

Keeps Accurate Time; RTC, Time Zone, DST, NTP

Axiom DVR has a RTC (Real-Time Clock) that keeps track of the time even when the DVR is turned off. The Real-time clock runs on a small battery that is not connected to the DVR power supply. When the DVR is turned on, the DVR reads the current time from the RTC to keep up with the current time.

Axiom DVR runs time in UTC (Universal Time Clock) format and displays local time by applying the 'Time Zone' settings. The DST (Daylight Savings Time) is applied to shift local time automatically when the function is set 'On'. With those two features of 'Time Zone' and 'DST', DVR can always keep the time correctly, which is very important for DVR to be integrated into another security system.

Even though RTC is used in DVR; it is not possible to keep accurate time permanently. It is because RTC uses crystal to count time, and crystal is weakened by heat and distorts time a bit.

To recover the accurate time, it is necessary to get the accurate current time value from an official UTC device. NTP (Network Time Protocol) is a function to get UTC time from time server on Internet and apply the exact UTC time value to DVR to correct the local time if the time is off from the exact time. There are many NTP time servers on Internet which provides the exact UTC time value. With NTP function, DVR can always keep the exact time, which is very important as a security device.

If there are several DVRs in a system, every DVR can keep the exact time by using NTP function, which means the entire system of DVRs will keep the same time.

Axiom DVR can serve as an NTP server, which benefits a security system that is not connected to Internet. If there are a lot of DVRs in a system, and the system is not connected to Internet, DVRs cannot keep up with the accurate time as UTC time server. The next best thing; every DVR will synchronize the time to a specific DVR so that every DVR in the system will keep the same time. For this application, any DVR can be set as an NTP server while all other are set as NTP clients.

