



# MEMO

DATE: Sept. 30, 1974

TO: LIST DEPT: \_\_\_\_\_  
FROM: George Clark DEPT: ICE/TPD  
SUBJECT: M059 REJECTS (155-0090-00, 01, 02)

During Weeks 37, 38, 39, the 7D15 line had a very high reject rate of M059s. The following information explains the problems.

SYMPTOMS - Leading zero's blanking malfunctions with and without reset pushed in.

PROBLEMS - In some instances the M059  $\bar{\phi}$  output does not turn off with transfer high. Input to Pin 10 does not pull this pin high enough to guarantee switching. The current into Pin 10 meets present specs.

CURES - The testing of the M059s has been modified to check for transfer high turning off  $\bar{\phi}$  output. The instrument needs to be modified to insure adequate pull up on transfer. There is a spec change in process to more clearly identify the IC requirements. The pins affected are Pin 1, Pin 2, Pin 9 and Pin 10.

The present spec for Pins 1 and 2 reads:

$$2.0 \leq V_H \leq 5.0$$

$$I_H \text{ at } 1.8V \leq 40\mu A$$

This will be modified so instrument design areas don't have to interpolate for threshold points. The new spec for Pins 1 and 2 will read:

$$1.9 \leq V_H \leq 5.0$$

$$I_H \text{ at } 1.9V \leq 40\mu A$$

The present spec for Pins 9 and 10 read

$$2.0 \leq V_H \leq 5.0$$

$$I_H \text{ at } 2.4 \leq 1.5mA$$

The following new spec will be added to clarify this also.

$$I_H \text{ at } 2.0 \leq 1.0mA$$

The following instruments should insure their applications meet these requirements. 7D12 and 7B85 need to verify Pin 10 usage. 7J20 and 7D15 need to verify Pin 9 and Pin 10 usage.

This means that the user must have a minimum of 1.0mA available to drive Pin 9 or Pin 10 to ensure reliable operation.

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