



REPRODUCTIONS OF EMBROIDERED INSIGNIA

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Reproduction is the biological process by which new “offspring” or individual organisms are produced from their “parents”. Reproduction is a fundamental feature of all known life, in some cases with non-life too. As is the case(s) we are going to discuss in this document with embroidered insignia. The known methods of reproduction are broadly grouped into three main types: **genuine**, **fantasy** and **fraudulent**. In “genuine” reproductions, a bona fide embroidered insignia is copied and reproduced for the department in which the insignia belongs too. A prime example of this would be if the department had a patch made say 9 years ago and they cannot locate the original manufacturer of the patch, they still have one of the original patches and take it to a new manufacturer to have the patch remade. Of course, there will be some variations in the reproduction, especially if the technology that is used to make the patch is now digital versus say an analog technology that was originally used to render the embroidery. These types of reproductions are very common and must not be confused with a type of reproduction that was remade without the department’s consent or knowledge.

In noticing all of the Broward Sheriff Office’s embroidered insignia, the current style patch worn now is pretty much the same as the patch that was worn in 1977. However, throughout the years of reordering, reproducing etc., the patch has taken on a few inconsequential changes. Just look at the five point star in the center of the patch design. In older issues the star had clearly defined leaves in each of the radials. As the patch was reproduced, it was copied from an older patch. Now the leaves in the radials look like little fancy designs or ovals more than leaves. Same for the balls at the tips of the five radials, as the patch was copied from manufacturer to manufacturer the balls became larger and in some cases oblong in shape. Since the original flat artwork was not used to reproduce the patch, serious degradation took place over the years with the embroidery work and definition of the design.

In “fantasy” reproductions, a non-bona fide embroidered insignia is created with no official approval or oversight from the department that bears its title on the patch. There have been many cases where an unscrupulous manufacturer produces a fantasy SWAT or K-9 patch and then after manufacturing the patch tried to sell some of the patches to the department or in some more unusual cases donate a portion of the patch

run to the department in some hopes of legitimizing the fantasy reproduction. Whatever that was left over would go to local patch trading shows and to online venues like eBay and they would be sold to unsuspecting collectors as legitimate insignia. The only theory why these types of patches are made is to make money. It is a growing business and the revenue that these sellers bring in from their sales is staggering.

And lastly, the “fraudulent” reproduction patches. Out of the three main types, this type is the most treacherous and deceitful. Why? Because a bona fide embroidered insignia is copied and reproduced. NOT for the department in which the insignia belongs but, rather for profit to the seller directly. The only person who loses on this type of patch is the buyer. To put it simply this is “fraud” and anyone who has shown a propensity to manufacture any bona fide law enforcement insignia and sell it to a collector as a bona fide patch is committing a crime. In criminal law, a fraud is an intentional deception made for personal gain or to damage another individual, the related adjective is fraudulent. The specific legal definition varies by legal jurisdiction. Fraud is a crime, and also a civil law violation. Defrauding people or entities of money or valuables is a common purpose of fraud, but there have also been fraudulent “discoveries”, e.g., in science and collecting, to gain prestige rather than immediate monetary gain.

Recently, a notable collector was surfing on eBay and found a very rare vintage patch for sale. Other potential buyers also noticed the same patch for sale and all of them were bidding on the patch to obtain it for their collection. It turns out the item in question, a Chiefland Police Department Indian head patch, sold for several hundred dollars at the conclusion of the auction. Once the item was received in the mail from the seller, it was sadly discovered that the item was a fraudulent copy of a vintage patch. That transaction was fraud to say the least and had the patch been authentic, it would have been worth hundreds of dollars. But since the patch is a fraudulent reproduction it is only worth a few dollars, if anything at all.

So what is necessary to prevent this from continuing to take place? The answer is “fraud deterrence”. **Fraud deterrence** is the proactive identification and removal of the contributory and enabling factors of fraud. Fraud deterrence is based on the premise that fraud is not a random occurrence, fraud occurs where the conditions are right for it to occur. Fraud deterrence attacks the root causes, enablers and sellers of counterfeit patches. This document could reveal potential fraud opportunities in the process, but is presented to you, the collector, on the premise that improving knowledge and procedures in collecting law enforcement insignia to reduce or eliminate the fundamental factors of fraud is the single best defense against fraud.

The first example of our reproductions we will discuss the most important tool a collector can have to help detect reproductions. What tool is that? The answer is simple,

a black light. A **black light**, also referred to as a **UV light, ultraviolet light**, is a lamp that emits ultraviolet radiation (UV) in the long-wave (near ultraviolet, UVA) range, and little visible light. Other types of ultraviolet lamp emit large amounts of visible light along with the ultraviolet, but a “black light” usually refers to a lamp that has a dark blue optical filtering material in the glass envelope of the bulb (or the lamp housing) which blocks most of the visible light, so the lamp emits mostly ultraviolet. Ultraviolet radiation is invisible, but a small fraction of visible light passes through the filtering material, with wavelengths no longer than 400-410 nm, and as a result, when operating the lamp has a dim purple or violet glow.

How does this tool help me? A black light is commonly used to authenticate oil paintings, antiques, collectables and banknotes. Black lights can be used to differentiate real currency from counterfeit notes because legal banknotes have fluorescent symbols and strips on them that only show under a black light. In addition, the paper used for printing money does not contain any of the brightening agents which cause commercially available papers to fluoresce under black light. Both of these features make illegal notes easier to detect and more difficult to successfully counterfeit. The same security features can be applied to identification of embroidered insignia. You can now examine a vintage patch with non-destructive testing by using a black light. When it comes to vintage embroidered insignia, cotton was primarily used for thread. Today, most all threads are made out of synthetic fiber mercerized cotton with a polyester core, which glows brightly under a black light.



This is an example of VINTAGE ERA type cheesecloth. The threads are uneven and spaced further apart.



This is an example of MODERN ERA type cheesecloth. The threads are even and uniformly spaced close together. Modern era cheesecloth also glows under a blacklight.

All modern era cheesecloth is tight and uniform in appearance.

A blacklight is used as a non-destructive method to test for vintage vs. modern era collectables.

A vintage era collectable will not glow when exposed to a blacklight source.

A modern era collectable will glow brightly when exposed to a blacklight source.



As you can see in our previous example, a black light will reveal a reproduction as a “brightly glowing” patch. It should also be noted that some vintage patches will still glow, but very dimly. This is because the patch has been washed using a fluorescent detergent and the patch was not properly rinsed and is now stained or burned by the detergent. To date, no one has been able to “beat” the black light as a detection method



used to determine an embroidered reproduction of a vintage era patch. And all of the examples shown in this document will glow very brightly under a black light source and is clearly noted under each picture. The embroidery materials available during that time period are just not available any more. Furthermore, with the digital age of technology the synthetic thread that is in use today is the only thread that can withstand the force and speed of the modern embroidery machines, like the Tajima Embroidery Machine or the Meistergram Embroidery Machine.

Next we have the Dade County Sheriff and Police Coconut patches. What is unique to the Dade County patches is the type of twill used to manufacture the patches. Twill is a type of textile weave with a pattern of diagonal parallel ribs (in contrast with a satin and plain weave). This is done by passing the weft thread over one or more warp threads and then under two or more warp threads and so on, with a “step” or “offset” between rows to create the characteristic diagonal pattern. Because of this structure, twills generally drape well. There are even-sided twills and warp-faced twills. Even-sided twills include foulard or surah, serge, twill flannel, sharkskin, herringbone, and

houndstooth. Warp-faced twills include lining twill, denim, jean, drill, covert, chino, gabardine, cortico twill, cavalry twill, and fancy twill. Modern examples of twill fabric are chino, drill, denim, gabardine, tweed and serge. Obsolete examples of twill are cortico and cavalry.

The reason this is mentioned in this document is because all of the vintage era Dade County patches were made with cortico twill, which is no longer available. This is the second most important clue after black light testing in determining if your patch is a reproduction or not. By closely examining the ridges and valleys in the twill you can easily determine if you have cortico or some other modern type of twill, like gabardine or tweed.



Cortico-twill is an obsolete type of twill material that was used in the 1940s and 1950s. The ridges in the twill are three times the thickness of the valleys. The weave on each ridge always runs on the same 45 degree diagonal in a looping pattern.

A ridge is the raised part.

A valley is the lowest part.



FELT PAPER AND PLASTIC →
CHEESECLOTH →

On most modern reproductions, the backing material is a type of felt paper covered with plastic. On vintage era patches, the material is called cheesecloth which resembles a loose gauze type material.

Squares for windows on courthouse building.

Thin uneven embroidered edge. Some of the twill extends beyond the edge (Cut-Edge).

Uneven rough edged fonts.

Thin even embroidered edge.

Font is 13mm in height.

Font is 11mm in height.

Vertical lines in windows on courthouse building.

Correct T900 black outlines.

Sharp even fonts.

Cortico-twill material with wide ridges.

Correct T524 orange.

Incorrect T206 dark green outlines.

Font is 10mm in height.

Incorrect T523 yellow-orange.

Incorrect JH3312 forest-green twill.

Narrow width is 2.0"

**W=5.0" x H=3.75"
w/Cheesecloth on the reverse.
No glow.**

Font is 8mm in height.

**W=4.5" x H=3.35"
w/Tyvek plastic on the reverse.
Glow under a blacklight.**

Narrow width is 1.55"

AUTHENTIC

REPRODUCTION



The Broward Brahma Bull patch is probably one of the most sought after patches for collectors. It is surely one of the “key patches” to completing a collection. The Brahman or Brahma is a breed of Zebu cattle, later exported from India to the rest of the world. The main breeds used were Kankrej, Gujrat, Nelore or Ongole and the Gir or Gyr cattle. It is named for the sacred cow of Hinduism. The example we show below on the right side is a genuine reproduction. It was ordered by the department for wear on the anniversary of the department’s formation and placed on a replica uniform. It was authorized for wear for only one day. Interestingly enough, the Brahma bull patch is uncommonly seen as a reproduction patch.

On original Brahma bull patches, some dating back to 1935, the material that was used to manufacture the patch was tweed. Tweed is a rough, unfinished woolen fabric, of a soft, open, flexible texture, resembling cheviot or homespun, but more closely woven. It is made in either plain or twill weaves and may have a check or herringbone pattern. Subdued, attention-grabbing color effects (also called heather mixtures) are obtained by twisting together differently colored woolen strands into a two- or three-ply yarn. Tweeds are desirable for informal outerwear, being moisture-resistant and durable.



The original name of the tweed cloth was tweel, which is Scot for twill, the material being woven in a twilled pattern rather than a plain pattern. A traditional story has the name coming about almost by chance. About 1830, a London merchant received a letter from a Hawick firm about some tweels. The London merchant misinterpreted the handwriting, understanding it to be a trade-name taken from the river Tweed that flows through the Scottish Borders textile area. Subsequently the goods were advertised as Tweed, and the name has remained ever since.

The following two examples are perfect specimens of poor reproduction technique. What is inescapable by this term is when you compare the reproduction patch side-by-side with a known authentic patch you can easily detect the inferior embroidery work in the design. One feature we will point out is depicted on the Archer Police Department patch just underneath the eagle's wings. On the authentic patches you can clearly see an embroidered outline following the outlines of the feathers going all the way across the patch and merges with the edge's outline. On the reproduction, this embroidery is completely missing. It is our speculation that the copy that was used to manufacture the patch was only a photograph and it did not show the details very clearly and the final embroidery was over looked.



Font is 9mm in height. It is loose and has uneven edges.

Has blue outline underneath eagle's wings, merges with edge.

Missing blue outline underneath eagle's wings.

Font is 8mm in height. It is tight and has very straight and clean edges.

Correct T546 yellow.

Large 5mm star.

Incorrect T523 gold yellow.

Twill material.

Twill material.

Thick 2mm border around border.

Small 4mm star.

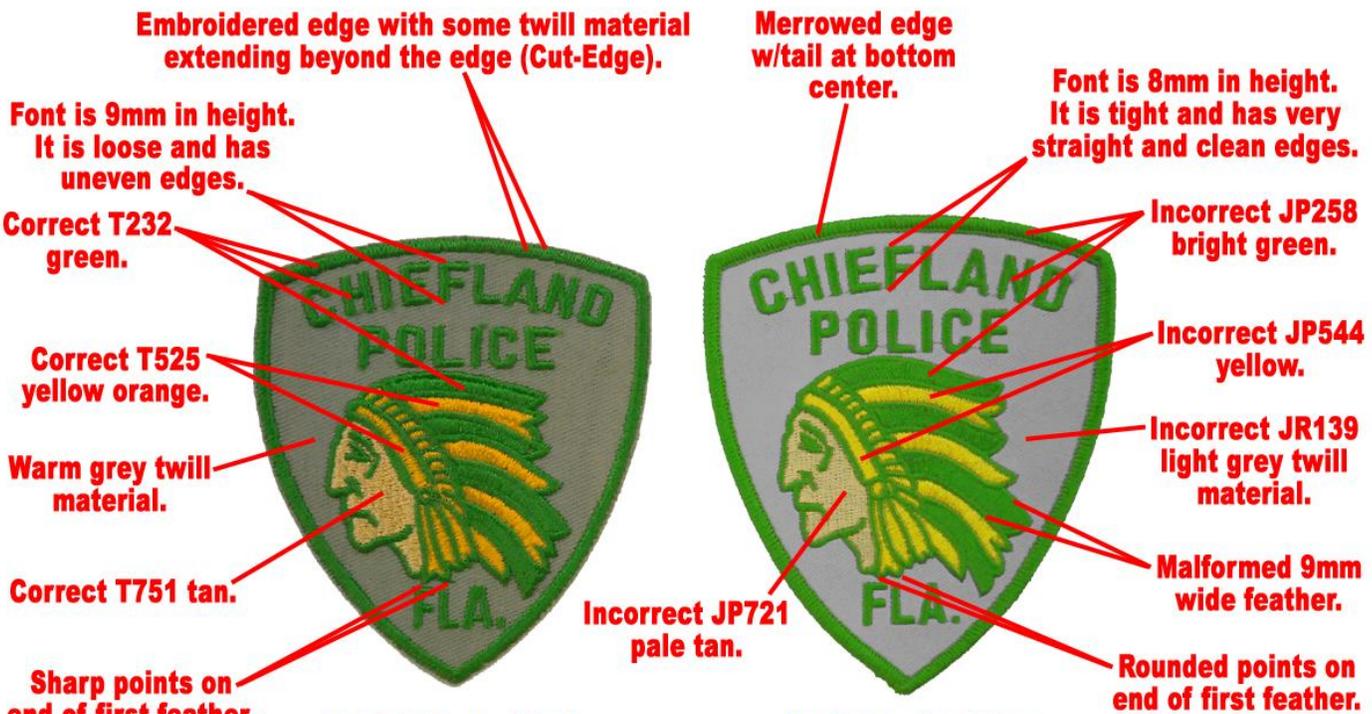
Thin 1mm border around star.

W=4.1" x H=4.8"
w/Cheesecloth on the reverse.
No glow.

W=3.75" x H=4.5"
w/Felt paper on the reverse.
Glow under a blacklight.

AUTHENTIC

REPRODUCTION



Embroidered edge with some twill material extending beyond the edge (Cut-Edge).

Merrowed edge w/tail at bottom center.

Font is 9mm in height. It is loose and has uneven edges.

Font is 8mm in height. It is tight and has very straight and clean edges.

Correct T232 green.

Incorrect JP258 bright green.

Correct T525 yellow orange.

Incorrect JP544 yellow.

Warm grey twill material.

Incorrect JR139 light grey twill material.

Correct T751 tan.

Incorrect JP721 pale tan.

Malformed 9mm wide feather.

Sharp points on end of first feather.

Rounded points on end of first feather.

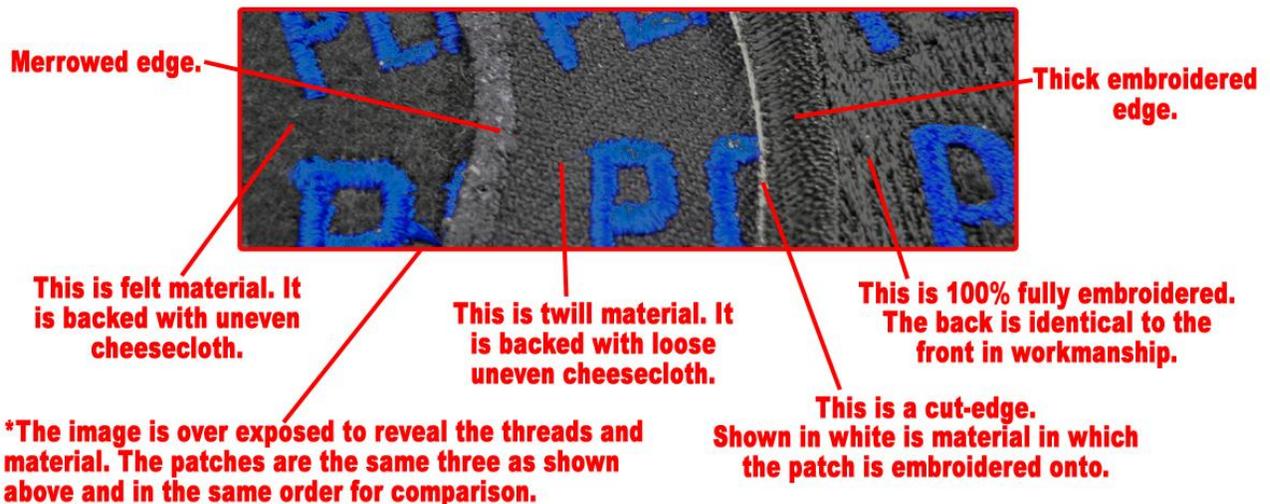
W=3.75" x H=4.25"
w/Uneven Cheesecloth on the reverse. No glow.

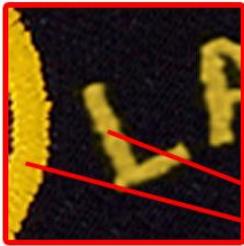
W=3.85" x H=4.55"
w/Even and Straight Cheesecloth on the reverse. Glows under a blacklight.

AUTHENTIC

REPRODUCTION

The Pensacola variations are first-rate examples of the varied uses of materials that can be used to manufacture a bona fide patch, as well as, a reproduction patch. Shown below we can clearly see an **embroidered edge**, **merrowed edge** and **cut-edge**. In Hartford, a company focused on building lines of industrial overlock sewing machines that were used to “over-edge” fabric, essentially to add decorative edging and support the fabric processing trade by joining fabrics. Around 1893, the Merrow company was renamed the Merrow Machine Company and by 1932 the company introduced a line of “A Class” machines, Merrow had a significant impact on the textile industry. The technology and rate of innovation in this time, spearheaded by Joseph Makens Merrow was unequalled in the industry. Today, the term “Merrowed edge” moves toward identifying the edge of a patch as an overlock sewed edge. The company has capitalized on the trademarks “Merrowed” and “Merrowing”, working with manufacturers who use Merrow Machines to brand and market “Merrow” stitching.

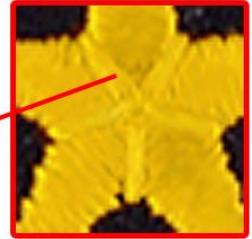




*The added word is handsewn embroidered on top of the cheesecloth on the reverse. The thread color also does not exactly match, but it is very close.

T522 pale yellow
T546 gold yellow

*On originals the star will have each of the five sections of the star embroidered with long jump stitches all meeting in the center.



The outline of the eagle's wings is a T335 dark blue.

Handsewn Font is 7-8mm in height.

The star is 22mm in height.

Spread apart letters on the word police.



W=3.0" x H=3.8"
w/Cheesecloth on the reverse.
No glow.

AUTHENTIC

Originally was bleached white, this image was color rendered.

Font is 9mm in height.

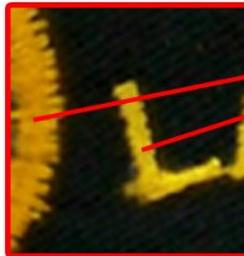
The star is 20mm in height.

Tightly spaced letters on the word police.



W=3.0" x H=3.8"
w/Cheesecloth on the reverse.
No glow.

REPRODUCTION



T546 gold yellow
T544 yellow

*The added word is embroidered on top of the plastic on the reverse. The thread color also does not exactly match.

Added Font is 7mm in height.

The star is 20mm in height.



W=2.9" x H=3.75"
w/Plastic on the reverse.
No Glow.

REPRODUCTION



*All embroidery is smooth and very straight along the edges and fonts.

Font is 10mm in height.

The star is 25mm in height.

Incorrect T524 orange.



W=2.9" x H=3.9"
w/Cheesecloth on the reverse.
Glow under a blacklight.

REPRODUCTION

With the growing number of reproductions it will be nearly impossible to document them all in here, but we do have a plan. Patch Me Thru™, Inc. has already constructed testing of the new “tagging” method to be deployed on the website in the near future. The tagging will be candidly shown on each patch depicted on the website. It will be as simple as an alphabet letter code at the end of the serial number. The tagging will help identify multiple patches shown that all appear to be the same on the website. This would include prototypes, felt vs. twill, fantasy patches, reproductions, etc.

Reproductions are repeatedly showing up on online venues and on fraudulent seller websites. Most reproductions and counterfeit goods are produced in China, making it the counterfeit capital of the world. In fact, the counterfeiting industry accounts for 8% of China's GDP. Joining China in this market are North Korea and Taiwan. Some reproductions are produced in the same factory that produces the original, authentic product, using inferior materials or the product has errors or missing embroidery. Another strange new trend in counterfeiting, is the manufacture of entirely “works of fiction” or “fantasy patches” using poor quality materials or, more often, incorporating desirable features not present in a brand's authentic product line and then including prominent and fake brand names and logotypes to profit from brand recognition or brand image. To protect against this type of brand imaging manufacturing Patch Me Thru™, Inc. utilizes a **copyright decal**. During the manufacturing process the decal is placed underneath the plastic backing on the reverse side of the patch before it is finished. These decals are closely guarded and are regularly inventoried for quality control. Several other reputable manufacturers are doing the same thing. So this is also something to always look for when you are acquiring a known bona fide patch from a source other than the department it was manufactured for.

The availability problem of law enforcement patches to the public is a consequence of the fact that the incentivizing mechanism for innovation constituted by Intellectual Property Rights (IPR) establishes a direct link between the incentive to reproduce patches and the price of the bona fide patch and its availability. Under an IPR driven system, profits are generated exclusively from sales. **This means that the higher a price a patch can command on the market, such as on eBay, the higher is the incentive to invest resources into the reproduction of it.**

As new information comes to light this document will undergo revisions. In all of our exhibits you will be outfitted with copious amounts of information in relation to current reproductions gamely available today. It is the intent of Patch Me Thru™, Inc. to educate the “common and beginning collectors” up through the “advanced collectors” in this hobby in hopes that the nefarious and reprehensible sellers who advocate the sale of fraudulent, counterfeit and reproduction patches in due course cease and desist. Will it actually happen? Only time will tell.

Font is 9mm in height.
It is loose and has uneven edges.

Horizon is curved and rises to the right.

Font is 6.5mm in height.

Dull blue twill material.



W=4.0" x H=2.85"
w/Cheesecloth on the reverse.
No glow.

AUTHENTIC

The cut-edge is hot knifed cut, so the edges will not fray.

Font is 10mm in height.
It is tight and has straight edges.

Horizon is straight across the design.

This coconut tree curves to the left.

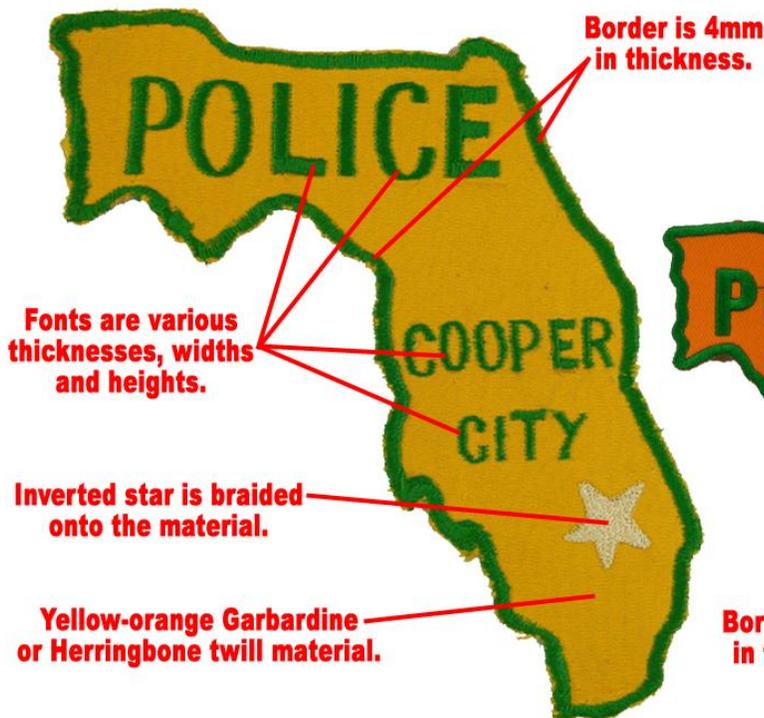
Font is 8mm in height.

Incorrect black twill material.



W=4.25" x H=3.0"
w/Plastic on the reverse.
Glow under a blacklight.

REPRODUCTION



Fonts are various thicknesses, widths and heights.

Inverted star is braided onto the material.

Yellow-orange Garbardine or Herringbone twill material.

W=9.0" x H=9.0"
w/No Plastic on the reverse.
No glow.

AUTHENTIC

Border is 4mm in thickness.

Font is 17mm in height. It is also uniform and digitally embroidered.

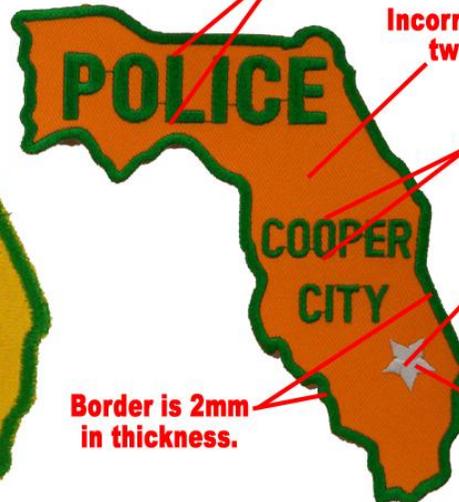
Incorrect red-orange twill material.

Font is 9mm in height.

Inverted star is embroidered onto the material.

Border is 2mm in thickness.

Star glows under a blacklight.



W=4.5" x H=5.0"
w/Felt paper on the reverse.
Glow under a blacklight.

REPRODUCTION

2mm thick felt. Cheesecloth is not glued or attached to felt.

Font is 7mm in height.

Embroidered with running step stitch.

Felt made with wool fibers.

The "G" is 4mm thick and 28mm in height.



W=3.0" x H=4.0"
w/Uneven Cheesecloth on the reverse. No glow.
AUTHENTIC

Slightly darker, red-orange.

0.75mm thin felt. Cheesecloth is glued to felt.

Font is 8mm in height.

Embroidered with running stitch.

Felt made with artificial fibers.

The "G" is 5mm thick and 33mm in height.



W=3.3" x H=4.5"
w/Even and Straight Cheesecloth on the reverse. Glows under a blacklight.
REPRODUCTION

Thread is T358 navy blue, not black.

Unusual extension and shape of the wing. It extends approx. 33mm.

Font is 12mm in height.

White twill material.

Font is 10mm in height.

Correct T701 dark red.



W=3.0" x H=3.95"
w/Cheesecloth on the reverse. No glow.
AUTHENTIC

Incorrect T700 red.

Font is 15mm in height.

The patch is 100% fully embroidered with T520 off-white.

Font is 12mm in height.

Font is 11mm in height.



W=3.5" x H=4.75"
w/No Plastic on the reverse. Glows under a blacklight.
REPRODUCTION

Font is various heights.

The fonts are smooth and almost flat to the touch.

This is the most distinguishable feature of this design.

The "S" is 11mm in height.

The "H" is 10mm in height.

Font is 10mm in height.

The fonts are smooth and raised above the twill to the touch.

Correct T214 lime green.

Correct T310 cyan blue.

Incorrect T361 pale blue.

Incorrect T265 deep green.

W=3.85" x H=4.35"
w/Soft Plastic on the reverse.
No glow.

W=3.75" x H=4.25"
w/PVC Plastic on the reverse.
Glow under a blacklight.

AUTHENTIC

REPRODUCTION

The added word HAVANA is embroidered on top of the plastic on the reverse. This is a dead give-away that it is fake.

The merrow is rounded on all of the top corners.

Has a well defined pointed hump on the top.

Font is 11mm in height.

Correct brown twill material.

Font is 10mm in height. The embroidery is uniform in size and very sharp.

Incorrect black twill material.

*Even though the patch is an authentic vintage era patch, the added modern era embroidery voids its authenticity.

W=3.5" x H=3.75"
w/Cheesecloth on the reverse.
No glow.

W=3.65" x H=4.85"
w/Plastic on the reverse.
No Glow. The word HAVANA glows under a blacklight on the reverse.

AUTHENTIC

REPRODUCTION

Dull sky blue twill material.
The twill is heavily "ribbed"
and is very similar to corderoy.

Bright sky blue twill material.
The twill is tight and very smooth
to the touch.

Selvedged edge.

Merrowed edge.

Sunrays are 1.5mm
in thickness.

Sunrays are 2mm
in thickness.

Correct T000
khaki.

Incorrect T000
pale coffee.

Fonts are 9mm
in height for both
patches.

*Notably, all of the
thread colors nearly
match to the original
except for the
Hacienda house.

W=2.95" x H=4.4"
w/Uneven Cheesecloth under
plastic on the reverse.
No glow.

W=2.85" x H=4.25"
w/Even Cheesecloth under
plastic on the reverse.
Glow under a blacklight.

AUTHENTIC

REPRODUCTION

Font is 8.5mm
in height.

Font is 10mm
in height.

Squared border.

Larger spots on
strawberry.

Rounded border.

Twill material.

Felt material.

Correct T265 green.

Incorrect T255
blue green.

Font is 6mm
in height.

Font is 7mm
in height.

Correct T525 orange.

Pointed bottom
on strawberry.

Rounded bottom
on strawberry.

Incorrect T512
gold yellow.

W=2.75" x H=4.1"
w/Cheesecloth on the reverse.
No glow.

W=3.25" x H=4.5"
w/Felt paper on the reverse.
Glow under a blacklight.

AUTHENTIC

REPRODUCTION

The backing on earlier reproductions has a felt paper. Newer reproductions have a rough plastic backing that feels like course sandpaper to the touch.

T751 Skin color is the same color as the palms.

Font is 6mm in height. It is loose and has uneven edges.

Correct T362 powder blue.

Correct T502 banana yellow.

Black twill material.

Has a cut-edge.



W=3.5" x H=4.0"
w/Cheesecloth on the reverse.
No glow.

AUTHENTIC

Pronounced racoon type face.

The bathing suit and palms are the same incorrect T283 lime color.

Font is 7mm in height. It is crisp and has even edges.

Incorrect T364 french blue.

Incorrect T800 white.

Black twill material.

Blue spot on thigh.

Has a cut-edge.



W=3.5" x H=4.15"
w/Felt paper on the reverse.
Glow under a blacklight.

REPRODUCTION

Has correct embroidered T202 magnifying glass. The circle does not glow.



Has missing embroidery on magnifying glass. The circle also glows under a blacklight.



Font is 10mm in height.

Twill material.

Correct T546 yellow.

Clear text in the crime scene tape.

Font is 9mm in height.



W=3.75" x H=4.4"
w/Plastic on the reverse.
Glow under a blacklight.

AUTHENTIC

Fully embroidered.

Incorrect T503 gold yellow.

Missing embroidery.

Congested text in the crime scene tape.

Undefined skeletal frame.



W=4.0" x H=4.65"
w/Plastic on the reverse.
Glow under a blacklight.

REPRODUCTION

This area is fully embroidered.



***The most outstanding feature of this patch is that it is 100% fully embroidered.**

Font is 5mm in height.

Correct T546 yellow gold.

Correct T373 blue.

Both twill or tweed material has been documented.



**W=3.5" x H=3.5"
w/Cheesecloth on the reverse.
No glow.**

AUTHENTIC

Font is 7mm in height.

Incorrect T544 yellow.

Incorrect T625 purple.

Fully embroidered.



**W=4.0" x H=4.0"
w/Heat Seal Plastic on the reverse.
Glow under a blacklight.**

REPRODUCTION