

MODIFICATION RECOMMENDED

34461A-02

S E R V I C E N O T E

Supersedes:
None

34461A 6 ½ Digit Multimeter

Serial Numbers: A table of all affected serial numbers is provided at the end of this service note. Use an electronic search/find to determine if the serial number of your DMM is included in the list.

Various instruments may exhibit an accelerated DCV drift rate which exceeds product specifications.

Parts Required:

P/N	Description	Qty.
None		

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: MODIFICATION RECOMMENDED		
ACTION ON SPECIFIED FAILURE CATEGORY: X AGREEABLE TIME	STANDARDS LABOR: 0.5 Hours	
LOCATION X CUSTOMER INSTALLABLE CATEGORY: <input type="checkbox"/> ON-SITE (active On-site contract required) X SERVICE CENTER <input type="checkbox"/> CHANNEL PARTNER	SERVICE <input type="checkbox"/> RETURN INVENTORY: <input type="checkbox"/> SCRAP X SEE TEXT	USED <input type="checkbox"/> RETURN PARTS: <input type="checkbox"/> SCRAP X SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: October 1st, 2015	
<input type="checkbox"/> Calibration Required X Calibration NOT Required	PRODUCT LINE: GM AUTHOR: JD	
ADDITIONAL INFORMATION:		

Situation:

Approximately 10% of the 34461A DMMs identified at the end of this service note may exhibit an accelerated DCV drift rate which exceeds the product specification. 34461As whose DCV drift exceeds the limits contained in this service note must be replaced.

Solution/Action:

The following instructions apply to customers who are 'self-maintainers' and have the equipment necessary to perform the procedure. Customers who do not have the required equipment (or equivalent) should return the instrument to a Keysight Service Center for testing. The service center should also be provided with the date the instrument was placed into service.

Equipment Required:

A metrology grade 10 VDC source (Fluke 5720, Fluke 5700, Fluke 732, or equivalent).

Procedure:

1. Determine the date the DMM was placed into service.

The limits against which the DCV drift is measured are relative to when the 34460A was placed into service.

Date of Test: _____ (today's date)

Start of Use: _____

Note – if the 34461A has been re-calibrated within its first year of operation, use the date of the last calibration as the 'Start of Use' date.

2. Select the test limits.

Date of Test – Start of Use: \leq 3 months	90 Day Specification \pm (% of reading + % of range) 0.0020 + 0.0005		
	Lower Limit	Measured	Upper Limit
	9.99975V		10.00025V

Date of Test – Start of Use: > 3 months, < 12 months	1 Year Specification \pm (% of reading + % of range) 0.0035 + 0.0005		
	Lower Limit	Measured	Upper Limit
	9.9996V		10.0004V

3. Turn on the 34461A and allow the instrument to warm up for 1 hour.
4. Set the 34461A function to DCV, the range to 10 VDC, the aperture to 10 NPLC, and Auto Zero On.
5. Connect a Fluke 5720, Fluke 5700, Fluke 732, or equivalent to the HI and LO Input of the 34461A and set the source to output 10 VDC.
6. Set the 34461A to make a Single measurement:

Acquire → Trigger Settings → Trg Src → Single
7. Once the source output has settled, press Single on the 34461A.
8. Record the reading and compare it to the test limits based on the period between the date of test and the start of use.
9. If the measured voltage is within the test limits the unit can be returned to service.
10. If the measured voltage exceeds the test limits, the instrument must be replaced. Contact your Keysight Sales and Service Office and mention the 34461A has failed the drift test per Service Note 34461A-02 and must be replaced. Provide the serial number of the instrument and indicate which options (GPB, SEC) are installed. An instrument with the GPIB option will have the connector on the back of the instrument. The security option (if installed) will be listed in the 'About' window by pressing:

Shift → Help → About

Note that the defective instrument will be exchanged with a new instrument and new serial number. The serial number of the defective instrument will not be transferred.

Affected Serial Numbers:

MY53202303	MY53202800	MY53202897	MY53203002	MY53203443	MY53204129
MY53202307	MY53202801	MY53202898	MY53203007	MY53203741	MY53204130
MY53202309	MY53202802	MY53202899	MY53203009	MY53203742	MY53204131
MY53202310	MY53202803	MY53202900	MY53203010	MY53203753	MY53204132
MY53202311	MY53202804	MY53202901	MY53203020	MY53203755	MY53204133
MY53202312	MY53202805	MY53202902	MY53203022	MY53203758	MY53204134
MY53202313	MY53202806	MY53202903	MY53203025	MY53203979	MY53204136
MY53202314	MY53202807	MY53202904	MY53203026	MY53203980	MY53204138
MY53202315	MY53202808	MY53202905	MY53203028	MY53203986	MY53204139
MY53202316	MY53202809	MY53202906	MY53203029	MY53203987	MY53204140
MY53202317	MY53202810	MY53202907	MY53203030	MY53203988	MY53204141
MY53202319	MY53202811	MY53202908	MY53203031	MY53203991	MY53204142
MY53202320	MY53202812	MY53202909	MY53203032	MY53203992	MY53204143
MY53202321	MY53202813	MY53202911	MY53203033	MY53203993	MY53204144
MY53202322	MY53202814	MY53202912	MY53203034	MY53203995	MY53204146
MY53202323	MY53202815	MY53202916	MY53203035	MY53203996	MY53204147
MY53202324	MY53202816	MY53202917	MY53203036	MY53204000	MY53204148
MY53202325	MY53202817	MY53202921	MY53203037	MY53204001	MY53204149
MY53202326	MY53202818	MY53202922	MY53203038	MY53204009	MY53204158
MY53202327	MY53202819	MY53202923	MY53203041	MY53204010	MY53204159
MY53202328	MY53202820	MY53202926	MY53203062	MY53204012	MY53204164
MY53202329	MY53202821	MY53202927	MY53203070	MY53204013	MY53204166
MY53202330	MY53202822	MY53202931	MY53203092	MY53204016	MY53204167
MY53202331	MY53202823	MY53202932	MY53203095	MY53204017	MY53204170
MY53202332	MY53202824	MY53202933	MY53203099	MY53204019	MY53204171
MY53202333	MY53202825	MY53202935	MY53203109	MY53204020	MY53204173
MY53202334	MY53202826	MY53202936	MY53203128	MY53204032	MY53204174
MY53202747	MY53202827	MY53202939	MY53203134	MY53204081	MY53204175
MY53202749	MY53202828	MY53202940	MY53203140	MY53204083	MY53204177
MY53202753	MY53202829	MY53202942	MY53203141	MY53204084	MY53204182
MY53202756	MY53202830	MY53202945	MY53203152	MY53204085	MY53204183
MY53202758	MY53202831	MY53202946	MY53203158	MY53204086	MY53204185
MY53202759	MY53202832	MY53202957	MY53203171	MY53204087	MY53204191
MY53202760	MY53202837	MY53202959	MY53203172	MY53204088	MY53204192
MY53202762	MY53202838	MY53202960	MY53203174	MY53204089	MY53204193
MY53202763	MY53202839	MY53202961	MY53203175	MY53204092	MY53204195
MY53202764	MY53202842	MY53202964	MY53203176	MY53204093	MY53204201
MY53202765	MY53202845	MY53202965	MY53203177	MY53204095	MY53204206
MY53202766	MY53202846	MY53202966	MY53203186	MY53204096	MY53204276
MY53202767	MY53202847	MY53202967	MY53203187	MY53204097	MY53204277
MY53202768	MY53202848	MY53202968	MY53203188	MY53204098	MY53204278
MY53202769	MY53202849	MY53202969	MY53203191	MY53204099	MY53204279
MY53202770	MY53202871	MY53202970	MY53203207	MY53204100	MY53204285
MY53202773	MY53202872	MY53202977	MY53203208	MY53204101	MY53204286

MY53202774	MY53202873	MY53202978	MY53203209	MY53204102	MY53204291
MY53202777	MY53202875	MY53202979	MY53203211	MY53204103	MY53204293
MY53202779	MY53202877	MY53202980	MY53203212	MY53204104	MY53204294
MY53202783	MY53202878	MY53202981	MY53203213	MY53204105	MY53204295
MY53202784	MY53202881	MY53202982	MY53203214	MY53204106	MY53204296
MY53202785	MY53202882	MY53202985	MY53203248	MY53204111	MY53204298
MY53202786	MY53202883	MY53202986	MY53203318	MY53204112	MY53204299
MY53202787	MY53202884	MY53202987	MY53203324	MY53204114	MY53204300
MY53202788	MY53202885	MY53202989	MY53203334	MY53204115	MY53204305
MY53202789	MY53202886	MY53202990	MY53203361	MY53204117	MY53204306
MY53202790	MY53202887	MY53202992	MY53203365	MY53204118	MY53204309
MY53202791	MY53202888	MY53202993	MY53203369	MY53204119	MY53204310
MY53202792	MY53202889	MY53202994	MY53203409	MY53204121	MY53204312
MY53202793	MY53202890	MY53202995	MY53203414	MY53204122	MY53204319
MY53202794	MY53202891	MY53202996	MY53203417	MY53204123	MY53204321
MY53202795	MY53202892	MY53202997	MY53203418	MY53204124	MY53204323
MY53202796	MY53202893	MY53202998	MY53203430	MY53204125	MY53204326
MY53202797	MY53202894	MY53202999	MY53203431	MY53204126	MY53204345
MY53202798	MY53202895	MY53203000	MY53203434	MY53204127	MY53204346
MY53202799	MY53202896	MY53203001	MY53203439	MY53204128	MY53204348
MY53204374	MY53204427	MY53204814			

Revision History:

Service Note Revision	Date	Author	Reason For Change
01	9-10-14	JD	As published