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## Subaru Commemorates the 40th Anniversary of Its AWD Vehicles

Tokyo, February 10, 2012 – Fuji Heavy Industries Ltd. (FHI), the manufacturer of Subaru automobiles, today announced that this year marks the 40th anniversary of the debut of Subaru all-wheel drive (AWD) vehicles since the Subaru Leone Estate Van 4WD was first introduced in Japan in 1972. During the past 40 years, FHI has continued to be a pioneer of passenger AWD vehicles. The total production<sup>\*1</sup> of Subaru AWD vehicles has reached 11,782,812 units (as of January 31, 2012). This is approximately 55.7% of Subaru vehicle total sales.

\*<sup>1</sup> including the productions of part-time 4WD vehicles

The AWD system provides traction effectively by distributing the engine power to all four wheels in a balanced manner. With the combination of Symmetrical AWD (SAWD) and Subaru's Horizontally-Opposed Boxer Engine, the whole power train is mounted with side-to-side symmetry and the transmission sits back from the front axle within the wheelbase. This layout optimizes longitudinal-transverse weight balance. Those characteristics bring stable traction on multitude of road surfaces and driving conditions. Excellent stability at high speeds and superb cornering and responsiveness are also realized, making SAWD a core technology that underpins Subaru's safety philosophy and enjoyment of driving.

Through continuous Research & Development over 40 years, FHI has refined its AWD technologies: from a technology capable of rough road driveability to a unique technology that achieves high stability in rainy, snowy or high speed condition, allowing Subaru AWD systems to meet each model's character. The latest technology includes four-wheel traction management which gives firm and accurate grip to all four wheels all the time. This four-wheel control expertise is also utilized for the development of front-wheel drive and rear-wheel drive vehicles, broadening Subaru's driving pleasure to more customers.

FHI will achieve "Enjoyment and Peace of Mind" in its vehicles through Subaru brand statement "Confidence in Motion" by continuing to utilize unique technologies.



Subaru Leone Estate Van 4WD released in 1972



New Impreza Symmetrical AWD chassis

<Supplementary Information>

- Subaru Symmetrical AWD systems -

• VTD\*<sup>2</sup>-AWD: Electronically controlled sporty AWD for enhanced turning performance

A compact AWD system combines the center differential using the planetary gear with an electronically controlled hydraulic multiple-disc clutch LSD\*<sup>3</sup>. An uneven 45:55 front and rear torque distribution is variable continuously using a multiple disc clutch LSD. Torque distribution is controlled automatically up to an equal 50:50 front and rear to suit road surface conditions for superb stability. By distributing torque with an emphasis on the rear wheels, turning performance is enhanced to provide aggressive and sporty driving.

[Available models (Japanese spec.)]

Legacy 2.5GT (AT models), Outback 3.6R EyeSight, Exiga 2.0GT, WRX STI A-Line (AT models) \*<sup>2</sup> VTD: Variable Torque Distribution

\*<sup>3</sup> LSD: Limited Slip Differential

• Active torque split AWD: Electronically controlled AWD for enhanced fuel efficiency and stability Subaru's original electronically controlled MP-T (Multi Plate Transfer) adjusts torque distribution to the front and rear wheels in real-time to suit driving conditions. The system usually distributes torque 60:40 front and rear. It maximizes the benefits of AWD by providing stable and safe driveability regardless of the driver's skill in any driving situation.

[Available models (Japanese spec.)] Legacy / Outback 2.5i, Exiga 2.0i, Forester (AT models), Impreza (Lineartronic models)

Viscous centre differential AWD: Mechanical AWD for manual transmissions
The system is a combination of the bevel-gear-type center differential and the viscous LSD. A 50:50 front
 and rear torque distribution is set under normal conditions. It delivers stable and sporty driving that always
 maximizes the available traction.
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[Available models (Japanese spec.)] Legacy (MT models), Forester (MT models), Impreza (MT models)

• Multi-mode DCCD\*<sup>4</sup> AWD: Performance-directed AWD for real motor sports

The electronically controlled DCCD AWD system employs a combination of torque sensing mechanical LSD and electronically controlled LSD. It provides a performance-oriented 41:59 front and rear torque distribution for the optimum vehicle dynamics control. The mechanical LSD has a quicker response and activates just prior to the electronic LSD. While managing large torque, the system demonstrates the highest balance between agility and stability. There prepared automatic LSD control modes and manual mode which the driver can select according to the driving situations.

[Available models (Japanese spec.)]

WRX STI (MT models)

\*<sup>4</sup> DCCD: Driver's Control Center Differential