Date: 04/07/15

Situation:

In a few isolated reports, it has been found that an EZComm 2W installation can erroneously switch to its Alternate 1 configuration profile. What the customer would notice is that one or more buttons will be playing sounds different than what they were set to originally. These sounds will still be from the correct sound group, but would not be the choice the installer selected. For example, the installer may have selected the "Custom Walk message" but in this instance it may play the rapid tick walk message instead. The reason this occurs is due to poor communication quality as a result of un-recommended wiring practices, or external noise being coupled onto the field wiring resulting in corruption of data between the CCU2EN and the EN2's. Additionally, the root cause of this stems from the requirement for the EN2 system to remain backward compatible with the obsolete N2 APS system. The N2 APS system allowed the switching from the General configuration profile to the Alternate #1 configuration profile via a single byte command. As such, no error correction or checksum could be implemented for this particular command. In the EN2 system, this legacy command is still in effect to support backward compatibility. What can occur in installations with communication issues is that EN2 packetized data bytes, which do include error correction and checksums, can be distorted in such a way that the bit pattern equals the single byte command to switch to the Alternate #1 configuration profile. The buttons that detect this erroneous code will continue to operate in Alternate #1 configuration until power is cycled. This problem has been more prevalent on channels where more than two buttons are connected due to the increased communications and loading that additional buttons contribute to the communication line.

Solution:

The best solution to this problem is to address the root cause, which is an undesirable wiring configuration or external interference sources. Our installation manual gives instructions with regards to proper wiring and "TechBrief #1044 EZComm Communication" gives additional details for dealing with intersections that have known communications issues. An additional fix for this issue is simply to set the Alternate #1 configuration profile to the same settings as the Default configuration profile, so that if this issue does occur, the configuration settings remain the same. Setting the Alternate #1 configuration settings can be done easily with either the handheld EConfigurator or by using a PC with the EZ APS ToolBox Software.

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