Digitimer

NeuroLog System

NeuroLog SYSTEM

Simple Biphasic Pulse Generation of a Defined Duration Burst

Overview

Here, a trigger pulse is used to initiate a burst of biphasic constant current stimulation from a pair of **NL800 STIMULUS ISOLATORS**. The burst duration and total stimulus duration are controlled by a pair of **NL405 WIDTH/DELAY** modules, however, the same role could be fulfilled by the older **NL401 DIGITAL WIDTH** module. As with all NeuroLog applications, there is plenty of scope for the users to customize the arrangement to better suit their requirements.

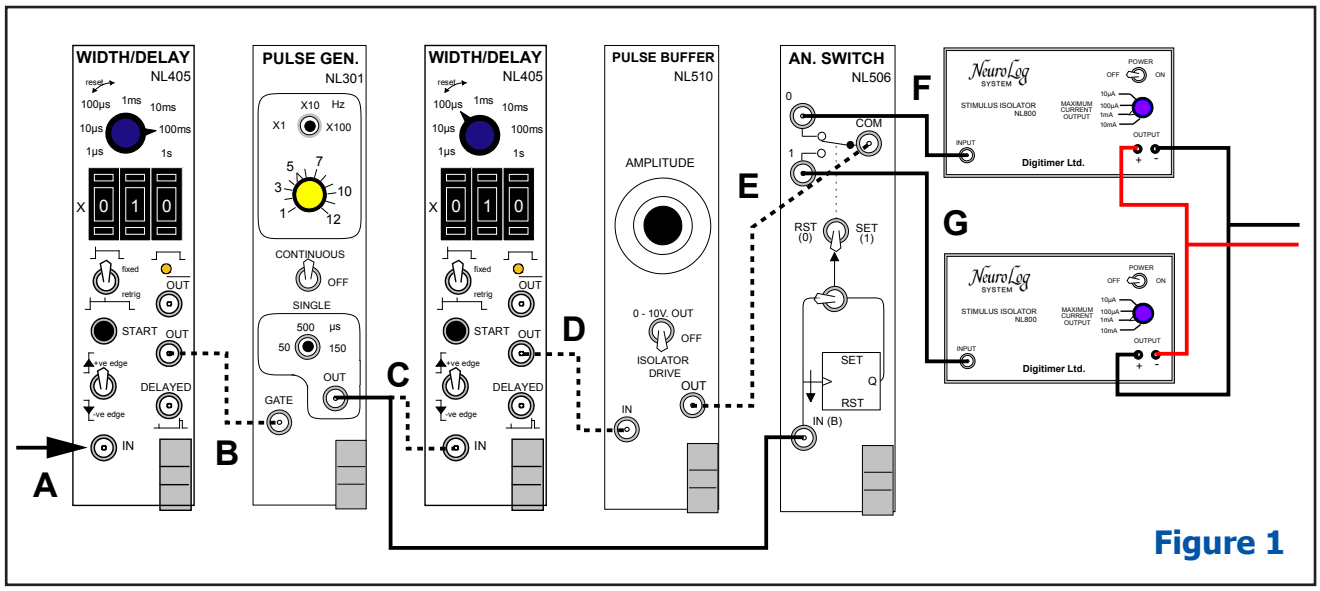

Figure 1

The burst can either be triggered by an external device which produces a TTL compatible output such as our **NL412 PULSE** box, another **NL301 PULSE GENERATOR**, as used to control the pulse frequency or the **NL304 PERIOD GENERATOR**.

Stimulus amplitude is set by the **NL510 PULSE BUFFER** and both NL800 units must be set to the same output range.

Dotted dashed lines between modules indicate signal passage through their rear connections, while solid lines indicate where cables are required.

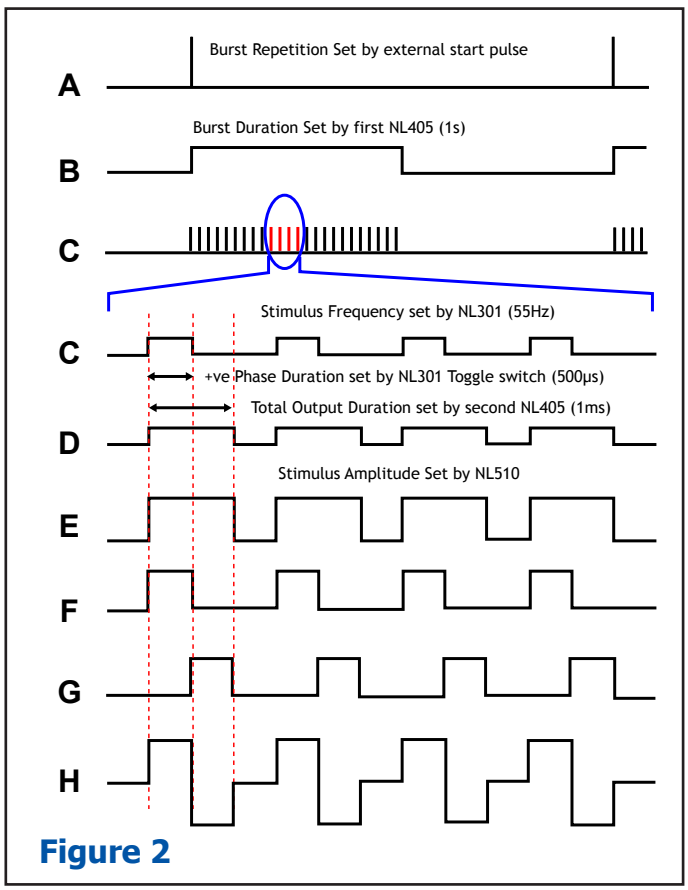

Figure 2

Jumper positions Required

NL405 #1 - Input set to N/C
- Output set to OUT
NL301 - Input set to GATE
NL405 #2 - Input set to IN
- Output set to OUT
NL510 - Input set to IN
NL506 - Input set to N/C

Application Note 14