Data Retrieval
Using a Phone-to-RF Network System

A telephone-to-RF network allows access of distant RF networks by telephone modem. The base station computer calls the COM200 modem in the phone-to-RF base station. Transmissions are then converted to wireless UHF- or VHF-radio signals allowing each station in the RF network to be monitored, reprogrammed, or have data downloaded. Radio telemetry requires FCC approval; contact Campbell Scientific for details. If cellular coverage is available, our COM100 Cellular Telephone Package may also be an option.

Equipment Requirements

At Computer Base Station
1) User-supplied IBM-compatible computer running PC208W or PC208 Software.
2) Modem cable (7026 for 9-pin serial ports, or equivalent, SC25PS for 25-pin serial ports)
3) Customer-supplied Hayes-compatible modem.
4) Connection to a switched telephone network.

At Phone-to-RF Base Station
5) Model 6362 (for use with enclosure) or Model 2372-01 Joslyn Telephone Surge Protector, if the telephone company does not install a surge protector.
6) COM200* Telephone Modem with SC12 cable is included with the COM200. The telephone line can be connected to the COM200 by RJ-11C phone jack or screw terminals.

A phone-to-RF base station that includes a PS512M power supply, the COM200, and a radio transceiver. The equipment is housed in an ENC 12/14 enclosure.
7) PS512M* 12 VDC sealed rechargeable power supply with charging regulator and null modem ports. Must recharge the PS512M with AC power or a solar panel. If measurement capability is required at the phone-to-RF base, a CR500, CR10(X), or CR23X datalogger and a PS12LA power supply replace the PS512M.

8) RF modem for radio telemetry; includes an SC12 cable.

9) UHF or VHF transceiver; includes RF95-to-transceiver cable. Frequency designation must be assigned by the FCC before the radios can be ordered.

10) Antenna cable, model COAX NF-L or COAX NM-L.

11) Omnidirectional or Yagi (directional) antenna; consult Campbell Scientific for further details.

12) ENC 12/14 or 16/18 enclosure.

At Repeater Sites
13) CM10 tripod or UT10 tower, ENC 12/14 enclosure, MSX10 solar panel, PS512M power supply, RF95 modem, UHF or VHF transceiver, antenna cable, antenna (usually omni-directional).

At Measurement Site(s)
14) CM10 tripod or UT10 tower, a CR500, CR10(X), or CR23X datalogger, ENC 12/14 enclosure, MSX10 solar panel, PS12LA power supply, RF95 modem, UHF or VHF transceiver, antenna cable, antenna (usually directional Yagi). Up to 254 repeater/field sites can be accessed over a single radio frequency.

* Older COM200s and PS512Ms may require a 10704 power adapter. Contact our applications engineers for compatibility questions.