

**Instructions for PLC Excel Files  
(July 2005)**

**STATION IDENTIFICATION:**

**Organization ID Code:** Enter your organization's ID code found on your PLC1.

**Station ID Code:** Assign a substation identifier code of 1-5 alphanumeric characters. You may assign whatever characters you wish, but you must always use precisely this code when referring to this station in the future, and elsewhere in your data such as the Transmitter Associated with receiver information. No two stations within your utility may have the same code. Zeros and blanks are different characters. Thus, stations "00123" and "123" are not the same.

**Date:** Enter today's date in the form MM DD YY

**Name of Station:** Enter the stations name.

**State:** Enter the official United States Postal Service two-letter abbreviation for your state.

**Latitude:** Enter the latitude in degrees, minutes and seconds at which the station is located.

**Longitude:** Enter the longitude in the degree, minutes and seconds at which the station is located.

**TRANSMITTER IDENTIFICATION:**

The transmitter identification section is for the PLC transmitter specifications.

**Transmitter ID:** The transmitter identification code consists of three characters. The first character is a "T" and it is followed by a two-digit number from 01 to 99. In most cases, you will make the first transmitter station "T01", the second "T02", etc. You may use any two-digit number. The numbers must be continuous. However, no two transmitters at the same station may have to same ID. In other words, you cannot report two "T01s" at any station. In the case of multiple channel equipment, report each channel as a separate transmitter with its own, unique, ID

**Carrier Frequency:** Enter the carrier frequency, to the nearest 0.01 kHz, at which the transmitter operates.

**Line Voltage:** Enter the nominal voltage in kV of the transmission line over which the PLC transmitter operates. The leading zero is optional.

**Coupling Mode:** Enter the method of coupling the transmitter to the line. Use one of the following codes:

Phase to Phase - PP  
Static Wire -SW

Phase to Ground - PG  
Open Wire – OW

Line-to-Line -LI

**Power:** Enter the output power of the transmitter in watts. This is the manufacturer’s stated nominal power output. For multi-channel systems, this is the nominal power output per channel. The first two boxes are for this single wattage Channel. The three additional boxes are for the boost power if the single transmitter has the capability.

**Modulation Type:** Enter the type of transmitter modulation using one of the following codes:

Double sideband amplitude modulation	AM
Frequency Modulation	FM
Single Sideband (lower)	LSB
Single Sideband (upper)	USB
Frequency Shift (Continuously Keyed)	FS1
Frequency Shift (Occasionally Keyed)	FS2
Keyed Continuous Wave (normally off Included phase comparison pilot relay)	CW
Phase Modulation	PM

\*\* In normal standby status, the FS2 signal is a continuously unmodulated carrier essential 99% of the time.

**Bandwidth:** Enter the transmitter bandwidth to the nearest 0.01 kHz using the following values. (The table is based on the maximum bandwidth expected).

SSB with 4 kHz nominal spacing	3.60
SSB with 2.5 kHz nominal spacing	2.20
AM double sideband	7.00
FM speech	7.00
Pilot relay with no voice modulator	4.00
Pilot relay with (no voice) directional comparison)	0.10
Frequency shift (FS1) ± 100 Hz shift	0.50
± 250 Hz shift	1.25
± 500 Hz shift	2.50
Frequency shift (FS2) ± 100 Hz shift	0.22
± 250 Hz shift	0.55
± 500 Hz shift	1.10

\*\* For other values of shift, assume full range of shift times 2.50.  
For other values of shift, assume full range of shift times 1.10.

**Function:** Enter the transmitter function code using one of the following:  
(\*\*NOTE: DO NOT include secondary or emergency voice functions).

Voice (including signaling)	Y
Speech-plus	S
Telemeter/Data	T
Control/Supervision	C
Relay	R
Miscellaneous	M

**Transaction code:** The transaction code indicates the nature of the information about the transmitter. Enter the transaction code using one of the following: (All transmitter information entered for the first time will be designated as "A" or "P").

Add in service	A
Add in proposed	P
Correction	C
Delete	D

When deleting (D) a transmitter, you only need to specify information columns Organization ID, Station ID, Date, Transmitter ID, and Transaction Code.

If you are correcting (C) data already in the database, specify information in these columns, plus the data to be corrected.

<b>RECEIVER IDENTIFICATION:</b>
---------------------------------

The receiver identification section is for the PLC receiver specifications.

**Receiver ID:** The receiver identification code consists of three characters. The first character is an "R" and is followed by a two-digit number from 01 to 99. In most cases you will make the first receiver station "R01", the second "R02", and so on, but you may use any two-digit number. The numbers must be consecutive. However, no two receivers at the same station may have the same ID number. In other words, you cannot report two "R01's" at any station. A receiver that receives from more than one transmitter (for example in a simplex carrier telephone system) must be reported as though it were separate receivers, one for each associated transmitter. Therefore, you might have an R01, R02, R03, which are actually the same receiver but with different transmitters. For multichannel equipment, report each channel as a separate receiver.

**Bandwidth:** Enter the receiver bandwidth in kHz. This is the width of the receiver pass band required for successful operations, but outside of which undesirable signals will be substantially attenuated (at least 25 dB). Refer specific questions to the receiver manufacturer.

**Transmitter Associated with Receiver:** The transmitter associated with receiver refers to the transmitter that transmits to this receiver. This information must be precisely the same as the provided information for that transmitter in Organization ID. If that transmitter is located in another utilities substation, you will have to contact that utility to obtain these three items.

**Organization ID:** Enter the Organization ID of the associated transmitter. You may leave these columns blank if the transmitter is in your systems.

**Station ID:** Enter the station ID code for the station at which the associated transmitter is located.

**Transmitter ID:** Enter the associated transmitter's ID.

**Transaction code:** The transaction code indicates the nature of the information about the receiver. Enter the transaction code using one of the following: (All receiver information entered for the first time will be designated as either "A" or "P").

Add in Service	A	Add proposed	P
Correction	C	Delete	D

Organization ID, Station ID, Date, Receiver ID, and Transaction Code. If you are correcting (C) data already in the database, specify information in these columns, plus the data to be corrected.