FAST & FURIOUS™

26

Build the Legendary

DODGE CHARGER R/T



UNIVERSAL

FANHOME

DODGE

FAST & FURIOUS

Build the Legendary
DODGE CHARGER R/T



United Kingdom
Published by De Agostini UK Ltd c/o Royds Withy King, 69 Carter Lane, London EC4V 5EQ

USA
Published by De Agostini Publishing USA, Inc. c/o Becker, Glynn, Muffly, Chassin & Hosinski LLP, 299 Park Avenue, New York, New York 10171

ISBN: 978-1-4439-5169-2
FFN26: 21 03 03

ISSN 2631-9799 (Print)
ISSN 2732-4583 (Online)

Picture credits: NBCUniversal Archive; Alamy; FCA Archives; BMW Media; U.S. Air Force proto by Staff Sgt. Shandresha Mitchell/Released; CEphoto, Uwe Aranas

Fast & Furious Franchise © 2021 Universal City Studios LLC.
All Rights Reserved.

Dodge, HEMI and related logos, vehicle model names and trade dress are trademarks of FCA US LLC and used under license by Premium and Collectibles Trading Co. Ltd. ©2021 FCA US LLC.

Printed in Poland

CUSTOMER SERVICES
United Kingdom
Call 020 3991 1199 or email support@uk.fanhome.com or ask your newsagent to reserve future issues for you to collect.

USA
Call 1-800-978-1455 or email support@usa.fanhome.com

The price of this issue includes the magazine and the attached pieces for model assembly.

TO OUR READERS
The publisher reserves the right to modify any components as required during the course of the collection. Not suitable for children under the age of 14. This product is not a toy and is not designed or intended for use in play. The collection is complete in 110 parts. Items may vary from those shown.

WARNING
Any reproduction, even partial, of the contents of the magazine is prohibited without permission from the Publisher. the model and the magazine that accompanies it are strictly for private use, and within the family, in accordance with Article L122 - 5 10 of the Code of Intellectual Property. Any reproduction other than that provided for in Article L122 - 5 20 of the Intellectual Property Code is prohibited. The magazine and/or elements of the collection may not be distributed, loaned, resold, rented or exploited for commercial purposes. All rights reserved.

The driving sequences in the Fast & Furious motion pictures were filmed with professional stunt drivers, under carefully-controlled conditions, for entertainment purposes only. No attempt should be made to duplicate any of the racing activities or sequences depicted therein. Universal neither condones nor endorses the use of this or any related product in any manner whatsoever other than in strict accordance with applicable federal, state and local laws and speed limits.



DESIGNING COSTUMES FOR TOUGH GUYS

They are typically brave and tough, for having grown up in the streets, making their own rules, and for being able to get the most out of a car's engine in order to race a quarter-mile in a matter of seconds. But they are also noted for wearing a very particular kind of outfit that has become a trend thanks to the *Fast & Furious* franchise.

When someone thinks of Dominic Toretto, they imagine him dressed in a certain way. Even though his basic wardrobe has been getting more sophisticated over the years, the tough-guy clothes that characterise his style have become yet another icon of the franchise.

When the director Rob Cohen began preparing *The Fast and the Furious*, he was clear from the start about how important the costumes were going to be in the film. Above all because he himself had been a witness to how in the world of street racing the drivers' outward appearance plays an essential part. In some ways, the drivers are defined as much by their clothes as they are by their cars.

THE GARAGE LOOK

The responsibility for dressing the characters in the film fell to the costume designer Sanja Milkovic Hays, an extraordinary professional who has remained very closely associated with the franchise since the first film. After discussing it at length with the director, Sanja began preparing her first costume sketches. "I took inspiration above all from that typically American garage look. Then I mixed it with other styles."

Dominic Toretto and his team spend hours in the garage, among engines, nuts and bolts, and grease. Logically, in their wardrobe there is a predominance of blue jeans and tank tops. "In this movie," said the costume designer, "the male heroes are cool precisely because they don't try to look cool. They don't pretend to be fashionable, but they look great in the clothes they wear. We were looking to give the idea that they just got out of bed and put on the first thing they found."

Basketball jerseys for Leon, tight-fitting clothes for Vince, juvenile looking clothes for Jesse … Each male character

The musician Ludacris and the actor Sung Kang play the parts of Tej Parker and Han, two of the members of Toretto's team who always try to look their best.

Sanja Milkovic Hays

Half joking, half serious, this costume designer, born in the Croatian capital Zagreb in 1958, assures us that she could write a book about the way the participants in the street races that are held all over the world dress. It is logical, if we remember that she has devoted most of her career to the *Fast & Furious* franchise. Moving to Hollywood after finishing university, she began working as a costume assistant in the team of director Roland Emmerich, with whom she worked on the popular science-fiction movies *Stargate* (1994) and *Independence Day* (1996). Now as costume designer, she demonstrated her own style by creating the original clothes for *Blade* (1998), although it was her apperance in the *Fast & Furious* franchise that eventually established her name in the film industry, especially her ingenuity when creating the unmistakable look of Dominic Toretto. Apart from her work on all the titles in the franchise, Sanja has also designed costumes in other fantasy films, like *Total Recall* (2012), *Maze Runner: the Scorch Trials* (2015) and *Captain Marvel* (2019).

was being defined partly by his apparel, always urban and very typical of a city like Los Angeles. Dom was different. From the beginning, he created a style of his own in which his sleeveless T-shirt and the leather jacket stand out as essential items. In contrast, Brian O'Conner was dressed casually and rather soberly. He was keen to fade into the background, as he tried to go unnoticed to avoid being spotted as an undercover cop.

ADAPTING TO THE PLACE

In *2 Fast 2 Furious*, the franchise began to travel. On that occasion the action moved to Miami. This enabled Sanja to introduce more color in the costumes. Even serious agent Bilkins of the FBI put on a flowery shirt! Brian stayed with his casual and comfortable look, while Roman Pearce incorporated a more laid-back form of dress that contrasted with the smart light-colored suits that the drug-trafficker Carter Verone wore.



When the script called for a change of look, Leo (Tego Calderón) and Santos (Don Omar) went from wearing informal urban clothes to smart designer suits.

The fact that the movies changed locations was a big challenge for the costume designer, as she found herself forced to integrate characters into the culture of their new location. In this respect, the biggest challenge came in *Tokyo Drift*, most of whose plot took place in the capital of Japan. "I had just started looking at Japanese fashion magazines for the first movie in the franchise," reveals Sanja, "because they're way ahead there in urban fashion." In this way, when they began planning the filming of the third movie in the franchise, she was already familiar with the mixture of cutting-edge styles with echoes of hip-hop and even punk that she was going to need to dress the members of the drifting subculture.



FROM URBAN TO MILITARY

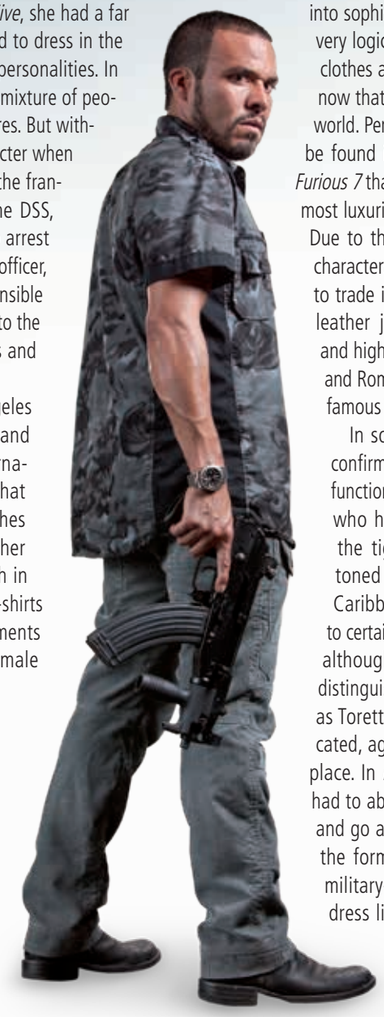
The costume designer's job was gradually getting more complicated. For example, after *Fast Five*, she had a far bigger cast of characters, who she had to dress in the most suitable way to bring out their personalities. In Toretto's team, moreover, there was a mixture of people from really varied origins and cultures. But without a doubt, the most influential character when it came to changing the costumes of the franchise was special agent Hobbs of the DSS, whose job right from the start was to arrest Toretto. This unusual law enforcement officer, played by Dwayne Johnson, was responsible for adding clearly military-style clothes to the costumes: assault vests, tactical pants and combat gloves, among others.

As they moved away from Los Angeles more often and left street races and garages behind for dangerous international missions, it was no surprise that the paramilitary look of Hobbs's clothes was gradually catching on with other members of Toretto's team, although in many cases the basic black or white T-shirts and work pants continued to be garments worn more often than not by the male characters in the franchise.

TOWARDS GREATER SOPHISTICATION

It is plain to see the way the costumes in the *Fast & Furious* franchise have evolved, and it has a lot to do with the plot twists that we were talking about. With the passage of time the drivers from the tough neighbourhoods of Los Angeles have evolved into sophisticated secret agents. It is not very logical for them to wear the same clothes as they did in their old garages, now that they are travelling all over the world. Perhaps the clearest example is to be found in the surprising sequence in *Furious 7* that took our heroes to one of the most luxurious skyscrapers in Abu Dhabi. Due to the demands of the script, the characters in the franchise were forced to trade in their jeans, work boots and leather jackets for smart dress suits and high-end watches. Dominic Toretto and Roman Pearce wore designs by the famous Tom Ford, no less.

In some ways, *Furious 7* was the confirmation that Dom Toretto's more functional wardrobe had changed. He, who had already begun to change the tightfitting T-shirts for unbuttoned white shirts on his visits to Caribbean locations, remained true to certain garments, like leather jackets, although increasingly exclusive and distinguished designer ones. Curiously, as Toretto was getting more sophisticated, agent Hobbs was taking his old place. In *Fate of the Furious*, when he had to abandon the defense of the law and go and help his good friend Dom, the former agent gave up his usual military-style clothes and began to dress like a real motorcycle rider, in jeans, a sleeveless T-shirt and a leather jacket.



Tyrone Gibson has seen throughout the saga how the clothing of his character, Roman Pierce, has become progressively more sophisticated.

To play Zizi, one of the villains in *Fast & Furious 5*, actor Michael Irby wore urban-style clothing that created a military image.



In the Funny Car class, the chassis are specific to the specialty, and the bodywork, like the one on this Dodge Charger, has to resemble that of a standard car.

THE DODGE MARQUE AT THE NHRA CHAMPIONSHIP

The NHRA (National Hot Rod Association) is the body that sets the rules of drag racing, a very popular specialty in the USA. The Dodge marque takes part in and sponsors some of the events of the championship, which it dominated completely in the 1960s and 1970s.

The NHRA Drag Racing Series Championship is currently divided into four classes, the Top Fuel Dragster, with free rules, the Funny Car, vehicles with non-supercharged engines and with fibreglass bodywork reminiscent of a sedan, the Pro Stock for modified standard cars, and Pro Stock Motorcycle for motorcycles. It is now a highly professional championship in which the Dodge marque competes on a regular basis with an official team, and along with Mopar, the Chrysler Group's parts brand, it is the joint sponsor of some of the events that the NHRA organises during the year in the USA.

The company's association with drag racing began in the 1960s, when the brand decided to redirect its image toward a younger and more dynamic public, and it set up a small department in which 20 or so young engineers, the "Ramchargers" led by Dick Maxwell, began preparing the marque's models to take part in this kind of race. Thanks to drivers Dick Landy, Ronnie Sox and Buddy Martin, Dodge dragsters dominated the specialty in the 1960s and 1970s thanks to the efforts of that group of engineers, who made the necessary modifications to the standard models and who had what was, at that time, the finest racing car engine developed in the United States, the 7-liter Hemi block, which would also be adapted for the Chrysler Group's best "muscle cars".

The Dodge Challenger SRTs are the cars to beat in the Stock class of the Pro Stock category of the NHRA.

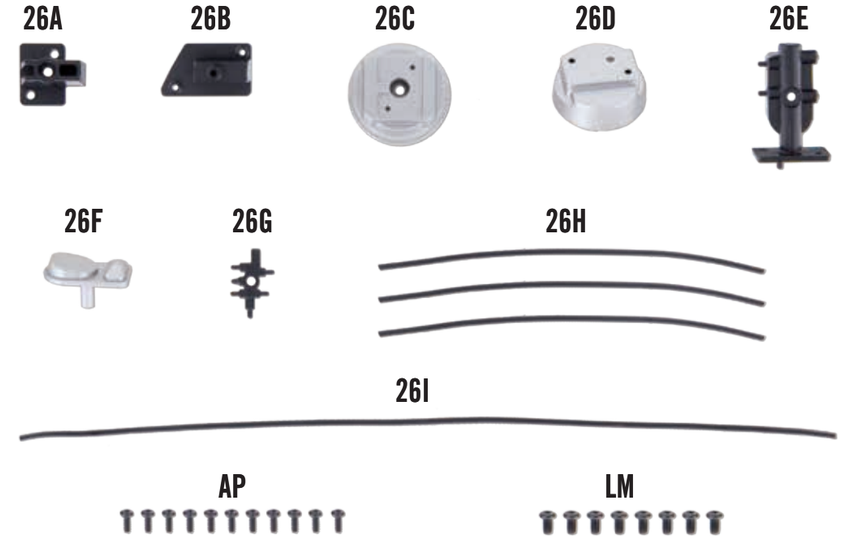




THE BRAKING SYSTEM

In this assembly session you will put together the hydraulic circuit of your model's braking system. Follow our instructions and the illustrations that accompany them very carefully.

PIECES FOR THIS STAGE



26A Mounting bracket 1 for the master cylinder
26B Mounting bracket 2 for the master cylinder
26C Brake vacuum servo, piece 1
26D Brake vacuum servo, piece 2
26E Brake fluid reservoir
26F Brake fluid reservoir cap
26G Connector
26H Hoses (x 3)
26I Front right brake pipe
AP Screws 1,7 × 4 mm, (x 11)*
LM Screws 2,3 × 4 mm, (x 8)*

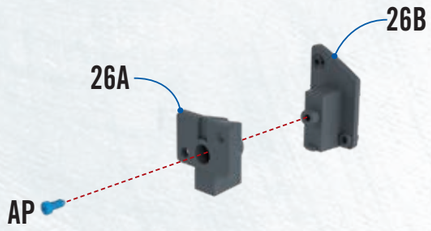
* Some of the parts are spares.

Editor's note: The parts shown here may differ slightly from the parts supplied with this issue. This does not affect the quality or the assembly instructions in any way.

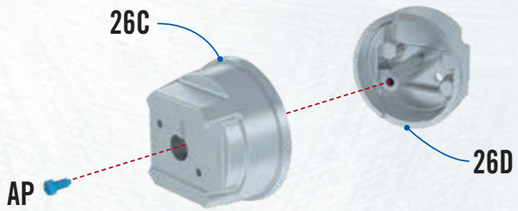
ASSEMBLY AREA

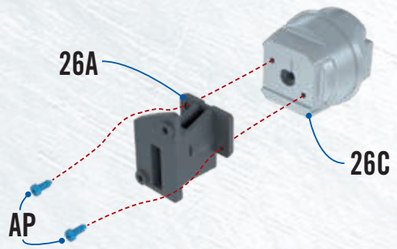


26.1 **JOIN** the mounting brackets for the master cylinder (**26A** and **26B**), as shown in the illustration. Secure with an **AP** screw. ▼

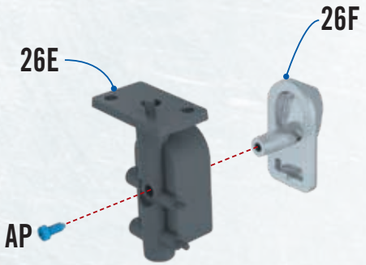


26.2 **TO ASSEMBLE** the brake vacuum servo, join the two parts of the vacuum servo (**26C** and **26D**) as shown in the illustration. Secure with an **AP** screw. ▼



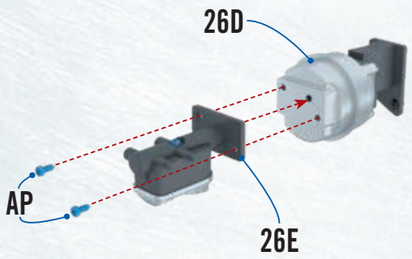


26.3 **ATTACH** the mounting bracket for the master cylinder to the brake vacuum servo, join the pieces with two **AP** screws. ◄

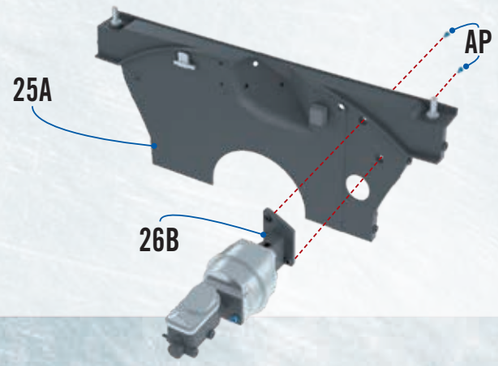


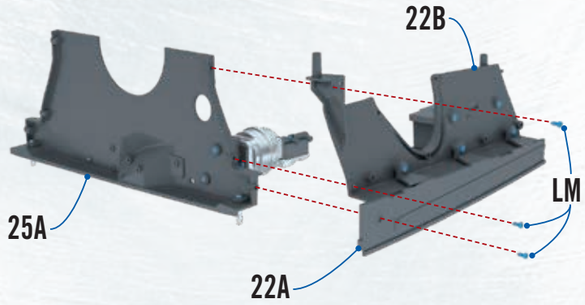
26.4 **INSERT** the hollow connecting peg on the reservoir cap **26F** into the brake fluid reservoir **26E**, aligning the profile of the two parts. Secure with an **AP** screw. ►

26.5 **INSERT** the pin on the brake fluid reservoir **26E** into the largest hole in piece 2 of the brake vacuum servo **26D**. Secure with two **AP** screws. ▼



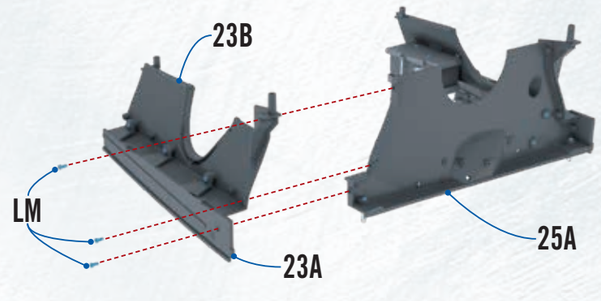
26.6 **RETRIEVE** the firewall you built in the previous assembly session. Align the holes in mounting bracket 2 **26B** with the two holes in the left side of the firewall **25A**, the same side you attached the relay **25C** to. The pieces should face the same way as those in the illustration. Secure all the pieces with two **AP** screws. ▼

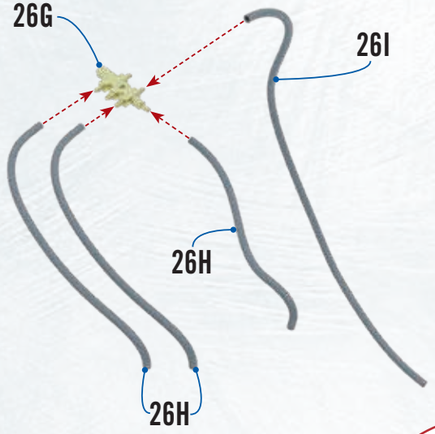




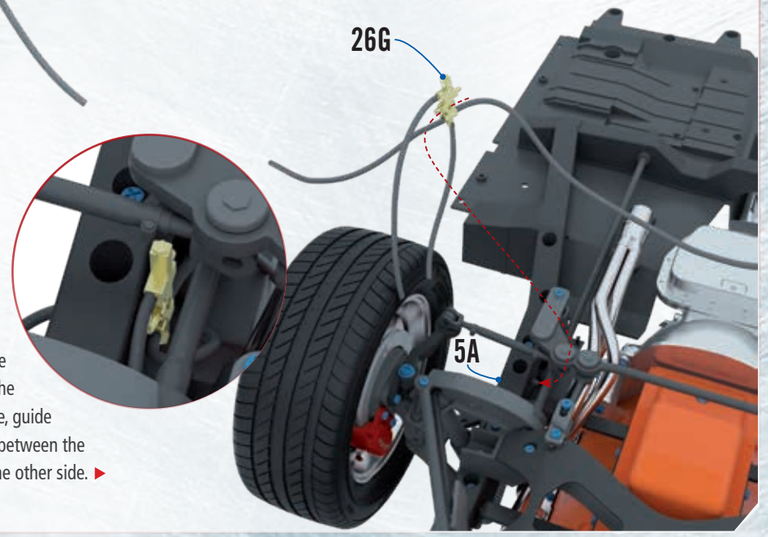
26.7 **GET** the left panel of the engine housing (**22A** and **22B**) that you attached to the battery in the twenty fourth assembly session. Turn the firewall over and position it against the left panel. Once the pieces are perfectly aligned, join with three **LM** screws. ◄

26.8 **TAKE** the right panel of the engine housing (**23A** and **23B**). Align it with the side profile of the firewall **25A**. As before, secure with three **LM** screws. ►





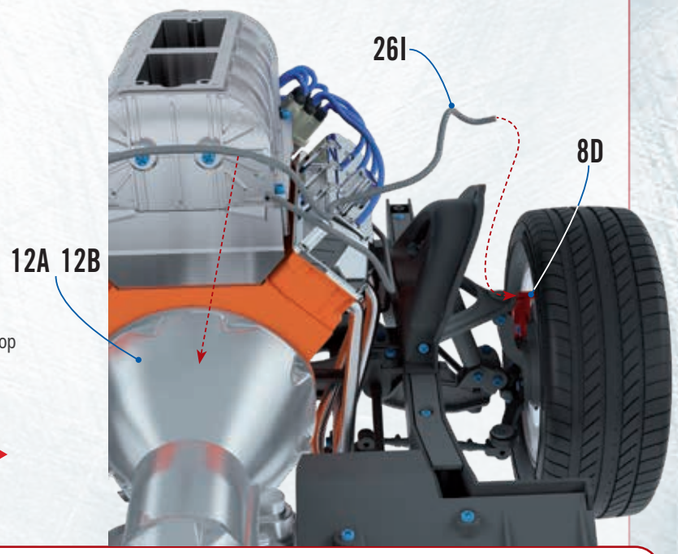
26.9 **POSITION** the connector **26G** so that there are three pins on the left, two on the right, and one at the bottom. Slide the three hoses **26H** and the front right brake pipe **26I** onto the pins, as shown in the illustration. ◄



26.10 **TURN** the chassis upside down. Using a pair of tweezers, put the connector **26G** onto the pin on the left side of the front section of the chassis **5A**. At the same time, guide the four hoses attached to the connector down between the chassis and the engine, so that they come out the other side. ►

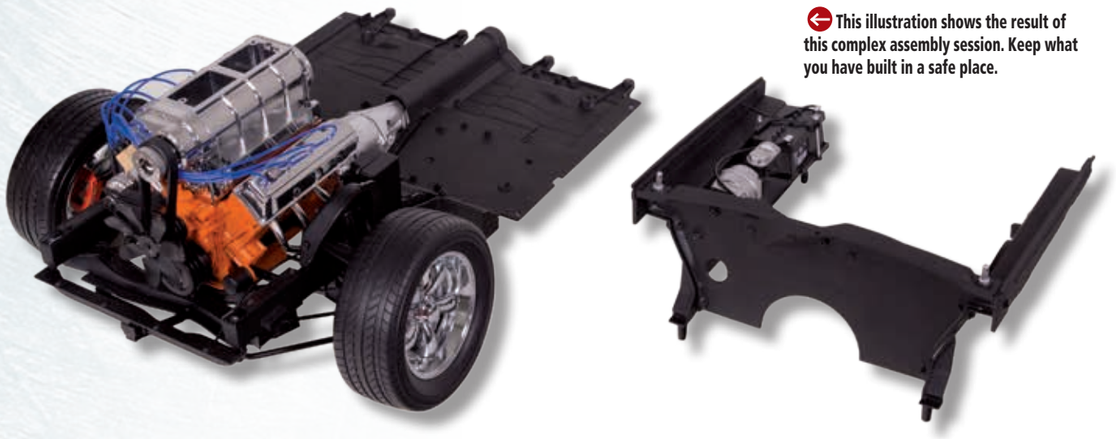


26.11 **TURN** the chassis back over and use the tweezers to pull the four hoses out. Slide the free end of one of the hoses **26H** onto the pin on the brake caliper of the front left wheel **4A**. ◄



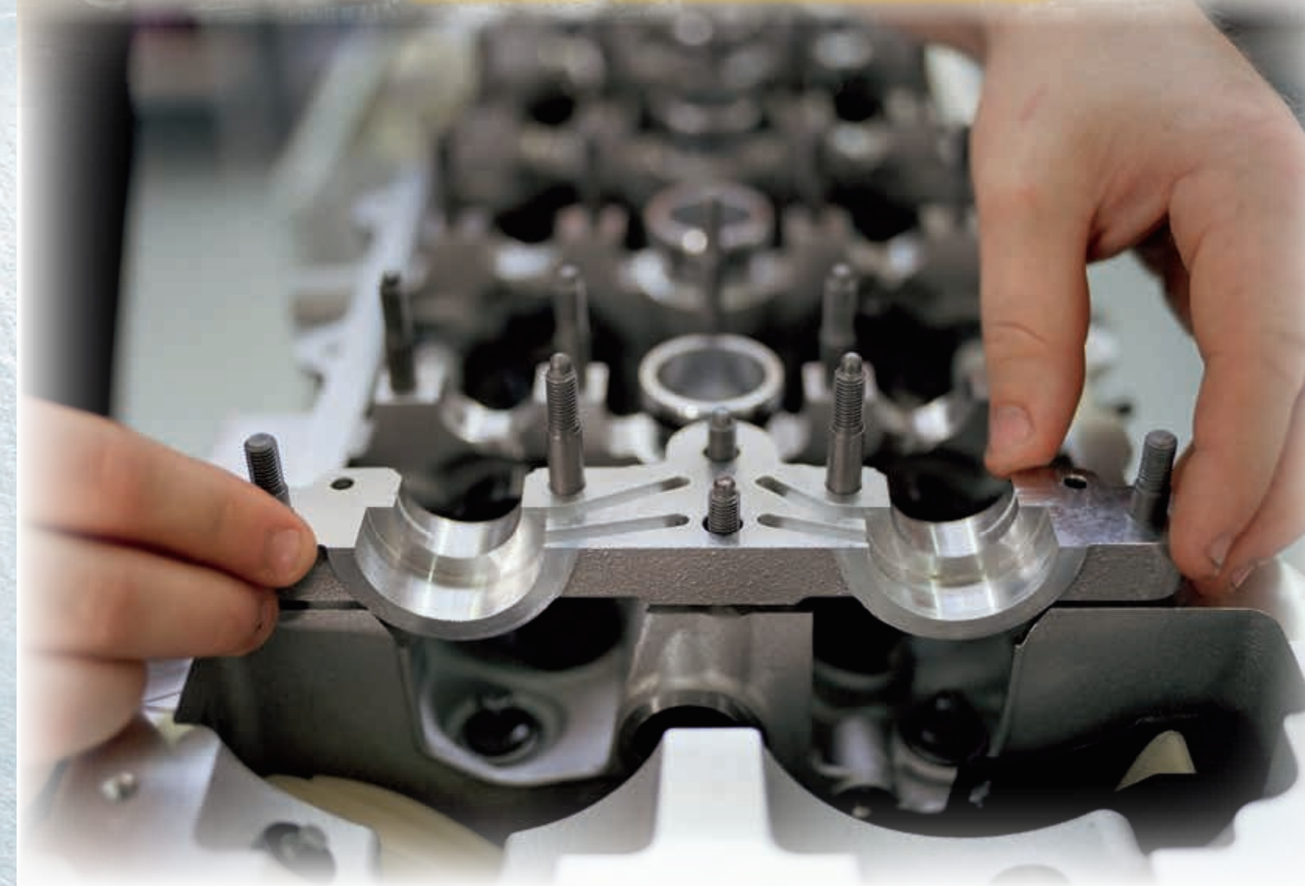
26.12 **PASS** the front right hose **26I** over the top of the gearbox crankcase (**12A** and **12B**) and slide the free end onto the pin on the brake caliper of the front right wheel **8D**. The remaining two hoses **26H** will be attached in one of the next assembly sessions. ►

STAGE 26 FINAL RESULT



This illustration shows the result of this complex assembly session. Keep what you have built in a safe place.

BUSHINGS AND BEARINGS



Little is said about them, except when they cause problems. But bushings, also called slide bearings, are the simplest type of bearing, comprising just a smooth surface and no rolling elements. They perform a fundamental function and are among the most critical components in all engines and in the gearbox and transmission group. Let's discover some of their secrets!

Often neglected, bushings may make the difference between winning and losing in the racing world! Replacing them may seem like a simple task, but the job must be carried out very carefully. You must follow precise instructions, and above all, work in an extremely clean environment. When tuning an engine, we should always be aware not only of the increased loads that the bearings have to withstand, but also the increase in rpm.

This implies not only an increase in mechanical stresses but also higher operating temperatures. As for their lifespan, if the engine has been heavily modified, we cannot expect the same length of service as in a standard engine. That is why, in addition to different maintenance intervals, the choice of bearings and bushings that are suitable for the upgraded engine is an important issue.

The manufacturer's instructions regarding the type of bearings to be used, and any warnings about assembly methods, are always of great importance and must be strictly followed.

A MATTER OF FRICTION

The bushings sit inside housings that are machined with very narrow tolerances, both from a geometric and a dimensional point of view. When we are going to replace them, it is essential that the housings are undamaged and that they are not deformed. For this reason, it is vital to perform a series of extremely accurate checks. High-performance engines are very precise machines and any error in terms of geometry, however small, is paid for in terms of power. This is due to friction and a reduction in mechanical efficiency, and leads to degradation of the reliability of the components.

It is especially important with the bushings, which can suffer due to distorted coaxiality. Any shaft with bushes at both ends must be perfectly aligned along the same axis – this is defined at coaxiality. Any distortion or ovalling of the bush seating tends to throw off the alignment.

Let's not forget that good contact between the back of the bushing and the walls of the housing is always very important, both for heat exchange and for the geometry assumed by the bush, and consequently for the pressure distribution. For all this to be perfect, exact symmetry between the two parts is required, with extremely low geometric tolerances and perfectly even contact. The housing firmly locks the bushing in its seat, but be careful: it must not be too tight, otherwise the bushing itself could deform.

CHECK THE PLAY

The bushings, like almost all the components of an engine, are very delicate mechanical parts. They must be treated with the utmost care, protected in special containers when they are on the shelf, and above all, they must never be "retouched" with scrapers, abrasive cloth or anti-friction materials. The dimensional tolerance, or "play" in the thickness of a bushing is around 0.01 mm. Since in this case there are two half-shells, it means that the overall tolerance in the diameter of the "hole" in which the shaft or journal is inserted, is equal to the machining tolerance of the housing plus 0.02 mm.

Checking for play is very simple: measure with a bore gauge the diameter of the bushing mounted in its seat. From that measurement, subtract the diameter of the shaft, measured with a micrometer. There is also an efficient and quick system, recommended by several manufacturers, which involves the use of the Plastigage. It is a thread made of deformable plastic material which, when trapped between the bushing and the shaft, flattens and widens upon correct tightening, according to the torque setting set by the manufacturer. A gauge measures the deformation of the thread to indicate the amount of play.

As a rule, the bearings should not be reused after removal, but must be replaced with new ones.

How to choose a bearing

To help mechanics in their work, many manufacturers indicate on the engine crankcase the dimensional class each housing falls into, and on the crankshaft the size class of each journal. Using special tables, you can choose the correct bearing sizes to provide the right assembly clearance for all the couplings in question. The different thicknesses are indicated by painted dots or by special abbreviations. The same goes for the bearings at both ends of the connecting rods. Some tuners argue that it is better to slightly increase the big end bearing clearance if the engine has been highly tuned. This can allow for a greater flow of oil and therefore increased dissipation of heat. However, keep in mind that increasing the clearance varies the distribution of pressure and decreases the minimum thickness of the oil film.

ROLLER BEARINGS

Roller bearings reduce friction by transmitting loads using cylinder-shaped rolling elements to maintain the separation between the moving parts of the bearing. You might be surprised to know that there are not many roller bearings inside an automotive engine. And sometimes none at all! However, they are very numerous and perform essential functions in other parts of the power train. They are present in the gear-



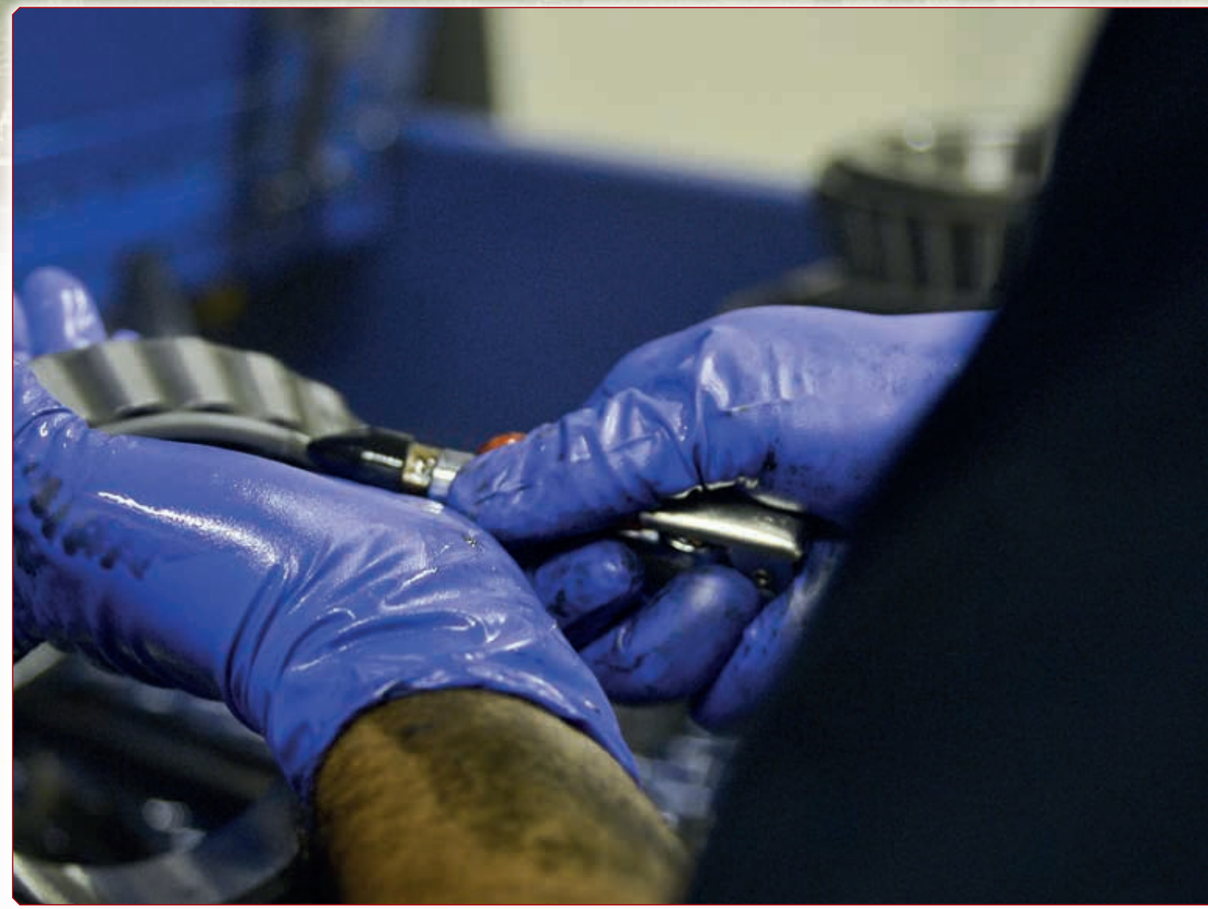


When something goes wrong, this can be the result – a burnt bearing!

box, wheels, differential, tensioners and guide rollers of toothed pulleys, and so on. Their characteristics are well known to all enthusiasts: they are a guarantee of reduced friction and do not need much lubrication. Sometimes grease is enough, often sealed inside the bearing. This can guarantee lubrication for life, without requiring any further maintenance for the entire lifetime of the component. There are essentially two types of bearings: balls and rollers. To describe it simply: a ball bearing consists of two steel rings with "races" or grooves on their inner surface. Steel balls sit between the two rings, rotating along the grooves. Each type of bearing is suitable for a specific application.

FUNDAMENTAL FEATURES

The load capacity is one of the most important characteristics of a bearing, together with its ability to withstand axial forces. It must be suitable for use even in the presence of non-negligible misalignments. The latter can be caused by a distortion of the housing, or of the shaft, as well as by machining errors. Every single bearing is distinguished by an abbreviation, which indicates its type and size. There is an almost infinite range of types and sizes on the market, which are graded according to international standards. So it is very easy always to buy the right component, regardless of the manufacturer.



HOW TO REMOVE ROLLER OR BALL BEARINGS

Removing bearings from the shafts on which they are mounted is not hard, using an extractor specially developed for this purpose. In some cases, it might be necessary to heat the bearing casing and remove it with a tubular hammer. Extractors are available as two basic types. The first is used for removing a bearing from a shaft. It has two hooks (sometimes three) that grip the outer ring of the bearing. By turning the large central screw that applies counter-pressure against the centre of the shaft, the bearing itself can be easily removed. The second type of puller is used to remove bearings from their housings. In this case, it is the centre of the bearing that is gripped. Extraction is carried out by tightening screws which apply counter-pressure against the casing around the bearing seat.

HOW BEARINGS ARE FITTED

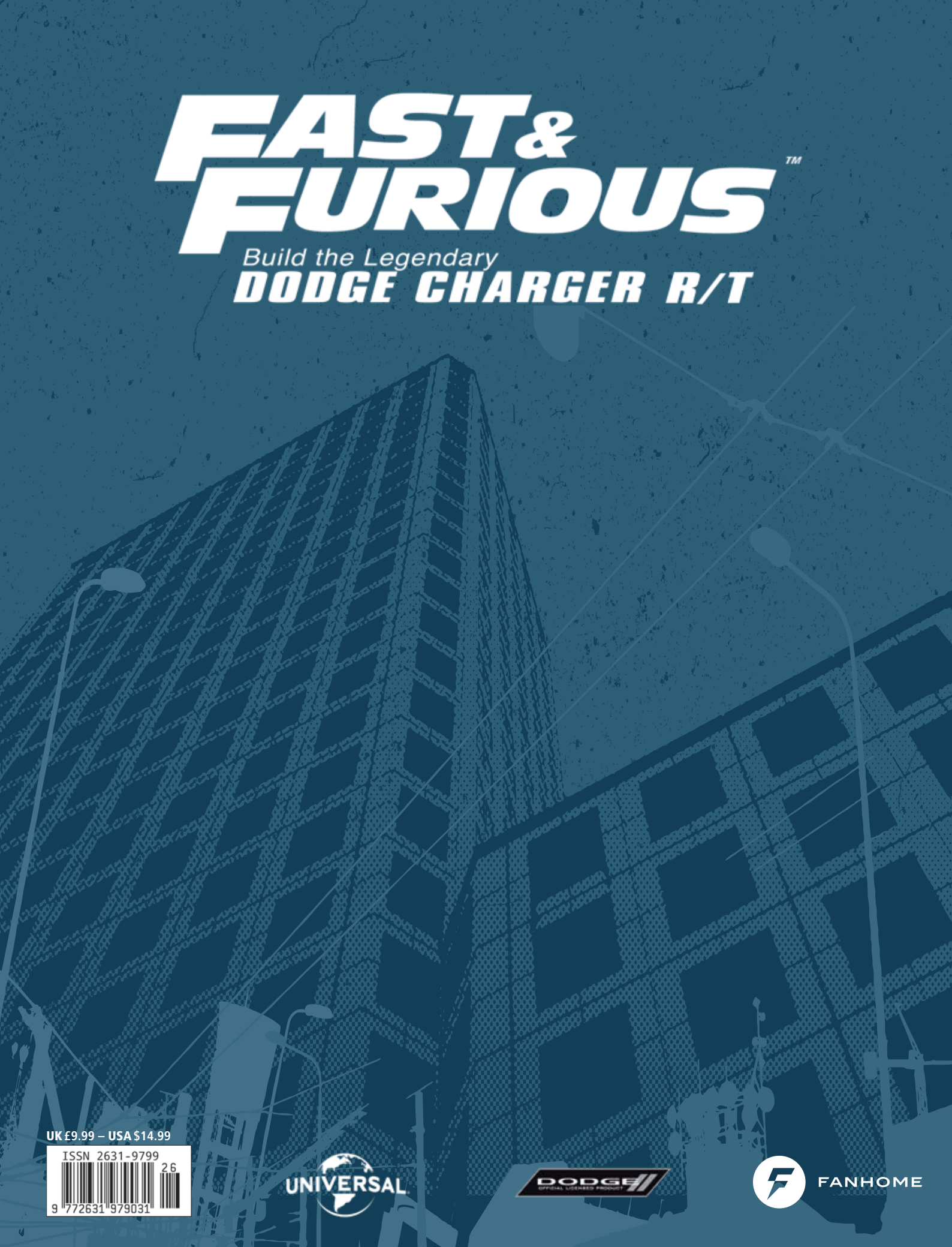
The pressure required for insertion must be exerted only on the ring that is making contact with the housing or shaft. Exert slow, even force against the rings when installing a bearing. When installing a bearing onto a shaft, the pressure should be applied against the inner ring. When installing a bearing into a housing, you should apply pressure against the outer ring. It is essential to keep the bearing perfectly square to the housing or shaft during this operation.

In some cases, it is possible to use a hydraulic press. If the bearing must be inserted into a housing inside a crankcase, it is often advisable to first heat the housing, gradually and uniformly, up to a temperature of about 100°C. If it must be mounted tight onto a shaft, the bearing can be heated in an oil bath, taking care to keep it suspended in the oil with a wire to prevent it from touching the bottom or walls of the container. Gradually bring it to a temperature of around 100°C to make it dilate so that it slides onto the shaft more easily.

Assessing the condition of roller bearings is very difficult. Generally, there is a gradual increase in play caused by wear, but failure often occurs very suddenly due to fatigue.

FAST & FURIOUS™

Build the Legendary DODGE CHARGER R/T



UK £9.99 – USA $14.99

ISSN 2631-9799 26

9 772631 979031

UNIVERSAL

DODGE OFFICIAL LICENSED PRODUCT

FANHOME