



**DSX Access Systems, Inc.**

## **Controller Communication**

### **Controller Communications Overview**

The first panel of every Location is designated as the “Master”. All subsequent panels, at the same Location, are designated as “Slaves”. Any DSX panel may be selected by dipswitch settings to work as a Master panel. The Master panel performs all of the same functions as a Slave, but is also responsible for polling all Slave panels and reporting the history transactions to the Comm Server PC. The Master panel does not make access control decisions for the Slave panels. It is simply the gateway or messenger of information from the panels to the PC and for information from the PC to the panels.

The Location Masters may communicate with the Host PC via TCP/IP, USB/232-485 or dial up modem. The Master of a modem-controlled location automatically buffers all normal transactions until its buffer reaches 80% of capacity. When the transaction buffer reaches 80%, the Master panel automatically initiates a phone call to the central monitoring PC and uploads all transactions. If an alarm event occurs, the Master panel initiates an immediate call to the PC to report the alarm. The PC may be programmed to routinely poll each of the remote modem Locations and collect the logs automatically. Unless deferred updates to the database are sent as incremental downloads (just the changes).

The panels communicate using a RS-485 communication network. The panels are connected with a two twisted pair cable that is run in a series loop or daisy chain fashion. Star wiring or home run wiring configurations can be achieved with a DSX-1035 communications Quadraplexor. The Quadraplexor provides 4 outputs with a built-in power supply and battery charging circuit. The RS-485T provides two outputs and is powered by a controller. The series loop in and out of the RS-485 communications wire must be maintained unless either a 1035 or 485T is used.