Operation Manual
LC-8026T Display Unit CE 0086

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CE 0086

This device bears the CE label in accordance with the provisions of Medical Device Directive 93/42/EEC.

This device bears the CE label in accordance with the provisions of RoHS Directive 2011/65/EU.

EC REP Fukuda Denshi UK
Unit 7, Genesis Business Park, Albert Drive, Woking, Surrey
GU21 5RW, United Kingdom

Thank you for purchasing our product.
Read the "Safety Precautions" thoroughly before use to ensure correct and safe use of the product.
For details of the operation procedure, please also refer to the operation manual of the DS-8900 System Central Monitor to be connected to the LC-8026T.

Safety Precautions

Make sure to follow the precautions indicated below, as these are important messages related to safety. The followings are descriptions and graphic symbols of the safety and precaution messages used in this manual.

⚠DANGER	Failure to follow this message may cause immediate threat of death or serious injury.
⚠WARNING	Failure to follow this message may result in death or serious injury.
⚠CAUTION	Failure to follow this message may cause injury or failure to the equipment.
NOTE	A note is not related to product safety, but provides information about the correct use and operating procedures to prevent incorrect operation and malfunction of the equipment.

⚠DANGER

- Do not use near an area where chemicals are stored or flammable gas may generate.
- When connecting with other equipment, contact our service representative.
- If the fuse blows, contact Fukuda Denshi service representative. Do not continue using it as internal damage to the equipment may be considered.

⚠WARNING

- If this equipment is used under an environment not fulfilling the specified condition, not only that the equipment cannot deliver its maximum performance, the equipment may be damaged and safety cannot be ensured. If using the equipment under condition other than specified, contact your nearest representative.
- The power cable must be connected to a hospital grade outlet.
- When connecting the power supply, do not use a multiple portable socket-outlet.
- Use only the supplied 3-way AC power cable. Use of other cables may result in electric shock to the patient and the operator.
- When using multiple ME equipment simultaneously, perform equipotential grounding to prevent potential difference between the equipment. Even a small potential difference may result in electric shock to the patient and the operator.
- Do not connect any equipment or cable not authorized by Fukuda Denshi to any I/O connector. Otherwise, the equipment cannot deliver its maximum performance and the connected equipment may be damaged, resulting in a safety hazard.
- Use of other equipment or cables may result in an increase in emission or decrease in immunity.

⚠CAUTION

Read the following precautions thoroughly to correctly operate the equipment.

- Users should have a thorough knowledge of the operation before using this equipment.
- Pay attention to the following when installing and storing the equipment.
  - Install or store in a place where the equipment will not be exposed to splashing water.
  - Install or store in a place where the equipment will not be adversely affected by atmospheric pressure, temperature, humidity, ventilation, sunlight, dust or atmosphere containing salt or sulfur.
  - Place the product on a stable surface where there is no inclination, vibration or shock (including during transportation).
  - Do not install or store in an area where chemicals are stored or gasses are evolved.
  - Verify the power frequency, voltage and allowable current (or power consumption).
  - Ensure the grounding is proper by connecting the accompanying power cable to the hospital grade outlet.
  - Do not install the equipment in a location where it is difficult to unplug the power cable.
- Before operating the equipment, verify the following items.
  - Verify the power voltage.
  - Check the cable connection and polarity to ensure proper operation of the equipment.
  - Make sure the power system has adequate earth ground.
  - Ensure that all cables are firmly and safely connected.
  - Pay special attention when the equipment is used in conjunction with other equipment as it may cause erroneous diagnosis and danger.
- During operation of the equipment, verify the following items.
  - Always observe the equipment and patient to ensure safe operation of the equipment.
  - If any abnormality is found on the equipment or patient, take appropriate measures such as ceasing operation of the equipment in the safest way for the patient.
  - Do not allow the patient to come in contact with the equipment. Also, the operator should not contact the patient and the equipment at the same time.
  - On start-up of the system, verify that the start-up tone generates and alarm indicator lights.
- After using the equipment, verify the following items.
  - When unplugging the cables, make sure to pull from the connector part of the cable and avoid applying excessive force.
  - Clean the accessories and cables, and keep them together in one place.
  - Keep the equipment clean to ensure proper operation for the next use.
- Exposing LCD panel to intense light may deteriorate display property. Do not expose the panel to direct sunlight or strong ultra violet (UV) light for a long period of time.
- Since the backlight used for this equipment deteriorates with its life cycle, the display may become dark, flicker, or may not light in long term use. In such case, contact your nearest service representative.
- Although the LCD panel utilizes highly accurate picture elements, occasionally, there may be a few pixels which do not light or constantly light. Please note that this is not an unit failure, and will not affect monitoring operation.
- Do not use the touch panel with the film or adhesive tape attached. Malfunction of the touch panel or damage may result.
- As the touch panel is made of glass, a strong impact may cause damage. Pay attention not to hit or drop this equipment.
- Always operate the touch panel with fingers or a touch panel pen. Do not touch with a pen-point or other hard-edged instruments. It may cause malfunction. In addition, do not apply pressure to whole or part of the panel for a prolonged time.
- Do not press the touch panel with strength or twist your finger on the panel. It may cause malfunction or damage the touch panel.
- Due to its material characteristic, the touch panel expands/contracts depending on the temperature/humidity. When the touch panel is left unused for a while, or when the ambient temperature is low, the surface film of the touch panel may expand, but this is not an abnormal condition. This expansion will reduce in a few hours or half a day after the power is turned ON.
- The maintenance and internal switch setting should be performed by our service representative. Users should not perform this procedure as malfunction of the equipment may occur.
- If the equipment is damaged and in need of repair, the user should not attempt service. Label the unit "OUT OF ORDER" and contact our service representative.
- Do not disassemble or remodel the equipment.

⚠CAUTION

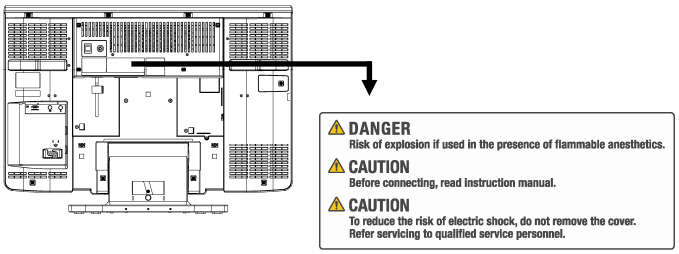
- Maintenance Check
  - Make sure to periodically check the equipment, accessories and cables.
  - When reusing the equipment which was left unused for a while, always check that the equipment operates properly and safely before use.
- When disposing of this equipment, accessories, or components, use an industrial waste distributor. Do not dispose of as ordinary waste.
- For product quality improvement, specifications are subject to change without prior notice.

Label Attached to the Unit

Make sure to read the warning label attached to the unit and comply with the requirements while operating the unit.

⚠CAUTION

- Do not damage or erase the warning label attached to the unit.
- This warning label contains descriptions important for handling and operating the unit properly and safely. A damaged label may compromise safe operation.



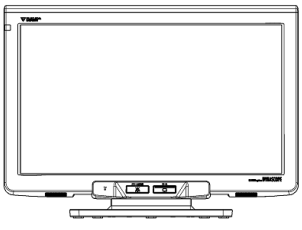
Graphic Symbols

The following are the symbols and their meaning indicated on the equipment.

Symbol	*Description*
	Potential Equalization Terminal Indicates the terminal to equalize the potential difference when interconnecting the devices.
	Follow operating instructions (Warning); indicated in blue. Indicates that the failure to follow operating instructions could place the patient or operator at risk.
	Follow operating instructions (Information). Indicates the need to refer to the related accompanying documents before operation.
	General Precaution
	Alternating Current (Above the Power Supply Indicator)
	Power ON Indicates that the power switch is in the ON position.
	Power OFF Indicates that the power switch is in the OFF position.
	Home
	Alarm Silence

General Description

LC-8026T is a display unit with touch panel function. The monitoring with two displays is realized by connecting to the DS-8900 central monitor.



<LC-8026T>

Features

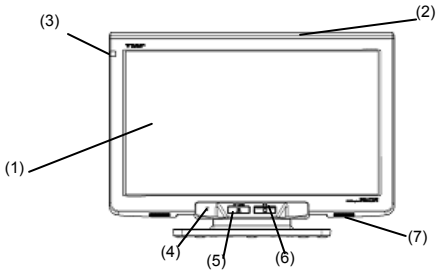
- By connecting to the DS-8900 central monitor, monitoring with two displays can be performed.
- Easily viewable 26 inch widescreen color LCD is used.
- In addition to the touch panel keys, fixed keys (Home, Alarm Silence) are equipped.

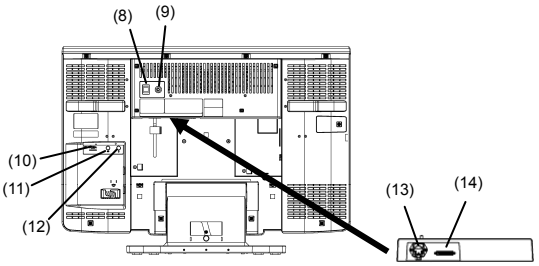
⚠CAUTION

- Do not use the touch panel with the film or adhesive tape attached to it. Malfunction of the touch panel or damage may result.

- An alarm indicator is equipped which notifies the alarms.
- Built-in speaker generates the same sound as the main monitor.

Composition of Parts and Their Functions





(1) LCD Touch Panel
Waveforms and measurement values, etc. generated on the central monitor are displayed. Operation can be performed using the touch keys.

(2) Alarm Indicator
Notifies the alarm by flashing.

(3) Remote Control Sensor
Receives the infrared remote control signal.

(4) Power Supply Indicator
Indicates the power supply status and the communication status with the monitor.
Green : AC power is supplied, power switch is turned ON, and communication with the central monitor is normal
Red : Operation error
Light OFF : AC power is not supplied, or power switch is turned OFF

(5) Alarm Silence Key
Fixed key for temporarily silencing the alarm of the displayed beds

(6) Home Key
Fixed key for returning to the Home Display

(7) Speaker
Outputs the same sound as the connected central monitor.

(8) Power Switch
Turns ON/OFF the power of this equipment.

(9) Potential Equalization Terminal
Used for equipotential connection.

(10) Slave Monitor Connector
Connects the external monitor for slave display.

(11) Keyboard Connector
Connects the recommended PS/2 keyboard. For details, refer to our service representative.

(12) Mouse Connector
Connects the recommended PS/2 mouse. For details, refer to our service representative.

(13) Power Supply Connector (with fuse holder)
Connects the power supply cable. (Fuse is installed inside the holder.)

(14) Monitor Connector
Connects to the DS-8900 central monitor using the display unit connection cable.

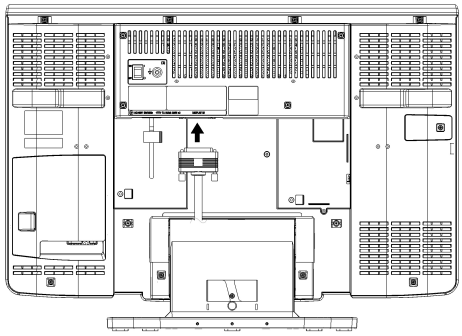
Connecting Procedures

⚠WARNING

- The installation of this equipment should be performed by our service representative. Users should not perform this procedure as electric shock may result to the patient and operator or malfunction of the equipment may occur.
- Unplug the power cable before the procedure.
- Before the connection, make sure to turn OFF the external equipment.
- Use only the cables specified by Fukuda Denshi. Use of other cables may cause malfunction or damage the equipment.

1. Connect the display unit connection cable.

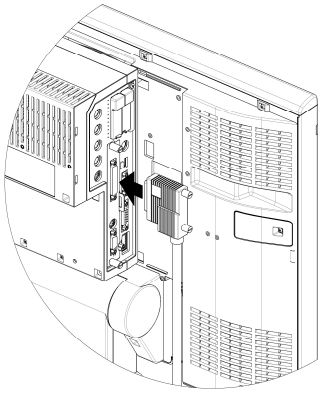
Connect the accessory display unit connection cable (CJ-731B) to the monitor connector.



After connecting the cable, make sure to screw tightly.

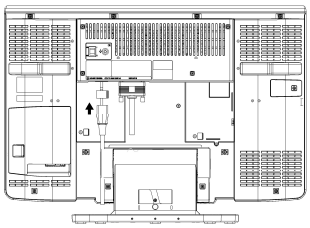
2. Connect to the DS-8900 central monitor.

Connect the display unit connection cable (hooked up to the LC-8026T) to the extended display unit connector of the DS-8900.

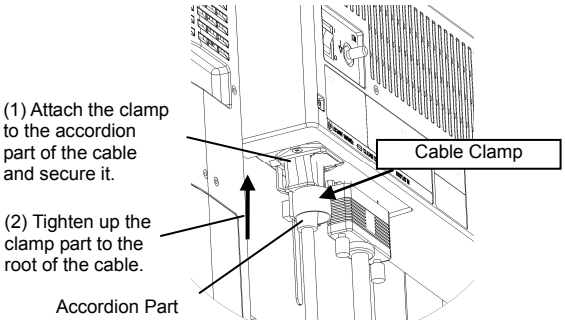


3. Connect the power cable.

3-1 Connect the accessory power cable (CS-18) to the power supply connector on the rear of the main unit. Connect the other end of the power cable to the 3-way outlet with ground terminal.

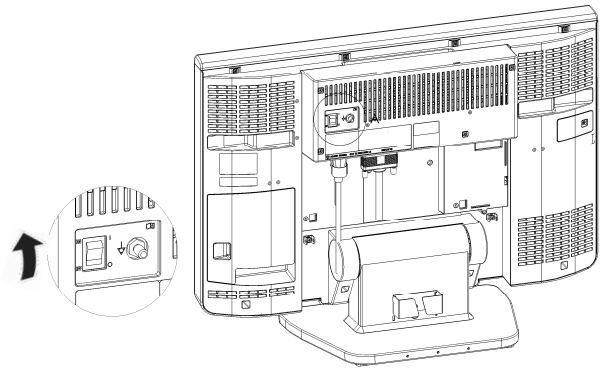


3-2 Securely connect the power cable using the cable clamp.



4. Turn ON the power.

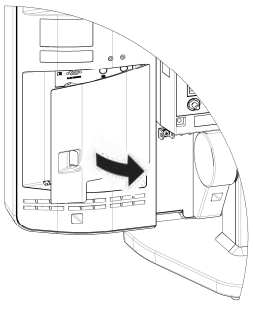
Turn ON the power switch located on the rear of the LC-8026T.



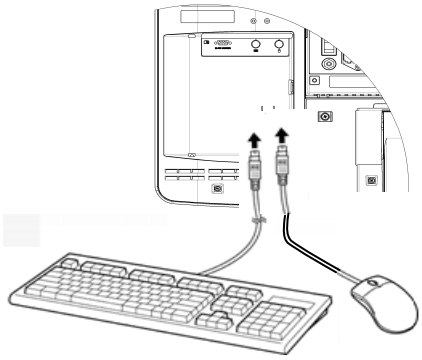
5. Connect the keyboard and mouse (optional).

By connecting a keyboard, character input can be performed using the keyboard. Also, by connecting a commercially available mouse, the touch panel keys can be controlled by clicking the mouse. Use a PS/2 keyboard and PS/2 mouse.

5-1 Detach the cable cover on the rear side.



5-2 Connect the mouse (keyboard) to the mouse connector (keyboard connector) on the rear side. (Connect them according to the labels.)



5-3 After connecting the mouse (keyboard), attach the cable cover.

* When the external monitor is used for the slave display, connect the video cable to the slave output connector following the same procedure.

⚠WARNING

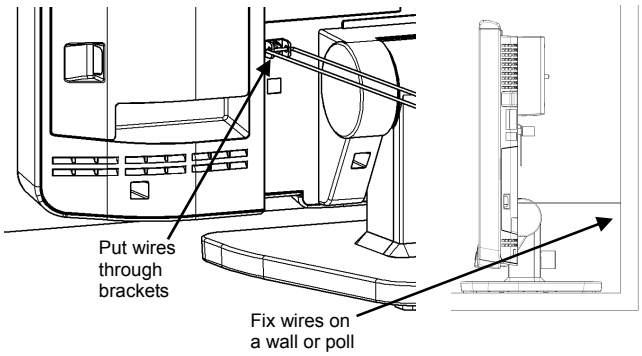
- Use only the PS/2 mouse and keyboard recommended by Fukuda Denshi. Use of other products may cause malfunction or damage the device.
- Use only the cables specified by Fukuda Denshi. Use of other cables may cause malfunction or damage the device.

NOTE

Keyboard or mouse connected to the central monitor can be used to control this device.

* Procedure to use the fall-prevention bracket

Use thick wires through the right and left brackets and attach the wires to a stable wall or pole.
Make sure to attach the wires to a place which has no effect on the tilt function of the display.



When fixing the stand of the equipment on a table, use the OAO-80A Stand Fixing Plate for Monitor.

NOTE

- This bracket is used to reduce the harm due to a device's fall in the event of an earthquake. No guarantee is given as to its effects for any earthquakes.
- Check that all the screws are tightened correctly after assembly and at periodic inspections.

Setting Method

1. Select the extended display unit

From the DS-8900 central monitor, press the [Menu], [Initial Settings] keys, enter password, press the [Extended Display] key, and select [ON] for "Extended Display Unit Usage".

2. Determine where to place the LC-8026T.

Select [Left] if locating the device to the left side of the main monitor.
Select [Right] if locating the device to the right side of the main monitor.
Select [Above] if locating the device above the main monitor.
Select [Below] if locating the device below the main monitor.

NOTE

The display function and setup method of this device may differ depending on the software version of the DS-8900 central monitor. For details of the operation procedure, please also refer to the operation manual of the DS-8900 System Central Monitor to be connected to the LC-8026T.

To Stop the Operation

- After using the equipment, turn OFF the main power supply switch.
- If not using for a long period, disconnect the power cable from the equipment.

Troubleshooting

Nothing is displayed on the screen, or the display flickers.
Cause 1 : The display unit connection cable is not properly connected.
Solution : Verify that the display unit connection cable is properly connected.

Cause 2 : The display unit connection cable is damaged.
Solution : Contact our service representative.

NOTE

- The LCD backlight has an average service life of 50,000 hours.
- The service life largely depends on the operating temperature.

Cause 3 : Incorrect main monitor setting.
Solution : Make sure the main monitor settings are correct.

The touch panel does not function properly.
Cause 1 : The display unit connection cable is not properly connected.
Solution : Verify that the display unit connection cable is properly connected.

Cause 2 : The display unit connection cable is damaged.
Solution : Contact our service representative.

Cause 3 : A scratch on the touch panel surface or foreign object entering the touch panel junction is causing misdetection of the key area.
Solution : The touch panel needs to be replaced. Contact our service representative.

Sound is not generated.
Cause 1 : The display unit connection cable is not properly connected.
Solution : Verify that the display unit connection cable is properly connected.

Cause 2 : The display unit connection cable is damaged.
Solution : Contact our service representative.

There is an offset in the touch panel.
Cause : The detecting location may become misaligned due to change over time.
Solution : Calibration needs to be performed. Contact our service representative.

⚠CAUTION

Calibration will be performed by our service representative. Users should not attempt it as incorrect calibration may cause malfunction to the equipment.

The mouse pointer or keyboard does not move.
Cause 1 : The wrong connector is connected.
Solution : The mouse and keyboard connectors are distinguished by the labels. Properly connect the mouse and keyboard to the corresponding connectors.

Cause 2 : Equipment other than the recommended ones are used.
Solution : Other equipment may not function on the DS-8900, or may suddenly stop functioning. Use the recommended equipment.

Maintenance

Periodic check must be performed. When reusing the equipment which was left unused for a while, always check that the equipment operates properly and safely before use.
In this section, the maintenance check items that must be performed for this equipment are explained. To ensure safety, reliability, and high performance, a "Daily Check" and "Periodic Check" must be performed. Fukuda Denshi is not liable for any accidents arising from lack of maintenance.

Daily Check

Perform the daily check according to the "Daily Check List".

Periodic Check

The safety check conformed to EN 60601-1 must be performed at least once a year for this equipment.
Periodic inspection of medical electronic equipment is mandatory to prevent failures and accidents and to ensure safety and reliability.
Periodic inspection may be performed by the medical institution or by a third party by concluding a “Maintenance Contract”.
For more details, contact your nearest service representative.

⚠CAUTION

- Do not open the housing.
- Do not allow alcohol or other liquids to enter the equipment.

Cleaning

Touch Panel

Since this device incorporates a touch panel, fingerprints and other stains are likely to appear on the touch panel.
Wipe the touch panel with the soft cleaning cloth provided as optional accessory or with an eyeglass cleaning cloth.

Housing

Clean the housing using a tightly squeezed gauze or an absorbent cotton cloth dampened with a neutral cleanser or sterilizing ethanol.

⚠CAUTION

- A special coating is applied to the surface of the touch panel. Do not wipe the surface with a cloth or gauze with coarse texture. Wipe the surface with a soft cleaning cloth provided as optional accessory or with an eyeglass cleaning cloth.
- If stains cannot be removed from the touch panel surface, wipe softly with a dry or ethanol dampened cleaning cloth. Never use strong-acidic cleaning solution.
- Clean the equipment frequently so stains can be removed easily.
- To prevent injury, it is recommended to wear gloves when cleaning the equipment.
- Do not allow liquids or cleaning solution to enter the equipment or connectors.
- When sterilizing the entire room using a spray solution, pay close attention not to have liquids get into the equipment or connectors.
- Use only a neutral cleanser or sterilizing ethanol to clean the housing. The surface resin coating may be damaged, resulting in discoloration, scratches, and other problems.
  Ex.) chemical cloth, scrub brush, abrasive, polishing powder, cleanser, hot water, detergent or chemicals including volatile solvent/organic solvent (thinner, toluene, benzine, benzol), synthetic detergent for house and furniture, or sharp-edged tools

Accessories

Accessories

Item	*Qty.*
Power Supply Cable: CS-18 (3.5m)	1
Display Unit Connection Cable: CJ-731B (2.5m)	1
Operation Manual (this manual)	1

Optional Accessories

To ensure product quality, use the specified optional accessories.

Item/Model Type	*Note*
Mouse (PS/2 Mouse)	Use the product recommended by Fukuda Denshi.
Keyboard (PS/2 Keyboard)	

Specification

Size

650(W) x 242(D) x 467(H) mm
(not including the hinge and protrusion) Tolerance ± 30 mm

Weight (not including the accessory)

15 kg ± 1 kg

Environmental Conditions

Operating Environment
- Surrounding Temperature : 10 to 40°C
- Humidity : 30 to 85 % (non-condensing)
- Atmospheric Pressure : 800 to 1060hPa

Transport/Storage Environment
- Surrounding Temperature : -10 to 60°C
- Humidity : 10 to 95% (non-condensing)
- Atmospheric Pressure : 800 to 1060hPa

Safety

General Standard :
EN 60601-1: 2006/AC: 2010
Medical electrical equipment - Part 1: General requirements for basic safety and essential performance

EMC Standard :
EN 60601-1-2: 2007/AC: 2010
Medical electrical equipment - Part 1-2: General requirements for basic safety and essential performance - Collateral standard: Electromagnetic compatibility - Requirements and tests

Type of protection against electric shock : Class I Equipment
Operation Mode : Continuous Operating Equipment
Degree of protection against ingress of water : IPX0 (no protection)
Protection against ignition of flammable gas : Not provided

Power Supply

Voltage : AC 100-240V
Frequency : 50/60 Hz
Power Input : 60VA

Performance

Display
26 inch Wide (diagonal) TFT Color LCD

Resolution
1920 x 1080 Full HD

Touch Panel
Resistive Analog Touch Screen

Fixed Keys
2 keys (Home, Alarm Silence)

External Monitor Output
A monitor with analog RGB input satisfying the following condition should be used.

Resolution : Compatible to 1920 x 1080 Full HD
Horizontal Frequency : 67.5kHz
Vertical Frequency : 60Hz

Electromagnetic Compatibility

The performance of this equipment under electromagnetic environment complies with EN 60601-1-2 (2007).

Precautions for Safe Operation under Electromagnetic Influence

⚠CAUTION

If any sorts of electromagnetic wave, magnetic field, or static electricity exist around the device, noise interference or malfunction of the device may occur. If any unintended malfunction or noise occurs during monitoring, check the magnetic influence and take appropriate countermeasures.

- Cellular Phone
  The radio wave may cause malfunction to the device.
  Cellular phones and radio sets should be turned off in the room (building) where medical device is located.
- Static Electricity
  In a dry environment (room), static electricity is likely to occur. Take the following countermeasures.
  - Both operator and patient should remove any static electricity before entering the room.
  - Humidify the room.
- Lightning
  A lightning nearby may induce excessive voltage to the equipment. If any danger is suspected, use the uninterruptible power supply system.
- High frequency noise interference from other device through the power outlet
  - Check where the noise is originated and remove it using filtering device, etc.
  - Stop using the device that is originating the noise.
  - Use other power outlet.

EMC Guidance

This equipment complies with EN 60601-1-2 (2007). However, if portable transmitter or wireless LAN equipment is used extremely nearby, the electromagnetic influence may largely exceed the compliance level and may cause unexpected phenomenon such as noise interference on the waveform, etc. The following is the information relating to EMC (Electromagnetic Compatibility). (When using this equipment, verify that it is used within the environment specified below.)

Compliance to the Electromagnetic Emissions

The LC-8026T is intended for use in the electromagnetic environment specified below. The customer or the user of the LC-8026T should assure that it is used in such an environment.

Guidance and manufacturer's declaration - Electromagnetic emissions		
Emissions Test	***Compliance***	***Electromagnetic Environment - Guidance***
RF Emissions EN 55011	Group 1	The LC-8026T uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment.
RF Emissions EN 55011	Class A	The LC-8026T is suitable for use in all establishments other than domestic and those directly connected to the public low-voltage power supply network which supplies buildings used for domestic purposes.
Harmonic Emissions IEC 61000-3-2	Class A	
Voltage Fluctuations/ Flicker Emissions IEC 61000-3-3	Complies	

Compliance to the Electromagnetic Immunity (1)

The LC-8026T is intended for use in the electromagnetic environment specified below. The customer or the user of the LC-8026T should assure that it is used in such an environment.

Guidance and manufacturer's declaration - Electromagnetic immunity			
Immunity Test	***EN 60601-1-2 Test Level***	***Compliance Level***	***Electromagnetic Environment - Guidance***
Electrostatic Discharge (ESD) IEC 61000-4-2	±6kV: contact ±8kV: air	±6kV: contact ±8kV: air	Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%.
Electrical fast transient / burst IEC 61000-4-4	±2kV: power supply lines ±1kV: input/output lines	±2kV: power supply lines ±1kV: input/output lines	Mains power quality should be that of a typical commercial or hospital environment.
Surge IEC 61000-4-5	±1kV: differential mode ±2kV: common mode	±1kV: differential mode ±2kV: common mode	Mains power quality should be that of a typical commercial or hospital environment.
Voltage dips, short interruptions and voltage variations on power supply input lines. IEC 61000-4-11	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec.	<5% U_T (>95% dip in U_T) for 0.5 cycle 40% U_T (60% dip in U_T) for 5 cycles 70% U_T (30% dip in U_T) for 25 cycles <5% U_T (>95% dip in U_T) for 5 sec.	Mains power quality should be that of a typical commercial or hospital environment. If the user of the LC-8026T requires continued operation during power mains interruptions, it is recommended that the LC-8026T is powered from an uninterruptible power supply.
Power Frequency (50/60Hz) Magnetic Field IEC 61000-4-8	3A/m	3A/m	Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment.
Note: U_T is the AC mains voltage prior to application of the test level.			

Compliance to the Electromagnetic Immunity (2)

The LC-8026T is intended for use in the electromagnetic environment specified below. The customer or the user of the LC-8026T should assure that it is used in such an environment.

Guidance and manufacturer's declaration - Electromagnetic immunity			
Immunity Test	***EN 60601-1-2 Test Level***	***Compliance Level***	***Electromagnetic Environment - Guidance***
			Portable and mobile RF communications equipment should be used no closer to any part of the LC-8026T, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended Separation Distance
Conducted RF IEC 61000-4-6	3Vrms 150kHz to 80MHz	3Vrms	$d = 1.2\sqrt{P}$
Radiated RF IEC 61000-4-3	3V/m 80MHz to 2.5GHz	3V/m	$d = 1.2\sqrt{P}$ 80MHz to 800MHz $d = 2.3\sqrt{P}$ 800MHz to 2.5GHz Where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey[a], should be less than the compliance level in each frequency range[b]. Interference may occur in the vicinity of equipment marked with the following symbol: 

Note 1: At 80MHz and 800MHz, the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

a) Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast can not be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered.
If the measured field strength in the location in which the LC-8026T is used exceeds the applicable RF compliance level above, the LC-8026T should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocating the LC-8026T.

b) Over the frequency range 150kHz to 80MHz, field strength should be less than 3V/m.

Recommended Separation Distances between Portable and Mobile RF Communications Equipment and the LC-8026T

The LC-8026T is intended for use in an environment in which radiated RF disturbances are controlled. The customer or the user of the LC-8026T can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the LC-8026T as recommended below, according to the maximum output power of the communications equipment.

Recommended Separation Distances between Portable and Mobile RF Communications Equipment and the LC-8026T			
Rated Maximum Output Power of Transmitter (W)	***Separation Distance according to Frequency of Transmitter (m)***		
	150kHz to 80MHz $d = 1.2\sqrt{P}$	***80MHz to 800MHz*** $d = 1.2\sqrt{P}$	***800MHz to2.5GHz*** $d = 2.3\sqrt{P}$
0.01	0.12	0.12	0.23
0.1	0.38	0.38	0.73
1	1.2	1.2	2.3
10	3.8	3.8	7.3
100	12	12	23

For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be determined using the equation applicable to the frequency of the transmitter, where *P* is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

Note 1: At 80MHz and 800MHz, the separation distance for the higher frequency range applies.
Note 2: These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

Daily Check List

No. _____

Checked Date _____ Checked by _____ Location _____

Device Type _____ Serial No. _____ Date of Purchase _____

Item	***Check Details***	***Criteria***	***Judgment***
Appearance	Visually check the connector for scratches, cracks, deformation and rust.	No abnormality should be found.	OK / NG
		Cable is firmly connected.	OK / NG
Installation	Check whether the equipment is installed on a level surface.	The installation area must be level and free from vibration and shock.	OK / NG
	Check whether the equipment is installed in a place susceptible to adverse environment.	The environmental condition (e.g. temperature, humidity) of the installed equipment should be as specified. The equipment should not be subjected to splashing water or chemicals.	OK / NG
Functions	Connect this device to the DS-8900 central monitor. Turn ON the monitor, and check whether it operates normally.	On start-up of the system, the alarm indicator should light.	OK / NG
		The home display should appear, and the power LED located at the lower left of the display unit should light.	OK / NG
		The waveforms are properly displayed.	OK / NG
		The touch panel should be operable.	OK / NG
	Check whether the fixed keys (Home, Alarm Silence) operate normally.	When pressing the [Home] key and [Alarm Silence] key, the display should respond.	OK / NG
	Check alarm sound on the Sound Setup window.	When pressing the [Test] key for each priority, alarm sound should generate.	OK / NG
Cables	Visually check all cables for any damage.	No damage should be found.	OK / NG
Periodic Inspection	Check the date of the previous periodic inspection.	Should be within 1 year.	OK / NG

Comment
