1. GENERAL DESCRIPTION

The A70T-J1LP23 Network Unit (hereafter abbreviated to A70T-J1LP23) and the A70T-J1BR13 net- work unit (hereafter abbreviated to A70T-J1BR13) are Network Units. They are used as part of Mitsubishi's MELSECNET/H1 network system.

On this User's Manual gives the specifications, switch settings, and the method of installing the A70T-GST.

A70T-J1LP23
For connection in MELSECNET/H1 optical loop networks, as normal station only.

A70T-J1BR13
Station in MELSECNET/H1 coallops bus networks, as normal station only.

The A70T-J1BR13 comes equipped in an F type connector (M60CN13).

2. SPECIFICATIONS

The performance specifications of the A70T-J1LP23/ A70T-J1BR13 are as given in the left-hand part.

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
<th>A70T-J1LP23</th>
<th>A70T-J1BR13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum number of link points per station</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps (10 Mbps:8 Mbps/cell)</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>Maximum number of link points per station</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Maximum number of link points per station</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Communication method</td>
<td>Frame communication</td>
<td>Frame communication</td>
<td>Frame communication</td>
</tr>
<tr>
<td>Maximum number of network nodes</td>
<td>64</td>
<td>64</td>
<td>64</td>
</tr>
<tr>
<td>Maximum number of network nodes</td>
<td>512</td>
<td>512</td>
<td>512</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
<tr>
<td>Communication speed</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
<td>10 Mbps</td>
</tr>
</tbody>
</table>

3. NAMES OF PARTS AND SETTINGS

The following gives the names of parts and settings of the A70T-J1LP23/A70T-J1BR13.

(A70T-J1LP23)

(Front view)

(Face view)

No. | Name | Description |
---|------|-------------|
1 | RUN | ON-OFF switch (Unit start/stop) |
2 | M/S/E | Manual, semi-automatic, automatic mode switch |
3 | COMM | Communication switch (Front view) |
4 | DATA | Data link switch (Front view) |
5 | COMM | Communication switch (Face view) |
6 | DATA | Data link switch (Face view) |
7 | RS-232C | RS-232C communication port |
8 | EXT | External terminal port |
9 | B/D | Battery disconnecter |
10 | SEL | Select button |

(B) | Name | Description |
---|------|-------------|
1 | MODE | Mode select switch (Face view) |
2 | A/D | Analog input terminal |
3 | D/A | Digital output terminal |
4 | COM | Communication terminal |
5 | EXP | Expander terminal |
6 | EXT | External terminal |
7 | B/D | Battery disconnecter |
8 | SEL | Select button |

The following gives the names of parts and settings of the A70T-J1LP23/A70T-J1BR13.

(A70T-J1LP23)

(Front view)

(Face view)
### 4. Wiring

#### 4.1 Handling Precautions

1. The unit has a reason if an error. Do not drop it or subject it to any impact.
2. Do not remove the printed circuit boards from the unit since this may cause it.
3. During wiring work, take care to ensure that no off-cuts fall into the unit.
4. Tighten the unit mounting screws and terminal screws with the torque specified below.

**Table: Unit Mounting Torque**

<table>
<thead>
<tr>
<th>Screw Location</th>
<th>Tightening Torque Range (Nm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit mounting screw</td>
<td>28 to 48 (0.7 to 4.8)</td>
</tr>
</tbody>
</table>

#### 4.2 Installation

Follow the procedures given below when installing or removing the A77GT-J1TB3:

1. Always turn off the power to the A77GT-G3 before removing or installing the A77GT-J1TB3.

**Installation**

1. Place the A77GT-J1TB3 or A77GT-J1TB3 into the installation position on the back side of the A77GT-G3 by sliding it along the guide rails provided for the mounting screws.
2. Insert and tighten three unit mounting screws and secure the unit.

**Removal**

1. Remove three unit mounting screws and pull out the A77GT-J1TB3 along the guides.

#### 4.3 Precautions for Cable Connections

**4.3.1 Precautions for cable connections (A77GT-J1TB3)**

1. When building an optical loop system with the A77GT-J1TB3, several types of fiber-optic cables must be used according to the cable length between stations.

**Table: Cable Length Between Stations**

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Length between Stations (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type TB</td>
<td>500 (560)</td>
</tr>
<tr>
<td>Type LJ</td>
<td>300 (384)</td>
</tr>
<tr>
<td>Type GB</td>
<td>50 (58)</td>
</tr>
</tbody>
</table>

2. Fiber-optic cables have the following limitations on the bending radius:

- Standard cable: 90 (1.97)
- Reinforced cable: 85 (3.39)
- Standard cable: 85 (3.39)
- Reinforced cable: 140 (8.11)

**4.3.2 Precautions for shielded coaxial cables**

1. When connecting a fiber-optic cable, use caution not to touch the fiber optics in the cable or module connector and use caution so that the cable or shield is not contaminated with dirt and dust. If the cable is contaminated with finger grease, dust, and sand, transmission loss will increase and data link faults will occur.
2. When engaging and disengaging the cable connector, hold the cable connector by hand. Do not grab and pull the cable line.

---

### 5. Outside Dimensions

#### 5.1 A77GT-J1TB23

**Table:**

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Outside Diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A77GT-J1TB23</td>
<td>142.5 (5.61)</td>
</tr>
</tbody>
</table>

#### 5.2 A77GT-J1TB13

**Table:**

<table>
<thead>
<tr>
<th>Cable Type</th>
<th>Outside Diameter (mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A77GT-J1TB13</td>
<td>142.5 (5.61)</td>
</tr>
</tbody>
</table>

---

**Revisions**

- **Feb. 1986**

---

**Important Notes:**

1. The equipment described in this manual is intended for use as a result of the equipment described in this manual.
2. All diagrams and illustrations in this manual are intended for educational purposes only and not to be used for any other purpose.
3. Do not touch the conductive areas of the printed circuit board and its electrical parts with ungrounded tools.
4. Under no circumstances will Mitsubishi Electric Electric be liable or responsible for any consequential damage that may arise as a result of the equipment described in this manual.
5. Some illustrations may appear to be a result of the equipment described in this manual. However, they are not intended to represent the actual design of the equipment described in this manual.