

Configuring Printhead Element Out Detection

Issue / Question

This procedure discusses how to enable and configure the Printhead Element Out Detection on printers with this feature.

Applicable to

- ZD600 Series
- ZQ600 Series
- ZT411/ZT421
- ZT510
- ZT600 Series

Resolution/Answer

The Printhead Element Out Detection feature allows a user to test the elements on an installed printhead, and configure the frequency, range of tested elements, as well as how the printer handles the error.

^JT – Head Test Interval

The ^JT command allows you to change the printhead test interval from every label to any desired interval. With the ^JT command, the printer is allowed to run the test after printing a label. When a parameter is defined, the printer runs the test after printing a set number of labels. The printer's default head test state is off. Parameters for running the printhead test are defined by the user.

Format: ^JT####,a,b,c

Parameters:

= four-digit number of labels printed between head tests

Accepted Values: 0000 to 9999 (If a value greater than 9999 is entered, it is ignored)

Default: 0000 (off)

a = manually select range of elements to test

Accepted Values: N = no, Y = yes

Default: N (no)

b = first element to check when parameter a is Y

Accepted Values: 0000 to 9999

Default: 0

c = last element to check when parameter a is Y

Accepted Values: 0000 to 9999

Default: 9999

Comments The ^JT command supports testing a range of print elements. The printer automatically selects the test range by tracking which elements have been used since the previous test. ^JT also turns on Automatic Mode to specify the first and last elements for the head test. This makes it possible to select any specific area of the label or the entire print width. If the last element selected is greater than the print width selected, the test stops at the selected print width. Whenever the head test command is received, a head test is performed on the next label unless the count is set to 0 (zero).

Example: This example will test the printhead elements every 10 labels, automatically selecting the test range.

^XA^JT10,N^JUS^XZ

Example: This example will test the printhead elements 203 to 609 after every label.

^XA^JT1,Y,203,609^JUS^XZ

Example: This example will turn off the printhead element test.

^XA^JT0^JUS^XZ

~JO – Head Test Non-Fatal

The ~JO command configures the printer to run the head test with error reporting enabled. When ~JO is used an error will be displayed and printing will stop if the head test fails. The user can push the PAUSE button on the printer to bypass the error. This command differs from the ~JN (Head Test Fatal) command in that a power cycle is not required in the event of a head test failure.

~JO is the default print head test condition. This setting is changed when the printer receives a ~JN (Head Test Fatal) command.

Format: ~JO

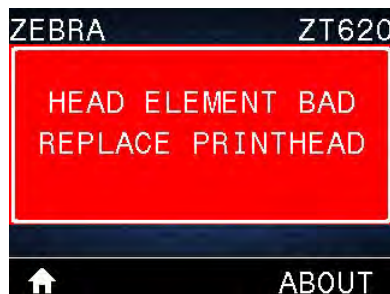
~JN – Head Test Fatal

The ~JN command turns on the head test option. When activated, ~JN causes the printer to halt when a head test failure is encountered. Once an error is encountered the printer remains in error mode until the head test is turned off (~JO) or power is cycled.

Format: ~JN

Comments If the communications buffer is full, the printer is not able to receive data. In this condition, the ~JO command is not received by the printer.

Example of Head Test Failure Error:



Additional Information:

Details on ^JT in the ZPL Programming Guide - [See Here](#)