

## PLAR (Private Line Automatic Ringdown)

The term PLAR (private line automatic ringdown) was used to distinguish this service from its predecessor service PLMR (private line manual ringdown) back in the days of the crank operated telephone.

Today, these services, also known as “hot line”, are used by the military, the stockbrokers, and telephone system installers. Some hotels and car rental agencies install PLAR at transportation terminals to attract visitors. The goal is to establish voice communication as quickly as possible. The famed “hot line” between the White House and the Kremlin during the cold war years happened to be a teletypewriter, not PLAR.

In PLAR operation, two telephones are dedicated for point-to-point voice communication. When both phones are idle, “on-hook”, all is quiet. When a phone at one end is picked up, “off-hook”, the phone at the other end would instantly ring to alert the other end to pick up. Waiting for dial tone and dialing a number are not needed, thus saving valuable time. When both phones are off-hook, ringing stops and voice communication is established. When either phone is placed back on-hook, the voice communication is taken down. The system remains in this suspended state until both phones are back on-hook.

For PLMR, the same sequence holds, except no automatic ringing. In this case, after the phone at one end is picked up, the user must turn a crank vigorously to cause the phone at the other end to ring. This is reminiscent of telephone scenes in very old movies.

The traditional installation for PLMR is to use two crank type telephones with integral talking battery connected by a copper pair. Such installations are still used by the military in certain countries, which I will not name. For PLAR, in addition to copper pair, ringing generators are needed.

PLAR can be provided via a digital transmission system, such as T1 or E1. Since the Loop Telecom FXS plug-in cards have loop closure detectors and ringing generators, this card can be configured for PLAR operation. The main chassis could be the Loop-V 4200 or the Loop-AM 3440. When used for PLAR, the Loop FXS card is compatible with industry standard PLAR cards.

For diehards insisting on having PLMR, a special card must be designed. This is because the card needs both ringing detector and ringing generator.

During WWII, there was the story of a US Signal Corp soldier stringing wires across the front lines. Meanwhile, General Dwight Eisenhower was anxiously waiting for word of the battle situation. He saw the PLMR telephone in his command tent and started to turn the crank to see if he could get any news. The ringing current went right across the hands of the soldier. He yelled out an expletive and, not knowing who was at the other end, he attached his field test telephone to the wires. Then he told in no uncertain terms to the person who shocked him:

“Damn you, son-of-a-bitch. You almost killed me. Now lay off this phone until I tell you its ready.”

Eisenhower apologized, identified himself, and then thanked the soldier for his bravery. Years later, this soldier related this story while he was a distinguished staff member at Bell Laboratories.