C9101, C9102, C9103, C9104, C9105
NETWORK CABLES

The C910x Series Network Cables are used to interface U9100 series endpoints (Headset Stations [U9110, U9111, U9112 or U9113] and/or Wireless Gateways [U9120-W4]) to the U9100 Digital Intercom Master Station. One end of the cable connects to the Master Station and the other end connects to the endpoint. The network connectors on the C910x series cables are rated IP-68 for ingress protection when mated properly.

The C910x Series Network Cables come pre-terminated with over-molded RJ-45 ends. This allows for easier installation of the 9100 Series Digital Intercom System where access to tools required to terminate and test user-made cable assemblies is not available. The C9101, C9102, and C9103 cables are pre-terminated at both ends.

The C9104 and C9105 cables are pre-terminated at one end. With only one end pre-terminated, the cable can be easily routed and cut to desired length, yet only require field termination of one end. It is suggested that the over-molded, pre-terminated end be connected to the 9100 Series Endpoint. For instructions on terminating the required end, please see Section 2 below.

Section 1

Parts/Tools Required

- ❑ C910x Series Network Cable
  - C9101 (p/n 40892G-24); 2 meter (approx. 6.5 feet) cable assy. over-molded on each end
  - C9102 (p/n 40892G-25); 3 meter (approx. 9.5 feet) cable assy. over-molded on each end
  - C9103 (p/n 40892G-26); 5 meter (approx. 16 feet) cable assy. over-molded on each end
- ❑ Wire ties

Procedure

- ❑ Each cable should be routed as far as possible from radio antenna coax cables and anywhere water may collect
- ❑ Determine the required cable assembly by length for each run, route the cable assembly and secure properly, ensuring that any bend in the cable not exceed a 1” bend radius.
- ❑ To connect to an IP-protected RJ-45 jack on either a U9101 Switch Card (as installed on the U9100 Master Station) or a 9100 Series Endpoint (as defined above), align the conductor end of the RJ-45 connector with the proper side of its mate and push the connector/shell assembly straight in, until the side locking tables lock into place.
- ❑ To disconnect, first push the connector in towards the module, slightly but assertively, then squeeze both tabs in towards the connector shell to clear their locking mates on the jack. Then, while squeezing the tabs, pull the connector straight out of its mate.

Section 2

Parts/Tools Required

- ❑ C910x Series Network Cable
  - C9104 (p/n 40892G-30); 5 meter (approx. 16 feet) cable assy. over-molded on one end
  - C9105 (p/n 40892G-31); 20 meter (approx. 65 feet) cable assy. over-molded on one end
- ❑ RJ-45 crimper (ratcheting type recommended)
- ❑ Wire ties
- ❑ Silicone spray (for waterproof connectors only)
- ❑ Ethernet pinout (below)
- ❑ Cable tester (Fluke Networks CableIQ or similar; optional)

Procedure

- ❑ Determine the lengths of cable required for each run and route the unterminated cables.
- ❑ The cables should be routed using conduits and be as far as possible from radio antenna coax cables and anywhere water may collect.
- ❑ Once run and properly secured, terminate the cables with the appropriate RJ-45 connector assembly. See **Figure 1** for RJ-45 pinout.
- ❑ It is highly recommended to verify cabling with a cable tester such as Fluke Networks CableIQ.

Shield termination is unnecessary for this application.

Waterproof Connector Assembly

- ❑ See **Figures 2 and 3** for assembly.
- ❑ SCN-17-02, NCC-17-01, SG-17-XX, and RCEF-B-01 must be slid onto cable prior to terminating the RJ45 connector
- ❑ Use silicone spray on cable jacket to allow SG-17-XX to more easily slide on cable. Failure to use silicone spray may result in improper assembly.
- ❑ Crimp the RJ45.
- ❑ Slide RCEF-B-02 over the RJ45 as shown.
- ❑ Slide all pieces together and hand-tighten SCN-17-02.

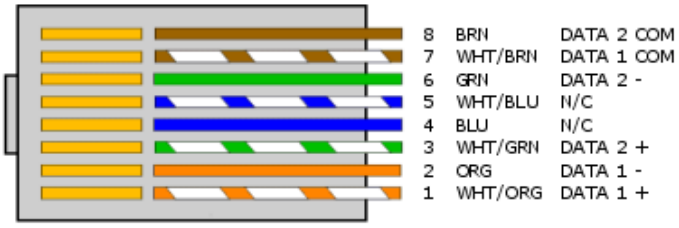

Figure 1 - RJ45 pinout

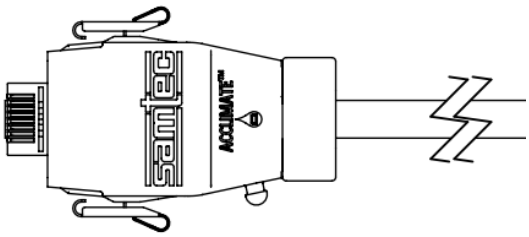

Figure 2 - Waterproof connector

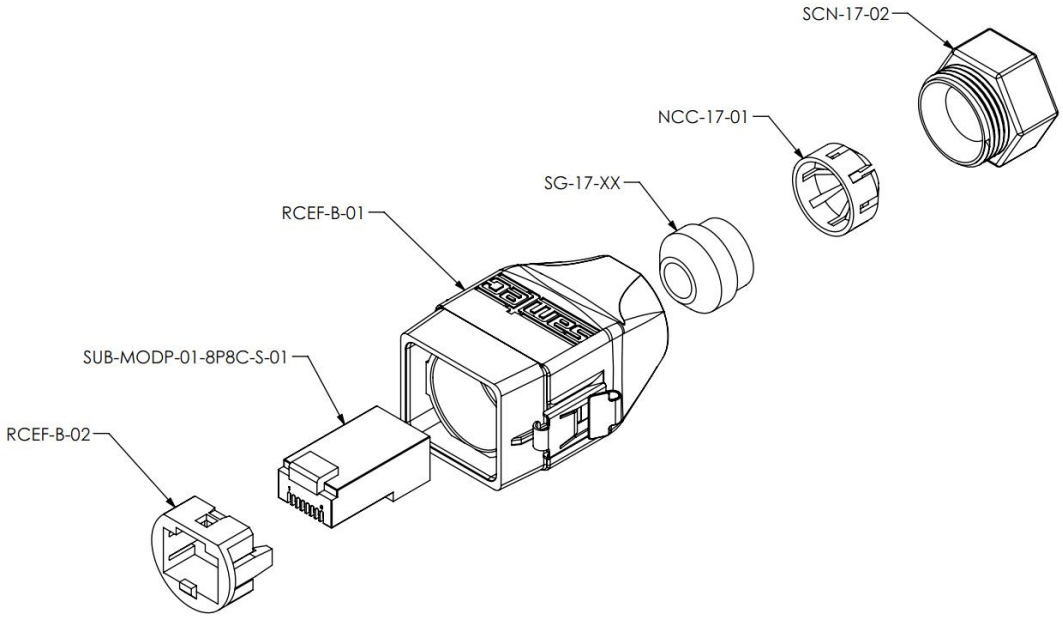

Figure 3 Waterproof connector assembly