4. Part Name

2.3 Communication Specifications

Item | Specifications
--- | ---
GDT communication | TCP/IP (default), CANopen (optional), EtherCAT (optional), DEVICEnet (optional), Profinet (optional), USB (optional)
PC communication | USB (default), COM, HDMI (optional), LAN (optional), PCIexpress (optional)

2.4 Power Supply Specifications

Item | Specifications
--- | ---
Input power supply voltage | Supplied from the GDT or PC (450VDC bus)
Input power consumption | Less than 3W (when using the GDT)

5. LED lighting specification

LED Name | Contents | Specifications
--- | --- | ---
POWER | Power switch | LED on: red/LED off: black
SET/TRAN | Setting/Transition switch | LED on: red/LED off: black
ERROR | Error indicator | LED on: red/LED off: black
ENT key | Enter key | LED on: red/LED off: black

6. Switch operation specification

No. | Name | Specifications
--- | --- | ---
1 | POWER led | LED on: red/LED off: black
2 | SET/TRAN led | LED on: red/LED off: black
3 | ERROR led | LED on: red/LED off: black
4 | ENT key | LED on: red/LED off: black

4. Output port specifications

Item | Specifications
--- | ---
GDT communication | TCP/IP (default), CANopen (optional), EtherCAT (optional), DEVICEnet (optional), Profinet (optional), USB (optional)
PC communication | USB (default), COM, HDMI (optional), LAN (optional), PCIexpress (optional)
**GT10-LDR Memory loader**

**User's Manual**

1. **Overview**
   - GT10-LDR memory loader is the memory transfer module that reads/writes the data to or from a PC (GT Designer Ver. 2.79F or later, GT Designer Ver. 1.01F or later and GT-LDR).

   *1) When GT10-LDR is connected to a PC on the USB bus, the power supply of the 100V bus must be supplied by the AC adapter of the USB bus.

   GT10-LDR connected to the USB bus may not work properly depending on the PC environment and the data, since the GT-LDR20G is directly to the 100V part on the PC.

2. **Specifications**

   **2.1 General Specifications**

   - **Frequency**
     - Power supply: 5VDC ±10%
     - Display: 5V DC ±10%
     - Power consumption: 0.7W (140mA/DC5V) or less
     - LED Name
       - Red light: The data to be transferred is broken.
       - Red  flashing: Communication error occurs between the GOT and the memory loader.

   - **Dimensions**
     - Width: 108mm (4.25"
     - Height: 55 mm (2.17"
     - Thickness: 19mm (0.75"
     - Weight: 450g (15.9 oz)

   **2.2 Performance Specifications**

   - **LED**
     - Beep sound
     - Error contents: POWER LED is not lit. Power is not supplied.

   **2.3 Communication Specifications**

   - **Item**
     - **Specification**
       - Data transmission rate: 115,200bps/baud (Max.)

3. **External Dimensions**

   **External Dimensions**

   - **Unit**
     - mm (inch)

4. **Port Name**

   **Port Name**

   - **No.**
     - **Name**
       - POWER IN
       - USBpin
       - ENT key
       - DATA selection switch
       - SET pin
       - ON/OFF switch

5. **LED lighting specification**

   **LED Name**

   - **Specification**
     - **Description**
       - POWER LED
       - SET key

6. **Switch operation specification**

   **Switch Operation Specification**

   - **Table**
     - **No.**
       - **Name**
         - HD98M selection switch
         - ENT key

---

**Compliance with EC directive (CE Marking)**

This note does not guarantee that an entire mechanical module produced in accordance with the content of this note will comply with the following directives. This note is for use when handling the memory loader. For details please contact the local Mitsubishi Electric sales site.

**Requirement for Compliance with EMC directive**

- The following products have been classified to ensure that all necessary measures have been taken by the manufacturer for electromagnetic Compatibility (2004/108/EC) when used as directed by the manufacturer.

- **EN61131-2-5 : ISO Programmed Devices - requirements and tests**

- **Specifications**
  - **Name**
    - **Quantity**
      - **Status**

---

**Specifications are subject to change without notice. Whenever necessary. Always forward it to the end user.**

This manual describes the part names, dimensions, mounting, and specifications. In any case, it is important to follow the directions for usage. When handling the memory loader, do not touch the conductive and electronic parts of the memory loader such as pins or terminals. Doing so can cause the breaking of the cables. This manual contains information on handling and instructions in use. Read these precautions before using.
2. To read out the data from the memory loader to a PC (GT Designer2 Ver.2.77F or later, GT Designer3 Ver.1.01B or later)

   The project data and resource data are read out from the memory loader to a PC (GT Designer2 or GT Designer3). The operation procedure is described below.

   1. Connect a PC (GT Designer2, GT Designer3) to the memory loader with USB cable.
   2. Turn ON the GOT by pressing the lower right corner of the GOT.
   3. When the password matches, a message notifying Password correct is display.
   4. Touch the "INPUT" key.
   5. Press the ENT key again to start the transfer. (SET/RUN LED will be green flashing.)

   3. When the data selection switch is [PROJECT + OS]

   3.1) When the Data selection switch is [PROJECT + OS], and data is read out from the memory loader to the PC (GT Designer2, GT Designer3).

   3.1.1) The project data or resource data is read out from the memory loader to the PC (GT Designer2, GT Designer3).

   3.1.2) The standard monitor OS, communication driver, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.2) When the data selection switch is [MONITOR OS], and data is read out from the memory loader to the PC (GT Designer2, GT Designer3).

   3.2.1) The standard monitor OS, communication driver, project data, and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.3) When the data selection switch is [MONITOR OS + COMM. DRIVER]

   3.3.1) The standard monitor OS and communication driver are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.4) When the data selection switch is [COMM. DRIVER]

   3.4.1) The communication driver is written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.5) When the data selection switch is [PROJECT]

   3.5.1) The project data is written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.6) When the data selection switch is [RESOURCE]

   3.6.1) The resource data is written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.7) When the data selection switch is [MONITOR OS + PROJECT]

   3.7.1) The standard monitor OS and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.8) When the data selection switch is [MONITOR OS + RESOURCE]

   3.8.1) The standard monitor OS and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.9) When the data selection switch is [COMM. DR + PROJECT]

   3.9.1) The communication driver and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.10) When the data selection switch is [COMM. DR + RESOURCE]

   3.10.1) The communication driver and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.11) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT]

   3.11.1) The standard monitor OS, communication driver, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.12) When the data selection switch is [MONITOR OS + COMM. DR + RESOURCE]

   3.12.1) The standard monitor OS, communication driver, and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.13) When the data selection switch is [COMM. DR + PROJECT + RESOURCE]

   3.13.1) The communication driver, project data, and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.14) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT + RESOURCE]

   3.14.1) The standard monitor OS, communication driver, project data, and resource data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.15) When the data selection switch is [COMM. DR + PROJECT + RESOURCE + PROJECT]

   3.15.1) The communication driver, project data, resource data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.16) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT + RESOURCE + PROJECT]

   3.16.1) The standard monitor OS, communication driver, project data, resource data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.17) When the data selection switch is [COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT]

   3.17.1) The communication driver, project data, resource data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.18) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT]

   3.18.1) The standard monitor OS, communication driver, project data, resource data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.19) When the data selection switch is [COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT + PROJECT]

   3.19.1) The communication driver, project data, resource data, project data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.20) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT + PROJECT]

   3.20.1) The standard monitor OS, communication driver, project data, resource data, project data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.21) When the data selection switch is [COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT + PROJECT + PROJECT]

   3.21.1) The communication driver, project data, resource data, project data, project data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.

   3.22) When the data selection switch is [MONITOR OS + COMM. DR + PROJECT + RESOURCE + PROJECT + PROJECT + PROJECT + PROJECT]

   3.22.1) The standard monitor OS, communication driver, project data, resource data, project data, project data, project data, and project data are written from a PC (GT Designer2, GT Designer3) to the memory loader.
7. Function specification

7.1 Transfer function

1) Connect the memory loader to the GOT.
2) Connect the memory loader to the GOT.
3) Turn ON the GOT by pressing the lower right corner of the GOT.
4) Set the Data selection switch to [PROJECT + OS] and the RD/WR selection switch to [RD].
5) Press the ENT key to determine the data to be transferred and transfer direction.
6) Record the password in the memory loader.
7) Turn OFF the Write protection switch.
8) Connect the memory loader to the GOT and turn ON the GOT.
9) The state of the LED indicates whether the data to be transferred and the transfer direction are determined.
10) Remove all data from the GOT to the memory loader, and then transfer them to the GOT again.

7.2 Password reset function on the GOT

When entering the password, if the password is entered incorrectly, the password entry screen will appear on the GOT.

1) Connect a PC (GT Designer2 Ver.2.77F or later, GT Designer3 Ver.1.01B or later) to the GOT.
2) Connect the memory loader to the GOT.
3) Turn ON the GOT by pressing the lower right corner of the GOT.
4) Set the Data selection switch to [PROJECT + OS] and the RD/WR selection switch to [RD].
5) Press the ENT key to determine the data to be transferred and transfer direction.
6) Record the password in the memory loader.
7) Turn OFF the Write protection switch.
8) Connect the memory loader to the GOT and turn ON the GOT.
9) The state of the LED indicates whether the data to be transferred and the transfer direction are determined.
10) Remove all data from the GOT to the memory loader, and then transfer them to the GOT again.

8. Installation of Driver, Setting Software

When communicating between a computer (GT Designer2 Ver.2.77F or later, GT Designer3 Ver.1.01B or later) and the memory loader performed, driver installation is required. Refer to the following manual for details about installation methods.

9. Transfer procedures between a PC and the Memory Loader

9.1 To set the data from a PC (GT Designer2 Ver.2.77F or later, GT Designer3 Ver.1.01B or later) to the memory loader

1) Connect a PC (GT Designer2, GT Designer3) to the memory loader with USB cable.
2) Connect the memory loader to the GOT.
3) Turn ON the GOT by pressing the lower right corner of the GOT.
4) Set the Data selection switch to [PROJECT + OS] and the RD/WR selection switch to [RD].
5) Press the ENT key to determine the data to be transferred and transfer direction.
6) Record the password in the memory loader.
7) Turn OFF the Write protection switch.
8) Connect the memory loader to the GOT and turn ON the GOT.
9) The state of the LED indicates whether the data to be transferred and the transfer direction are determined.
10) Remove all data from the GOT to the memory loader, and then transfer them to the GOT again.

11.2 When the Data selection switch is [PROJECT]

1) Connect the memory loader to the GOT.
2) Turn ON the GOT.
3) Turn OFF the Write protection switch.
4) Set the Data selection switch to [PROJECT] and the RD/WR selection switch to [RD].
5) Press the ENT key to determine the data to be transferred and transfer direction.
6) Record the password in the memory loader.
7) Turn OFF the Write protection switch.
8) Connect the memory loader to the GOT and turn ON the GOT.
9) The state of the LED indicates whether the data to be transferred and the transfer direction are determined.
10) Remove all data from the GOT to the memory loader, and then transfer them to the GOT again.

11.3 When the Data selection switch is [PROJECT + OS]

1) Connect the memory loader to the GOT.
2) Turn ON the GOT.
3) Turn OFF the Write protection switch.
4) Set the Data selection switch to [PROJECT + OS] and the RD/WR selection switch to [RD].
5) Press the ENT key to determine the data to be transferred and transfer direction.
6) Record the password in the memory loader.
7) Turn OFF the Write protection switch.
8) Connect the memory loader to the GOT and turn ON the GOT.
9) The state of the LED indicates whether the data to be transferred and the transfer direction are determined.
10) Remove all data from the GOT to the memory loader, and then transfer them to the GOT again.

12. Troubleshooting

12.1 GT error message

When communicating between the GOT and the memory loader does not work, check the following items on the error message displayed on the GOT.

12.2 LED display on the memory loader

When communication cannot be established between the GOT and a PC using a memory loader, check the following errors by observing display name LED display on the memory loader.

12.3 LED light on the memory loader

When communication cannot be established between the GOT and a PC using a memory loader, check the following errors by observing display name LED light on the memory loader.
**3. External Dimensions**

**Unit:** mm (inch)

- Thickness: 9.44 (0.37)
- Width: 240 (9.44)
- Depth: 320 (12.59)
- Weight: 0.2 kg (0.44 lbs)

**2.4 Power Supply Specifications**

- Input power supply voltage: 90 to 240 VAC/DC
- Power consumption: Less than 1 W (when the power is turned off, 0 W)
- Input power supply frequency: 50/60 Hz

**4. Part Name**

- Unit (mm) (Unit (inch))
- Unit (mm) (Unit (inch))

**5. LED lighting specification**

- **LED Name**: POWER, SET/RESET
- **Specifications**: 
  - **Power**: 30 mA, 30 mA
  - **Set/reset**: 30 mA, 30 mA

**6. Switch operation specification**

- **Indicative Data**: 
  - **NT/ON**: 30 mA, 30 mA
  - **OFF**: 30 mA, 30 mA

- **Specifications**: 
  - **NT/ON**: 30 mA, 30 mA
  - **OFF**: 30 mA, 30 mA
7. Function specification

7.1 Transfer function

1) Connect the memory loader to the GOT.
2) Turn ON the Write protection switch.
3) Write the data from a PC (GT Designer2, GT Designer3) to the memory loader.
4) Press the EN/SET key, and then the Write protection switch is set.
5) Press the ENT key again to start the transfer. (SET/RUN LED will be green flashing.)
6) Turn OFF the Write protection switch.
7) Confirm the data in the memory loader after the transfer is completed. (SET/RUN LED will be green.)

Note: Refer to the “Chapter 12 Troubleshooting” for details on handling errors during transferring.

8. Installation of Driver, Setting Software

When the communication between a PC (GT Designer2 Ver.2.77 or later, GT Designer3 Ver.1.80 or later, or the memory loader) and a personal computer (driver) is performed, driver installation is required. Refer to the following manual for details about installation instructions.

3) GT Designer3 Version/Basic Operation Data/Transfer Manual (GT Designer3 Version/Basic Operation Design Manual for GT Designer3)

8.2 Communication port setting

When communication from the PC to the memory loader is transferred, the communication port is set as follows:

Windows®: [Start]  [Settings]  [Control Panel]  [System]  [Device Manager]  [Ports (COM & LPT)]

Macintosh: [Go]  [Applications]  [System Preferences]  [Printers & Scanners]  [Add Printer/Scanner]  [USB]

Note: The communication port is automatically set when the communication port setting screen appears.

9. Transfer procedures between a PC and a Memory Loader

9.1 From the data from a PC (GT Designer2 Ver.2.77 or later, GT Designer3 Ver.1.80 or later) to the memory loader

Before the data reading operation, the communication driver data and error message data are read out from the memory loader to a PC.

Check following:

- GT Designer2: GT Designer3 COM number as the COM number
- GT Designer3: GT Designer3 COM number as the COM number

10. When the Data selection switch is [PROJECT + OS]

10.1 When the Data selection switch is [PROJECT + OS]

1) Press the EN/SET key to set the communication port.
2) [Start]  [Settings]  [Control Panel]  [System]  [Device Manager]  [Ports (COM & LPT)]  [Select the GT Designer2 COM number as the COM number]
3) Press the EN/SET key, and then the Write protection switch is set.
4) Press the EN/SET key again to start the transfer. (SET/RUN LED will be green flashing.)
5) Press the EN/SET key, and then the Write protection switch is set.
6) Press the EN/SET key again to start the transfer. (SET/RUN LED will be green flashing.)
7) Turn OFF the Write protection switch.
8) Confirm the data in the memory loader after the transfer is completed. (SET/RUN LED will be green.)

Note: Refer to the “Chapter 12 Troubleshooting” for details on handling errors during transferring.

11.2 When the Data selection switch is [PROJECT]

1) Connect the memory loader to the GOT.
2) Turn ON the Write protection switch.
3) Write the data to be transferred in the memory loader.
4) Press the EN/SET key, and then the Write protection switch is set.
5) Press the EN/SET key again to start the transfer. (SET/RUN LED will be green flashing.)
6) Turn OFF the Write protection switch.
7) Confirm the data in the memory loader after the transfer is completed. (SET/RUN LED will be green.)

Note: Refer to the “Chapter 12 Troubleshooting” for details on handling errors during transferring.

12. LED display on the memory loader

If communication cannot be established between the GOT and a PC using memory loader, confirm the following display of memory loader LED in Table 1.

<table>
<thead>
<tr>
<th>LED</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red light</td>
<td>Power supply failure</td>
</tr>
<tr>
<td>Yellow light</td>
<td>Communication port failure</td>
</tr>
<tr>
<td>Green light</td>
<td>Normal operation</td>
</tr>
</tbody>
</table>

When the communication is transferred, the LED display on the memory loader is described below.

For safe use

Confirmation of購入後の手順

For safe use

For safe use

For safe use