

## Turn Signals On or Off During Moves: ANTOUT

### Introduction

If you need to signal when you are approaching or departing from a taught point, we have an INFORM command for that! The command is ANTOUT – for “Anticipated Output.” This document describes how to enable the command and how to use it.

### Background

The ANTOUT command is available on NX100, DX100, DX200, YRC1000, and YRC1000Micro controllers. Its purpose is to turn a signal on or off during moves (as opposed to when a move completed.)

The function, when VALID, toggles a single output ON/OFF (or group status turns ON) either before or after completion of a step motion. The signal can be based on time or distance from the point. *The MOV\_ preceding the ANTOUT instructions must have an NWAIT tag.* Negative values of time or distance indicate signal on *before* the point is reached. Positive values indicate signal on *after* the point is reached.

ANTOUT may not be available by default. If you do not see the command in the INFORM list, you need to enable it as described below.

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## Enabling ANTOUT

The ANTOUT command can be enabled via the pendant from SETUP / FUNCTION ENABLE and then setting ANTICIPATION FUNCTION to VALID as shown below.

FUNCTION ENABLE SETTING	
MASTER JOB CHANGE	PERMIT
RESERVED START	PROHIBIT
RESERVED START JOB CHANGE	PERMIT
JOB SELECT WHEN PLAY MODE	PERMIT
JOB SELECT WHEN REMOTE AND PLAY	PERMIT
I/O-VARIABLE CUSTOMIZE FUNCTION	INVALID
GENERAL I/O NAME DISP. ON JOB	INVALID
ANTICIPATION FUNCTION	VALID
ALL AXES ANGLE DISP FUNCTION	INVALID
PENDANT BUZZER FUNCTION	OPE.&BEEP VALID

You may be prompted as shown below. Click YES.

Instructions must be reset to enable this function. Reset instructions now?

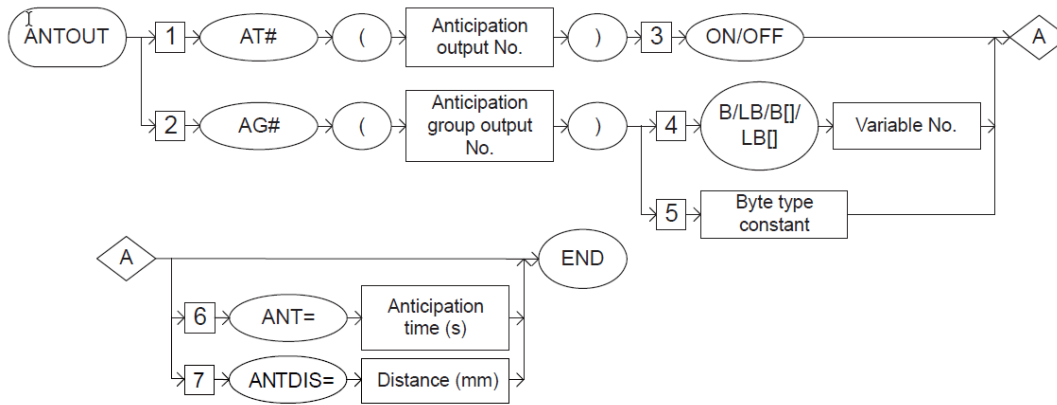
YES NO CANCEL

Although the parameter S2C646 for Anticipation Output is enabled by the Function Enable Setting window, *Parameter S4C008 =1 may also need to be set on older controllers.*

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## Using ANTOUT

The syntax for ANTOUT (from the INFORM Manual) is shown below.



Note the Anticipation Output signals (AT# or AG#) are defined in a table under IN/OUT and ANT.OUTPUT (shown below.)

AT NO.	OT OUTPUT	ON TIME	OFF TIME
1	---	0.00	0.00
2	---	0.00	0.00
3	---	0.00	0.00
4	---	0.00	0.00
5	---	0.00	0.00
6	---	0.00	0.00
7	---	0.00	0.00
8	---	0.00	0.00
9	---	0.00	0.00
10	---	0.00	0.00
11	---	0.00	0.00
12	---	0.00	0.00
13	---	0.00	0.00
14	---	0.00	0.00

Up to 16 individual signals can be set for ANTOUT and 8 groups can be designated. TIP: Use the cursor key to move down through the individual signals to get to the Groups.

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To program the ANTOUT instruction, perform the following:

1. In the JOB CONTENT, open the Inform List and choose IN/OUT.
2. Choose ANTOUT.
3. SELECT the DETAIL EDIT screen.
4. Enter AT# and select ON/OFF status.

or

SELECT to change to AG# and enter group reference number.

5. No additional tag will *default* to the set <SINGLE> ON TIME and OFF TIME and <GROUP> TIME.

or

SELECT on TIME to change UNUSED to either ANT=seconds or

ANTDIS=millimeters; enter the desired value. Press ENTER.



6. Press INSERT, ENTER.

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Example of using ANTOUT based on time or distance and using a single output and a group are shown below.

```
JOB CONTENT: MASTER
J:ANTOUT                S:0000
CONTROL GROUP: R1      TOOL: **
0000 NOP
0001 MOVJ VJ=0.78
0002 MOVJ VJ=50.00
0003 MOVL V=450 NWAIT
0004 ANTOUT AT#(1) ON
0005 MOVL V=450 NWAIT
0006 ANTOUT AT#(1) OFF ANTDIS=-50.8
0007 MOVL V=450 NWAIT
0008 ANTOUT AG#(1) 85
0009 MOVJ VJ=50.00
0010 DOUT OG#(1) 0
0011 END
```