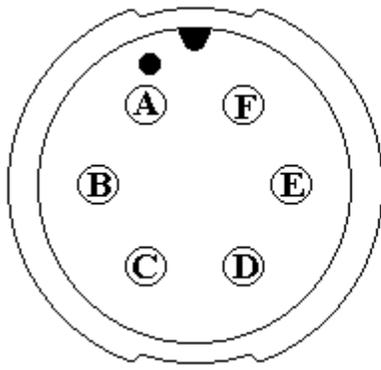
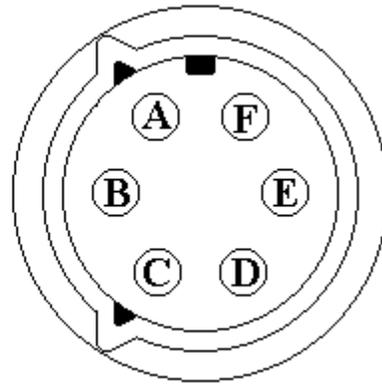


MSTL Customer Cable Test Procedures



DRY END



WET END

TOWFISH CABLE

RED	A	Left channel data and power to towfish (+28 Vdc)
	B	Left channel return
BLACK	C	Right channel data
	D	Right channel return
WHITE	E	High/Low frequency control power (+5 Vdc)
	F	Control power return

Cable Symptom	Possible Cable Problem
Towfish is connected but not transmitting	Left cable channel broken or shorted, or saltwater intrusion
Towfish fuse fails	Left cable channel shorted, or has saltwater intrusion
No right channel data	Right cable channel open or shorted
Heavy right channel noise	Leakage between right channel conductors
No response when switching to high frequency (dual freq. only)	Control channel open or shorted

TESTING DIRECTIONS:

End to End:

Test each individual cable conductor from one end of the cable to the other to check for broken conductors.

- The cable should have a resistance around 8.2Ω per 100meters (2.5Ω per 100 feet) for the data channels, and 2.1Ω per 100meters (0.64Ω per 100 feet) for the return channels.

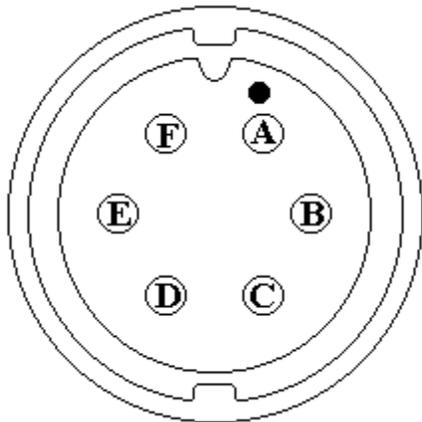
- Earlier generation cables may have a slightly different resistance, due to different cable type, but the data channels will still have a higher resistance per meter than the return channels.
- Pigtails will have very low resistance due to their short length.
- A break will have infinite resistance from end to end, or possibly a very high resistance.

Conductor to Conductor:

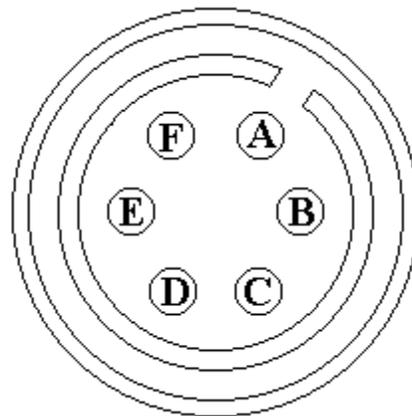
This test can be done from either end if the cable passes the end to end test. Test each conductor to each of the other conductors to check for cable shorts or leakage.

- A perfect cable will have infinite resistance between conductors, meaning each conductor is completely separate from all others.
- A very low resistance between one conductor and any other conductor indicates a short.
- The resistance of a short should be similar to the end to end check. A higher resistance between conductors (but not infinite resistance), may indicate saltwater intrusion or other cable damage.
- A short is most likely to occur between a data channel and it's return channel.

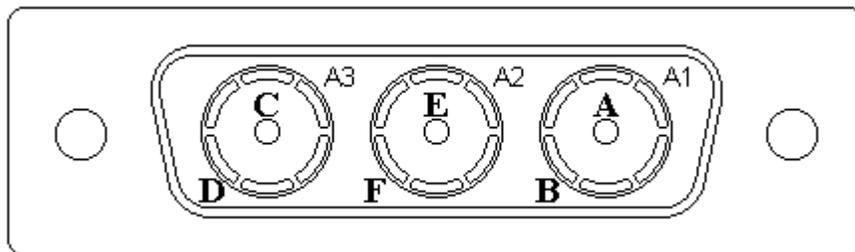
If a cable is tested and is fine, be sure to check the pigtail also!



Pigtail (Cable Side)



Splashproof Pigtail (Computer Side)



Standard Pigtail (Computer Side)