

Amphenol Antenna Solutions (AAS) control cables (CC-05-XXX-FM) are compliant to AISG standards and are offered in many different lengths. Each cable has a male and female 8-pin circular connector conforming to IEC 60130-9. These connectors have locking screw rings and are keyed to provide a matching fit to RET units, the PCU-4 controller, and other AISG devices. Each pin is capable of supporting up to 5A. The CC-05-XXX-FM series cables contain 5 conductors to match the mandatory requirements of AISG 1.1 and 2.0. See figures 1.1, 1.2 for more information.



Figure 1.1. CC-05-XX-FM Control Cable and Jumper

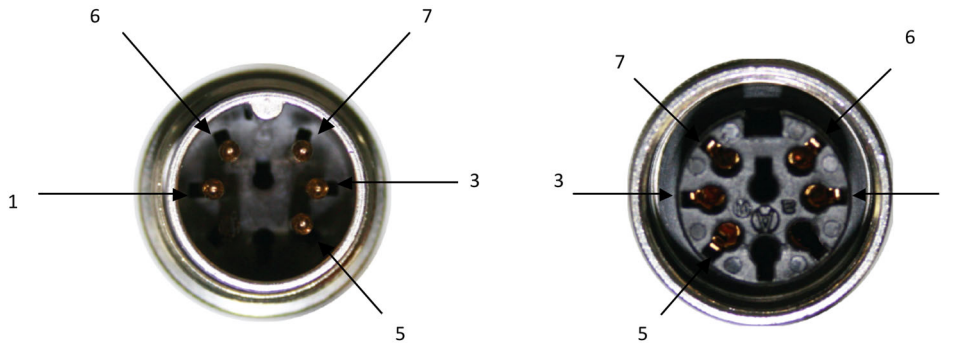


Figure 1.2. AISG Compliant Pin and Socket Assignments

Pin Number	Signal	Requirement	Comments
1	+12V DC nominal	Mandatory AISG 1.1	+10V – 15V dc (Optional in AISG 2.0)
2	- 48V DC nominal	Optional	Not used in AAS RET Systems
3	RS485 B	Mandatory	Supplied voltage Vb.
4	RS485 GND	Optional	Isolated from DC return and ground. (Not used in AAS RET Systems)
5	RS485 A	Mandatory	Supplied voltage Va.
6	10V – 30V DC	Mandatory	+19V – 30V dc (AISG 1.1) and +10V to 30V dc (AISG 2.0)
7	DC return	Mandatory	Not grounded for any device deriving its DC power through this connector.

WARNINGS

1. Male AISG connector should be towards the bottom (equipment or component) end, and the female towards the tower, or RET, side.
2. Connectors should be hand tightened only. Over-tightening by wrench can shear pins off of internal components.
3. Do not cut cable to change genders.
4. Weatherproofing is NOT required.

INSTALLING CC-05-XXX-FM Control Cables and Jumpers

1. Secure the FEMALE control cable connector to the RET or TMA unit. The connector at the base station, or controller end, should always be male. Or,
2. Secure the FEMALE jumper cable connector to the RET unit. Secure the MALE jumper cable connector to the Smart Bias T (Modem), or TMA. See Figures 2.1 and 2.2.
3. It is recommended that the Control Cable be secured at 2M – 3M intervals to the tower structure using cable ties, hangers, or similar fasteners.
4. AAS also recommends grounding the RET systems at the top and bottom of the site.
 - a. Top: Grounding by MODEM20x or similar Smart Bias-T, lightning protection unit, TMA, or third party grounding kit.
 - b. Bottom: Grounding by MODEM10x or similar Smart Bias-T, lightning protection unit, or third party grounding kit.

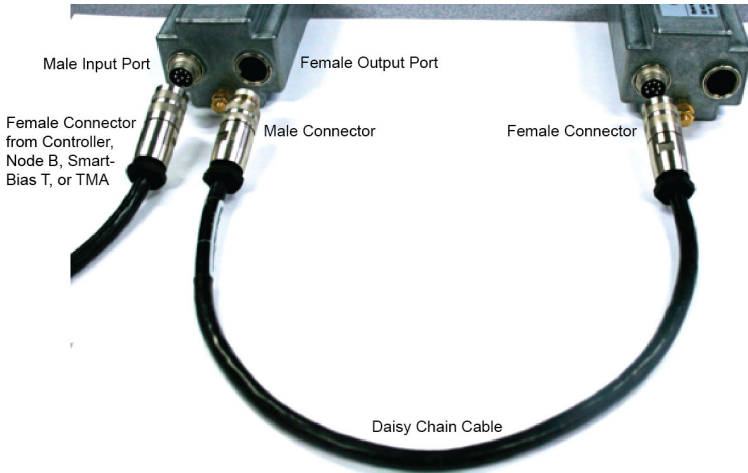


Figure 2.1 Connecting to AAS RET Units

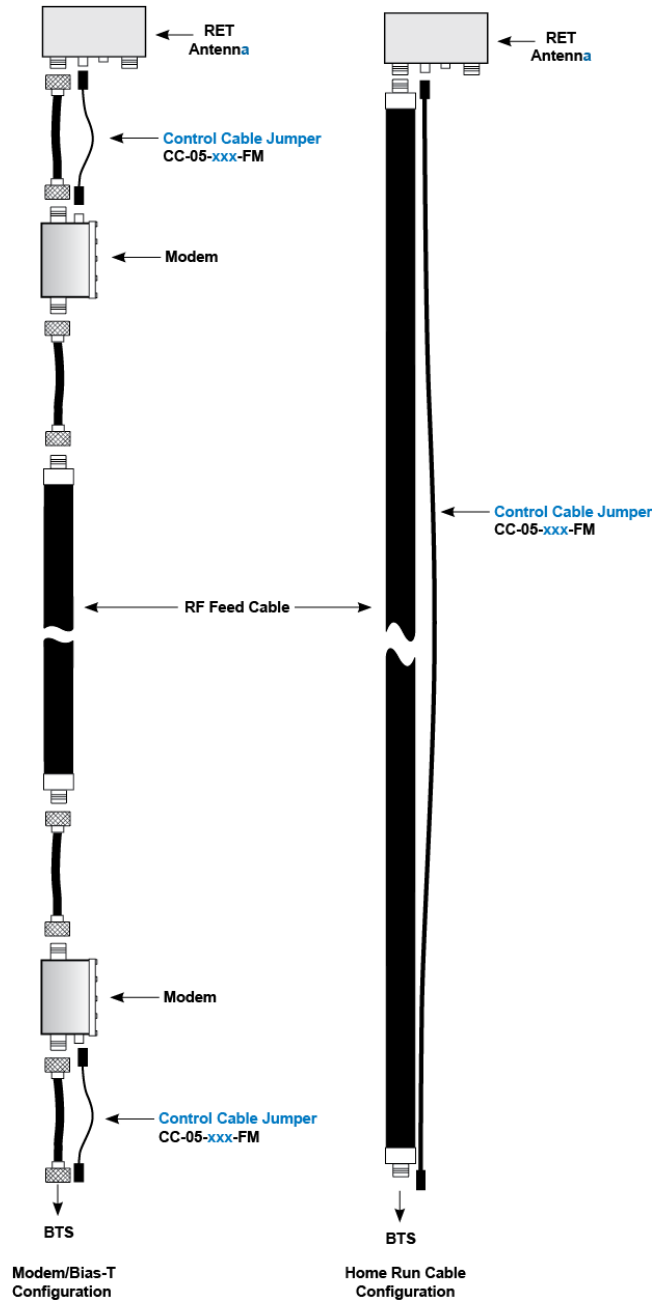


Figure 2.2. Home Run and Smart Bias-T AISG Cabling Configurations



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