BRUCE'S CUSTOM COVERS
A division of Aircraft Covers, Inc.

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*manufacturer of the finest custom-made aircraft covers*

# Tech Sheet: Bell 412

(bell-412.pdf)




Bell 412 Cockpit/Canopy Cover, photo/illustration

## Section 1: Cockpit/Bubble Covers

The **Bell 412 Bubble Cover** helps reduce damage to the upholstery and avionics caused by excessive heat and can eliminate problems caused by leaking door and window seals. They keep the windshield and window surfaces clean and help prevent vandalism and theft.

The **Bubble Cover** encloses the entire canopy including the windshield, skylights, and chin bubble Attachment buckles are made of nonmetal *Delrin*, designed for rugged outdoor use. Both the top and bottom hems of the cover have a special rope-hem feature with which they can be tightened to help prevent abrasive chafing of the windshield. Pockets are sewn into the cover for the temperature probe and pitot tubes. The bubble cover is reinforced with patches at hinge points, door handles, and for the windshield wipers. For ease of installation, the bubble cover is color-coded (red=left, green=right) with color swatches sewn into the corners.

This cover type is made from Silver Acrylic Sunbrella canvas and is 100% lined with a soft and smooth microfiber. Bruce's Custom Covers developed this material combination especially for aircraft protection. The outer material is medium weight and treated for water resistance, UV resistance and anti-static buildup. The inner lining is a very soft and smooth microfiber to prevent scratching. The material is very reflective, and tests show that the cabin interior temperature can be reduced to near-ambient temperature on the hottest of days. It is water, ice and snow repellent, yet breathable to allow moisture to escape from between the cover and the aircraft surface.

The **Bell 412 Canopy/Nose Cover** helps reduce damage to the upholstery and avionics caused by excessive heat and can

eliminate problems caused by leaking door and window seals. They keep the windshield and window surfaces clean and help prevent vandalism and theft.

**Canopy/Nose Covers** enclose the entire canopy including the windshield, skylights, and chin bubble. Attachment buckles are made of nonmetal *Delrin*, designed for rugged outdoor use. Both the top and bottom hems of the cover have a special rope-hem feature with which they can be tightened to help prevent abrasive chafing of the windshield. Pockets are sewn into the cover for the temperature probe and pitot tubes. The bubble cover is reinforced with patches at hinge points, door handles, and for the windshield wipers. For ease of installation, the bubble cover is color-coded (red=left, green=right) with color swatches sewn into the cornersThis cover type is made from Silver Acrylic Sunbrella canvas and is 100% lined with a soft and smooth microfiber. Bruce's Custom Covers developed this material combination especially for aircraft protection. The outer material is medium weight and treated for water resistance, UV resistance and anti-static buildup. The inner lining is a very soft and smooth microfiber to prevent scratching. The material is very reflective, and tests show that the cabin interior temperature can be reduced to near-ambient temperature on the hottest of days. It is water, ice and snow repellent, yet breathable to allow moisture to escape from between the cover and the aircraft surface.




Bell 412 Forward Cabin/Nose, Insulated Engine, Tailboom, Rotor Hub & Blade Covers



Bell 412 Cockpit/Canopy/Nose Cover

| Description | Part Number | Price |
|---|---|---|
| COCKPIT/CANOPY COVER | **412-000** | **$970.00** |
| COCKPIT/CANOPY COVER (INSULATED) | **412-001** | **$1260.00** |
| COCKPIT/CANOPY/NOSE COVER | **412-050** | **$1285.00** |
| COCKPIT/CANOPY/NOSE COVER (INSULATED) | **412-051** | **$1670.00** |
| COCKPIT/CANOPY/NOSE COVER with Nose Radome & Cargo Mirror | **412-052** | **$1705.00** |
| COCKPIT/CANOPY/NOSE COVER with Nose Radome, Cargo Mirror & Wire Strike | **412-053** | **$1770.00** |
| COCKPIT/CANOPY/NOSE COVER with Cargo Mirror | **412-054** | **$1585.00** |
| NOSE COVER, no radome | **412-055** | **$895.00** |
| COCKPIT/CANOPY/NOSE COVER with Nose Radome, Cargo Mirror & Wire Strike (INSULATED) | **412-056** | **$2305.00** |
| COCKPIT/CANOPY/NOSE COVER with Nose Radome | **412-057** | **$1585.00** |
| COCKPIT/CANOPY/NOSE COVER with Nose Radome (INSULATED) | **412-058** | **$2060.00** |
| FUSELAGE COVER | **412-075** | **$12485.00** |
| FUSELAGE COVER (INSULATED) | **412-076** | **$16245.00** |

## Section 2: Engine/Tail Rotor Covers

**Blade Tie-Downs** are "socks" which fit over the blade tip with or without Blade Covers installed. Front blade tie-downs have two lengths of rope or strap which attaches to the front cross tubes on either side of the cabin. The other tie-downs have generous lengths of rope or strap to tie the blades down at any convenient spot.

**Engine Cover** details vary by model, but generally these covers are designed to enclose and protect the swash plate, inlet, exhaust and engine access areas. They are designed to tighten up around the main rotor drive shaft and tailboom bottleneck areas, and attach securely with straps either under the belly or to the land gear cross tubes (or both). *Delrin* buckles are used to tighten the attachment straps. The engine cover is made of Solution-Dyed Polyester or acrylic *Sunbrella*, and is available in a variety of colors ([contact us for details](/contact). Specific information for each model is available on request.

**Rotor Hub Covers** overlaps with the Blade Covers to ensure complete protection for the entire main rotor system. Designed like a jacket with sleeves and no collar, the rotor hub cover fastens together below each blade with *Delrin* buckles. The Rotor Hub Cover is normally made from Solution-Dyed Polyester.

Bruce's **Bell 412 Blade Covers** are made of medium-weight Solution-Dyed Polyester and designed to avoid trim tabs or wicks. You can install Blade Covers from the ground with the aid of a lightweight rope attached to the open end. Covers are cinched tight at the blade root with straps and quick-release plastic buckles. The **Cold Weather Blade Covers** are fitted with full-length zippers and optional deice "boots" designed to accept a preheater hose; a small opening at the tip of the cover allows for some air circulation and drainage in freezing weather. Some part numbers have features for an extra charge.

The **Bell 412 Insulated Engine Cover** works well in cold climates to help with engine preheating. You can add an access flap for an additional fee. It will cinch around or behind the spinner, cover the entire engine cowl area including the engine air inlets, and fastens together with Velcro beneath the spinner down the front of the cowling.

Insulated Covers Material - A special composite material of solution-dyed polyester, 3M Thinsulate insulation, and soft nylon interior fabric. Our insulated covers are designed to complement an engine preheater and help retain heat in the engine compartment after shutdown. If you operate your aircraft in cold-weather, these covers will help prevent engine wear and tear.

The **Bell 412 Tail Rotor Cover** is a one-piece design which encloses both the blades and their hub, snapping closed along the bottom edge. The tail rotor cover is normally made from Solution-Dyed Polyester.

ALL-YEAR USE MATERIAL - Made with Silver Acrylic Sunbrella canvas, the all-year use material is the best option for sun protection and cover longevity. This heavier more durable material is intended for all weather conditions, such as rain and snow or lots of sun.

WINTER USE MATERIAL - Made with Solution-Dyed Polyester fabric, this option is intended for seasonal use to aid in deicing, rain mitigation, or for occasional travel. The material is lighter and more compact, but more susceptible to UV damage and may have a shorter useful life if used continuously outside than the all-year use material.



Bell 412 Blade Tie-Downs (fabric type) (set of 4)



Bell 204/205 Engine/Mid-Cabin Cover

| Description | Part Number | Price |
|---|---|---|
| ENGINE AREA/MID-CABIN COVER | **412-100** | **$1510.00** |
| INSULATED ENGINE AREA/MID-CABIN COVER | **412-101** | **$1965.00** |

| | | |
|---|---|---|
| ENGINE AREA/MID-CABIN COVER, extend down to cross tubes | **412-102** | **$2720.00** |
| INSULATED ENGINE AREA/MID-CABIN COVER, extends down to cross tubes | **412-103** | **$3540.00** |
| EXHAUST COVERS (set of 2) | **412-200** | **$385.00** |
| ROTOR HUB COVER | **412-300** | **$1115.00** |
| ROTOR HUB COVER, with SKIRT | **412-301** | **$1235.00** |
| INSULATED ROTOR HUB COVER | **412-305** | **$1445.00** |
| BLADE COVERS (set of 4) | **412-400** | **$2035.00** |
| BLADE COVERS, cold weather (set of 4) | **412-410** | **$2895.00** |
| BLADE TIE-DOWNS (fabric type) (set of 4) | **412-500** | **$955.00** |
| BLADE TIE-DOWNS, (semi rigid) w/telescoping attachment handle (set of 5) | **412-502** | **$1135.00** |
| TAIL ROTOR COVER | **412-600** | **$375.00** |
| INSULATED TAIL ROTOR COVER | **412-605** | **$485.00** |
| TAIL ROTOR HUB/GEARBOX COVER | **412-650** | **$365.00** |

## Section 3: Plugs & Protection

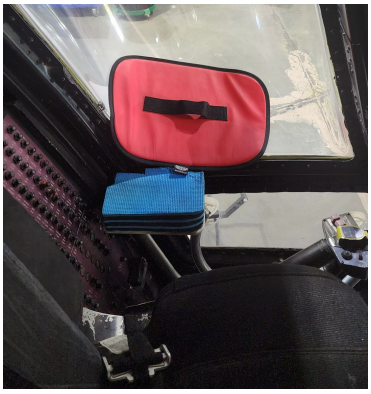
**Bell 412 Pitot Tube Covers**, NOT HEAT RESISTANT TYPE, are made of Naugahyde vinyl, and are designed to cover the entire pitot assembly. Slipping over the tube, the cover tightens around the base with a Velcro strap detail. A "Remove Before Flight" streamer is attached to the cover. **Heat Resistant Pitot Covers** are an upgrade to this design, and help prevent the pitot cover from melting onto the tube if the pitot heat is accidentally turned on while installed. If you want the set tethered together, please let us know.

**Tail Rotor Tie-Downs** are a similar design to the main blade tie-downs. Stout bungee cords attached to the tie-down socks pull the rotor tips back toward the hub, pulling the tail rotor back to a secure position.

The **Engine Inlet Plugs** are custom fit for your Bell 412 intakes, made with heavy-duty vinyl material, and stuffed with a single block of sculpted urethane foam. Each plug has a zipper that allows the foam to be removed and dried if necessary. Engine plugs have 'Remove Before Flight' streamers sewn onto the face of the plugs. Most plugs are imprinted with the aircraft registration number in black for an extra charge. Storage bag NOT included. Engine plugs may be inserted after flight when the engine is still warm. Engine Inlet Plugs are commonly referred to as Cowl Plugs, Intake Plugs, Cowl Blocks, Engine Blocks, and Engine Bungs.



Bell 205 Logger Window Plug



Boeing Vertol CH-47 Logger Window Plug

| Description | Part Number | Price |
|---|---|---|

| | | |
|---|---|---|
| SWASH PLATE PLUG (set of 4) | **412-105** | **$640.00** |
| OIL COOLER INLET PLUGS (set of 2) | **412-107** | **$370.00** |
| MAIN ENGINE INLET PLUGS (set of 2) | **412-108** | **$480.00** |
| PITOT COVERS (set of 2) | **412-125** | **$240.00** |
| LOGGER WINDOW BUBBLE PLUG, need tracing | **412-175** | **$270.00** |
| TAIL ROTOR BLADE TIE-DOWN | **412-675** | **$155.00** |
| TAIL ROTOR BLADE TIE-DOWN (pillow type) | **412-676** | **$470.00** |

## Section 4: Tailboom Covers

The **Tailboom Cover** details vary by model, but generally the helicopter tail boom cover encloses the tail boom from the "bottleneck" to the aft end. They usually also cover the horizontal stabilizers, and are custom made to allow for antennae, lights, and other protrusions. They attach with straps underneath the tail boom. Covers for the vertical and horizontal stabilizers are also available separately. Specific information for each model is available on request.



Bell 412 Cockpit/Canopy/Nose, Insulated Engine Area, Rotor Hub, Blade, Tailboom and Tail Rotor Covers




Bell 412 Forward Cabin/Nose, Insulated Engine, Tailboom, Rotor Hub & Blade Covers

| Description | Part Number | Price |
|---|---|---|
| TAILBOOM COVER | **412-700** | **$1895.00** |
| INSULATED TAILBOOM COVER | **412-705** | **$2395.00** |
| HORIZONTAL STABILIZER COVERS (set of 2) | **412-710** | **$545.00** |

## Section 5: HeatShields & Sun Reflectors

**Cockpit Heatshields** are interior sunshades for the aircraft's cockpit. The product is a unique composite of closed-cell foam with a silver mylar finish. The semi-rigid design is stiff enough to stand inside the window framing. Darts and folds are incorporated into the material so that it conforms to the complex shape of the helicopter windows. The set folds up flat and is easily stored in the included storage sleeve. Some designs may require velcro and suction cups. A Heatshield is an excellent short-term remedy for cockpit overheating, but an external fabric cover is more effective for long-term protection.

**Windshield Heatshields** are interior sunshades for an aircraft's front windshield. The product is a unique composite of closed-cell foam with a silver mylar finish. The semi-rigid design is stiff enough to stand along the inside of the windshield using sun visors or window framing. Darts and folds are incorporated into the material so that it conforms to the complex shape of the helicopter windows. It folds up flat and easily stores in the included storage sleeve. Some designs may require velcro and suction cups. A Heatshield is an excellent short-term remedy for cockpit overheating. An external fabric canopy is far more effective and practical for

long-term protection.



Bell 212 Windshield HeatShields

| Description | Part Number | Price |
|---|---|---|
| HEATSHIELD SET, cockpit, & skylights (set of 8) | **412-900** | **$695.00** |
| HEATSHIELD SET, cockpit, skylights & cabin windows (set of 14) | **412-905** | **$935.00** |
| WINDSHIELD HEATSHIELDS (set of 2) | **412-910** | **$340.00** |

## Section 7: Light Weight Products: Travel Covers and FlyAway Covers

**Forward Cabin/Nose Covers** are designed to cover the front and side windows of the cockpit, and extend forward to cover the nose. Pockets are sewn into the covers to allow for the pitot tubes.

This cover type is made from Silver Acrylic Sunbrella canvas and is 100% lined with a soft and smooth microfiber. Bruce's Custom Covers developed this material combination especially for aircraft protection. The outer material is medium weight and treated for water resistance, UV resistance and anti-static buildup. The inner lining is a very soft and smooth microfiber to prevent scratching. The material is very reflective, and tests show that the cabin interior temperature can be reduced to near-ambient temperature on the hottest of days. It is water, ice and snow repellent, yet breathable to allow moisture to escape from between the cover and the aircraft surface.

The **Bell 412 Lightweight Travel Bubble Cover** is the same design as our standard bubble cover, but the material used is very lightwieight and will fold up and store in a smaller space.

Travel Covers are made with Silver Solution-Dyed Polyester fabric and fully lined over the entire cover. The material is lightweight and more compact for easy stowage in the aircraft. The polyester material is water resistant, but only intended for occasional use outside. We also have an ultra lightweight material available for fitted hangar dust covers. For daily outdoor use, the non-travel Sunbrella Cover is the best choice.

The **Bell 412 Lightweight Travel Canopy/Nose Cover** is the same design as our standard bubble cover, but the material used is very lightwieight and will fold up and store in a smaller space.

Travel Covers are made with Silver Solution-Dyed Polyester fabric and fully lined over the entire cover. The material is lightweight and more compact for easy stowage in the aircraft. The polyester material is water resistant, but only intended for occasional use outside. We also have an ultra lightweight material available for fitted hangar dust covers. For daily outdoor use, the non-travel Sunbrella Cover is the best choice.



Bell 412 Cockpit/Canopy/Nose Cover, w/Radome



Bell 412 Cockpit/Canopy Cover, photo/illustration

| Description | Part Number | Price |
|---|---|---|
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy Cover | **412-800** | **$780.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover | **412-805** | **$1025.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover with Nose Radome & Cargo Mirror | **412-810** | **$1365.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover with Nose Radome, Cargo Mirror & Wire Strike | **412-815** | **$1415.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover with Cargo Mirror | **412-820** | **$1265.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover with Nose Radome | **412-825** | **$1265.00** |
| TRAVEL COVER, Light Weight Travel Cockpit/Canopy/Nose Cover | **412-830** | **$1025.00** |

## Section 10: Inside the Hangar

**Padded Door Bags* are designed to provide portable protection of the doors when they are removed from the aircraft. They are padded to moderate thickness, zippered closed, and have sturdy carry handles for easy transport.



Eurocopter EC-145 Padded Bags for Removable Doors



MD 500D Padded Door Bags

| Description | Part Number | Price |
|---|---|---|
| PROTECTIVE BAGS FOR REMOVABLE FWD DOORS, padded (set of 2) | **412-090** | **$740.00** |

***Prices subject to change. Other Covers and Design Alterations: Prices on request.***
***Prices are FOB Morgan Hill, CA. Sales tax on orders shipped to California addresses. Orders take approximately 3 weeks to complete. For domestic orders we normally ship by UPS ground service. Next day shipping and air parcel post is available on request. We can take payment by Visa, Mastercard, American Express, or Discover.***

***Bruce's Custom Covers offers protective covers and plugs for virtually every type of airplane, jet and helicopter. If you have questions about our products please call any time TOLL FREE: 800/777-6405, or FAX: 408/738-2729.***

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# Aircraft Cover Ordering Form

**Customer Info**

Name _____

Shipping Address _____

_____

Phone & Email _____

**Payment**

Credit Card Number ☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Exp. Date ☐☐ / ☐☐ V-Code* ☐☐☐☐

**Visa, Mastercard, Discover: last 3 numbers on back of card, right of signature. Amex: 4 smaller numbers printed on face of card.*

**A/C Info**

Reg / Tail Number: _____ Aircraft Type: _____ Year: _____

Colors / Paint Scheme (be specific): _____

**Please specify below the items you would like to order.**
See technical sheet or visit our website for part numbers (or just fill in the description)

| | Part Number | Quant | Description | Price |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | | | | |
| 5 | | | | |
| 6 | | | | |
| 7 | | | | |
| 8 | | | | |
| 9 | | | | |
| 10 | | | | |
| | | | TOTAL | |

***Optional Items (check the box of the item you want)***

☐ ***Imprint** aircraft registration number onto both sides of canopy cover.....$35.00*

☐ ***Imprint** aircraft registration number onto Jet intake covers.....$55.00*

**Ph: 408/738-3959 • Toll Free: 800/777-6405 • Fax: 408/738-2729 • bruce@aircraftcovers.com**