



June 1, 2017

TECHNICAL AND OPERATIONAL UPDATE (TOU) 17-2

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**EXPANSION OF THE NATIONAL CRIME INFORMATION CENTER (NCIC)
NUMBER (NIC) CHECK DIGIT ALGORITHM
FOR THE NCIC VEHICLE FILE.....2-1**


SECTION 1 -- MESSAGE TO CJIS SYSTEMS OFFICERS

Section 2.1 provides information on the expansion of the NCIC NIC Check Digit Algorithm for the NCIC Vehicle File.

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TOUs are also available via the the Law Enforcement Enterprise Portal (LEEP). To access the TOUs on the LEEP:



- Click on the SIG  logo
- Click the “Browse SIGs” link
- Click by Access Type drop down arrow and select Unrestricted
- Click the CJIS logo
- Click on the Programs tab
- Click on the National Crime Information Center (NCIC) link
- Click on the NCIC SIG link
- Under Manuals and Enhancements, click on the NCIC Technical and Operational Updates link.

Users with questions concerning access to the SIG service and LEEP should contact the LEEP Help Desk at 888-334-4536.

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SECTION 2 -- SYSTEM CHANGES

2.1 EXPANSION OF THE NATIONAL CRIME INFORMATION CENTER (NCIC) NUMBER (NIC) CHECK DIGIT ALGORITHM FOR THE NCIC VEHICLE FILE

AFFECTED BY CHANGE:

Introduction

EFFECTIVE DATE:

August 6, 2017

Background

The number of available system-assigned NICs for the Vehicle File is nearly depleted. Therefore, a rollover of the Vehicle NICs is necessary.

System Changes

The NIC check digit algorithm is being expanded to include the file indicator value of 16 for the Vehicle File. Records entered in the aforementioned file on/after August 6, 2017, apply to this expansion. If your respective system uses the check digit algorithm to verify the validity of NICs, that system will require an update to include this expansion.

NCIC Operating Manual Changes

Additions to the *NCIC Operating Manual* (December 1999) are indicated by **highlighting**, and deletions are indicated by ~~strikeout~~.

INTRODUCTION

3.14 NCIC NUMBERS (NIC NUMBERS)

Each record entry message that is accepted for storage in the NCIC System is assigned a unique **NCIC Number (NIC)** for record identification purposes.

1. If the prefix of the NIC is a single alphabetic character, the NIC has 10 characters, consisting of an alphabetic character that identifies the NCIC file in which the record is indexed, a 7-character unique number, and 2 check digits.
2. If the prefix of the NIC is double alphabetic characters, the NIC has 10 characters, consisting of double alphabetic characters that identify the NCIC file in which the record is indexed, a 6-character unique number, and 2 check digits.

The first character of the File Indicator will remain static, and the second alphabetic character will indicate the NCIC file. The first alphabetic character will be designated as a "Y." The "Y" will indicate that the second alphabetic character must be used to determine the NCIC file in which the record is indexed. The second position may be any alphabetic character (except O).

3. The 2 check digits are used to validate NICs when they are used in inquiry messages and when they are used to identify records in modify, locate, cancel, and clear transactions.
4. **NIC Check Digit Algorithm**

When an NIC is used as an identifier in a cancel, clear, inquiry, locate, or modify message, the NCIC verifies the validity of the number using the two check digits, i.e., the last two characters of the number. The following algorithms are used for the process:

If the prefix of the NIC is a single alpha character, the digits of the sequential number (positions 2 through 8 of the number) are multiplied by a value, as follows:

	Multiplication Factor
Position 2	8
Position 3	7
Position 4	6
Position 5	5
Position 6	4
Position 7	3
Position 8	2

If the prefix of the NIC is double alphabetic characters, the digits of the sequential number (positions 3 through 8 of the number) are multiplied by a value, as follows:

	Multiplication Factor
Position 3	8
Position 4	7
Position 5	6
Position 6	5
Position 7	4
Position 8	3

The products of these are totaled and a value, as indicated below, is added for the alphabetic file indicator. This total comprises the check digits. If the total is greater than 99, the high-order digit is dropped.

File Indicator	File Indicator Value	Data Type
A	5	Article records entered on/between 1/27/67 and 5/5/86
	9	Article records entered on/between 5/5/86 and 4/21/98
	10	Article records entered on/between 4/21/98 and 7/11/1999
	11	Article records entered on/between 7/11/1999 and 2/12/2012
	12	Article records entered on/after 2/12/2012
B	4	Boat records entered on/between 1/27/67 and 8/6/79
	8	Boat records entered on/between 8/6/79 and 8/8/88
	12	Boat records entered on/between 8/8/88 and 4/20/95
	13	Boat records entered on/between 4/20/95 and 7/11/1999
	14	Boat records entered on/after 7/11/1999
C	1	Supervised Release records
E	1	NICS Denied Transaction records
G	2	Gun records entered on/prior to 7/11/1999
	3	Gun records entered on/after 7/11/1999
H	1	Protection Order records entered on/prior to 7/11/1999
	2	Protection Order records entered on/between 7/11/1999 and 6/3/2007
	3	Protection Order records entered on/between 6/3/2007 and 8/19/2012
	4	Protection Order records entered on/between 8/19/2012 and 1/10/2017
	5	Protection Order records entered on/after 1/10/2017
I	1	Image records entered on/prior to 4/7/2013
	2	Image records entered on/after
J	1	Identity Theft Records
K	1	Protective Interest records
L	1	Violent Person records
M	7	Missing Person records entered on/prior to 2/13/97

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	8	Missing Person records entered on/between 2/13/97 and 7/11/1999
	9	Missing Person records entered on/between 7/11/1999 and 5/1/2011
	10	Missing Person records entered on/after 5/1/2011
N	1	Immigration Violator records entered on/prior to 5/8/97
	2	Immigration Violator records entered on/between 5/8/97 and 7/11/1999
	3	Immigration Violator records entered on/after 7/11/1999
P	3	License Plate records entered on/before 2/23/96
	4	License Plate records entered on/between 2/23/1996 and 7/11/1999
	5	License Plate records entered on/after 7/11/1999
R	11	CPIC Data records entered on/prior to 7/11/1999
	12	CPIC Data records entered on/after 7/11/1999
S	6	Securities records entered on/prior to 7/11/1999
	7	Securities records entered on/after 7/11/1999
T	1	Gang/Known or Suspected Terrorist Member records entered on/prior to 5/8/97
	2	Gang/Known or Suspected Terrorist Member records entered on/between 5/8/97 and 7/11/1999
	3	Gang/Known or Suspected Terrorist Member records entered on/after 7/11/1999
U	7	Unidentified Person records entered on/prior to 2/13/97
	8	Unidentified Person records entered on/between 2/13/97 and 7/11/1999
	9	Unidentified Person records entered on/after 7/11/1999
V	4	Vehicle and Vehicle/Boat Part records entered on/between 1/27/67 and 8/6/79
	8	Vehicle and Vehicle/Boat Part records entered on/between 8/6/79 and 8/8/88
	12	Vehicle and Vehicle/Boat Part records entered on/between 8/8/88 and 4/20/95
	13	Vehicle and Vehicle/Boat Part records entered on/between 4/20/95 and 7/11/1999
	14	Vehicle and Vehicle/Boat Part records entered on/between 7/11/1999 and 11/5/2006
	15	Vehicle and Vehicle/Boat Part records entered after on/between 11/5/2006 and 8/6/2017
	16	Vehicle and Vehicle/Boat Part records entered after 8/6/2017
W	1	Wanted Person records entered on/prior to 5/8/97
	2	Wanted Person records entered on/between 5/8/97 and 7/11/1999
	3	Wanted Person records entered on/between 7/11/1999 and 2/5/2006
	4	Wanted Person records entered on/between 2/5/2006 and 3/7/2010
	5	Wanted Person records entered on/between 3/7/2010 and 1/5/2014
	6	Wanted Person records entered on/between 1/5/2014 and 1/10/2017
	7	Wanted Person records entered on/after 1/10/2017
X	1	National Sex Offender Registry records
Z	10	Reference Gang records entered on/prior to 7/11/1999
	11	Reference Gang Records entered on/after 7/11/1999

For example, if a NIC Number with a single alphabetic character prefix used in a transaction is V124862947, the check digits are verified as follows:

Sequential Number	Multiplication Factor		Product
1	x 8	=	8
2	x 7	=	14
4	x 6	=	24
8	x 5	=	40
6	x 4	=	24
2	x 3	=	6
9	x 2	=	18

Total 134

Value of V = 13

Total 147

The high-order digit (1) is dropped, and the remainder (47) is the check digit's value.