

# WT4-19D Installation and Operating Instructions

## NEMA 4X Unit, Directional Wireless Modem

### INSTALLATION

1. Mount the WT4-19 in a place that gives its antenna a clear line-of-sight path to the other wireless modem it will be communicating with. It should be mounted at a good height above ground with its antenna elements in a vertical orientation. Vertical orientation is shown in Figure A on the CUSHCRAFT PC YAGI's instruction sheet enclosed with the antenna. **CAUTION:** Direct grounding of the antenna is important for lightning protection. Proper system grounding technique is described in the CUSHCRAFT PC YAGI's instruction sheet enclosed with the antenna.
2. Attach the cable from the antenna to the cable coming from the WT4-19D enclosure. Be sure the connection is tight. If exposed to weather, this connection should be water proofed after the installation has been tested for proper operation. A common silicone sealant applied externally or self-fusing silicone wrap is suitable. Allow a small drip loop near the cable entry in the enclosure.
3. Wire power to the WT4-19D in accordance with the National Electrical Code and any applicable local codes. Required power to the unit is 115VAC 60Hz, with a current draw of approximately 0.1 amperes. Refer to the wiring label inside the WT4-19D cover.
4. Connect the RS485 cable to the appropriate terminals on the WT4-19D printed circuit board. **IMPORTANT:** The RS485 network is a polarized (+/-) system. Take care to maintain consistent polarity of the RS485 wires throughout your installation.
5. Set the jumper on the WT4-19D circuit board for the correct termination of the RS485 line. **IMPORTANT:** Only ONE termination at one end of the RS485 line should be set to the ON position. If the SmartBob SBR11 sensor at the end of the RS485 line has its termination set to ON, then the WT4-19D termination should be set to OFF. If none of the SBR11 sensors have their termination set to ON, all OFF, then the termination on the WT4-19D should be set to ON.

### OPERATION

1. There is a power indicator LED on the power supply circuit board of the WT4-19D. This RED LED should be on steady whenever power is applied.
2. A power switch is located on the modem unit itself near its DB9 connector. This switch must be in the On (up) position.
3. Whenever the WT4-19D is powered-up, a boot-up sequence takes place. You must wait for the boot-up to complete before attempting to operate the system. This takes about 10 seconds.
4. There are three LED indicators on the modem unit itself, located next to the DB-9 connector. The red (bottom) LED indicates power to the modem and blinks during transmit. The green (middle) LED indicates data coming into the modem on its serial port. The yellow (top) LED indicates data going out of the modem on its serial port.
5. The wireless transceiver does not require any other operator actions for operation.

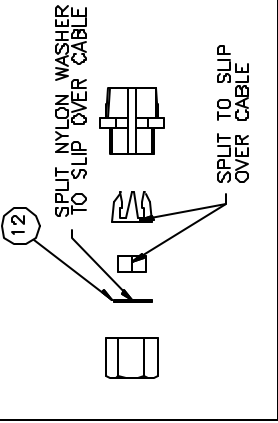
927-0225 Rev B



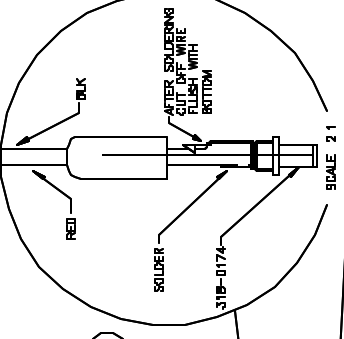
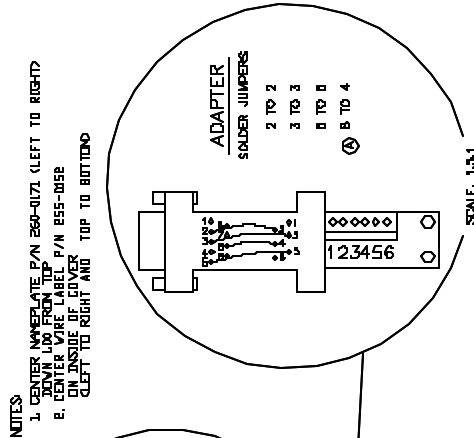
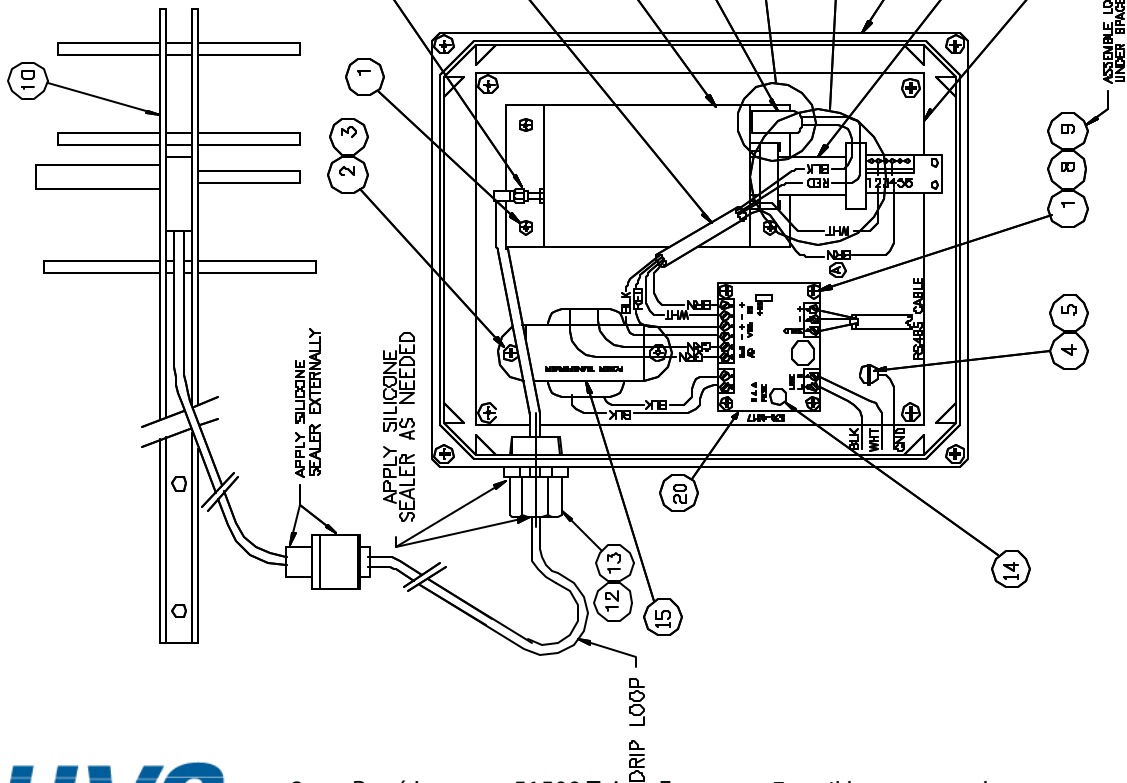
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ITEM NO	QTY	DESCRIPTION	NO. REC'D	MATERIAL
1	1	SCREW, #6	0	
2	2	SCREW, #6	2	
3	2	WASHER, #6	2	
4	1	SLIP WASHER, #6-#10	1	
5	1	SCREW, #6, GRN GROUND	1	
6	1	ENCLOSURE	1	
7	1	SPACER	1	
8	4	WASHER, #6	4	
9	1	ANTENNA	1	
10	1	POWER PLUG	1	
11	1	NYLON WASHER	1	
12	1	STRAIN RELIEF	1	
13	1	FUSE, 400A	1	
14	1	TRANSFORMER	1	
15	1	CABLE, 5 CONDUCTOR	.893	
16	1	CABLE, ANTENNA	1	
17	1	RADIO METER	1	
18	1	ADAPTER (SBU-0048)	1	
19	1	POB, POWER SUPPLY	1	



- NOTES
- CENTER NAMEPLATE P/N 256-0174 (LEFT TO RIGHT)
  - ADJUST TOP POSITION OF P/N 256-0174
  - ON INSIDE OF POWER SUPPLY TOP TO BOTTOM
  - LEFT TO RIGHT AND TOP TO BOTTOM

**DIMENSIONS ARE NOT ACCUMULATIVE**

APPROVED	DATE	TITLE
SJS	1-11-93	ASSY. DRAWING, WIRELESS WT4-18D W/YAGI ANTENNA
DESIGNED		BY
DRAWN		NO
CHECKED		SIZE
ENGINEERING		NO
DO NOT SCALE DRAWING		DMG
		NO
		B
		5300421

1 PLACE	2 PLACE	3 PLACE	ANGLES
±	±	±	±
UNLESS OTHERWISE NOTED DECIMAL TOLERANCES ARE			
MATERIAL			
FINISH			

ECO-250401	DB	4-5	DATE
ECO-230802	DB	10-93	
SYM	REVISION	APPR	DATE