

# FRD

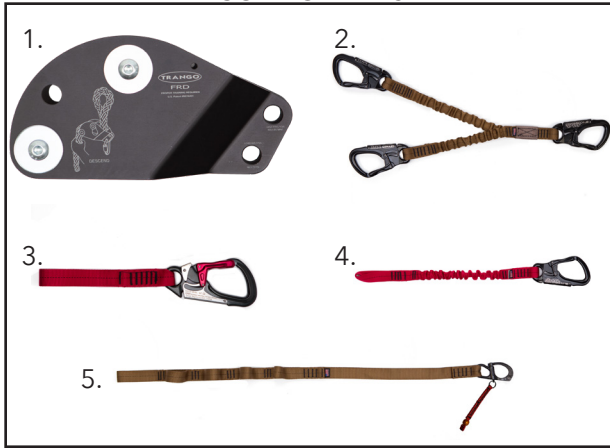
*Fast Rope Descender*



OPERATORS  
MANUAL

## Fast Rope Descender (FRD) User Instructions

### COMPONENTS



### **WARNING!!**

It is the user's responsibility to read and fully understand instructions before use. The FRD is intended for expert use only. Proper training is essential before using the FRD.

BE SURE TO FULLY UNDERSTAND THE LIMITATIONS OF THE FRD AND PRACTICE AND MASTER THE PROPER TECHNIQUES FOR USING THE FRD IN A SAFE ENVIRONMENT BEFORE USING THEM IN THE FIELD. FAILURE TO PROPERLY USE THE FRD MAY RESULT IN SERIOUS INJURY OR DEATH.

### **IMPORTANT:**

NEVER remove the brake-hand from the brake side of the rope. Keep your hand on and control the brake side of the rope at all times. 600 lbs is the maximum recommended total weight.

FRD performance can be affected by the following and other factors:

- Rope diameter and length
- Rope condition
- Dirty, wet or icy conditions

These instructions are not fast rope deployment instructions. *Thorough knowledge of fast rope techniques is required before using the FRD.*

### **Components of the FRD System:**

1. FRD Unit
2. FRD Y Lanyard (Canine Bridle)
3. Rapid Connect Lanyard (Extender)
4. Canine/Load Retention Lanyard
5. FRIES Daisy Lanyard

### **Preparation of the FRD system:**

**WARNING:** Ensure a safety spotter and/or a safety lanyard are used to secure the FRD Operator as both hands must be used to attach the FRD.

Each FRD Operator should put on the harness according to the harness manufacturer's instructions and have a rescue knife accessible to cut the double leash in case of complications on the ground.

1. Using a girth hitch, attach the 4' FRD Daisy Lanyard to the FRIES bar or to the Anchor Loop of the Fast Rope.
2. Pivot open the plates of the FRD and lay the Fast Rope in the FRD.
3. Close the FRD and verify that the rope travels through the device as shown in the illustration and on the etching on the FRD. **WARNING: incorrect set-up or orientation could result in injury or death!**
4. Attach the Rapid Connect Lanyard to the FRD in the high or low friction hole based on desired rate of descent. This secures the FRD to the Fast Rope and makes it a closed system. For lower resistance, use the Low Friction Hole, and for higher resistance use the High Friction Hole. Higher resistance will provide a slower, more controlled descent. It is recommended to use the High Friction Hole in most scenarios.
5. Attach the Canine/Load Retention Lanyard to the Aircraft with a girth hitch to a tie in point.
6. Attach short end of the Y Lanyard to the Secondary Load (soldier, canine, med pack, etc.) with the other Double Gate Carabiner. If there is not a secondary load being carried, clip the other end of the Double Gate Carabiner that is attached to your belay loop.
7. Attach the long end of the Y lanyard to the yourself (Operator)
8. Attach the FRD Daisy Lanyard (from Step 1) to the Retention Hole on the FRD. Insert the Quick Release buckle from the outside of the FRD so that the red pull-tab stays outside the FRD.
9. If a load will be carried, make sure it is prepared and in position. For right-handed operators, orient the secondary load to operator's left and use the right hand to brake. Left-handed operators should do the opposite. 600 lbs is the maximum recommended total weight (including the operator) that may be loaded on the FRD.
10. If descending with a canine, utilize the Canine Retention Lanyard to secure the canine to the helicopter while in flight and preparing to descend.
11. Attach the Single Double Gate Carabiner from the Y lanyard to the FRD through Red loop of the Rapid Connect Leash.
12. Double-check your equipment and surroundings.

The following list is non-exhaustive, and your situation may require you to check additional points. Check at least the following:

- **Harness:** Are harness buckles doubled back and is the harness snug?
- **Carabiners and Quick Releases:** Are all gates closed and locked on the correct attachment points?
- **Equipment/Load:** Is it secured and stable? Is it ready to exit the aircraft?
- **Fast Rope:** Is the Fast Rope connected securely to the aircraft? Is the Fast Rope clear of obstructions such as knots and tangles? Does it reach all the way to the ground?
- **Landing Site:** Is the Landing Site secure?
- **Team:** Is your team ready? It is extremely important that the pilot(s) knows when you are departing the aircraft.

### ***Descending with the FRD:***

1. Only after all preparation is complete and double-checked are you ready to depart the aircraft.
2. Hold the Fast Rope securely with at least one hand below the FRD unit. Always keep at least one hand on the Fast Rope to control your rate of descent.
3. When ready, unclip from your safety lanyard securing you to the aircraft and apply weight to the fast rope.
4. Position the Canine or load appropriately below you or to the side.
5. Unclip the Canine/Load Retention Lanyard from Canine/Load.
6. Control pivot out of Aircraft and transfer weight to 4' FRD Daisy Lanyard (Girth hitched to Fries Bar/ Anchor loop Fast Rope)
7. Utilize the red pull tab and release the Daisy Lanyard from the unit.
8. Slowly apply less pressure with your hand(s) on the Fast Rope until you reach the desired rate of descent. To slow your rate of descent, grip the Fast Rope more firmly.

### ***After Arrival at Secure Landing Site:***

1. Immediately unclip the Double Gate Carabiner from the High or Low Friction Carabiner Hole so that the Operator is no longer attached to the FRD or Fast Rope.
2. Remove the FRD from the Fast Rope by pivoting the plates to the open position and taking it off of the Fast Rope.
3. Unclip the Y Lanyard from the Operator's harness.

### ***Storage:***

FRD Units and all leashes and carabiners should be stored away from chemicals, UV light, and extreme

temperatures. Keep the included FRD Storage Bag for a convenient place to store and protect all components.

### ***Inspection:***

Detailed inspections of all FRD Kit components should take place before every use, without exception. The following points should be checked. If you find ANY parts in disrepair, they should be retired from use immediately.

1. **Leashes:** Inspect all leashes for frays, cuts, or excessive surface abrasion that creates a fuzzed appearance. Inspect all stitches for any damage or inconsistency. Take special care at all stitches and attachment points for the Quick Release Buckles, Metal Ring, and Carabiners.
2. **Carabiners:** Examine the entire carabiner for damage including chips, fractures, or other deformities. Ensure the screw-gate operates smoothly through its entire range of motion. You should always be able to operate the screw-gate with finger pressure (DO NOT use pliers).
3. **Quick Release Buckles:** Examine the entire buckle for damage including chips, fractures, or other deformities. Ensure that the buckle opens, closes, and locks smoothly. Make sure there is no damage to the red lanyard and its attachment point to the buckle.
4. **FRD Unit:** Examine the entire FRD unit for damage including chips, fractures, or other deformities on all surfaces, especially the rollers that the rope travels over. Check for excessive wear to the side plates, which may cause a polished appearance and removal of the anodized color. Development of a sharp edge from wear is cause for immediate retirement. Check the High Friction and Low Friction Carabiner Holes for any deformation.

### ***DISCLAIMER***

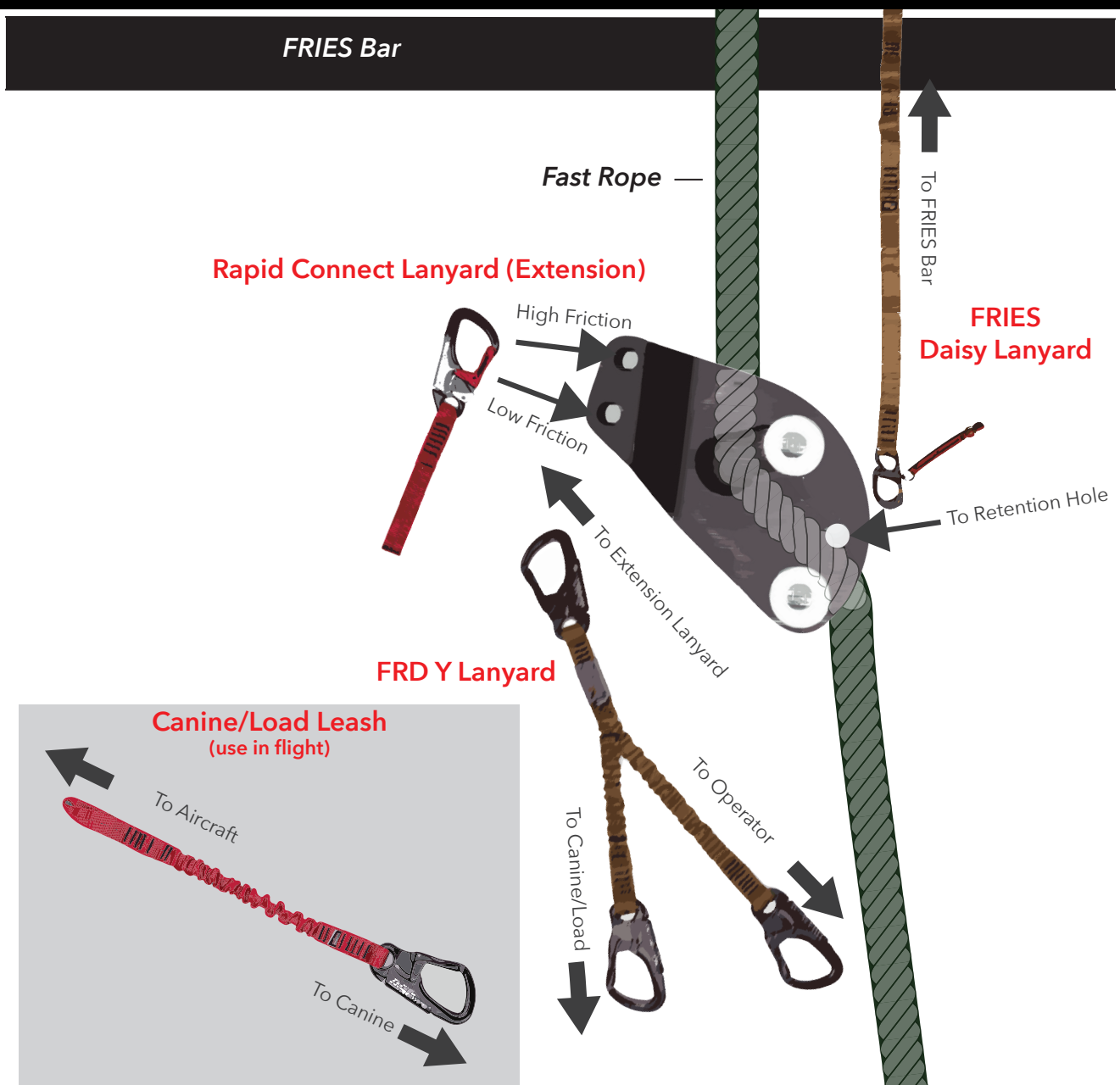
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For further information or inspection please contact:  
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# FRD

## Fast Rope Descender

Quick Reference Layout



Questions? Contact us at [info@trango.com](mailto:info@trango.com) or 303-530-3035