

HPT-200 WIRE CRIMP PULL TESTER

DMC DANIELS
MANUFACTURING
CORPORATION
DATASHEET

1. DESCRIPTION

The Alphasatron HPT-200 is a portable tool for making pull type force measurements to terminated wire samples, wherever they are required. It is only recommended for testing tensile requirements up to 200 pounds.

2. SAFETY

The Alphasatron HPT-200 Wire Crimp Pull Tester is a force measurement device, and operators should wear safety glasses for eye protection because foreign objects can be thrown from the piece under test.

To prevent fire and shock hazard, do not expose this equipment to moisture. Always unplug the AC line cord prior to servicing.

Do not exceed the rated force capacity 200 lbs. of the HPT-200. The unit may be damaged, and the operator or others in the immediate vicinity injured under extreme force conditions.

3. SETUP

The Alphasatron HPT-200 is shipped from the DMC factory assembled, calibrated, and tested. For best results, users should familiarize themselves with the setup and operation of the unit before placing it in service.

The HPT-200 is designed for optimal performance and durability. The user should keep in mind, however, that as a load sensing device, the HPT-200 should be handled with care. Dropping either the meter or handle assemblies can cause damage to the unit. Applying excessive force to the load cell, either by exceeding 200 pounds during a pull test, or by dropping the handle assembly, can cause irreparable damage to the load cell.

4. CHARGING

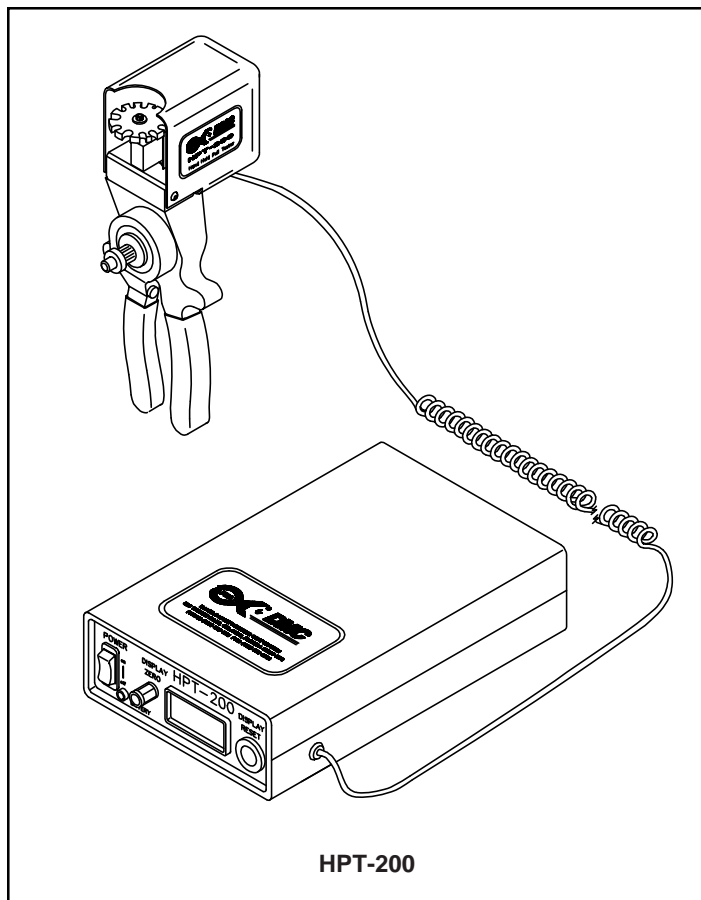
Charge the unit, using only the AC Adaptor supplied. A minimum of 4 hours charging is recommended before use. It is best to unplug the unit after full charge. Tests can be performed while charging the unit.

When a sufficient amount of energy is expended from the battery the low battery indicator will illuminate. Accurate testing can still be performed, but charging is recommended. When the voltage output of the battery approaches a level where incorrect readings are possible, the unit will automatically shut off.

It is recommended that the unit be unplugged when fully charged and not in use.

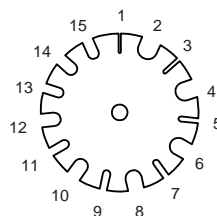
5. OPERATION

Select the correct "Upper Grip" for the wire/terminal lead to be tested. Rotate the upper grip and find a slot that is the same width as the wire diameter, or one increment larger. Turn the meter on and the display will indicate that the unit is operational. Allow 5 minutes warm-up prior to operating the unit.



UPPER GRIP

Standard Terminal Grip



SLOT DIMENSION			
No.	Size (in.)	No.	Size (in.)
1	.031	9	.094
2	.250	10	.188
3	.047	11	.110
4	.236	12	.172
5	.063	13	.125
6	.218	14	.158
7	.080	15	.141
8	.203		



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Zero the display by alternatingly turning the zero knob and momentarily pressing the reset toggle. The display should read -00.0 or 00.0. It is important to push the reset toggle before taking the next reading.

Depress the cam shaft button, located on the center of the handles, and insert the end of the wire sample in the hole located in the cam. Release the cam button. For best results, wrap the wire at least one full clockwise turn around the cam shaft. Insert the wire/terminal lead in the pre-selected slot on the Upper Grip. Begin to compress and release the handles slowly.

After the wire has separated from the termination, the tensile force required for the break can be read directly from the meter assembly. Remove any spent parts from the upper grip, and depress the button on the cam shaft to remove the wire.

6. FUNCTIONAL CHECK

The HPT-200 Wire Crimp Pull Tester is factory calibrated with equipment traceable to the National Institute of Standards and Technology (NIST). We recommend recalibrating the unit at intervals not to exceed one year in duration.

The functional check is executed using the R-cal switch built into the unit. The R-cal switch is located on the back of the unit, and its R-cal value is on the sticker applied to the bottom of the unit.

A functional check can be performed at any time:

1. Allow HPT-200 to warm up for 5 minutes.
2. Depress and hold the reset button.
3. Zero the display by turning the zero knob fully counter clockwise. Press the reset button, the display reads -1.0. Turn the knob clockwise until the display reads -00.0 or 00.0..
4. Press the R-cal button on the back of the unit. Press the reset button to zero the display. Repeat this process several times to assure a repeatable value. The display value (R-cal # X .005 = tolerance

R-cal # plus & minus tolerance = range)
should be within +/- .5% of the value recorded on the back of the unit.

EXAMPLE: R-cal = 140.0

$$140 \times .005 = 0.7$$

$$139.3 \text{ to } 140.7 = \text{range}$$

5. If any of the procedures in steps 2-4 do not produce the expected results, the unit should be returned to DMC for repair and recalibration.

7. SERVICE

Repair and calibration services for the HTP-200 Wire Crimp Pull Tester is available from Daniels Manufacturing Corporation. Spare parts are also available.

Should it be necessary to return the unit for service, please ship to the address on this bulletin, freight prepaid. Enclose a letter, or purchase order with company name, address, phone number, the individual to be contacted and the reason for return.

