The Property Manager's Guide to Battery Garage Repair and Refurbishment

How to turn old battery/system garages into new, or just repair damage caused by accidents or storms

This booklet and website lists and illustrates nearly 30 different Battery Garage Systems including coverage of the major structural problems and how to deal with them. Also the improvement of existing stock to give old garages a new lease of life without the need to demolish and rebuild from scratch. This is portrayed in some depth.

Before and after detail is shown for many of the types indexed in this book and on this website together with critical aspects such as water inflow and spalling concrete. An index of types starts at page 22.

Copies of the 40 page fully illustrated A4 booklet are available free-of-charge, and they are better than a smart phone web view as real close-ups are invaluable when looking for examples of damage or decay.

We hope that this information will prove useful in your work.

Colin Hammond, the author of this publication can be reached on 07817 692 284 for further information if needed.

Some Completed Projects - Single / Twin Units








Some Completed Projects - Multiple Units







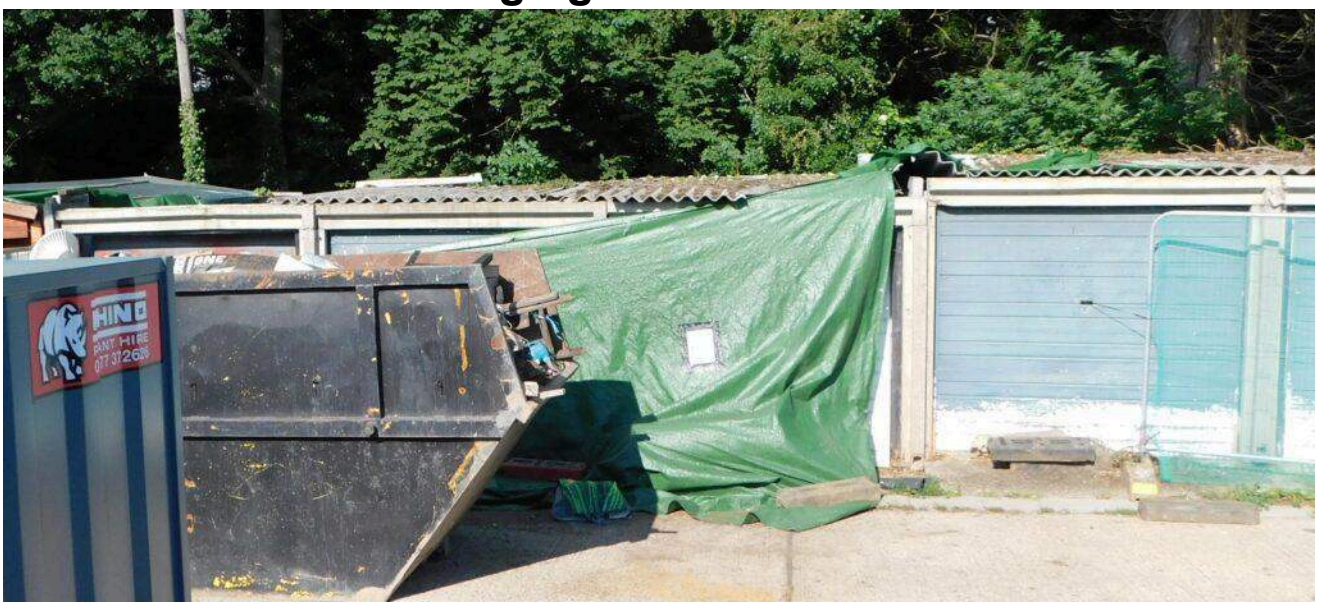

More Before & Afters








Now for a more challenging refurbishment



This block of System B Garages was partly demolished by a large tree falling in the middle of the first four garages from the left hand end. While we have several moulds for the lintels and posts, of this type, we have but small numbers of moulds for the three types of panels used in this design. Without a quantity of the these moulds it would have taken weeks/months to make enough concrete panels to complete the job. Therefore we used standard Marley-Designed panels for the sides, rear and interwalls of the reconstruction.

The above pictures show the problem. However the marriage of the two systems worked well with the final result maintain the original look and matching the other units in the block.

Another way to refurbish garages – but not our way!

This approach uses conventional brick piers and construction lintels. Firstly the existing base has to be punctured as the column of bricks is far too heavy to be set on the relatively thin concrete pad.

Then the brick pier can be erected in the new deeper foundation. This is a two-stage job that costs money and takes time. Our aluminium posts site on the existing pad. No concrete has to be cut or excavated. Then the brick pier is constructed, using about £100 of materials and a day and a half's labour (including the ground work).

Note that the pier is about 14″ wide, and the cassette door will reduce the wing mirror by at least a further 2″. That's about 8″ less width than with our System LX approach. Furthermore our aluminium posts provide 2.8 times the volume of regular downpipes so they are less likely to block up, they cannot be stolen and never need replacing. Then in this approach to refurbishment a commercial lintel finishes the front off at a factory cost of about £320 as against £87 per aluminium beam in our system. This saves thousands of pounds overall.

And now for the Specifics

All about the Concrete

There are certain concrete parts of Concrete Battery/System Garages that start to deteriorate badly after 15-20 years and if left for 35-50 years can and do pose a health risk with the advent of falling concrete. However it is almost always the front post and lintels that are the problem. The main shell of the garage is usually reusable and retaining it can save thousands of pounds for even a small block.

There is another issue here. Liability in the event of falling concrete sections injuring people. Cases of this nature have occurred and the Insurance Companies deny such claims pointing out that the building was not properly maintained. Thus the owner is liable for the Court award sometimes in six figures in cases brought by the HSE . We are advised that even if a management company looks after the garage for the owner the claim would still be against the owner, however the owner may then have a claim against the management company.

In the main the concrete panels that have not been subject to collision and/or have not been subject to spalling can be left in place for another 30-50 years. This saves removal and disposal costs which are continually rising. Retaining the existing panels is a much more “green” approach and although we loose business by suggesting that the original concrete be retained we do not want to make work that is not necessary. A site survey soon shows which concrete needs to be replaced and which doesn’t. Inside the garage the purlins may have hairline cracks and they do need to be replaced for reasons of safety.

Here are some examples of concrete lintels and posts that are disintegrating:



Block Refurbishment

Block refurbishment allows for the latest approaches to a more usable product and the use of more modern materials that eliminate maintenance and have a more attractive appearance.

More importantly the use of custom-designed aluminium profiles eliminates future service and deterioration. Bringing the whole block up to date, with all new fronts, roller shutter doors with greater wing mirror clearance is often cheaper than piecemeal replacement of the original concrete downpipe/posts and gutter/lintels. A recent costing for a site with 19 old Marley System 8F garages would have cost about £16,000.- more to renew the defective concrete and doors than replace the entire site with new roller shutter doors and aluminium fronts.

Although the original shells are kept (saving substantial removal and disposal costs) the systems are not able to be mixed in the same block. It’s change all the fronts or none. However the RSDs can be used in the original 8F fronts although the WMC is slightly less than with the entire front change but still greater than that with a cassette Hormaan Door.

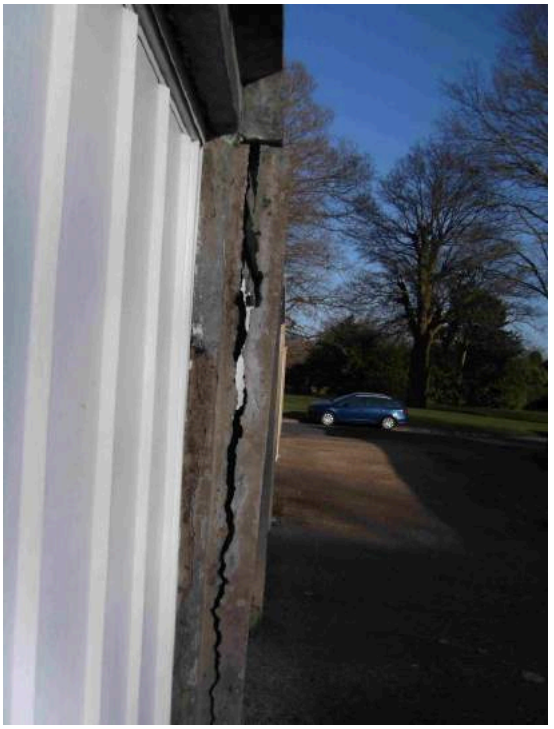
More problems with the concrete.

With some Marley models there is a problem with the upstand at the top of the post/downpipe. This extension “blade” at the top of the post breaks off and falls. It weighs about 20 lbs. This could injure anyone standing below it.

With System B and several other now obsolete types there are other problems.

An additional problem here is the post width used by Marley (and others using the same concept) to accommodate their rainwater downpipe. This measures 235mm in width and frames the door. This concrete post not only reduces the Wing Mirror Clearance (WMC) but splits or spalls as shown. This is a result of water freezing in the blocked downpipes.

With a roller shutter door the post/downpipe is the same thickness as the garage dividing wall only the roller shutter door guides protrude into the WMC thus increasing the WMC to 2294mm. Therefore the extra WMC obtained over the original Marley door is 2294-2179=115mm (nearly 5 inches) and over a Hormann door 2294-2024=270mm (over 10 inches).



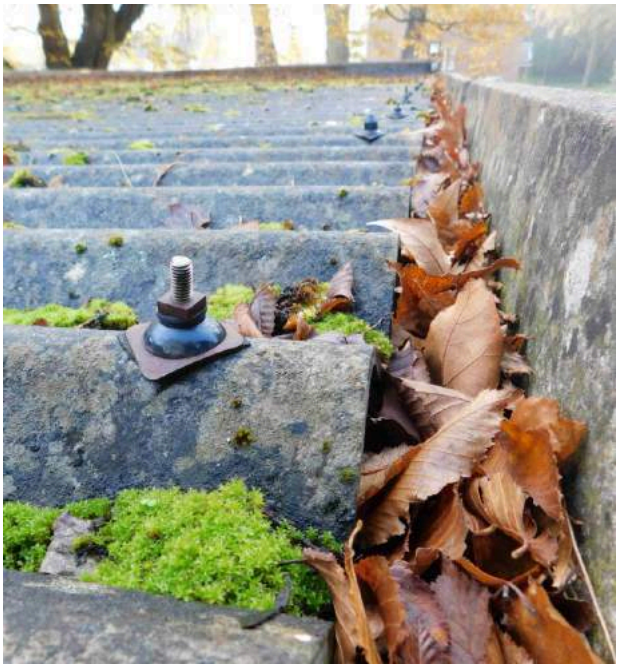
With all types – Purlin failure.

Inside the garage there are more hazards, in particular cracking purlins that support the roof. They start as hairline cracks, often resembling cobweb lines. Rub them, if they disappear they are cobwebs. If they don’t then they need to be replaced, and soon.

All about Roofs

From the first introduction of Battery/System Garages the preferred material was corrugated asbestos. When the health problems associated with this material were realised the material of choice switched to fibre cement although corrugated metal sheeting was used in some cases.

Both asbestos and fibre cement are porous and the build up of moss and other vegetation can take hold. by holding water on the roof longer then the roof material starts to break down and water seeps in. The dark part of the under roof photo shows where this is happening:



Unless the garages have been re-roofed in the last 15-20 years they will have asbestos roof sheets. These need to be removed. The cost of this work continues to rise and the number of sites that will take asbestos is diminishing hence higher prices are on the way. It is already against the law to sell a house that contains asbestos and this could include outbuildings and garages before long.

Fibre cement was the material that most people turned to when asbestos was outlawed. However both attract organic growth.

Gutters are important too and the original Marley's had accessible gutters although they proved to be a bit too narrow and needed cleaning out quite often.

With System B the problem is much the same

A competitors gutter systems, hard to clearout see garage on Page 16

All about Water and Drainage

System or battery garages have very nearly flat roofs, usually only about two degrees. They are naturals for allowing moss and vegetation to take hold as shown opposite. The original asbestos material and the replacement fibre cement sheets are a suitable growth base for such organic material and the sheets become porous, break up and leak. Plastic coated steel does not provide a surface for such vegetation to attempt to root and therefore does not become porous and remains waterproof.

Rain has to be allowed to drain away rapidly and without the obstruction of leaves and blown debris filling gutters and downpipes. Gutters often need cleaning out depending on the location, under trees for instance. The gutters in concrete lintel/gutters are small and easily block causing water to rise over the gutter-to-post joint and into the garage. This water then runs over the spring/lever mechanism of the door causing it to rust and eventually fail.

With the System X the moulded concrete lintel/gutters are replaced with powder coated aluminium extrusions which will never rot, spall, rust or crack. The concrete posts which contain the downpipes are replaced by square section aluminium extrusions which are also powder coated. The aluminium downpipe channel cross section has an area of 5250sqmm whereas the downpipe contained inside the concrete post is only 2043sqmm, or roughly two and a half times the capacity. So the aluminium post/downpipes are less likely to block and even if it did then frozen water in the downpipe will not cause the pipe to crack or split which happens with the original concrete versions.

All about Ground Level Problems

On at least one in four sites we find that since the garages were built 50-70 years ago, resurfacing of the common access area has been carried out, one or more times causing the garage floor level to become lower that the access area. Naturally water flows into the garage.

When we refurbish garages our work is in regard to the replacing of the old components, not in building up the floor level. Another trade is involved which we can organise but it may be cheaper to obtain quotes locally.

Condensation – the facts

Anti-condensation sprayed-on material is a cost effective way to minimise the problem of condensation forming on a single skin steel or uPVC sheet. A compound is applied to the underside of the roof and this allows the sheet to absorb up to 1kg of water per square metre, reducing water dripping. This material can be applied to a variety of profiles both traditional corrugated and box profile.

Why condensation forms:
Condensation forms on un-insulated metal or uPVC sheets when the temperature and humidity conditions reach the dew point, moisture condenses onto the underside of the sheet. If there is a lot of condensation, drops of water form and start to fall. The traditional method for dealing with condensation is to try to insulate the roof so that the sheet temperature never reaches the dew point. An insulated roof is more expensive than a single skin roof and is not always the most suitable choice.

How anticon works:
Anti-condensation sheets reduce dripping by absorbing water and retaining it within the anticon material. When temperatures rise the water that has been absorbed by the material will start to evaporate back into the air and the material will dry out. It is vitally important to ventilate the building when using this type of sheeting for this reason.

As mentioned above the material can only hold so much moisture and if a wet vehicle with a hot engine is parked in a garage during cold weather the temperature of the air in the garage increases and can absorb more water which will be all over and under the vehicle. As the temperature falls during the night the moisture will be deposited on the coldest surfaces which can be so intense that droplets form and fall resembling a leaking roof which is not, in fact, leaking.

All about Doors and locks

Door Functions and Security
We are all aware that today's vehicles are, in the main, wider and higher that those constructed at the time when Marley Garages first came onto the market (over sixty years ago). Of all the limitations that these older garages possess, wing mirror clearance (WMC) between the doorposts is the biggest problem for most of today's users.

At the time of their introduction and in order to provide maximum wing WMC, Marley designed and built their own doors, which went from post to post with no frame, however the operating mechanism decreased the WMC by 94mm (47mm on each side). Thus their WMC of 2273mm was reduced to 2179mm.

Part of the problem here is the post width used by Marley (and others using the same concept) to accommodate their rainwater downpipe. This measures 235mm in width and frames the door. This concrete post not only reduces the WMC (wing mirror clearance)but splits or spalls with time. This is as a result of water freezing in the blocked downpipes (more later). With a roller shutter door the post/downpipe is the same thickness as the garage dividing wall only the roller shutter door guides protrude into the WMC thus increasing the WMC to 2294mm. Therefore the extra WMC obtained over the original Marley door is 2294-2179=115mm (nearly 5 inches) and over a Hormann door 2294-2024=270mm (over 10 inches).

Recently the German door manufacturer, Hormann, have taken over the market, even to the point of buying out the last remaining UK manufacturer, Garador, so that low cost up and over doors no longer exist. Furthermore in order to sell a replacement product that is easier to ship, Hormann place a frame around their door and have labelled that format a “cassette door”. Whilst this is a practical solution that helps keep the door in good shape during transportation and fitting, it does mean that the WMC is substantially reduced. The apparent door width of 2108mm is further reduced by the operating mechanism to 2024 mm(42mm on each side).

Locking Systems

With our roller shutter door we offer two locking systems. Either or both can be fitted. One is the simple hasp and clip padlocking the base rail to ground which can be employed singly, or in pairs, the other is a plunger that engages with one of the solid slats in the door at mid-height so that locking and unlocking is possible without bending down. Cutting these side locks with an angle grinder is not so easy and very noisy. Even cutting the slats doesn’t work as the linkage continues in the guides which would require a 7′ long vertical cut to remove (difficult).

With our roller shutter door there is no mechanism. The spring and other parts are contained within the roll of slats. And, as an added benefit, there are no levers and springs exposed which could be a safety hazard. Plus all of the interior space is available for storage and shelving.

Doors – Up and Over

The Problems

Once one of these doors suffers impact they distort and as they cannot be straightened. Then they jam and/or no longer lock properly. Also with time the lever/spring arrangements jam and the doors stick and require significant force (often beyond that of seniors) to operate.

Doors – Roller Shutter

The Benefits

If the fronts of our new System LX Garage looks like its nearly all door, well it is! This is due to the use of customised roller shutter doors to make entry easier over conventional up-and-over doors. In real terms the side-to-side clearance increases by as much as 13 inches and the pass under clearance increases by up to 8 inches over that provided by current system (battery) garages. This is a valuable benefit as today many new vehicles are higher and wider.

Then on the bottom edge of the base rail we have chosen a foam rubber seal as used in industrial applications to keep ground water out, and, as this is a standard industrial product it will be available for years to come, unlike purpose-made seals that cannot be found some years later. This seal is just visible under the base slat of the door. By comparison, up-and-over doors have a knife-edge “wiper-blade” seal that does not follow the minor bumps in the floor concrete.

Then there is the matter of opening and closing the door. To this end our roller shutter door has a handrail slat that can be seen in the photographs at just about waist level. This slat enables the door to be opened and closed without bending down or reaching too high. It was positioned by an MS sufferer.

The doorslats and frame are made from powder-coated aluminium extrusions so they can never rust. The single coil spring that counterbalances the door can be adjusted but from new the door requires very little effort to raise and lower. Ideal for older folk!

One final and huge benefit relates to damage rectification. One sees dented and damaged up-and-over doors all too often. These doors cannot be straightened and have to be replaced or they jam or can no longer be locked. Our roller shutter doors require only new slats to be slid into place at a cost of a few pounds each, as opposed to around £900 for an up-and-over door with fitting!

Storage

System Garages are often used for general storage and not for vehicle garaging. To provide more options for community storage Leofric have developed a new range. MiniStores as shown below. Call 01386 430 121 for further details or check on this site under Our New Models – MiniStores. Those shown below were built for Oxford City Council.

More about Safety, Liability and Security

There are certain signs related to the deterioration of Battery/System Garages that should not be ignored. Here are the most common that occur with the Marley Range and a type from an unknown manufacturer that we refer to as “System B”:

Breakup of the front fascia/lintel/gutter.

With the two main brands the type of failure is different. The Marley fascia/lintel/gutter has an intricate wire frame and seldom collapses along its length, instead chunks fall off either above or below the centre line, sometimes both.

With System B the poorer reinforcement design of the fascia/lintel/gutter causes this component to collapse along its length. This is seriously hazardous; in the picture shown it has sunk onto the door which cannot be opened, however when the door is forced open the entire concrete section will fall to the ground.

So the ideal System or Battery Garage would ave non-corroding lintels, non-corroding downpipe posts to carry the rainwater away, a component to stop under panel water ingression and inexpensive, current guttering to add a modern look at very low cost. Our new System LX meets all of these criteria.

Your Liability

With any of the failures listed above, injury can occur. Currently the owner would be liable and we are informed that this would not be regarded as an insurance loss or claim. Thus a personal injury claim would be payable by the property owner. Where the building is under management the property owner should take legal advice on whether the management company has any claim exposure. Claims for personal injury usually run into six figures. Insurance companies take the view that they do not cover unmaintained buildings and will deny any claim either for repair or for personal injury.

More about Liability

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Security

As manufactured, up and over doors rely on rods actuated by a handle to enter sockets in the frame. This sounds secure enough but in reality it offers a low level of security. We have the video of a break-in that took less than 80 seconds to can open the skin of the door, move the operating rods and gain entry to the building. A bar at the base of the door would have stopped this, but such a bar can be cut off with an angle grinder.

All about Space

Maximising the use of land area is in the interests of everyone, and with many garages used as storage units the possibility arises to fill-in with our MiniStor's where space does not permit an extra garage. Note how Colchester Borough Homes used an area, not big enough for garages to erect our MiniStor's and gain extra revenue.

Some renewals have taken the form of a major width change from 8′ to 9′. This is useful for the occupier but loses rental units.A sloping site requires drive-in ramps to be installed, as shown here. And at the end of the same block a MiniStor could have been added for not much money, probably recoverable with just three years' revenues.

Covered gutters get blocked surfaces

After a rebuild - Wasted space

Note the aluminium joining post in the centre of the rear wall. In this garage this post has increased the width by 76mm (3″) which means 3″ of extra wing mirror clearance when driving in. Also on the outside of the building the post has sockets to support solar panel arrays or lighting or security cameras, even flower baskets! These posts can be inserted into the walls at any point giving a multitude of options.

All about Maintenance Problems

The fascia gutter cover on the right (not ours) needs to be removed for gutter cleaning. This envolves removing and replacing 30-40 self tapping screws, which after a few removals will have opened up their hole so that they no longer hold and larger screws will be needed. With our gutters you just blow or brush them out. See the roof view on page 10.

Yes, this is the front of the garage. In our System 8FX we use accessible square flow uPVC guttering that is easily cleaned by anyone with a short ladder and no tools.

All about Collision Damage

Look at any group of up-and-over doors and you will see evidence of collision damage. with a minor “bump” the door may remain usable but any distortion of the door panel will cause it to become unlockable and often to jam.

These doors are virtually unrepairable and have to be replaced. Today that cost with labour is in the region of £700 to £900 depending on the location and the model.

With a roller shutter door (RSD) only the damaged slats need changing and these cost about £12 each at current prices. With labour changing 3-4 slats should cost no more than £100-£130, and can be carried out by the owners/property managers maintenance staff where available.

After dented doors concrete posts are the next casualty. Shown here is the effect of a sideways hit on an interpost. The interpost has moved to the left. The dividing wall has been buckled and the end wall and post also moved to the left. This is clear from the exposed break in the line of the floor filet. If an end post is hit it normally cracks in one or more places.

All about Costs

There are two kinds of expense related to battery/system garages – one off repairs and block refurbishment and the approach is different.

One-off Repairs

This is required where there has been some kind of impact. A vehicle hits the garage or a tree falls on the roof for instance. Occasionally a garage within a block may have deteriorated to the extent that chunks of concrete are falling from a lintel that is breaking up. In this case it is better to look at the block as a whole for there will be other garages in the block in a similar state and total refurbishment of the block will prove to be much more cost effective. Apart from the Marley and Leofric Ranges of garages we have moulds for other brands long since defunct and can usually provide a viable solution. However these replacement parts contain hand-made wire reinforcement elements and require careful handling to ensure no cracking in the hardening stage, and even with great care taken the yield is not high and the costs reflect that. Evidence of the difference in the reinforcement between Marley and other brands can be seen in how they disintegrate. Marley units spall (concrete comes away from the rebar) System B from a manufacturer long since gone, breaking up along the lintel. Note in the photograph how the concrete has collapsed onto the door which is now the only thing holding it up!

All about Asbestos

Before we can undertake any roof work on existing garages we are required to see a Laboratory Test Result. If you do not have such a report listing the work site location, we can get a test carried out for you from a sample that we will collect. There are many myths abounding as to what is “safe” and what is not. The most common form of asbestos in roofing material is Chrysotile, often referred to as “white asbestos”. While this material is not as hazardous as “blue” or “brown” asbestos, it is still highly carcinogenic and requires legally enforced controls to be observed in connection with its removal and disposal. For more information on this subject go to the following web documents:

A0 – HSE documentation on Advice on non-licensed work with asbestos
Em1 – HSE documentation on What to do if you uncover or damage materials that may contain asbestos
Fact Sheet – IOSH on RESPIRABLE CRYSTALLINE SILICA: THE FACTS
Frequently Asked Questions – HSE – All Asbestos related questions answered or with additional leaflets to download to provide more information.
L143 – Managing and working with asbestos
Trade Names of ACMs – all possible names from a brand point of view and the type of asbestos and % contained within.

However the fastest way to update yourself on this subject is by visiting the UK Government website on this subject at:
https://www.hse.gov.uk/asbestos/dangerous.htm

Leofric Building Systems Ltd have on their staff Licenced Operatives to remove and bag asbestos and have a Hazardous Waste Transportation Licence to facilitate its removal to an accredited waste centre.

System LX Battery Garage Detail

For over 60 years the construction of Battery Garages that feature built-in gutters and down pipes have continued to be constructed in the same pattern. Repair experience has shown us that a better arrangement was needed hence we have designed and released System LX.

System LX out features and will outlast any other battery garage system available today. Here you can read how and why:

System LX retains the original interlocking concrete panels (these have held up flawlessly) but System LX incorporates a new front lintel, new front posts, integrated roller shutter guides, a new roller shutter door and triangular extruded purlins, all in extruded aluminium, which is then powder-coated giving a maintenance free finish.

The front post which doubles up as the down post with 2.8 times the capacity of the current pipes that are encased in concrete. Virtually no chance of a blockage.

The roller shutter door guides slide into the front post. This gives an integrated lintel support section equal to an “I” Beam measuring 200mm by 150mm and 5mm thick. Which is massive.

The “Z” shaped alumnium lintel which supports the roof sheets is fixed to the post/guides combo.

Square-Flow open guttering drops into the open top of the posts and is fixed at the back to the lintel.

How about cleaning? See overleaf:

Here are the images of what we have described

The aluminium downpipe/post will not block easily, unlike the interpost pipes of earlier models. In fact the new post/pipe has about three times the capacity of the original Marley design or the System "B" Type .Debris drops out of the pipe and is easily brushed away.

Leofric's Unique Base Plate + Bitumen

Our new aluminium base plate has an internal upstand which prevents water going under the panel and into the garage. A double-sided bitumen tape under the base plate resists water going under the plate but the efficacy of the tape seal depends on the flatness of the concrete base.

Cement filets crack-up. This is no laughing matter. Often in the past a cement filet was laid along the inside of the exterior walls. It only takes one severe frost to break the filet away from the panel base and the floor and in comes the water.

Or, if you wish to give your existing concrete shells an up-to-date look then this

or this

can become

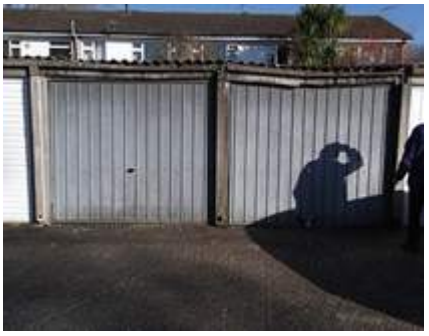
this

with new, maintenance-free fronts, and roller shutter doors, but retaining all the existing concrete shell structure thereby extending the life of your garage block for another 40-50 years.

Now follows the Listing of the Existing Systems with Details of the options available

System B

Very popular design. Often seen in the Midlands and the South. Manufacturer went out of business probably 50 years ago. All parts have been re-moulded by Leofric and are available. Can be converted to System X fronts and Roller Shutter Doors. For more information see Page 27.



System C

Similar to Marley and Leofric Models in that they feature 16" wide wall panels that are 7' high. Not tongued and grooved like Marley. Manufacturer went out of business about 10 years ago. Can be converted to System X fronts and Roller Shutter Doors. Few examples around.

System E

Unknown manufacturer. Posts are embedded in the base. Walls are Post and panel construction. No parts available. Best demolished. No Further information.

System K-8F

This is a Post and Panel Garage with concrete fascia/gutter/lintels and downpipes. No parts available but easily converts to System X fronts

System L

Early Leofric Model - all parts available. Can be converted to System X fronts and Roller Shutter Doors. For more information see Page 28.

System M-8G

Early Marley Model. All parts available. Can be converted to System X fronts and Roller Shutter Doors. For more information see Page 29.

System M8/9R

Very early Marley Garage - extra wide rear-sloping design using Marley A63 panels. Can be converted to System X fronts and Roller Shutter Doors.

System M-H

This garage style used Marley's Top-of-the-line Heritage Range in a Battery format. All parts are available. For more information see Page 30.

System M-Q

Another early Marley design. Can be converted to System X fronts and Roller Shutter Doors. For more information see Page 31.

System M-E8/9 F/R

Marley Economy Range. Available with 8' or 9' interior widths. All parts available. Can be converted to System X fronts and Roller Shutter Doors. For more information see Page 30.

System M8/9F

Current Marley design. All parts available and can be converted to System X fronts and Roller Shutter Doors. For more information see Page 32.

System M8/9R

Current Marley design. All parts available and can be converted to System X fronts and Roller Shutter Doors.

System FMTF

Unknown manufacturer. Probably best demolished. For more information see Page 32.

System FMTR

For more information see Page 33.

System P

For more information see Page 34.

System TAR

Manufacturer long gone. If significant quantities of parts are required then moulds can be made. For more information see Page 35.

System TPP

Manufacturer long gone. If significant quantities of parts are required then moulds can be made. For more information see Page 36.

System V

Probably Cotswold. Long gone, no parts available. Walls are large Four foot square panels. No parts available. For more information see Page 36.

System WMR

Obsolete design. No parts available. For more information see Page 37.

System WPF

Obsolete design. No parts available. For more information see Page 37.

System WNR

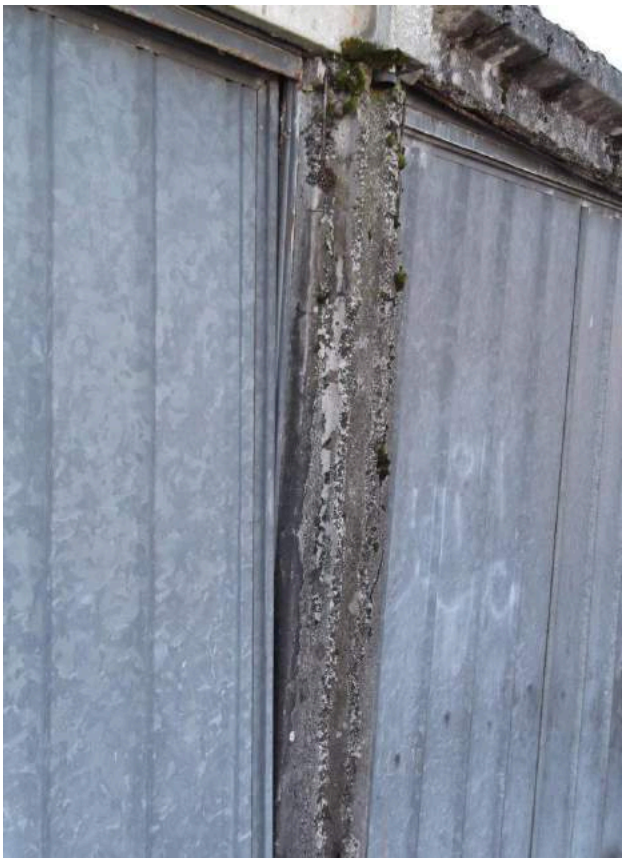
Obsolete design. No parts available. For more information see Page 38.

System YPP

Obsolete design. No parts available. For more information see Page 38.

System B Battery Garage Detail

System B battery garage form the garage stock of many local authorities and as the original manufacturer went out of business 30-40 years ago we have manufactured moulds for all 12 concrete components. Common problems are lintels failing, posts disintegrating, and door mechanism mounting panels cracking.



In the photo to the left the front of the post has fallen away exposing half of the downpipe and in the photo above the lintel has fractured. Probably still in place by collapsing onto the door and the door frame.

These designs can be refurbished with System LX components, usually for considerably less than replacing the concrete parts and our new powder-coated aluminium extrusions will last indefinitely. Even without the change to System LX the up and over doors on System B battery garage units can be fitted with our roller shutter doors, as in the photo below.

Doors Before

Doors replaced with Roller Shutter Doors

In the event of a door collision our roller shutter doors are far easier and cheaper to repair with damaged slats costing only a few pounds each in replacement costs, versus about £900.- or more for a new up and over door with fitting.

System L Battery Garage Detail

System L battery garage (for Leofric) started life as a Banbury Garage. When Banbury split into Compton and Leofric, Compton dropped Battery Garages but Leofric continued with the product. That is why we can still supply parts, fifty or so years later. The main difference between System L and System E is that the System L is built from the rear corners forward whereas System E relies on posts sunk into the concrete base and then built backwards.

System L battery garage is simple. However the original lintel and front gutter design used a metal section, largely hand made. Today we would replace the fronts with System X components.

Before

After

However in some cases re-manufacturing the metal box is more desirable as it matches adjoining garages as shown below.

Before

After

System M-8G Battery Garage Detail

The System M-8G battery garage was an early Marley product and can be identified by a number of characteristics but the two instantly recognisable ones are the construction using 16″ panels combined with the unstoned, rounded-off edges of the panels.

These garages have lintel/fascias that in many cases have completely broken down (having been constructed over 50 years ago).

In the photo below we can see that the entire fascia has become crumbled aggregate.

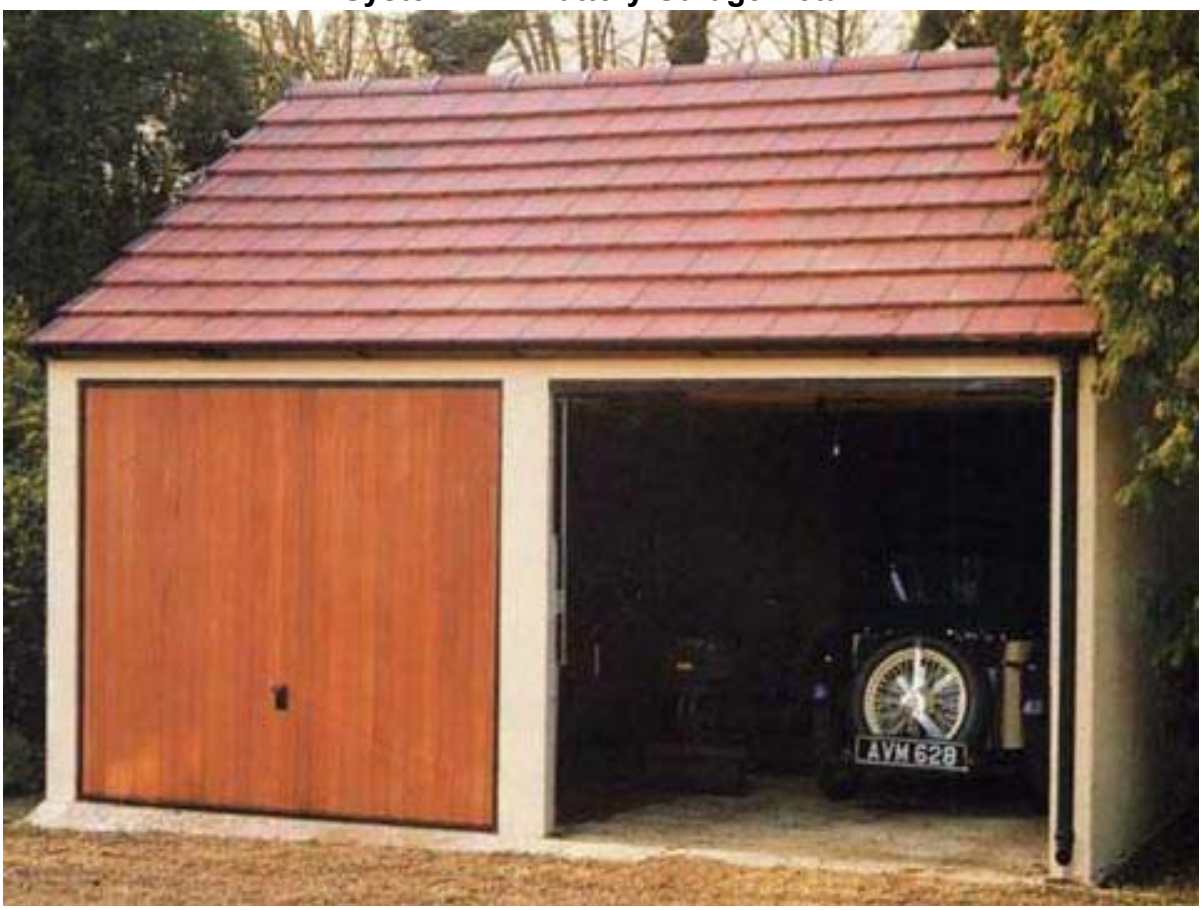
The shell of the garage is usually sound unless it has suffered from a collision and even this garage can be given a new lease of life by conversion to the System LX format.

Recently the lady using this System M-8G garage shut the door (perhaps too vigorously) whereupon the lintel on her garage, similar to the one on the right, crashed to the ground just missing her. Obviously this is dangerous to the person shutting the door or to children using the garage front for soccer practice or similar activity.

System M-E8/9 F/R Battery Garage Detail

These System ME8/9 battery garages are current Marley-designed Leofric built Models and seldom need refurbishment for deterioration but often require repair following vehicle collisions and falling trees or base disruption due to adjacent tree growth. All parts are available, however System LX components will fit to these units to extend building life and enhance apprearance.

System M-H Battery Garage Detail



This System MH Battery Garage is based on the Marley (now Mayfair Garages) Heritage Model. It has an apex roof which sets it alone in the battery or system garage ranges. The model shown has a smooth panel finish whereas most have a dark, chipped stone surface as shown in the example needing repair! See page 8. All parts are available.

System M-Q Battery Garage Detail

This System MQ battery garage is a very early Marley design known as The Marley Master. The System MQ battery garage panels are 16″ wide and 6′ high, they are tongued and grooved and sit on a 6″ plinth.This particular example has been completely re-faced so only the end and rear walls give any indication of the type.

Note the posts located between the first and last three panels which are themselves slightly flared out towards the base. This type of construction is unique. Also note the wedge shaped concrete mounted on the side panels to give the roof drainage pitch.

System M8F/R Battery Garage Detail

These system M8F/R battery garages are still in our current range. Most are in good condition but they do suffer from collision damage from time to time. All parts are available.

This is how the M-8F looked after a repair. The Type indicates the slope of the roof, F slopes and drains to the front. The R slopes backwards and drains to the rear. The 8 or 9 indicates the internal width of the garage. All System M8F/R Garages can be converted into System X format.

System FMTF Battery Garage Detail

This System MTF Battery Garage type is based on an early Marley Panel Garage and could be refurbished with System LX components on the fronts, aluminium posts and downpipes with uPVC gutters and fitted with Roller Shutter Doors. This concrete garage is similar to the MQ but has more exaggerated flared side/end posts.

System FMTR Battery Garage Detail

This System FMTR Battery Garage type is based on an early Marley Panel Garage and could be refurbished with System X components on the fronts with aluminium posts and fitted with Roller Shutter Doors. To the rear we would fit uPVC gutters and downpipes.This concrete garage has the flared side posts but not the tapered wedges that create the roof slope of the MQ.

System P Battery Garage Detail

These garages can be identified by the “V” shaped moulding in the middle of the front fascia. Also this is one of the few Battery Garage Systems that is constructed with posts and panels similar to the System L. System L panels would probably fit although the appearance would differ slightly. No fascia moulds exist for this type. System X parts can be employed across the fronts. The brand is unknown at the present time but they have been observed from Dover to Plymouth.

System TAR Battery Garage Detail

This System TAR Battery Garage panel garage has a few identifying features. Note the square insert of the fascia notched into the post/downpipe.

Also the height of the side panels at 94″, higher than Marley although still a 16″ panel against the 24″ panel of System “B”.

Note also the gap between panels which shows evidence of a tongue and grooved joint although not as pronounced as a Marley joint. Can be upgraded to System X.

System TPP Battery Garage Detail

This is a rare post and panel type that would be hard to convert to a System X frontal format.

System V Battery Garage Detail

This System V battery garage is a post and panel arrangement with large panels especially in the rear wall. Posts, lintels, inner and rear panels usually show evidence of cracking and when the lintels crack they fall down onto the door frames rendering the garage unusable.

System WMR Battery Garage Detail

This brick-built system WMR battery garage shell and solid concrete garage lintel design can be fitted with our new roller shutter doors and the concrete fascia cladded with soffit uPVC to give the garages a modern look extending their life for another 30-40 years.

System WPF Battery Garage Detail

This system WPF Battery Garage is an unusual design incorporating a roughcast rendered “buttress” shape between garages. Roller shutter doors can be fitted to modernise the look and provided much cheaper repair costs in the event that doors are damaged by collision.

Here the “shell” is constructed with post and panel concrete sections which can often be retained for an extended useful life.

System WNR Battery Garage Detail

These rear-sloping roof garages are of post and panel construction with end and interposts sunk into the base. As the concrete lintels are often cracked we recommend replacing the lintels with powder-coated aluminium sections covered with uPVC soffit material and fitting the units with roller shutter doors.

System YPP Battery Garage Detail

This is a Post and Panel System YPP battery garage that is not common and we have only seen it in one location. Although similar to System L the joints of the two systems are not compatible, neither can the new aluminium posts that can replace System L corner and interposts be used with this System. These garages have had their life and need to be replaced.

F.A.Q.

Read the following battery garage FAQ's to find out many answers.

Why do I need a site visit?

Experience has shown us that many people will see the external manifestations of failing concrete but are often unaware of where further deterioration can exist. Many times we are asked to “just repair the roof” and we find on examination that the old purlins are cracked and are about to fail. And, of course, identifying asbestos has to be done and removed before we can proceed. More details concerning the presence and removal of asbestos (usually in the form of Chrysotile) can be found under the “All About” menu heading. This is very important reading.

Our charge cost about 50% of our real cost and is imposed to limit the number of requests for such inspections to those who seriously intend to have work carried out.

What does an insurance claim cover?

Generally insurance companies will pay for damage caused by materials (like trees) falling onto the building or as a result of something hitting it (like a vehicle). What they will not pay for is deterioration, corrosion (like rust or rot) or disintegration like cracking or spalling concrete. And more importantly, if personal injury results from any such deterioration they will deny any liability. Therefore if the flashing around a roof has bent slightly and has rust patches insurers will want it straightened not replaced.

Deposit Payment

When a job has been quoted Leofric will await the payment of the deposit before the work is put into our work programme. No materials will be ordered and therefore if any item that is on an extended lead time (such as special colour doors} can delay fulfillment considerably.

Further Payments

These depend on several factors including the length and extent of the work and our prior relationship with the client where applicable.

Site and building clearance

Buildings have to be empty. Leofric specifically takes no responsibility for any items left in the building in any regard including damage or theft.

Charges for denial of access

Where we or our sub-contractors are unable to carry out their work for whatever reason such as lack of access but excluding weather conditions, then a charge will be made in line with the loss suffered.

Legal Position

Few garage owners realise that they are liable if part of their (deteriorating) garage falls onto a person.

Page numbers and content

For more information

Call us on 01386 430 121