TOP FLITE®

MONOKOTE®

SmartStripe™

STRIPE CUTTING TOOL

ASSEMBLY AND USE INSTRUCTION BOOKLET

Congratulations on choosing the Top Flite Smart Stripe, the professional way to cut MonoKote® stripes for trimming film-covered models. Once you assemble and use the Smart Stripe for the first time, you'll wonder how you ever got along without one. With a little practice, you'll be cutting trim stripes as narrow as 1/32" with precision and consistency unattainable with a straightedge and hobby knife.

The Smart Stripe can be mounted on your workbench for use, then slid off the attachment screws in seconds if space is limited. Bench mounting is particularly useful when loading the roller, as you can pull the film tight with one hand as you wind it on with the other.

Colors can be quickly changed by preparing several rollers (sold separately) with your favorite shades, or loading more than one color on the roller supplied with your Smart Stripe.

The best part of using MonoKote stripes instead of the sticky-back variety is the satisfaction of knowing your trim scheme won't come off after a few flights. Not only will you have a durable finish, but you'll also have forty-seven MonoKote colors from which to choose, and an unlimited range of stripe widths.

Top Flite Model Mfg.
3002 N. Apollo Dr., Suite 1
Champaign, IL 61822
Technical Assistance – Call (217) 398-8970, ext. 5

ASSEMBLE THE *SMART STRIPE*

TOOLS REQUIRED

Screwdrivers – Phillips and a small flat blade type
7/16" Wrench or 4-way prop wrench (Great Planes #GPMP2000)
Common pliers
6" draftsman's triangle or carpenter's square
Flat file
Bar soap or paraffin wax
Paper towels
Electric drill (Optional)

PARTS LIST

NOTE: Some parts will be found under the cardboard insert.

QTY.	PART #	DESCRIPTION
1	STRP001	BASE
2	STRP002	UPRIGHT
1	STRP003	LEFT BLADE HOLDER
1	STRP004	RIGHT BLADE HOLDER
1	NYLON107	THREADED INSERT
1	HRDWD023	WOOD ROLLER
1	METAL068	DEAD PIN
1	SCRW106	1/4-20 ROLLER KNOB
1	SCRW105	1/4-32 x 8" THREADED SHAFT
1	KNOB001	KNOB FOR THREADED SHAFT
2	SCRW107	4-40 X 3/4" SCREW W/KNOB
2	SCRW102	6-32 X 1/4" SCREW W/KNOB
1	BLADE08	#11 BLADE
2	NUTS002	4-40 HEX NUT
1	NYLON108	1/4" UNTHREADED NYLON HEX NUT
4	SCRW047	#6 X 1/2" SHEET METAL SCREW
2	WSHR005	#4 FLAT WASHER
1	SCRW030	1/4-20 X 1" HEX HEAD BOLT
1	STRPP01	INSTRUCTIONS
1	STRPD01	DECAL

A WORD ABOUT SAFETY

Used properly, the Smart Stripe is a safe and dependable tool. However, like a hobby knife, you are dealing with a very sharp, exposed blade. The best way to avoid being cut is to remove the blade when loading the roller or any time you're not using it. We also suggest covering the blade point with a small balsa block when removing the stripes from the roller. Keep the Smart Stripe out of children's reach at all times.

ASSEMBLE THE BLADE HOLDER

NOTE: An exploded view diagram is provided in the center of this booklet for reference while assembling your Smart Stripe.

1. Slide a #4 flat washer onto each of the two 4-40 x 3/4" blade holder screws, then insert the screws through the right half of the blade holder.

2. Install the left half of the blade holder onto the screws.

3. Insert a #11 blade between the blade holders to see how it is supposed to fit, then remove the blade. Please be careful–the blade is sharp, sharp, sharp!

4. Join the blade holder halves together. First insert two 4-40 hex nuts into their retainers on the left half of the blade holder. Then finger tighten the two blade holder screws.

5. Slide the threaded insert through the hole at the back (square) end of the blade holder.

6. Start the 6-32 x 1/4" blade holder alignment screws into the holes at the back of the blade holder, but don't tighten them.

PREPARE THE ROLLER

1. Insert the dead pin into the holes in both ends of the hardwood roller to determine which hole the dead pin can be most easily inserted into and removed from. Make threads in the hole at the **opposite** end of the roller as explained in the following steps.

2. Use the 1/4-20 x 1" hex head bolt to make threads in the end of the hardwood roller determined

in step #1. A four-way prop wrench works well for this operation. Twist the bolt all the way into the roller until the head contacts the wood, or strong resistance is felt, then remove it.

3. Rub some bar soap or paraffin wax as a lubricant onto the shaft threads of the 1/4-20 roller knob, then screw the knob in and out of the threaded hole to distribute the lubricant. Do not use excessive force when performing this operation to avoid breaking the knob or stripping the threads. If the threads tighten up, remove the screw and add more lubricant. You want this screw to be very easy to install and remove.

FINAL ASSEMBLY

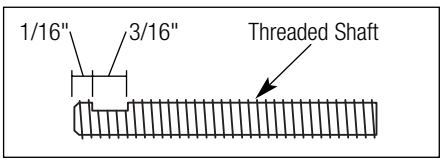
NOTE: The following steps describe assembling the Smart Stripe for **right-hand** operation. If you are left-handed, simply switch the position of the knobs, hex nut and dead pin from one side to the other.

1. Now is an excellent time to decide where you would like to mount your Smart Stripe. It need not be mounted permanently, but it will help to have it mounted when loading the roller. Position the base where you will mount it, then use a pencil to mark the mounting screw locations on your workbench.

2. Remove the backing from the pressure sensitive decal and apply it to the recessed area in the base as shown on the box cover.

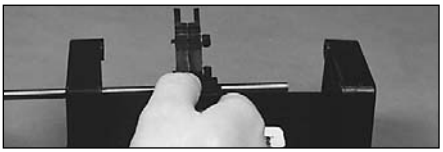
3. Attach the right and left uprights to the base with four #6 x 1/2" sheet metal screws. Notice that the right side is fixed and the left side is adjustable. Tighten the left side screws just enough to hold the upright in position, but still allow it to be moved.

4. Use the roller as a spacer to set the distance between the front and rear uprights, then tighten the screws on the adjustable side. Make sure the uprights are parallel to one another.



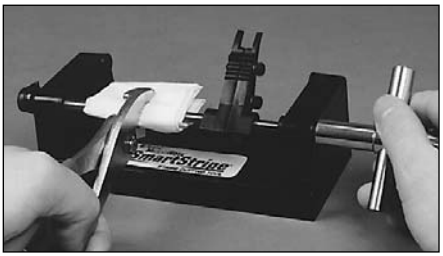
5. File or grind a 3/16" wide flat spot 1/16" from one end of the threaded steel shaft.

NOTE: The blade holder should be "broken in" by screwing the threaded shaft through it several times. Turning the threaded shaft with an electric drill works well for this job.



6. Insert the threaded shaft into the hole nearest you in the left hand upright. Verify that the threaded insert is centered, with its tabs overlapping the sides of the right and left blade holder, then thread the shaft through the blade holder assembly. Keep turning until 1-1/2" of thread protrudes out the opposite side of the blade holder. Insert the threaded shaft through the hole in the other upright.

7. Install the small knob on the threaded shaft on the flat spot end. Install the 8-32 x 1/8" Set Screw into the small Knob and tighten.



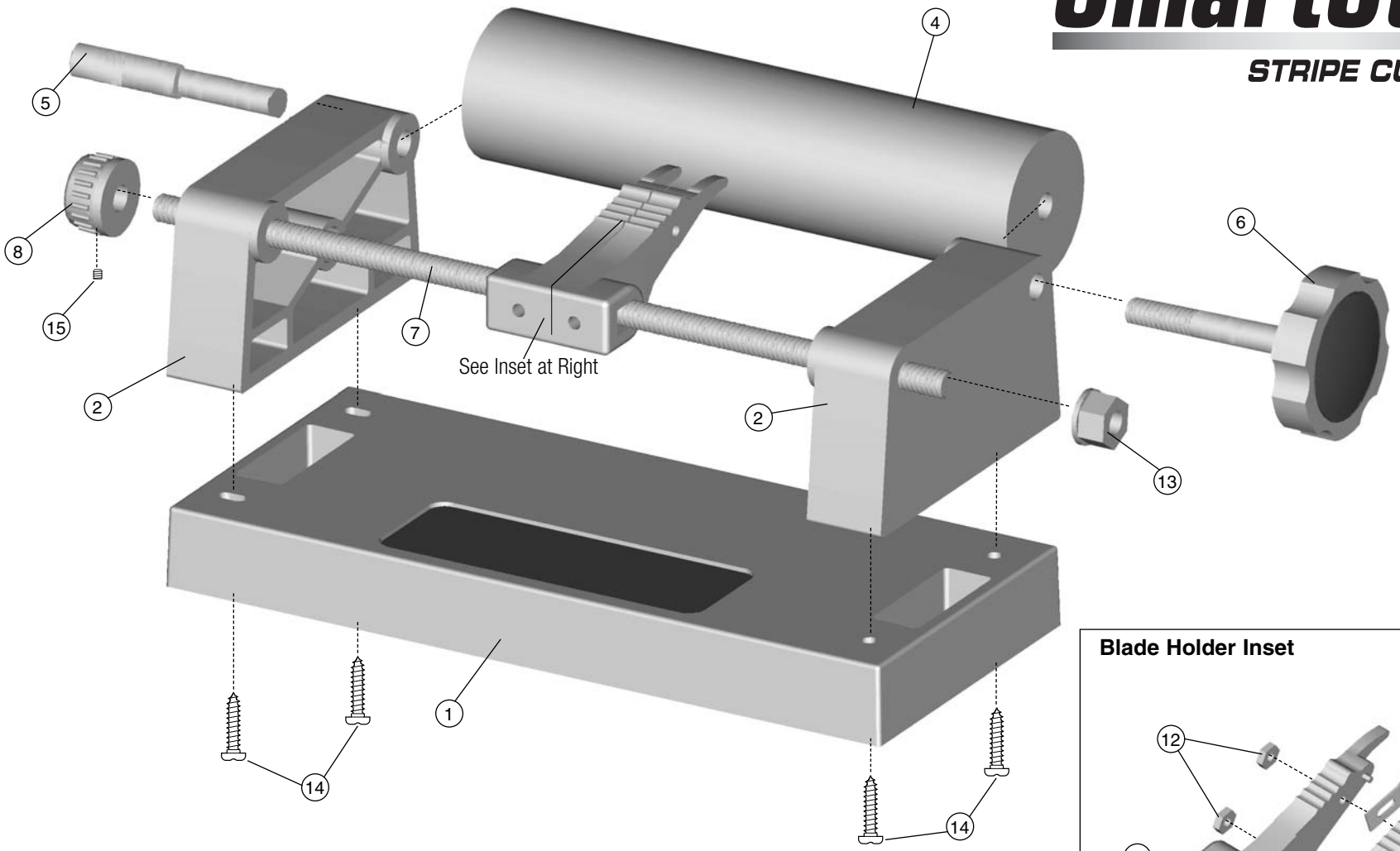
8. Wrap a thick cushion of paper towels around the threaded shaft to protect the threads, then grip it tightly with pliers. Use a 7/16" prop wrench to thread the nylon hex nut on the end of the shaft as shown. **NOTE:** This special hex nut is intentionally not threaded. When fully seated, it will remain locked in position. Thread the hex nut onto the shaft until it just touches the upright, to remove any side-play.

9. Hold the roller between the uprights with the threaded hole on the right. Slide the 1/4" **dead pin** through the left upright into the unthreaded hole in the roller. Insert the roller knob through the right upright, then screw it into the roller until you feel a little resistance.

10. Check your work. Does the roller turn freely without side-play? Does the threaded rod work smoothly, also without side-play?

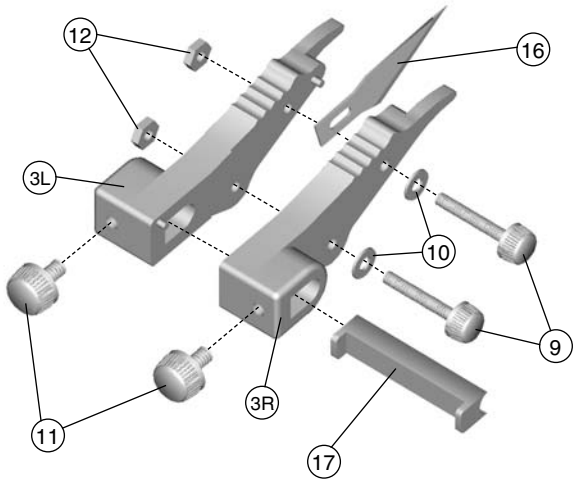
MonoKote® SmartStripe™

STRIPE CUTTING TOOL



1	Base	9	4-40 Screws W/Knob
2	Upright	10	#4 Washers
3L	Blade Holder – Left	11	6-32 Screws W/Knob
3R	Blade Holder – Right	12	4-40 Hex Nuts
4	Wood Roller	13	Nylon Hex Nut
5	1/4" Dead Pin	14	#6 x 1/2" Sheet Metal Screws
6	1/4-20 Roller Knob	15	8-32 x 1/8" Set Screw
7	Threaded Steel Shaft	16	#11 Blade
8	Shaft Knob	17	Threaded Insert

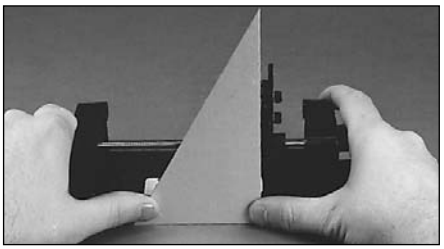
Blade Holder Inset



BLADE ALIGNMENT

IMPORTANT: The blade must be exactly perpendicular to the roller or your stripes will not be straight and even.

1. Install a #11 blade as shown above.



2. Raise the blade holder to a vertical position. Check the angle between the centerline of the blade holder and the base with a triangle – it should be 90 degrees. If needed, the blade holder can be tilted left or right by adjusting the two screws on the back edge. Don't overtighten the adjustment screws or you will cause the blade holder to bind on the threaded rod. When the angle is correct, gently finger tighten the adjustment screws **evenly** on the back of the blade holder to allow free movement when the threaded rod is rotated. Re-check the angle.

MOUNTING THE SMART STRIPE TO YOUR BENCH

We have found it much easier to load the roller when the Smart Stripe is mounted to the workbench. When cutting stripes, mounting is not necessary.

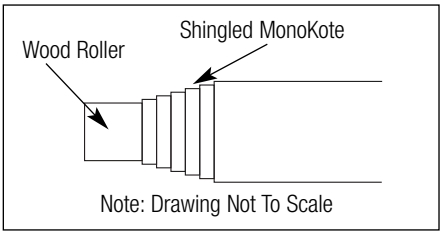
1. Decide where to mount your Smart Stripe, then measure and mark two screw locations exactly 6-7/16" apart. You may have already marked these locations on your workbench prior to assembly. Center punch the hole locations, drill 1/8" pilot holes, then screw a #8 x 5/8" sheet metal screw (not included) part-way into your work bench at each mark. Test fit the Smart Stripe by setting it on the screws and sliding it back or forth to seat it. Adjust the height of the screws until the base will just slide under the screw heads and "click" into position.

USING YOUR *SMART STRIPE*

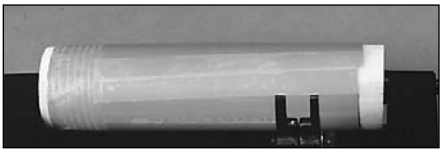
LOADING THE ROLLER

1. Cut a 4"-wide strip of MonoKote to whatever length you require. A simple way to cut a 6' long strip is to cut a 4" width off a full roll by using a fine-toothed razor saw.

2. Place the MonoKote on your work bench in front of you, with the loose end coming off the top and pointing toward the roller. Position the MonoKote strip about 1/16" from the left side of the roller. Use cellophane tape across the entire width of the MonoKote to fasten it to the top of the roller.

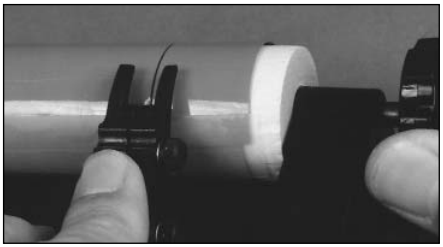


3. Hold the MonoKote roll firmly with your left hand while winding it onto the roller with your right. Slowly move the MonoKote across the roller about 1/32" per rotation so that one edge will be staggered like shingles toward the center of the roll. When you reach the end of the roll, secure the MonoKote in position with a strip of cellophane tape across the entire width.

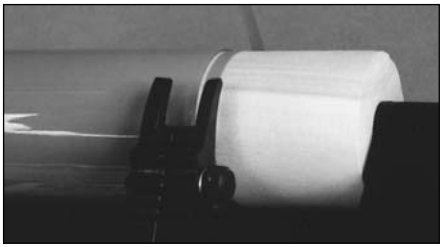


4. Wrap a strip of cellophane tape around the MonoKote shingles, extending it over onto the roller. This technique will prevent the MonoKote from shifting sideways.

CUTTING STRIPES



1. Position the blade over the untaped end of the MonoKote, about the same distance in as the width of the shingles. **Gently** press down on the blade holder while rotating the roller. Keep turning the roller until the blade reaches the wood.



2. Remove the scrap MonoKote. Check that the cut edge on the roller is straight and smooth. Move the blade holder over 1/8" (4 revolutions of the knob) and make a test stripe.

3. Remove and examine the test stripe. The edges should be parallel and straight – if not, try another cut using less pressure on the blade holder. After a few practice cuts, you will develop a feel for how much pressure is enough. With practice (and an accurately aligned blade) you will be able to cut 1/32" wide panel line stripes with ease.

4. Remember, each revolution of the threaded shaft knob moves the blade holder 1/32".

REVOLUTIONS	STRIPE WIDTH
1	1/32"
2	1/16"
3	3/32"
4	1/8"
6	3/16"
8	1/4"
12	3/8"
16	1/2"

HOT TIP

Use **sharp** blades. MonoKote will dull the edge of a new blade after only a few cuts and, although it will continue cutting, the stripe edges will be ragged and the blade won't track straight.

Make sure the blade is fully inserted into the blade holder, so only the tip of the blade contacts the MonoKote when cutting.

More than one color of MonoKote can be loaded at one time. Just stack a couple of colors, then roll them on tightly. Also, narrower strips of different colors can be loaded on the roller side-by-side.

Periodically check the fit of the uprights against the roller. There should be no end-play.

If you get fine "hairs" when cutting narrow stripes you are: (a) pressing too hard on the blade holder, causing the blade to flex or (b) the blade is out of alignment with the roller.

Use sharp blades, light pressure, and tightly rolled MonoKote for consistently good stripes. A little practice also helps.

STRIPE APPLICATION

Install a Top Flite Hot Sock™ on your sealing iron. Set the iron for about one-third less heat than you use for covering.

In most cases the MonoKote backing will come off without any help. Position the stripe and tack it down at one end. Gently pull the stripe taut, close to the surface you are covering. For straight lines, tack the stripe down at its other end point. Set the iron down on the stripe at several points without sliding it back and forth – just press down. Keep pressing the stripe onto the surface until the entire length is in position.

After applying all of the stripes to your model as described, turn up the heat to your normal covering setting and seal the stripes to the surface with a gentle sliding motion, keeping the iron parallel with the stripe.

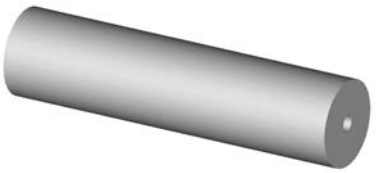
When applying wide stripes, tack one end down; then, while holding the stripe slightly off the surface, iron it down starting at the tacked end. Keep working the iron toward the open end. By so doing you will be squeezing out the air bubbles as you proceed. If you do get a few air bubbles, prick them with a needle, then touch them with the iron to expel the trapped air.

Narrow stripes can be made to go around curves. Stripes with widths of 1/8" or less work the best. Heat the stripe with the tip of the iron as you work it around the curve, a little at a time.

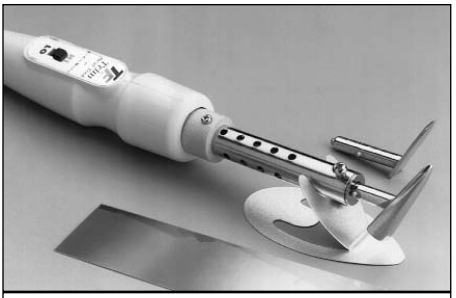
Clean off any color residue from around the edges with Top Flite CA Debonder (TOPR1028) or lacquer thinner. This should only be done if color residue is visible. **Don't** apply debonder or thinner to all stripes.

We hope you enjoy using your Smart Stripe as much as we do in the Top Flite model shop. Before you know it, you will be turning out professional-looking, low-maintenance trim schemes that will generate lots of "oohs" and "ahs" at the flying field.

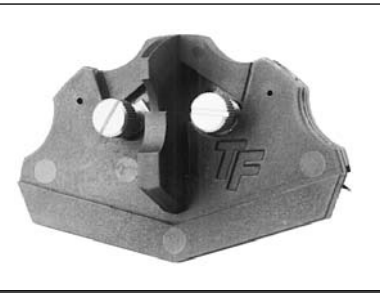
Top Flite® MonoKote® Hot Sock™ Iron Cover
Very inexpensive and easy to use, the soft, 100% cotton Hot Sock simply ties over your sealing iron's shoe to prevent it from scratching and hazing your covering. Hot Sock also protects your sealing iron, extending its working life. TOPR2175



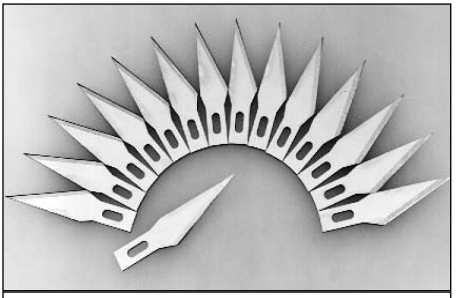
Top Flite® Smart Stripe™ Wooden Rollers
These optional wooden rollers, designed specifically for the Smart Stripe, let you keep your favorite MonoKote colors always wrapped and ready for cutting into stripes. They're economical and easily interchangeable on the cutting tool. TOPR2425



Top Flite® MonoKote® Trim Seal Tool
Seal hinge gaps, wing saddles, inside corners and intricate trim schemes with ease, using the ingenious Trim Seal Tool. Features include high/low heat control and adjustable shoe depth. Two tips and an aluminum stand are also included. TOPR2200



Top Flite® MonoKote® SmartCut™ Trimming Tool
Specifically designed for trimming covering material around a model airplane's unique contours, SmartCut helps even first-time finishers achieve clean edges and virtually invisible seams. Two standard #11 blades are included. TOPR2400



Hobbico® #11 Knife Blades
The Top Flite Smart Stripe works best with a fresh, sharp cutting blade. Made of hardened carbon steel, Hobbico #11 blades are ground to a long-lasting, razor-sharp edge. Each low-priced package contains 100 blades. Keep a supply on hand! HCAR0311