

# 1 Tamron Co., Ltd.

	<b>Companies' approach</b>
① <b>Background and purpose of accounting</b>	<ul style="list-style-type: none"> <li>To measure CO<sub>2</sub> emissions from our corporate activities and reinforce our efforts to reduce our environmental impact.</li> </ul>
② <b>Utilization of accounting results</b>	<p>The accounting results are utilized to:</p> <ul style="list-style-type: none"> <li>respond to external environmental surveys as well as communicate our environmental commitments to stakeholders by reporting the accounting results through CSR reports; and</li> <li>identify categories with high environmental impact for which we need to focus our efforts to reduce emissions.</li> </ul>
③ <b>Benefits of accounting</b>	<p>The accounting enables us to:</p> <ul style="list-style-type: none"> <li>identify categories with high environmental impact and utilize these findings to take effective action to reduce our carbon footprint; and</li> <li>show our environmental commitments to stakeholders.</li> </ul>
④ <b>Internal system for accounting</b>	<ul style="list-style-type: none"> <li>Primary data are gathered from relevant divisions (Business Units, Administration Unit, Information System Office) and calculated by the CSR division.</li> </ul>

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## Tamron Co., Ltd.

	<b>Companies' approach</b>
⑤ <b>Efforts to reduce supply chain emissions</b>	<ul style="list-style-type: none"> <li>• We will examine how we can reduce emissions from Category 1 (Purchased goods and services) and Category 4 (Transportation and delivery), which are found to account for a large part of the total emissions.</li> </ul>
⑥ <b>Issues in supply chain emissions accounting</b>	<ul style="list-style-type: none"> <li>• Issue in last fiscal year               <ol style="list-style-type: none"> <li>① To increase the accuracy of data used for the accounting of each category in order to improve the overall accuracy of the accounting results, ⇒further improve the accuracy of the accounting (Category 4)</li> <li>② To standardize accounting operations. ⇒finished standardizing (October 2018)</li> </ol> </li> <li>• Issue in this fiscal year To further improve the accuracy (to improve the accuracy of the weight estimate of Category 4 )</li> </ul>
⑦ <b>Other</b>	—

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## Tamron Co., Ltd.

Category	Accounting methods ※Accounting period : January 2017 - December 2017	
	Activity data	Emission factor
Category 1: Purchased goods and services	● Value of components, expendable supplies, services, etc. procured	● SC-DB (*1)
Category 2: Capital goods	● Value of capital investment	● SC-DB (*1)
Category 3: Fuel and energy related activities not included in Scope 1 or 2	● Amount of energy purchased by type (gasoline, heavy oil, electricity, kerosene, etc.)	● CFD-DB (*2)
Category 4: Transportation and delivery (upstream)	● Weight and distance transported (calculation is made based on scenarios established, using the ton-kilometer method)	● SC-DB (*1)
Category 5: Waste generated in operations	● Weight of waste disposed of by type	● SC-DB (*1)
Category 6: Business travel	● Transportation expenses paid for business travel	● SC-DB (*1)
Category 7: Employee commuting	● Transportation expenses paid for commuting	● SC-DB (*1)
Category 8: Leased assets (upstream)	● Floor area of buildings leased for offices	● SC-DB (*1)
Category 9: Transportation and delivery (downstream)	● N/A	● —
Category 10: Processing of sold products	● N/A	● —
Category 11: Use of sold products	● Electricity consumed by and number of products sold	● SC-DB (*1)
Category 12: End-of-life treatment of sold products	● Weight of each component of, and number of, products sold	● SC-DB (*1)
Category 13: Leased assets (downstream)	● N/A	● —
Category 14: Franchises	● N/A	● —
Category 15: Investments	● N/A	● —
Other	● N/A (optional category)	● —

\*1 Emission Factor Database on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain Ver. 2.5

\*2 CFP Communication Program Basic Database Ver. 1.01 (data in Japan)

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## Tamron Co., Ltd.

## Supply chain emissions : Accounting results

	Description	Share (%)
Category 1	Emissions from the extraction of resources and the manufacturing and transportation of all goods and services purchased or acquired	57.9%
Category 2	Emissions from the manufacturing and transportation of capital goods purchased or acquired	22.7%
Category 3	Upstream side emissions (resource extraction, production, and transportation) from fuel purchased and the generation process of electricity and heat purchased	1.5%
Category 4	Emissions from suppliers' distribution (transportation, cargo handling, and storage) of goods and services purchased	9.3%
Category 5	Emissions from disposal and processing by parties other than Tamron of waste generated from Tamron's business activities	2.5%
Category 6	Emissions from means of transportation used in the movement of employees of Tamron in operations such as business travel	0.2%
Category 7	Emissions from means of transportation used for commuting to factories or places of business by employees of Tamron	4.7%
Category 8	Emissions from the operation of warehouses and other assets leased by Tamron	0.0%
Category 11	Emissions from consumers' use of products and services sold	0.2%
Category 12	Emissions from the disposal and processing of products sold at the end of their life cycle and their containers and packaging	1.0%