) or 7/64" (hardwood) in Upper Left Rail, clearance 11/64" in Left Drawer Runner
J28	Pilot 3/32" (softwood) or 7/64" (hardwood) in Upper Right Rail, clearance 11/64" in Right Drawer Runner
J29	Pilot 5/64" (softwood) or 3/32" (hardwood) in Upper Left Rail, clearance 9/64" in Left Drawer Guide
J30	Pilot 5/64" (softwood) or 3/32" (hardwood) in Upper Right Rail, clearance 9/64" in Right Drawer Guide
P15-P16	Finished-shape check: the software could not close this part's 3D surface, so it could not count the finished pieces. The dimensions on its card come from the cut definitions, not that surface.

Joint finder

Joints	Type	Parts	Setups	Page
J1, J3	Mortise and tenon	P06-P07 + P02-P03 / Upper Rail to Front Left Leg, Front Right Leg	S1, S2, S3, S7	p. 20
J2, J4	Mortise and tenon	P06-P07 + P04-P05 / Upper Rail to Back Left Leg, Back Right Leg	S1, S2, S4, S7	p. 20
J5-J6	Mortise and tenon	P08 + P04-P05 / Upper Back Rail to Back Left Leg, Back Right Leg	S1, S2, S5, S7	p. 21
J7-J14	Mortise and tenon	P09-P12 + P02-P05 / Lower Rail to Front Left Leg + 3 more	S1, S2, S6, S7	p. 21
J15-J18	Box joint	P17-P18 + P15-P16 / Drawer Wall to Drawer Wall	Box joints	p. 30

Joint finder (continued)

Joints	Type	Parts	Setups	Page
J19-J20	Stopped rabbet	P13 + P09-P10 / Lower Shelf to Lower Rail	S8	p. 22
J21-J22	Stopped groove	P19 + P15-P16 / Drawer Bottom to Drawer Wall	S9	p. 22
J23-J24	Stopped groove	P19 + P17-P18 / Drawer Bottom to Drawer Wall	S9	p. 23
J25	Screwed	P14 + P20 / Flush Drawer Fascia to Drawer Pull	S10	p. 23
J26	Screwed	P15 + P14 / Drawer Wall to Flush Drawer Fascia	S11	p. 24
J27-J28	Screwed	P21-P22 + P06-P07 / Drawer Runner to Upper Rail	S11	p. 24
J29-J30	Screwed	P23-P24 + P06-P07 / Drawer Guide to Upper Rail	S10	p. 25

Box-joint templates

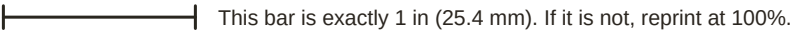
Full size: print at 100%, cut out and stick one round each board end

Print these pages at 100% (actual size, no "fit to page"). The bar on each page must measure exactly 1 in. Print both halves of a joint on the same printer, so any scale error is the same on both.

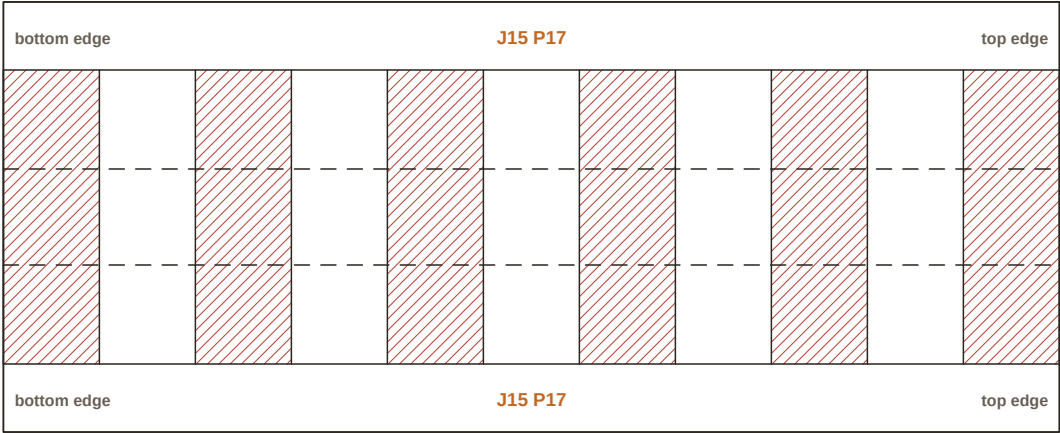
One strip for each board end. Cut it out on the outer line and crease it on the two dashed lines. Wrap it over the end of the board with the end grain between the creases, and put each end of the strip on the board edge named on it.

Stick it down with spray adhesive or a glue stick: wet glue stretches paper. Hatched is waste. Saw on the waste side of each line, down to the baseline on both faces, then clear the waste.

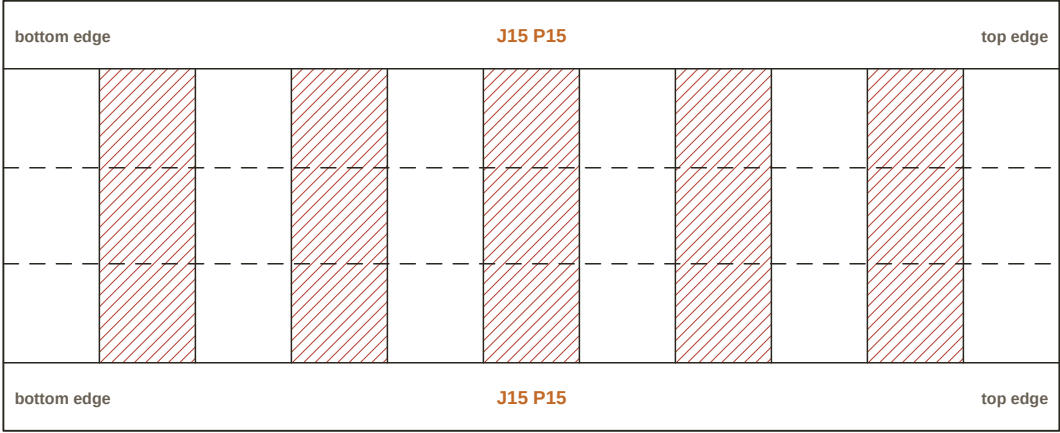
The baseline is the tool depth: the finished depth plus 1/64", so the fingers stand proud and sand flush. Fit the first pair on scrap. Grooves and other cuts in the same end are not on the strip.



J15 / P17 Drawer Left Wall / front end 6 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



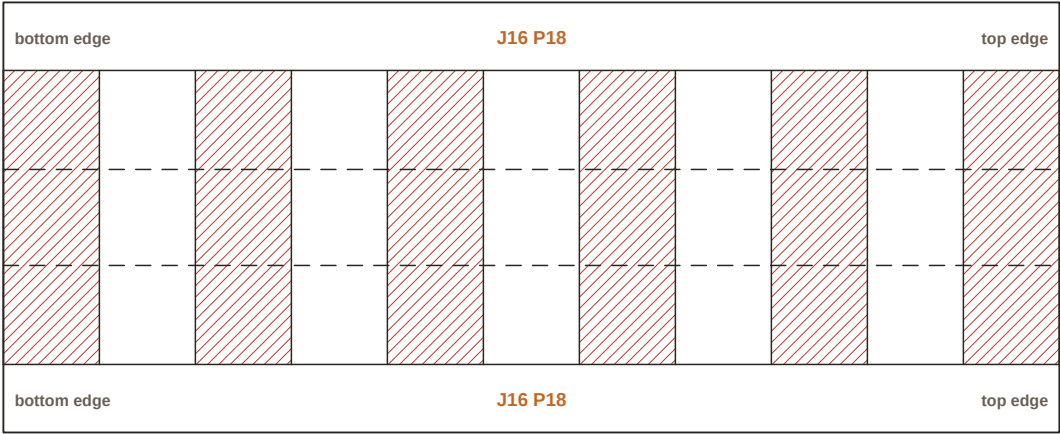
J15 / P15 Drawer Front Wall / left end 5 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



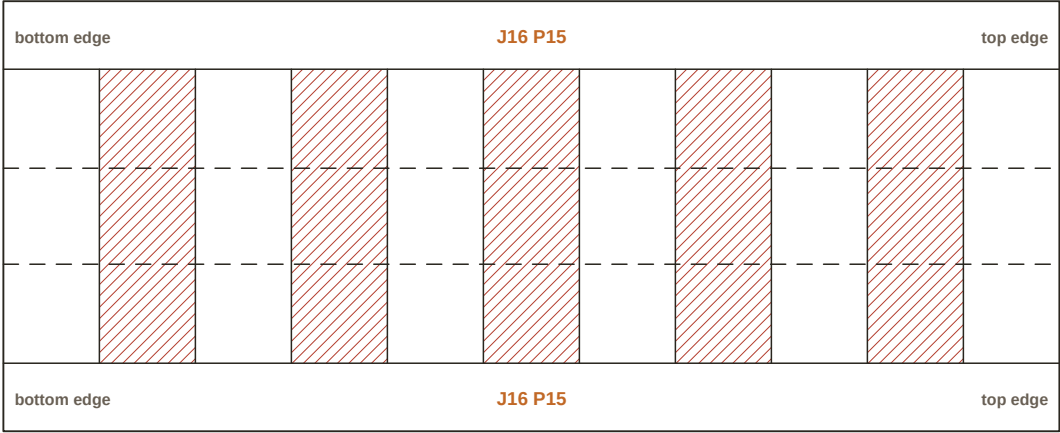
Box-joint templates (continued)

 This bar is exactly 1 in (25.4 mm). If it is not, reprint at 100%.

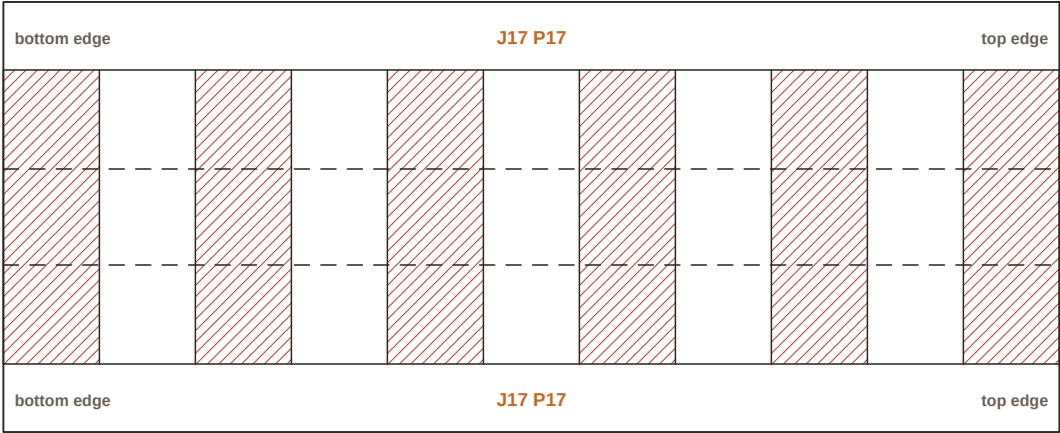
J16 / P18 Drawer Right Wall / front end 6 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



J16 / P15 Drawer Front Wall / right end 5 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



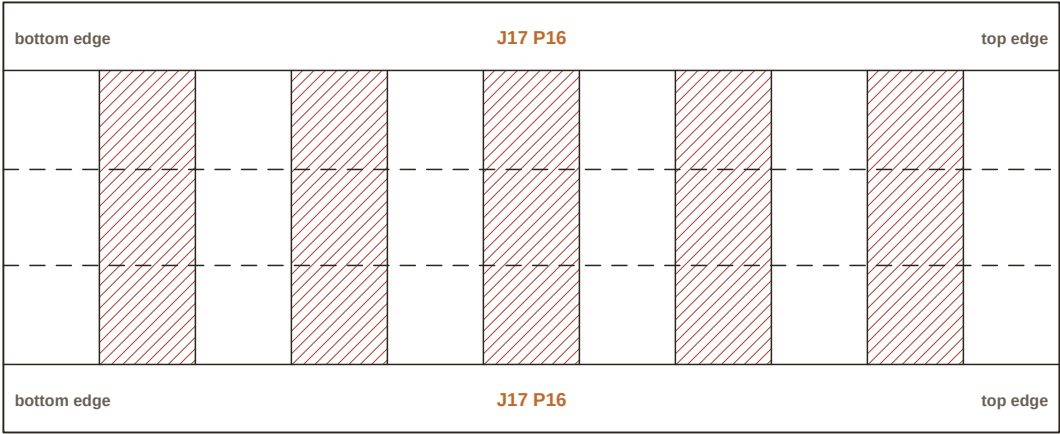
J17 / P17 Drawer Left Wall / back end 6 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



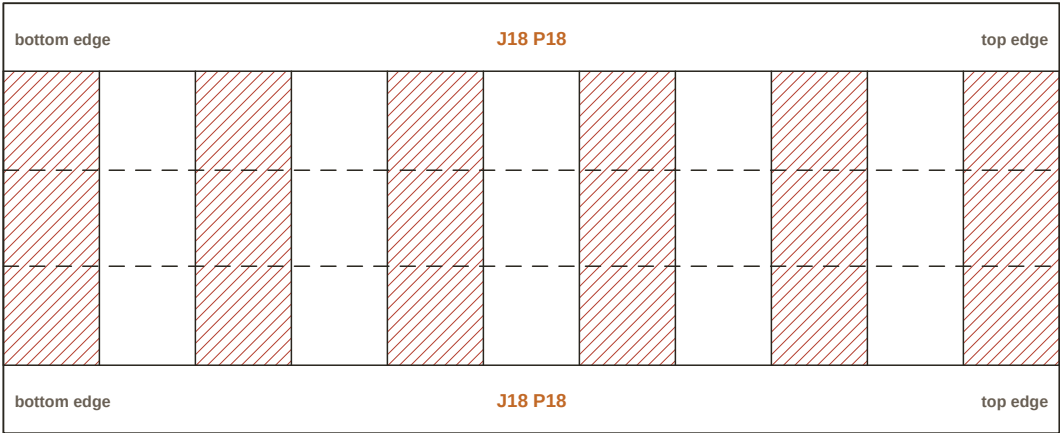
Box-joint templates (continued)

 This bar is exactly 1 in (25.4 mm). If it is not, reprint at 100%.

J17 / P16 Drawer Back Wall / left end 5 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



J18 / P18 Drawer Right Wall / back end 6 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.



J18 / P16 Drawer Back Wall / right end 5 sockets; left end on the bottom edge, right end on the top edge; baseline 33/64" from the end.

