

QCV PROJECT Mobile Truck Service



Company Profile



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English version

CEO MESSAGE

Mobility Plus Co., Ltd launched with the know-how regarding the development of own on-site tire service vehicles of its group company Miwa Tire Co., LTD. specialized in on-site tire service for large-sized vehicles such as trucks and buses.

Recently, besides previous needs for rescue road working services, there is a growing needs for on-site working services in which service people go visit clients on designated sites and time as high-value added tire service. We needed therefore mobile stores (mobile service trucks) enabling to provide clients with the same services as those of the case in which they can enjoy on their visit to us. Against this background, we have developed tire service trucks used for own service of Miwa Tire Co., LTD. The origin of Mobility Plus Co., LTD. dates back to the on-demand sale of these vehicles to companies heard about their good reputation.

Several years ago, we developed a power generation system, which utilized an automobile driving engine instead of a previous and existing driving engine installed in the cargo compartment. The motive for this development was to obtain larger cargo compartment space for tire service vehicles so as to reduce the stress on workers in case of delivering spare tires and performing exchange work in the cargo compartment space in adverse weather. Then, the concept "freely portable electricity" of this development drew unexpected attentions from companies we hadn't previously done business with, resulting in business inquiries. In recent years, we have therefore expanded our main service, manufacture and sale of working vehicles such as tire service vehicles, so as to meet new business demands from our customers with wide range of services such as non-destructive inspection vehicles for roads and bridges, earthquake simulation vehicles (earthquake experience vehicles), disaster prevention education vehicles, pump type liquid delivery vehicles, power supply vehicles in disaster situations or for industrial applications, quick charging trucks for electric vehicles etc.

Electricity is very useful energy, but there has been no idea so far that it can be portable and used freely. Because of its innovative concept, "True-G power generation system" developed by Mobility Plus Co., LTD. has been granted patents not only in Japan but also in other countries.

We are aiming to be an enterprise with products needed as mobile power supply infrastructure through the utilization of "movable power supply", thereby making it possible to contribute to society more widely.



Tomonobu Miwa
President & Chief Executive Officer,
Mobility Plus Co., LTD.

Creating a motorized society
with diverse energies

QOV PROJECT
Popularization project of
quick charging vehicles for EVs

Bright motorized society full of diversity

Eco-friendly electric vehicles are becoming promisingly popular, coupled with an increased number of set-up charging points and attention drawing topics such as the recent launch of foreign-made electric vehicles. They are expected to establish a firm position as next-generation vehicles along with much-talked-about FCV and PHV in near future. Mobility Plus Co., LTD. has developed "Q Den-Maru", quick charging truck for electric vehicles, which fully utilizes the True-G System generating power with automobile driving engines, so as to contribute to establishment of a motorized society capable of taking advantage of diverse energies without relying solely on fossil energy.



**EV用移動
急速充電車** **Q電丸**
Mobile quick charging truck for EVs **Q Den-Maru**



Multipurpose lightweight truck with in-vehicle quick charger for EVs

All power generation and storage facilities are dispersedly stored in the engine room and under the floor. The space above the cargo space is freely usable.

It is possible to modularize free chassis with freely usable cargo space, enabling manufacture of multifunctional and multipurpose vehicles capable of meeting diverse needs and orders.

quick charging vehicles for EVs



Power supply units associated with the power supply, such as power generators and battery rectifiers, are dispersedly stored in an engine room or under the floor of a vehicle. The space above the cargo space can be used freely as a free vehicle cargo space, making it possible to satisfy the needs of customers.

ALL IN ONE SYSTEM

We can meet the following demands.

Quick charging truck for electric vehicles, large capacity power supply vehicles for emergency in disasters, installation battery power delivery vehicles, non-destructive infrastructure measurement inspection vehicles, earthquake experience vehicles (earthquake simulation vehicles), electric pump type IBC lorries, home appliances demonstration vehicles, various working vehicles etc.

TRUCK LABO
トラックラボ



Truck Labo (Research & Development, vehicle assembly plant)

Multipurpose minivan equipped with a power supply TOYOTA - HiAce Super High Roof -

Japan domestic registration only

Minivan with power generation and storage systems optimal for all service vehicles



Layout sample

You can change the position of the power supply device installed in the cargo compartment.

Main specifications of Charby

	Body	Power supply
Vehicle	2WD super high roof	Power supply system True-G Hybrid
Vehicle type	TRH22K-LFPDK	System name True-G 4.0
Prime mover	2 TR-FE 2.7 L gasoline	Power generator True-G alternator system
Transmission	4speed A/T	Power generation capacity 4.0 kVA 24 V
Riding capacity	2 people	Power generation output AC 200 V 5.5kVA AC 100 V 1.5 kVA
Load capacity	500 kg	Boosting system DC/DC converter type
Total length	5,380 mm	Conversion method DC/AC inverter type
Full width	1,880 mm	Storage method Lithium ion battery
Total height	2,490 mm	Battery manufacturer Toshiba SCiB
Cargo compartment	interior length 3,540 mm interior width 1,730 mm interior height 1,850 mm	Battery capacity 27 V 40 A 1.1 kVA x 2
Opening width	1,520 mm	A four-wheel-drive vehicle type is also available.
Opening height	1,670 mm	Battery capacity changeable

We can meet the following demands.

Ultra small X-ray photography vehicles, mobile financial automated bank teller machine vehicles, barber and beauty care vehicles, ultra-small tire service cars, electric power supply vehicles, small radio relay vehicles, disaster emergency command vehicles, air radio control command vehicles, various work vehicles, home electric appliances demonstration vehicles, etc.

Corporate Overview

Company Name	: Mobility Plus Co., Ltd.
President & CEO	: Tomonobu Miwa
Major Business Areas	: Planning, development, manufacture, remodeling, sale and maintenance of special vehicles and in-vehicle power generation systems etc. All services related with the above operations.
Head Office	: 〒607-8261 10-2, Ono Kanetsukidencho, Yamashina Ward, Kyoto City Phone 075 (573) 8815 Telephone service is only in Japanese Fax 075 (573) 3394
Manufacture Base	: 〒520-3043 433-1, Hayashi, Rittou City, Shiga Prefecture, Japan Phone 077 (554) 8500 Telephone service is only in Japanese Fax 077 (554) 9292
WEBSITE URL	: http://mobility-p.com
Establishment	: August 2005
Capital	: 10,000,000 yen
Affiliated Companies	: Miwa Tire Co, Ltd
Major Shareholders	: Mitsui Sumitomo Bank, Kyoto Branch Kyoto Shinkin Bank, Yamashina Branch etc.



New technologies supporting Mobile Truck Service



Unique vehicle power generation system

patented product

Our in-vehicle power supply system achieves “storage of electricity while driving” obtained through the combination of an “in-vehicle compact and high power output alternator” with a “lithium ion battery” .

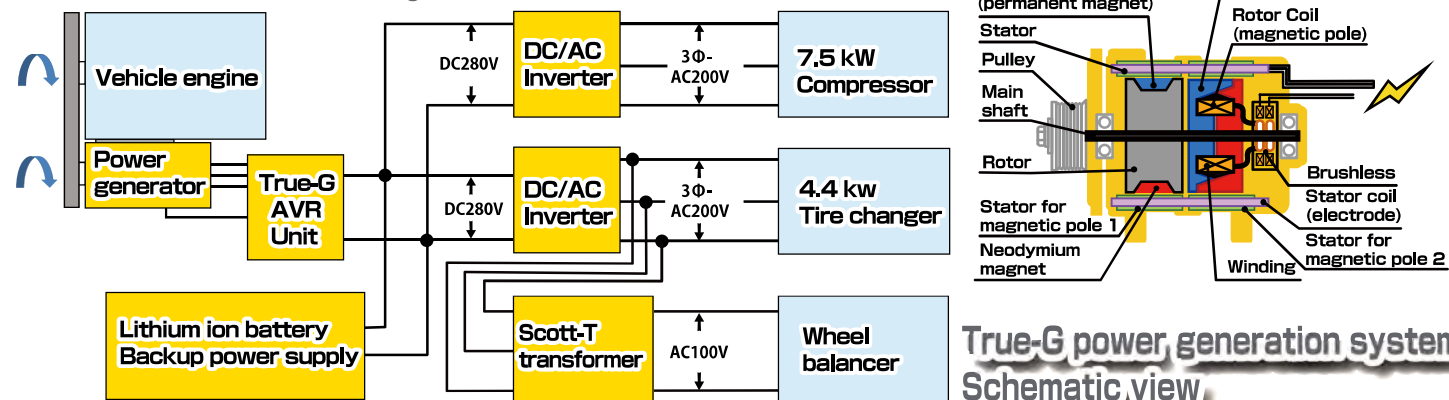
Three-phase AC 200V/single-phase 100 V power supplies can be obtained by using a truck driving engine in case where there is no power supply on distant sites.



New power generator with large capacity

patented product

A new power generator obtained through combination of a permanent magnet with a electromagnet has been lately developed. It generates continuously normal output of 10 - 15 kVA with max. 20kVA although it has such a compact size of 160 mm in diameter, 244 mm in length and 18 kg in weight that it can be fitted within an engine room.



Example for installation in a tire service vehicle

Corporate History

July	2005	Mobility Plus Co., LTD. specialized in developing, manufacturing and selling tire service cars was founded with capital of 1,000,000 Yen
June	2006	Approved as Small and Medium-Sized Enterprise Management Innovation Plan by Kyoto City
November	2006	Won an enterprise value creation award “Value Creation Oscar” from Small and Medium-sized Enterprise Support center of Kyoto city
November	2007	Increased capital to 10,000,000 Yen
February	2008	Jointly developed hybrid earthquake experience vehicles in cooperation with Kyoto Kagaku Co., Ltd. (now S.P.C Co., Ltd.)
June	2009	True-G power generation system was patented.
September	2012	Released “Q Den-Mar” , quick charging truck for electric vehicles
December	2013	Released “Q Tarou” , in-vehicle loader car with quick charging function for electric vehicles, at 20th CHAdeMO Maintenance Subcommittee.
July	2014	Approved as “New Collaboration Business Plan” by the Kinki Economy Bureau of Economy, Trade and Industry Ministry of Economy, Trade and Industry
December	2014	Certified as being eligible for subsidies for charging infrastructure from the Ministry of Economy, Trade and Industry as the first ever in-vehicle product
January	2015	Released “Charby” , tire service car with the world's smallest power generation system, at Automotive World 2015
June	2017	Released “K Den-Mar” , van equipped with an air compressor with a power generation system at Auto Service Show2017
June	2018	Approved as a business operator of rental cars and started rental business of “Q Den-Mar” quick charging trucks for electric vehicles.
February	2019	Completed “Truck Labo” (R & D and vehicle assembly plant) in Rittou City, Shiga Prefecture
January	2019	"True-G Hybrid System" was selected as "Kansai Monodukuri Shinsen 2019 (newly selected high-value products in Kansai Area Japan 2019)"



**Pioneering the future social infrastructure
by utilizing "mobile power supplies"!**

**Opening up boundless business opportunities
with all-in-one systems!**

**Large capacity in-vehicle power generation system
accommodating a wide range of applications and vehicle types**

**HYBRID SYSTEM
True-G**



3 t tire service vehicle "TBPC-3EL"



Battery power generation type
earthquake experience vehicle 2 t type VE-T2

Battery power generation type
earthquake experience vehicle 3 t type VE-T3



Battery power generation type
earthquake experience vehicle 4 t type VE-T4



mini-van design tire service vehicle



2 t tire service vehicle "TB-2E"



Kei-van equipped with an air compressor &
a power generation system "K Den-Maru"



Quick charging truck
for electric vehicles "Q Den-Maru"



Vehicle dedicated to tunnel inspection MIMM



Non-destructive inspection vehicle
for roads and bridges



Disaster prevention education vehicles



Liquid delivery IBC lorry trucks
for drinking water etc.