



TY 17 Substitute W-3/W-2 2-D Barcoding Standards

Version 1.1

Updated

January 11, 2018

History Log

Version	Date	Summary of Changes	Editor
1.0	11/17/2017	<p>TY 2016 - change Year to 2017</p> <p>Update W3 Barcode layout-Updated line 5 Specification Version to 17.01</p> <p>Update W2 Barcode layout-Updated line 5 Specification Version to 17.01</p> <p>Updated last paragraph of W-3 E-filing. W-2 online fill-in-forms or file uploads will be on time if submitted by January 31, 2018. Under When to File change the date to January 31, 2018.</p> <p>New Box 9 Verification code. Box 9 is used by participants in the W-2 Verification Code initiative.</p>	OCO,OEIO, DTPS,MSB
1.1	01/11/2018	<p>On Page 3 of Section 6 under Employer EIN, 96 and 97 were removed from the "do not begin with" Employers Identification Numbers (EIN) list.</p> <p>On Page 6 for Line Number 8 under the Field Notes column, 96 and 97 were removed from the "must not begin with" Employers Identification Numbers (EIN) list.</p>	OCO, OEIO, DPTS, MSB

Substitute W-3/W-2

2-D Barcoding Standards

Contents

1. Overview	1
2. General Standards	1
3. Approval Procedures	2
4. Duration of Approvals	2
5. Barcode Specifications.....	2
6. 2-D Barcode Rules	3
7. Field Types.....	5
8. W-3 Barcode Layout	5
9. W-2 Barcode Layout	9

TY 2017 W-3 PDF Form Layout attached to e-mail.

TY 2017 W-2 PDF Form Layout attached to e-mail.

1. Overview

This document covers only the 2-D barcode on substitute forms W-3/W-2. Information and specifications for Substitute Forms W-2/W-3 can be found in IRS Publication 1141 - General Rules and Specifications for Substitute Forms W-2 and W-3.

The 2-D barcode is intended to represent the information on the paper W-3/W-2 form. In a situation where multiple W-2 forms are provided to an employee from one employer (for instance, an employee has more state withholding information than can be fit on a single form) a barcode will be placed on each W-2 form and will only contain the data on that form.

This version will comply with the computerized industry standards. If a software developer does not support 2-D barcodes, the area reserved for the barcode should be left blank.

A general rule that can be used to determine if a printer is capable of producing a 2-D barcode is if the printer can produce a graphic such as an agency seal or business logo, then the printer should be capable of producing a 2-D barcode that can be scanned.

Please Note: Social Security Administration (SSA) encourages all employers to e-file. E-filing can save you time and effort, and helps ensure accuracy. If fewer than 50 W-2 forms are submitted, please consider using W-2 Online to submit your file. You can complete up to 50 forms W-2 on your computer and electronically submit them to SSA. No software is needed. For additional information, visit 'Business Service Online' at www.socialsecurity.gov/employer

2. General Standards

- The barcode will be a 2-D barcode in the PDF-417 format. The PDF 417 has error detection and correction capabilities. The error correction level should be set to level 4.
- All fields within the barcode are followed by a carriage return <cr>
- All fields are required, although a field can be left empty (leaving just the field terminating <cr>). *Exception:* Federal ID fields may not be left empty.
- Do not zero fill or fill with spaces if a field is to be left blank. If there is no data, a field should be left empty followed by a terminating <cr>. It is up to the decoder to determine how to handle empty fields. *Exception:* Federal ID fields must be zero filled if no data is available.
- *EOD (End of Data):* the final field in the data stream should be the characters *EOD* followed by a <cr>.
- Stretching or scaling the barcode changes its integrity and reduces the readability of the barcode; it should not be done.
- Handwritten changes or modifications after printing the form and barcode are not permitted.

3. Approval Procedures

- Software vendors should provide up-to-date contact information including accurate email addresses when submitting forms for approval.
- SSA can provide vendor codes for non-NACTP submissions. If you do not have a valid vendor code, contact SSA at copy.a.forms@ssa.gov to obtain an SSA-issued code.
- Test scenarios for 2-D barcode testing are via PDF.
- The format of the Form and the 2-D barcode data will be approved separately and simultaneously, if possible, to expedite the approval process. SSA will indicate exactly what is being approved.
- SSA requests two sheets of forms with test data for approval. If submitting a 2-D barcode for approval, at least one sheet with 2-D barcode sample must be a 'maxfill' sample. Samples with data fields that are maximum filled must have data in all fields. The data in the remaining 2-D barcode samples should reflect the data on the sheets.
- SSA requests one printout of a blank form (without data).
- The vendor code must be displayed on all pages generated.

4. Duration of Approvals

- Approvals are valid for only one tax year (January through December)
- In general, each new filing season requires new approval, even if the official form does not change.

Any questions about the bar-coded substitute Form W-2 (Copy A) and Form W-3 should be emailed to copy.a.forms@ssa.gov or sent to:

Social Security Administration
Direct Operations Center

Attn: Copy A Forms Approval, Room 341

1150 E. Mountain Drive, Wilkes-Barre, PA 18702-7997

Note: Please remind your customers NOT to mail their company's payroll to the Copy A mailing address. They must mail the copies to the address listed on the W-3's.

5. Barcode Specifications

- The barcode is defined as a 2-D barcode in the PDF-417 format. The PDF 417 has error detection and correction capabilities. The error correction level should be set to level 4.
- The Y/X ratio will be 2.
- The Mode setting will be ASCII to cover alphanumeric characters.
- The truncate symbol setting should be off to allow for right-side end bars.
- All fields within the barcode will use the carriage return <cr> as a field delimiter.
- All fields are required. If no data is provided, the barcode data for that field will be blank followed by the <cr> delimiter. *Exception:* Mandatory data fields e.g. EIN and SSN may not be left empty.

- If there is no data for a field entry, the field should be left empty. Do not zero fill or pad with spaces if a field is to be left blank *Exception*: Mandatory data fields such as Federal ID must be zero filled if no data is available.
- *EOD (End of Data)*: the final field in the data stream should be the characters *EOD* followed by a <cr>.
- Stretching or scaling the barcode changes its integrity and reduces the readability of the barcode; it should **not** be done.

6. 2-D Barcode Rules

- Money fields must:
 - Contain only numbers
 - No punctuation
 - No signed amounts (high order signed or low order signed).
- No negative amounts
 - Include both dollars and cents with the decimal point assumed (example:
 - \$59.60 = 5960)
 - Do not round to the nearest dollar (example: \$5,500.99 = 550099)
- Address Fields
 - Must conform to U.S. Postal Service rules since address fields are used by SSA to prepare mail correspondence, if necessary. For more information:
 - See U.S. Postal Service Publication 28; or
 - View the U.S. Postal Service website at:
<https://pe.usps.com/BusinessMail101/Index?ViewName=Addressing>
 - Call the U.S. Postal Service at 1-800-275-8777.
- For State, use only the two-letter abbreviations
- Employer EIN
 - Only numeric characters
 - Omit hyphens
 - Do not begin with 00, 07, 08, 09, 17, 18, 19, 28, 29, 49, 69, 70, 78, 79, or 89
 - The employer EIN should normally match the EIN under which tax payments were submitted to the IRS under Form 941, 943, 944, CT-1 or Schedule H.
 - View the IRS website where employers can Apply for an Employer Identification Number (EIN) Online at:
<https://www.irs.gov/businesses/small-businesses-self-employed/apply-for-an-employer-identification-number-ein-online>
- Employee Name
- Enter the name exactly as shown on the individual's Social Security Card
 - Employee First Name
 - Employee Middle Initial
 - Employee Last Name
 - Suffix (if shown on Social Security Card)
 - Do not include any titles

SSA’s TY17 Substitute W-3/W-2 2D Barcoding Standards

- Social Security Number (SSN)
 - Use the number shown on the original /replacement SSN card
 - Only numeric characters
 - Omit hyphens
 - May not begin with 000, 666, or 9
 - May not end in 0000
 - Do not enter a fictitious SSN (for example, 111111111, 333333333 or 123456789).
 - The SSA allows employers to verify employee names and SSNs online using The Social Security Number Verification Service (SSNVS). For information about this free service, visit the Employer W-2 Filing Instructions & Information website at www.socialsecurity.gov/employer
 - If there is **no SSN available** for the employee, enter **zeros (000000000)** and have your employee call 1-800-772-1213 or visit their local Social Security office to obtain an SSN.
- Employer’s Email Address

NOTE: A well-formed E-Mail address contains a local part (everything before the @ symbol) and a domain part (everything after the @ symbol). Within the domain, everything after the last “.” is considered the top-level domain. The following example describes the various parts of an E-Mail: local-part@domain.top-level-domain

Examples of Incorrectly Formed E-Mail Addresses

Condition	Incorrect E-Mail Addresses
Must contain only one @ symbol	John@Doe@ssa.gov
Must not contain consecutive periods to the left or right of the @ symbol	John...Doe@ssa.gov or John.Doe@ssa...gov
Condition	Incorrect E-Mail Addresses
Must not contain empty spaces to the left or right of the @ symbol	John. Doe @ssa.gov or John.Doe @ ssa.gov
Must not contain a period in the first or last position	.John.Doe@ssa.gov or John.Doe@ssa.gov.
Must not contain a period immediately to the left or right of the @ symbol	John.Doe.@ssa.gov or John.Doe@.ssa.gov

7. Field Types

Field Type	Data Limitations	Print Format	2-D Barcode Format
Text	<ul style="list-style-type: none"> All printable characters allowed No leading or trailing blanks 		
Amount	<ul style="list-style-type: none"> Money fields Only characters 0-9 allowed Right justified, no leading zeroes 	999999999.99	99999999999
Numeric	Only characters 0-9 allowed		
Checkbox	Must be capital “X” or empty		
Federal ID	<ul style="list-style-type: none"> Only characters 0-9 allowed Must contain exactly nine characters Must not be blank. 	99-9999999	999999999

8. W-3 Barcode Layout

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field Type</u>	<u>Max Field Length</u>	<u>Field Notes</u>
1 - Header Version Number		Text	2	Version of general 2-D specs used to create barcode. This field is static. Currently, the text “T1”
2 - Developer Code		Numeric	4	Vendor’s NACTP ID or SSA provided ID. This field can be blank.
3 - Form Description		Numeric	5	33333
4 - Form Year		Numeric	4	Four digit year (CCYY)
5 - Specification Version		Text	5	Version of this specification used to create barcode. Currently, the text “17.01”

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field Type</u>	<u>Max Field Length</u>	<u>Field Notes</u>
6 - Software ID		Text	30	Software product used to create barcode. Should indicate product name and version.
7 - Control Number	a	Text	16	This field is not used by SSA for paper processing. This field is used for numbering the whole transmittal. This field can be blank.
8 - Employer Identification Number (EIN)	e	Federal ID	9	<ul style="list-style-type: none"> • Only numeric characters • Omit hyphens • Must NOT begin with 00, 07, 08, 09, 17, 18, 19, 28, 29, 49, 69, 70, 78, 79, or 89.
9 - Kind of Payer – 941	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
10 - Kind of Payer – Military	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
11 - Kind of Payer – 943	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
12 - Kind of Payer – 944	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
13 - Kind of Payer – CT1	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
14 - Kind of Payer - Household	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
15 - Kind of Payer – Medicare Gov Emp	b	Check Box	1	“X” Only one Kind of Payer box can be checked.
16 - Kind of Employer – None Apply	b	Check Box	1	“X” Only one box can be checked unless the 2 nd one is the 3 rd party sick pay box.
17 - Kind of Employer – 501c Non-Govt	b	Check Box	1	“X” Only one box can be checked unless the 2 nd one is the 3 rd party sick pay box.
18 - Kind of Employer – State/Local non-501c	b	Check Box	1	“X” Only one box can be checked unless the 2 nd one is the 3 rd party sick pay box.

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field Type</u>	<u>Max Field Length</u>	<u>Field Notes</u>
19 - Kind of Employer – State/Local 501c	b	Check Box	1	“X” Only one box can be checked unless the 2 nd one is the 3 rd party sick pay box.
20 - Kind of Employer – Federal Govt	b	Check Box	1	“X” Only one box can be checked unless the 2 nd one is the 3 rd party sick pay box.
21 - Third -Party Sick Pay Indicator	b	Check Box	1	“X” or blank.
22 - Total number of forms W-2	c	Numeric	7	
23 - Establishment Number	d	Alphanumeric	4	For multiple ER reports with same EIN. Enter any combination of blanks, numbers or letters.
24 - Employer Name	f	Text	57	
25 - Employer Address Line 1	g	Text	35	
26 - Employer Address Line 2	g	Text	35	
27 - Employer City	g	Text	35	
28 - Employer State	g	Text	2	
29 - Employer Postal Code	g	Text	9	Populated for non-foreign addresses only.
30 - Employer Country	g	Text	32	This field is not used by SSA for paper processing.
31 - Other EIN used this year	h	Numeric	9	<ul style="list-style-type: none"> Field can be blank; If not blank, the Other EIN must NOT begin with 00, 07, 08, 09, 17, 18, 19, 28, 29, 49, 69, 70, 78, 79 or 89. Omit hyphens.
32 - Wages, Tips, other compensation	1	Amount	15	
33 - Federal Income Tax withheld	2	Amount	15	

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field Type</u>	<u>Max Field Length</u>	<u>Field Notes</u>
34 - Social Security Wages	3	Amount	15	
35 - Social Security Tax withheld	4	Amount	15	
36 - Medicare wages and tips	5	Amount	15	
37 - Medicare tax withheld	6	Amount	15	
38 - Social Security tips	7	Amount	15	
39 - Allocated tips	8	Amount	15	
40 -	9	Amount	15	Blank
41 - Dependent Care Benefits	10	Amount	15	
42 - Nonqualified plans	11	Amount	15	
43 - Deferred compensation	12a	Amount	15	
44 -	12b	Amount	15	Blank
45 - For third-party sick pay use only	13	Text	26	This field is not used by SSA for paper processing "ThirdParty Sick Pay RECAP "
46 - Income tax withheld by payer of third-party sick pay	14	Amount	15	
47 - State Code	15	Text	2	Appropriate postal numeric code
48 - State ID number	15	Text	26	Employer's state ID number
49 - State Wages	16	Amount	15	State wages, tips, etc.
50 - State Withheld	17	Amount	15	State income tax
51 - Local Wages	18	Amount	15	Local wages, tips, etc.

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field Type</u>	<u>Max Field Length</u>	<u>Field Notes</u>
52 - Local Withheld	19	Amount	15	Local income tax
53 – Employer's Contact Person		Text	27	Enter the name of the person to be contacted by SSA concerning earnings problems
54 – Employer's telephone number		Numeric	20	Enter Employer's telephone number including the area code (15 characters) and extension number (5 characters)
55 – Employer's fax number		Numeric	10	Enter Employer's fax number including area code
56 – Employer's email address		Alphanumeric	40	Enter Employer's email address
57 - End of Data indicator		*EOD*	5	*EOD*

9. W-2 Barcode Layout

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field type</u>	<u>Maximum Field Length</u>	<u>Field Notes</u>
1 - Header Version Number		Text	2	Version of general 2-D specs used to create barcode. This field is static. Currently, the text "T1"
2 - Developer Code		Numeric	4	Vendor's NACTP ID or SSA provided ID. This field can be blank.
3 - Form Description/Form ID		Numeric	5	22222
4 - Form Year (Tax Year)		Numeric	4	Four digit year (CCYY)
5 - Specification Version		Text	5	Version of this specification used to create barcode. Currently, the text "17.01"

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field type</u>	<u>Maximum Field Length</u>	<u>Field Notes</u>
6 - Software ID		Text	30	Software product used to create bar code. Should indicate product name and version.
7 - Control Number	d	Text	21	This field is not used by SSA for paper processing. This field is used for numbering the whole transmittal. This field can be blank.
8 - Employer Identification Number (EIN)	b	Federal ID	9	This is a required field <ul style="list-style-type: none"> • Enter only numeric characters • Omit hyphens • Must <u>not</u> begin with 00, 07, 08, 09, 17, 18, 19, 28, 29, 49, 69, 70, 78, 79 or 89
9 - Employer Name	c	Text	41	
10 - Employer Address Line 1	c	Text	41	SSA will truncate as needed
11 - Employer Address Line 2	c	Text	41	
12 - Employer City	c	Text	27	
13 - Employer State	c	Text	2	For a foreign address, fill with blanks
14 - Employer Postal Code	c	Text	9	
15 - Employer Country	c	Text	41	For use with Foreign addresses
16 - Employee SSN	a	Federal ID	9	No dashes
17 - Employee First Name	e	Text	15	
18 - Employee Middle Initial	e	Text	1	
19 - Employee Last Name	e	Text	20	
20 - Employee Suffix	e	Text	4	

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field type</u>	<u>Maximum Field Length</u>	<u>Field Notes</u>
21 - Employee Address Line 1	f	Text	41	SSA will truncate as needed
22 - Employee Address Line 2	f	Text	41	
23 - Employee City	f	Text	27	
24 - Employee State	f	Text	2	
25 - Employee Postal Code	f	Text	9	
26 - Employee Country	f	Text	41	For use with Foreign addresses
27 - Wages, Tips, other....	1	Amount	11	
28 - Federal Withholding	2	Amount	11	
29 - Social Sec Wages	3	Amount	11	
30 - Social Sec Tax	4	Amount	11	
31 - Medicare Wages & Tips	5	Amount	11	
32 - Medicare Tax	6	Amount	11	
33 - Social Sec Tips	7	Amount	11	
34 - Allocated Tips	8	Amount	11	
35 – Verification Code	9	Alpha-Numeric	16	This field is not used by SSA for paper processing. This field can be left blank
36 - Dependent care	10	Amount	11	
37 - Non-qualified plan	11	Amount	11	
38 - Code 1	12a	Text	2	These are for box 12; up to four box 12 items per form are supported.
39 - Code 1 Year		Numeric	2	
40 - Code 1 Amount	12a	Amount	11	
41 - Code 2	12b	Text	2	

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field type</u>	<u>Maximum Field Length</u>	<u>Field Notes</u>
42 - Code 2 Year		Numeric	2	
43 - Code 2 Amount	12b	Amount	11	
44 - Code 3	12c	Text	2	
45 - Code 3 Year		Numeric	2	
46 - Code 3 Amount	12c	Amount	11	
47 - Code 4	12d	Text	2	
48 - Code 4 Year		Numeric	2	
49 - Code 4 Amount	12d	Amount	11	
50 - Statutory Employee	13	Checkbox	1	"X" or blank.
51 - Retirement Plan	13	Checkbox	1	"X" or blank.
52 - Third Party Sick pay	13	Checkbox	1	"X" or blank.
53 - Other 1	14	Alpha-Numeric	15	These are for box 14; up to four box 14 items per form are supported. Description first followed by amount
54 - Other 2	14	Alpha-Numeric	17	
55 - Other 3	14	Alpha-Numeric	17	
56 - Other 4	14	Alpha-Numeric	17	
57 - State 1 Code	15	Text	2	
58 - State 1 ID number	15	Text	18	
59 - State 1 Wages	16	Amount	11	
60 - State 1 Income Tax	17	Amount	11	
61 - State 2 Code	15	Text	2	
62 - State 2 ID number	15	Text	18	
63 - State 2 Wages	16	Amount	11	
64 - State 2 Income Tax	17	Amount	11	

SSA's TY17 Substitute W-3/W-2 2D Barcoding Standards

<u>Line Number And Description</u>	<u>Box # on Form</u>	<u>Field type</u>	<u>Maximum Field Length</u>	<u>Field Notes</u>
65 - Locality 1 Name	20	Text	7	
66 - Local 1 Wages	18	Amount	11	
67 - Local 1 Income Tax	19	Amount	11	
68 - Locality 2 Name	20	Text	7	
69 - Local 2 Wages	18	Amount	11	
70 - Local 2 Income Tax	19	Amount	11	
71 - End of Data indicator		Text	5	*EOD*