1   Scope

1.1   This procedure outlines the method instituted by Sure-Fi, Inc to convert a pulsed output signal to a steady state output for use with Sure-Fi, Inc. Wiegand Bridge products.

2   Summary:

2.1   When a device that will be connected to the Wiegand Bridge has an output condition that is a pulsed, continuous repeating waveform, it must be converted to a steady state level to interface with the Bridge. This Application note describes how to use a Time Delay Relay that has a 'Off-delay with control signal mode to convert such a signal for use with the Wiegand Interface Bridge.

3   References (current version unless otherwise specified)

3.1   Finder Modular timer datasheet: 80 Series Modular timers 16A

3.2   Finder Part Number: 80.01.0.240.0000

3.3   Sure-Fi DS004 Wiegand Bridge Operators Manual Doc #PI0026

4   Tools and Equipment Required

4.1   Finder Modular Timer, Finder Part Number: 80.01.0.240.0000

5   Procedure

5.1   This example connects the Access panel alarm output to the Time Delay Relay which then interfaces to the Controller Interface 'R1IN' input. The Controller Interface then controls the door alarm at the Remote Interface location on the Relay 1 NO connection using a wet relay contact to the alarm. See Appendix 6.5 and 6.6 for overview.

   5.1.1   Connect the Time Delay Relay to +V and -V power and adjust the settings:

      5.1.1.1 See the Finder 80.01.0.240.000 datasheet for complete input power specifications.

      5.1.1.2 Connect 12 to 24VDC to terminal A1 (+V) and A2 (-V). See Appendix 6.1 and 6.2.

      5.1.1.3 Connect the -V (Ground) between the A2 terminal of the Time Delay Relay and the Access panel -V (Ground).

      5.1.1.4 Set the Function selector to 'BE'.

      5.1.1.5 Set the delay time: set the uppermost time range select dial to the '2S' range setting. Set the lower blue colored time adjust dial to '10' which sets the delay at 1 second. Ensure that the time delay setting is at least twice as long as the time period of the Access panel alarm output signal. See Appendix 6.3 for time delay functionality.

      5.1.1.6 Connect the Alarm output signal from the Access panel to the B1 input terminal of the Time Delay Relay.

▽ IMPORTANT   The output signal from the Access panel must have a high signal level of at least 5.0V for the Time Delay Relay to operate properly. See Appendix 6.4 for signal example.
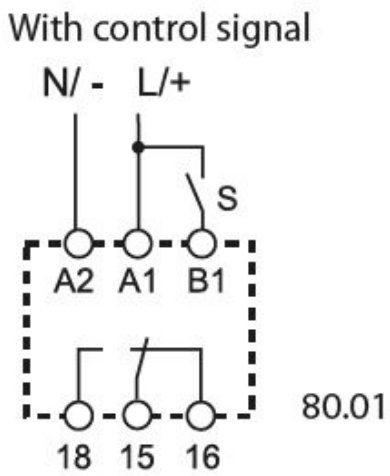
5.1.2 Connect the Time Delay Relay to the Controller Interface:

   5.1.2.1 Connect the Common relay terminal '15' of the Time Delay Relay to a Controller Interface GND (Ground) terminal.

   5.1.2.2 Connect the Relay NO terminal '18' of the Time Delay Relay to the 'R1IN' input of the Controller Interface.

5.1.3 Connect the door alarm to the Remote Interface:

   5.1.3.1 On the Remote Interface: set the jumper'JP1' from the 'COM' to the '+' pins.

   5.1.3.2 Connect the Remote Interface R1 NO to the alarm '+V' input.

   5.1.3.3 Connect the alarm '-V' (Ground) to a GND (Ground) terminal of the Remote Interface.
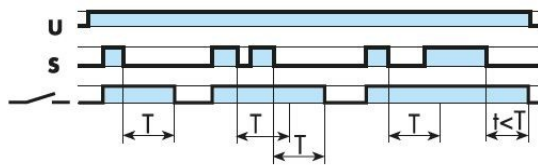
6   Appendix

6.1   Front view of the Finder 80.01.0.240.0000 Time Delay Relay:

6.2   Functional Schematic diagram of the Finder 80.01.0.240.0000 Time Delay Relay:

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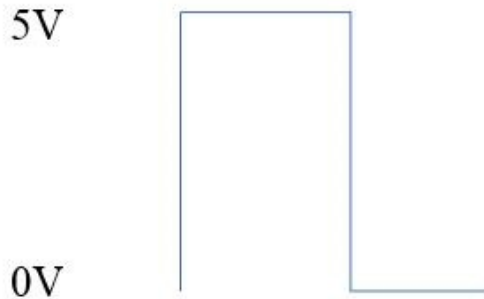| APPLICATION NOTE		AN0134	**A**
Title: CONVERTING CONTINUOUS ALARM OUTPUT PULSE FOR USE WITH WIEGAND BRIDGE			Page 4 of 6

6.3   Input/Output functional signal diagram of the Finder 80.01.0.240.0000 Time Delay Relay:
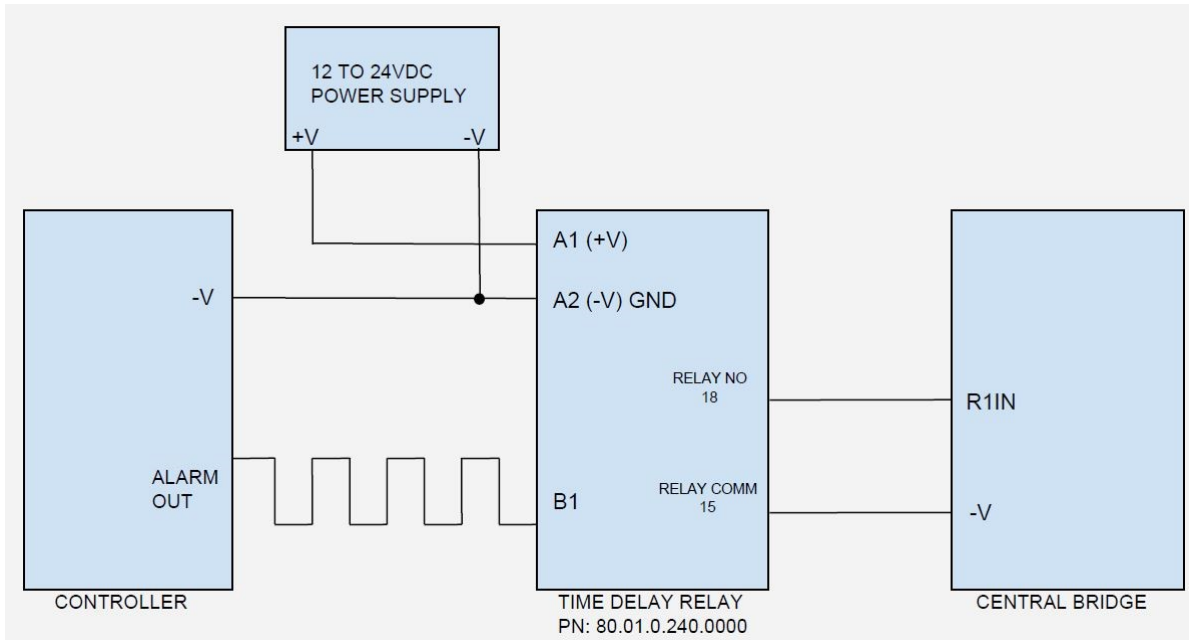

(BE) **Off-delay with control signal.**
Power is permenently applied to the timer. The output contacts transfer immediately on closure of the Signal Switch (S). Opening the Signal Switch initiates the preset delay, after which time the output contacts reset.
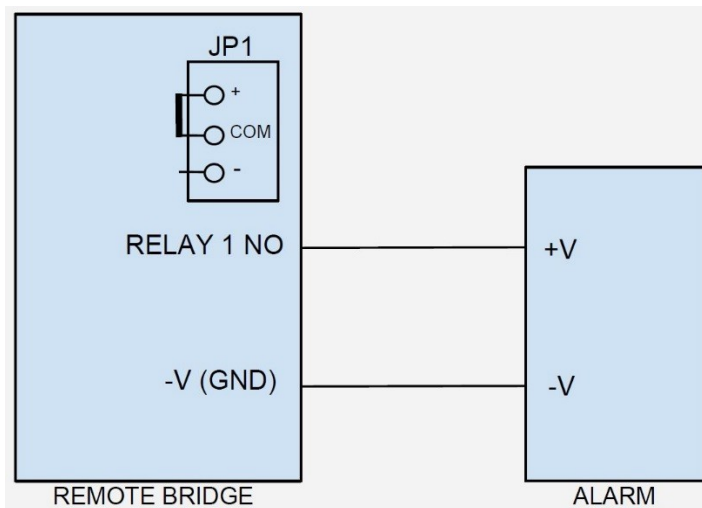
6.4   Controller alarm output signal minimum High signal level:

		A
APPLICATION NOTE	**AN0134**	
Title: CONVERTING CONTINUOUS ALARM OUTPUT PULSE FOR USE WITH WIEGAND BRIDGE		**Page 5 of 6**

Sure-Fi

6.5 Access panel to Central Interface connection diagram:

6.6 Remote Interface to Alarm connection diagram:

Revision History

Revision	Comment	Date
A	Initial document release	May 2017

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