### I/O Processor - Maintenance Panel Cable

<table>
<thead>
<tr>
<th>I/O Processor</th>
<th>Signal Name</th>
<th>Maintenance Panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IncMPanel'</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>ClrMPanel'</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>BlankMPanel</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>PowerFailed'</td>
<td>4</td>
</tr>
<tr>
<td>5</td>
<td>SetTime'</td>
<td>5</td>
</tr>
<tr>
<td>6</td>
<td>Signal GROUND</td>
<td>6</td>
</tr>
<tr>
<td>7</td>
<td>Signal GROUND</td>
<td>7</td>
</tr>
<tr>
<td>8</td>
<td>IOPVcc (IOP + 5 V)</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>IOPVcc (IOP + 5 V)</td>
<td>9</td>
</tr>
<tr>
<td>10</td>
<td>EnMPSignals'</td>
<td>10</td>
</tr>
<tr>
<td>11</td>
<td>1HzClik'</td>
<td>11</td>
</tr>
<tr>
<td>12</td>
<td>AltBoot'</td>
<td>12</td>
</tr>
<tr>
<td>13</td>
<td>BootReset'</td>
<td>13</td>
</tr>
<tr>
<td>14</td>
<td>MPVcc (Maintenance Panel + 5 V)</td>
<td>14</td>
</tr>
</tbody>
</table>

Note: The Time-of-Day clock is powered from the maintenance panel power supply and is thus powered up even when the Dandelion is powered down.
Note: All the logic on this page is powered by the Dandelion +5V (IOPVcc) through the MP-IOP cable. (850 mA max)
Note: All the logic on this page is powered by the MVcc +5V supply in the maintenance panel.
Regulator
TO-3 Metal Can with Heatsink

\[ \text{Thota (Case-Heatsink)} = 0.4 \text{ deg. C/W} \]
\[ \text{Thota (Heatsink-Air)} < 16 \text{ deg. C/W} \]

110 VAC (220 VAC)

12 VAC

1N4003

IN

1000 μF 25 V

1000 μF 25 V

LM340K-5.0

or

MC7805CK

1N4003

D1

* IN

12 VAC

C1

110 VAC (220 VAC)

12 VAC

Transformer

MVcc (500 mA max)

+ 5V DC

+ 5V DC power supply for Time-Of-Day Clock

\[ \text{LineHalfWave} \quad (\text{Half-wave 60Hz/50Hz}) \]

1N4003

D2

R1

C3

0.022 μF

680 ohm

2N2369A

GND

Line Clock for Divider

\[ \text{Power-fail time constant (100 msec)} \]

MPower

1N4003

D4

C5

3.3 μF

33K

10K

R5

MVCc

Pulse One-shot discretes

\(~ \sim 1 \text{ usec typical}\)

MVcc

1N4003

D3

R4

10K

C4

330 pF

\[ \text{Jumper for 60 Hz,} \]

\( (\text{Remove 0 ohm resistor for 50 Hz}) \]

MVcc

R7

10K

50Hz

\[ \text{Logic High} \]

\( (340 \text{ mA}) \]

MVcc

R3

4.7K

High

\( (\text{To page 2}) \)

Note: There are two different +5V power supplies on this page.
IOPVcc comes from the IOP, and
MVcc is generated in the Maintenance Panel.

Page

1

IncPanel'

CIRPanel'

BlankPanel'

PowerFailed'

SetTime'

GND

GND

IOPVcc

IOPVcc

EnMPsignals'

1HzClk'

AltBoot'

BootReset'

MVcc

I/O Connector to IOP

Panel Switches

XEROX SDD

Project

Dandelion

Maintenance Panel

Discrete components - PC

File

pDandMP03.sil

Designer

Ogus

Rev

D

Date

3/17/80

Page

3
# Dandelion Maintenance Panel

## Parts list for Revision D

*(filed on [iris]<Workstation>\OP\MPParts-D.txt)*

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Drawing Title</th>
<th>No. Req.</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Integrated Circuit 74LS74</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Integrated Circuit 74LS163</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Integrated Circuit 74LS244</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Integrated Circuit 7414</td>
<td>1</td>
<td></td>
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<tr>
<td>1</td>
<td>Integrated Circuit 74123</td>
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<td></td>
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<tr>
<td>4</td>
<td>Integrated Circuit 74143</td>
<td>4</td>
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</tr>
<tr>
<td>2</td>
<td>7-segment display MAN6710</td>
<td>2</td>
<td>Monsanto Dual-digit display</td>
</tr>
<tr>
<td>1</td>
<td>IC regulator LM340K-5.0 or MC7805CK</td>
<td>1</td>
<td>+5V 3-terminal regulator TO-3 Metal case</td>
</tr>
<tr>
<td>1</td>
<td>Heatsink Commercial type for TO-3 case with: Theta (Heatsink-Air) &lt; 16 deg.C/W</td>
<td>1</td>
<td>Mounting: Theta (Case-Sink) &lt; .4 C/W</td>
</tr>
<tr>
<td>5</td>
<td>Diode Silicon Rectifier 1N4003</td>
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</tr>
<tr>
<td>1</td>
<td>Capacitor C1 1000 uF, 25V</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Capacitor C2 0.47 uF, 25V</td>
<td>1</td>
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</tr>
<tr>
<td>1</td>
<td>Capacitor C3 0.022 uF, 25V</td>
<td>1</td>
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<tr>
<td>1</td>
<td>Capacitor C4 330 pF</td>
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</tr>
<tr>
<td>2</td>
<td>Capacitor C5, C6 3.3 uF, 25V</td>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Capacitor .1 uF bypass, 25V</td>
<td>1</td>
<td>1 per 3 chip positions</td>
</tr>
<tr>
<td>1</td>
<td>Resistor R1 68K, 1/4 watt</td>
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</tr>
<tr>
<td>1</td>
<td>Resistor R2 680 ohm, 1/4 watt</td>
<td>1</td>
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<tr>
<td>1</td>
<td>Resistor R3 4.7K, 1/4 watt</td>
<td>1</td>
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<tr>
<td>2</td>
<td>Resistor R4, R7 10K, 1/4 watt</td>
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</tr>
<tr>
<td>1</td>
<td>Resistor R5 33K, 1/4 watt</td>
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</tr>
<tr>
<td>1</td>
<td>Resistor R6 22K, 1/4 watt</td>
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<tr>
<td>1</td>
<td>Resistor R8 0 ohms (jumper)</td>
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<tr>
<td>1</td>
<td>Transformer 110 VAC/12 VAC</td>
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</tr>
</tbody>
</table>

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