

The format of the Australian Business Number (ABN)

What is the ABN?

The Australian Business Number (ABN) is a single identifier for all business dealings with the Australian Taxation Office (ATO) and for future dealings with other government departments and agencies. Businesses need an ABN to register for the goods and services tax and other elements of The New Tax System. They can register for all of these on the same form.

The Government introduced the ABN in response to the *Small Business Deregulation Task Force* report, which called for a single identifier to simplify business dealings with government.

The ABN is available to State, Territory and local government regulatory bodies to streamline registration requirements. Businesses with an ABN are identified on a public register – the Australian Business Register (ABR) – though only some of the information provided by clients will be publicly available. The Registrar of the ABR is the Commissioner of Taxation.

How is the ABN structured?

The ABN is a unique 11 digit number formed from a 9 digit unique identifier and two prefix check digits. An ABN will be allocated when a client is entered into the ABR.

The two leading digits (the check digits) will be derived from the subsequent 9 digits using a modulus 89 check digit calculation (see below). The check digits will be included to identify common data entry errors such as digit transposition.

The ABN will be structured as XX XXX XXX XXX

The ABN and the Australian Company Number (ACN) and the Australian Registered Body Number (ARBN)

For bodies registered under Corporations Law, their ABN will be formed by prefixing two digits to their ACN/ARBN. These companies must have their identity established and go through the normal registration process to obtain their ABN. The ABN will eventually replace the ACN and the ARBN.

Only the Registrar of the Australian Business Register can issue ABNs: businesses and other organisations cannot generate their own ABN. Anyone convicted of misusing an ABN may be imprisoned for up to two years.

THE NEW TAX SYSTEM



Australian Taxation Office

The check digit algorithm

The format of the ABN is as follows:

$$a_{11} a_{10} a_9 a_8 a_7 a_6 a_5 a_4 a_3 a_2 a_1$$

Where $(m_{11}(a_{11} - 1) + m_{10}a_{10} + m_9a_9 + \dots + m_1a_1) \bmod 89 = 0$

And $m_1..m_{11}$ are chosen to be different to detect digit transpositions.

The set of weightings are:

$$m_{11}..m_1 = (10, 1, 3, 5, 7, 9, 11, 13, 15, 17, 19)$$

Note that a_{11} can always be chosen to be non-zero.

Note that m_{11} and m_{10} are chosen to make the check digit calculation simpler.

How to verify an ABN

The following formula can be used to verify the ABN you are allocated or to verify the ABN issued to a business you deal with.

To verify an ABN:

1. Subtract 1 from the first (left) digit to give a new eleven digit number
2. Multiply each of the digits in this new number by its weighting factor
3. Sum the resulting 11 products
4. Divide the total by 89, noting the remainder
5. If the remainder is *zero* the number is valid

Weight factors (for Step 2)

Digit Position

1	2	3	4	5	6	7	8	9	10	11
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Weight

10	1	3	5	7	9	11	13	15	17	19
----	---	---	---	---	---	----	----	----	----	----

For example: To check the validity of ABN 53 004 085 616

5	3	0	0	4	0	8	5	6	1	6
---	---	---	---	---	---	---	---	---	---	---

1. Subtract 1 from first (left) digit to give new number

4	3	0	0	4	0	8	5	6	1	6
---	---	---	---	---	---	---	---	---	---	---

2. Apply weighting factor

10	1	3	5	7	9	11	13	15	17	19
----	---	---	---	---	---	----	----	----	----	----

$$(4 \times 10) + (3 \times 1) + (0 \times 3) + (0 \times 5) + (4 \times 7) + (0 \times 9) + (8 \times 11) + (5 \times 13) + (6 \times 15) + (1 \times 17) + (6 \times 19)$$

$$3. \quad 40 + 3 + 0 + 0 + 28 + 0 + 88 + 65 + 90 + 17 + 114$$

$$4. \quad 445 / 89 = 5 \text{ remainder } 0$$

5. The remainder is zero so the number is valid

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How to calculate the check digits (a_{11} and a_{10})

The method to calculate these for existing ACNs is as follows:

The modulus without the check digits is calculated:

$$m = (m_9 a_9 + \dots + m_1 a_1) \bmod 89$$

Then the following must be true:

$$(10(a_{11} - 1) + a_{10}) = 89 - m$$

Note:

a_{10} = the last digit of $(89 - m)$.

a_{11} = the first digit of $(89 - m)$ plus 1.

Note that the first digit will be non-zero in all cases and the calculation works in the case that m is zero.

For example: To calculate the check digits for ACN 004 085 616

1. Multiply each of the digits by its weighting factor
2. Sum the resulting 9 numbers
3. Subtract the total from the nearest multiple of 89
4. Use the remainder to calculate the two check digits
5. Add the check digits to the front of the ACN to determine the ABN

Digit Position $a_9 \dots a_1$

0	0	4	0	8	5	6	1	6
---	---	---	---	---	---	---	---	---

Weight $m_9 \dots m_1$

3	5	7	9	11	13	15	17	19
---	---	---	---	----	----	----	----	----

1. $(0 \times 3) + (0 \times 5) + (4 \times 7) + (0 \times 9) + (8 \times 11) + (5 \times 13) + (6 \times 15) + (1 \times 17) + (6 \times 19)$
2. $0 + 0 + 28 + 0 + 88 + 65 + 90 + 17 + 114 = 402$
3. $445 - 402 = 43$ ($445 = 89 \times 5$)
4. a_{10} = the last digit of 43.....3
 a_{11} = the first digit of 43 plus 1... 4 + 1 = 5
 Check digit of the ABN is $a_{11} a_{10}$, that is, 53.
5. ABN is 53 004 085 616

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Need more information?

If you would like to find out more:

- phone the business Tax Reform Infoline on **13 24 78**
- download information from the website at **www.taxreform.ato.gov.au**
- obtain *A Fax From Tax* on **13 28 60**
- phone the TTY service on **1300 130 478** if you have a hearing or speech impairment, or
- write to us at PO Box 9935 in your capital city.

Taxpayers who do not speak English and need help from the ATO can phone the Translating and Interpreting service on **13 14 50**.

Guarantee

Businesses can rely on the information presented in this publication, which provides advice from the Commissioner of Taxation on the operation of the GST system.

Under the GST law, any written ruling or advice given or published by the Commissioner protects taxpayers who have followed the information provided. Rulings or advice can be issued in the form of fact sheets, information booklets, advice manuals and bulletins.

In the event that there is a change in the law or the Commissioner's position on a particular matter, you will be protected in respect of what you have done up to the date of that change. This means that if you have relied on a ruling which has later been changed and, in reliance on the earlier ruling, you have underpaid an amount of GST, you will not be liable for the shortfall prior to the later ruling. Similarly, you will not be liable to repay an amount overpaid by the Commissioner as a refund in these circumstances. Equally, no penalties or interest will apply.

You should take care to ensure that the information in this publication is the latest advice from the Tax Office. Where a change occurs, the Tax Office will be taking all steps to alert taxpayers to that change.

The information in this publication is intended to explain how the GST System will work. It may not apply fully to your circumstances. You can always get help from the Tax Office or consider using a professional tax practitioner.

The information in this publication is current at 20 July 2000.