Building Custom Cables for Comtrol™ Hostess®*550* Controllers (16-Port) RS-422

Compatibility

Use this document if you want to build customized cables for the following Comtrol controllers:

- Hostess *550* (16-port models; 100-pin and RJ45)
- Hostess *550/MC* (16-port models)

Note: *If you want to build cables for other Comtrol controllers, order the appropriate cabling documentation.*

Building Cables

Usually you can buy the correct cables from distributors and electronics stores for your controller. In some cases, your peripheral equipment may need custom cables.

Check your equipment to understand what kind of cable to use, Data Terminal Equipment (DTE) or Data Communications Equipment (DCE). All Comtrol serial connectors are configured as DTE.

Shielding Cables

The controller falls within the limits for a Class A computing device established by the FCC. To comply with these limits, the serial cables used to connect the controller to external devices should be shielded. The shield should be connected to a metal or metallized connector shroud on each end of the cable. It is not necessary to connect the shield to a connector pin on the end of the cable connected to the controller.

Using Modular Connectors

The RJ45 connector is similar to the phone-jack type of connector. Both the connector and cable are easily available from your distributor or any electronics store. You may want to connect your peripherals using a D-shell type of connector to an RJ45 interface with a straight-through cable and an adapter that you build.

RS-422 DTE to DTE Cable

Most RS-422 communication links usually do not use hardware handshaking or signal ground lines. The following figure shows twisted-pair transmission lines that work in most cases.

Controller Connectors **Remote Connectors**

Signal Name	DB9 Pins	DB25 Pins		DB9 or DB25 Pins
TxD+	8	19		RxD+
TxD-	3	25		RxD-
			Twisted Pairs	
RxD+	7	15		TxD+
RxD-	2	17		TxD-

Controller Connectors **Remote Connectors**

Signal Name	RJ45 Pins		DB9 or DB25 Pins
TxD+	8		RxD+
TxD-	4		RxD-
		Twisted Pairs	
RxD+	1		TxD+
RxD-	5		TxD-