September 23, 2025

County Clerk/Registrar of Voters (CC/ROV) Memorandum #25113

TO: All County Clerks/Registrars of Voters

FROM: /s/ Ryan Reece

**Elections Analyst** 

RE: Statewide Special Election: Barcode Scanners

When processing mail, the United States Postal Service (USPS) prints a fluorescent ID tag on mail pieces. This ID tag is usually orange or yellow in color and includes information identifying the day that a mail piece first entered the postal mail stream. This ID tag can be decoded by third-party barcode scanners to assist in determining a postmark date when a mail piece is received with no postmark.

In 2020, the Secretary of State's office procured these handheld barcode scanners for county elections officials to assist in processing vote-by-mail ballots that are missing a postmark.

As a reminder for the November 4, 2025, Statewide Special Election, these scanners can be used to determine when the USPS received a vote-by-mail ballot for processing, providing elections officials with critical information when determining if a ballot was postmarked on time, allowing the ballot to be counted, or causing it to be rejected.

Along with these barcode scanners, the Secretary of State's office previously provided counties scanner specifications, instructions, and spreadsheets to use when scanning ballot envelopes. These documents are attached to this CCROV. If you would like to use the barcode scanner spreadsheet to help assist with reading the fluorescent ID on the envelopes, please use the following link to access the barcode spreadsheet:

Barcode Scanner Spreadsheet (XLSM)

If you have any questions, please contact me directly at rreece@sos.ca.gov.

Thank you.

Attachments

## Florescent Barcode Scanner Instructions

When mail is processed, an orange or yellow barcode is printed on the bottom edge of the envelope at the same time the envelope is postmarked—usually on the back of the envelope. This barcode contains the "day" of the postmark, a number recorded 1-31, but not the month or year.

Below are instructions on the use of the scanner. If there is doubt as to whether the day occurred before or after Election Day, you may utilize the barcode scanner to determine the postmark date.

We encourage you to practice using the scanner before a problem occurs and to scan the envelopes as early in the process as possible.

When to use this application:

- The ballot was received after Election Day from the USPS; and
- The ballot lacks a postmark or postmark is illegible; and
- The ballot is from a Non-UOCAVA voter. (The date of the postmark should not be used to determine the validity of a UOCAVA voter's ballot.)

## Scanner instructions:

Step 1: Plug Scanner into USB port on computer. (Allow for driver installation the first time)

Step 2: Locate the florescent yellow or orange barcode on the ballot envelope. It should be at the bottom edge, usually on the back of the envelope.

Step 3: Scan the florescent barcode. A series of letters and numbers will automatically appear.

Step 4: Locate the day of postmark and record it on the envelope. The date is found in the 15<sup>th</sup> and 16<sup>th</sup> positions in the barcode.

For example, the following code indicates the ballot's postmark day is 22. You must make the decision as to whether it was August 22 or September 22. If you do not know, we recommend sending it to the Canvassing Board.

J18BUSA0579N00<mark>22</mark>20305956N

## Handheld Barcode Scanner Specifications

Data element	Message representation
Data element	Message representation

UPU identifier Always J

Format identifier Always 18B (for BNB-62 format ID-tags)

Issuer code Determine issuer code from the C-bit and equipment identifier (obtained as specified

elow)

<u>C-bit</u>	Equipment identifier (decimal)	Equipment identifier (hexadecimal)	Issuer Code
0	0001-3399	001-D47	USA
1	3400-3599	D48-E0F	USB
1	3600-3979	E10-F8B	CAA
1	3980-3999	F8C-F9F	IEA

NOTE: Other combinations of C-bit and equipment identifier are not supported by the current specification. However, it is recommended that readers be capable of supporting C-bit value 0 for equipment identifiers in the range D48-E0F and of supporting C-bit value 1 for equipment identifiers in the range 001-D47.

Equipment identifier

Using reverse look-up in Table 1, extract the decimal value of the equipment identifier from  $M_3$  (bar positions 2-3)  $M_2$  (bar positions 5-8)  $M_1$  (bar positions 10-13) and  $M_0$  (bar positions 15-18), with  $M_3$  being the most significant digit. Convert the result to hexadecimal, giving a value (if the ID-tag is valid) in the range 001 to F9F

Item priority

always N

Serial number: generation date mmdd

Derive the calendar month number (01= January to 12=December) from the day number in the ID-tag (see below) and the current date:

 Condition
 Month number

 ID-tag day ≤ current day
 = current month

 ID-tag day > current day
 FUUH VIP RUM

(12 if the current month is January)

EXAMPLE: If the current date is 23 June and the ID-tag day number is 23 or less, use month 06 (June); if the ID-tag day number is 24 or more, use month 05 (May).

Using reverse look-up in Table 1, extract the tens part of day within month from  $D_1$  (bar positions 20-22).

Using reverse look-up in Table 1, extract the units part of day within month from  $D_0$  (bar positions 24-27).

Serial number: generation time interval hhf Using reverse look-up in Table 1, extract the interval number (range 00-47) from  $T_1$  (most significant digit, in bar positions 29-31) and  $T_0$  (bar positions 33-36) and derive hours and the first digit of minutes as:

hh = INT(interval number/2);

f = 0 if interval number is even; 3 if it is odd.

Serial number: item number part

Using reverse look-up in Table 1, extract the decimal value item number (range 00001-24999) from  $S_4$  (most significant digit, in bar positions 38-39),  $S_3$  (bar positions 41-44),  $S_2$  (bar positions 46-49),  $S_1$  (bar positions 51-54) and  $S_0$  (bar positions 56-59).

Tracking indicator Always N (no tracking).

## Table 2: Conversion of BNB-62 to message representation

Conversion from the BNB-62 bar code representation to the binary representation may be performed by first converting to the message representation and then converting this to the binary form.

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