

Antenna Multiplexer Installation Instructions

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This document explains how to assemble and install the antenna multiplexer on the Encompass[®] Multiprotocol Reader.

Required Supplies

Before installing the antenna multiplexer assembly, make sure you have the necessary components.

Antenna Multiplexing Kit (TransCore P/N 14-6000-001). Here is a parts list for the kit:

Quantity	Description
1	Antenna multiplexer assembly
4	#6-32 x 3/8 inch stand-off
4	#6-32 x 1/4 inch Phillips screw
1	Antenna multiplexer-to-reader RF cable
1	DB9 data cable assembly

Note: If you are installing an antenna multiplexer assembly and check tag assembly on the same Encompass multiprotocol reader, you need to use a different DB9 data cable (TransCore P/N 08315-01) to connect the two assemblies.

You need the following additional equipment and tools to complete the installation.

- 50-ohm coaxial cable from antenna multiplexer assembly cable port(s) to RF antenna(s) (no more than 2 decibel (dB) loss in cable). Use same type of coaxial cable as used to connect RF antenna to Encompass Multiprotocol Reader.)
- N-type plug connectors and SMA plug connectors
- 50-ohm, 2-watt receptacle SMA termination for unused antenna multiplexer output ports
- Cable terminating/crimping tools
- Torque-limiting wrench (in/lb range)
- Standard set of tools (wrenches, screwdrivers, and pliers)

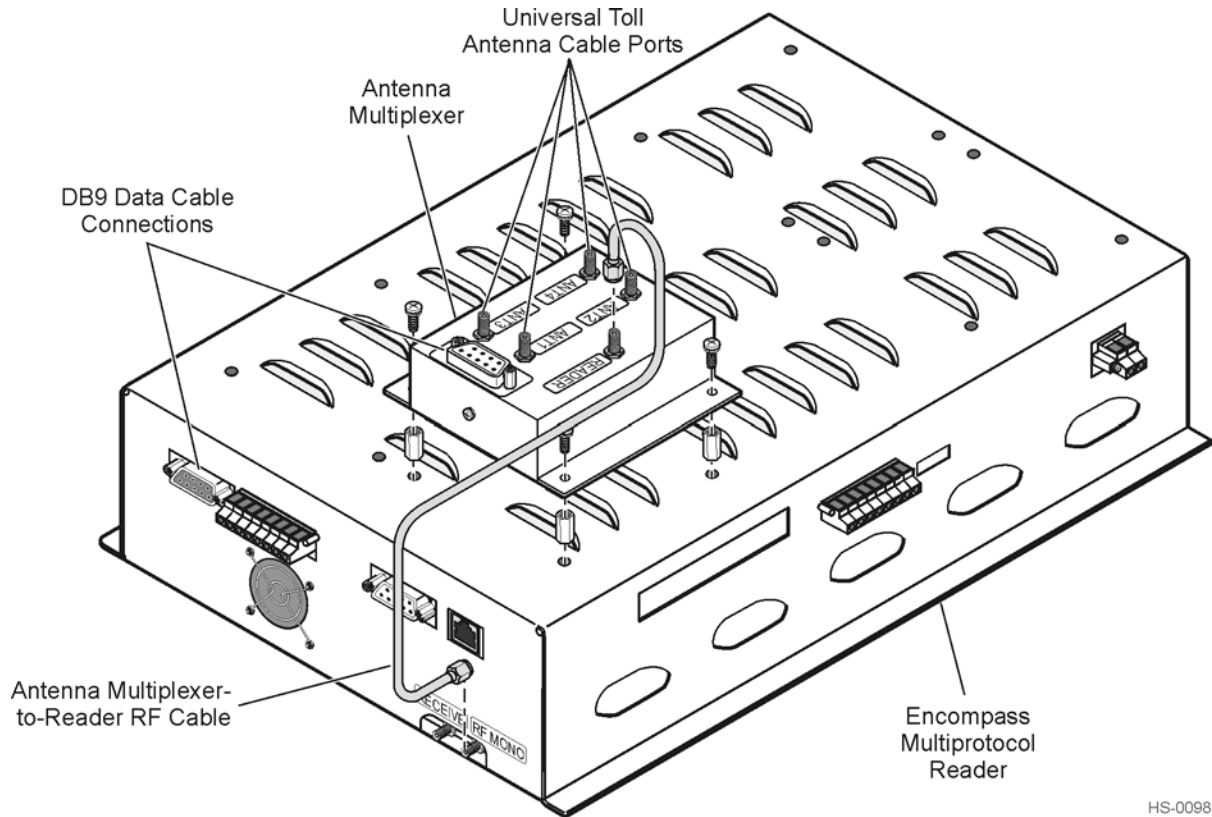
Installation/Mounting

Refer to Figure 1 for all procedure steps listed here.

1. Screw the four standoffs into the mounting holes as shown in Figure 1.
2. Place the antenna multiplexer assembly on the standoffs (Figure 1) and secure with the Phillips screws provided in the kit.
3. Connect and secure the DB9 data cable.

4. Connect the antenna multiplexer assembly (READER port) to the Encompass reader (RF MONO port) with the RF cable and tighten both SMA connectors to 10 in/lb.
5. Connect all antenna coaxial cables to multiplexer ports ANT0, ANT1, ANT2, ANT3, if used, and tighten all SMA connectors to 10 in/lb.

Note: You must terminate all unused antenna multiplexer output ports using a 50-ohm, two-watt SMA termination.



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Figure 1 Antenna Multiplexer Assembly Location



Caution

When using a non-TransCore supplied enclosure, to prevent damage to the SMA connectors, TransCore strongly recommends that you provide a strain-relief bracket or other means of securing the antenna coaxial cables that terminate at the antenna multiplexer assembly.



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