

**„Power is a key
factor when it
comes to batteries.
Go for a good name: Hella!“**



The name speaks for itself. Hella's new Power Batteries provide power in its purest form.

Enormous start-up capacity and impressive stress resistance under even the toughest short-trip conditions make these power packs outstanding. Pure power - available for almost all types of vehicles. With added quality from Hella.



**Ideas today for
the cars of tomorrow**

Hella International Telegram

Hella KGaA Information

N°4/2004

Power packs for a safe start: Hella starter batteries

**For more Information:
See page 7**



**Ideas today for
the cars of tomorrow**



New Lighting products

The comprehensive range of Hella original parts has been supplemented by even more attractive products.

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Lighting

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BMW 5 Series (E60)

The clear-glass cover lens reveals the bi-xenon module for dipped/main beam light with additional H7 main beam, position light with light

guide rings and white indicator. The white side marker lamp uses LED technology.

07/03 → for right-hand traffic;

left / right **1EL 160 295/296-001**
for left-hand traffic;

left / right **1LL 160 695/696-001**
with swivelling bi-xenon module from 07/03 → for right-hand traffic;

left / right **1EL 160 287/288-011**

The subject of bend lighting is explained in more detail in the "technical service" section (see page 11).



Renault Scenic II

Bi-xenon headlamp with twin reflector and dynamic H/L device.

Auxiliary H7 driving lamp, PO light in cover frame (W5W) and an indicator (P21W) integrated in the headlamp.

05/03 → for right-hand traffic;

left / right **1EL 008 862-191/201**



Headlamp levelling device in Hella original part quality.

The automatic headlamp levelling devices developed by Hella regulate the automatic adaptation of the headlamp angle of tilt without intervention by the driver, thus compensating the vehicle tilt caused by load changes.

Headlamp levelling devices have been mandatory for all vehicles in the EU since the beginning of the 1990s.

Now new:

Headlamp levelling device

for Fiat Punto **6NM 007 282-661**
and for 24 V applications, particularly for 90/100 mm headlamp modules **6NM 008 299-501**



Further new headlamp levelling devices:

VW Passat (xenon headlamps) **6NM 007 282-631**
Opel Omega (halogen headlamps) **6NM 007 282-641**

Audi A6 (halogen headlamps) **6NM 007 878-521**
Audi A6, A8, Skoda Octavia **6NM 007 878-531**
Audi A3 (halogen headlamps) **6NM 007 878-541**

Audi A6

The Audi A6 is also getting a combination rear lamp designed in shape and colour to give the vehicle a particularly elegant and homogenous appearance.

06/01 →

left / right **2VP 008 468-051/-061**



Opel Astra H

Innovative vehicle design now for the Opel Astra H too. The reflex reflector is integrated in the light body. As a contrast to darker bodywork, these white/red combination rear lamps in translucent look significantly improve your vehicle's appearance.

03/04 →

left / right

9EL 160 467-011 / 468-011



VW Touran

Hella is setting design trends with the very latest clear-glass look for the VW Touran.

The new combination rear lamp set with integrated reflex reflector has been given a futuristic upgrade in the form of high-shine chrome-plated styling elements.

02/03 →

left / right
series

9EL 008 759-811

left / right

2VP 008 759-051/061



Luminator and Luminator Compact

The Luminators are now available with high-boost reflector and clear-glass design.

Thanks to the computer-optimised fine adjustment between light sources and free-form reflector design, the roadway is illuminated homogeneously over a long range.

The reflector is vapour-plated with purest aluminium, guaranteeing maximum effectiveness and long-term stability of the high-boost reflector.

Following the latest trend, the Luminator and Luminator Compact light shines through a clear real-glass lens. The housing is available either with high-shine chrome-plating or matt black long-life paintwork.

Both headlamps are also available with circular position lamps in CELIS technology.

A comparison with the luminous intensities of other auxiliary headlamps can be found in our new beam pattern poster.

A display and product flyer also provide selection support.

Luminator

Chromium Driving lamp

Chromium **1F8 007 560-311**

Chromium Blue **1F8 007 560-321**

Metal **1F8 007 560-301**

Luminator Compact

Chromium Driving lamp

CELIS 17.5 **1F1 009 094-091**

CELIS 37.5 **1F1 009 094-051**

Chromium Driving lamp

17.5 **1F3 009 094-071**

37.5 **1F3 009 094-031**

Chromium Fog lamp

1N3 009 094-011

Metal Driving lamp

CELIS 17.5 **1F1 009 094-081**

CELIS 37.5 **1F1 009 094-041**



Luminator and Luminator Compact Chromium

Metal Driving lamp

17.5 **1F3 009 094-061**

37.5 **1F3 009 094-021**

Metal Fog lamp

1N3 009 094-001

Rallye 3000 and Rallye 3000 Compact

Clear-glass look now also available for the world-wide success Rallye 3000.

The Rallye 3000 is now also available with the new high-boost reflector for homogenous and ideal illumination of the roadway thanks to the latest

computer development in connection with a clear real-glass lens.

Also new is a compact version of the large Rallye 3000 with the proven quality features. In the case of the CELIS versions, the most powerful LED light currently available produ-

ces the brilliant white appearance of the position rings. The Rallye 3000 is also available with a blue real-glass lens, while the Rallye 3000 Compact is being supplied as either a driving lamp or fog lamp.



Rallye 3000

Driving lamp	
37.5	1F8 006 800-301
37.5 with PO light	1F8 006 800-311
37.5 with PO light, Blue	1F8 006 800-321
CELIS 17.5	1F8 006 800-401

Rallye 3000 Compact

Driving lamp	
CELIS 17.5	1F1 009 390-041
CELIS 37.5	1F1 009 390-021
Driving lamp	
17.5	1F3 009 390-031
37.5	1F3 009 390-011
Fog lamp	1N3 009 390-001

◀ Rallye 3000 and Rallye 3000 Compact

Premium Headlamp Modules



With the new "Premium" main headlamp modules, Hella is presenting the first headlamp series that can be installed behind a clear cover lens. These 50 millimetre modules give tuners and vehicle manufacturers a great deal of design freedom for the development of individual customer solutions within the framework of mandatory installation regulations. The sophisticated design housing made of high-quality aluminium gives the series the name "Premium". In terms of lighting technology, the module series provides maximum output at a minimum diameter

of only 50 millimetres for all the available lighting functions: halogen dipped beam, xenon dipped beam light, xenon main beam and xenon fog light. The assembly of the modules, which are very light thanks to the use of high-grade aluminium and magnesium, is by means of an installation frame and an optional supporting frame. This means they can be adjusted from the front or rear. The "Premium" main headlamp modules have ECE type approval. Versions with SAE type approval for the USA are also included in the range extension.

Halogen dipped beam headlamps

ECE type approved for right-hand traffic,	
12 Volt	1BL 009 071-007
24 Volt	1BL 009 071-027
for left-hand traffic,	
12 Volt	1ML 009 071-017
24 Volt	1ML 009 071-037

Xenon dipped beam headlamps

ECE type approved for right-hand traffic	
12 Volt	1BL 009 071-047
24 Volt	1BL 009 071-067
for left-hand traffic	
12 Volt	1ML 009 071-057
24 Volt	1ML 009 071-077

Xenon driving lamps

ECE and SAE type approved	
12 Volt	1F0 008 390-317
24 Volt	1F0 008 390-327

Halogen fog lamps

ECE and SAE type approved	
12 Volt	1NL 008 090-317
24 Volt	1NL 008 090-327

Premium Lamp Modules 60 mm

Supplementing the headlamp modules, Hella has also introduced Premium module signalling lamps to the range. All the modules are available in the functions tail, brake, indicator and rear fog lamp for the vehicle rear end as well as indicator and position light for integration in the main headlamp and provide a wide range of combination possibilities.

In terms of lighting technology, the pattern-free clear-glass lamps provide a homogenous signal image for front and rear attachment in all the required functions. There is also a matching brilliant-finish reflex reflector available in macro technology, which reflects the incident light back in the direction of the source. The advantage of this technology is a modern look which is a perfect match to the clear-glass modules. A silver design ring is available as an option for all lamp modules and underlines the innovative appearance. Installation is possible both from behind and from the front (with optional adapter ring).

Thanks to the optimised lighting performance, the modules can be used behind cover lenses.



Front

Indicator, clear-glass

2BA 009 001-071

Indicator, clear-glass

2BA 009 001-201

Silver Vision

Position light, clear-glass

2PF 009 001-081

Rear

Indicator, grey

2BA 009 001-001

Indicator, grey

2BA 009 001-191

Silver Vision

Auxiliary reversing light, grey

2ZR 009 001-011

Tail light, red

2SA 009 001-041

Brake light, red

2DA 009 001-051

Tail-brake light, red

2SB 009 001-061

Rear fog lamp, red

2NE 009 001-021

Reflex reflector, red

8RA 009 001-031

Daytime running light for Golf V

The daytime running lamp set specially developed for the Golf V with a clear cover lens combines modern lighting technology and a classic design and thus guarantees a decisive gain in safety.

The clear-glass look makes the new daytime running lamps a perfect match for the front-end of the new Golf.

Thanks to the vehicle-specific black design trim, there is no need to look for a suitable installation spot, guaranteeing simple installation and alignment of the lamps. The low power consumption of 16 Watt per lamp means additional fuel consumption is negligible. The strain is taken off the rest of the lighting equipment.

Extremely long service life thanks to the very latest high-performance bulbs and reflector technology. Automatic switching on and off is via the ignition.

Golf V (10/03 →)

Daytime running lamp set with clear-glass design

2PT 009 305-801



BMW 5 Series (E60) – Design combination rear lamps set in brilliant silver

For the first time in Europe, Diadem bulbs are being used in the new high-quality and exclusive design combination rear lamps for the BMW 5 Series (E60) for tail, brake and rear fog lights as well as in the indicator.

These are sophisticated high-tech eye-catchers for customized rear-end design on the BMW 5 Series. The Diadem bulbs replace the red and amber colour filters used previously.

They have an interference coating which allows them to radiate the light in the required signal colour red or amber. This coloured light is distributed by the lamp reflectors in compliance with legal regulations. When switched off, the lamp has a brilliant turquoise to bluish shimmer.

The outer lens is clear-glass with horizontal pattern elements which - in combination with the computer-calculated reflectors - ensure a high-quality finish for the large-surface lamp which dominates the vehicle design.

The brilliant finish offers interesting and individual combination possibili-

ties both in harmonious combination with light-coloured bodywork as well as in contrast to dark-coloured paintwork.

Conversion is straightforward and quick and can be carried out by a garage or experienced DIY enthusiast.

The lamps guarantee a perfect fit and the high product quality you

would expect from an OE vehicle equipment supplier.

BMW 5 Series (E60)

07/03 →

Design combination rear lamp set in brilliant silver **2SK 008 679-811**

also available in silver/red (series)

left / right **2VP 008 679-111/121**



Lamps for commercial vehicles



Hella has earned itself the position of leading OEM supplier for standard lamps.

A clear summary of our wide range of lamps for commercial vehicles can be found in a new brochure – lamps for commercial vehicles.

The quick finder at the side helps you find the required product quickly and easily.

Now you are able to offer your customers immediate system solutions and meet their individual requirements.

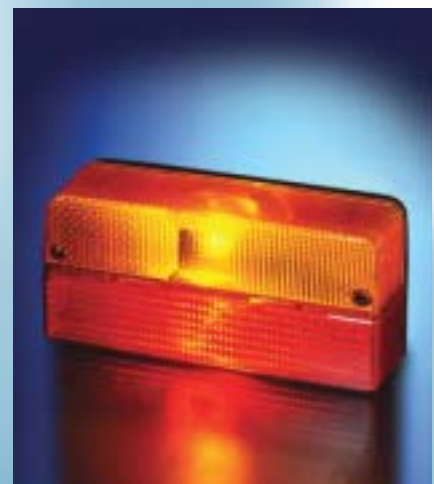
John Deere combination rear lamps

Drivers of tractors, combine harvesters and pick-up choppers know this lamp. The tried and trusted combination rear lamp can now also be purchased through the aftermarket.

for John Deere tractor series 6000 up to Nov. 1996 **2JA 006 356-081**

from Nov. 1996 to Oct. 2002 for John Deere combines and shredders,

from Nov. 1998 **2VA 006 356-101**



OWS-QS – Optical Warning System “QS”

The modular structure of the OWS-QS allows a flexible combination of elements according to individual requirements with some completely new auxiliary lighting modules. Thanks to the range of lengths between 1400 and 2200 mm, the signalling system is suitable for a wide range of special vehicles.

In terms of the main beacons, customers can choose between halogen rotating mirror technology in single or double versions or xenon double-flash technology.

The lightbar offers a low-profile design with the possibility of individual lettering. The wide range of auxiliary modules, configuration pos-



sibilities as well as the choice between 12 and 24V versions, turns it into an attractive system meeting even the highest demands.

QWS-QS amber,
12 V, 1400 mm with double-flash system
2RL 009 279-021

New CD and new flyer for the EasyConn wiring and lighting system



Hella has developed an innovative wiring and lighting system for 24 V trailers. To make the planning of customer-specific trailer equipment using standard products easier for you, Hella is providing support in the form of a CD-ROM. A menu driven program is available for the preparation of clear drawings. Interesting animations for wiring, rear-end, rubber bracket and side marker lamps simplify the decision-making process for the new EasyConn system! The prepared wiring requirements with the selected lamps can be printed out immediately and serve as a

basis for quick calculation. This CD also includes technical drawings, installation instructions and details about type approvals and GGVS tests for the most important components.

A brief attractive summary of the EasyConn system can also be found in our latest flyer!



Power packs for a safe start: Hella starter batteries

With the Hella range of batteries made to be a perfect match for the application in question, you'll always make the right choice. Hella's new battery range covers almost 95 % of all European vehicle types. "Hella Ultra Power" - the ultimate for the latest passenger cars and "Hella Power" for car & commercial vehicles stand out thanks to their reliability, engineering, and safety. Hella starter batteries can be purchased in Great Britain, Ireland, Austria, France, Belgium, Italy and the Netherlands.

Hella Ultra Power for passenger cars:

The high-performance battery for the latest power hungry vehicles. Maximum coverage with minimum number of batteries for nearly all European cars. Advanced Performance features thanks to the innovative Ca-Ca alloy, and safety lid. High current consumption and 100% maintenance free means extended service life.

- 20 % longer service life than conventional batteries.
- Suitable for short trips or stop-and-go traffic, thanks to increased electrical conductivity.
- Added safety with leak-proof lid, and latest single point venting & integral flame arrestors for safe installation

Hella Power for passenger cars:

Comprehensive range for virtual all vehicle types.

- Ca-Ca alloy
- Maintenance-free.
- Reliable cold start performance.
- Supplied filled and fully charged.

Hella Power for commercial vehicles:

The battery for professional use.

- All batteries with vibration proof rating V3 (Highest).
- Designed to withstand heavy load cycles.
- Heavy-duty & Super heavy-duty types
- Increased service life.
- Particularly robust.

see page 8 ►

Power packs for a safe start: Hella starter batteries continued from p. 7

Hella Ultra Power for passenger cars

Battery passenger car HUP 105; 12 Volt; 60 Ah **8EB 009 297-501**
Battery passenger car HUP 107; 12 Volt; 71 Ah **8EB 009 297-521**



Hella Power for passenger cars

Battery passenger car HP 122; 12 Volt; 55 Ah **8EB 009 297-211**



Hella Power for commercial vehicles

Battery for commercial vehicles HP 306; 12 Volt; 110 Ah **8EB 009 298-051**



A clear view: Commercial vehicles mirror range extended

The mirror range has been extended by complete mirror units and spare parts for the popular CV models DAF CF, XF, MAN, TGA and Volvo FH, FM.

New in the range are main mirrors, wide-angle mirrors, ramp mirrors and mirror systems with glass units and covers are available separately. All the crash-relevant parts for these mirrors are now also in the Hella range.

The extended mirror range provides mirrors for use on the left or right side of the vehicle for both left-hand and right-hand drive traffic.

All the new mirrors can be heated (24 Volt) and the adjustment is usually electrical, depending on the model.



Please find below a selection of our range extension:

Main mirror DAF CF, XF;
Complete mirror + control cable **8SB 354 507-001**

Wide-angle mirror DAF CF, XF;
Complete mirror + 2-channel heating cable (double pole, right angle connector, round) **8SB 354 508-001**

Main mirror MAN TGA;
Complete mirror **8SB 354 504-011**
Wide-angle mirror MAN TGA;
Complete mirror **8SB 354 505-011**

Mirror system Volvo FH, FM;
Complete mirror **8SB 354 506-811**



The Electrics catalogue 2005/ 2006 range will be published in March 2005.



Remember – the air conditioning system ensures a pleasant vehicle climate all year round - for refres-

hing coolness in the summer and for safety in autumn/winter. Thanks to the air conditioning, windscreens are cleared more quickly of condensation, which is why it is important the system works well in winter, too.

To ensure you are well prepared to cope with demand, we work continuously on expanding our spare parts range. Here are the latest new products:

Vehicle-specific condensers

The range has been extended by eight new condensers:

Mercedes Viano (639), Vito Bus (W639), Vito box-type (W639) (available from January 2005)

8FC 351 301-121

Chrysler Voyager III (RG)

8FC 351 301-141

Mazda 626 / MX6

8FC 351 301-131

Toyota Corolla / Corolla Compact / Corolla Liftback / Corolla Wagon

8FC 351 301-161

VW Transporter IV Bus / box-type / pick-up/chassis

8FC 351 301-151

Toyota Corolla E11 1,4/ 1,6

8FC 351 301-161

Mercedes Benz S-Class W220

(available January 2005)

8FC 351 301-171

Mazda 6 (petrol & diesel versions)

(available January 2005)

8FC 351 301-181



Hose assembly for Opel Vectra B

On account of high customer demand, this hose assembly **9GS 351 191-401** has been approved as an alternative to Hella part no. 9GS 351 191-081. The new hose assembly is already fitted with the O-ring-Set 9GR 351 289-929, seals and quick action fittings.

This means the scope of supply now corresponds to the comparable OE hose assembly.

Filter driers

The range has been extended by the following vehicle-specific filter driers:

Mini Cooper / Land Rover Freelander II

8FT 351 197-721

Jeep Grand Cherokee 4.0 I

8FT 351 197-731



New compressors – for vehicle-specific and universal applications

The existing range has been extended by two universal and four vehicle-specific types.

BMW 5 525 tds (E39) / Touring (E39); BMW 5 525 td (E39); BMW 7 725 tds (E38)

8FK 351 126-991

■ For universal use:

8FK 351 122-041

8FK 351 133-431

Mazda Demio (available from January 2005)

8FK 351 103-041

■ Vehicle-specific:

Opel Astra G/ Caravan (F35_) / (F69_) / box-type (F70_) / CC (F48_, F08_); Vauxhall ASTRAVAN Mk IV / ASTRA Mk IV / ASTRA Mk IV Estate / ASTRA Mk IV CC

8FK 351 134-361

Fiat Ducato Bus (230) / Bus (244, Z_); Fiat Ducato box-type (230L) / box-type (244); Fiat Ducato pick-up/chassis (230) / (244)

8FK 351 134-371



Fitting sleeves



◀ Fitting sleeves for reduced hoses

Part numbers: **8FF 351 045-801**
8FF 351 045-811
8FF 351 045-821
8FF 351 045-831

Spotgun cartridge ▶

Due to the modified shape of the cartridge it now can be used as well with the tool "BIG EZ" manufactured by company Tracer, new shape 120 ml **8PE 351 225-411**

Spotgun cartridge



Hella strongly represented at trade fairs!

During August and September Hella was represented at numerous trade fairs. In the following we would like to present brief reports of some of these fairs.

Eurobike

Hella took part in the Eurobike in Friedrichshafen from 02.-05.09.2004 with a 27m² stand.

The EUROBIKE has made a name for itself in specialist circles as the trend-setting/business fair for the world-wide bike branch. On the trade days, a total of 27,152 bike experts from all over the world visited the fair, an increase of 15 percent on last year. Hella presented the very latest front and rear lighting for bikes. The focus was on trends and innovations for the bike season 2005.



Ifma

(International bicycle trade show)

The Ifma in Cologne, 16.09.-19.09.2004, is regarded as Europe's No. 1 business fair and is the order headquarters of specialist retailers. Hella has implemented a new stand design to direct the focus onto the products.

The pleasant business atmosphere was reflected in the number of visitors: with around 22,000 specialist retailers from 60 countries it was well visited.

Caravan Salon

At the Caravan Salon in Düsseldorf from 27.08.-05.09.2004 Hella's presentation was on a stand 90m² in size. Following a visitor record of 55,000 visitors during the 1st weekend, the number increased to a total of 165,000 caravanning fans by the end of the fair. According to surveys carried out, more than half of all visitors to the fair came with a real intention to buy. The Hella stand was well visited by owners, managing directors and purchasing managers from the branch. The focus was on lighting technology, intelligent lighting and design. The subject of design was not only one of interest to customers: with 100 entries, 60 companies are taking part in the design prize "caravanning design

award: innovations for new mobility". The next Caravan Salon will take place from 26th August to 4th September 2005 in Düsseldorf.



Motor Show Essen 2004

Either with CELIS light guide rings or the new clear-glass version in the very latest design - Hella presented no less than new upgrade headlamps for the VW Golf IV at this year's Motor Show in Essen from 26 November to 5 December.

On a stand space of 180 m² the lighting specialist also presented the HydroLux 1000 FF, the first auxiliary driving lamp for off-road vehicles that is waterproof up to a depth of one metre.

Further new products such as the vehicle-specific daytime running light for the Volkswagen Golf V or the design combination rear lamp for the BMW 5 Series (E60) have already been described in detail in the "lighting" section.



Dynamic bend lighting

We would like to provide a brief description of the function and advantages of bend lighting here.

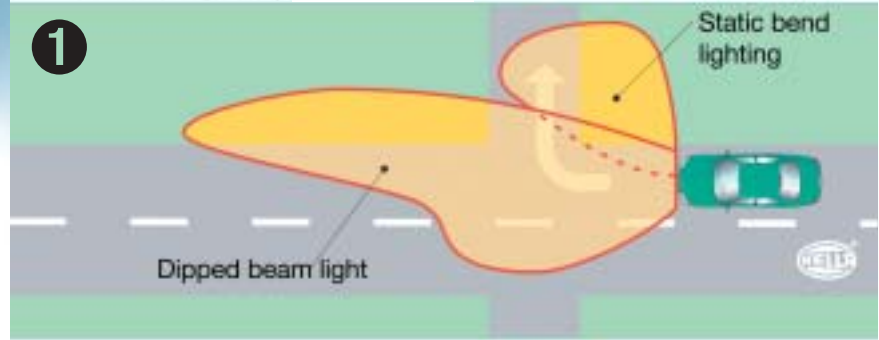
Bend lighting is achieved by swivelling the dipped beam depending on the radius of the bend being negotiated.

The projection headlamp is installed in a frame (see Fig. 1) that can be turned about its vertical axis. The swivelling angle of plus/minus 15 degrees has been designed for bend radii of up to around 200 metres.

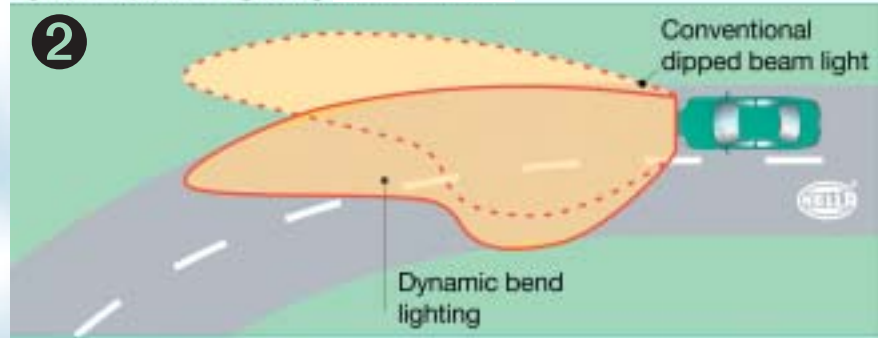
If the range illuminated by the headlamps in a bend with a radius of 190 metres is normally around 30 metres, this new headlamp technology extends this by a further 25 metres (see Fig. 2).

Since the beam pattern complies with the respective steering angle, drivers are able to recognise the course of the bend when driving into it and adapt their driving style accordingly. Active bend lighting works with both dipped and main beam

Static bend lighting



Dynamic bend lighting



lights and continually adapts to the respective vehicle speed.

Whereas at high speeds the headlamps follows the steering wheel movement in seconds, the swivelling

mechanism works respectively more slowly at lower speeds in order to distribute the light as the driver needs it.

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**We wish all customers
a Merry Christmas and
a Happy New Year 2005!**

