

TO: DISTRIBUTION  
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DATE: DECEMBER 16, 1971  
SUBJECT: OPERATION OF THE IOM

Switch Settings

In order to use the IOM for BOS/Multics, the following switches must be set properly:

\* At the peripheral switch:

Those peripherals desired should be configured to the IOM. Consult the chart on the peripheral switch for the proper switch settings.

\* At the system controller(s):

Port 4 (the IOM port) should be enabled.

\* At the IOM maintenance panel:

1. Port block switches should be set for the desired system controller(s). The PORT ENABLE switch and SYSTEM INIT ENABLE switches should be set ON for the controller(s) in use.
2. MAILBOX BASE switches should be set to the address  $7600_8$ .
3. INTERRUPT BASE switches should be set to the address  $7403_8$ .  
(The IOM I.D. is 3.)
4. The CARD/TAPE bootload switch should be set to CARD.
5. The NORMAL/TEST switch must be in the NORMAL position.

Bootloading BOS

BOS is bootloaded from the current IOM BOS tape by using a one-card loader marked "BOS IOM LOADER". Behind this card is placed the COLD or WARM card, the TAPE card, the END card, and the configuration deck, as usual. The GIOC BOS tape and/or GIOC BOS bootload decks will not work on the IOM.

Channel Assignments

Channel assignments are different for the IOM from those used on the GIOC. These new channel numbers must be used in configuration decks, GOLD or WARM cards, etc. which are used with the IOM.

DSU-170 or DSU-270	10 <sub>8</sub>
Tape	12 <sub>8</sub>
Printer	15 <sub>8</sub>
Card Reader	16 <sub>8</sub>
Card Punch	17 <sub>8</sub>
Operator's Console	20 <sub>8</sub>

Note that either the DSU-270 or the DSU-170, but not both simultaneously, may be used from the IOM. Only one printer channel is available on the IOM.

Configuration Deck

The GIOC card in the configuration deck must be replaced with the following card:

IOM D 4 7 17 27 37

Cards such as the D270 card must be changed to reflect the correct IOM channel number. Note that the third item on the D270 card (previously the GIOC number)

should be the logical IOM number. Since we have only one IOM, that number should always be 1 (or the letter A).

### Two Problems

Two unfamiliar and bewildering problems may be experienced when running with the IOM. They are described below:

When returning to BOS manually, BOS will hang up if the KEYBOARD UNLOCKED light is on on the operator's console. BOS can be unhung in this state by hitting EOM after transferring to BOS. Never press the RESET CONSOLE button in this state or the IOM console channel will be placed in an inconsistent state.

When running the IOM, never press the INITIALIZE button under the door on the operator's console unless the very next thing you are going to do is press the BOOTLOAD button. Pressing INITIALIZE without bootloading will hang the CPU and all peripherals. It will be impossible to initialize the CPU or manually transfer to BOS in this hung state. The processor will not respond to the use of the EXECUTE or STEP switches. This hung state may be cleared by performing a bootload of BOS, or by pressing the IOM CLEAR button on the IOM maintenance panel.

### The IOM Bell

The bell on the IOM should not ring under normal circumstances. If it does,

it may be reset by pressing the ALARM RESET button on the IOM door on which the maintenance panel is mounted. This door will normally be open, so the button will not normally be visible. The button will be illuminated when the alarm is ringing.