

Manual Supplement

Manual Title: **190 Series II Service**
Fluke 190-062, -102, -104, -202, -204, -502, -504
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This supplement contains information necessary to ensure the accuracy of the above manual.

Change #1, 134

On page 4-19, replace Table 4-7 with:

Table 4-7. Input A, B, C, D Frequency Measurement Accuracy Test

Model	Time base	5502A-SC... MODE	Voltage	Frequency	Input A, B Reading
All	20 ms/div	wavegen, sine	600 mVpp	16 Hz	15.90 to 16.10
190-062	20 ns/div	levsine	600 mVpp	60 MHz	59.68 to 60.32
190-104 190-102	20 ns/div	levsine	600 mVpp	100 MHz	99.3 to 100.7
190-204 190-202	20 ns/div	levsine	600 mVpp	200 MHz	198.8 to 201.2
190-502 190-504 ^[1]	10 ns/div	levsine	600 mVpp	500 MHz	497.3 to 502.7
[1] Due to the decreased sampling rate with more than 2 inputs on, the 500 MHz check of a 190-504 must be done with only 2 channels on. Check with A & B on, C & D off, then with A & B off, C & D on.					

Change #2, 413

On page 4-10, replace Table 4-2 with:

Table 4-2. Vertical Accuracy Verification Points Allowable 5502A

Range	Initial 5502A Setting, V ac, sine, 50 Hz	Allowable 5502A Output for trace amplitude of 6 divisions
2 mV/div	4.243 mV	4.063 to 4.423
5 mV/div	10.606 mV	10.313 to 10.899
10 mV/div	21.213 mV	20.626 to 21.800
20 mV/div	42.426 mV	41.252 to 43.600
50 mV/div	106.06 mV	103.13 to 108.99
100 mV/div	212.13 mV	206.26 to 218.00
200 mV/div	424.26 mV	412.52 to 436.00
500 mV/div	1.0607 V	1.0314 to 1.0900
1 V/div	2.1213 V	2.0626 to 2.1800
2 V/div	4.2426 V	4.1252 to 4.3600
5 V/div	10.606 V	10.313 to 10.899
10 V/div	21.213 V	20.626 to 21.800
20 V/div	42.426 V	41.252 to 43.600
50 V/div	106.06 V	103.13 to 108.99
100 V/div	212.13 V	206.26 to 218.00

Change #3, 643, 655

Remove Chapter 2: **Specifications**

Complete specifications are at www.fluke.com. See the *ScopeMeter 190 Series II Product Specifications*.

On page 3-5, Table 3-1, add the following and replace the Note section with:

LENS MDA-510, FOR SERVICE	5035464		
LENS MDA-550, FOR SERVICE	5035473		
HANDSTRAP MDA, FOR SERVICE	5035486		
KEYPAD MDA, FOR SERVICE	5035499		
<p>[1] Later PCA sub code 5 or 6 [2] Early PCA sub code 2 or firmware version ≤10.</p> <p>Check that the serial number is ≥25375604. If yes, use the later connectors. If <25375604, evaluate the firmware and subversion. To find the version, press in sequence, USER and F3 VERSION & CAL. If the firmware version is <V11.00, use the early connectors. If the firmware is ≥V11.10, check under subversions that the last datablock is x5xx (for instance 2516). This value determines that the higher frequency adjust point should be used.</p> <ul style="list-style-type: none"> • for x5xx or x6xx: use the later connectors • for x2xx: use the early connectors 			

On page 4-3, Table 4-1 add:

MDA-510	Four 500 MHz Scope Inputs (BNC), With Motor Drive Analysis
MDA-550	Four 500 MHz Scope Inputs (BNC), With Motor Drive Analysis

On page 5-3, under step 3, replace the first bullet with:

- 5 or 6: The Final Calibration for V11.10 and later procedure should be done. Use the levels in Red.

On page 5-15, Table 5-2, page 5-17, Table 5-3 and page 5-19, Table 5-4 replace the 3 occurrences in each table:

From: Red subversion 5; Blue Subversion 2
 To: Red subversion 5 or 6; Blue Subversion 2