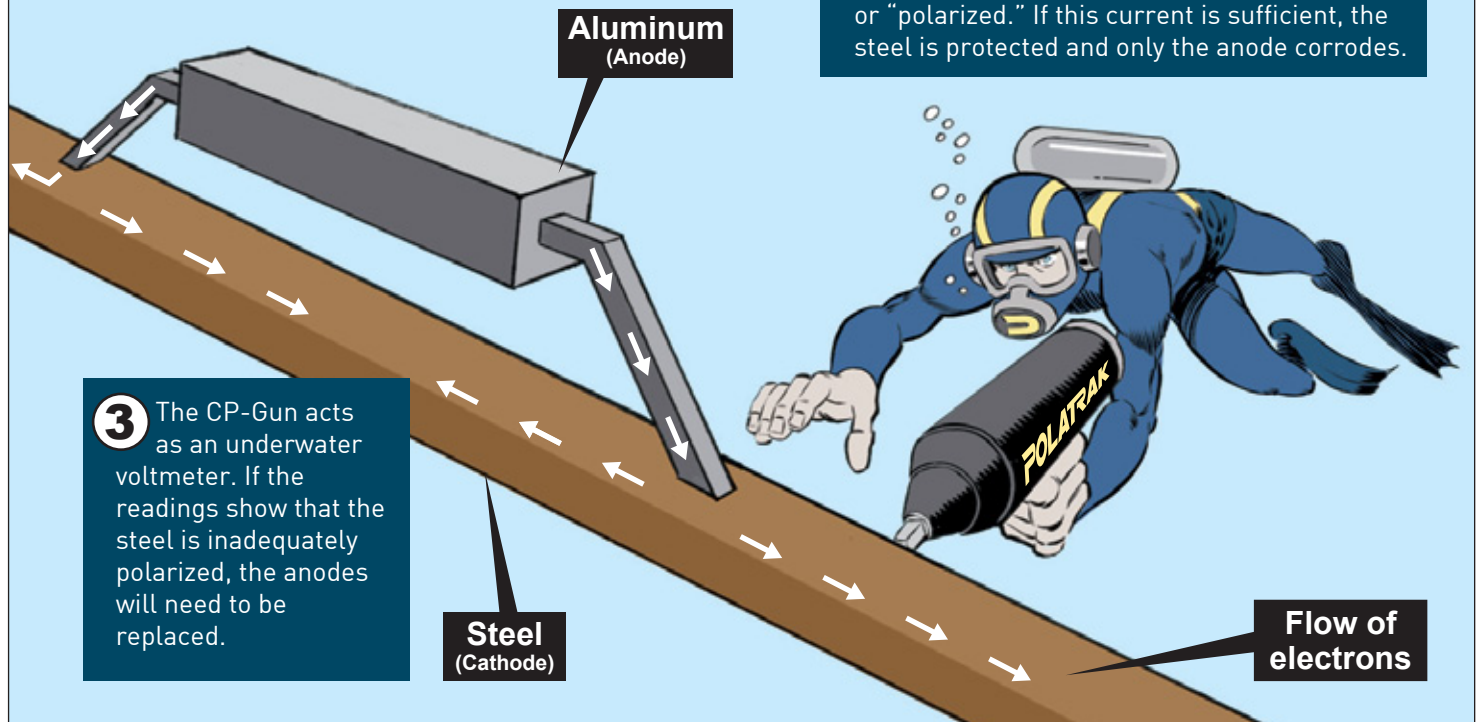


## WHAT IS A CP-GUN USED FOR?

- 1** Subsea steel structures are protected from corrosion by anodes, which are large chunks of aluminum or zinc. This is known as cathodic protection (CP).

- 2** In seawater, electrons flow from anode to steel, creating a small electrical current. As a result, the steel becomes more negative, or "polarized." If this current is sufficient, the steel is protected and only the anode corrodes.

- 3** The CP-Gun acts as an underwater voltmeter. If the readings show that the steel is inadequately polarized, the anodes will need to be replaced.



## WHY ARE THERE TWO NUMBERS DISPLAYED?



It's two meters measuring the same thing; the numbers should match. That way, if one electrode stops working, the diver can still complete the survey.

## WHAT DO THE NUMBERS MEAN?

Readings are displayed for the spot where the CP-Gun's tip stabs the steel. These numbers – called "potentials" – show whether the steel in that area is protected:

Over -1100 mV	Anode potential
-950 mV to -1100 mV	Very good protection
-850 mV to -950 mV	Good
-800 mV to -850 mV	Okay
-700 mV to -800 mV	Bad
-650 mV to -700 mV	No protection

Low readings mean that the sacrificial anodes need replacement. Without replacement, the structure will corrode until it's unusable.

