Resolving wired clock correction line issues with resistor packs

TECHNICAL NOTES

When installing a new wired clock system controller or updating/replacing mechanical clocks, issues can present themselves due to power consumption changes within the system. Often, these issues can be resolved by adding resistance to the correction line with a voltage-appropriate resistor pack.

ISSUES

Older mechanical clock systems are generally less efficient than modern systems. Frequently, this results in resistance being present on the clock system wiring, which can conceal issues with things like excessive voltage or "dirty" power.

If some or all of the secondary clocks are replaced with a more efficient model, such as our AllSync Plus clocks, the decrease in resistance can cause these problems to become apparent. Typically, this appears in the form of the clocks constantly being in correction mode; because the correction line normally does not have power outside of the correction period, any excessive voltage present on this line can result in constant correction rather than normal operation.

Similar issues can occur if the power coming into the system controller is greater than normal or if the correction line is picking up transient voltage elsewhere on the circuit.

SOLUTION

The resistor pack provides additional resistance, ensuring the only voltage coming through the correction line is the appropriate amount during the correction period. Available for both 110/120V and 24V systems and compatible with both the current AllSync IQ wired system or most legacy three-wire systems, the resistor pack can be wired into the circuit as shown at any location in the system.

For further information, visit our website at www.american-time.com or call 800-328-8996 to speak with one of our experienced technicians.