ASSEMBLY INSTRUCTIONS

TM18-TM36-TM54 SHELTERS
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1. INTRODUCTION

For more than 20 years, UTILIS is a manufacturer of multi-purpose quick-erect tents for civil and military applications.

The patented collapsible frame has proven track record around the world and tents are recognized by armies, civi protection organizations, rescue centers and associations for their simple yet durable innovation and lightweight features.

In addition to meeting the needs of customers, UTILIS’ versatile tents meet UN standards, MIL technical criteria and specifications.

ISO 9001 : 2000 certified, USER meets standards through strict quality control.

Innovative UTILIS solutions are currently being used for the following applications: Tents, Decontaminations Units, Camps and Command Posts, NBC Protection and COLPRO, Field Hospitals and Rescue Stations, Maintenance and Protective Operations.

UTILIS offers several ranges of tents made of different models that offer varied lengths and widths. Assembly in less than 5 minutes (for the TM18-36-54 tent range) with a minimum number of people (usually 3). All tents have an innovative assembly system that is easy to memorize. The ease and speed with which tents are deployed saves times and simplifies training. With a limited number of parts, field maintenance needs are minimized. All our tents can connect to each other, as well as other tent models that offer a wider work or living space.
UTILIS
ZAC EUROTRANSIT - RUE ABBE MARIOTTE
57365 ENNERY - FRANCE

Bureau Veritas Certification certifie que le système de management de l'organisme susmentionné a été audité et jugé conforme aux exigences de la norme :

Standard

ISO 9001 : 2008

Domaine d'activité

DEVELOPPEMENT, ASSEMBLAGE, MISE A DISPOSITION, FORMATION ET PRESTATIONS ASSOCIEES, MAINTENANCE DE TENTES MODULAIRES POUR LE CAMPEMENT, LES HOPITAUX DE CAMPAGNE, LES UNITES DE DECONTAMINATION ET LES ENSEMBLES DE PROTECTION NRBC.

DEVELOPMENT, MANUFACTURING, SUPPLYING, TRAINING AND RELATED SERVICES, MAINTENANCE OF MODULAR TENTS DEDICATED TO ACCOMODATION, FIELD HOSPITALS, DECONTAMINATION UNITS AND NRBC PROTECTION UNITS.

DESARROLLO, ENSAMBLAJE, PUESTA A DISPOSICION, CAPACITACIÓN Y PRESTACIONES RELACIONADAS, MANTENIMIENTO DE CARPAS MODULARES PARA BASES DE VIDA, HOSPITALES DE CAMPAÑA, UNIDADES DE DESCONTAMINACION Y CONJUNTOS DE PROTECCION NBQ.

РАЗРАБОТКА, МОНТАЖ, ПОСТАВКА, ОБУЧЕНИЕ И ТЕХНИЧЕСКОЕ ОБСЛУЖИВАНИЕ МОДУЛЬНЫХ ПАЛАТОК, ИСПОЛЬЗУЕМЫХ В ЛАГЕРЕХ, ПОЛЕВЫХ ГОСПИТАЛЯХ, ОБЕЗЗАРАЖИВАЮЩИХ МОДУЛЯХ И СИСТЕМАХ КОЛЕКТИВНОЙ ПРОТИВОХИМИЧЕСКОЙ ЗАЩИТЫ (РХЗ).

Date de début du cycle de certification : 31 mai 2014

Sous réserve du fonctionnement continu et satisfaisant du système de management de l'organisme, ce certificat est valable jusqu'au : 30 mai 2017

Date originale de certification : 28 juin 2005

Certificat n° : FR015393-1 Date : 06 juin 2014
Affaire n° : 6109021

Jacques Matillon - Directeur général

Adresse de l'organisme certificateur : Bureau Veritas Certification France
65, avenue de Général de Gaulle – Immeuble Le Gelliaumet - 92044 Paris La Défense

Des informations supplémentaires concernant la pérennité de ce certificat ainsi que l’applicabilité des exigences du système de management peuvent être obtenues en consultant l’organisme.
Pour vérifier la validité de ce certificat, vous pouvez téléphoner au : +33 (0)1 41 97 00 60.
2. UTILIS PRODUCTS

![Utilis Products Diagram](image-url)

![Camp Image](image-url)
3. TM SHELTERS

The technical characteristics of the TM tents are as follows:

- Frame made of aluminium tube and PVC outer fabric
- Assembly time: less than 5 minutes with 3 people
- No tools needed
- The canvas on the floor is welded or detachable from the canvas of the tent
- The attached safety net at the top of the tent allows electrical kits, distribution boxes and other accessories
- It is possible to have a door on each lateral side
- Depending on the number of doors, the tents can connect to each other in H, T, X or I shape.
- All windows are equipped with shutters
- The canvas has sleeves for air conditioning ducts, heating or other equipment
- A thermal net can be an additional accessory
- Insured protection of staff members in the following cases:
  - Wind, Rain, Sand, Snow, and Sun
- No water penetration up to a water level of 15cm
- Meets safety requirements when connecting with an air conditioner or heater
- Several colors are available: military green, sand, white ...
4. ASSEMBLY INSTRUCTIONS

4.1. ASSEMBLY

54 m² [TEAM - 4 PEOPLE]
36 m² [TEAM - 3 PEOPLE]
18 m² [TEAM - 2 PEOPLE]

Position the frame bag in the middle of this area. Place the longest length of the bag in the same direction as the desired length of the tent when erected.

Open the frame bag and remove the side arches with integrated feet. Place four (4) side arches on either side of the cleared area about a distance of nine (9) feet from the center.

Unfold the roof frame assembly by unfolding the roof arches while leaving the ridge hinges resting on the ground to limit the effort required to unfold.

Raise the roof frame upright so it is resting on the eaves. Remove the frame bag and place it outside the cleared set-up area.

Remove the bag and put it away.
Deploy the roof frame by grasping the ridge hinge at both ends, lifting slightly off the ground, and pulling away from the center. The eave purlins will lock into place automatically. The eave purlins will be held in place mechanically which gives rigidity to the roof assembly.

Slip the “hook and pile (Velcro)” band down and release the ridge purlins. Grasp the two pieces of the ridge purlin. Rotate 90° while lowering it to the ground. Repeat this procedure on the other two (2) ridge purlins.
Grab the two (2) pieces of the ridge purlin and slide the male connector into the corresponding piece of the ridge purlin.

When the pieces are assembled, as added safety use the “hook and pile” strip across the connection.

Repeat this procedure for the other two (2) ridge purlins. The roof assembly is complete. The roof frame will be in the configuration shown to the left. Notice the side arches pre-positioned for the next step.

The ridge hinge has an integrated pulley and is not symmetrical. Later in the set-up, the black cord will pass from the bottom of the ridge hinge over the pulley and towards one eave purlin. This will be the side of the tent that the side arches will be connected to first.
IMPORTANT—the cleat halfway up the side arch must face towards the outside.

Path of the cord

Path of the black cord
Proceed to the installation of the outer skin. Position the bag containing the outer skin at one end under the frame below the ridge hinge. The bag must be positioned parallel to the end roof arch.

Open the bag and unroll the outer skin fabric all the length of the roof assembly.

Remove the bag and place it outside the area that was cleared for the tent set-up.

Unfold the outer skin until the black cords attached along the ridge line of the outer skin are visible.
Pass these black ropes up through the ridge hinge on the frame as explained in step “2-1.i.”

Pass the black cord over the pulley and along the roof arch and over the eave purlin. Pull the end of the ropes two (2) inches past the cleat halfway down the outside of the side arch. Secure the black cord by wedging it in the cleat and drawing it upwards.

The cord in the cleat.

Simultaneously raise the other side of the roof frame and connect the other four (4) side arches to the angles on the roof arch, as explained in step “2-1.j.” The integrated foot on each side arch can be adjusted using three (3) positions for height to level the tent on uneven ground. The middle position is recommended for better tension on the fabric of the outer skin. Adjust the foot by removing the pin and withdrawing the axle. Adjust the foot to the desired height and replace the axle and secure with pin.
Locate the green straps which are at the ends and the middle of the fabric of the outer skin. They correspond to the foot on each side arch.

Lift the foot and pass the green strap under and around each foot.

Locate the black elastic bands attached to the outer skin near each green strap. Place the elastic band around the axle located at the bottom of each side arch.

Hang the “S” hook of the black strap (make sure that it is slackened) on the ring attached to the angles of the frame. Pay attention not to twist the strap.
Repeat the steps on the other side.

The tent will be in the configuration shown to the left.

Pull the four (4) black cords simultaneously and raise the ridgeline of the outer skin (fabric). Do not hesitate to put one foot on the side arch to gain leverage because the outer skin needs to be pulled all the way to the top. After the outer skin is pulled to its maximum height wedge the black cord in the cleat and secure.
Pull the black straps on the fabric towards the angle on the frame angle. If necessary, maximize the tension on the fabric by having one person pull the black strap and the second push the interior of the fabric corner towards the angle.

**IMPORTANT** - Tighten the fabric to the maximum to avoid pockets of water and minimize the wind effects.

Pull the black elastic cord attached halfway up the side of the outer skin around the side arch, just below the cleat. Connect the “S” hook back to the ring on the outer skin.
Roll up the doors at the end of the outer skin to the top. Hang the straps on the hooks fixed on the fabric at the top of the doors.

*Hook*

Simultaneously pull the end side arches (frame) away from the center to tighten the ground floor.
4.2. DISASSEMBLY

Inner equipment

- Unplug and remove the neons and the electrical box.
- Remove all the equipment placed inside the tent like table, chairs, beds, etc.

Outer equipment

* Remove air conditioning or heating system and their ducts
* Remove stakes and staking straps

Preparation for movement

- Prepare the TM36 for movement by cleaning and drying all the fabric sections.
- Remove all equipment inside the tent. This includes tables, chairs, light, electric boxes, power cables, etc.
- Disconnect modesty curtains (if present) and place in storage bag.
- Remove air conditioning duct from sleeve (if present).
- Pull stakes from the staking straps (guying lines) and from the feet of the side arches.

Remove guying straps and pegs.

Remove the inner velum.
Disconnect the “S” hooks on the thermal fly from the feet on the side arches. Pull the thermal fly off the frame of the tent and place the thermal fly on the ground.

“Fan Fold” the thermal fly in three (3) ft segments. Grab the 3 ft width and fold to the center. Accomplish same procedure on the other end. Repeat and then fold one half on to the other and place in storage bag.

Ensure that all equipment has been removed from the inside of the tent and that all the doors are lowered and unzipped. This will allow the air to escape when lowered.

Unfasten the “S” hooks on the black elastic cords and remove the elastic cords from around the side arches located just below the cleat.
Press the fastener on black strap firmly. It may take both hands. This will release and slacken the black strap. Remove the “S” hook from the ring on the angle of the arches. Repeat for all eight (8) arches.

**IMPORTANT:** Release the black ropes attached to the ridge of the outer skin simultaneously from the cleat to lower. Failure to do so may result in damage to the fabric of the outer skin of the tent.
Simultaneously pull the black rope free from the cleat on the side arch and lower the ridge line of the outer skin. Do not pull them back through the pulley on the ridge hinge at this time, simply let them hang.

Remove the black elastic cords and the green straps around each foot of the tent.

Take the green straps that were around the feet of the side arch and fold back onto the outer skin until two thirds of the tent is showing. Pull the black ropes down back through the ridge pulley. Loosely roll up the black ropes and place in the middle of the outer skin.

Grab the green straps from the other exposed side and fold the remaining one third of the outer skin unto itself.
Roll the outer skin tightly from one side to another using two or three people. Use knees to compress with each turn. Place the outer skin storage bag at the end and roll the fabric onto its center.

Ensure the bundle is centered and close using the straps of PVC bag.
Simultaneously have four (4) people grab the eave purlin where it intersects the arch. Raise the frame slightly while pulling the side arch out from the angle. Repeat the procedure on the other side and the roof assembly will be resting on the eave purlins.

Without legs.

Unfasten the “hook and pile (Velcro)” strip at the middle of the ridge purlin. Pull the male connector from the female.
Fold the two pieces of the ridge purlin back towards the roof arch and slip the “hook and pile” band over them to secure in place.

Release the mechanism of the eave purlin by moving the button parallel. While the mechanism is released fold up the arm slightly. Repeat on each eave purlin.

Fold up the frame by grabbing the end ridge hinges and bringing them towards the center of the roof assembly.
Position the frame bag under the frame and lay on the bag. Fold the roof arches in together while the ridge hinge remains on the ground. Position the roof frame inside the black outline provided on the inside of the bag.

Ensure the frame is centered in the outline and close using the straps of PVC bag.
Arrange the leg profiles with the orientation alternated as for the image. Take care of putting the cleats upward.