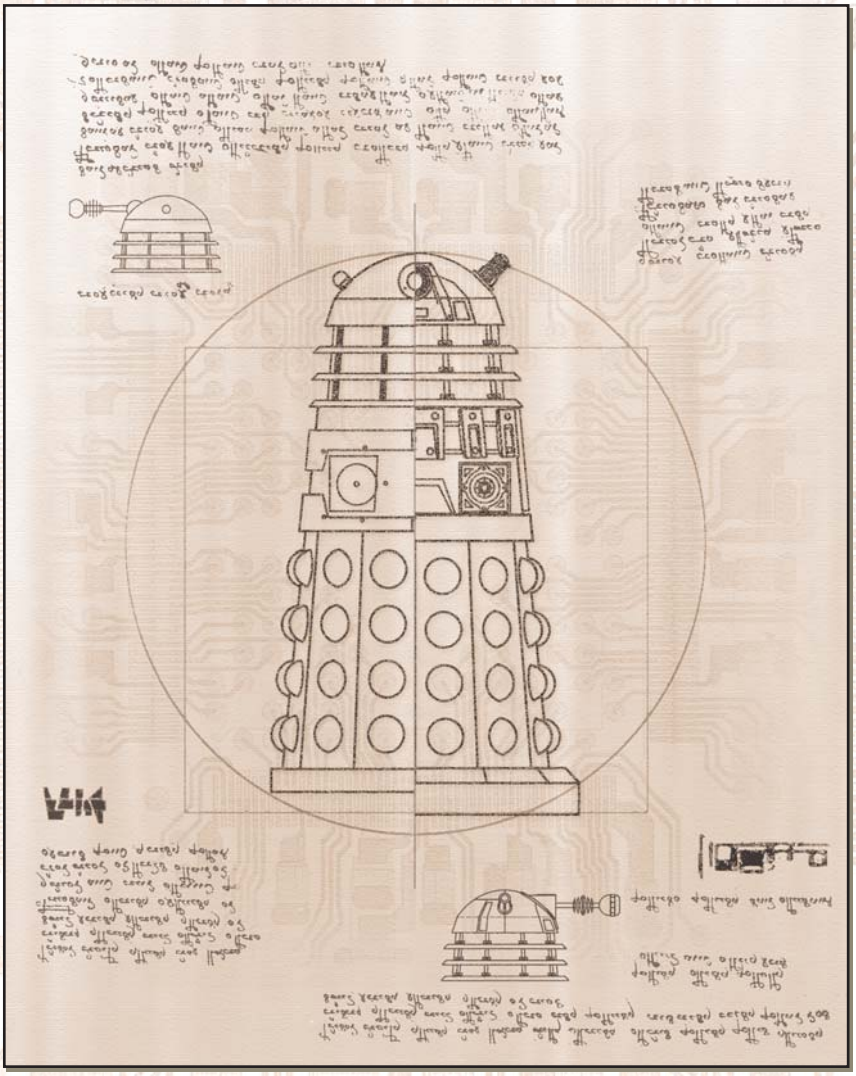
DALEK



EVOLUTION

www.projectdalek.co.uk

Version 1.3 March 2006

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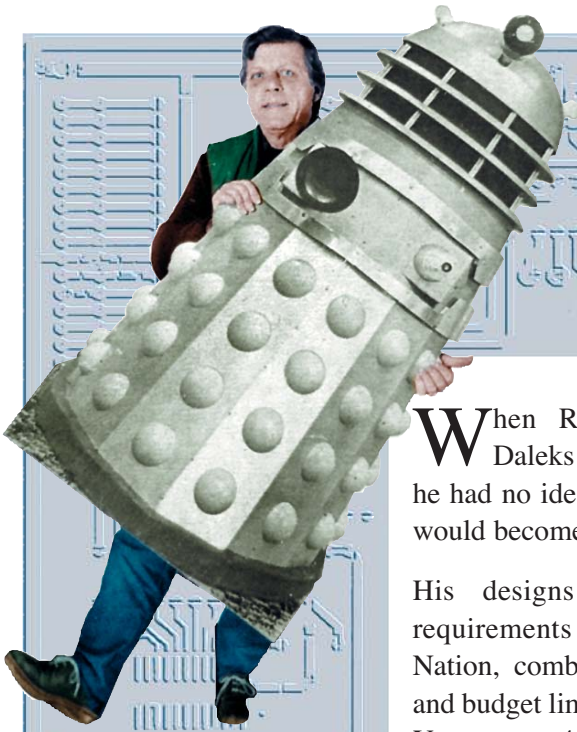
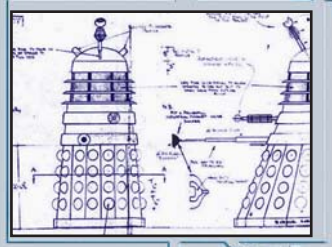
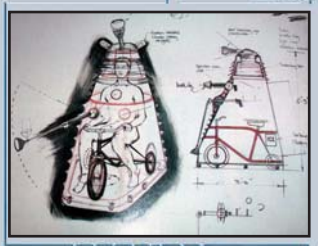
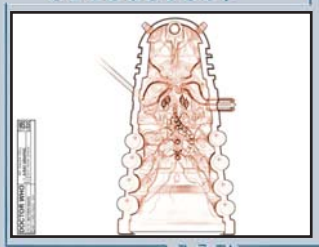


Introduction







When Ray Cusick designed the Daleks back in the autumn of 1963, he had no idea that he was creating what would become an icon of popular culture.

His designs simply met with the requirements set out by writer Terry Nation, combined with the construction and budget limitations imposed upon him. Yet, over 40 years later his Dalek creatures have captured the imagination of generations of television viewers the world over.

This booklet, courtesy of *Project Dalek* is a guide to aid those Dalek Builders looking to recapture the feel and style of a particular type of Dalek - from the first Daleks that appeared in *The Daleks* in December 1963, through to their triumphant return to television in 2005.

Throughout the Daleks' years on television, and in the two movies in the 1960s, they evolved. The fx teams do not seem to have been following a 'grand plan'. It was more important to keep the Daleks looking as good as possible, for each successive appearance.

In some instances, the design was altered because the Daleks were required to perform some function - for example: in the 1964 story *The Dalek Invasion Of Earth*, the Daleks were to be used on location for the first time, and whilst the small castors on the props were ideal at traversing the studio floor, in this adventure we see an enlarged fender section added to the design to conceal the large pneumatic tyres required on location.

However, looking at *The Chase*, we see the first major change to the props design - with the addition of the mesh and slats around the shoulder section.

Regular repainting, repairs and general refurbishment had a definite impact on the Daleks' appearance. This is what this Guide covers - the look and the style of the Daleks, story by story.

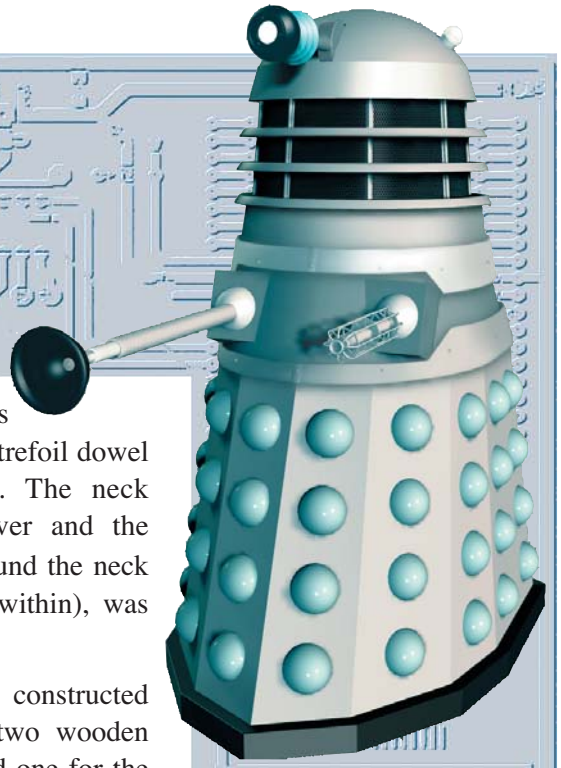
Builders can follow the Classic TV or Movie Dalek Plans (available from *Project Dalek*) to create their basic Dalek build. However, they may wish to recreate a particular style from a specific story. This guide brings together many of the design/colour details saving hours of effort, looking through photographs etc.

Illustrated throughout with rare photographs, this guide also features all new CGI renders from Tim Treado and Mick Imrie.

One last point, and its regarding Dalek colour schemes - or rather, the paints used over the years. The specific paints used are, in many cases, no longer available. With the first Daleks, there is a lot of discussion and many opinions on the modern day equivalents available to builders and at the time of writing, the jury is still out. However, once you've decided you want to build your Dalek, and have identified the type you wish to build, the colours listed here will point you in the right direction. For the perfectionists, the finer points of colour choice can be discussed on the *Project Dalek Forum*.

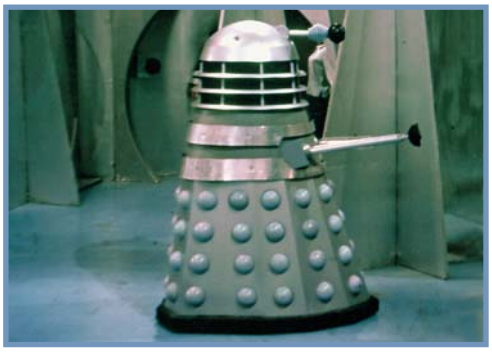
Main photo:
Ray Cusick holds a photo blow-up of his final dalek design used in 'The Daleks', 1963.

The Daleks



The Daleks first appeared on British television in Doctor Who's second serial, *The Daleks* (aka: *The Dead Planet* or *The Mutants*).

They were the creation of writer Terry Nation. His script only gave the briefest of outlines with regards to their appearance and it was down to scenic designer Ray Cusick and prop builder Bill Roberts (of Shawcraft Models) to devise the look of the creatures.



All the props were made from fibreglass with metal and wooden detailing.

The domes were painted in silver whilst the flashing lights were Christmas tree lights covered with ping pong balls. The eye was a length of hollow tube on a circular pivot point, with nine powder blue Perspex disks of varying diameters attached behind eyeball. The eyeball itself was created from a hollow wooden ball into which an empty 'Chappie'dog food tin was inserted, giving it that distinctive toffee apple look. It was painted black and one dalek featured a working back-lit iris.

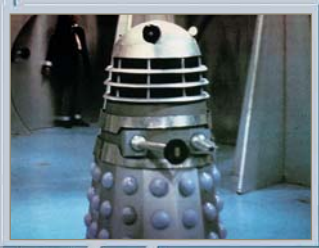
The neck rings were cut with a chamfered outer edge and the struts which formed the supports to the neck were lengths of trefoil dowel (now discontinued stock). The neck assembly was painted silver and the internal mesh, wrapped around the neck core (which hid the actor within), was painted matt black.

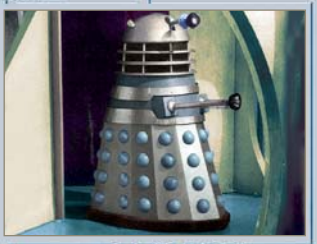
The shoulder section was constructed in fibreglass and sported two wooden boxes – one for the gun and one for the arm. Both appendages pivoted on two enclosed wooden spheres. The telescopic arm was constructed in three sections and a domestic sink plunger was fitted to the end. The gun was a length of steel tube and three octagonal Perspex panels were arranged along its length to support the eight outer rods.

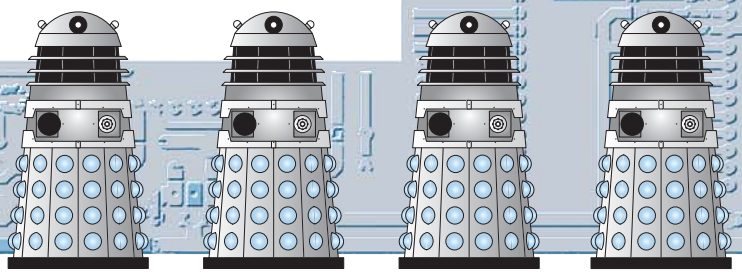
The two collars around the shoulders were made from four curved aluminium strips. The shoulders were painted light blue/grey, while the gun, arm and collars were left unpainted.

The skirts were originally conceived as wooden constructions but in the final build, these too were made from fibreglass. Fifty-six blue fibreglass hemispheres were inserted into trepanned holes around the skirt. The bumpers at the base of the props were made out of blockboard and painted black.

Four Daleks were required for the serial. All of the props were constructed in the same way, however due to them being assembled by hand, there are some very small variations in the positioning and fitting of the collars around the middle of each prop.

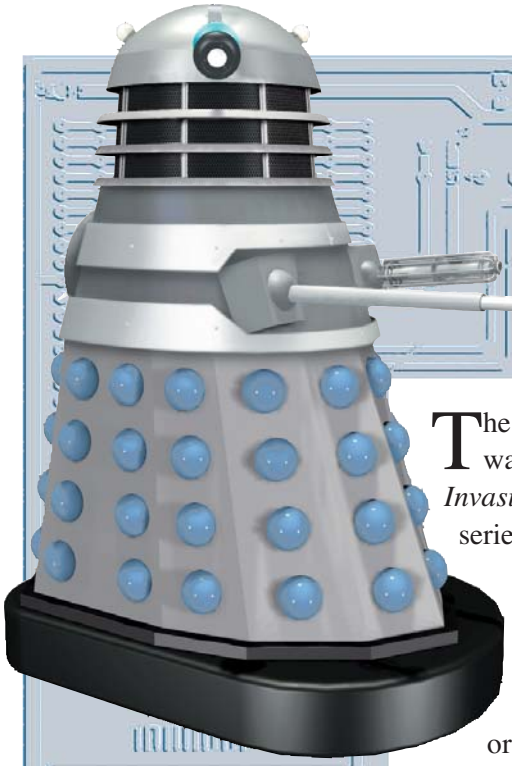






Written by Terry Nation
Produced by Verity Lambert
Designed by Raymond Cusick
Directed by Christopher Barry

The Dalek Invasion Of Earth



The Daleks first return to Doctor Who was in the 1964 story *The Dalek Invasion Of Earth* – the first story in the series' second season.

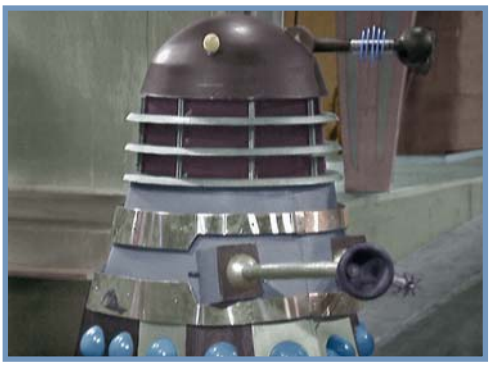
Designer Spencer Chapman was responsible for the look of the production which was on a grander scale than the Dalek's original appearance and featured extensive location filming for the first time.

The Daleks in this story were a mixture of original props from the first production plus some newly constructed casings from the original moulds.

Stylistically speaking, the Daleks remained largely unchanged. Their colour scheme was predominantly silver (domes, neck and base) with the shoulders in light blue/grey. However, some of the props sported silver eyeballs instead of the previous black design. The eye stalks were simplified with the removal of the four smallest eye rings on the stalk and the remaining rings spaced out.

As the props were required on location in the streets of London, the three inch castors that were feature on the original props would be largely ineffectual and a new method of mobility was introduced for this story.

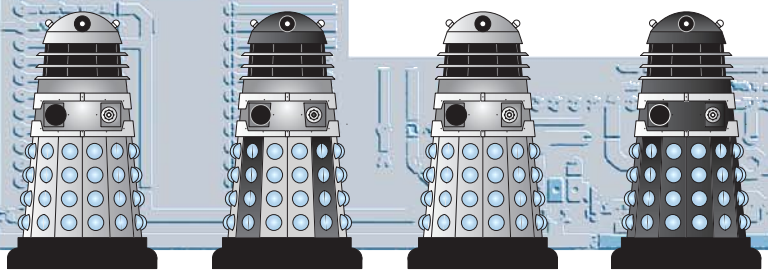
Chapman, together with Bill Roberts devised a tricycle arrangement of three large pneumatic wheels which would carry the Daleks over any uneven surface. As this arrangement was too large to be fitted into the standard Dalek base, enlarged bumpers (not unlike dodgem car bumpers) were created. The Dalek props were positioned onto these bumpers, base and all. The tricycle steering mechanism extended up into the props skirt section and the bumpers were painted black.



On the rear of each dalek a twelve inch diameter parabolic dish was fitted. Painted gloss grey, within the narrative of the story, this dish aided Dalek communication and supplied power to the creatures directly from their saucers.

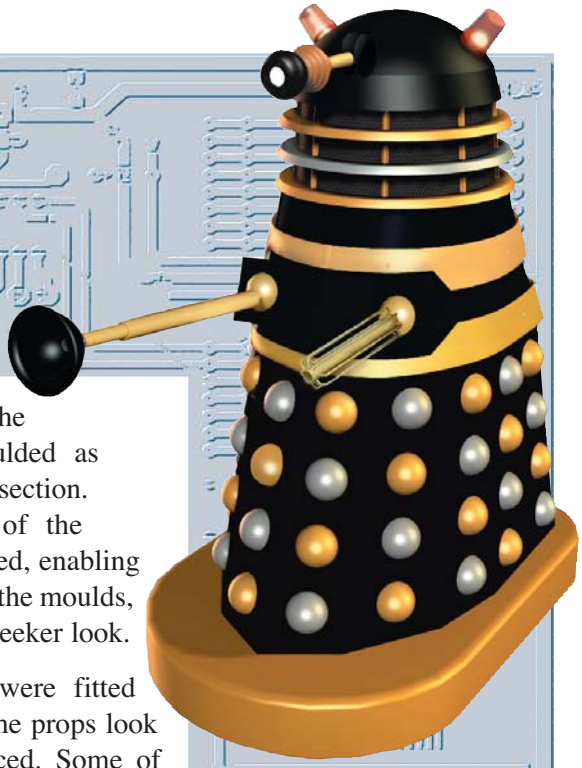
Two new Daleks were introduced in this story. In episode two we see the commander of the Dalek taskforce on Earth. This Dalek featured a black dome and alternating black and silver skirt panels. (Fans refer to this Dalek as the Saucer Commander).

In later episodes the prop was painted black and was referred to as *The Black Dalek* and the *Supreme Controller*. The neck rings and rods remained silver, the collars unpainted and the hemispheres in both colour schemes remained untouched in their original pale blue colour as per the other props in the story.



Written by Terry Nation
Produced by Verity Lambert
Designed by Spencer Chapman
Directed by Richard Martin

Doctor Who & The Daleks



When the Daleks appeared *"On The Big Screen"* and *"In Colour"* for the first time, the films producers knew that the small silver props from the TV series would lack a dramatic impact.

To deliver the essential *WOW* factor desired, they took the decision to increase the size of the props to make them much more dominant and, most importantly, to make them visually exciting by introducing strong colour to their design.

Essentially, the Daleks remained faithful to their original design. Working down from the top of the props, the first change was the flashing dome lights. Instead of small ping-pong ball lights, the designers decided they should be more beacon like and took commercially available red plastic drinking beakers, inverting them and placing them over much larger light fittings.

The eye stalks were simplified in look, with just five Perspex rings fitted on a length of Perspex tube. The eyeballs were refined, most of them featured an illuminated iris.

The edges to the neck rings were cut at a much steeper angle giving a chunkier look. Moving down to the shoulder section, for the first time, the shoulder boxes were moulded as part of the main shoulder section. The angles on the side of the shoulder boxes were changed, enabling fast and easy removal from the moulds, resulting in a cleaner and sleeker look.

Aluminium-style claws were fitted for the first time, making the props look more technical and advanced. Some of these claws were static, but a number were spring loaded and movable. The Dalek's gun was simplified in look, with the removal of the three octagons that appeared on the TV props.

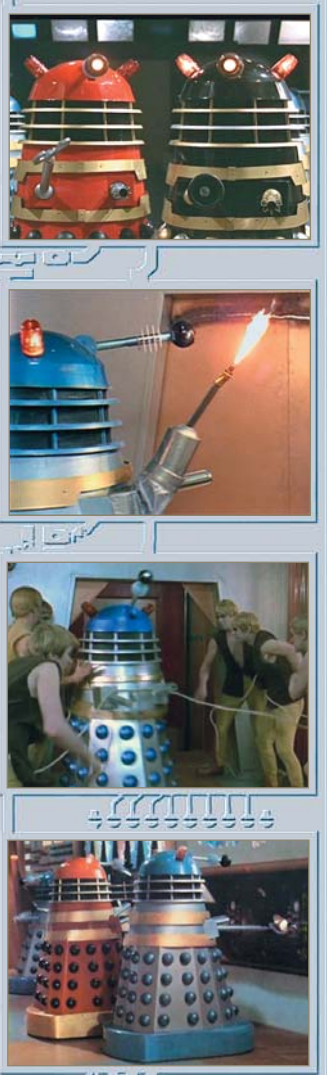
Moving downwards, the skirt section was an inch taller but followed the same pattern as the TV props Taking their design cues from the second TV serial, the bumpers were made much larger, dramatically increasing the overall height of the Daleks.

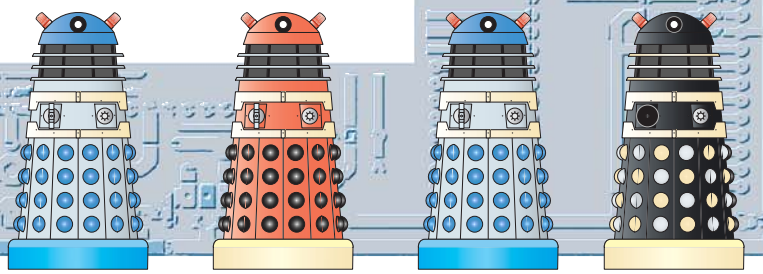
Three Dalek colour schemes appeared in the first film. These were:

Standard Drone: blue dome, black neck bin, silver neck cage, silver/blue shoulders, gold collars, silver/blue skirt, blue hemispheres and a blue bumper.

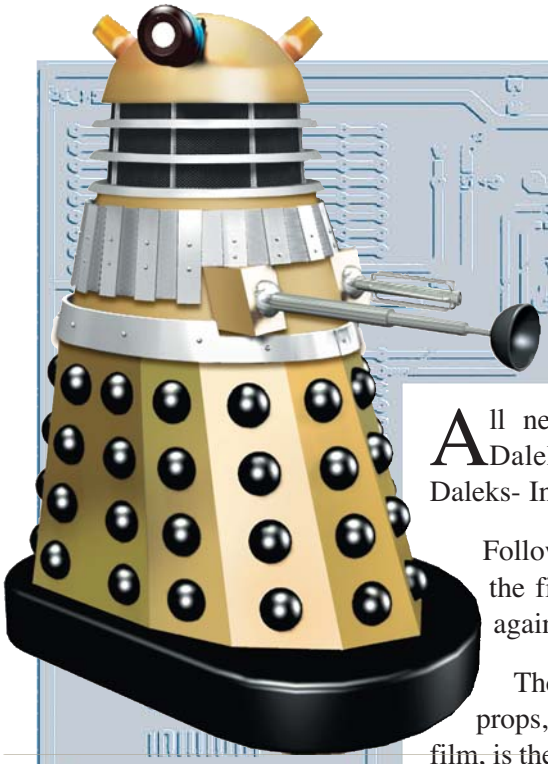
Dalek Commander: red dome, black neck bin, silver neck cage, red Shoulders, gold collars, red skirt, black hemispheres and a gold bumper.

The Black Dalek: black dome, black neck bin, silver and gold neck cage rings (silver top and bottom, gold between), black shoulders, gold collars, black skirt, alternating silver and gold hemispheres and a gold bumper.





Written by Milton Subotsky
Produced by Milton Subotsky& Max J Rosenberg
Designed by Bill Constable, Ken Ryan, Ted Samuels
Directed by Gordon Flemyng

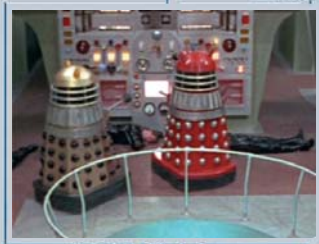


Daleks- Invasion Earth 2150 AD

All new Daleks were built for the Daleks second movie outing in Daleks- Invasion Earth 2150 AD.

Following the pattern established in the first film, the Daleks were once again large and colourful.

The most noticeable change to the props, when compared to the first film, is the inclusion of the slats and mesh waistcoat – this had been introduced to the television Daleks in *The Chase* (featured on the next page) and was included on the movie props, this time around. The Daleks were also seen sporting both black and silver eye-stalks.



The claws on the Daleks reappear and in addition to the standard plungers, we see one Dalek sporting a silver plunger and another a flat, beak like claw. These only appear in two very brief scenes and on background props too. Certainly no mention is made in the film's narrative to these attachments.

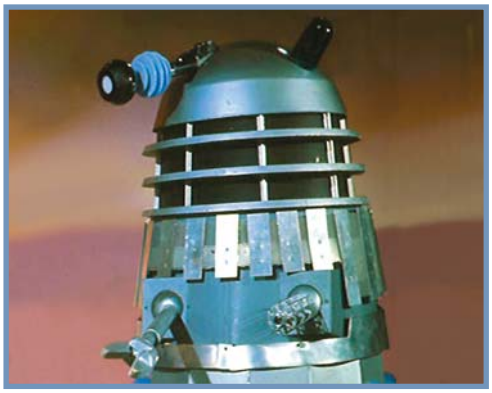
The colour of the Daleks was changed to make the drones look more in keeping with their television counterparts and a new Dalek colour rank was introduced in the form of the Dalek leader – this time a gold Dalek. The red Dalek (now the saucer commander) and the black Dalek, were given subtle updates.

Rather than use the same coloured beakers on all the props, the producers introduced new dome light colours to make the Daleks more visually interesting. A total of four Dalek colour schemes appeared in the second film.

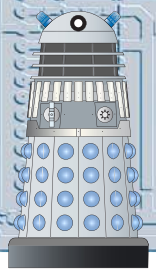
Standard drone: silver dome, black neck bin, silver neck cage, grey/blue shoulders, unpainted aluminium collars, slats and mesh, silver skirt, blue hemispheres and a black bumper. The dome lights on all the drones were blue.

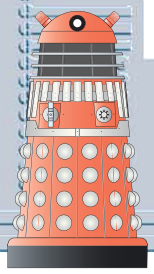
Dalek saucer commander: red dome, black neck bin, silver neck cage, red shoulders, unpainted aluminium collars, slats and mesh, red skirt, silver hemispheres and a two tone bumper – red fibreglass top and a black rubber surround beneath. The dome lights on this Dalek were red.

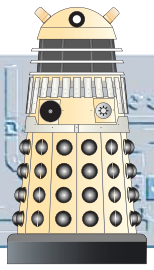
Dalek leader: gold dome, black neck bin, silver neck cage, gold shoulders, unpainted aluminium collars, slats and mesh, gold skirt, black hemispheres and a black bumper. The dome lights on this Dalek were yellow.

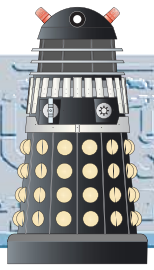


The black Dalek: black dome, black neck bin, silver neck cage rings, black shoulders, unpainted aluminium collars, slats and mesh, black skirt, alternating silver hemispheres and a black bumper. The dome lights on this Dalek were red.





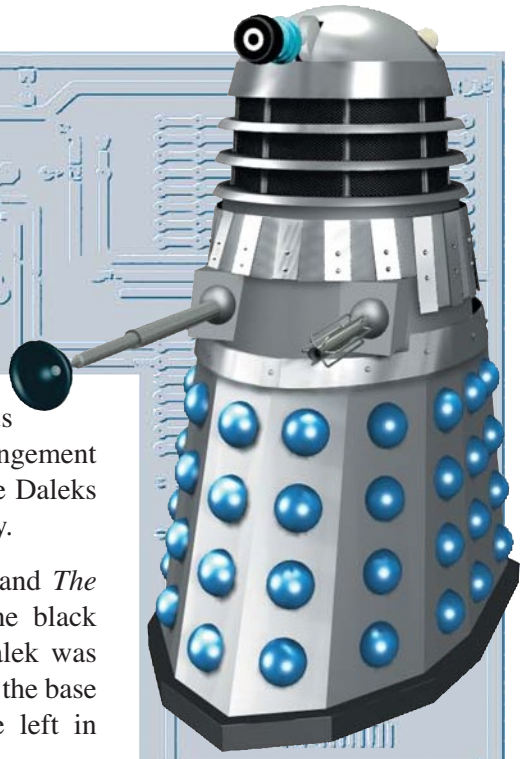




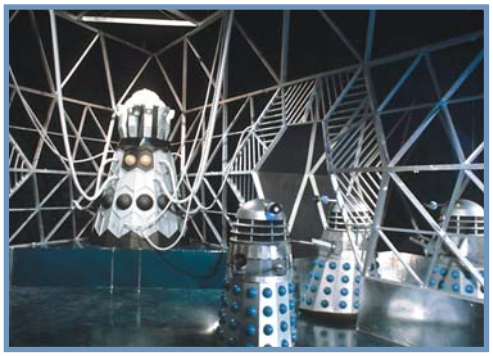
Written by David Whitaker
Produced by Milton Subotsky
Designed by Geroge Provis & Ted Samuels
Directed by Gordon Flemyng

The Chase ...to... The Evil Of The Daleks

Including Mission, Master Plan, Power



Dalek designer Ray Cusick was responsible for the look of the Daleks in their third TV outing. As the props would not be required for extensive location filming, he dropped the large bumpers that Spencer Chapman had introduced in *The Dalek Invasion of Earth* and reinstated the three inch castors to the underside of each prop.



During this period of Doctor Who, we see the Daleks sporting arm attachments other than the standard black rubber sink plunger. These included the seismic detector, probe, flame thrower and embryo scoop!

The props were given a new coat of silver paint and a darker shade of grey around their shoulder sections. Their hemispheres were painted a darker shade of blue.

Another cosmetic change was the removal of the "radar dish" added in the previous story, plus the addition of a mesh "waistcoat" covered by twenty-three slats, positioned around the top collar of the Dalek props. Cusick reasoned that as the Daleks evolved over time, their scientists would develop new ways of powering them and the slats were like solar panels, providing power in the same way as the radar dish had in the previous story. This slat and mesh arrangement would influence the design of the Daleks right through until the present day.

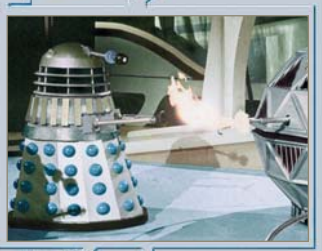
In *Mission To The Unknown* and *The Daleks' Master Plan*, we see the black Dalek once again. The black Dalek was realised by painting the dome and the base satin black. The shoulders were left in their usual grey colour scheme.

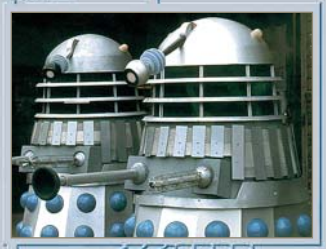
New lenses replaced the fragile ping-pong ball lights of the original props. The lights were created by using cut down plastic egg cups. The props had also begun to show signs of wear and tear and in some shots, frayed fibreglass matting can be seen along the bottom edges of some of the domes.

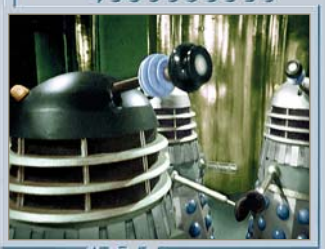
In *The Power of the Daleks*, the props were repainted once more with a new coat of silver paint and the skirt hemispheres repainted in a darker blue for the last time (before the black of the 70s took over as standard).

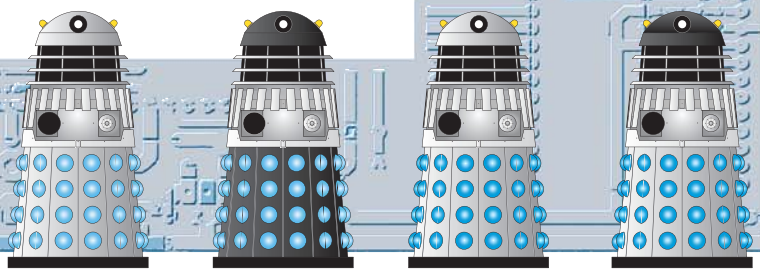
The guns were updated and the three Perspex octagons of the original TV props were removed in favour of the simpler look, similar to that featured on the movie Dalek props.

These changes remained unaltered for what was to have been the Daleks last television adventure, *The Evil of the Daleks*. In addition to the inclusion of the Emperor Dalek, and to represent the two opposing factions in the Daleks civil war, some of the Daleks sported black domes. The look was achieved by painting the domes matt black between shots.



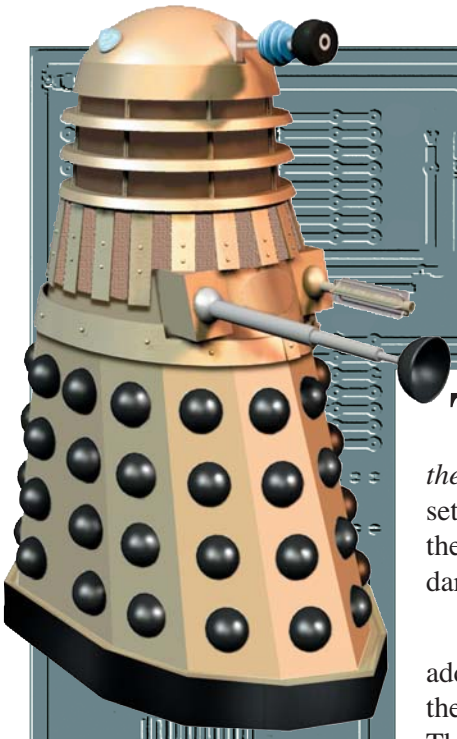


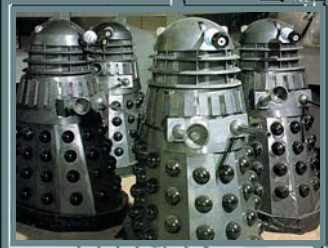


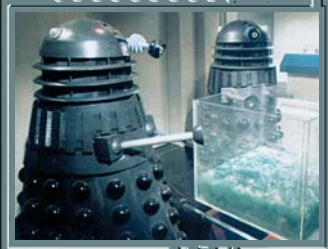


Written by Nation, Spooner & Whitaker
Produced by Lambert, Wiles & Lloyd
Designed by Cusick, Hunt, Newbery, Dodd & Thompson
Directed by Martin, Martinus & Camfield

Day, Frontier in Space & Planet of the Daleks







The first colour appearance of the props, on television, was in *Day of the Daleks*. Rather than follow the trends set by the producers of the feature films, the production team gave the Daleks a dark metallic look.

The grey colour scheme and the addition of slats (from *The Chase*) were the two biggest influences on their design. These design elements would remain until the end of the classic series on TV.

The advent of colour video effects technology (in particular CSO) may well have influenced this change in direction. It is also worth considering that by this time, many of the props were almost a decade old and were starting to show signs of wear and tear.

In *Day Of The Daleks* we see the Dalek drones painted in dark grey (covering every dent and imperfection) with their hemispheres painted in gloss black. The Dalek hierarchy was extended further with the introduction of the gold Dalek leader (in favour of the more traditional black Dalek). It was a standard Dalek, painted completely gold, including neck mesh and slats. It featured gloss black skirt hemispheres.

This story sees the first use of oval disks between the gun/arm boxes. A pupil was also added to each daleks eye.

The size of the castors underneath the Daleks was increased due to the props being required on location, seeing a slight increase in the height of the fenders on each. The props can be seen during studio scenes, fitted with new, longer plastic skirting around their bases. This is missing during the location filming where the bases have no skirting at all.

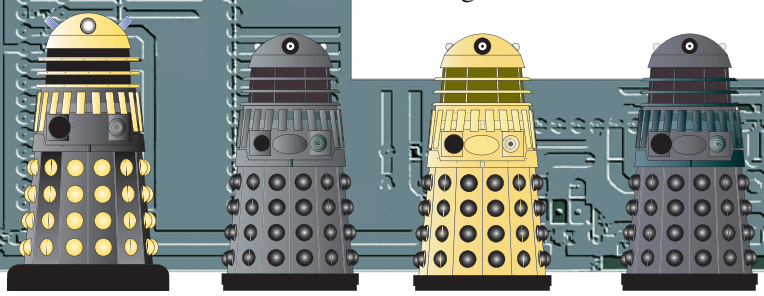
In *Frontier in Space*, the same colour schemes appeared again, though all three main props used were repainted once more. The grey used on the drones was more metallic whilst the shade of gold on

the leader Dalek was slightly darker and richer than that which appeared previously.

Planet of the Daleks saw the first new build of Daleks for a TV production since the TV props created for *The Dalek Invasion of Earth* in 1964.

The new Daleks were painted grey and despite some variations to the disks on the eye stalks, they were essentially all the same. Closer inspection of the footage from the story shows that the three main props are darker in colour than the all new Dalek props, though the difference is negligible.

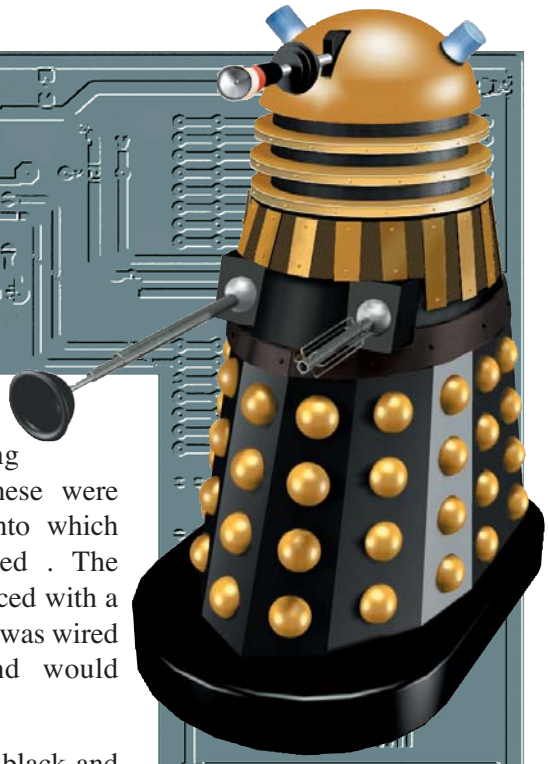
The story's narrative features one Dalek that is invisible. To achieve this in studio, it was sprayed CSO yellow and then during the take, with black paint all over, to achieve the effect of it becoming visible. This Dalek can be spotted in later episodes as the yellow paint is still visible in places on its shoulders and neck mesh.



Written by Louis Marks, Malcolm Hulke & Terry Nation
Produced by Barry Letts
Design: David Meyerscough-Jones, Cynthia Kljuco, John Hurst
Directed by Paul Bernard & David Maloney

The Planet Supreme

Special Feature



Planet of the Daleks features one very unique Dalek. The script called for the appearance of The Dalek Supreme – A Dalek that is second only to the Emperor Dalek.

Even though the budget of the story had allowed for all new Daleks to be constructed, the producers wanted a distinctive looking Dalek to appear, unlike any of the other TV versions.

Rather than alter the appearance of one of the TV Daleks, they contacted Dalek creator Terry Nation to ask if they could borrow one of his original props from the 1960s films.

He was happy to oblige and whilst the new Daleks for the story were handled by Clifford Culley and his team at Pinewood Studio's, the Dalek Supreme was handled by the BBC's own Visual Effects Workshops in London.

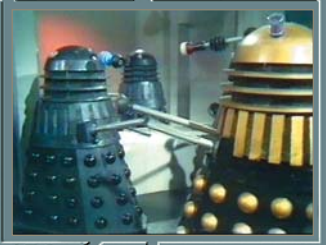
They took Nations slightly battered movie prop and stripped it right down to its component parts. The dome was painted a rich deep gold. The original beakers and light fittings were replaced by two rotating "fuzzlight beacons". Over these were placed two large jam jars into which purple lighting gel was fitted . The eyeball of the Dalek was replaced with a standard domestic torch which was wired up to the dome lights and would illuminate at the same time.

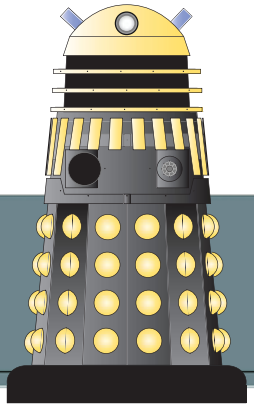
The neck bin was repainted black and the neck cage was removed. Three new neck rings were fitted which did not have the traditional bevel to the outside edge. Strips of plastic detail beading were fitted to the flat edges of each ring. These were painted gold.

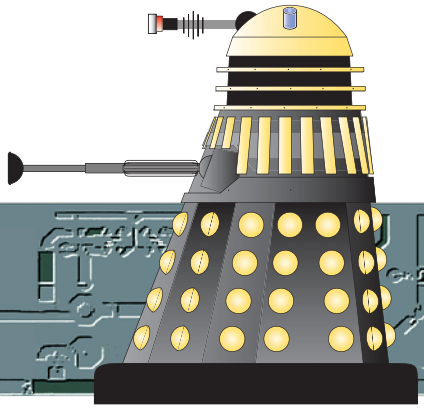
The shoulder section was repainted black, along with the collars and mesh. The slats were painted the same shade of gold as the dome. The gun was a standard movie gun with the firing mechanism of a TV Dalek fitted.

The base of the Dalek was painted gloss black and the fifty-six hemispheres were also painted in gold. The large movie bumper was painted in gloss black.

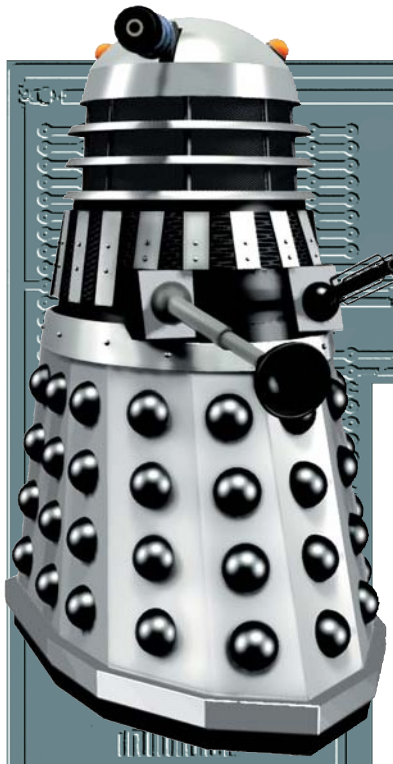
The Dalek was returned to Terry Nation after its one and only TV appearance, but would be used in the publicity launch of a Doctor Who stage play in the mid 1970s. It also featured in a Weetabix advert in 1977. On that occasion it was painted red.

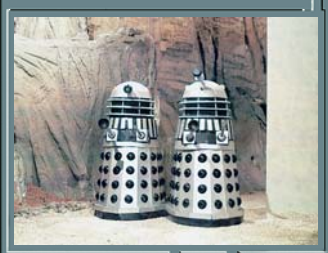






Death to the Daleks





In *Death to the Daleks*, we see the Daleks appear in a silver livery for the last time.

Designer Colin Green and the visual effects team headed by Jim Ward completely refurbished the props and they appeared in a curious hybrid scheme of 70s gloss black and 60s silver. Due to the lighting on location, in some shots they appear almost black and white.

Looking at the props section by section, the domes were all painted silver, though it is obvious that some additional work is done to the props between location and studio filming, as not only do the eyestalk configurations alter, but so do the types of auto lenses used as dome lights. One Dalek is seen to have orange lights, whilst clear lenses are used on the other props.

The cages on the neck section were repainted silver but during this refurbishment (which required the caged to be removed from the black neck bins for repainting), the ring and rod arrangements on some props were damaged. This added further to the 'patched up' look that the constantly refurbished props were developing.

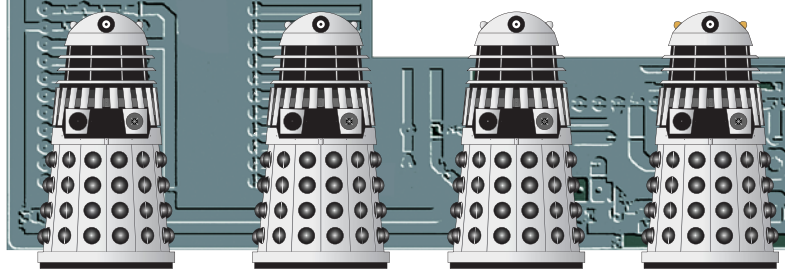
The shoulder sections were repainted black with the top collars and mesh in black too. The lower collar and slats were painted in silver. As with the neck rings, the slats were badly repositioned when they were refitted to the top collar. Against the black shoulder section, they show up as being badly misaligned on all of the props used in this story.

The skirt sections were painted silver and the hemispheres painted in gloss black. The fender was also painted in silver, with the castors underneath hidden by the usual black rubberised surround, giving a distinct two tone effect.

On location, the fenders were considerably deeper than those seen in the studio sequences.

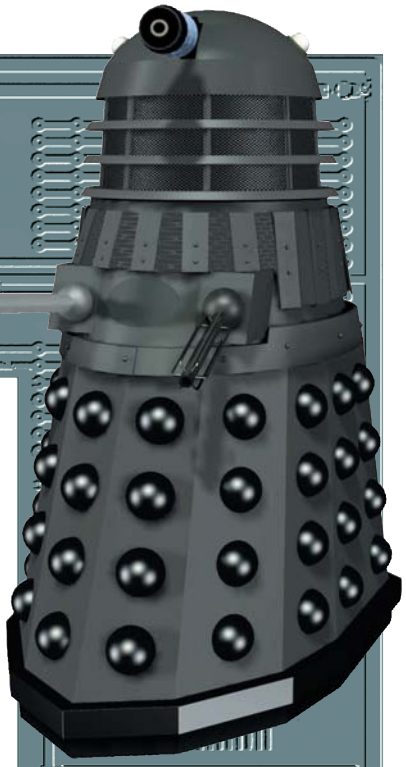
The most noticeable change to the Daleks is the introduction of projectile weapons guns, instead of the usual ray blasters. At the climax to episode one and for the main part of episode two, the props feature the usual style Dalek gun – this time painted gloss black. These guns were replaced mid way through episode two with sleek new guns featuring drilled detailing along the barrel and the tail fins from small mortars fitted to the business end.

It is around this time that we see the phasing out of the three section arm assembly. At least one prop retained a three section arm but two sections was the norm for the remainder of the classic series. Only with the creation of the new series Dalek did the three section arm make a definite reappearance.



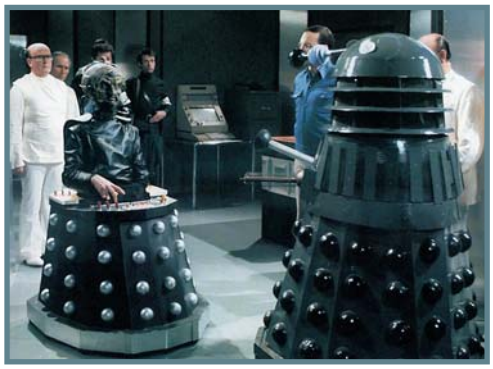
Written by Terry Nation
Produced by Barry Letts
Designed by Colin Green
Directed by Michael Bryant

Genesis of the Daleks



In *Genesis of the Daleks* we see the Time Lord return to Skaro at a point before the Daleks creation. His mission, to stop the Daleks from being realized.

Rather than present Daleks similar to those which appeared in the very first Dalek adventure, the production team, with an eye on the budget, chose to present the Daleks in their most current form – featuring slats and mesh around their mid sections. In the Dalek timeline, this was a little anachronistic, but meant that the team could deliver a show within their budget using the existing props in storage.



The Dalek props were once more refurbished and in keeping with the dark militaristic tone of the story, were returned to their dark grey and black livery as seen in the earlier 1970s adventures. As the props were by this time quite old and battered, the decision was made to hand paint the Daleks in gloss grey as this would cover the cracks and dents in the bodywork.

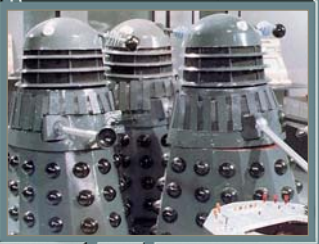
It's interesting to note that this exercise in 'making do' and keeping costs down resulted in the most popular Dalek colour scheme from the original series run.

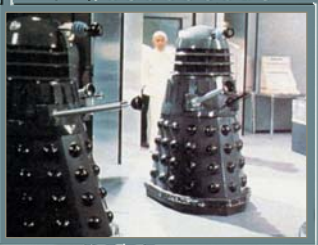
Genesis of the Daleks marks the first mention and appearance of Davros, the evil genius who created the Daleks. Actor Michael Wisher brought the character to life in a near legendary performance.

His costume was a showcase of what three departments – visual effects, costume and make up, could achieve when working together. The mask worn by Wisher was sculpted by Artist John Friedlander (who also supplied Davros's single withered hand) and was accentuated by a mass of wires and cranial sensors. The single electronic eye at the centre of Davros' forehead was illuminated. Wisher was dressed in a stark black PVC jacket, accentuating the characters sinister tone.

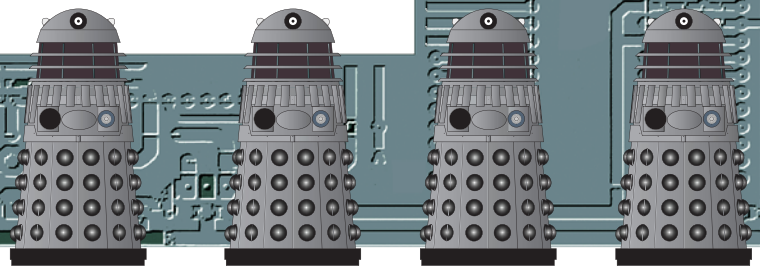
In the narrative, Davros was crippled when a Thal missile exploded on his workshops. A complex life support system was devised and fitted into a motorised chair, giving Davros limited movement. With its control panel and flashing lights, the chair looked like the base section of a Dalek.

Painted black and with silver Hemispheres, the effects team used Dalek blueprints that the BBC had published in 1973 (at the time of the programmes tenth anniversary) for the base section, lowering the height of the base to enable Wisher to comfortably operate the chair, without being lost in its depths. Constructed out of plywood and with lights powered by a car battery, the design went on to become one of the shows most powerful icons.

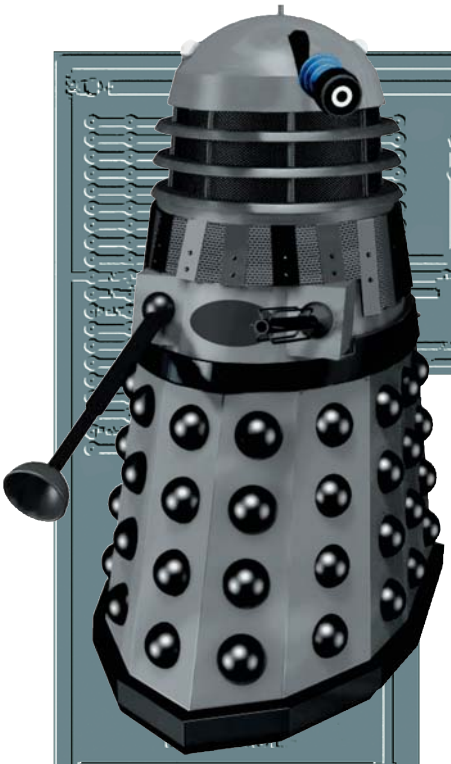


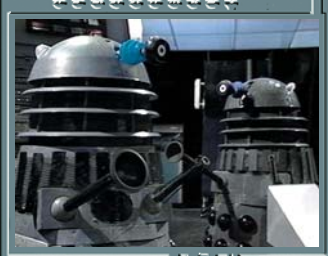


Written by Terry Nation
Produced by Philip Hinchcliffe
Designed by David Spode
Directed by David Maloney



Destiny of the Daleks





Planned on an epic scale, *Destiny of the Daleks* sees the return of the Daleks, the return of their creator, a return to the planet Skaro and a new robotic foe for the Daleks to fight.

Some of the Dalek props were by now over a quarter of a century old and time (not to mention rough handling over the years) had taken its toll on them. The props were once more refurbished but unlike previous years, little care was taken and the Daleks appearance was lacklustre.

The props were painted a lighter petroleum blue on their domes, shoulders and bases, with hemispheres in gloss black. The collars and slats of some were painted black while others had blue/grey collars and/or slats. Indeed, not only is each main section unique, but during filming the sections were continually being swapped around providing little continuity throughout the story.

Damaged hemispheres were replaced with small, crude, vacuum formed versions, glued to the outside of the props. One base section had a strip of metal glued to its side so that Tom Baker could place a (magnetic) prop bomb on it. This strip is extremely noticeable under the harsh studio lighting.

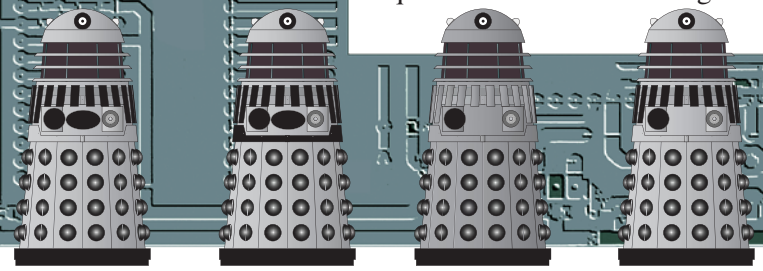
Davros fairs little better. The original chair was returned to the BBC from the Blackpool Doctor Who Exhibition and underwent little refurbishment. The Davros mask had the lower jaw portion cut away. As the mask was made to fit actor Michael Wisher, David Gooderson (who played Davros this time) found it quite uncomfortable throughout filming.

With very few complete Daleks, the visual effects team made up crude vacuum formed dummy Daleks for an explosive location sequence. Roughly painted, they do somewhat detract from the action of the story.

One Dalek cobbled together for this story has become famous over the years and is known as the 'Tussauds Dalek'. The top section from a Dalek built for *Planet of the Daleks* was added to the base of a battered exhibition Dalek. However, the base section did not follow the established pattern, with its oversized and uneven hemispheres and its exaggerated flaring towards the rear. The prop stood out from its fellow Daleks due to this unique shape.

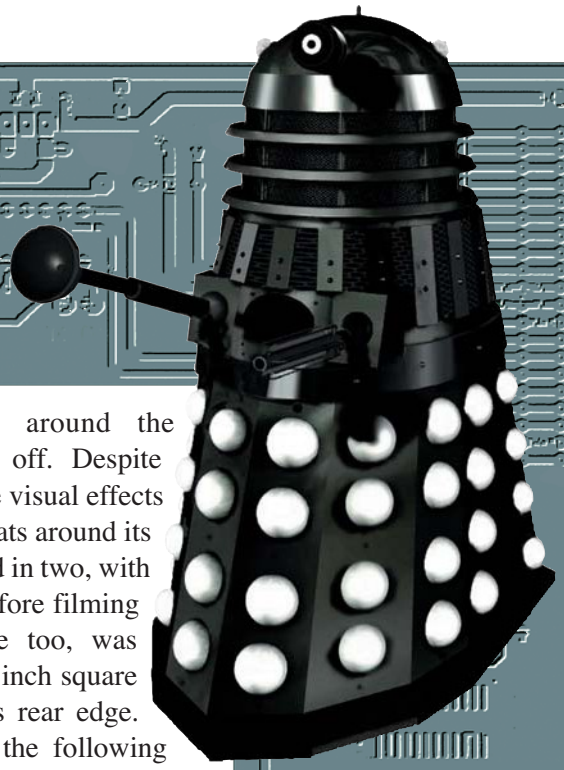
In 1981 it was repainted blue and formed part of a Doctor Who display at Madame Tussauds in London (where it gained its name) before returning in the following TV story as the Dalek Supreme.

In 2005, the Dalek was sold at the Bonhams Auction House for a staggering £30,000 making it the most expensive Dalek ever sold.



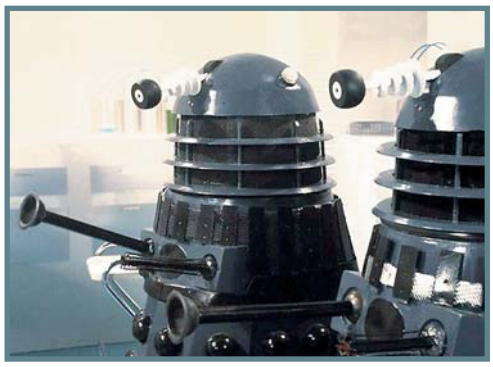
Written by Terry Nation
Produced by Graham Williams
Designed by Ken Ledsham
Directed by Ken Grieve

The Five Doctors & Resurrection of the Daleks



Doctor Who's 20th anniversary story was *The Five Doctors*, which saw the Daleks playing second fiddle to the Cybermen as the lead aliens for the Doctor to battle against. This adventure featured a brief scene with one lone Dalek on patrol in a maze-like set of corridors.

Given the number of Dalek sections held by the BBC at the time, little care or attention was made when choosing the best sections available and so the Dalek looked very battered. Painted dark grey, it sported an all new eye stalk, (with the eye disks spaced quite far apart) and all new dome lights – made from the red tail lights used on some 1950s trailers.



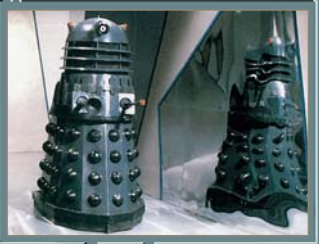
The neck cage was repainted grey and refitted to the neck bin. It was fitted into place about an inch too high, so a portion of the bin was visible under the edge of the lower ring. This neck arrangement would become the norm on the 1980s Daleks. The shoulder section featured black slats, mesh and lower collar, but the visible gap between the slats and the lower collar was painted silver. New aluminium edging was alos fitted around the fender.

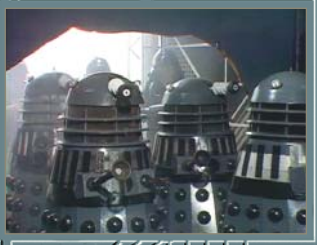
The height of the slats was shortened very slightly although the alignment and spacing of the slats around the shoulders was slightly off. Despite coming directly from the visual effects workshops, one of the slats around its middle had been snapped in two, with no repair being made before filming commenced. The dome too, was cracked and featured an inch square chunk missing along its rear edge. The Dalek returned in the following seasons story *Resurrection of the Daleks*. Its appearance was largely unchanged save for new auto lenses fitted as dome lights. The other Daleks that featured in this story were painted to the same specifications and updated accordingly – with matching dome lights and new eye stalks, with white replacing the usual blue disks.

The 'Tussauds Dalek' appeared again in this story. It was initially painted grey and black and, despite not featuring in the location footage for the story, appeared at the Shad Thames location for pre-publicity photographs with the cast.

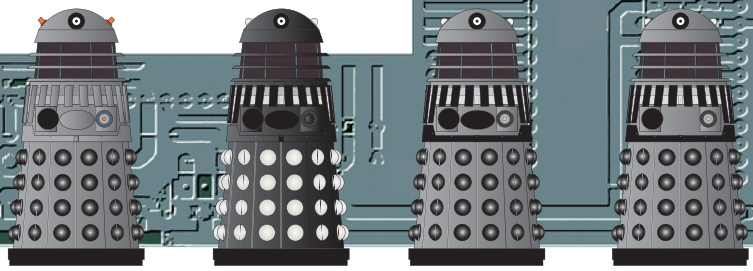
For the first block of studio recording, it remained in this colour scheme before its appearance in the final block as the Dalek Supreme (aka the Black Dalek). This time it was painted entirely gloss black and its skirt hemispheres were painted satin white. It retained its white eye stalk.

Davros also made a reappearance in this story. The original chair base was returned from the BBC exhibition in Blackpool and was refitted with a new control panel and new access ports on the skirt surfaces. An all new mask was sculpted by Stan Mitchell for actor Terry Molloy to wear in studio.

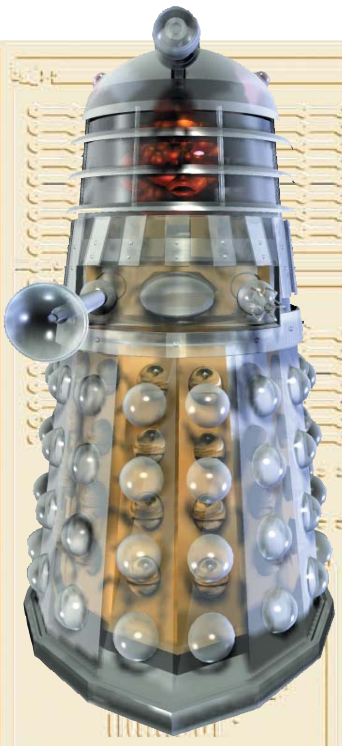


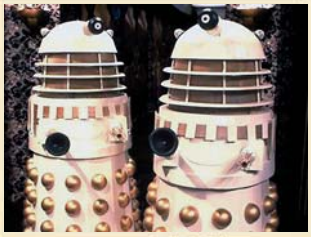


Written by Terrance Dicks & Eric Saward
Produced by John Nathan-Turner
Designed by Malcolm Thornton & John Anderson
Directed by Peter Moffatt & Matthew Robinson



Revelation of the Daleks





The story *Revelation of the Daleks* took the concept of the evil mutations from Skaro and gave them a new angle. Davros had escaped once more from peril and had secreted himself on the planet Necros, where he was taking bodies held in cryogenic suspension and modifying the DNA, mutating healthy human tissue into Daleks.

To produce these Daleks, the BBC undertook a new Dalek build. Additional props were constructed – the first major build in over a decade.

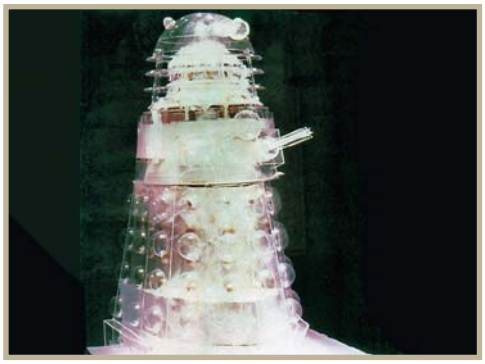
These new Daleks were fibreglass constructions. The formers that were created gave a sleeker, more angular look. The Daleks were primarily painted white with skirt hemispheres, upper collar, shoulder mesh and neck bin in a rich gold. The eye stalk configuration established in *Resurrection* was also used on these Daleks.

The slats and mesh were considerably shorter than those used in previous stories, with fewer slats around the shoulder section. Representing the Daleks from planet Skaro, the existing BBC props, as seen in the previous story were reused, with no modifications.

Davros himself appeared in two guises. Initially we see Davros, or rather, the *head* of Davros in a complex life support tank. Connected to wires and illuminated from above. Actor Terry Molloy was hidden beneath the structure on an office chair, being rotated by concealed scene hands to face his captives.

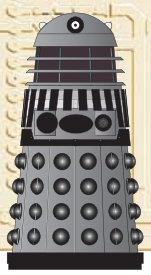
At the climax of the story, Davros is killed, or so we are lead to believe. It is revealed that this was a Davros clone, a decoy, and the real Davros is revealed – unchanged from his previous appearance save for a new set of wires around his head and his microphone now on the right side of his face where previously it was on the left.

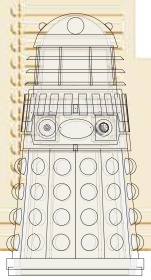
Revelation is unique in that it is the only story to feature a glass Dalek – a concept dating back to the 60s but never seen on screen. Also known as the Embryo Dalek, this 'glass' construction was created by the prop firm Denny's in west London, from clear acrylic Perspex.

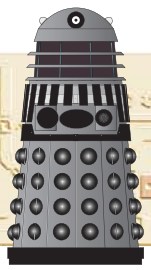


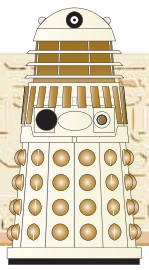
The design followed the basic pattern of the new other new daleks. However, the neck featured one neck ring too many. This wasn't overly noticeable and did not detract from the overall effect. Under the clear shell, a very basic Dalek was assembled, giving a curious 'Dalek within a Dalek' look – concealing actor Alec Linstead within.

The glass Dalek was seen at the Longleat and Blackpool Doctor Who exhibitions and various parts of the original build (including dome lights, and gun) are now in the hands of private collectors.



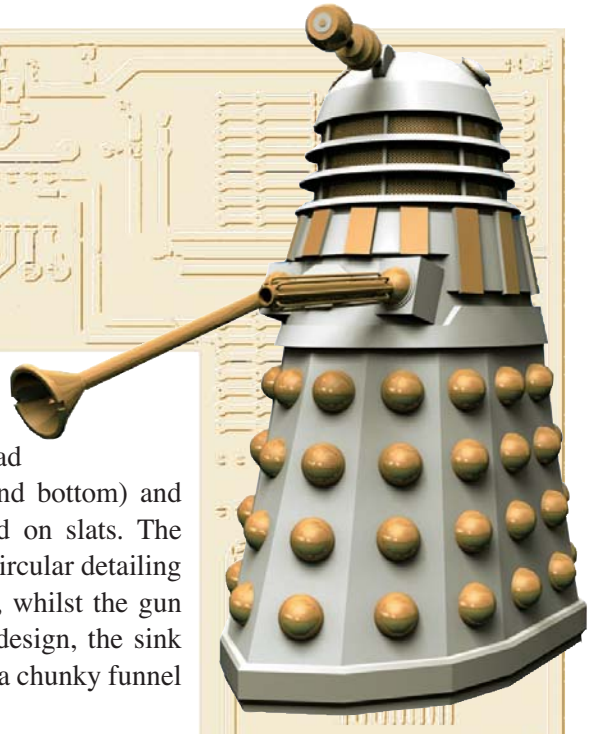






Written by Eric Saward
Produced by John Nathan-Turner
Designed by Alan Spaulding
Directed by Graeme Harper

Remembrance of the Daleks



The final appearance of the Daleks in the classic series of Doctor Who was in *Remembrance of the Daleks*. The story concerned a Dalek civil war, with two opposing factions fighting. One faction of the Daleks was lead by the Black Dalek whilst the other was lead by Davros, masquerading as the Emperor Dalek.

This Dalek story saw another build of new Daleks and the retirement of many of the original props. The white and gold Daleks from the preceding story were repainted in grey and black. These Daleks had satin and matt finishes. One of the grey Daleks featured a skirt section which dated back to the props constructed in 1973.

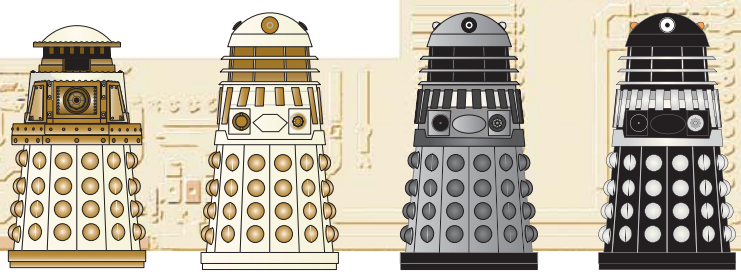
The Black Dalek was a new build that had been constructed by designer Martin Wilkie for BBC Worldwide (the commercial arm of the BBC). Similar to the builds constructed from the previous story, its gloss black paintwork sported silver hemispheres plus aluminium slats and mesh. Its lower collar was an integral moulding (part of the shoulders) and the neck rings and rods were in silver. Its domelights were again auto lenses – this time orange indicator lights.

The Imperial Daleks were all new constructions. New formers were constructed for this story featuring an almost vertical rear panel and a truncated front to the skirt. The shoulders had moulded on collars (top and bottom) and for the first time, moulded on slats. The arm boxes featured raised circular detailing around the ball joint holes, whilst the gun was similar to the classic design, the sink plunger was replaced with a chunky funnel like probe.

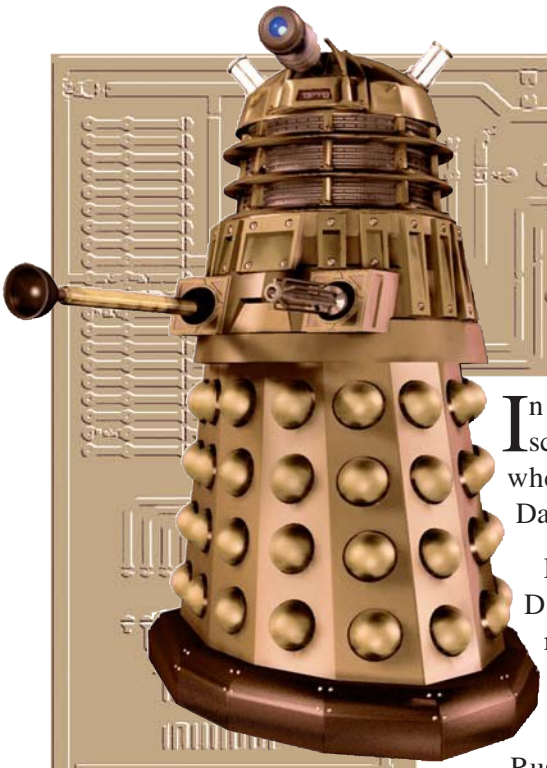
Between the arms was a moulded hexagonal panel replacing the flat oval on the regular props. New all-in-one neck sections featured moulded on rings and rods, whilst the dome featured a better defined edge to its perimeter bevel. The dome lights were larger and constructed from EMA plastic tube and Perspex. The eye stalk, like the plunger arm, was also remodelled, with moulded detail to the iris and fatter eye disks along its length. The neck bins were inset with chrome gold plastic (also used on the shoulder slats) and the eye stalk, gun, arm and hemispheres were painted in gold.

The special weapons Dalek made its one and only appearance in *Remembrance*. A newly created base section was topped off with a rotating platform featuring a heavy duty cannon for a gun. A shorter neck section and truncated dome completed the prop, which featured neither eye stalk nor domelights. The prop was dirtied down and weathered making it look mean and menacing.

Davros was seen not in his chair, but in a new style Dalek casing. The front of the spherical assembly slid back to reveal Davros contained within.



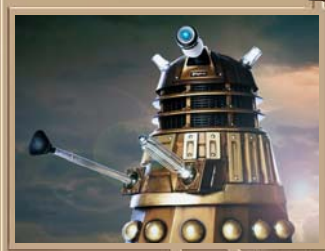
Written by Ben Aaronovitch
Produced by John Nathan-Turner
Designed by Martin Collins
Directed by Andrew Morgan



Reinvention: The New Series Daleks

In 2005 Doctor Who returned to our screens in an all new series... and where the Time Lord went, the Daleks were sure to follow.

Despite early reports that the Daleks were to be completely redesigned for the production, in many ways the props were quite faithful to the original design.

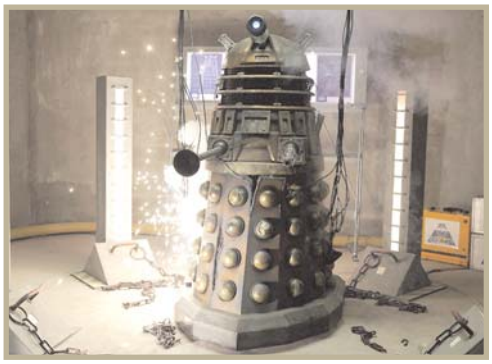


Russell T. Davies, series executive producer was keen to retain the look, so that the Dalek would be recognisable. Together with Bryan Hitch, Edward Thomas, Matthew Savage, and working closely with the effects team headed by Mike Tucker, they deconstructed the Dalek design, identified what they liked about it, and how best to recreate an icon for the 21st century.

They used some existing Dalek moulds for the basis of their newly revamped design. The Dalek dome, for example made use of a dome taken from the moulds created for *Remembrance of the Daleks*. A detailed pattern of groves was added to the surface whilst a squared off cowling was introduced around the eye stalk pivot. Under this cowling was a recessed ID panel – with each ID unique to each Dalek.

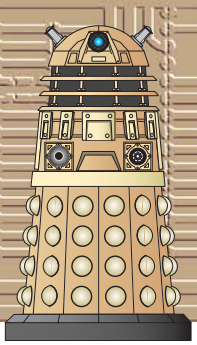
The two domelights were much larger, similar in size to the beakers of the movie Daleks in the 1960s. Spherical bulbs were fitted inside, reminiscent of the ping-pong balls used on the early props. The lenses were encased in a metallic cage, giving a heavy duty industrial look. The eye stalk disks were semi-translucent and formed from dished concave mouldings and the eyeball was elongated and featured ribbed detailing to its edge and a recessed illuminated iris.

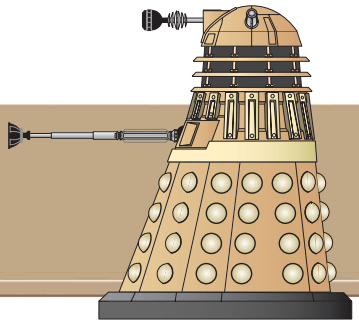
The general layout of the neck remained similar to the originals, featuring three bevelled rings and eight supporting struts. The struts were squared off and featured additional small square buttresses. The neck bin was clad in ribbed, extruded plastic floor matting.



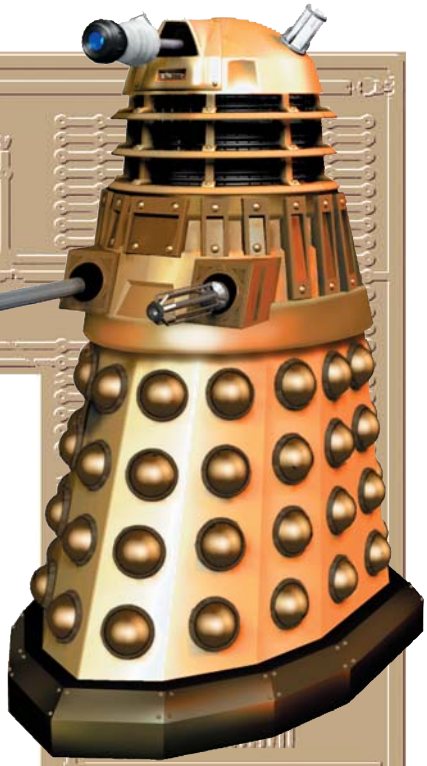
The biggest changes were on the shoulder section. Whilst the lower collar was moulded on, similar to the props created in the 80s, there was no top collar - instead a recess ran around the shoulders where the top collar would have been. The slats were beefed up and given a chunky make-over, with additional recessed detailing on each and a double width slat at the front. Recesses were also added to the sides of the two arm boxes and a patterned panel fitted to the front around each ball joint.

The arm retained the sucker, modified with extra detailing. The gun was made larger but remained pretty faithful to the original style. On screen, by CGI, the shoulder sections would rotate independently of the bases and upper sections of the props.



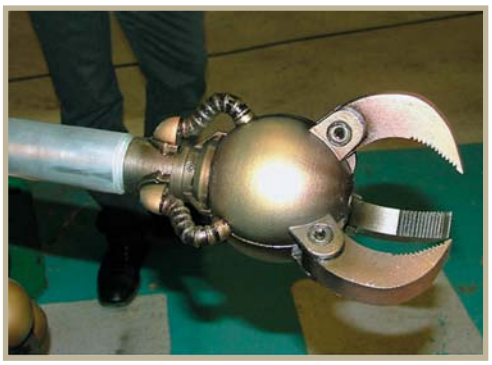


Dalek, Bad Wolf & The Parting of the Ways



The skirt section was cast from a fan built Dalek faithful in its dimensions to the earlier movie props and fitted with the usual fifty-six hemispheres. Around each hemisphere was a raised bevelled edge (created using oil seals from a truck) which added to the props solid new look.

The base of each Dalek was made larger, (inspired by the look of the movie props) but given a flattened and angled industrial look.



Rather than recreate the grey and black colours of the earlier shows, the design team considered a number of colour schemes. From the word go, Davies was keen to use shades of gold and bronze and ultimately, it was these colours which were eventually used on the props.

In episode six of the series, '*Dalek*', we see a lone Dalek initially battered and broken. In reality this look was created by adding water based paints to the prop to dirty it down. The original fan built base was altered and fitted with dented and broken hemispheres and married up with the newly constructed top half. When the Dalek regenerated, the Daleks upper half was cleaned and returned to the pristine base section for the main filming.

A breakaway top section was also constructed for the sequence where the Dalek casing opened, exposing the mutant within.

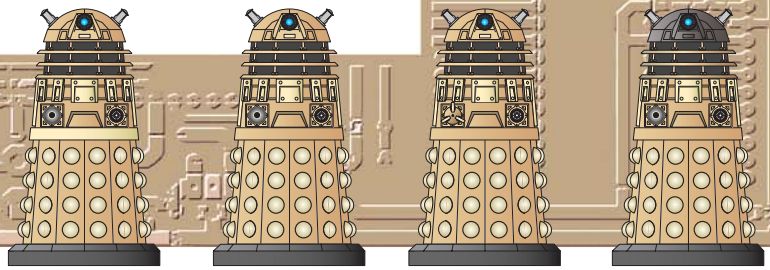
The Daleks returned in the season's final two episodes, *Bad Wolf* and *The Parting Of The Ways*. Despite there being an army of Daleks on screen, only three fully working Daleks were constructed – the rest appeared through split screen (using the same props) and by CGI.

In *The Parting of the Ways*, we briefly see two Daleks with black domes – CGI constructs, they were the acolytes of the emperor Dalek (the black domes echoing the earlier style seen in *The Evil of the Daleks* in the 1960s)

The Emperor Dalek reappeared in the season finale. Completely redesigned, it was realised as a four foot tall model by Tucker and his team (appearing on screen as a giant construction). Taking its design cues from the new style Daleks, it towered above its minions on the Dalek ship, supported on three giant legs, under which the Dalek mutant was visible, controlling all from its small glass environmental chamber.

Redesigned and revitalised, the Daleks were back to terrify a new generation. It's only a matter of time before they return to our screens once more....

Written by Robert Shearman & Russell T Davies
Produced by Russell T Davies
Designed by Edward Thomas / Bryan Hitch & Matt Savage
Directed by Joe Ahearne



Dalek Colour Guide

THE DEAD PLANET

Dome ..... Silver
Neck section ..... Silver
Shoulder section ..... Light Blue/Grey
Shoulder belts ..... Aluminium
Skirt section ..... Silver
Skirt hemispheres ..... Light Blue

THE DALEK INVASION OF EARTH

Dome ..... Silver
Neck section ..... Silver
Shoulder section ..... Light Blue/Grey
Shoulder belts ..... Aluminium
Skirt section ..... Silver
Skirt hemispheres ..... Light Blue
Radar dish ..... Gloss Grey

(The Saucer Commander)

Dome ..... Satin Black
Neck section ..... Silver
Shoulder section ..... Light Blue/Grey
Shoulder belts ..... Aluminium
Skirt section ..... Alternate Silver/Satin Black
Skirt hemispheres ..... Light Blue
Radar dish ..... Gloss Grey

The Black Dalek: as above,
with Black Shoulder Section and Skirt

DOCTOR WHO & THE DALEKS

Dome ..... Blue/Red/Black
Neck section ..... Silver/Gold
Shoulder section ..... Grey/Red/Black
Shoulder belts & slats ..... Gold
Skirt section ..... Silver/Red/Black
Skirt hemispheres ..... Blue/Black/Silver & Gold

DALEKS: INVASION EARTH 2150 AD

Dome ..... Silver/Red/Gold/Black
Neck section ..... Silver
Shoulder section ..... Grey/Red/Gold/Black
Shoulder belts & slats ..... Aluminium
Skirt section ..... Silver/Red/Gold/Black
Skirt hemispheres ..... Blue/Silver/Black/Gold

THE CHASE , MISSION TO THE UNKNOWN, THE DALEKS MASTERPLAN, EVIL OF THE DALEKS

Dome ..... Silver
(Matt Black Dome for Dalek Faction in Evil)
Neck section ..... Silver
Shoulder section ..... Primer Grey
Shoulder belts & slats ..... Aluminium
Skirt section ..... Silver
Skirt hemispheres ..... Mid Blue

FRONTIER IN SPACE, THE DAY OF THE DALEKS, PLANET OF THE DALEKS

(Gold Scheme)

Dome ..... Gold
Neck section ..... Gold
Shoulder section ..... Gold
Shoulder belts & slats ..... Gold
Skirt section ..... Gold
Skirt hemispheres ..... Gloss Black

(Grey Scheme)

Dome ..... Grey/Gunmetal
Neck section ..... Grey/Gunmetal
Shoulder section ..... Grey/Gunmetal
Shoulder belts & slats ..... Grey/Gunmetal
Skirt section ..... Grey/Gunmetal
Skirt hemispheres ..... Gloss Black

(Planet Supreme)

Dome ..... Gold
Neck section ..... Gold
Shoulder section ..... Gloss Black
Shoulder belts & slats ..... Gold
Skirt section ..... Gloss Black
Skirt hemispheres ..... Gold

DEATH TO THE DALEKS

Dome ..... Silver
Neck section ..... Silver
Shoulder section ..... Satin Black
Shoulder belts & slats ..... Silver
Skirt section ..... Silver
Skirt hemispheres ..... Gloss black

Dalek Colour Guide

GENESIS OF THE DALEKS

Dome	Grey
Neck section	Grey
Shoulder section	Grey
Shoulder belts & slats	Grey
Skirt section	Grey
Skirt hemispheres	Gloss Black

DESTINY OF THE DALEKS

Dome	Light Grey
Neck section	Light Grey
Shoulder section	Light Grey
Shoulder belts & slats	Black
Skirt section	Light Grey
Skirt hemispheres	Gloss Black

RESURRECTION OF THE DALEKS

Dome	Dark Grey
Neck section	Dark Grey
Shoulder section	Dark Grey
Shoulder belts & slats	Black
Skirt section	Dark Grey
Skirt hemispheres	Gloss Black

REVELATION OF THE DALEKS

(White Scheme)

Dome	White
Neck section	White with Gold Mesh
Shoulder section	White
Shoulder belts & slats	White
Mesh	Gold
Skirt section	White
Skirt hemispheres	Gold

Note: The Grey Daleks seen in Revelation are the same as those seen in the preceding story.

REMEMBRANCE OF THE DALEKS

(White Scheme)

Dome	Ivory
Neck section	Ivory
Shoulder section	Ivory
Shoulder belts & slats	Ivory/Gold
Skirt section	Ivory
Skirt hemispheres	Gold

(Grey Scheme)

Dome	Light Grey
Neck section	Light Grey
Shoulder section	Light Grey
Shoulder belts & slats	Satin Black
Skirt section	Light Grey
Skirt hemispheres	Satin Black

(The Black Dalek)

Dome	Gloss Black
Neck section	Silver
Shoulder section	Gloss Black
Shoulder belts & slats	Aluminium
Skirt section	Gloss Black
Skirt hemispheres	Silver

DALEK, BAD WOLF, THE PARTING OF THE WAYS

Dome	Bronze/Black
Neck section	Bronze/Gold
Shoulder section	Bronze
Shoulder belts & slats	Gold
Skirt section	Bronze
Skirt hemispheres	Gold

The exact colours used on the Dalek props has always been a subject of debate.

This list is a rough guide to the colour schemes used.
A trip to your local paint supplier is worthwhile.
Discuss paints with your fellow builders on the Project Dalek Forum...

www.forum.projectdalek.co.uk

Dalek Iris Guide

Dead Planet	D.I.O.E.	D.I.O.E.	The Chase
The Chase	Mission/Masterplan	Power	Power
Evil	Day	Planet	Planet
Planet	Death To	Death To	Genesis
Genesis	Destiny	Destiny	Five Doctors
Resurrection	Resurrection	Revelation	Revelation
Remembrance	Remembrance	2005 Series	2005 Series
1st Movie	1st Movie	2nd Movie	2nd Movie

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