

**TRAFFIC REGISTERS FOR WIDEBAND  
TESTS USING MASTER TEST FRAME  
NO. 5 CROSSBAR OFFICES**

**1. GENERAL**

**PAGE**

- 1.01 This section describes a method of testing traffic registers associated with wideband calls using the master test control circuit SD-25800-01 and trunk test circuit SD-25918-01 in No. 5 crossbar offices.
- 1.02 This issue affects Equipment Test Lists.
- 1.03 The tests covered are:

when the completing marker selects either channel 0 or 5. . . . . **9**

**E. Peg Count of Wideband Total Channel Selection (WTCH Lead):** This test checks that the peg count register operates when the completing marker selects any channel. . . . . **10**

**F. Peg Count of Wideband Total Originating Calls (WTOR Lead):** This test checks that the peg count register operates when the completing marker sets up a channel between a line link frame and an outgoing trunk on a trunk link frame. . . . . **11**

**G. Peg Count of Wideband Line Link Terminating Calls (WPCT Lead):** This test checks that the peg count register operates when the completing marker completes a call from an incoming or intraoffice trunk to a line or trunk terminating on a wideband line link circuit. . . . . **12**

**H. Peg Count of Wideband Total Through-Switched Calls (WTOG Lead):** This test checks that the peg count register operates when the completing marker is seized on an attempt to complete a through-switched call. . . . . **14**

**I. Overflow For Failure To Match On Wideband Incoming Calls (WIFM Leads):** This test checks that the overflow register operates when the completing marker indicates a failure to match on incoming calls except on PBX recycle. . . . . **15**

**J. Overflow For Incoming First Failure To Match On Wideband Calls**

**PAGE**

**A. Centrex Peg Count Of Wideband Attendant Calls (WAT Lead):** This test checks that the peg count register operates when the completing marker completes a zero operator call from any station to an attendant trunk in the same customer group, and when the marker completes a listed directory number call from an incoming or intraoffice trunk. . . . . **5**

**B. Centrex Peg Count Of Wideband Incoming Calls (WIN Lead):** This test checks that the peg count register operates when the completing marker completes a call from an incoming trunk to any station in a customer group. . . . . **7**

**C. Centrex Peg Count Of Wideband Originating Calls (WOR Lead):** This test checks that the peg count register operates when the completing marker completes a call from a station in a customer group to an intraoffice or outgoing trunk. . . . . **8**

**D. Peg Count of Wideband Sample Channel Count—0 and 5 Channels Only (WPCS Lead):** This test checks that the peg count register operates

	<b>PAGE</b>
<i>(WIFF Lead):</i> This test checks that the overflow register operates when the completing marker indicates all first failures to match on incoming calls.	16
<b>K. Peg Count Of Wideband Remote Switch Call Attempts (RLA Lead):</b> This test checks that the peg count register operates when the completing marker attempts to complete on every locally-switched wideband remote call.	17
<b>L. Peg Count For All Links To Wideband Remote Switch Busy (RLOV Lead):</b> This test checks that the peg count register operates when the completing marker indicates all remote links are busy to a particular wideband remote switch.	18
<b>1.04</b> All tests require actions and verifications at the master test frame (MTF) and traffic register cabinet.	
<b>1.05</b> Tests A through C and F through J require action at the marker frame.	
<b>1.06 Lettered Steps:</b> A letter a, b, c, etc, added to a step number in Parts 3 and 4 of this section indicates an action which may or may not be required, depending on local conditions. The condition under which a lettered step or a series of lettered steps should be made is given in the ACTION column and all steps governed by the same condition are designated by the same letter within a test. Where a condition does not apply, all steps designated by that letter should be omitted.	
<b>1.07</b> The manner of selecting some circuits and test conditions at the MTF and its associated circuits varies depending on the apparatus options furnished with these circuits. Therefore, where variable means of selection are provided, precise instructions for the selection of circuits and test conditions are not given. Precise instructions for the use of these variable means are given in Section 218-106-301.	

- 1.08** The location statement, At MTF—, is used to refer to all apparatus located on the four basic bays of the MTF.
- 1.09** Local instructions should be followed for recording and reporting any register operations caused by performing these tests.

**2. APPARATUS**

**All Tests**

- 2.01** Master test control circuit SD-25800-01.
- 2.02** Trunk test circuit SD-25918-01.
- 2.03** The following apparatus may also be required.
  - (a) Apparatus covered in 2.04 and 2.05 is required when a portable lamp is used to determine register operation.
  - (b) Two head telephone sets are required when a portable lamp is not used.
  - (c) A 32A test set is required when the MTF is controlled from a remote point.
  - (d) Two 26 cords are required in offices where it is necessary to patch the traffic register to the circuit under test and to patch the traffic register to a battery supply.
- 2.04** Two W2W cords, 10 feet long, each equipped with a 310 plug and two 360-type tools (2W17C cords), two KS-6278 connecting clips, and two 108 cord tips (required when a portable test lamp is used).
- 2.05** 38B lamp socket, equipped with a 2Y lamp (required when a portable test lamp is used).

**Tests A through C and F through J**

- 2.06** 322A (make-busy) plugs as required.
- 2.07** Blocking and insulating tools, as required. Use tools and apply, as covered in Section 069-020-801.

**3. PREPARATION**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
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**All Tests**

- |    |   |  |
|----|---|--|
| 1a | If traffic registers are arranged for patching—<br>At traffic register cabinet—<br>Insert cord tip of 26 patching cord into P-jack for circuit associated with register to be tested.   |  |
| 2a | Insert cord tip on other end of 26 patching cord into black jack associated with register to be tested (black jack is located on mounting plate with register).   |  |
| 3a | Insert cord tip of 26 cord into red jack on mounting plate with register to be tested.  |  |
| 4a | Insert cord tip on other end of 26 cord into any S- jack located at bottom of jack field.   |  |
| 5b | If traffic registers are arranged for patching and if battery supply for register to be tested is controlled by C- toggle switch—<br>At traffic register cabinet—<br>If C- toggle switch is in OFF position—<br>Set to ON position. |  |
| 6c | If traffic registers are not arranged for patching—<br>Determine from local office records the functional designation of peg count BAT key associated with register to be tested.   |  |
| 7c | At traffic register circuit—<br>Operate BAT key associated with register to be tested.  |  |
| 8d | If tests are to be performed without portable lamp—<br>Establish talking circuit between frames where test is to be performed and where observations are to be made.  |  |
| 9e | If tests are to be performed with portable lamp—<br>At frame where action is to be taken—<br>Insert plug of 2W17C cord, equipped with two KS-6278 connecting clips, into SP jack of miscellaneous circuit.                          |  |

SECTION 218-232-523

STEP	ACTION	VERIFICATION
10e	Determine from circuit drawing of circuit associated with register to be tested the location of terminal on terminal strip at which common lead to traffic register circuit is connected.	
11e	Connect one lead of 2W17C cord to terminal on terminal strip determined in Step 10e.	
12e	Connect other lead of 2W17C cord to battery.	
13e	Connect leads of 38B lamp socket to leads of another 2W17C cord equipped with two KS-6278 connecting clips.	
14e	Insert plug of this 2W17C cord into any appearance of selected SP jack of miscellaneous circuit close to position where test is to be performed.	
15e	Place lamp so that it can be easily observed.	
16f	If tests are performed with portable lamp and circuit associated with register to be tested removes ground from common lead to traffic register circuit to operate register— Observe lamp when register operates.	Lamp extinguished.
17g	If tests are performed with portable lamp and circuit associated with register to be tested applies ground to common lead to traffic register circuit to operate register— Observe lamp when register operates.	Lamp lighted.
18e	If tests are to be performed with portable lamp— To observe scoring of register when using test lamp, proceed as follows: (a) for first observation of scoring of register, observe that test lamp indicates proper condition on common lead and that register scores as required; (b) for subsequent observations of scoring of same register, observe lamp indications only.	
	<i>Note:</i> When the register to be tested scores at timed intervals, the test lamp will not flash with the scoring of the register.	
19	At MTF— Restore all keys and switches.	

STEP	ACTION	VERIFICATION
20	Momentarily operate RL key.	All lamps extinguished.

**4. METHOD**

STEP	ACTION	VERIFICATION
<b>A. Centrex Peg Count Of Wideband Attendant Calls (WAT Lead)</b>		

**Zero Operator Call**

21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call with X11 translator indication as required.	
26	Select centrex originating line location.	
27	Select class of service and rate treatment as required.	
28	Select A0 digit to direct call to centrex attendant.	
29	Select completing marker 0 or 1.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT18 relay.	
32	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	Restore all keys and switches.	
35	Proceed to Step 36 to complete test.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
<b>Listed Directory Number Call</b>		
36	Operate WBT key.	
37	Operate WBT- key as required to select class of wideband call.	
38	Select INC class of test.	
39	Select incoming class of call and translator indication as required for wideband service in customer group.	
40	Select incoming trunk class as required.	
41	Select trunk link frame.	
42	Select class of service corresponding to any attendant trunk.	
43	Select A- through G- digits as required to select listed directory number of customer group.	
44	Select same completing marker used in Step 29.	
45	Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
46	At MTF— Momentarily operate RL key.	All lamps extinguished.
47	Restore all keys and switches.	
48	At marker frame— Remove blocking tool from MT18 relay.	
49	At MTF— Remove make-busy plug from MMB jack.	
50	Repeat Steps 21 through 49 for other completing marker (0 or 1).	
51	At traffic register cabinet— Restore all keys operated for test.	
52	Remove all patching cords placed for test.	

STEP	ACTION	VERIFICATION
<b>B. Centrex Peg Count Of Wideband Incoming Calls (WIN Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Select INC class of test.	
24	Select incoming class of call and translator indication as required for wideband service in customer group.	
25	Select incoming trunk class as required.	
26	Select trunk link frame.	
27	Select class of service corresponding to wideband line associated with customer group.	
28	Select A- through G- digits as required to direct call to local wideband line associated with customer group.	
29	Select completing marker 0 or 1.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT18 relay.	
32	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	At marker frame— Remove blocking tool from MT18 relay.	
35	At MTF— Remove make-busy plug from MMB jack.	
36	Repeat Steps 29 through 35 for other completing marker (0 or 1).	
37	Restore all keys and switches.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
38	At traffic register cabinet— Restore all keys operated for test.	
39	Remove all patching cords placed for test.	
<b>C. Centrex Peg Count Of Wideband Originating Calls (WOR Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call with X11 translator indication as required.	
26	Select centrex originating line location as required.	
27	Select class of service and rate treatment as required.	
28	Select A- through D- digits as required to direct call to local wideband line associated with customer group.	
29	Select completing marker 0 or 1.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT18 relay.	
32	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	At marker frame— Remove blocking test from MT18 relay.	
35	At MTF— Remove make-busy plug from MMB jack.	

STEP	ACTION	VERIFICATION
36	Repeat Steps 29 through 35 for other completing marker (0 or 1).	
37	Restore all keys and switches.	
38	At traffic register cabinet— Restore all keys operated for test.	
39	Remove all patching cords placed for test.	
<b>D. Peg Count Of Wideband Sample Channel Count—0 and 5 Channels Only (WPCS Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local wideband line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to wideband outgoing trunk route.	
29	Select completing marker 0 or 1.	
30	Set WCH switch to 0.	
31	Momentarily operate ST key.	WCK, 1CNK, WHS, 2CNK, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
32	At MTF— Momentarily operate RL key.	All lamps extinguished.
33	Operate TR2 key.	
34	Set WCH switch to 5.	
35	Momentarily operate ST key.	WCK, 1CNK, WHS, 2CNK, MRL lamps lighted. WTK lamp momentarily lighted.

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
		At traffic register cabinet— Register scored once.
36	At MTF— Momentarily operate RL key.	All lamps extinguished.
37	Repeat Steps 29 through 36 for other completing marker (0 or 1).	
38	Restore all keys and switches.	
39	At traffic register cabinet— Restore all keys operated for test.	
40	Remove all patching cords placed for test.	
<b>E. Peg Count Of Wideband Total Channel Selection (WTCH Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local wideband line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to wideband outgoing trunk route.	
29	Select completing marker 0 or 1.	
30	Momentarily operate ST key.	WCK, 1CNK, WHS, 2CNK, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
31	At MTF— Momentarily operate RL key.	All lamps extinguished.
32	Repeat Steps 29 through 31 for other completing marker (0 or 1).	

STEP	ACTION	VERIFICATION
33	Restore all keys and switches.	
34	At traffic register cabinet— Restore all keys operated for test.	
35	Remove all patching cords placed for test.	

**F. Peg Count Of Wideband Total Originating Calls  
(WTOR Lead)**

21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local wideband line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to wideband outgoing trunk route.	
29	Select completing marker 0 or 1.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT18 and MT54 relays.	
32	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	At marker frame— Remove blocking tool from MT18 and MT54 relays.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
35	At MTF— Remove make-busy plug from MMB jack.	
36	Repeat Steps 29 through 35 for other marker (0 or 1) associated with register under test.	
37	Restore all keys and switches.	
38	At traffic register cabinet— Restore all keys operated for test.	
39	Remove all patching cords placed for test.	

**G. Peg Count Of Wideband Line Link Terminating  
Calls (WPCT Lead)**

**Originating Calls**

21	Operate WBT key.	
22	Operate WBT- key as required.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local wideband line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to local wideband line.	
29	Select completing marker 0 or 1.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT18 relay.	
32	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.

STEP	ACTION	VERIFICATION
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	Restore all keys and switches.	
35	Proceed to Step 36 to complete test.	

#### Terminating Calls

36	Operate WBT key.	
37	Operate WBT- key as required to select class of wideband call.	
38	Select INC class of test.	
39	Select incoming class of call and translator indication as required for wideband service.	
40	Select incoming trunk class as required.	
41	Select trunk link frame.	
42	Select A- through G- digits as required to direct call to local wideband line.	
43	Select same completing marker used in Step 29.	
44	Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
45	At MTF— Momentarily operate RL key.	All lamps extinguished.
46	Restore all keys and switches.	
47	At marker frame— Remove blocking tool from MT18 relay.	
48	At MTF— Remove make-busy plug from MMB jack.	
49	Repeat Steps 21 through 48 for other completing marker (0 or 1).	
50	At traffic register circuit— Restore all keys operated for test.	
51	Remove all patching cords placed for test.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
<b>H. Peg Count Of Wideband Total Through—Switched Calls (WTOG Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Select INC class of test.	
24	Select TAN incoming class of call and translator indication as required.	TAN lamp lighted.
25	Select incoming trunk class as required.	
26	Select trunk link frame.	
27	Select A- through G- digits as required to direct call to wideband tandem outgoing trunk route.	
28	Select completing marker 0 or 1.	
29	Insert make-busy plug into MMB jack of completing marker under test.	
30	At marker frame— Block nonoperated MT18 relay.	
31	At MTF— Momentarily operate ST key.	WCK, WHS, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
32	At MTF— Momentarily operate RL key.	All lamps extinguished, except TAN.
33	At marker frame— Remove blocking tool from MT18 relay.	
34	At MTF— Remove make-busy plug from MMB jack.	
35	Repeat Steps 28 through 34 for other completing marker (0 or 1).	
36	Restore all keys and switches.	TAN lamp extinguished.
37	At traffic register cabinet— Restore all keys operated for test.	
38	Remove all patching cords placed for test.	

STEP	ACTION	VERIFICATION
<b>I. Overflow For Failure To Match On Wideband Incoming Calls (WIFM Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Select INC class of test.	
24	Select incoming class of call and translator indication as required for wideband service.	
25	Select incoming trunk class as required.	
26	Select trunk link frame.	
27	Select A- through G- digits as required to direct call to local wideband line.	
28	Select completing marker 0 or 1.	
29	Set WCH switch to ACB.	
30	Insert make-busy plug into MMB jack of completing marker under test.	
31	At marker frame— Block nonoperated MT54 relay.	
32	At MTF— Momentarily operate ST key.	WCK, OFL, MRL lamps lighted. At traffic register cabinet— Register scored once.
33	At MTF— Momentarily operate RL key.	<i>Note:</i> Register for overflow for incoming first failure to match on wideband calls (WIFF lead) also scored once if patching cords are in place.  All lamps extinguished.
34	At marker frame— Remove blocking tool from MT54 relay.	
35	At MTF— Remove make-busy plug from MMB jack.	
36	Repeat Steps 28 through 35 for other completing marker (0 or 1).	
37	Restore all keys and switches.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
38	At traffic register cabinet— Restore all keys operated for test.	
39	Remove all patching cords placed for test.	
<b>J. Overflow For Incoming First Failure To Match On Wideband Calls (WIFF Lead)</b>		
21	Operate WBT key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Select INC class of test.	
24	Select incoming class of call and translator indication as required for wideband service.	
25	Select incoming trunk class as required.	
26	Select trunk link frame.	
27	Select A- through G- digits as required to direct call to local wideband line.	
28	Select completing marker 0 or 1.	
29	Set WCH switch to ACB.	
30	Insert make-busy plug into MMB jack of completing marker sender test.	
31	At marker frame— Block nonoperated MT54 relay.	
32	At MTF— Momentarily operate ST key.	WCK, OFL, MRL lamps lighted. At traffic register cabinet— Register scored once.
		<i>Note:</i> Register for overflow for failure to match on wideband incoming calls (WIFM lead) also scored once if patching cords are in place.
33	At MTF— Momentarily operate RL key.	All lamps extinguished.
34	At marker frame— Remove blocking tool from MT54 relay.	
35	At MTF— Remove make-busy plug from MMB jack.	

STEP	ACTION	VERIFICATION
36	Repeat Steps 28 through 35 for other completing marker (0 or 1).	
37	Restore all keys and switches.	
38	At traffic register cabinet— Restore all keys operated for test.	
39	Remove all patching cords placed for test.	
<b>K. Peg Count Of Wideband Remote Switch Call Attempts (RLA Lead)</b>		
21	Operate WRS key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local switchboard line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to wideband remote customer line.	
29	Select completing marker 0 or 1.	
30	Operate IA0B key.	
31	Momentarily operate ST key.	WCK, WHS, IAOF, IA0B, MRL lamps lighted. WTK lamp momentarily lighted. At traffic register cabinet— Register scored once.
32	Momentarily operate RL key.	All lamps extinguished.
33	Repeat Steps 29 through 32 for other marker (0 or 1).	
34	Restore all keys and switches.	
35	At traffic register cabinet— Restore all keys operated for test.	

**SECTION 218-232-523**

<b>STEP</b>	<b>ACTION</b>	<b>VERIFICATION</b>
36	Remove all patching cords placed for test.	
<b>L. Peg Count For All Links To Wideband Remote Switch Busy (RLOV Lead)</b>		
21	Operate WRS key.	
22	Operate WBT- key as required to select class of wideband call.	
23	Set P switch to PK1.	
24	Select ORIG class of test.	
25	Select OR class of call and translator indication as required.	
26	Select line location associated with local wideband line.	
27	Select class of service and rate treatment as required.	
28	Select A- through G- digits as required to direct call to wideband remote customer line.	
29	Select completing marker 0 or 1.	
30	Operate IAOB key.	
31	Set WRL switch to ALB.	
32	Momentarily operate ST key.	RBT1, BT-OF, MRL lamps lighted. At traffic register cabinet— Register scored once.
		<i>Note:</i> Register for peg count of wideband remote switch call attempts also scored once if patching cords are in place.
33	Momentarily operate RL key.	All lamps extinguished.
34	Repeat Steps 29 through 33 for other marker (0 or 1).	
35	Restore all keys and switches.	
36	At traffic register cabinet— Restore all keys operated for test.	
37	Remove all patching cords placed for test.	