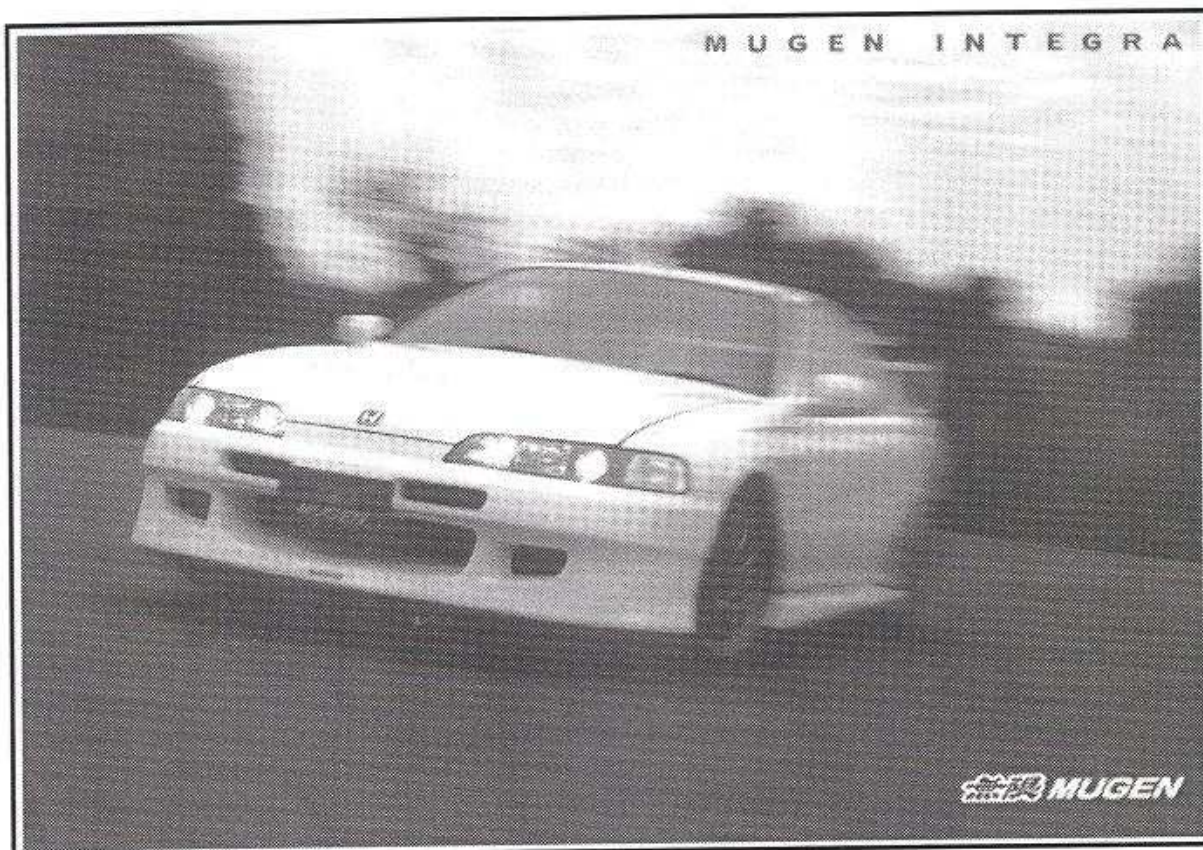




1999 Mugen Pricelist for Integra



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COVERPAGE - WHITE INTEGRA TYPE R

[INTRODUCTION] TYPE R B18C.

Obtaining even greater power from this already highly tuned engine will require design and development processes as demanding as engine development. How can an even greater amount of air-fuel mixture be brought into the combustion chambers through the inlet valves, and how can the combustion gases be extracted efficiently from the exhaust valves using the same valve diameter and timing. In other words, the main aim is to produce even greater power by increasing the charging efficiency of the air-fuel mixture. In addition, along with the engine characteristics demanded, silencing features must be achieved. These are the basic requirements of inlet-exhaust tuning.

FORMULA 1 MF301H.

This is one example of world-class Mugen technology competing at the highest levels. In addition to this V10/Formula 1 engine, Mugen supplies a wide range of racing engines in many other categories both at home and abroad, including Formula Nippon, Formula 3 and Formula 4. It has also competed as a constructor in races including Gr.A, JTCC and JGTC, achieving victories in all categories. All of this technology and expertise is now being fed back into the Type R engine tuning "Inlet-exhaust System."

ENGINE TUNING

AIR CLEANER & BOX

<Attention!!> It is impossible to use on the ABS equipped cars. This product is designed for the competition use. In case of driving into a deep pool, the water will enter the engine and the engine could be damaged.

The inlet system is designed to maximize the inflow of the air-fuel mixture among the aims of tuning are the elimination of resistance inside the inlet pipe, and increased amount of inlet airflow (air-fuel mixture). Mugen considers these factors as part of total tuning, and has created an outstanding inlet system comprising a filter, air box, and duct. This inlet system, designed especially for the Type R, reduces inlet pressure losses and increases airflow, and increases power and torque particularly in the VTEC high-cam region. Air-funnel is used on the duct ends inside the air-filter, and reduces pressure losses while preventing separation of the inlet airflow. The external air inlet also has a funnel shape, and is arranged in a position that allows for the intake of fresh air with even greater density. Careful consideration was given to the air box and duct length, capacity and shape, and also to materials and manufacturing methods. Based on such considerations, the large-capacity air box and duct were formed from glass fiber, hand-laid up individually. The filter is a round-tapered type with low airflow resistance (large surface area). The air box is not fitted with a resonator, and therefore creates a unique sound during intake air due to inlet tuning.

• Dynamometer test: (photo)

In the same way as for Mugen formula engines including those for Formula 1, the Integra inlet-exhaust system undergoes performance checks and development by engine dyno testing. This testing is an essential part of the development process.

AIR CLEANER & BOX KIT

AIR CLEANER & BOX KIT:	17200-XG9R-K0S0	\$650.00
FILTER ELEMENT:	17220-XG9R-K0S0	\$120.00

Note that there is a risk of engine failure in conditions that can cause the external air inlet to become submerged. Do not drive through a deep pool by all means. In case of driving through a deep pool (over 10 cm), the water enters into the engine and the engine will stop suddenly and be damaged. The photograph shows a development model, which differs slightly from the actual product.

FORMULA HEAD COVER	[97R, 98R]	12310-XFO-K1S0	\$829.00
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These aluminum engine head covers are manufactured individually using sand casts in the same way as those for Mugen Formula engines. VTEC DOHC.

OIL FILLER CAP	[all cars]	15610-XG7-KOSO	\$74.00
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Mugen Formula engines, including those for Formula 1, naturally require components manufactured with high precision. Mugen meets such requirements by machining to exacting specifications at its factories. These oil filler caps are manufactured individually from aluminum at the same factories in the same way. "Formula Quality" is a result of the attention Mugen pays to detail. All vehicles.

FORMULA 337	[all cars]	90000-YZO-337	\$29.00
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Engine treatment additive for Four-cycle engines.

EXHAUST MANIFOLD

<4 into 1>	97-98 Type-R	18100-XG9R-K4S0	\$950.00
	94-99 GSR	18100-XG9-K0S0	\$950.00

<4-2-1 GYMKHANA Spec.>	97-98 Type-R	18100-XG9R-K2S0	SPECIAL ORDER
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The exhaust manifold is one of the components that dictate engine characteristics. Mugen has released an exhaust manifold for the 96 spec. R with a 4-into-1 layout that increases the power torque in the mid and high-speed ranges. This has led to numerous victories in circuit fields, including gymkhana, in the hands of top drivers. Meanwhile, Honda has incorporated a 4-into-1 layout exhaust manifold as part of the developments towards the 98 spec. Type R. The details are probably easy to guess. However, the Mugen exhaust manifold surpasses massproduced parts in both power and torque. A 4-into-1 exhaust manifold is provided for the 98 spec. R to achieve further increases in top-end power. A 4-2-1 type has also been developed, primarily for gymkhana use, and this offers excellent controllability and derivability specifications with increased power and torque in the 5,800 to 7,750 rpm range. The 4-into-1 type is configured for 96 and 98 spec. R vehicles, and also for the Si VTEC/SiR. The 4-2-1 type (gymkhana spec.) is configured for the 98 spec. R. All items are JASMA approved, conforming to safety standards in Japan.

Mugen exhaust manifold characteristics curves (98 spec. R)

Left Length line (40 to 220)	: Output PS (net value)
Horizontal line (2000 to 9000)	: Engine speed (rpm)
Right Length line (16 to 24)	: Shaft torque (kgf/m)

Oblique two red and blue lines	: Output
Horizontal two red and blue lines	: Torque

red line	: 4-into-1 manifold + exhaust system
blue line	: 4-2-1 manifold + exhaust system

• **Welding:** Employs a delicate assembly process. Insert Joints do not impair the flow of exhaust gases at the joint between flange and pipe. Protrusions on the joint interior caused by welding are avoided by using gas shielded TIG welding.

• **Grinding:** When combustion gas is expelled from the exhaust ports, small burrs inside the manifold create large resistance. The interiors of pipes inserted into the flanges are ground carefully using a hand grinder.

• **Original sticker "MUGEN equipped"** is included ex-mani kit and/or exhaust System. This sticker is not sold separately.

EXHAUST SYSTEM

97-98 Integra Type R	18000-XG9R-K4S0		\$950.00
94-99 Integra GSR	18000-XG9-K0S0	3dr	\$950.00
		4dr	\$950.00

Silencing characteristics and the quest for exhaust efficiency: the two requirements imposed on exhaust systems have a contrary relationship, and in practice it is extremely difficult to achieve both. At Mugen, we have continued to employ the straight configuration, with the design philosophy that low exhaust pressure must be provided, and that reducing exhaust resistance is an important part of the ideal exhaust system. The straight configuration is widely used in racing, and is ideal because, as the name suggests, it provides low exhaust resistance. However, large silencers are generally required, as there may be problems with mid to low-frequency-band silencing and scattering of sound absorbing material such as glass wool with the straight configuration. Incidentally, the inverted multi-layer expansion-type silencer widely used by automobile manufacturers provides stable silencing performance, as the sound passes through several divided silencer chambers, but involves the disadvantage of some output loss and is larger and heavier than other silencers. As a result of our quest for the ideal design for racing engines, Mugen developed the "twill loop-type silencer," in which the pipe is twisted into two loops and passes straight through the silencer twice. This could be considered the ultimate arrangement, combining the concepts of "absorption" and "intervention" in an ingenious manner. It surpasses normal systems in power and torque over the full range, and provides the required silencing and the clear Mugen-Honda sound.

• **LOOP LAYOUT SILENCER** (photo):

Unique compact loop layout with a straight configuration.

• **MID SILENCER** (photo):

Uses high-durability heat-resistant sound absorbing stainless materials designed for the high heat loads of circuit driving.

VALVE SPRING SET	14760-XJ1-SONO	\$460.00
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The normal rev limit of 8,400 rpm for the Type R/B18C engine is raised to 9,100 rpm with a dedicated E.C.U. Valve springs and these are reinforced to reduce valve jump at such high speeds. The uprated double springs comprise inner and outer springs, and are supplied as a set of 32 for intake and exhaust valves.

OIL PAN	11200-XJ1-0000	\$249.00
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This oil pan is fitted with baffles to prevent oil pressure drop due to oil shifting caused by centrifugal forces. The main casing has an original configuration. For production car racing (N1) use.

METAL HEAD GASKET

12251-XJ1-0000

\$129.00

Their thickness has been reduced to t0.47 from the normal t0.7 of Type R/B18C engines, and the compression ratio has been increased from 11.1 to 11.4. A two-layer construction is used instead of the normal three-layer gasket plate construction, and a rib (+0.07mm) is laser-welded close to the plate surface sleeve to prevent blowout occurring at high compression. For production car racing (N1) use.

HI-PRESSURE RADIATOR CAP

19045-XGER-0000

94-99 Integra GSR

\$29.00

97-98 Integra Type R

\$29.00

This radiator cap is a high-pressure type that increases the pressure inside the radiator, thus raising the coolant boiling point and increasing cooling efficiency. The open valve pressure is 1.3 kg/cm² compared to the normal 1.1 kg/cm². It demonstrates its power under high-load situations such as circuit driving.

N1 E.C.U

37820-XH4-0000-B2 \$1300.00

This is specially mapped to the fuel mixture and the ignition timing and combustion with the rev limit increased to 9,100 rpm from the normal 8,400 rpm, and the VTEC valve timing changeover point lowered to 4,600 rpm from the normal 5,200 rpm. It is recommended that reinforced valve springs be fitted if this E.C.U. is used.

THERMOSTAT

19301-XGER-0000

94-99 Integra GSR

\$69.00

97-98 Integra Type R

\$69.00

This thermostat has the operating temperature set lower than normal. It prevents engine power loss by minimizing rapid water-temperature rises under harsh conditions such as during circuit driving. The use of a flow-control-type valve prevents hunting, thereby achieving rapid stabilization of the water temperature (the engine warms up within a short period).

Operating temperature:

68°C (STD.: 76 ~ 80°C)

Full-throttle acceleration temperature:

81°C (STD.: 90°C)

SAFETY TANK SET

30-liter:

17500-XG5-KONO-B1

(photo shows this type)

SPECIAL ORDER

100-liter:

17500-XH4-KONO

(manufactured to order)

SPECIAL ORDER

These safety tanks are designed for production car races. The 30-liter container for sprint races is made of FRP, and the 100-liter container for endurance races is made of aluminum.

CHASSIS

SUSPENSION TUNING [INTRODUCTION]

Mugen has competed as a constructor, as a supplier, and as a team in JGTC and N1 races. We incorporate a super-sports road suspension giving direct feedback and the design concepts and know-how that Mugen has accumulated through the development of racing cars based on production vehicles. Mugen has given careful consideration to the ideal suspension for road use, since a suspension that ensures high speeds on the circuit does not necessarily make for fun on the road. In other words, while the starting points are the same for both the

design philosophy and the hardware, the configurations of the two types of suspensions are going to differ. Mugen knows everything there is to know about racing, and it is this extensive know-how that enables us to create wheels for road use that are both fast and fun to drive. Mugen aims to provide real tuning, rather than simply achieving certain numerical values. (Photo : left; Mass production use / right; Mugen SPV)

The orifice and valve, regulator valves, control damping within the damper. A progressive-type SPV valve demonstrates consistent performance, suppressing the occurrence cavitation (bubbles) even under harsh conditions, and is used not only in the N1 damper, but also in the adjustable damper for road use. The photographs show how this valve suppresses cavitation more effectively than mass-produced products in simulation tests conducted under the expected harsh conditions. The photographs were specially processed.

5ADJ. LOWDOWN SUSPENSION KIT 50000-XG9R-KOSO \$1450.00

Lowdown suspension enables 5-stage damper adjustment. This allows a wide range of settings, from hard front (soft rear) for understeer characteristics to hard rear (soft front) for oversteer characteristics. The assembly comprises twin-tube dampers and springs specially designed for Type R. The set contains sufficient parts for one vehicle. Common for 96/98 spec. R 3/4 door and all vehicles.

5ADJ. DAMPER KIT(1) + OPTIONAL SPRING SET (2) or (3)

These sports dampers enable 5-stage damper adjustment. They allow a wide range of settings when used in conjunction with optional springs (Std. vehicle height and Lowdown), which are available separately. 94-99 Integra GSR

(1) 5ADJ. DAMPER KIT :	50000-XG9-K1S0	\$1200.00
(2)-1 SPRING SET (FRONT) :	51401-XG9-SOSO	\$155.00
(2)-2 SPRING SET (REAR) :	52441-XG9-SOSO	\$155.00
(3) SPRING SET (FR & RR) :	50400-XG9-S2SO	\$310.00

- (2)-1 & (2)-2 OPTIONAL SPRING SET makes Standard vehicle height.
- (3) OPTIONAL SPRING SET makes Lowdown vehicle height.

- Notch for 5-stage damper adjustment: (photo)

Adjust using a slot-head screwdriver. Used on the 5ADJ. road-use dampers and N1 rear dampers. (The N1 front damper can be adjusted in a step-free manner by rotating the needle.)

N1 DAMPER KIT + OPTIONAL SPRING SET

N1 DAMPER KIT (T1/C1, C/F)	50000-XH4-K2NO-B1	\$2700.00
N1 DAMPER KIT (T1/C1, D/F)	50000-XH4-K2NO-B2	\$2700.00
N1 OPTION SPRING SET (K=16, 18, 20, 22, 24, 26, 28)	51401-XH3-SONO-B1~B7	\$320.00

[DAMPER]: This is the Mugen damper used by the Integra Type R Super Endurance Series 96, 97, and 98 champion machines. In the Civic, the 93 to 98 Super Endurance (N1) Race and Intercup Series champions also used Mugen dampers. The singletube step-free damper adjustment method is used at the front, and the twin-tube 5-stage damper adjustment method is used at the rear to cope with different requirements. Casings are made of steel. Adjustable vehicle-height type.

[SPRING]: Two-spring set. For front/rear use. Free length approx. 6 inches, internal dia. 61mm.

STABILIZER

FRONT (26mm) :	51300-XH4-SONO-B1	\$370.00
REAR (24mm) :	52300-XH4-SONO-B1	\$370.00
REAR (26mm):	52300-XH4-SONO-B2	\$370.00

This stabilizer minimizes vehicle rolling during cornering by creating a spring like effect due to its twisting. The original type stabilizer allows steering characteristics to be tuned by selecting the thickness and hence the spring rate. The kit also includes two stabilizer bushes for the body mountings. Note that there is a risk of damaging the brackets (on the vehicle body) if this stabilizer is used in conjunction with large-stroke Suspension systems.

HARD BUSHES

Rubber bushes including the engine mounts for reducing the vibration created by the engine and transmission, suspension arm bushes for contributing to the balance between road-holding and comfort, and stabilizer bushes for assisting roll control are designed to achieve controllability in mass-production vehicles, and also to have a hardness that gives priority to ride comfort. Harder bushes are required for controlled sports driving or production car races, in order to increase suspension stiffness, minimize judder, suppress rolling, and improve steering response. These original higher-hardness bushes comply with all production car race regulations, and can be substituted for the original parts. The suspension arm bushes are fitted by removing the original bushes from the arm, and inserting the hard bushes. A dedicated tool for replacement on a bench press is available separately.

ALUMINUM ROAD WHEELS

With general-purpose wheels designed to be fitted to different manufacturers' vehicles, the fitting of wheel and hub tends to be slack. Mugen's original design achieves a good center hub fit, and this is Mugen's standard. Whereas for general-purpose products, design is focused on the wheel alone, Mugen designs wheels as part of a specific vehicle type. This produces a wheel as a tuning part without any decoration.

(Photo: above; Massproduction / bottom; Mugen)

• Light, thin rim. A minimum rim thickness of 2.5mm is used for the MF8/MF10 16 inch wheels. Thin, light but strong rims are produced using a spinning process in which the rim is created by spinning and thinly extending the material. This low rotating weight results in improved driving characteristics under sharp handling. (The photograph shows cross-sections of the MF10 and the wheel fitted as standard to the 98 spec. R.)

MF8	94-99 Integra	42700-MF8-670S-B2 (16x7JJ, +43, Silver)	\$520.00
		42700-MF8-670B-B2 (16x7JJ, +43, Bronze)	\$550.00
		42700-MF8-670S-B3 (16x7JJ, +52, Silver)	\$520.00
		42700-MF8-670B-B3 (16x7JJ, +52, Bronze)	\$550.00
MF10	97-98 Integra R	42700-MF10-670S-B1(16x7JJ, +43, Silver)	\$520.00
		42700-MF10-670B-B1(16x7JJ, +43, Bronze)	\$550.00
		42700-MF10-670S-B2(16x7JJ, +50, Silver)	\$520.00
		42700-MF10-670B-B2(16x7JJ, +50, Bronze)	\$550.00
		42700-MF10-680B-B1(16x8JJ, +42, Bronze)	\$550.00

Mugen considers aluminum wheels to be functional parts, not fashion accessories. Mugen developed a demanding forging manufacturing process as a result of our commitment to producing wheel parts that are both lightweight and strong. The forging process involves forging and striking of the metal, and produces a composition combining the proper elasticity with close binding between individual metal particles. This tightly

linked metal composition ("forging flow lines"; see photo below) created by this forging process makes the functional MF8/MF10 wheel extremely lightweight while maintaining high rigidity and strength. Available in silver-metallic and bronze. Center caps are sold separately; Black (for bronze) and Blue (for silver-metallic)

CENTER CAP (MF)

BLUE:	42710-MF3-OOSO-BU	\$30.00
BLACK:	42710-MF3-OOSO-BK	\$30.00

The MF uses a center cap that is individually machined from aluminum.

WHEEL NUT & LOCK SET

4-HOLES	SILVER:	08181-MO7-KOSO-S	\$65.00
	BLACK:	08181-MO7-KOSO-BL	\$75.00
5-HOLES	SILVER:	08181-MZ3-KOSO-S	\$75.00
	BLACK:	08181-MZ3-KOSO-BL	\$85.00

Taper nut (19mm). Honda genuine nuts cannot be used for Mugen wheels.

SPORTS BRAKE PAD SET

<GOLD> For Sports driving (Street & Racing)
Temperature range: 100°C ~ 650°C

97 Type-R	FRONT:	45022-XG9-K100	\$CALL
	REAR:	43022-XG9-K100	\$CALL
98 Type-R	FRONT:	45022-XGER-K000	\$CALL
	REAR:	43022-XGER-K000	\$CALL

<BLACK> For Sprint racing.
Temperature range: 100°C ~ 700°C

97 Type-R	FRONT:	45022-XG9-K200	\$CALL
98 Type-R	FRONT:	45022-XGER-K100	\$CALL

Mugen has developed brake pads with ideal high μ values through the use of special materials, and through experimenting with numerous materials while considering the character of the Integra Type-R. Two specifications have nevertheless been established for front pads to meet drivers' requirements.

Mugen brake pad characteristics chart (98 spec. R): (Clockwise from the top)

- [a] Effectiveness
- [b] Fade resistance
- [c] Wear
- [d] Squeal
- [e] Dirt
- [f] Controllability

White line: Genuine brake pad
Red line: Mugen Gold brake pad
Blue line: Mugen Black brake pad

L.S.D. (2-way)

94-99 GSR, 97-98 Type-R

41000-XJ1-KONO

\$1200.00

This is a multi-plate (or mechanical) L.S.D. that gives excellent torque response to the accelerator. As you know, the Type-R is fitted with a standard helical L.S.D., but the Mugen L.S.D. is intended for sports driving, which requires more direct and exact operation. The product is factory-configured to a 2-way 45°+ 45° setting, but it can be reconfigured to 1.5-way if desired using a pressure ring set (available separately). Differential bolts are used as standard. GL-4 synthetic oil (75W-90) or equivalent should be used.

1.5-way: Operates particularly effectively when accelerating, but, the LSD effect is reduced when the accelerator is released.

2-way: Operates when accelerating and when the accelerator is released.

L.S.D. OPTIONAL PARTS

- | | | |
|---|----------------|----------|
| (1) SPEEDOMETER DRIVE GEAR
(Meter drive gear for operating speedometer) | 41314-XE5-S0G0 | \$120.00 |
| (2) 1.5-WAY 45° + 20° PRESSURE RING SET
(Pinion-shaft and L/R pressure-ring set for reconfiguring to 1.5-way.) | 41330-XE5-SOGO | \$300.00 |
| (2) 1.5-WAY 50° + 20° PRESSURE RING SET
(Pinion-shaft and L/R pressure-ring set for reconfiguring to 1.5-way. This setting has an increased transfer ratio when accelerating compared to 45° + 20°.) | 41330-XG5-SONO | \$300.00 |

L.S.D. REPAIR PARTS

- | | | |
|--|-------------------|----------|
| (3) REBUILT KIT
(6 Friction disks t=1.65; 6 Friction plates; 2 Thrust washers; 2 Springs) | 04411-XE9-OONO | \$220.00 |
| (4) FRICTION DISK SET
(t=1.9 x 2 disk set; for initial torque adjustment) | 41360-XG5-SONO-B2 | \$300.00 |
| (5) PINION & SIDE GEARS SET
(4 Pinion Gears; 2 Side Gears) | 41340-XG5-SONO | \$350.00 |

METAL CLUTCH SET

22000-XJ1-SONO

\$599.00

This is a clutch designed for racing and sports use. This clutch set is a thin single-plate type that transmits the engine output to the drive train reliably without losses. The reinforced clutch cover, which allows precise clutch-work, has a reinforced diaphragm that compresses the pressure plate even under repeated clutch action. Reinforced bolts and springs are used in the plate unit to enable it to withstand severe use, and the fading material is metal. This gives an excellent clutch feel together with consistently high friction performance (fade recovery) over the entire temperature range. The clutch cover and metal disk are used as a set.

Reinforced clutch cover: Dia.: 220, Gauge thickness: t=3.6mm

Pressure force: 660 kg

Metal disk: Gauge thickness: t=3.6mm (with damper)

Integratyper.org

SPORTS METER UNIT + UNDERVISOR SET	78110-XG9R-KOSO	\$320.00
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This is a set containing a full-scale 270 km/h (1)SPEED METER UNIT and (2)METER UNDERVISOR for the Type-R. The speed meter can be interchanged with the normal meter. The meter undervisor is a panel attached over the meter face, and is made from t=3 aluminum machined to a hairline finish.

METER UNDERVISOR	78171-XG9R-KOSO	\$175.00
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An undervisor made from machined and finished T-3 aluminum. It is set above the meter face. This product is included in the "Sports meter unit + undervisor set (for Type-R)". All vehicles.

STEERING WHEEL FG-360

FG-360 with PAD	\$349.00
STEERING BOSS	\$75.00

This product is a concentric three-spoke steering wheel with an external diameter of 360. Mugen gave careful consideration to the grip profile and touch, bringing the form close to that of formula machines. Attention was also paid to details, such as the independently located left and right horn button switches, and the aluminum diecast center cover engraved with the Mugen logo. The product is available in two types, one of which features a detachable center pad added to the basic version. The steering wheel is mounted in conjunction with a steering boss (available separately). These products cannot be fitted to vehicles-equipped with SRS airbags. For non-airbag equipped vehicles.

STEERING WHEEL RACING

53110-SW1-O1NO	\$280.00
53130-XG5-K1SO	\$65.00

This product is designed for competition use only, with an external diameter of 350. It has no horn button. The steering wheel is mounted in conjunction with a steering boss (available separately). This product cannot be fitted to vehicles equipped with SRS airbags. For non-airbag-equipped vehicles.

SHIFT KNOB	54102-XG4-KOSO-BU/BL/G/S/R	\$74.00
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"Formula Quality" is the essence of Mugen's approach to production, since we also manufacture components for formula engines. This machined shift knob exemplifies our high manufacturing precision. Each product is machined individually from aluminum, and then given an alumite hard-coat finish before the Mugen logo is imprinted by laser. This is a sports-type shift knob for the discerning eye. Available in five colors: blue, black, gold, silver, and red. Supplied with a shift pattern plate. For five-speed manual transmission only.
Units: mm

BUCKET SEAT SI	81100-XG8-K1SO	\$880.00
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What exactly is required of full bucket seats for competition use? Holding features to maintain a steady driving position minimizing to-and-fro G, information features relaying the car's behavior, and most important... safety features. Mugen has paid particular attention to these points in developing bucket seats over the years, and has established its own independent safety and design standards. In one circuit crash scenario, a forward impact occurs. In this case, the driver's body is protected by the belt harness (seatbelt). Another scenario involves a collision from the rear. In this case, it is the seat that protects the driver. Mugen aimed to develop a seat that will not be broken even if it is accelerated 40G from the rear. The final specifications were eventually determined through numerous repeated destruction tests. The shell consists of a composite material of glass fiber

and vinyl ester resin. The resulting structure has the necessary resistance to the stress distribution. Incidentally, the seat fitted as standard in the Type-R is of German manufacture. The standard seat does not have a full bucket design, and is made to suit the comfort requirements and body proportions of various drivers. Ironically, at approximately 13.6 kg per leg (excluding seat rails), it is even heavier than conventional mass-production vehicle seats. The S1 Mugen full bucket seat has a weight of 5.8 kg per leg (excluding seat rails) while boasting high strength. Likewise, the tight shell configuration, patch section using the minimum necessary fabric, seat cushioning, and Ecsaine cover maintain high holding characteristics. Also, the hip point (sitting position) is located approximately 70 mm lower than normal to give a direct driving feel. Specially designed seat rails (available separately) are used for mounting.

SEAT RAIL KIT

DRIVER'S:

81200-XG9R-KOSO-D \$295.00

PASSENGER'S:

81200-XG9R-KOSO-P \$295.00

A seat rail that ensures excellent low-position seating. High strength and rigidity are achieved through our T cross-section rail and double latch construction. Available in two models: driver's seat and co-driver's seat. Adjustable two-setting height position attachment. Specially designed rail for Mugen bucket seats.

SPORTS PEDAL KIT

46545-XG5-K2SO \$174.00

In mass-production vehicles, the accelerator, brake, and clutch pedals all have the same type of rubber surface. However, in formula machines, only the surfaces of the brake and clutch pedals are made non-slip. This is because in racing, where more demanding footwork is required, the accelerator requires exactness, but the brake and clutch require grip. Mugen believes that this also holds true for sports driving, in which nimble footwork is needed. With MLigen sports pedals, the accelerator has a wide front and rear with a buffed surface finish, while the brake and clutch pedals are small pedals with a nickel-chrome blown metal non-slip surface. All the pedals have a cast aluminum base. They are fitted by replacing the original rubber. Five-speed manual vehicles.

FULL HARNESS MPH-340M

81400-XGER-KONO \$450.00

This is a four-point full harness manufactured by Takata especially for competition use. It is configured for Type-R eyebolts. FIA8853-98/8854-98 standard approved model. (Configurations with crotch-strap for five-and six-point full harnesses are available separately.)

AERO DYNAMICS [INTRODUCTION]

Flat bottoms and high wings were developed for racing machines through trial and error. The aim is to improve driving stability by controlling downforce. The inlets and outlets for the calculated engine-cooling airflow also cool high-output engines effectively. Mugen shaped the aero-parts for the three-door Integra, and particularly those for the Type-R, based on these concepts.

FRONT AERO BUMPER KIT

Except round-light car:

62511-XG9-KOSO \$1080.00

This kit was designed by applying the flattened front underside section frequently used in touring car races to the aero bumper profile. A maintenance lid is included at the jacking-up point for routine maintenance, and this is removed using quick-fasteners of the type used on the cowlings of formula machines. The lid can be detached easily by rotating it through a quarter-turn using a coin or similar object. The bumper unit is manufactured from FRP, with each product individually hand-laid up, and has an unpainted white gel-coating finish. It can be fitted to all 3/4-door cars except those with four round headlights by replacing the normal bumper. All vehicles except

those with four round headlights.

AERO BONNET KIT

Except round-light car:

60100-XG9R-KOSO

\$1599.00

If all that is required is a lightweight bonnet, the cheapest manufacturing method is manual forming of FRP (or CFRP) using glass fiber (or carbon fiber) material. However, Mugen considers this inadequate to meet the requirements of bonnet strength, stiffness, engine heat countermeasures, and safety. Mugen's solution is a high-rigidity, lightweight bonnet made of autoclave-formed glass-fiber prepreg. This results in lightweight products (8.2 kg compared with the normal 15.2 kg) while at the same time achieving positive locking due to the high stiffness. Air outlets are also incorporated to extract the hot air from the engine bay interior under the action of negative pressure, which helps to alleviate heat build-up in the engine. Can be fitted to all 3/4-door cars except those with four round headlights. All vehicles except those with four round headlights.

STRIPE STICKER SET

[3dr]

90000-YZ5-0054-S

\$85.00

REAR ADJ. WING KIT

[3dr]

84112-XG9R-KOSO

\$680.00

A 3-stage wing adjustment. The airfoil consists of an aluminum extrusion with internal hollow sections. Careful consideration was given to the material, stiffness, and profile. The airfoil sides are manufactured from hand-laid up FRP. The wing is fitted to the Type-R using the standard spoiler attachment holes. The airfoil surface is an alumite-treated aluminum skin, while the airfoil sides have an unpainted white gel-coating finish. Three-door vehicles.

SIDE STEP KIT

[3dr]

70219-XG9-KOSO

\$780.00

These side steps can be fitted to all three-door vehicles by replacing the original side sills. They are manufactured from hand-laid up FRP, have an unpainted white gel-coating finish, and come as a left-and right-hand set. Three-door vehicles.

AIR SPOILER KIT

[3dr]

84112-XG9-KOSO

\$530.00

This air spoiler is the model for the spoiler fitted as standard to the Type-R. It is manufactured from hand-laid up FRP, and has an unpainted white gel-coating finish. Three-door vehicles.

SPECIAL TOOL SET

89200-XG8-OOSO

\$680.00

Tools featuring the famous Mugen logo. 23-item set.