

# INSTRUCTION BOOKLET

for

## INITIAL APPLICATION

and

## PERPETUAL MAINTENANCE

of

## T I P NUMERALS

on

## SWITCH TARGETS

Systems & Information Services Department  
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### FORWORD

This instruction booklet defines the method of applying and maintaining scotchlite numerals to switch targets on the Western Pacific, Sacramento Northern and Tidewater Southern. It also prescribes the manner in which numerals will be applied to switches without targets, such as ground throw and submarine switches.

The instruction is in two parts: General Rules and Technical Rules. Both are important, representing much groundwork and planning contained in as few words as possible. It is vital to the successful implementation of the Track Identification Program that the directions be followed to the letter.

Direct any questions concerning the General Rules (1-8) to J. K. Brennan of the Systems and Information Services Department, San Francisco.

Direct any questions concerning the Technical Rules (9-14) to E. H. Batchelder of the Engineering Department, San Francisco.

### GENERAL RULES

1. Every switch numbered on the TIP schematic maps will be physically marked with that number.
2. Every TIP track number contains three (3) digits. Some may have one letter and two numbers; most will have three numbers; but all will have three digits.
3. It is very important that the targets be marked as indicated on the maps according to the small number adjacent to the appropriate switch target symbol  $\Phi$  and not according to your own judgment based on your knowledge of the existing track numbers. A consistent formula was applied to the entire WP-SN-TS System and the schematic maps marked accordingly. Do not deviate from this system or change these numbers in any way.
4. The targets are to be marked on the face to the outside of the target connecting staff. If the target is correctly mounted on the staff, its outside face bearing the numerals will face a person walking down a track toward the facing point switch for which the target is in reverse position. (If the target indicates

normal position, it is parallel to the track). Unfortunately, many targets are not properly mounted. Therefore, the rule is to apply the numerals on the face to the outside of the target connecting staff whether or not the target itself is properly mounted. Then, if the target is improperly mounted, remove it and remount it on the exact opposite side of the staff. Note: Do not change the position or indication of such an improperly mounted target under any circumstances.

5. Double-bladed targets are to be marked on the red or reverse position side only, not on the white or green side, and are to be marked on the surface as directed in paragraph 4 (the side to the outside of the staff). In other words when all targets are marked and properly mounted on the staff, the numbers are seen proceeding down a track toward a facing point switch only when such target is indicating reverse position.

6. In areas jointly operated with Southern Pacific where targets have already been physically marked by SP forces, it will not be necessary to mark doubly with our scotchlite since we have adopted these numbers as our own; however, if any of these targets are not marked as indicated on the schematic maps, it will be necessary to do so with WP materials in the usual manner. Note: There are two exceptions to the general rule of WP and SP track numbers being exactly identical in joint areas, both in Oakland:

a) On Joint Drill #1, the SP track number is four digits, the first two being 16. Our TIP number on Joint Drill #1 is the last three digits, beginning with 6. The SP has agreed to replace the first digit -1- with a contrasting color (red) so that this may be accomplished. Check to insure this has been done to all targets on Joint Drill #1. If it has not, remove the first digit from the target, leaving the last three beginning with 6. If a target has no number, mark it with WP materials in the usual manner.

b) On Joint Drill #2 the SP SPINS numbers are four digits, the first two being 20. Since this arrangement of digits is incompatible with our TIP, it is necessary for these few targets to have dual numbers. Therefore, apply the WP numerals in the standard manner directly above the SP number. If a target on Joint Drill #2 has no number, mark it with WP materials in the usual manner but leaving room for the application of SP numerals below.

7. Ground-throw switches without targets or low stand switches without targets will be marked in the following manner:

a) Nail a 4" x 8" metal plate to the left switch tie as one faces the track, the longer edge parallel to the track and below the switch handle.

b) Apply the designated numerals to the metal plate so that they can be read facing the track.

8. Submarine switches will be marked in the following manner: Open the lid and apply the designated numerals to the inside lid top so that they can be read facing the track.

## TECHNICAL RULES

9. The surface to be covered must be clean and dry. It will be necessary at most installations to wipe the surface carefully with a clean, dry cloth. Where excessive grease or oil products are found on the surface, it will be necessary to clean the application area with a solvent. A list of recommended cleaners is available from the 3M Company, dated January 1, 1967. The most commonly available is Sodium-Hypochlorite (such as "Hilex" and "Clorox").

10. On the clean surface, apply the appropriate numbers and letters as shown on the Track Chart. It is recommended that the middle sheet be applied first, then the first and last sheets. For example, if the legend was to read "R46", apply the sheet "4" first, centering it on the target or plate. Then apply the "R" and the "W". This will insure proper centering of the legend.

a) To apply any sheet: Place the sheet in the correct position on the target, before removing the adhesive-covering back sheet. While holding the sheet in place above the top edge, raise the lower half and peel the lower portion of the backing sheet off. Press the lower portion firmly to the target, being careful to avoid entrapping air. Holding the new-stuck lower portion in place, peel the top portion of the backing sheet off. Press the top portion to the target, again avoiding air bubbles.

b) To apply a sheet next to a previously applied sheet: Place the new sheet in the correct position on the target. That is, align the top, bottom and edge with the previously placed sheet. (Proceed as in 10a).

c) After a sheet or a set of sheets are applied, use the squeegee to insure proper adhesion and to remove any bubbles and/or wrinkles.

11. Parallel Ground Throw Switch Stands, some Low Star Switch Stands, and Jack-Knife Switch Stands do not have targets. On such installations, the appropriate numerals and letters will be applied to a 4-inch by 8-inch .025 aluminum sheet, called a "Switch Numbering Plate", as explained in Rules 7 and 10. This plate will then be fastened to the left headblock tie, using four 1-3/4" roofing nails. Care must be taken in placing the plate on the tie in such a place as to be reasonably sure it will not be repeatedly stepped on.

12. When a Switch Stand is in pavement, there will be a box and cover arrangement to allow vehicles to cross the Switch Stand. On some installations, the appropriate numerals will be placed on the inside (bottom) surface of the lid as specified in Rule 8. On some installations, the cover is of the "small", automatic, variety. In such cases the numbers may be placed on the top (tread) surface of the cover if suitable. On some installations it may be possible to use a switch numbering plate nailed to the portion of the tie visible inside the box.

13. Generally, the main purpose of the individual applying the numerals and letters on the switch boxes in pavement should be to place the information in any place where the legend can be read, will remain in place, and will retain its legibility for as long as possible. As there is no "100% Best" place for the legend, each installation must probably be treated differently and must be studied to obtain the best results.

14. At locations where the Switch is equipped with a switch machine or with an electric lock installation without switch target, the legend will be applied on the mechanism housing itself on the top surface, if possible and consistent with other parts of these instructions; if not, handle in same manner as other ground throw switches as outlined in Rules 7 and 10.