# TMC SPECIFICATION

| REV: | 0 | A | B | C | D | E | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

**NO. S** 862

COMPILED: NLB   CHECKED: APP :

**SHEET** 1 **OF** 33

TITLE:

Typed 9/8/64 by mtp

TEST PROCEDURE

for

LOGIC MODULE TESTER RTDB-1

Typed 12/11/64 by SS.

## N O T E S

1.  When testing NW 113-1X  (CGX-1) or NW 116-1 (CG  11-1) there shouldn't **be** any other module present in the circuit.

2.  When testing NW 111-1 (OS 11-1), it is required that NW 113-1X (CGX-1) or NW 116-1 (CG 11-1) be inserted into the circuit.

3.  When testing NW 109 (BA 11-1), it is required that either NW 113-1X (CGX-1) or NW 116-1 (CG 11-1) be inserted and also NW 111-1 (OS 11-1) be inserted.

4.  It is required that the following input circuit be present:

    a.  NW 113-1X (CGX-1) or NW 116-1 (CG 11-1)
    b.  NW 111-1 (OS 11-1)
    c.  NW 109 (BA 11-1)

TMC FORM SPEC 1

1M-8-64-AINS.

# TMC SPECIFICATION

NO. S 862

REV: DE

COMPILED: NLB

CHECKED:

APPD:

SHEET 3 OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

## I N D E X

# TMC SPECIFICATION

NO. S  862

REV: DE

COMPILED: NLB

CHECKED:

APPD:

SHEET 4 OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

I N D E X (CONT)

| | TMC SPECIFICATION | | NO. S | 862 |

REV: D E

| COMPILED: NLB | CHECKED: | APPD: | SHEET 5 | OF 33 |

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

# I N D E X (CONT)

TMC FORM SPEC 1

1M-8-64-AINS.

# TMC SPECIFICATION

| NO. S | 862 |

REV: 0 A B C D E

| COMPILED: NLB | CHECKED: | APPD: | SHEET 6 | OF 33 |

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/8/64 by mtp

## PRECAUTIONS TO BE OBSERVED

1. WHEN REMOVING OR INSERTING MODULES, THE MOMENTARY SWITCH MUST BE RELEASED TO REMOVE THE POWER FROM THE MODULES. THIS PRECAUTION MUST BE TAKEN ON EVERY MODULE UNDER TEST.

2. BE CAREFUL! TRY NOT TO BEND PINS ON THE MODULES.

3. MAKE ALL NECESSARY CALIBRATIONS ON SCOPE BEFORE TESTING MODULES.

4. IF THERE IS AN A-C RIPPLE ON ANY PULSE, REJECT IT IMMEDIATELY.

# TMC SPECIFICATION

REV: 0 A B C D E

NO. S 862

COMPILED: NLB    CHECKED:    APPD:    SHEET 7 OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/8/64 by mtp

(SEE NOTE 1)                    NW113-1X

STEP 1.  Insert module into corresponding socket.

STEP 2.  Single Trace Scope: -

        Connect scope probe to TP1 and perform the following testing pro-
cedures as listed below except Steps 7, 8, and 9.  Then connect probe to TP2
and perform the same test function as performed for TP1.

        Dual Trace Scope:-

        Connect scope probes to TP1 and TP2, then follow all testing functions
listed below.

STEP 3.  Apply power to module (pressing down on momentary switch).

STEP 4.  Adjust scope for one pulse output.

STEP 5.    a)  Output on scope for both test points should correspond to figure
               below.
           b)  Amplitude should be -9V minimum on both test points.
           c)  Output pulse width should be 5.8 mil-sec. $\pm$ .3 mil-sec. tolerance.
STEP 6.    a)  Press PB-1.
           b)  Output amplitude should be on TP1 -1V +1/2V tol.
           c)   "         "           "    "   " TP2 -3V $\pm$1.5V tol.
STEP 7.  If module meets the above test requirements, it is acceptable.

STEP 8.  Remove power from module by releaseing momentary switch.

STEP 9.  Remove module from socket with module extraction tool, and proceed to
         next module.
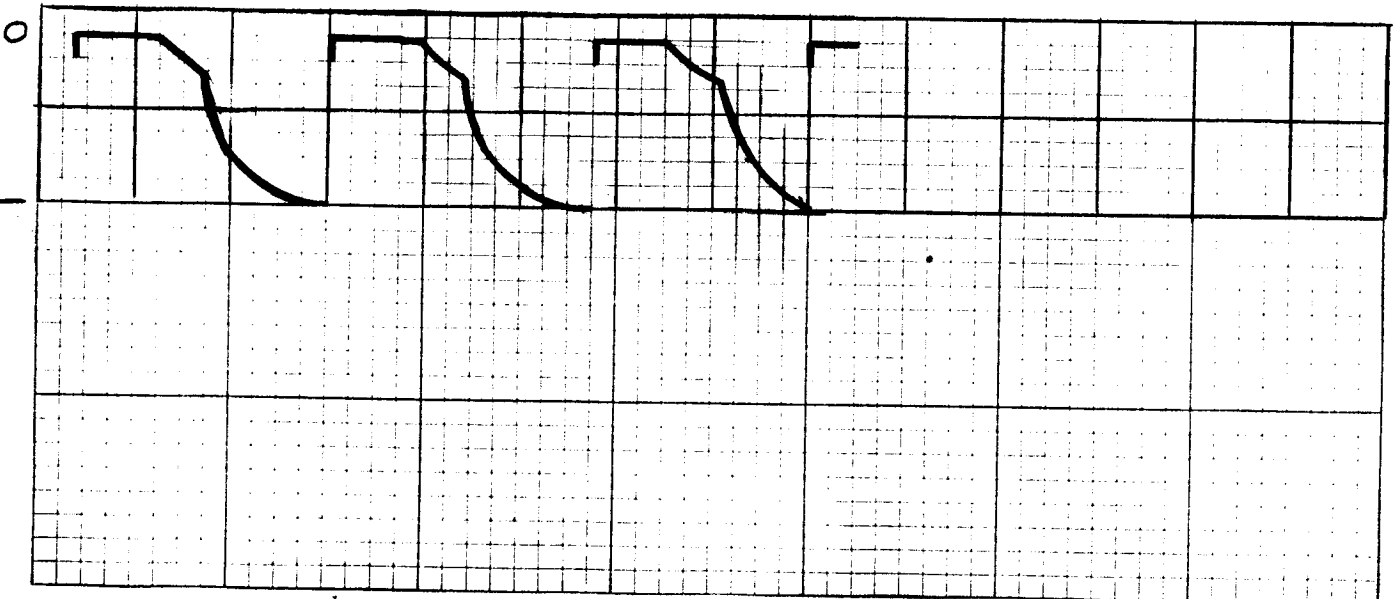
# TMC SPECIFICATION

| NO. S | 862 |

| REV: | 0 | A | B | C | D | E | | | | | | | | | | | | | | | | | | | | | | | | |

| COMPILED: | NLB | CHECKED: | APPD: | SHEET | 8 | OF | 33 |

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/8/64 by mtp

(SEE NOTE 1)                          NW116-1/NW116-21/NW116-11

STEP 1.   Insert module into corresponding socket.

STEP 2.   <u>Single Trace Scope:</u> -

        Connect scope probe to TP1 and perform the following testing pro-
cedures as listed below except Steps 7, 8, and 9.  Then connect probe to TP2
and perform the same test function as performed for TP1.

        <u>Dual Trace Scope:</u>-

        Connect scope probes to TP1 and TP2, then follow all testing functions
listed below.

STEP 3.   Apply power to module (pressing down on momentary switch).

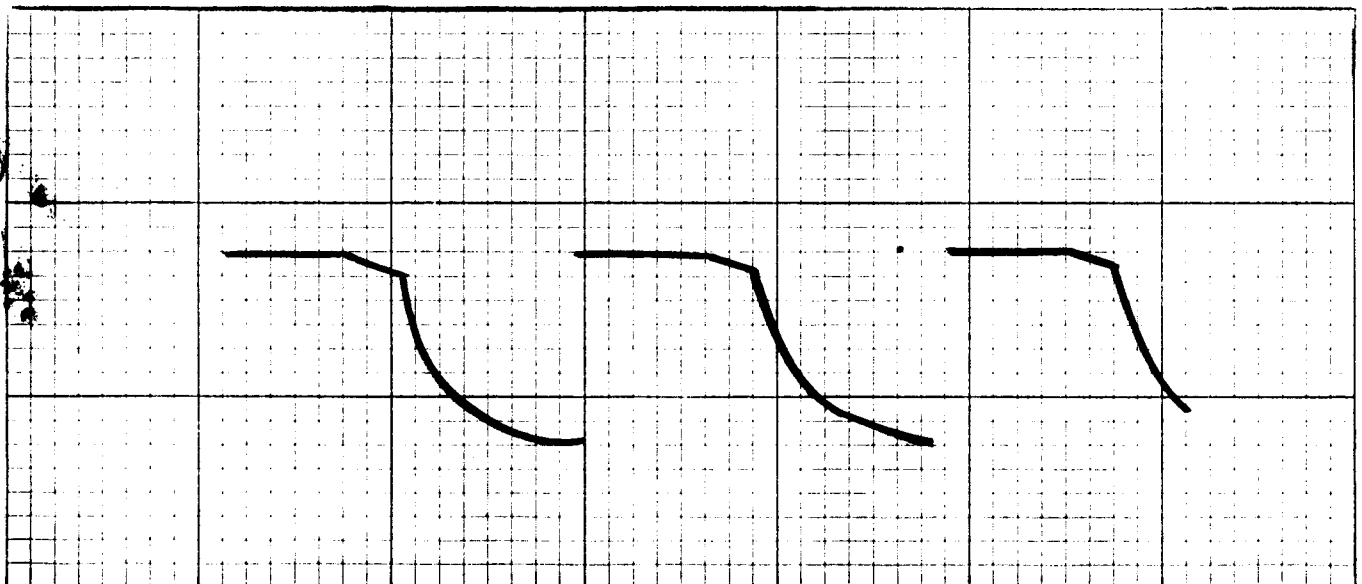STEP 4.   Adjust scope for one pulse output.

STEP 5.   a)  Output on scope for both test points should correspond to figure
              below.
          b)  Amplitude should be -9V minimum    on both test points.
          c)  Pulse width should be 7.0 mil-sec. $\pm$ .2 mil-sec. tol.
STEP 6.   a)  Press PB-1.
          b)  Output amplitued on TP1 should be -1V +1/2V tol.
          c)     "        "       "  TP2    "      " -3V $\pm$ 1.5 V. tol.
STEP 7.   If module meets the above test requirements, it is acceptable.

STEP 8.   Remove power from module by releaseing momentary switch.

STEP 9.   Remove module from socket with module extraction tool, and proceed to
          next module.

# TMC SPECIFICATION

NO. S-862

| REV: | 0 | A | B | C | D | E | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

COMPILED: NLB     CHECKED:        APPD:        SHEET 9  OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 8/6/65

(SEE NOTE 2)                    NW111-1/NW111-11/NW111-21

STEP 1.  Insert module into corresponding socket.

STEP 2.  Single Trace Scope:- Connect scope probe to TP3 and perform the testing procedures below except Steps 8, 9 and 10. Then connect the scope probe to TP4 and perform the same test functions as performed for TP3.

      Dual Trace Scope:- Connect scope probes to TP3 and TP4. Then proceed with testing functions listed below.

STEP 3.  Throw the switch marked IN/OUT to the IN position.

STEP 4.  Apply power to modules (pressing down on momentary switch).

STEP 5.  a)  Adjust scope for one pulse output.
        b)  If there is no output present with the switch in the IN position, throw the switch to the OUT position. If there is an output, it means the module doesn't get triggered on a .8u second rise time. Reject the module and tell the manufacturer the reason for rejection.

STEP 6.  If there is no output with the switch in the IN or OUT position, reject it (again telling the manufacturer the module doesn't trigger on a .2u second rise time).

STEP 7.  a)  Output on TP3 should correspond to Figure 1 below. The output on TP4 should correspond to Figure 2 below.
        b)  Output amplitude should be -11V $\pm$1V on TP-3, -9V $\pm$1V on TP-4.
        c)  Output pulse width should be .6 mil-sec $\pm$.1 mil-sec. tolerance.

STEP 8.  If the module does meet the first requirement with the switch in the IN position, and the output pulses meet the requirements in STEP 7, it is acceptable.

STEP 9.  Remove power from module by releasing momentary switch.

STEP 10. Remove module from socket with module extraction tool, and proceed to next module.

TMC FORM SPEC 1

1M-8-64-AINS-

### NW111-1/NW111-11/NW111-21 (CONT)

Fig. 1 (positive pulse)　　　　　　Fig. 2 (negative pulse)
　　　TP3　　　　　　　　　　　　　　　　TP4
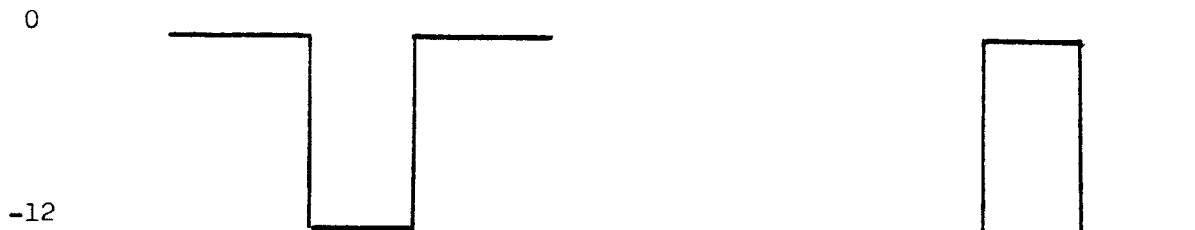
(SEE NOTE 3)                          NW109/NW109-11/NW109-21

STEP 1.   Insert module into corresponding socket.

STEP 2.   <u>Single Trace Scope:-</u>
          Connect scope probe to TP5 and perform the testing procedures out-
lined below except Steps 6, 7 and 8.  Then, connect probe to TP6 and perform
the same test functions performed for TP-5.

          <u>Dual Trace Scope:-</u>
          Connect scope probes to TP5 and TP6.  Follow all testing functions
as outlined below.

STEP 3.   Apply power to modules, (pressing down on momentary switch).

STEP 4.   Adjust scope for one pulse output.

STEP 5.   a)  Output on TP5 should correspond to Figure 1, below.  Output on
              TP6 should correspond to Figure 2, below.
          b)  Output amplitude on TP5 should be $-8V \pm 1/2V$ tol.
          c)  Output amplitude on TP6 should be $-11 \pm 1V$ tol.

STEP 6.   If module meets the above test requirements, it is acceptable.

STEP 7.   Remove power from module by releasing momentary switch.

STEP 8.   Remove module from socket with module extraction tool, and proceed to
          next module.

          <u>Fig. 1 (TP5 Negative Pulse)</u>              <u>Fig. 2 (TP6 Positive Pulse)</u>
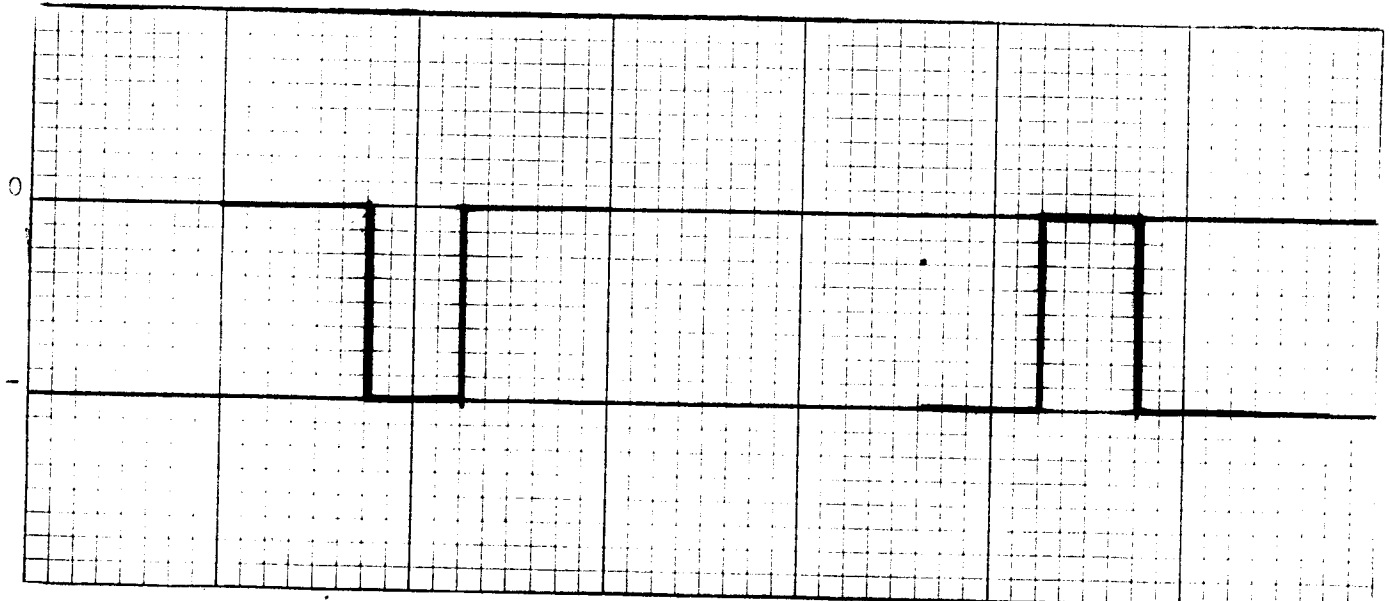
(SEE NOTE 4)                          NW108-5X/NW108-25

STEP 1.  Insert module into corresponding socket on test set panel.

STEP 2.  Single Trace Scope:-

          Connect scope probe to TP7 and perform the test procedures outlined below except Steps 9, 10 and 11.  Remove probe from TP7 and connect to TP8, repeating same test functions as prescribed for TP7.

          Dual Trace Scope:-

          Connect scope probes to TP7 and TP8.  Proceed with all test functions as listed below.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope for one pulse output.

STEP 6.  Output amplitude -6V minimum. and -12V maximum.

STEP 7.  Scope output should look like Figure 1, below.

STEP 8.  Rotate input selector switch through positions 2, 3, and 4 folowing the same testing procedures as outlined for position 1.

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

TMC FORM SPEC 1                                                                                          1M-8-64-AINS.

# TMC SPECIFICATION

NO. S   862

REV: Ø A B C D É

COMPILED:   NLB          CHECKED:            APPD:            SHEET   13   OF   33
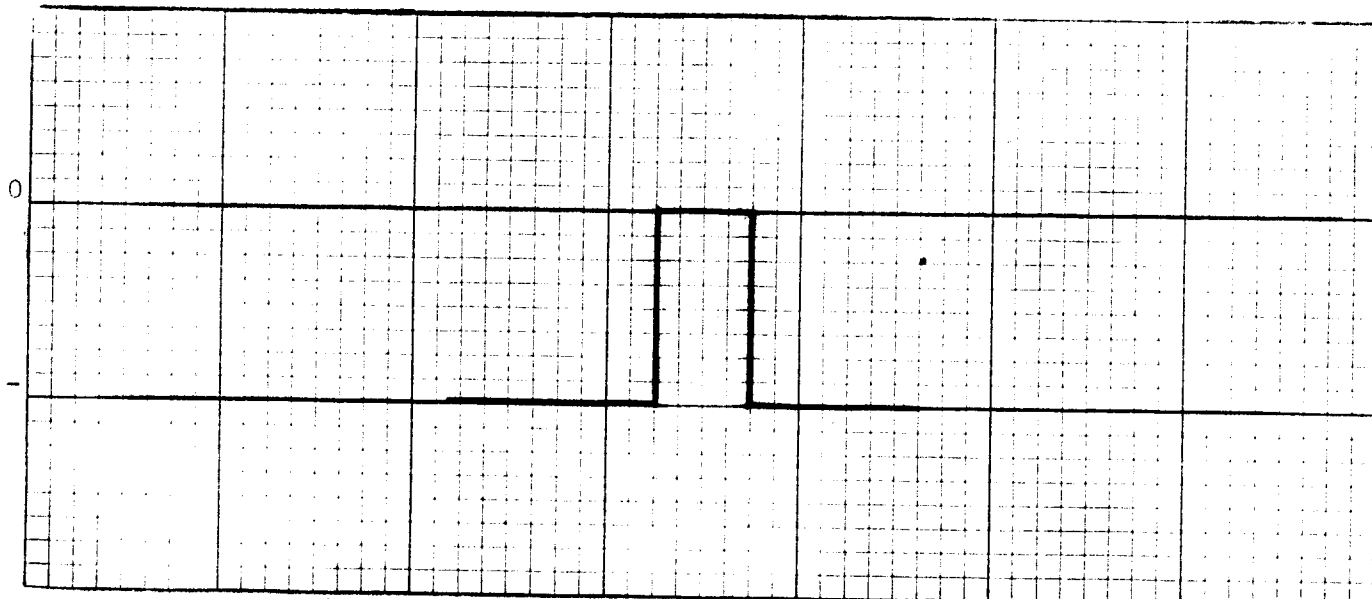
TITLE:   TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/8/64 by mtp

### NW108-5X/NW108-25 (CONT)

STEP 11.   Remove module from socket with module extraction tool, and proceed
to next module.

### Figure 1 (Positive Pulse)

# TMC SPECIFICATION

REV: | 0 | A | B | C | D | E

NO. S  862

COMPILED: NLB    CHECKED:    APPD:    SHEET 14 OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed by mtp 9/8/64

(SEE NOTE 4)                NW108-6X/NW108-26

STEP 1.  Insert module into corresponding socket on test set panel.

STEP 2.  Single Trace Scope:-

Connect scope probe to TP7 and perform the test procedures listed below, except Steps 9, 10 and 11.

Remove probe from TP7 and connect to TP8 repeating same test functions outlined for TP7, except 9, 10 and 11.

Remove probe from TP8 and connect to TP9.  Repeat same test functions outlined for TP7.

Dual Trace Scope:-

Connect the scope probes to TP7 and TP8.  Perform the test procedures listed below except Steps 9, 10 and 11.

Remove probe from TP7 and connect to TP9.  Repeat same test functions outlined for TP7.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to one pulse output.

STEP 6.  Output amplitude -6V minimum and -12V maximum.

STEP 7.  Scope's output should look like Figure 1, below, for all test points, (positive pulse).

STEP 8.  Rotate input selector switch to position two (2), following the same testing procedures as for position one (1).

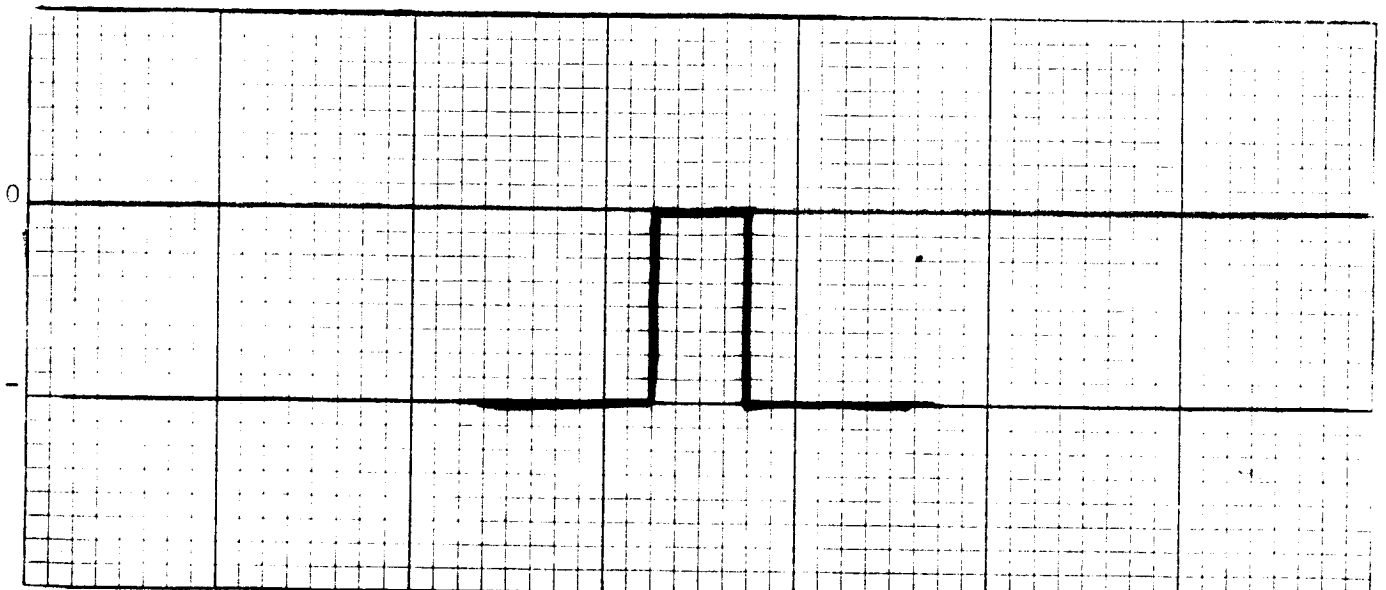STEP 9.  If module meets the above test specifications, it is acceptable.

Typed 9/8/64 by mtp

## NW108-6X/NW108-26 (CONT)

STEP 10. Release **momentary** switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.

### Figure 1 (Positive Pulse)

# TMC SPECIFICATION

| NO. S | 862 |

| REV: | 0 | A | B | C | D | E |

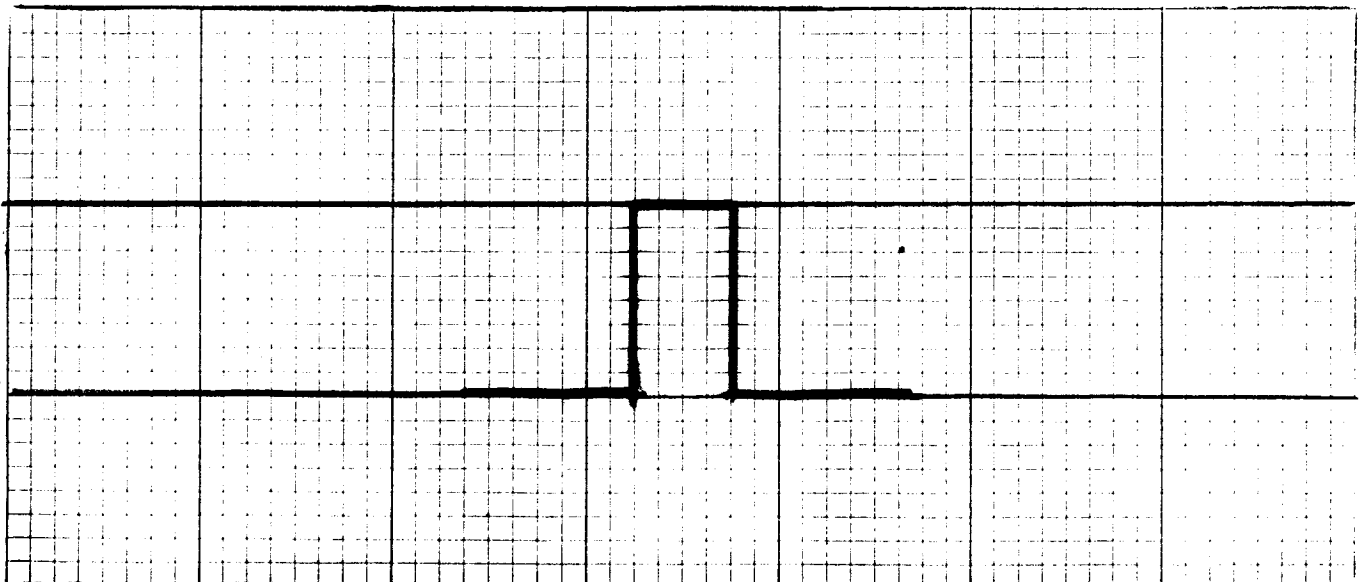| COMPILED: | NLB | CHECKED: | APPD: | SHEET | 16 | OF | 33 |

**TITLE:** TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/8/64 by mtp

(SEE NOTE 4)                                    NW121-2/NW121-22

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only Single Trace needed.  Connect scope probe to TP7, and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to one pulse output.

STEP 6.  Output amplitude −5.5V Min ±12V Max.

STEP 7.  Scope output should look like Figure 1, below.

STEP 8.  Rotate input selector switch through positions 2, 3, 4 and 5 following the same test procedures as for position 1.

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.

### Figure 1 (positive Pulse)

# TMC SPECIFICATION

REV: 0 A B C D E

NO. S 862

COMPILED: NLB | CHECKED: | APPD: | SHEET 17 OF 33

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/9/64 by mtp

(SEE NOTE 4)                          <u>NW121-3/NW121-23</u>

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only single trace needed.  Connect scope probe to TP7, and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to see one pulse output.

STEP 6.  Output amplitude –5.5V Min. & –12V Max.

STEP 7.  Scope's output should look like Figure 1, Page 18, for all test points. (Positive pulse)

STEP 8.  Rotate input selector switch through positions 2, 3, 4, 5, 6, 7, 8 and 9 following same testing procedures outlined for position one (1).

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.

Typed 9/8/64 by mtp

## NW121-3/NW121-23 (CONT)

Figure 1 (positive pulse)

Typed 9/8/64 by mtp

(SEE NOTE 4)

### NW121-6/NW121-26

STEP 1.  Insert module into corresponding socket.

STEP 2.  <u>Single Trace Scope:-</u>

Connect Scope Probe to TP7 and perform the test procedure outlined below except Steps 9, 10 and 11.

Remove probe from TP7 and connect to TP8, and repeat same test functions as for TP7 except Steps 9, 10 and 11.

Remove probe from TP8 and connect probe to TP9.  Repeat same test functions as for TP7.

<u>Dual Trace Scope:-</u>

Connect the scope probe to TP7 and TP8, and perform the test procedures outlined below except 9, 10 and 11.

Remove probe for TP7 and connect to TP9.  Repeat same test functions as for TP7.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope for one pulse output.

STEP 6.  Output amplitude -5.5V Min. & -12V Max.

STEP 7.  Scope output should look like Figure 1, Page 20.

STEP 8.  Rotate input selector switch to position 2 and follow
         the same testing procedures outlined for position 1.

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed
         to next module.

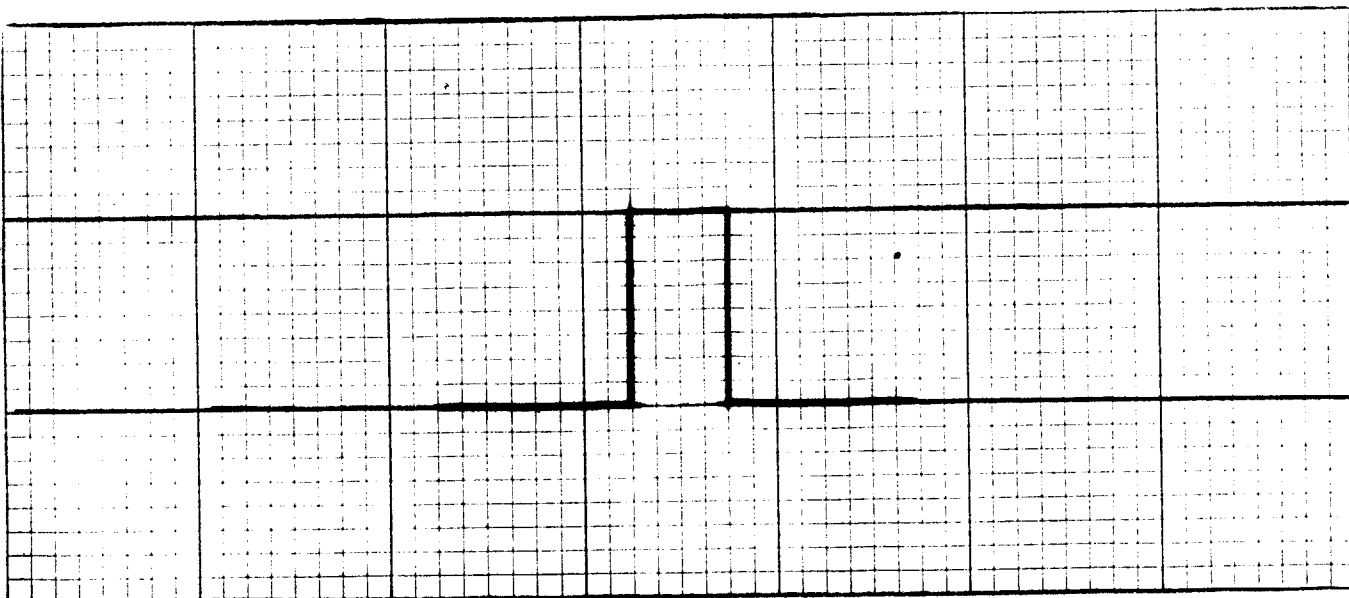# TMC SPECIFICATION

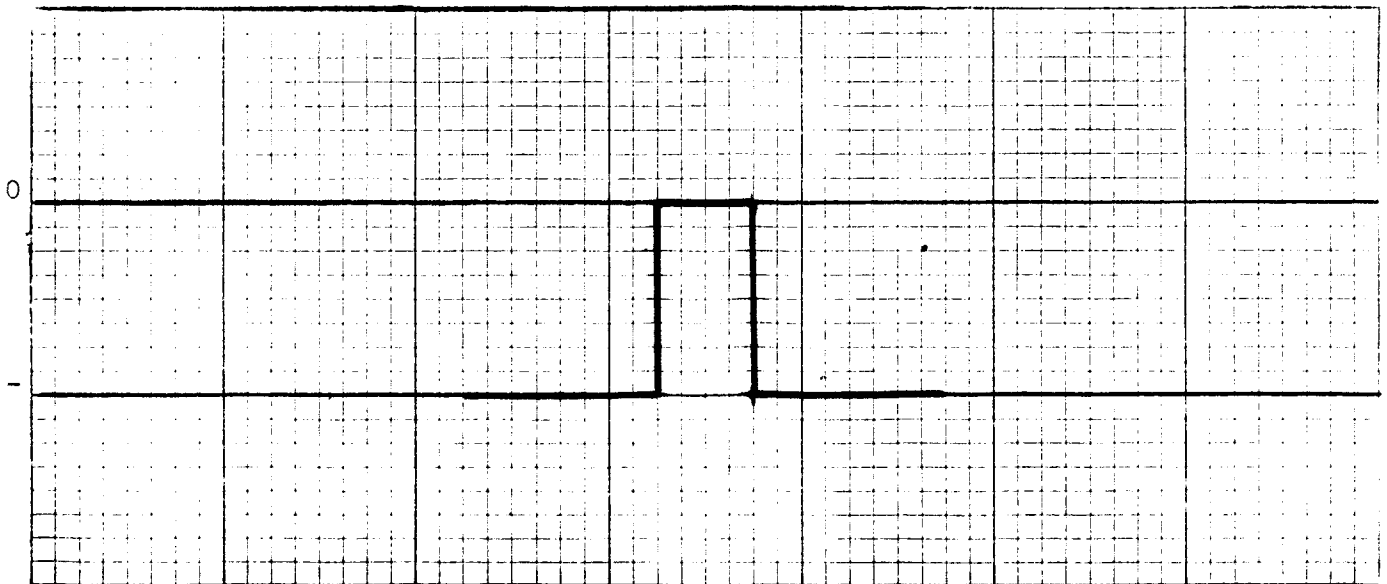| NO. S | 862 |

REV: 0 A B C D E

| COMPILED: NLB | CHECKED: | APPD: | SHEET 20 OF 33 |

TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/9/64 by mtp

NW121-6/NW121-26 (CONT)

Figure 1.  (Positive Pulse)

Typed 9/9/64 by mtp

(SEE NOTE 4)

### NW107-1X/NW107-11/NW107-21

STEP 1.  Insert module into corresponding socket.

STEP 2.  **Single Trace Scope:-**

Connect sope probe to TP7 and perform the test procedure outlined below, except Steps 5, 6, 7 and 8.

Remove Probe from TP7, and connect to TP8. Perform test functions for TP8 as outlined below except Step 4.

**Dual Trace Scope:-**

Connect the scope probes to TP7 and TP8. Perform the test procedures outlined below.

STEP 3.  Apply power to modules by pressing down on momentary switch.

STEP 4.  **Test Procedure for TP7:**

   a.  Press PB4 - Scope should read ZERO.

   b.  Press PB2 - Scope should read -9 volts min., -12volts max.

   c.  Press PB3 - Scope should read ZERO.

   d.  Press PB2 - Scope should read -9 volts min., -12 volts max.

STEP 5.  **Test Procedure for TP8:**

   a.  Press PB4 - Scope should read -9 volts min., -12 volts max.

   b.  Press PB2 - Scope should read ZERO.

   c.  Press PB3 - Scope should read -9 volts min., -12 volts max.

   d.  Press PB2 - Scope should read ZERO.

TMC FORM SPEC 1

1M-8-64-AINS

(SEE NOTE 4)

### NW107-4X/NW107-14/NW107-24

STEP 1.   Insert module into corresponding socket.

STEP 2.   <u>Single Trace Scope:-</u>

Connect sope probe to TP7 and perform the test procedure outlined below, except Steps 5, 6, 7 and 8.

Remove Probe from TP7, and connect to TP8.   Perform test functions for TP8 as outlined below except Step 4.

<u>Dual Trace Scope:-</u>

Connect the scope probes to TP7 and TP8.   Perform the test procedures outlined below.

STEP 3.   Apply power to modules by pressing down on momentary switch.

STEP 4.   <u>Test Procedure for TP7</u>:

    a.   Press PB4 - Scope should read ZERO.

    b.   Press PB2 - Scope should read -9 volts min., -12 volts max.

    c.   Press PB3 - Scope should read ZERO.

    d.   Press PB2 - Scope should read -9 volts min., -12 volts max.

STEP 5.   <u>Test Procedure for TP8</u>:

    a.   Press PB4 - Scope should read -9 volts min., -12 volts max.

    b.   Press PB2 - Scope should read ZERO.

    c.   Press PB3 - Scope should read -9 volts min., -12 volts max.

    d.   Press PB2 - Scope should read ZERO.

Typed 9/9/64 by mtp

(SEE NOTE 4)

<u>NW112/NW112-11/NW112-21</u>

STEP 1.  Insert module into corresponding socket.

STEP 2.  <u>Single Trace Scope:-</u>
         Connect scope probe to TP7 and perform test procedure outlined below except Steps 6, 7, and 8.
         Remove probe from TP7 and connect to TP8.  Repeat same test functions as TP7.

         <u>Dual Trace Scope:-</u>
         Connect scope probe to TP7 and TP8.  Perform test procedure outlined below.

STEP 3.  Apply power to module by pressing down on momentary switch.

STEP 4.  Adjust scope to one pulse output.

STEP 5.  Output amplitude -6V Min-18V Max.

STEP 6.  Scope's output should look like Figure 1, below for all test points.

STEP 7.  If module meets the above test specifications, it is acceptable.

STEP 8.  Release momentary switch supplying power to modules.

STEP 9.  Remove module from Socket with module extraction tool and proceed to next module.

<u>Figure 1 (Positive Pulse)</u>

Typed 9/9/64 by mtp

(SEE NOTE 4)                    <u>NW120-1/NW120-11/NW120-21</u>

STEP 1.  Insert module into corresponding socket.

STEP 2.  <u>Single Trace Module</u>: -
        Connect scope probe to TP7 and perform test procedure outlined below
except Steps 7, 6, and 8.
        Remove probe from TP7 and connect to TP8.  Repeat same test functions
as TP7.

        <u>Dual Trace Scope</u>: -
        Connect scope probe to TP7 and TP8.  Perform test procedure outlined
below.

STEP 3.  Apply power to module by pressing down on momentary switch.

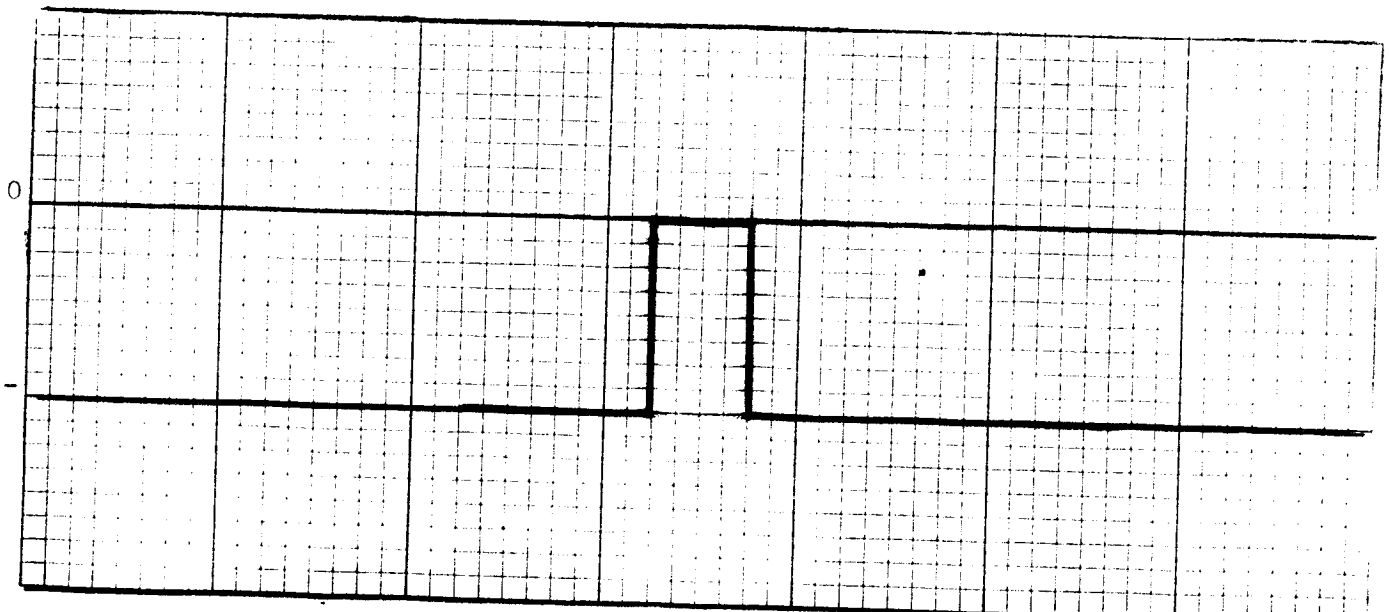STEP 4.  Adjust scope to one pulse output.

STEP 5.  Output amplitude -6V Min. & -12V Max.

STEP 6.  Scope's output should look like Figure 1, below for all test points.

STEP 7.  If module meets the above test specifications, it is acceptable.

STEP 8.  Release momentary switch supplying power to modules.

STEP 9.  Remove module from socket with module extraction tool and proceed to
         next module.

<u>Figure 1 (positive pulse)</u>

Typed 9/9/64 by mtp

(SEE NOTE 4)                    NW118/NW118-11/NW118-21

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only single trace needed.  Connect scope probe to TP7, and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

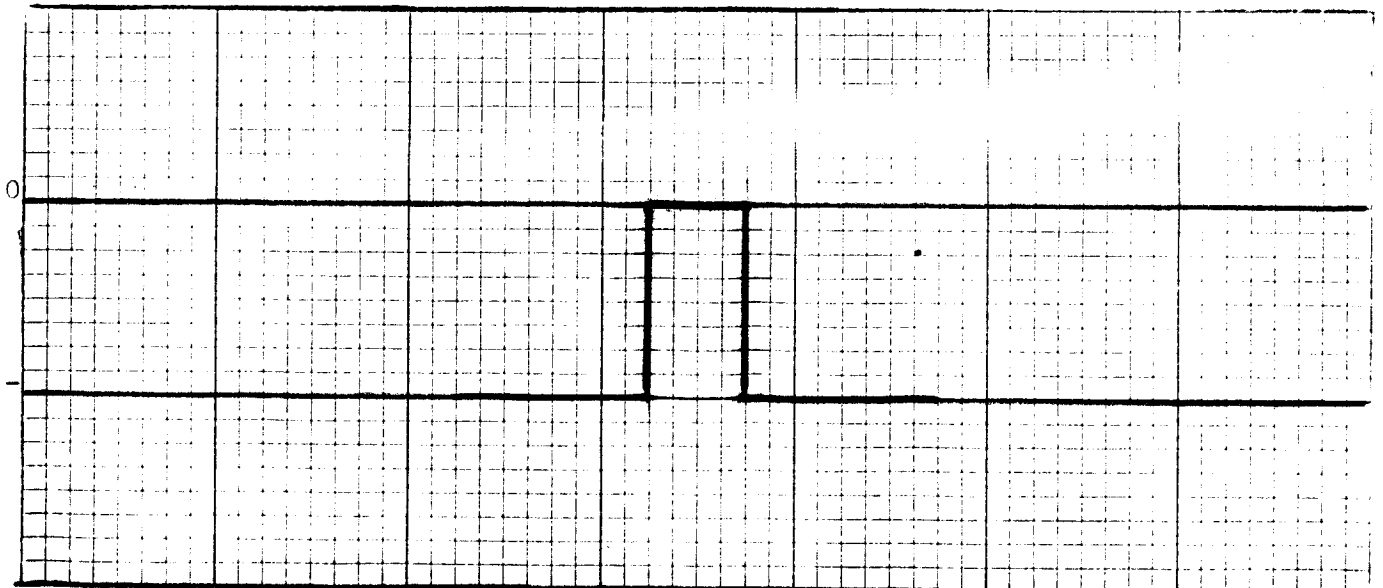STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Output amplitude -6V Min. & -12V Max.

STEP 6.  Scope's output should look like Fig. 1 below for all test points.

STEP 7.  If module meets the above test specifications, it is acceptable.

STEP 8.  Release momentary switch supplying power to modules.

STEP 9.  Remove module from socket with module extraction tool and proceed to next module.

<u>Figure 1 (positive pulse)</u>



1M.9.64-A'N9

# TMC SPECIFICATION

| REV: | 0 | A | B | C | D | E | | | | | | | | | | NO: S | 862 | | | | |
|------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-----|---|---|---|---|

COMPILED: NLB  CHECKED:  APPB:  SHEET 26 OF 33
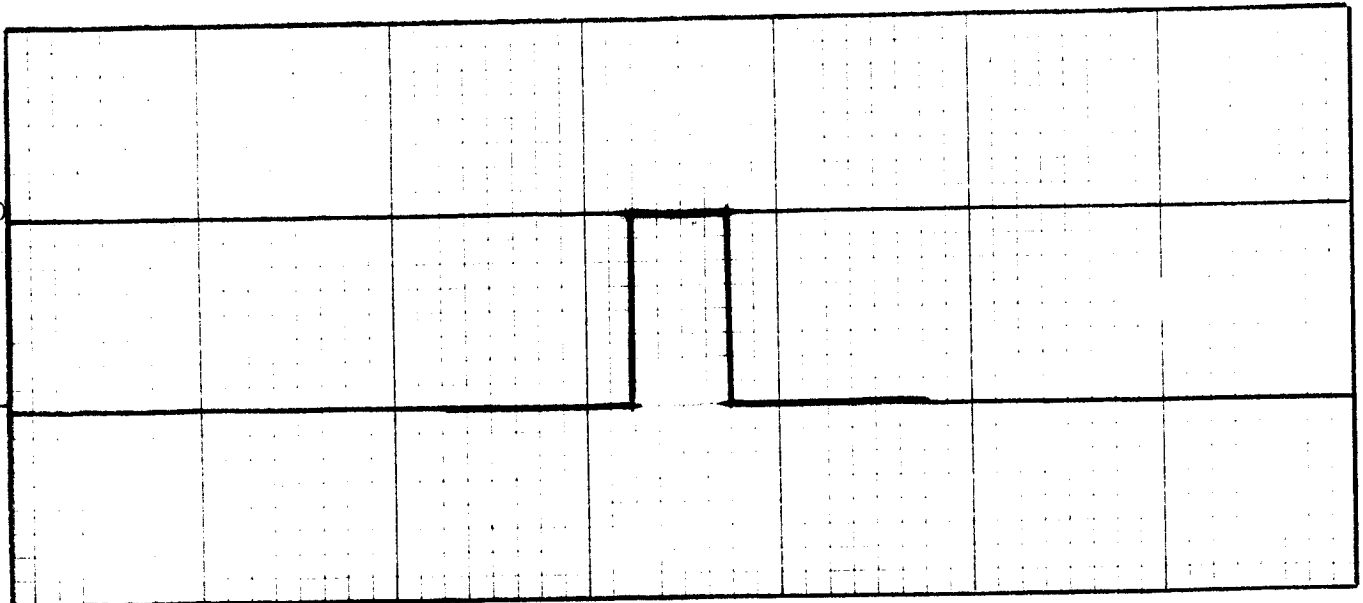
TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed by mtp 9/9/64

(SEE NOTE 4)

## NW110

STEP 1.   Insert module into corresponding socket.

STEP 2.   Only Single Trace needed.  Connect scope probe to TP7, and perform the following test procedures.

STEP 3.   Set input selector to position one (1).

STEP 4.   Apply power to modules by pressing down on momentary switch.

STEP 5.   Output amplitude should read $+12V$ $\pm 1V$ tol.

STEP 6.   If module meets the above test specifications, it is acceptable.

STEP 7.   Release momentary switch supplying power to modules.

STEP 8.   Remove module from socket with module extraction tool. and proceed to next module.

# TMC SPECIFICATION

| REV: | 0 | A | B | C | D | E | | | | | | | | | | | | | | | | | | NO. S 862 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

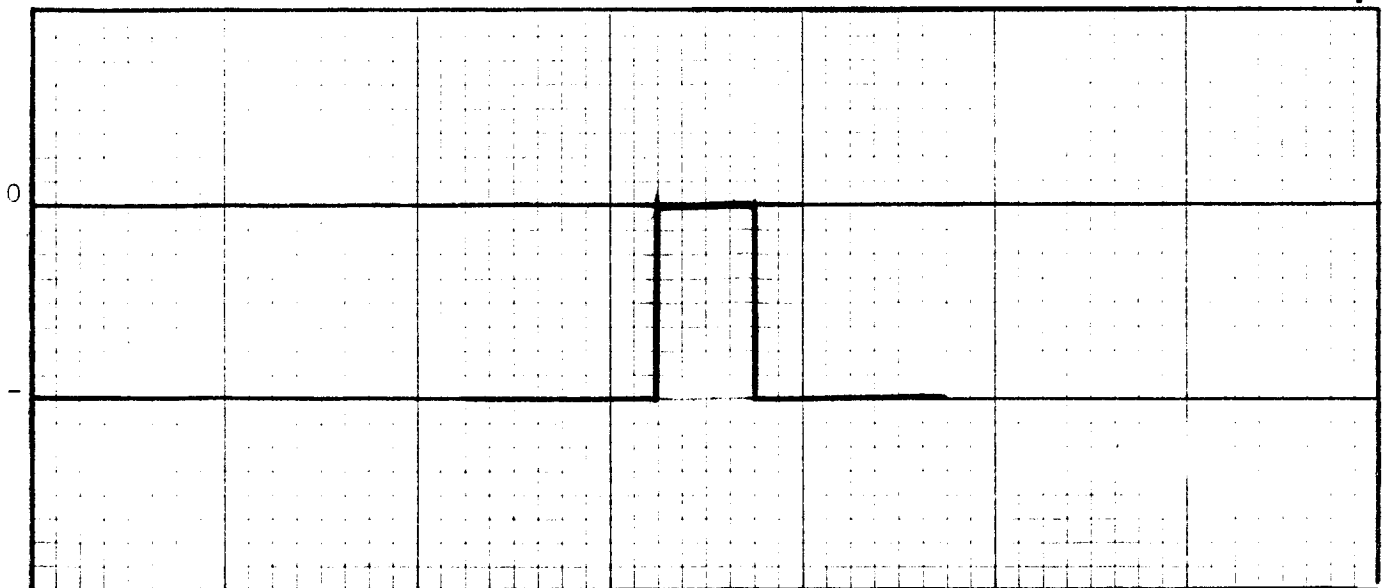| COMPILED: NLB | CHECKED: | APPD: | SHEET 27 OF 33 |
|---|---|---|---|

**TITLE:** TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/9/64 by mtp

(SEE NOTE 4)

<u>NW114-1/NW114-11/NW114-21</u>

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only Single Trace needed.  Connect scope probe to TP7, and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Adjust scope to see one pulse output.

STEP 5.  Output amplitude -12V $\pm$1/2V tol.

STEP 6.  Scope's output should look like Fig. 1 below for test point, · (Positive Pulse).

STEP 7.  If module meets the above test specifications, it is acceptable.

STEP 8.  Release momentary switch supplying power to modules.

STEP 9.  Remove module from socket with module extraction tool, and proceed to next module.

<u>Figure 1 (positive pulse)</u>



TMC FORM SPEC 1

1M-8-84-A1N8

Typed 9/9/64 by mtp

(SEE NOTE 4)                       NW105-1/NW105-11/NW105-21

STEP 1.  Insert module into corresponding socket.

STEP 2.  <u>Single Trace Scope</u>:-
         Connect scope probe to TP7 and perform test procedure outlined below except Steps 6, 7, and 8.
         Remove probe from TP7 and connect to TP8.  Repeat same test functions as TP7.

         <u>Dual Trace Scope</u>:-
         Connect scope probe to TP7 and TP8.  Perform test procedure outlined below.

STEP 3.  Apply power to module by pressing down on momentary switch.

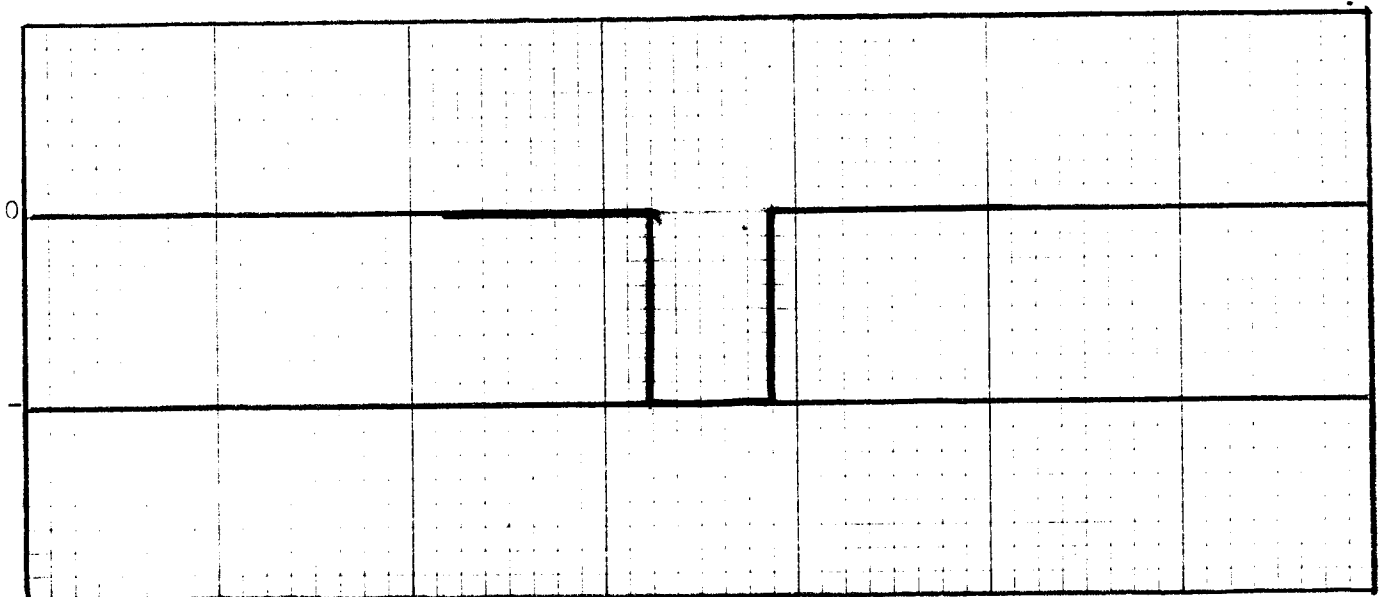STEP 4.  Adjust scope to one pulse output.

STEP 5.  Output amplitude -11V +1V tol.

STEP 6.  Scope's output should look like Figure 1, below, for all test points, (**Negative** Pulse).

STEP 7.  If module meets the above test specifications, it is acceptable.

STEP 8.  Release momentary switch supplying power to modules.

STEP 9.  Remove module from socket with module extraction tool, and proceed to next module.

<u>Figure 1. (**Negative** Pulse)</u>



TMC FORM SPEC 1

# TMC SPECIFICATION

NO. S 862

REV: 0 A B C D E

COMPILED: NLB    CHECKED:    APPD:    SHEET 29   OF 33

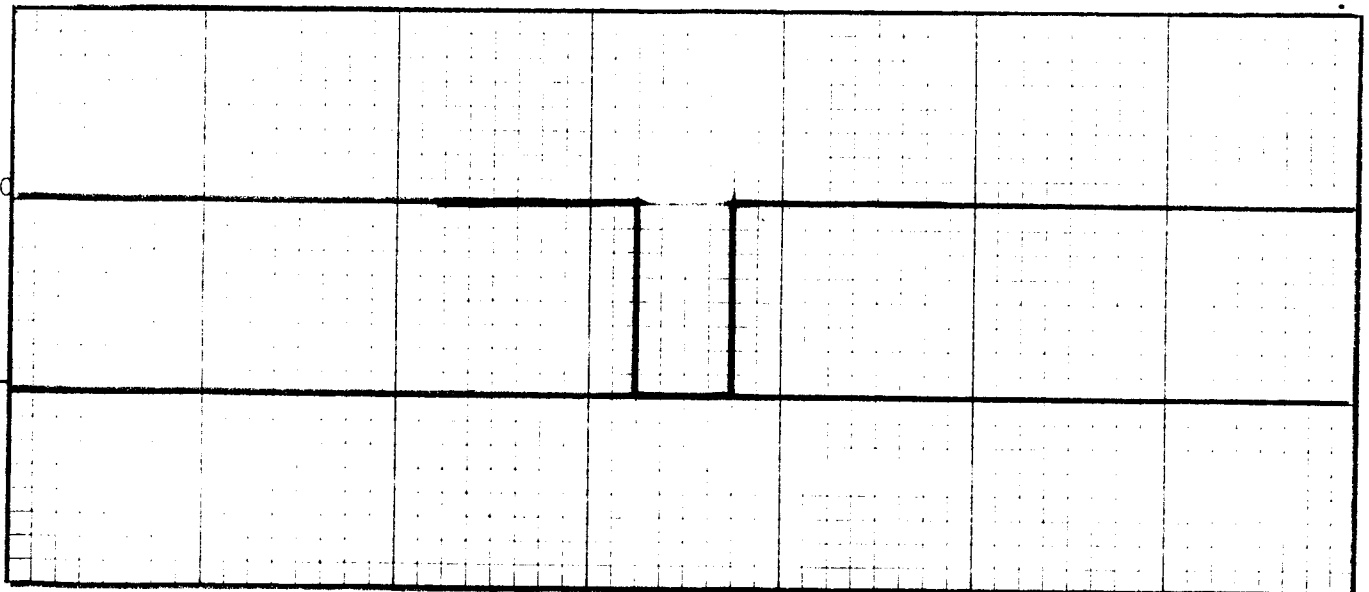TITLE: TEST PROCEDURE FOR LOGIC MODULE TESTER RTDB-1

Typed 9/9/64 by mtp

(SEE NOTE 4)           <u>NW104-1/NW104-21</u>

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only Single Trace needed.  Connect scope probe to TP7 and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to see one pulse output.

STEP 6.  Output amplitude -11V ±1V tol.

STEP 7.  Scope output should look like Figure 1, below, for all test positions, (Negative Pulse).

STEP 8.  Rotate input selector switch through positions 2 and 3 following same test procedure outlined for position one (1).

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10.  Release momentary switch supplying power to modules.

STEP 11.  Remove module from socket with module extraction tool, and proceed to next module.
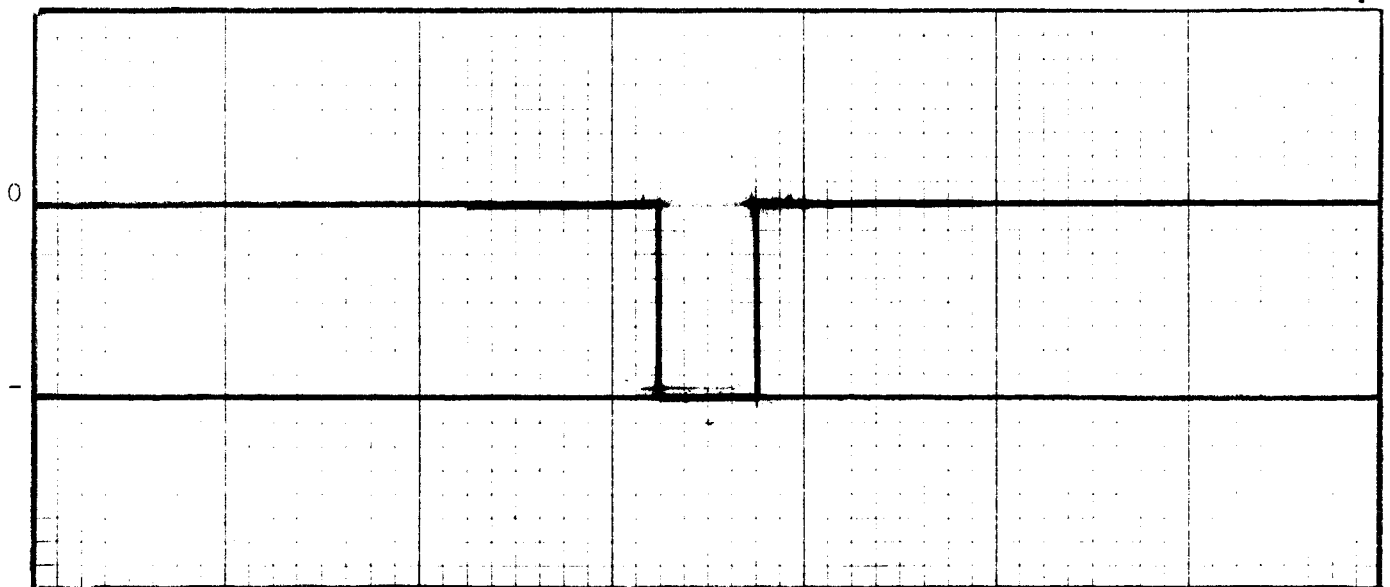
<u>Figure 1.  (negative Pulse)</u>

Typed 9/9/64 by mtp

(SEE NOTE 4)           <u>NW104-2/NW104-22</u>

STEP 1.   Insert module into corresponding socket.

STEP 2.   Only Single Trace needed. Connect scope probe to TP7 and perform the following test procedures.

STEP 3.   Set input selector to position one (1).

STEP 4.   Apply power to modules by pressing down on momentary switch.

STEP 5.   Adjust scope to see one pulse output.

STEP 6.   Output amplitude -11V $\pm$1V tol.

STEP 7.   Scope output should look like Figure 1, below, for all test **positions**, (negative pulse).

STEP 8.   Rotate input selector switch through positions 2, 3, 4, 5 and 6 following the same testing procedure as outlined for position 1.

STEP 9.   If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from **socket** with module extraction tool, and proceed to next module.

<u>Figure 1. (Negative Pulse)</u>

Typed 9/9/64 by mtp

(SEE NOTE 4)                    NW119-1/NW119-21

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only Single Trace needed.  Connect scope probe to TP7 and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to see one pulse output.

STEP 6.  Output amplitude -11V ±1V Tol.

STEP 7.  Scope output should look like Figure 1, below, for all test positions, (negative pulse).

STEP 8.  Rotate input selector switch through positions 2 and 3 following the same testing procedures as for position one (1).

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.

Figure 1.  (Negative Pulse)



TMC FORM SPEC 1                                    1M-8-64-A1N9
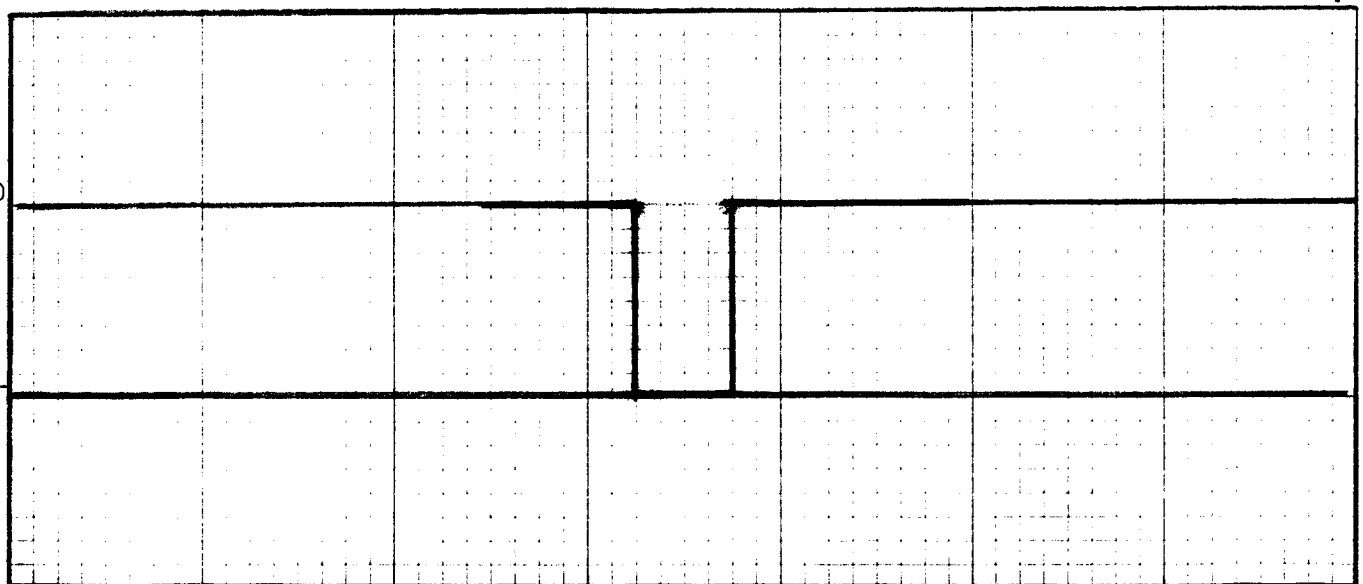
Typed 9/9/64 by mtp

(SEE NOTE 4)                    NW119-2/NW119-22

STEP 1.  Insert module into corresponding socket.

STEP 2.  Only Single Trace needed.  Connect scope probe to TP7 and perform the following test procedures.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope to see one pulse output.

STEP 6.  Output amplitude -11V ±1V tol.

STEP 7.  Scope output should look like Figure 1, below, for all test points, (negative pulse).

STEP 8.  Rotate input selector switch through positions 2 thru 6, following the same testing procedures as for position one (1).

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.

Figure 1.  (Negative Pulse)
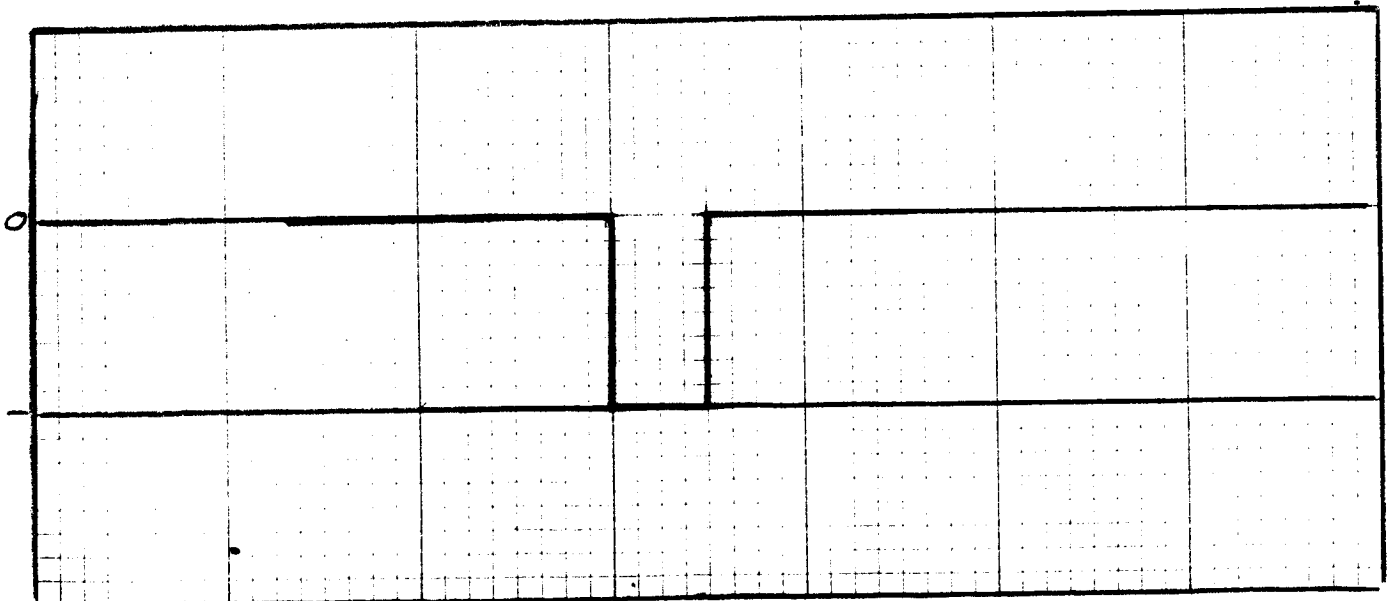
(SEE NOTE 4)                          NW108-3X/NW108-23

STEP 1.  Insert module into corresponding socket on test set panel.

STEP 2.  <u>Single Trace Scope</u>:-  Connect scope probe to TP7 and perform the test procedures outlined below except Steps 9, 10 and 11.

<u>Dual Trace Scope</u>:-  Connect scope probes to TP7.  Proceed with all test functions as listed below.

STEP 3.  Set input selector to position one (1).

STEP 4.  Apply power to modules by pressing down on momentary switch.

STEP 5.  Adjust scope for one pulse output.

STEP 6.  Output amplitude -6V minimum and -12V maximum.

STEP 7.  Scope output should look like Figure 1 below.

STEP 8.  Rotate input selector switch through positions 2 through 9, the same testing procedures as outlined for position 1.

STEP 9.  If module meets the above test specifications, it is acceptable.

STEP 10. Release momentary switch supplying power to modules.

STEP 11. Remove module from socket with module extraction tool, and proceed to next module.


Figure 1 (positive pulse)

| DATE | REV. | SHEET | EMN # | DESCRIPTION | APP. |
|---|---|---|---|---|---|
| 12/15/64 | | 1 of | 30 | O= ORIGINAL RELEASE FOR PRODUCTION. | |
| 2/2/65 | A | 15 | 13614 | Revised pg. 15 per EMN | |
| 8/6/65 | B | ------ | 14632 | Revised shts 3,22 & Index per EMN | |
| 9/22/65 | C | ------ | 14867 | Revised sht 22 and INDEX per EMN | |
| 11/12/65 | D | all | 15196 | Revised per EMN | |
| 8/28/72 | E | 7 | 20855 | revised per EMN | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |