



## **AUTO FILL STATION USER MANUAL**

**MMR TECHNOLOGIES INC**

Rev 2



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## Introduction

**WELCOME:** Congratulations on your purchase of the world's smallest office Liquid Nitrogen Generator the Elan2digital. Being the latest generation of award winning Liquid Nitrogen generators offered by MMR, the Elan2digital boasts increased production rates, a smaller foot print, quieter operation, and a digital microprocessor.



The Elan2digital offers a new user friendly interface; including self-management and error checking to improve overall efficiency, uptime, and production. By minimizing user intervention, and with the provision of intelligent feedback and control, the Elan2digital will offer years of quiet, clean, on-hand Liquid Nitrogen produced directly in your office.

**INTENDED USE:** The Elan2digital systems are intended for indoor use only, for the production of Liquid Nitrogen. Because the Liquid Nitrogen generated does not get handled by complex industrial processes or trucks, it is extremely clean. This makes it an ideal solution for research applications, clean rooms, tissue biological sample preservation, or clinical cryosurgical applications.

**PRODUCT OVERVIEW:** The Elan2digital produces Liquid Nitrogen straight from the air direct to the user in their office. This is made possible by advanced Nitrogen separation and closed-cycle Kleemenko cooler technology. When put together a production rate of 6-8Liters of high purity, clean Liquid Nitrogen is possible. The new built in self-management system provides peace of mind that the Elan2digital is always performing at its peak, and Liquid Nitrogen is always available on-demand and on-time.

The system is comprised of:

- Air Compressor unit with Dryer (PSA)
- Elan2Digital Liquefier Unit



## Safety

**LIQUID NITROGEN SAFETY:** These liquid nitrogen generators have been designed with the highest level of user safety in mind. They are also designed to minimize direct handling of Liquid Nitrogen by the user. However care must be taken to ensure no contact is made with the cryogenic fluid during Liquid Nitrogen removal from a leak or splash.

**HANDLING:** Never allow any unprotected part of the body to touch un-insulated pipes or vessels which contain cryogenic fluids. The extremely cold fluid can cause severe burns if even momentary contact with human skin is made. Always wear adequate eye protection and gloves when handling cryogenics.

**CONTAINMENT:** Never carry Liquid Nitrogen in a vessel not properly suited for Cryogenic Fluids. MMR assumes no liability for injuries caused through improper handling or use of the provided Cryogen Storage Vessels. MMR have thoroughly tested and approved the following Cryogen Storage Vessels for use with this system:

- Brymill CRY-AC® Series for cryosurgery.
- MVE Dewar's from PrincetonCryo.

**RISK OF EXPLOSION: NEVER CAP OR SEAL A STORAGE VESSEL FOR LIQUID NITROGEN THAT DOES NOT HAVE ADEQUATE VENTILATION HOLES OR A PRESSURE RELIEF DEVICE.**

**SPECIFICATIONS:** Liquid Nitrogen is a colorless, odorless, extremely cold liquid and gas (-198°C). It can cause rapid suffocation when concentrations are sufficient to reduce oxygen levels below 19.5%. Contact with liquid or cold vapors can cause severe frostbite. Cold vapors in the air will appear as a white fog due to condensation of moisture. While this may indicate the presence of the gas it should not be used to determine its concentration in the atmosphere. Oxygen concentrations must be monitored in the release area. All cryogenic liquids produce large volumes of gas when they vaporize. One volume of Liquid Nitrogen will expand to produce 696.5 equivalent volumes of gas.

**MSDS-OSHA:** Not established.

**ACGIH:** Simple Asphyxiate.

**CAS NUMBER:** 7727-37-9.



## Location Considerations

**CHOOSING A LOCATION:** To ensure optimal operation and ongoing performance of the unit, the following guidelines must be met:

- Room temperature should not exceed 25 C (77 F).
- Well ventilated.
- The room should be free of dust and exhaust from other instrumentation.
- The room should be of low humidity (<70% Rel Humidity).
- A stable dedicated power source (Extension cords should be avoided).



### HANDLING:

- Never tilt or tip the unit. Never move or JAR the unit when running.
- Never power down the unit immediately. (Run in standby for 15mins first)
- Never block or obstruct the vents; doing so will overheat the unit and in some cases cause permanent damage. Temperature recording devices have been implemented for warranty purposes.

## Getting Started

**CONTENTS:** Please ensure the following items are present.



Air Compressor Unit



Liquefier Unit      Transfer Hose



Power Cords



Scale

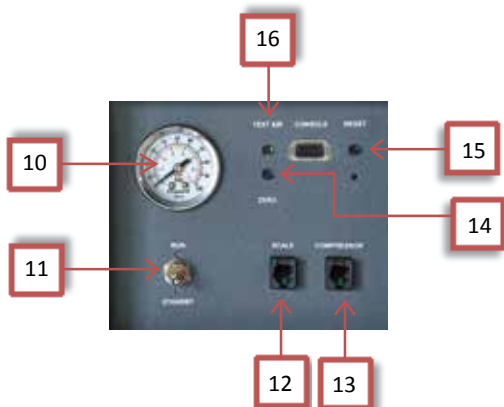
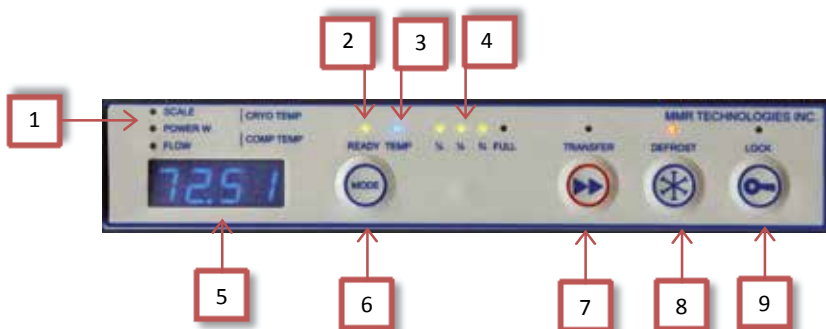


Air Compressor Data Cable



6FT Teflon Air Hose

## Getting Started



1. Sensor Values.
2. Auto Transfer ON.
3. Temperature LED.
4. Liquefier Internal Level Indicators.
5. Main Display.
6. Toggle Sensor Values.
7. Transfer Internal Contents to Dewar.
8. Start a Defrost (hold for 3 seconds).
9. Lock Button (hold for 3 seconds to lock).
10. Pressure Gauge.
11. Standby / Run Switch.
12. External Scale Interface.
13. Data Link to Air Compressor.
14. Zero Scale Button.
15. Soft Reset Unit.
16. Test Air Pressure (push and hold).



## Quick Setup

### CONNECTING THE AIR COMPRESSOR TO THE LIQUEFIER:

1. Connect Air Hose from Air Compressor to Liquefier. Hand tighten only.
2. Connect Air Compressor Data cable to Liquefier **13** and Air Compressor.
3. Connect both power leads from Air Compressor and Liquefier to suitable wall outlets.
4. Turn on Air Compressor and Liquefier.
5. Switch the device to 'Run' **11**

### SCALE AND DEWAR INSTALLATION:

1. Install the Scale under the Detector/Instrument Dewar, do NOT connect to the liquefier.
2. Connect the Scale power supply to a wall outlet.
3. Refer to the Scale Calibration Instructions to zero the scale. (Page 9)
4. Connect the Transfer hose to the Instrument Dewar filling port.

**TESTING THE AIR SUPPLY:** With the unit running, press and hold the 'Test Air Pressure' button **16** on the rear of the unit. Over a period of 30 seconds, the 'Pressure' **10** should rise to a minimum of 90psi. If it doesn't reach 90psi, check the air hose connections for leaks.

**DEFROST:** Each time the unit starts up following installation, a power failure, or resetting of the unit, a 90 minute defrost is commenced. This can be cancelled at any time by pressing the 'Defrost' button **8** on the front panel. Subsequent defrosts can be started if required by pressing and holding the 'Defrost' button for 2-3 seconds.

**VIEWING SENSOR VALUES:** When the system is not defrosting pressing the 'Mode' button **6** will toggle the sensor value as indicated by the lights **1**

**COOLDOWN:** Once defrosting has completed, the refrigeration system will become active and will begin to cool down the liquefier. This can be monitored by watching the "Cryo Temp". See Viewing Sensor Values. When the Temp has reached 77K, cool down is complete and production will begin. This should take about 30 minutes.

**LOCKING AND UNLOCKING:** The 'Lock' feature **9** is a security device to stop unwanted transfers. On this system it may not be necessary as the unit will be permanently connected to the Dewar. If the unit is unlocked Auto Transferring is enabled indicated by the 'Ready' light **2**. To unlock the unit, first hold down the 'Lock' button **9**. While holding the 'Lock' button, press and hold the 'Mode' button **6** simultaneously until the lock light goes out. To relock, simply hold the 'Lock' button **9** until the lock light comes on. Note: *When locked, the unit will produce internally but not transfer into the Dewar; it will maintain a full level in the liquefier until the device is unlocked. Unlocking can only take place in normal operation. The system can only be locked and unlocked when in normal operation (not in defrost).*

## General Operation

**LIQUEFIER TEMPERATURE:** The liquefier temperature is shown either by selecting the 'CRYO TEMP' sensor value or by viewing the Temperature light<sup>3</sup>. When the temperature is greater than 77K production is not possible.

**Flashing Red:** Temperature is greater than 200K

**Solid Red:** Temperature is greater than 100K

**Solid Blue:** Temperature is less than 100K

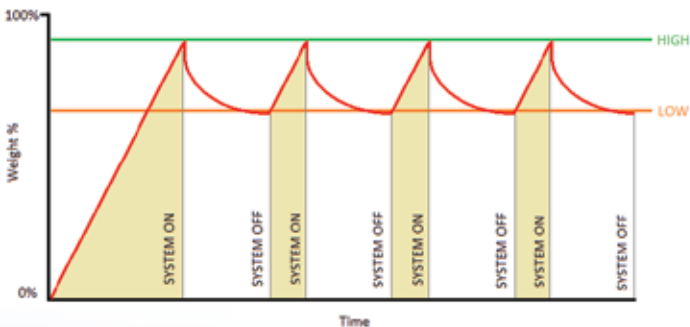
**LIQUEFIER LEVEL AND TRANSFERS:** The four lights<sup>4</sup> show the internal level of the liquefier. Transfers to the external Dewar will commence when the level reaches FULL for approximately 30 seconds. Transfers can be made into the Dewar at any time by pressing the Transfer button 7 for 2-3 seconds. Note: Each time a Defrost is carried out, the contents of the liquefier are automatically dispensed to avoid wasting Liquid Nitrogen (If not locked). Flashing sequential lights indicate the unit is in Standby<sup>11</sup>.

**STANDBY AND SHUTDOWN:** After 15 minutes of being in standby<sup>11</sup> the system will turn off the air compressor and fans for quiet operation. This is also recommended before turning the system full off to allow the refrigeration compressor to cool down.

**SCALE:** The Elan2 Auto Fill uses a scale to measure the contents of the connected Instrument Dewar and fill it as necessary. A High and Low set point can be programmed to set the desired fill levels. A minimum hysteresis of 15% is enforced so the unit doesn't switch on and off too fast.

**SCALE UNIT:** The scale value is expressed in percent of the maximum NET weight 40KG (50L of LN2). E.g 50%= 20KG

**DEWAR FULL:** When the external Dewar reaches the high set point, the system will shut down and display **FULL**. Once the Dewar evaporates down below the low set point the unit will automatically restart. Pressing 'Transfer'<sup>7</sup> will restart the unit.



## SCALE CALIBRATION

**ZERO THE SCALE:** Before proceeding ensure the scale is on a level surface, adjust the feet if necessary. Place the empty instrument Dewar and associated hardware such as a FLIR or HpGe detector in place on the scale. Connect the scale to an AC power outlet (the input voltage range is 100VAC - 240VAC). Connect the data cable from the output of the scale to the input labeled "Scale" on the elan2 liquefier. Disable scale control by following the instructions on page 10. With the elan2 powered on, set to 'Standby' and not in 'Defrost', set the display to 'Scale' by using the 'Mode' button.

Since all instrumentation Dewar's vary in weight it is necessary to zero the system, this needs to be done when empty so an empty Dewar equals 0V / 0%. Adjust the 'ZERO' adjustment on the scale clockwise until you see level lights on the scale, adjust left until the reading equals zero and no level lights are on. Test the calibration by applying weight to the scale, the 'Scale' value on the elan2 should increase.

Note: A multimeter can be connected to the additional output of the scale for precise adjustments. MMR recommends setting the zero weight value to equal .1 volt to ensure the zero reading isn't negative.

### SETTING THE MAX LEVEL (SPAN):

Add weight to the scale and Dewar proportional to the full weight of LN2. Note: (20L =  $20 \times .808 = 16.2\text{KG}$ , 30L =  $30 \times .808 = 24.4\text{KG}$ ) .808 = the specific gravity or weight of Liquid Nitrogen per Liter.

Adjust the 'SPAN' adjustment until the Elan2 Scale value reads 99. Finely adjust the value forward to 100%.

Note: Adjusting the 'SPAN' generates an offset of the 'ZERO' value. Remove the weight from the Tank and Dewar and readjust to the ZERO value. This process may need to be repeated 2-3 times.

The full value is now set.

Enable scale control by following the instructions on page 10.

Note: If the Dewar over fills or under fills use the 'SPAN' to reset the correct value.

## Scale Configuration

**SETTING THE SCALE SET POINTS:** Each time the unit starts up or the 'Reset' button [15] being pressed, the Set points (H and L) are displayed followed by the control state (ON or OFF). To set the scale values, press and hold the 'Mode' button [6] and 'Transfer' button [7] together, then press but do not hold 'Reset' [15]. Continue to hold 'Mode' and 'Transfer' buttons until **SCL** is displayed (this may take some practice). The High and Low set points will be displayed continuously. To adjust the values, press 'Mode' [6]. To exit adjusting the values press 'Reset' [15].

**H080** To increment, press the 'Transfer' button [7]. Once the correct high set point is displayed in percent, press 'Mode' [6] to set the low set point. *Note: The system will not allow the High Point to be less than the low point.*

**L030** To increment, press the 'Transfer' button [7]. Once the set point is displayed, press 'Mode' [6] to set the control value (on or off). *Note: The system will not allow the Low Point to be higher than the high point.*

**ON** Scale Control, to increment press the 'Transfer' button [7]. Once the control mode is displayed, press 'Mode' [6] to save the new values. The unit will now restart, and the new values will be displayed.

**DISABLING SCALE CONTROL:** Using the above procedure, set the control value to OFF, the unit will no longer use the scale value as control. **WARNING:** The machine will continue to produce and the Storage Dewar will over fill.

**WARM DEWAR:** If you are starting out with a warm Dewar it will take approximately 18Hrs before collection begins. This is because the time needed for the Dewar to cool down to Liquid Nitrogen temperatures. We recommend you do not remove the transfer hose until accumulation begins.

**WEIGHT OF LIQUID NITROGEN:** 1 Liter of Liquid Nitrogen weights .808 Kgs. The scale value is a percentage of the Empty Dewar + Detector Value + Ln2 Weight.

## Maintenance and Care



**FILTER REPLACEMENT:** The Elan2digital is essentially maintenance free and will carry on with minimal user intervention. However, to ensure the ongoing performance, regular inspection of the rear filter is necessary, and the frequency of checks will depend on the cleanliness of the environment. (Filter replacement can be carried out with the unit running).



- Step 1: Loosen the silver screw holding the filter cover in place.
- Step 2: Partially open the cover outwards (there is no need to remove the cover).
- Step 3: Remove the dirty filter and replace.
- Step 4: If the filter is clean, then decrease inspection frequency.

Note: Contact MMR for a replacement box of filters when necessary.

**ENVIRONMENT CHECK:** Always check the surrounding environment for clutter or debris that could potentially block or obstruct the ventilation of the unit. Ensure cables are securely fastened and that the air hose is free from leaks and kinks. Ensure the temperature in the room is not too hot.

## Troubleshooting

**ERROR STATE:** When an error condition is encountered a code is displayed and the unit is shutdown to prevent damage, the cooling fans and air compressor will remain on. While the units have been designed and calibrated to prevent false alarms this will happen occasionally when certain monitored parameters such as temperature or humidity go out of range sporadically/momentarily.

**ERROR CODES:** The list of possible error codes and actions.

ER.00

Low Production Time-out Error. Three (3) Consecutive attempts and defrosts have been made to produce within a given time (5.5Hrs) have failed.

**Action: Contact MMR**

ER.01

Hardware Failure - Flow Sensor Error.

**Action: Contact MMR**

ER.02

High Humidity Error.

**Action: Check room humidity and temperature, Service Air Compressor.**

ER.03

Hardware Failure - Liquefier Level Sensor Error.

**Action: Contact MMR**

ER.04

High Power Consumption. (> 1500W)

**Action: Leave unit in standby for 24Hrs, Resume with Defrost. Contact MMR**

ER.05

Low Air Pressure Error. (<60psi for 30 seconds)

**Action: Check Air hose for leaks, Service Air Compressor.**

ER.06

Cool Down Time-out Error. Three (3) Consecutive attempts and defrosts have been made to cool down within a given time (2.5Hrs) have failed.

**Action: Contact MMR**

ER.07

Compressor High Temp Error (>90C)

**Action: Check for adequate ventilation, Check Room Temperature, Replace rear filter, Check for vent obstruction. (See Maintenance and Care)**

**ACKNOWLEDGE AND RESTART:** Press and hold 'Transfer' 7 and 'Lock' 9 buttons simultaneously until the unit restarts. As a precaution, a 90 minute defrost will begin.

## Support



**Help Desk Email:** support@elan2.com  
**Sales and Marketing Department:** sales@mmr-tech.com  
**Help Desk Phone:** +1 (650) 962 9620

**Office Hours:** 7.30am – 4.30pm PST  
(Mon – Fri)

**Shipping Address:** MMR Technologies Inc,  
41 Daggett Drive,  
San Jose, CA 95134,  
United States of America.

**SPARE PARTS:** Contact our sales department at MMR for sales assistance.  
The following parts are available for immediate purchase.

DESCRIPTION	MMR PART #
6 Foot Air Hose	1130456-006
6 Foot Air Compressor Control Cable	1592230-001
Air Compressor 10A US Power Cable	1592160-002
Elan2 20A US Power Cable	1530021-001
Replacement Filter Pack	1130041-001
Replacement Dewar Transfer Hose	CALL

## Datasheet & Electrical

<b>Voltage:</b>	115VAC 60Hz / 220VAC 50Hz, Single Phase.
<b>Power Consumption (Run):</b>	~950W.
<b>Power Consumption (Standby):</b>	10W.
<b>Noise dB (Run):</b>	78dB (1 Meter).
<b>Noise dB (Standby):</b>	Quiet after 15 minutes.
<b>Air Source:</b>	90 – 120psi (-55C or 6ppm Dew Point)
<b>Liquid Nitrogen Production (Daily):</b>	Up to 8 Liters per day (Depending on Environment)
<b>Liquid Nitrogen Purity:</b>	N2 98.6% Residual O2/Argon 0.4%
<b>Liquefier Weight:</b>	72.2lbs (32.8kgs)
<b>Air Compressor Weight:</b>	57.4lbs (26.1kgs)
<b>Liquefier Dimensions:</b>	13”(W)x 13”(L) x 32”(H)
<b>Air Compressor Dimensions:</b>	17”(W)x 17”(L) x 15”(H)

**ELECTRICAL:** This product is intended for indoor use only and must be connected to a proper source of power as designated by the label at the rear of the unit. Use only the cables supplied with the device and ensure a proper Ground is present. Irregular/unstable power may lead to hardware damage. Use of equipment other than specifically intended may result in permanent damage to the unit, or impairment of the safety devices.

**RISK OF ELECTRIC SHOCK IF OPENED OR UNIT IMPROPERLY GROUNDED.**



**REFRIGERANT:** The core refrigeration system of the Elan2d liquefier contains a multi-component proprietary refrigerant mix, allowing Liquid Nitrogen temperatures to be possible. Although some individual components in the mixture are flammable the overall mixture is considered inert.



**DISPOSAL:** Under US EPA and International Laws governing the safe handling and disposal of refrigerants the contents of the system must be recovered by a qualified refrigeration technician in accordance local environmental regulations. *Note: Contains HCFC's.*





## Warranty

**OVERVIEW:** MMR Technologies recognizes the critical nature of our customer's requirement for Liquid Nitrogen for research applications, tissue and biological sample preservation, or clinical applications. We are committed to providing the highest-quality tools that yield maximum reliability and performance. That is why every Elan2digital Liquid Nitrogen Generator system includes a standard Two Year Limited Warranty Agreement with:

- Access to MMR Technologies' Technical Support through phone and email.
- Planned Maintenance.
- Parts and Labor

For more information on the specifics of the Limited Warranty Agreement, please contact [sales@elan2.com](mailto:sales@elan2.com), or visit our website [www.elan2.com](http://www.elan2.com) and download a copy of the Agreement.

In addition to the Two Year Limited Warranty, MMR Technologies offers two levels of Extended Service Agreements that enable you to select the best plan to fit your needs, ensuring maximum protection for your investment.

**WARRANTY LIMITATIONS:** Improper handling or use of the unit along with unauthorized interference can void the warranty such as:

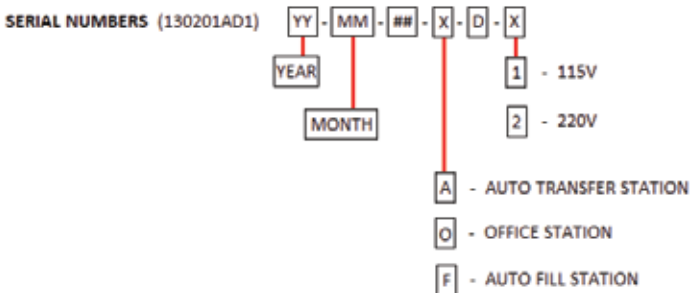
- Improper handling (Tipping or dropping the unit)
- Using the unit in a way not designated in this manual.
- Using the unit in an environment outside of the specifications listed.
- Connecting the unit to the incorrect power supply.
- Unauthorized opening of the unit chassis.
- Modifying the unit or tampering with the safety devices.
- Failing to maintain the air filter.
- Water ingress damage.
- Using the unit in a country not approved by MMR.

**SYSTEM SAFEGUARDS:** These systems have been designed with self-protection and maintenance safeguards. Should the unit encounter a condition that could potentially cause permanent damage the unit will shut down and output an error code. These error codes are permanently recorded along with maximum temperatures inside the unit. While these electronic safeguards are designed to improve the longevity of the units they should not be relied on solely. The user must take full care in ensuring a proper working environment at all times.

For further information on warranty information or purchasing an extending manufacturer's warranty contact 'sales@mmr-tech.com'.

## Glossary of Terms

- AIR PRESSURE** – The pressure coming from the Air Compressor (90- 100psi. 120psi max).
- CRYOGEN** – A substance used to produce very low temperatures.
- CRYOGEN STORAGE VESSELS** – Referred to as a Dewar or Flask.
- CRYO TEMP** – The Temperature inside the Liquefier expressed in Kelvin units (77K when cold).
- COMP TEMP** – The temperature of the Refrigeration Compressor Casing expressed in degrees Celsius.
- CONSOLE** – A Serial Interface, system telemetry is outputted every 10 seconds. Settings = 9600,8,N,1
- CONTROL STATE** – (On or Off) Used to enable or disable automatic scale control.
- DEFROST** – A 90 minute timed process in which the unit warms up and evaporates moisture.
- DEWAR** – A containment vessel for cryogenic fluids.
- DISPENSE** – The process in which LN2 is transferred to the user (OFFICE MODEL ONLY).
- FLOW** – The measured flow of N2 gas travelling through the liquefier indicating normal operation.
- LIQUEFIER** – The part making up the Elan2digital responsible for converting a gas into a liquid.
- LN2** – Abbreviation for Liquid Nitrogen.
- LOCK** – The unit will produce internally until FULL but external transfers will be prohibited.
- N2** – Abbreviation for Nitrogen Gas.
- POWER CONSUMPTION** – The power (Watts) consumed by the Liquefier during operation.
- PSA** – Pressure Swing Absorber, the part responsible for drying the air to very low levels.
- REFRIGERANT** - A substance within the closed cycle refrigeration system used for cooling.
- RFID** – A security device fitted to the liquefier to prevent dangerous transfers (OFFICE MODEL ONLY).
- RUN** – Normal Operation.
- SCALE** – An external scale for indicating storage Dewar contents and controlling operation.
- SET POINT** – The control values used to determine the state of the machine at a given weight.
- STANDBY** – The unit will remain at room temperature and not produce. The fans and air compressor will shut off after 15mins. Pressing the defrost button will keep air compressor on.
- TRANSFER** – The process in which LN2 is transferred from the liquefier to external Dewar (AT MODEL ONLY).
- USER INTERFACE** – The front control panel containing the function buttons and display.



# End-User Agreement

## 1. DEFINITIONS

"Start Date" means the date from which you received the Licensed Product

"MMR" means MMR Technologies Inc and its subsidiaries, or, as the context so applies, any of them.

"Documentation" means any documentation provided to you by us (whether electronic or printed) which accompanies the Licensed Product.

"End-User License Agreement" means the terms and conditions set out in this agreement.

"Licensed Product" means all or each (as the context so allows) of the hardware which is licensed to you

## 2. COPYRIGHT AND OWNERSHIP

The end user has full and complete ownership of the hardware, documentation and accessories supplied at the time of purchase the Start Date. Your obligations under the End-User License Agreement in respect to the intellectual property and confidential information of MMR or any of its products shall survive any expiry or termination of the End-User License Agreement. MMR products contain patented proprietary designs which remain at all time the property of MMR Technologies Inc.

## 3. RIGHTS AND RESTRICTIONS

**3.1 LICENSE TERM.** The End-User License Agreement starts at the time of installation of the Elan2digital Liquid Nitrogen Generator 'product of MMR'.

**3.2 RIGHTS.** We grant to you a non-exclusive right to:

**3.2.1 Use** the Licensed Product, subject to the terms and conditions contained within this End-User License Agreement, for your own commercial purposes (the "Purpose").

**3.3 RESTRICTIONS.** You are not permitted to:

**3.3.1 Modify** the Licensed Product except as necessary to configure the Licensed Product as outlined in the User Manual.

**3.3.2 Reverse engineer,** disassemble or decompile the Licensed Product or any portion thereof or otherwise attempt to derive or determine the source code or the engineering therein.

**3.3.3 Use** the Licensed Product for the purposes of competing with MMR, including, without limitation, competitive intelligence.

**3.3.4 Use** the product in a way not described in the documentation without first obtaining written permission from MMR Engineering.

## 4. WARRANTY

**4.1** We warrant to you that the Licensed Product will perform substantially in accordance with the Documentation, provided that it is operated in accordance with the Documentation in the designated configuration and that the Documentation describes the operation of the Licensed Product in all material respects.

**4.2** You must tell us about any fault with the Licensed Product as soon as is reasonably possible following discovery of such fault. If you notify us of a fault with the Licensed Product, we will endeavor to correct or replace the Licensed Product and/or Documentation within a reasonable time.

**4.3** You agree that your use of the Licensed Product is and will continue to be in accordance with all applicable laws and regulations.

**4.4** You shall be liable for any reasonably foreseeable losses that arise from your use of the Licensed Product in breach of this End-User License Agreement.

**4.5** Nothing in this End-User License Agreement shall affect your statutory rights. If you have any doubts as to your statutory rights then you should contact your local advice center.

## 5. USE OF THE LICENSED PRODUCT

EXCEPT FOR THE EXPRESS WARRANTIES CONTAINED IN CLAUSE 4 ABOVE, MMR AND ANY OF ITS THIRD-PARTY LICENSORS AND SUPPLIERS, AND THE CONTRIBUTORS OF CERTAIN INCLUDED HARDWARE MAKE NO WARRANTIES, CONDITIONS, UNDERTAKINGS OR REPRESENTATIONS OF ANY KIND, EITHER EXPRESS OR IMPLIED, STATUTORY OR OTHERWISE, IN RELATION TO THE PRODUCT INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY, SATISFACTORY QUALITY, FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT OR ARISING FROM COURSE OF DEALING, USAGE OR TRADE. SOME STATES/JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY FROM STATE TO STATE OR BY JURISDICTIONS. If you have any doubts as to whether the above applies to you then you should contact your local advice center.

## End-User Agreement Cont.

### **5. USE OF THE LICENSED PRODUCT Cont.**

WITHOUT LIMITATION TO THE FOREGOING, MMR DOES NOT WARRANT THAT THE PRODUCT WILL MEET YOUR REQUIREMENTS, OR THAT THE OPERATION OF THE PRODUCT WILL BE ERROR FREE OR UNINTERRUPTED OR THAT DEFECTS IN THE PRODUCT WILL BE CORRECTED.

### **6. LIMITATION OF LIABILITY**

**6.1** We shall only be liable under this End-User License Agreement for losses which are reasonably foreseeable and caused by our own breach of this End-User License Agreement, or our negligence.

**6.2** In the absence of any negligence or other breach of duty by us, the use of the Licensed Product is at your risk.

**6.3** Our liability to you shall not include losses relating to any business of yours; such as injury, loss of profits or contracts or business interruption.

**6.4** Nothing in this End-User License Agreement shall exclude or limit our liability for death or personal injury caused by our negligence.

### **9. TERMINATION**

**YOUR RIGHT TO END THIS END-USER LICENSE AGREEMENT:** you may end this End-User License Agreement at any time by disposing of the Licensed Product and all material associated with it.

**OUR RIGHT TO END THIS END-USER LICENSE AGREEMENT:** We may end this End-User License Agreement:

(i) Immediately at any time for any or no reason; or

(ii) If you fail to comply with any of the terms and conditions of this End-User License Agreement.

### **10. CONFIDENTIALITY**

**10.1** The Licensed Product includes our confidential information that is secret and valuable to us and our licensors.

You are not entitled to use or disclose that confidential information other than strictly in accordance with the terms of this End-User License Agreement.

**10.2** We may disclose details of this End-User License Agreement to third parties for publicity and promotional purposes.

### **11. USE OF YOUR INFORMATION**

**11.1** We may use information you provide to us for the following purposes:

**11.1.1** To send emails to you to provide information and goods and services to you, and to let you know about other goods and services which we think may be of interest to you.

**11.2** We confirm that we will process personal information in accordance with the provisions of the Data Protection Act 1998.

### **12. GENERAL**

**12.1** We intend you to rely upon the written terms set out in this End-User License Agreement. If you require any changes to these terms please contact us and request for these to be put in writing.

**Any notices required to be given in writing to MMR or any questions concerning this End-User License Agreement should be addressed to The Company Secretary, MMR Technologies Inc, 41 Daggett Drive, San Jose, CA 95134, United States of America**







25 horizontal lines for writing.



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