

## Freight bill numbering

### Check digit calculations

Base number = middle six digits

- Divide base number by 11
- If the remainder is zero the check digit is zero
- Subtract the remainder from 11 to produce the check digit
- Substitute the letter X for the check digit 10

### Examples

- Freight bill number: 100-340397-9
  - 340397 divided by 11 = quotient is 30945.18  
Drop the .18 and then multiply the 30945 by 11 = product is 340395. Subtract that product from the original base number and 2 is the remainder. i.e.  $340397 - 340395 = 2$
  - $11 - 2 =$  check digit is 9
- Freight bill number: 828-561881 - X
  - 561881 divided by 11 = quotient is 51080.09  
Drop the .09 and then multiply the 51080 by 11 = product is 561880. Subtract that product from the original base number and 1 is the remainder. i.e.  $561881 - 561880 = 1$
  - $11 - 1 =$  check digit is 10
  - Must substitute X for 10
- Freight bill number: 111-003542-0
  - 003542 divided by 11 = quotient is 322 exactly so the remainder is 0
  - Since the remainder is 0, the check digit is 0
- Excel Example: Enter the 6 digit Pro Base into cell A1 in excel then in cell B1 copy and paste the following formula and it equal the check digit.  
`=IF(11-MOD(A1,11)=11,0,IF(11-MOD(A1,11)=10,"X",11-MOD(A1,11)))`

### Digit Calculation

999 - 999999 - X

①                      ②                      ③

PRO Prefix    Base no.    Check Digit

- |               |                                                                              |
|---------------|------------------------------------------------------------------------------|
| ① PRO Prefix  | - Always 3 Digits<br>- Always constant for a particular block of PRO number. |
| ② Base number | - Always 6 Digits<br>- increments by 1                                       |
| ③ Check Digit | - Valid values are 0-9 and x                                                 |