

# NEW VEHICLE SALES DEPARTMENT (Review with Nissan LEAF Customer) Nissan LEAF CUSTOMER DISCLOSURE FORM For use with Nissan LEAF

## IMPORTANT Customer Information Nissan LEAF

Congratulations on your decision to purchase a new Nissan LEAF and joining others in reducing tailpipe emissions and oil dependence. The Nissan LEAF has very unique capabilities but also has unique requirements for normal operation that are different from other vehicles you may have owned or operated in the past. Owning a Nissan LEAF therefore requires additional and special consideration and understanding regarding the driving and operation characteristics, charging, service and maintenance requirements. This document and our website will provide valuable information for your consideration.

**I. Unique Characteristics Of An All Electric Vehicle.** The Nissan LEAF may not meet all of your driving needs, and not all markets may be ready for the Nissan LEAF. There are elements of ownership to consider both common with internal combustion engine vehicles and unique to electric vehicles, such as: driving needs – cargo, personnel, commuting distance, availability of workplace and/or public charging infrastructure, local incentives and permitting policies, and driving style. In many cases it will be an ideal 'primary car.' But some people will continue to need a second, internal combustion engine car for long distance drives, or will want a second car with more carrying capacity or performance. This form will alert you to several factors to consider. THE NISSAN LEAF WEBSITE (www.nissanusa.com/leaf) CONTAINS ESSENTIAL INFORMATION WHEN MAKING A DECISION ON WHETHER AN ALL ELECTRIC VEHICLE IS RIGHT FOR YOU. Call us if you have any questions (1-877-NO GAS EV, 1-877-664-2738).

**II. Electric Vehicle Operation.** Because the Nissan LEAF is an electric vehicle, some of the vehicle's systems operate differently and exhibit different characteristics than internal combustion engine vehicles.

Before operating your vehicle or contacting your dealership with concerns regarding your vehicle's operations, please carefully read your *Owner's Manual, Nissan LEAF Warranty Information Booklet*, and the *Service and Maintenance Guide* for necessary additional information concerning the proper operation, operational characteristics (including charging, time to charge, normal battery capacity loss over time, effects on autonomy range), service and maintenance requirements and the terms and conditions of the applicable New Vehicle Limited Warranty.

It is important to conserve power (electricity) and plan your charging needs when you drive. The Nissan LEAF is powered by electricity and does not require, nor is it capable of using, gasoline like a vehicle powered by a traditional internal combustion engine. In order for the vehicle to operate, the vehicle battery must be charged with electricity in advance. The battery pack is the sole source of power to operate the vehicle. The Nissan LEAF will use electricity stored in the vehicle battery as it operates, gradually decreasing the battery's state of charge. If the vehicle battery becomes completely discharged, the vehicle will not operate until it is re-charged, a process which can take anywhere from 30 minutes to 21 hours as described more fully below.

A. Methods Of Charging The Vehicle (3 types with 240V recommended):

(1) Standard Charge. Nissan highly recommends a home charging station be installed on a dedicated 240V circuit by a professional electrician using an SAE J1772 compliant charging dock. Nissan has contracted with AeroVironment to assist you in purchasing and installing a charging dock.

(2) Trickle Charge. Although not recommended for regular use, a dedicated 120V outlet may be used with the supplied charging cord or an SAE J1772 complaint cord. Charging by this method will take much longer than 240V charging. Warning: to protect against electrical hazard, serious personal injury or death: (1) Do not plug in the charging cord until it is inspected by a licensed electrician to confirm that the electrical circuit can accept a continuous 12 amp draw and (2) Do not use this charging cord in structures more than 40 years old, or structures using fuse-based circuit protection, and use only with an electrical circuit protected by a dedicated circuit breaker. See your owner's manual for additional warnings.

(3) Quick Charge. Nissan is encouraging the development of public charging infrastructure and compatibility between public charging stations and vehicle charging ports but we cannot ensure this will occur. DC Fast Charge or Quick Charge is being developed by others commercially and if available, will provide up to a 50kW DC charge. Nissan cannot assure you that public charging stations will be available in locations where you operate the vehicle, nor can Nissan predict the period of time it may take for public charging infrastructure to be developed. A Nissan LEAF equipped with a Quick Charge port will be compatible with most,

if not all, CHAdeMo (Japanese industry standard) connectors on the charging stations. Charging stations using this industry standard connector will be UL certified and safe to use in the US. However, this standard has not been adopted in the US, and not all charging stations may support this standard. If you attempt to charge from a non-compatible charging station, you may not receive a complete charge or may not be able to charge at all due to hardware and software differences.

• The Quick Charge port must be ordered initially and installed during manufacture. It cannot be added or retrofitted later.

• Time to Charge varies, based on state of charge of the battery, condition and age of the battery, ambient temperature and condition of the power source connected to the vehicle. The following are estimates only; your actual experience may vary.

- Standard Charge. Empty lamp ~ 100%: ~4-7 hours depending on Model Year and trim (longer than 8 hours below 14 °F). See website (www.nissanusa.com/leaf) for additional information.
- Trickle Charge. Empty lamp ~ 100%: ~21 hours
- Quick Charge. Empty lamp ~ 80%: ~30 minutes with battery temperature at 77 °F. (Quick charging is possible if the battery temperature is not near the red zone. If the battery temperature reaches the red zone, in order to protect the battery, quick charging is not allowed and the power limitation mode will be triggered.)

WARNING: If you use any medical electric devices, such as an implantable cardiac pacemaker or an implantable cardiovascular defibrillator, check with the electric medical device manufacturer concerning the effects that charging may have on implanted devices before starting the charge operation. Charging may affect the operation of electric medical devices and result in serious personal injury or death.

B. Range. The distance you can drive (range) varies considerably depending on, for example: state of charge, weather, temperature, usage, age, topography, and manner of driving.

• Range Estimates: The range is dependent on a number of factors. Some of the factors affecting range are Model Year of your vehicle and trim, ambient temperature, weight - number of passengers and payload, air conditioning/heater usage, high speed or stop-and-go driving, topography, battery capacity, etc. When the battery is new, it is estimated that vehicle range with a fully charged battery under normal operation and various driving conditions will vary between 138 and 62 miles for the majority of people. These are estimates based on analysis and testing. Your individual style and location will dictate your individual range, which will vary initially. Also as the battery ages, capacity and range decline. There are an infinite number of range scenarios\*, based on many variables. Examples of some scenarios (such as Ideal driving conditions, Suburban driving on a nice day, Highway driving in the summer, Cross-town commute on a hot day, and Winter urban stop-and-go traffic jam) based on specific variables studied through computer simulations can be found on the Nissan LEAF website (www.nissanusa.com/leaf) and should be carefully reviewed by you prior to purchase. These are estimates only and individual range outside of estimated range scenarios will occur.

Range estimates based on standardized EPA testing can be found on the new vehicle window sticker (Monroney label), EPA website, and Nissan LEAF website. This information should be reviewed prior to your purchase decision. The driving range on the Nissan LEAF, as with all vehicles, will vary with real-world driving conditions.

• Gradual loss of battery capacity. Like all lithium ion batteries, the Nissan LEAF battery will experience a reduction in the amount of electricity or charge it can hold over time, resulting in a reduction in the vehicle's range. This is normal and expected. Although Nissan expects the great majority of vehicles to retain 9 or more bars of capacity through 5 years of normal use and mileage, the rate of reduction varies, and will depend upon your individual usage and operating environment. The rate of capacity loss will tend to be greater in the early part of your battery's life, but the rate of loss should decrease over time. Factors that will affect and may hasten the rate of capacity loss include, but are not limited to:

- Sustained high battery temperatures (caused, for example, by exposure to very high ambient temperatures or extending highway driving with multiple quick charges)
- Sustained high battery state of charge (caused, for example, by frequently charging to 100% state of charge and/or leaving the battery above 80% state of charge for long periods of time)
- Higher than estimated annual mileage accumulation (such as more than 12,500 miles per year)

More detailed information about battery capacity loss and factors that can affect the rate of capacity loss is available in your Owner's Manual. For 5 years or 60,000 miles, whichever comes first, Nissan provides Lithium-Ion Battery Capacity Coverage under its New Electric Vehicle Limited Warranty for capacity loss below 9 bars of remaining capacity as shown by the vehicle's Battery Capacity Level Gauge. See your LEAF Warranty Information Booklet, and your authorized Nissan LEAF dealer, for details.

• Driving/Operating. Driving the vehicle at constant speed and with smooth pedal modulation improves vehicle range. Nissan also recommends heating or cooling the cabin while charging just prior to driving. Vehicle range will be reduced by: (1) high speed driving (55+ mph), (2) aggressive driving (frequent or rapid acceleration) (3), severe conditions including heavy passenger/cargo load, uphill driving at a steep incline for extended periods of time, and (4) electrical use, especially heater or air conditioner use.

• Power Limitation Mode. This mode protects the health and operation of the vehicle's battery. This mode is triggered in certain extreme conditions (heat, cold, low state of charge). Power available to vehicle systems, including its electric motor, will be limited resulting in limited performance, acceleration and top speed. Charging may be automatically terminated, especially with repeated quick charging.

C. Cold Weather Operation. Your Nissan LEAF may be equipped with cold weather features that include a battery heater. In extremely cold conditions (e.g. -4°F), the vehicle should be connected to a charging station when not being operated to prevent the battery pack from freezing. If unconnected, the heater will draw power from the battery pack and will stop operating if the battery pack State of Charge falls below approximately 30%. In such extreme conditions, range of the Nissan LEAF may also decrease substantially. Use of the heater below 32°F consumes more electricity and may affect range more than at warmer temperatures. Quick Charging may also take longer at such lower temperatures. See Owner's Manual for important details regarding cold weather charging, operation and storage.

#### III. Vehicle Features.

A. The Solar Panel Spoiler on SL trim level supplies minimal charge to vehicle's 12V battery to support operation of features (for example: charging a cell phone, operating the vehicle's clock) and does not charge the vehicle's lithium-ion battery nor extend range.

B. Data Recorders. The Nissan LEAF is equipped with several data recorders: (1) a data recorder for diagnosing repairs, (2) an Event Data Recorder ("EDR") that records data in crash or near crash situations, such as an air bag deployment or hitting a road obstacle. The EDR records data related to vehicle dynamics and safety systems for a short period of time, typically 30 seconds or less; and (3) Telematics and recorded vehicle data for features, analysis, and research. The Nissan LEAF records data concerning various vehicle systems, location, driving performance, and operating conditions. Some of this data is transmitted to Nissan through the vehicle onboard CARWINGS (telematics) system (if equipped). This data is used for the provision of CARWINGS services, as well as for analysis and research by Nissan designed to, among other things, optimize performance of future electric vehicles including improvements in future battery life. Certain state laws restrict access to such data without the consent of the vehicle owner. Without your consent, the vehicle telematics system will not function and certain features, including all telematics, will not operate as intended.

C. Cellular Network. The CARWINGS system (if equipped) communicates through the AT&T cellular network which may not be available in all areas. Certain remote functions require a compatible smartphone, not included or supplied. A compatible GSM/GPRS cellular network is required.

D. Roadside Assistance and CARWINGS Telematics Features, if equipped, (see III.C. above) are included through a subscription service which is complimentary for the first 36 months. After that time, a subscription service can be purchased.

#### IV. Vehicle Maintenance & Warranty.

As an all electric vehicle, the Nissan LEAF has unique features, service requirements, and safety risks that require specially trained technicians and some specialized equipment.

A. Warranty: All warranty repairs may only be completed at a certified Nissan LEAF dealership. Not all Nissan dealers may be certified. The closest certified Nissan LEAF dealership may be located farther away than you would prefer. In addition to warranty service, Nissan highly recommends that all maintenance and repair services be performed by a Nissan Certified LEAF dealer, listed on www.nissanusa.com/leaf.

B. Mileage at Delivery: Your LEAF's proper operation will be tested by Nissan after production and your vehicle will therefore be delivered with some mileage reflected on the odometer and some battery use with minimal capacity loss.

C. Lithium-Ion Battery Maintenance: Vehicle maintenance, including maintenance of the lithium-ion battery, is required as a condition of Nissan's New Vehicle Limited Warranty. Battery maintenance includes completion of an annual lithium-ion battery usage report. These include reports at 12 mos., 24 mos., 36 mos., 48 mos., 60 mos., 72 mos., and 84 mos., which can be performed by a Nissan Certified LEAF dealer or any qualified repair facility. The 12 and 24 month reports will be performed at no charge to you, provided the work is done at a Nissan Certified LEAF dealer. Damage or failure resulting from a failure to have these required services performed, or that could have been avoided had these services been performed, is not covered under the Nissan New Vehicle Limited Warranty. (See your Nissan dealer and read the actual limited warranty for complete details).

D. Battery Replacement Cost: As your vehicle battery ages, you may decide to replace the battery due to gradual capacity loss and its effect on vehicle range. The cost of future battery replacement may be significant, and may be greater than replacing a gas vehicle's power train.

E. Repairs: BODY SHOP WARNING: In the event of a significant accident, the vehicle should be delivered to a certified Nissan LEAF dealer to have the battery pack and high voltage parts such as the inverter, including the wiring harness, removed prior to

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painting. Battery packs exposed to heat in the paint booth will experience capacity loss. Damaged battery packs may also pose safety risks to untrained mechanics and repair personnel.

F. Exclusions and Limitations to Nissan New Electric Vehicle Limited Warranty: Your Nissan LEAF comes with a Nissan LEAF New Vehicle Limited Warranty. The warranty includes a number of specific conditions, exclusions, and limitations. See your Nissan dealer and read the actual LEAF Warranty Booklet for detailed information. See your Owner's Manual for important tips on how to maximize the life and capacity of the "Lithium-ion battery."

### V. Federal and State Tax Credit Eligibility.

Federal and state tax or other incentives may or may not apply to the purchase of a Nissan LEAF. Consult your tax advisor.

## Time of Order or Sale Acknowledgment

(CUSTOMER'S NAME), hereby acknowledge that I

have carefully read and understand all of the written information contained in this document concerning the Nissan LEAF prior to my purchase.

Reviewed by:

I,

Acknowledged by:

(Dealership Sales Executive & Date)

(Customer Signature & Date)

# Time of Vehicle Delivery

Reviewed by:

Acknowledged by:

(Dealership Sales Executive & Date)

(Customer Signature & Date)

(Parts 1+2 Sheet Title Position)