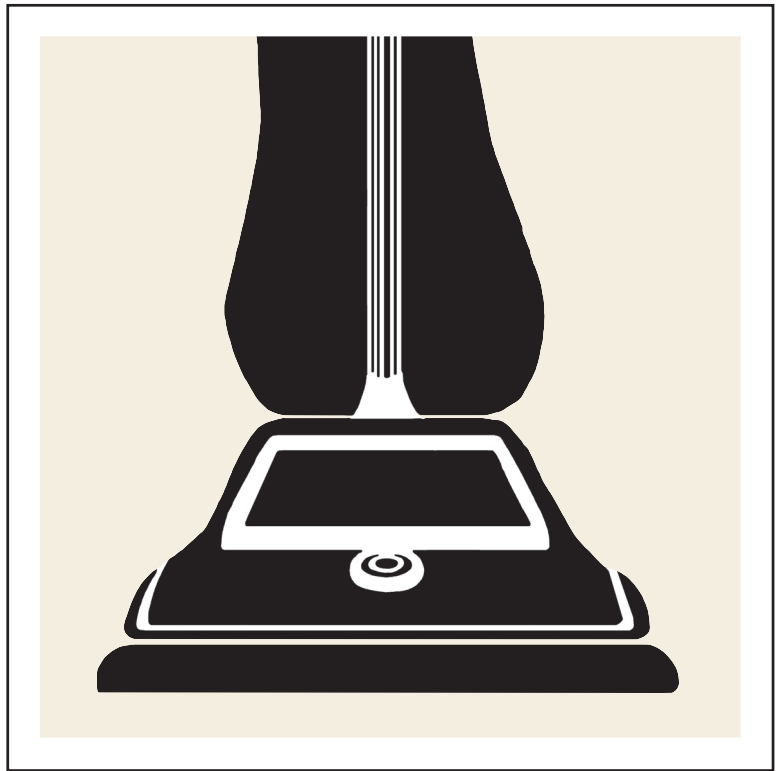


J&J / INVISION

divisions of J&J Industries



Carpet Maintenance Handbook

Maintenance

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For comprehensive warranty coverage, J&J Industries, Inc., J&J Commercial, and Invision Carpet Systems, require total compliance with all information contained within this publication.

Introduction

Every building must have clean, healthy carpet every day of the year. This can be accomplished by the selection of the maintenance system that best meets the facility's needs. The next step is to program the system so as to provide great looking carpet every day and at the same time protect the carpet investment by extending the beauty and life of the carpet.

The best place to start with carpet maintenance to reduce time and costs is to keep as much soil as possible out of the building. Placement of walk-off mats outside at heavily used entrances will collect soil from the shoes before it's tracked inside. These mats are especially helpful during rainy weather. It's a good idea to have outside matting, foyer matting, and inside matting. The mats can be cleaned quickly by flushing with a hose or vacuuming. The mats should be of a construction that will effectively clean and hold soil from shoe soles before it is tracked into the interior carpet surfaces.

Consideration should also be given to the carpeting of elevators, even if the entrance lobby is not carpeted. It is certainly wiser to have soil wiped off in the elevator rather than having it tracked over the carpet elsewhere.

Watch for areas inside the building that could become trouble spots. Areas in front of vending and soft drink machines should be checked for spills more frequently. Areas in front of doors leading from concrete surfaces should be vacuumed more frequently to remove concrete dust that will be tracked in. Care should be taken when mopping or refinishing hard surface floors that butt-up to carpet in order not to contaminate the carpet edge. Walk-off mats should be considered for use in these potential trouble spots.

Because carpet is the only textile product which must withstand people walking on it continually, it is extremely important that a maintenance plan be in place for every carpet installation. Although consumers would never think about buying an automobile and not taking care of it (clean-up, routine maintenance, and repairs), it's a common belief that all that has to be done to carpet is to vacuum it. Nothing could be further from the truth.

Sanitation experts estimate that it costs \$600.00 a pound to remove dirt from the inside of a building. For this reason, special attention needs to be given to the factors making up a good carpet maintenance plan.

There seems to be a great deal of confusion about what is required to maintain carpet. Let's compare carpet maintenance to maintenance of hard surface materials. End-users are fully aware that hard surface must be stripped and polished at recommended intervals. They also understand that after this stripping, polishing, and sealing, people are kept off the surface for a specified amount of time. Carpet deserves the same respect.

Carpet must be vacuumed routinely and extracted at regular intervals. It must be allowed to dry completely before people walk on it. Additionally the mill applied fluorchemical protection must be maintained, and should be tested following each extraction to determine if reapplication is necessary to maintain the effectiveness of the soil resistance, this treatment must be allowed to "cure" before new soil is tracked into the area.

There are three key maintenance areas to be considered: preventative maintenance, interim maintenance, and restorative maintenance. J&J Commercial and Invision Carpet Systems are pleased to provide you with this Carpet Maintenance Handbook to assist you in developing your maintenance program so that your carpets will perform to your expectations.

Carpet Selection

The appearance of carpet depends upon several factors - color, pattern, density, fiber, and a viable carpet maintenance program.

COLOR

Color selection is very important. Lighter colored carpet shows soil more readily and requires more attention to maintain a high level of appearance. In locations where the soil color is dark, darker colors of carpet tend to help mask tracked-in soil. In areas where soil is red in color, a redder hue of carpet will show less soil. However, light colored carpet can be used near shore and beach areas where sand is prevalent. Darker colored carpet in this case will show sand-colored footprints. Carpeting for restaurants should be in a bold pattern or pronounced tweed. Whatever the case, the carpet will look better and require less attention if the carpet color and soil color are compatible.

DENSITY

Density is important in determining how well the carpet will perform and maintain its appearance. If the carpet is made with a loose, lightweight construction, soil can penetrate around the face fibers and down to the backing. The abrasive action of the soil can cut through the fibers, and the soil particles at the base become difficult to remove. A correctly constructed carpet for commercial use is made with the face fibers packed in tightly. Most of the tracked-in soil stays on the surface of a densely constructed carpet where it can be vacuumed away easily.

PATTERN

Carpet with a sculptured pattern will require more frequent maintenance in order for the carpet to retain its sculptured appearance. This should be considered at the time the carpet is selected because more frequent vacuuming and pile lifting will be required in order to maintain the pattern definition of the carpet.

FIBER

The type of fiber in the carpet should be considered, whether it's a man-made fiber, or a natural fiber like wool. More than 90% of all carpet produced today is manufactured with man-made fibers. Man-made fibers and wools require different types of detergents. Be sure of the fiber content of the carpet before you start any cleaning procedures.

The following procedures for effective carpet maintenance have been developed from practical experience and have proven successful when used in conjunction with carpet of appropriate fiber, construction, and color.

POINTS TO CONSIDER

The appropriate selection of carpet color and construction in addition to the professionalism to establish a proper maintenance program and the discipline to carry it through will create satisfied carpet users. The suggestions and procedures contained in this handbook are the result of extensive research and practical experience. The use of all cleaning chemicals must be in accordance with proper safety practices, rules, and regulations.

The suitability of the products, chemicals, equipment, methods, and procedures for an intended use shall be the responsibility of the user. We know that this information will be genuinely helpful, but we cannot accept responsibility for damage if injury should occur.

Please refer to page 15 for information concerning optical brighteners in carpet cleaning chemicals.

ENVIRONMENTAL STATEMENT

Each component of the carpet maintenance system, vacuuming, spotting, and cleaning, must have a positive impact on the indoor air quality; a negative impact is not acceptable. The carpet maintenance procedure selected for any building should be that system which will not adversely impact the interior environment. The products and systems utilized in carpet maintenance must have very low total volatile organic emissions, which will dissipate rapidly. All equipment must be safe in operation.

Programmed Maintenance

The system must be capable of safely removing the foreign contaminants which are brought against the carpet in normal service conditions. This includes tracked-in soil, indoor allergens, airborne dust, solids, liquids, or gasses that have contaminated carpet. The carpet maintenance systems and products selected must not distort or damage the carpet face fibers, dyes, texture appearance, or backing system.

Programmed maintenance is the key to extending the life expectancy of carpet. In fact, the maintenance program is no less important than the initial carpet specification itself.

It used to be that carpet was allowed to soil heavily, almost to the point of no return, before something was done. Research and field testing have revealed that this antiquated approach to carpet cleaning allows abrasive soil particles to build up in the carpet. This shortens the wearlife and abrades synthetic carpet yarns causing the carpet to look much darker and/or dull in those areas, allows spills and stains to remain too long where they become difficult to remove, and diminishes the overall appearance of the carpet. We are no longer maintaining all areas of our buildings strictly for aesthetics, but are cleaning for a more healthy environment. We now spend the majority of our time living and working indoors. Public buildings and health care facilities especially must be considerate of the most hypersensitive person entering these structures. Carpet cleaning is past history. Taking its place is a new contemporary approach to keep carpet clean, dry, and healthy. Clean carpet looks better, lasts longer and provides great performance. Today, modern carpet maintenance programming eliminates problems by starting maintenance earlier, performing maintenance operations on a more frequent but less time-consuming schedule, and thereby retaining the carpet's appearance. Remember that one of the advantages of carpet over hard surface is that carpet tends to localize soil. It catches the soil where it occurs, providing a healthier flooring surface. Therefore, considerable time and money can be saved by a program of planned maintenance in those areas known in advance to be subject to heavier soiling.

VACUUMING

The amount of vacuuming performed should be in direct proportion to the amount and location of traffic. Areas near entryways, lobbies, elevators, and ground floors are considered heavy soiling areas and require more frequent vacuuming. By spending more time on heavily-trafficked areas with a vacuum program, less soil is tracked farther into the building. Vacuum heavily-trafficked areas with regularity, even if soil is not visible.

Carpet vacuums must be capable of removing the dry soil without producing unacceptable pile distortion and without distribution of the particulate or volatile organic chemicals into the air. An example is the HOST EXTRACTOR VAC.

The Vacuum Cleaner Testing Program The Carpet and Rug Institute has initiated a voluntary Vacuum Cleaner Indoor Air Quality Testing Program that identifies vacuum cleaners that have been evaluated by an independent testing laboratory and have met the carpet industry standard for all three elements: soil removal, dust containment, and carpet appearance. The CRI IAQ Label assists the purchaser by identifying vacuum cleaners that have demonstrated features that protect the carpet investment while minimizing adverse impacts on indoor air quality.

Consideration should be given to the use of vacuums equipped with HIGH-EFFICIENCY PARTICULATE AIR (HEPA) FILTERS. These filters are capable of filtering particles down to .3 micron, which includes bacteria and spores but not viruses. These HEPA-filtered vacuums have a very healthy impact upon indoor air quality.

The upright vacuum machine with brush action is effective for soil removal. The action of the brush agitates the pile surface of the carpet and brushes soil from the fibers. The vacuum motor then removes the soil from the carpet.

The presence of an adhesive carpet installation system presents a unique situation. The resultant inability of the carpet to move up to the vacuum cleaner head requires that the cleaner head be able to move down to the carpet. Such installations must be vacuumed with a “carpet groomer” agitator. This agitator has rows of brushes rather than a brush and a beater bar.

The larger the area, the larger the vacuum needed. Larger vacuums will get the job done quicker. There are many heavy-duty, large vacuums available that are designed for large areas of carpet. In addition, smaller commercial machines will be needed for areas where the large machine won't go, such as private offices, and conference rooms.

Vacuum bags should be emptied frequently, and never allowed to become more than one-quarter full. As bags fill up, vacuum efficiency decreases. When vacuuming heavy traffic areas, bags should be checked and emptied often. Top fill vacuums are more efficient than other types.

Areas to be vacuumed should be divided into three separate groups: Moderate Commercial, Heavy Commercial, and Extra Heavy Commercial.

Extra Heavy Commercial (E.H.C.) Extra heavy traffic areas such as lobbies, entryways, and areas subjected to immediate off-the-street traffic should be vacuumed one to three times daily depending on the weather. Vacuum frequency can be determined by visual inspection. Frequent vacuuming in the heavy traffic areas will localize soil. This minimizes the amount of soil being tracked into the interior of the building. (See Frequency Chart, p. 14)

Heavy Commercial (H.C.) Heavy traffic areas should be vacuumed daily, more if necessary as determined by inspection. (See Frequency Chart, p. 14)

Moderate Commercial (M.C.) Moderate traffic areas should be vacuumed daily. (See Frequency Chart, p. 14)

Maintenance Categories

The three carpet maintenance categories are preventative, interim, & restorative.

A. Preventative: This category employs the efficient use of walk off mats, carpet protection, viable spotting and vacuuming.

B. Interim: This category consists of either Host absorbent compound cleaning, absorbent pad or bonnet method cleaning.

C. Restorative: This category entails pile lifting. Pre-spraying as needed and followed by Host absorbent compound extraction, or hot water extraction, and reapplication of carpet protector.

PREVENTATIVE MAINTENANCE

Mats: It is estimated approximately 85% of dry carpet soil comes in on shoe soles. The preventative category starts with the utilization of efficient walk-off mats to keep soil out of the building. The minimum mat length should be 15 feet.

Protection: Just as with hard surface flooring, your J&J / Invision comes with a protective finish. Whenever hard surface flooring is stripped, a protective finish is reapplied. Following each carpet extraction, the fluorochemical carpet protector must be checked and maintained.

Caution: Do not use a silicone protector on any J&J / Invision carpet. This will promote accelerated soiling.

Vacuuming: Vacuuming with the correct equipment and frequency is the key to every carpet maintenance system. (See Frequency Chart, p. 14)

Spotting

Spotting: The lifting of spots from the carpet surface will impact the aesthetics of the total carpet area more than any other single factor. Spots should be lifted immediately. Although not always possible, this should be our goal.

TESTING CARPET BEFORE SPOT REMOVAL

Before attempting to remove a spot or clean a carpet, a pH test should be made on the stained area, and the water and the detergent solution. Testing for pH determines the amount of acid or alkali in soil, water, detergent, and/or chemicals. The reference numbers run from 1 to 14 with 7 being neutral. Anything below 7 is on the acidic side; anything above 7 is on the alkaline side. For instance, white vinegar usually has a reading below a pH of 1; however, it will not burn you. A stronger acid such as sulfuric or muriatic acid can cause considerable damage. The other side of the scale (7 to 14) is relatively safe up to a reading of 10. Products with a pH above 10 and up to 14 (lye and caustic soda) become highly alkaline. These products can cause burns to humans and total destruction to the carpet. Since most of the soil in carpet is acidic, detergents are usually alkaline, cleaning solutions with pH range of 4.5-8.5 is safe for wool fiber. A pH no greater than 9 is safe for stain resist nylon, and must be anionic, nonionic or combinations thereof. Do not use cationic cleaning agents.

How do you determine the pH factor? Swimming pool and aquarium supply stores usually sell pH testing kits. The kit consists of Hydron paper and a chart that is color coded.

In order to determine the pH of a spot on the carpet, wet the area to be tested with water that is neutral (7). With a plastic spatula press the Hydron paper to the base of the pile. If the stain or carpet is on the acid side, use an alkaline detergent. If the stain on the carpet is on the alkaline side, use an acid spotter.

If your test indicates the carpet is highly alkaline (above 10), use a slightly acidic detergent solution (pH of 4.5-6). Do not go below that reading. To continue to add alkaline to alkaline or acid to acid could cause considerable damage to the carpet. In fact, there have been numerous carpets ruined in this manner.

SPOT REMOVAL

Spills and spots should be attended to as soon as possible. The longer contaminants remain on the carpet fibers, the harder and more difficult the spots or stains are to remove. Spot cleaning is an important phase of the overall maintenance program, and when correctly performed, will provide an even, overall appearance to the carpet. Place emphasis on actually removing the spot during the process. Keep the carpet as dry as possible. If loosened too quickly with too much liquid, the foreign matter can run down man-made hydrophobic fibers deeper into the pile. Spots should be removed daily.

Stains differ from spots in that a stain results in a chemical reaction between the soiling material and the carpet face yarn. Some substances, such as acids and strong oxidizing agents, may cause such a severe chemical reaction with the carpet pile that they damage, or even destroy the dyes and face yarn.

If the carpet installation is large, a special technician may be required for the spot removal program. This is especially true in health care facilities where the frequency and types of spills are more varied than any other type of carpet installation. Immediate attention to spots and spills keeps the carpet looking newer longer.

Commercial spot cleaning kits are available with several types of spotting agents, detergents, sponges, and brushes. You can also make up your own spot cleaning kit. Since most of the carpet being used today is of man-made fibers, most spills can be removed with a solution of 1/4 teaspoon of a liquid dishwashing detergent per 1-cup lukewarm water or Host absorbent compound cleaner. Oil or grease tracked in from the street or parking

lot can be removed with a safety solvent. Caution should be exercised to avoid overwetting. Spot removal solutions and a procedure chart are covered in detail on p. 7-10.

If the spill is a soft drink which contained sweetener, the area should be rinsed with a solution of 50% water, 50% white vinegar, then blotted. After blotting, place a stack of white paper towels at least 1/2 an inch thick over the area and cover with a weight. Capillary action will cause the residue left in the carpet to wick up into the paper towels. This last step is especially helpful when removing spots which reappear following cleaning. The Host compound works well as a blotter.

Act quickly. Locate the spot by name on the spot removal chart. Remove all excess. Scrape up solids with a spatula. Blot up liquids. Do not rub. Apply spot cleaning agents with sponge or white cotton toweling in order listed. Blot with absorbent material or white cotton toweling after each application. When the spot is removed, blot up as much moisture as possible. Place a thick (1/2") layer of white paper towels over the area and weight them down with a heavy object. When the carpet is dry, vacuum to restore the texture. Each of the spot removal materials listed are identified on the spot removal chart by number.

Spot removal is a precise science. Many spots, if addressed immediately and correctly, are easily removed. Coke, coffee, gum, and mud fall into this category. More difficult spots to remove would be nail polish, shoe polish, auto greases, urine, and aged spots. Spots that only a professional cleaner should attempt, either due to the hazardous nature of the required chemicals needed to remove the spot or the permanent damage that improper techniques might produce in the carpet are rust, paints, flooding, medicines, ink, furniture stains, and dyes. Flooding voids manufacturer's warranties.

STEP-BY-STEP SPOTTING PROCEDURES

Caution: (Pretest Every Cleaning Agent)

1. **Test the spotting products to be used on a scrap piece of carpet first. If no carpet scrap is available, test in an inconspicuous area.** Allow test area to completely dry; then check for any color change before proceeding. If there is a color change, do not continue. Pretest additional products until a safe spotting agent is found or call a professional cleaning technician.

2. Remove any dry spill with the use of a spotting brush and bone spatula to scrape up the dry residue. (This process is very efficient for mud, mustard, and ketchup.) Then dry vacuum the area.

3. Blot up wet spills immediately with a white absorbent cotton cloth, a layer of white paper towels, or an absorbent dry cleaning compound.

ABSORBENT COMPOUND SPOTTING

The Host® Spot Zapper quickly eliminates spots safely (the technician zaps away unsightly spots while standing up.)

1. Sprinkle a small amount of Host Dry Compound on the spot.

2. Using the Host Commercial Spot Zapper, brush the spot north and south, east and west, use short back and forth brushing strokes.

3. Concentrate brushing action on spot. If there is still a trace of the spot, apply a little more Host compound and brush again. When the spot is gone, vacuum. Host 800-558-9439.

WET SPOTTING

1. The general rule is that unless you know the origin of the stain and have determined that a wet spotter is required, you should always start with

a nonflammable dry cleaning solvent (available through a janitorial supply company.) Work from the outer edge of the spot toward the center to avoid enlarging the spot. Never pour any dry cleaning solvent - or any other liquid cleaner - directly onto the carpet as this causes penetration into the carpet back which can produce buckling and deterioration of the backing system. Rather, pour a small amount of solvent on the white cotton toweling and then gently apply to the spot. Blot the area with a dry white cotton cloth (or paper towels.) Work the spot by alternately moistening and blotting. When there is no longer any transfer of the spot substance to the cloth, allow the area to dry thoroughly.

If any of the spot remains after using the dry cleaning solvent, then work the spot with a wet spotter (e.g., 3M, Host, Bane-Clene, ChemSpec, ServiceMaster, or Tonka Mills) using the same moistening and blotting procedures. Carefully follow the manufacturer's instructions. Follow the same steps as you did with the dry cleaning solvent.

2. When the stain has been removed, completely rinse the area with tap water to remove spotting agents and any residue. In some carpet colors a slight "white halo" may remain. Immediately vacuum with wet/dry vacuum. Blot with a stack of white paper towels until the moisture is absorbed.

The Spot Came Back: Patience is a must. Do not overwet the spot because you may run the contaminant deeper into the face yarn and into the carpet back. Most heavy liquid spills will work their way back to the carpet pile surface because the carpet back can act as a reservoir for the spill. Sometimes a spot will return even after it has been removed. This is due to some of the contaminant being left on the carpet back and wicking back to the surface. Or the spotting material has not been rinsed out leaving a sticky residue that collects soil and causes the spot to return. The return of a spot following removal is no reflection on the carpet. Re-treating these types of spills and thoroughly rinsing with clear water will eventually eliminate their return.

Chemical Stain: Stains differ from spots. Spots on the carpet are generally a contaminant, or foreign substance that can usually be removed, substantially or completely, by utilizing sound spotting techniques. Stains are almost without exception chemicals that have altered or destroyed the carpet dyes, face yarn, or backing material. For example, Benzoyl Peroxide is generally found in acne medications and foot powders. Benzoyl Peroxide requires moisture as a catalyst to trigger the oxidation process. In climates having extended dry seasons, the stain may not appear for months. High humidity provides sufficient moisture to start the oxidation. Carpet cleaning naturally will do the same. These stains will range in color from yellow to orange and grow lighter in aging as the carpet dyes are further oxidized. Strong acids are capable of destroying the carpet face yarn and permanently changing the carpet color.

Bleaches: The chlorine bleaches commonly used in the home and office (5.25-6.00% sodium hypochlorite), even in very diluted forms, will bleach many carpet dyes. Swimming pool chemicals will produce the same stripping action.

Others: Plant foods, urine, oven cleaners, toilet bowl cleaners, dyes, inks, drain cleaners, mildew removers, insecticides, foot powders, and medicines, are all capable of producing permanent and destructive carpet stains. With the exception of the volatile solvent, all other spotting agents must be completely rinsed from the carpet face yarn as the last step before drying.

Spotting Procedures

1. Dry cleaning nonvolatile solvent
- *2. Absorbent Compound or Detergent Solution
3. Water
4. 5% Acetic acid or white vinegar
5. Ammonia - 3% solution
6. Acetone - Nail Polish remover without lanolin
7. Dry Ice
8. Vacuum
9. Wet spotter
10. Tannin Stain Remover
11. Digester
12. Rust Remover - Whink®-Bane-Clene
13. Lacquer Thinner
14. Vacuum w/wet & dry vacuum (apply a 1/2" layer of white paper towels and weight with 1-2 lbs. Change towels in 3 hrs. repeat another 4 hrs. Remove weight and towels, allow to dry.

**Note: In most situations the host absorbent compound will completely remove the spot eliminating any additional steps ex. rinsing etc.*

Acids	5-3-14
Adhesives Synthetic	1
Alkali-Lye	3-4-3-14
Animal Glue	11-3-14
Argyrol	11-3-14
Asphalt	1-2-3
Auto Grease	1-2-3
Beer	2-3-4-3-14
Betadine Solution	1-2-3-14
Blood	2-3-5-3-14
Bleach	2-3-14
Butter	1-2-5-4-3-2-14
Calamine Lotion	1-2-5-4-3-14
Candle Wax-Use Warm Iron and Towel (absorb)	1
Carbon Black	8-1
Catsup	2-3-14
Chewing Gum	1 or 7
Chocolate	2-3-5-4-3-14
Cosmetic	1-6-2-5-3-14
Clay	8-2-3-4-3-14
Cola	2-5-4-3-14
Coffee (Wet)	2-4-3-14
Coffee (Dried)	2-10-2-4-3-14
Colored Paper	2-5-4-3-14
Crayon	1
Creme de menthe	2-5-3-14
Egg	10-2-3-14
Enamel	1-6-1
Feces	2-5-4-3-14
Food Dye	1-2-5-4-3-14
Floor Polish	1-6-2-5-4-3-14
Fruit Juice	2-3-5-4-2-14
Furniture Stain	1
Furniture Polish	1-6-2-5-4-3-14
Gelatin	2-5-3-14
Gravy	1-2-5-4-3-14
Grass Stain	1-2-5-4-3-14
Ice Cream	2-5-4-3-14
Ink (Washable)	2-5-4-3-14
Ink (Dry)	1-6-2-3-14
Ink (India)	6-1-2-5-4-3-14
Iodine	1-2-5-4-3-14
Iron Rust	12-3-14
Jute Stain	10-2-5-4-3-14
Lacquer	6-1-2-3-14
Latex Paint	1-2-5-4-3-14
Linseed Oil	1-2-5-4-3-14
Lipstick	6-1-2-5-4-3-14
Liquor	2-5-4-3-14
Milk (Wet)	2-5-4-3-14
Milk (Dry)	11-2-5-4-3-14
Mucilage	2-11-2-5-4-3-14
Mustard	2-4-3-14
Nail Polish	6-1-2-3-14
Oils	1-2-5-4-3-14
Oil Paint	1-6-13-5-4-3-14
Putties	1-13-6-2-3-14
Rouge	1-2-3-14
Rubber Cement	6-1-2-3-14
Shoe Dye	1-2-3-14
Shoe Polish	6-1-2-5-3-14
Tars	1
Tea	2-3-4-14
Urine	2-4-14
Vomit	2-5-4-3-14
Watercolors	2-4-5-3-14
Wine	2-4-5-3-14

Spot Removal For 100 Percent Encore® SD Ultima® Nylon Fibers

One of the outstanding features of Encore® SD *Ultima*® is that the extrusion process creates fibers with locked-in color resulting in excellent fastness properties. Although Encore® SD *Ultima*® can be cleaned successfully with general spot cleaning procedures, maintenance personnel - when it is necessary - can use recommended bleach solutions to remove stains which might otherwise be impossible to remove with general spot cleaning techniques.

However, a word of caution is in order: A LITTLE BLEACH GOES A LONG WAY! Only mild solutions should be used; **that is, bleach should be diluted with FOUR PARTS WATER per ONE part household chlorine bleach (5.25-6.00% sodium hypochlorite), and this solution should be left on the carpet only as long as it takes to remove the stain.** NOTE: Leaving bleach on carpet for an extended period of time will cause fibers to lose strength. In extreme cases, fibers can actually lose so much strength that traffic will cause them to break off.

Removing spots and spills from 100% Encore® SD *Ultima*® carpet requires that you attend to them as soon as they occur. The longer contaminants remain, the more difficult they are to remove. Remember to use extreme caution if a 4:1 diluted bleach solution is required. These procedures should be carefully followed, and only used when good spotting techniques have failed to remove the stain.

PROCEDURES (Pretest every cleaning agent)

1. **Before attempting to remove the stain, it's important to first test the spotting products to be used on a scrap piece of carpet. If no scrap is available, test an inconspicuous area.** Allow the test area to dry completely, then check for any color change before proceeding. If there is a color change, do not continue. You should then call Jim Keener (Director of Maintenance and Installation) at 1-800-241-4586, extension 8223.

2. Any spill which has dried (e.g., mustard or ketchup) should be removed with the use of a spotting brush and bone spatula by scraping up the dry residue. Then follow the steps listed below and dry vacuum the area.

3. Blot up wet spills with a white absorbent cloth, a layer of white paper towels, or an absorbent compound, e.g., Host compound.

4. The general rule is that unless you know the origin of the stain and have determined that a wet spotter is required, you should always start with a nonflammable dry cleaning solvent (available through a janitorial supply company). Work from the outer edge of the spot toward the center to avoid enlarging the spot. Never pour any dry cleaning solvent - or any other liquid cleaner - directly onto the carpet as this causes penetration into the carpet back which can produce buckling and deterioration of the backing system. Rather, pour a small amount of solvent on the cloth and then gently apply to the spot. Blot the area with a dry white cotton cloth (or white paper towels). Work the spot by alternately moistening and blotting. When there is no longer any transfer of the spot substance to the cloth, allow the area to dry thoroughly. Use the pretested wet spotter in the same moisten and blot technique used with the dry solvent.

5. If a spot or spill remains after step 4, spray with the 4:1 bleach solution. Thoroughly wet the face yarn; however, be careful not to use so much liquid that it saturates the backing. **Allow to dry, generally 8 hours.**

6. **After the area is dry** repeat step 5 if the spot or spill is still evident.

7. When the stain has been removed, completely rinse the area with tap water to remove spotting agents and bleach residue. In some carpet colors, a slight "white halo" may remain. Immediately vacuum with a wet/dry vacuum. Blot with a stack of white paper towels until moisture is absorbed.

CAUTION: The preceding procedures are for spot cleaning only. Under NO circumstances should bleach be added to cleaning systems' solution tanks for general-purpose cleaning. Also these procedures should not be used on yarns other than 100% Encore® SD *Ultima*®.

Interim Maintenance

Interim maintenance should involve either Host absorbent compound cleaning traffic lanes and blending into surrounding clean carpet or spray cleaning the carpet surface utilizing a maximum 200 RPM rotary floor machine equipped with a drive block assembly and carpet cleaning pad. A fine mist of carpet spray cleaner is applied to the carpet prior to cleaning. Dry time is 20-30 minutes. Traffic Lane Maintenance is a very important factor in the interim carpet maintenance category.

After the carpet has been used for a period of time, definite traffic patterns start to appear in traffic areas. The carpet looks dull, and this dullness is caused by some types of oily soil that cling tightly to the fibers, too tightly in fact, to be removed by regular vacuuming. These traffic lanes should be restored to the same brightness and appearance of the surrounding carpet. Carpet spray cleaning or Host (an absorbent dry cleaning compound made of small organic particles impregnated with water, detergents, and solvents), is applied to the carpet in the areas to be restored. A special machine is used to brush the compound into the carpet. The brushing action removes soil from the carpet fibers, and the soil attaches itself to the compound particles which are then vacuumed away. The results - the area can be restored by cleaning the traffic lanes and blending the traffic lane edges into the surrounding carpet, by spray cleaning, or absorbent dry cleaning.

The Host system is recommended for cut pile or sculptured pattern carpet. **Do not spray clean cut pile constructions.**

Restorative Maintenance

Restorative maintenance procedures consist of pile lifting, pre-spraying spots and heavily soiled areas, hot water extraction, or Host Absorbent extraction, and re-application of carpet protector. (See Frequency Chart, p. 14) **Maximum allowable dry time for any maintenance procedure is 8 hours.**

The two factors that dictate cleaning frequencies are the type of use, (i.e., office, school, healthcare), and the traffic classification. These two factors will dictate the frequency of maintenance procedures from vacuuming to overall cleaning. **CAUTION: Do not allow traffic on any moist carpet.**

RESTORATIVE SYSTEM SELECTION

There is no one cleaning system that fits all facility requirements. Some buildings may find it advantageous to use two extraction systems due to varying use requirements.

Level loop constructions in schools and hospitals will usually require more frequent aggressive cleaning than the fine cut pile carpet in the bank president's office. The carpet construction, color, type of soil, and traffic classification all impact the carpet maintenance frequencies and extraction selection.

For great looking healthy carpet, plan your carpet maintenance program, use the frequency schedule for guidelines, then work your plan.

Preconditioning The Carpet

Prior to application of any cleaning agent, as much loose soil as possible should be removed. Pile lift the carpet by making one pass in the direction of the pile lay. Then pull the pile lifter backwards so the pile will be lifted and open. This will enhance penetration of the cleaning agent into the pile. If a pile lifter is not available, vacuum the carpet thoroughly.

If the area to be cleaned is heavily soiled with any oily or greasy substance, then spray a fine mist of preconditioner over the area five to ten minutes prior to extraction cleaning.

The following list shows the most common methods now in use for overall deep cleaning of carpet:

1. Absorbent Compound Extraction
2. Hot Water Extraction

Pretest every cleaning agent. Cleaning carpet with harsh alkaline detergents can be risky. In some cases, dyes might fade. **Before using any detergent solution, always pretest on a carpet scrap or in an inconspicuous section of carpet to be sure it will not affect the color.** Allow the test area to completely dry before proceeding. If there is any color change, stop. Continue to pretest until a safe product is found or call a carpet cleaning professional.

The ideal carpet cleaning detergent solution will have the following characteristics:

- (1) Is environmentally safe
- (2) Has very low total volatile organic emissions that dissipate quickly
- (3) Is anionic, nonionic, or combinations thereof.
- (4) Has a pH of 9 or less
- (5) Can be used at less than 150°F
- (6) Has excellent cleaning ability
- (7) Turns to a crisp powder when dry
- (8) Will not dull the carpet
- (9) Will not cause rapid resoil
- (10) Will not attack dyes
- (11) Will not be toxic
- (12) Will not create static electricity
- (13) Contains no optical brighteners

PILE SETTING ON GROOMING:

Swirls, wand marks, or pile distortion produced by any carpet maintenance procedure must be immediately eliminated by pile setting or grooming the carpet surface.

Carpet must be dry within 8 hours following any maintenance procedure.

NOTES:

- (1) Do not wet clean any adhesive-related carpet installation for at least 30 days after installation.*
- (2) Do not use optical brighteners on J&J or Invision carpets.*
- (3) Do not use silicone protectors on J&J or Invision carpets.*
- (4) Flooding voids manufacturer's warranties.*

The Bane Clene extraction method is an electric truck-mounted system that may be dismantled and brought into high rise buildings, or other buildings for security reasons without any loss of efficiency.

Hot water extraction injects the carpet face yarn with a cleaning solution under pressure. The solution is then immediately extracted along with the dirt and grime. Ninety-five percent of the cleaning solution is recovered; therefore, very little moisture is left in the carpet to air dry. The cleaning solution nozzle pressure should be a maximum of 150 P.S.I., which is gentle enough not to damage the carpet pile yarn and low enough not to inject water under carpet modules. The maximum dry time is 2 - 8 hours.

**Bane Clene
Hot Water Extraction
System
(800) 428-9512
(800) 382-9899 in Indiana
<http://www.iquest.net/bane/>**

**Host Extraction System
(Absorbent Compound)
(800) 558-9439
(800) 242-2023 in Wisconsin**

Host's Extraction System very effectively extracts carpet soil. The Host system employs an organic extraction cleaner that is simply sprinkled over the carpet pile and then brushed through it by the Host Liberator®, Freestyle®, or Reliant™ Extraction Machine. Soil and grit are attracted to and absorbed by the Host cleaner, which is then vacuumed away. The Host system is very effective in pile lifting. One of the advantages of this system is that there are no areas out of service waiting for carpet to dry.

**Equipment/Supplies
(and telephone numbers)**

1. Floor matting:
3M (800-852-9722)
The Anderson Company (800-241-4696)
2. Absorbent compound applicator – Host (800-558-9439)
3. Absorbent compound extractor – Host
4. Vacuums:
Castex (800-522-7839)
Nidlor/Certified (800-321-1244)
Hoover (330-499-9200)
Sanitaire (800-282-2886)
Windsor (800-444-7654)
5. Pile lifter – Nidlor/Certified, Host
6. Interim spray cleaning:
3M (800-852-9722)
ServiceMaster (800-447-7687)
7. Interim absorbent compound cleaning – Host ServiceMaster
8. Hot water extraction (truck mount):
Bane Clene (800-428-9512),
ServiceMaster, Prochem
Hot water extraction (portable):
Bane Clene
Steamin Demon (888-413-6748),
Service Master
9. All purpose electrically powered sprayer – 3M- Bane-Clene
10. Detergents:
Bane Clene,
3M, ChemSpec (800-638-7370), ServiceMaster
11. Absorbent compound – Host
12. Precleaner:
Bane Clene, Host, 3M
13. Cleaning pad:
3M, ServiceMaster
14. Spotting brushes:
Bane Clene, Host
15. Water extraction detergents:
Bane Clene, ChemSpec, 3M,
ServiceMaster
16. Carpet protector:
Bane Clene, 3M, ServiceMaster
17. Spotting Products:
Nylac (Tonka Mills) (800-336-9522), Host,
Chemspec, Bane Clene, 3M, ServiceMaster

ServiceMaster (800-447-7687)
www.cleancommercialcarpet.com
Prochem (800-776-2436)
www.prochem.com

Frequency Chart-Commercial Applications

MODERATE

HEAVY

EXTRA HEAVY

OFFICES - SHOPS - BANKS

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 60 Days*	Every 30 Days*	Every 15 Days*
Extract & Protect	Every 6 Months	Every 120 Days	Every 90 Days

HOTEL - MULTIPLE FAMILY HOUSING - APARTMENT - ENTRANCES - LOBBIES - CORRIDORS

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 60 Days*	Every 30 Days*	Every 15 Days*
Extract & Protect	Every 6 Months	Every 120 Days	Every 90 Days

FOOD SERVICE

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 20 Days*	Every 15 Days*	Every 7 Days*
Extract & Protect	Every 120 Days	Every 90 Days	Every 20 Days

HEALTH CARE

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Immediately	Immediately	Immediately
Spray Clean or Host	Every 20 Days*	Every 15 Days*	Every 7 Days*
Extract & Protect	Every 90 Days	Every 60 Days	Every 28 Days

DAY CARE

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Immediately	Immediately	Immediately
Spray Clean or Host	Every 15 Days*	Every 10 Days*	Every 7 Days*
Extract & Protect	Every 60 Days	Every 30 Days	Every 14 Days

EDUCATION

Vacuum	Daily	Daily	One to three times daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 60 Days*	Every 30 Days*	Every 15 Days*
Extract & Protect	Every 6 Months	Every 120 Days	Every 90 Days

TRANSPORTATION

Vacuum	Daily	Daily	Daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 20 Days*	Every 15 Days*	Every 7 Days*
Extract & Protect	Every 120 Days	Every 90 Days	Every 15 Days

MALL CONCOURSE

Vacuum	Daily	Daily	Daily
Pile Lift**	Prior to each extraction	Prior to each extraction	Prior to each extraction
Spot	Daily	Daily	Daily
Spray Clean or Host	Every 20 Days*	Every 15 Days*	Every 7 Days*
Extract & Protect	Every 120 Days	Every 90 Days	Every 15 Days

*Whenever the spray cleaning day falls on the extraction day, EXTRACT ONLY.

** More frequent pile lifting will be required in order to maintain pattern definition where the carpet has a tufted sculptured pattern.

Note: The outdoor environment does impact carpet maintenance. Dusty conditions and high humidity are just two factors that may necessitate more frequent maintenance. Other factors to be considered are the soil type and amounts being tracked into the building as well as the desired carpet appearance retention level.

Optical Brighteners

Optical brighteners are often commercially added to carpet cleaning agents. These brightening compounds produce a short-term, “artificially clean” appearance by absorbing invisible ultraviolet energy and re-emitting it as visible blue light. Thus the carpet appears brighter and cleaner than it truly is. When exposed to nitrogen oxides in the atmosphere, optical brighteners cause carpet fibers to dull and yellow. This yellowing condition is particularly noticeable on gray colored carpet.

Because optical brighteners are a fluorescent dye or whitening agent, the yellow color is almost impossible to remove safely. Organic solvents, which might remove the yellow discoloration, cannot be used to treat the carpet because they form explosive mixtures when combined with air.

Thus the only sure way to avoid carpet yellowing by optical brighteners is to use carpet cleaning agents which do not contain optical brighteners. J&J Commercial and Invision Carpet Systems strongly discourage the use of optical brighteners for carpet cleaning and will not accept claims resulting from their ill-advised use.

Caster Selection

From a maintenance viewpoint the selection of caster wheels is very important.

1. There is a considerable difference in the degree to which casters mark the carpet. Hard rubber casters, for example, appear to impart more of a “dirty” look to the carpet than do some of the hard composition types.
2. Casters with large swivel offsets swivel more easily and wear the carpet less than do those with smaller offsets. Swivel offsets of 1.5 to 2 inches could be used advantageously with 3-inch diameter wheels.
3. Wheels with slightly rounded tread have better carpet wear characteristics than do those with flat tread. When tread is rounded too much, however, the wheel sinks into the carpet and causes excessive wear because of its limited bearing surface.
4. Ball casters wear carpeting more rapidly than do standard yoke casters.
5. A general rule of thumb is to use soft-wheeled casters on hard surfaces such as vinyl asbestos tile and hard-wheeled casters on soft floorcovering such as commercial carpet.
6. There is little difference between single and dual wheel casters except the styling.
7. Casters having 2.5 inch diameter wheels seem to be good compromises of the various properties desired.

Use chair pads under chairs with roller casters. Carpets with Endure® backing require chair pads under rolling casters over seamed areas. Damage from failure to use chair pads under casters as stated above voids warranties.

CLOSING

We believe that the information contained in this handbook is the best currently available on the subject. It is offered as helpful suggestions in the areas covered. It is subject to revision as additional knowledge and experience are gained. J&J Commercial and Invision Carpet Systems make no guarantee of results and assume no obligation or liability whatsoever in connection with this information. Anyone using these recommendations should first satisfy himself that the recommendations are suitable for his use and that all products recommended meet all appropriate safety and health standards. This publication is not licensed to operate under, or intended to suggest infringement of, any existing patents.

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