TALON® CABLE CLEATS

INSTALLATION GUIDE

HOLD THE CABLES. HUG THE RUNG.®

Suitable for wet locations

Made in USA

CABLE RANGE (1 CABLE PER CLEAT)		CABLE RANGE (2 CABLES PER CLEAT)		CABLE RANGE (3 CABLES PER CLEAT)		CABLE RANGE (4 CABLES PER CLEAT)	
Cable OD Min - Max	**Cable Cleat and Liner Part Numbers [1]**	**Cable OD Min - Max**	**Cable Cleat and Liner Part Numbers [1]**	**Cable OD Min - Max**	**Cable Cleat and Liner Part Numbers [1]**	**Cable OD Min - Max**	**Cable Cleat and Liner Part Numbers [1]**
16.0 – 23.0 mm *(0.63 – 0.91 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C30_2x5	15.0 – 20.0 mm *(0.59 – 0.79 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C20_2x5	15.0 – 19.0 mm *(0.59 – 0.75 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C10_2x5	13.0 – 17.0 mm *(0.51 – 0.67 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C10_2x5
23.0 – 29.0 mm *(0.91 – 1.14 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C20_2x5	20.0 – 23.0 mm *(0.79 – 0.91 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C10_2x5	19.0 – 24.0 mm *(0.75 – 0.94 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: *not required*	17.0 – 22.9 mm *(0.67 – 0.90 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: *not required*
29.0 – 35.0 mm *(1.14 – 1.38 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: Qty-2 x C10_2x5	23.0 – 25.4 mm *(0.91 – 1.00 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: *not required*	24.0 – 25.4 mm *(0.94 – 1.00 in.)*	Cleat: T1 - 05 - F1H4R** - 000 Liner: Qty-2 x C10_3x5	22.9 – 33.0 mm *(0.90 – 1.30 in.)*	Cleat: T1 - 05 - F1H4R** - 000 Liner: *not required*
35.0 – 50.0 mm *(1.38 – 1.97 in.)*	Cleat: T1 - 04 - F1H4R** - 000 Liner: *not required*	25.4 – 30.0 mm *(1.00 – 1.18 in.)*	Cleat: T1 - 05- F1H4R** - 000 Liner: Qty-2 x C20_3x5	25.4 – 30.0 mm *(1.00 – 1.18 in.)*	Cleat: T1 - 05- F1H4R** - 000 Liner: *not required*		
50.0 – 79.3 mm *(1.97 – 3.12 in.)*	Cleat: T1 - 05- F1H4R** - 000 Liner: *not required*	30.0 – 39.0 mm *(1.18 – 1.54 in.)*	Cleat: T3 - 03 - F1H4R** - 000 Liner: *not required*	30.0 – 39.0 mm *(1.18 – 1.54 in.)*	Cleat: T3 - 03 - F1H4R** - 000 Liner: *not required*		
79.3 – 86.0 mm *(3.12 – 3.39 in.)*	Cleat: T3 - 05- F1H4R** - 000 Liner: *not required*	37.0 – 47.0 mm *(1.46 – 1.85 in.)*	Cleat: T3 - 04 - F1H4R** - 000 Liner: *not required*	37.0 – 47.0 mm *(1.46 – 1.85 in.)*	Cleat: T3 - 04 - F1H4R** - 000 Liner: *not required*		
86.0 – 106.0 mm *(3.39 – 4.17 in.)*	Cleat: T3 - 06- F1H4R** - 000 Liner: *not required*	45.0 – 58.0 mm *(1.77 – 2.28 in.)*	Cleat: T3 - 05 - F1H4R** - 000 Liner: *not required*	45.0 – 58.0 mm *(1.77 – 2.28 in.)*	Cleat: T3 - 05 - F1H4R** - 000 Liner: *not required*		
		56.0 – 71.0 mm *(2.20 – 2.80 in.)*	Cleat: T3 - 06 - F1H4R** - 000 Liner: *not required*	56.0 – 71.0 mm *(2.20 – 2.80 in.)*	Cleat: T3 - 06 - F1H4R** - 000 Liner: *not required*		

RUNG SPACER SELECTION [1]

Rung Depth [2] Min – Max	**Rung Width [2]**	**Example Cable Trays [3]**	**Rung Spacer Part Number**
> 27.4 mm *(> 1.08 in.)*	≤ 45.7 m *(1.80 in.)*	US Tray (standard and strut rungs)	**R00** *(not required)*
24.5 – 27.4 mm *(0.96 – 1.08 in.)*		Basortrav-IL, B-Line (aluminum and steel Series 2-5); Cablofil ltray; Enduro (FRP standard rung); PW (box rung)	**R10**
22.8 – 24.4 mm (0.90 – 0.96 in.)		T&B (aluminum and steel strut rung)	**R15**
21.0 – 22.7 mm *(0.83 – 0.89 in.)*		Cope Ladder (aluminum and steel swage rung)	**R20**
18.9 – 20.9 mm *(0.74 – 0.82 in.)*		B-Line IEC Ladder; Code Electric (aluminum narrow rung)	**R30**

Notes:
1. Substitute R** with the appropriate rung spacer part number for all T3 cable cleats and for T1 cable cleats securing 1 cable per cleat in ladder-type cable tray or channel strut profile with depth ≤ 27.4 mm *(1.08 in).* For T1 cable cleats securing more than 1 cable, contact Talon Products.
2. For rung or channel strut depth > 28.6 mm *(1.125 in.)* or width > 45.7 mm (1.8 in), select R00 part number and attach cable cleat using auxiliary mounting hardware.
3. For other cable tray models, correlate the rung dimensions to the respective rung spacer or contact Talon Products.

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PRE-INSTALLATION Read all instructions prior to installation and contact Talon Products with any questions. This installation guide is general in nature and may not be suitable for every installation. Follow all safety measures required for electrical installation (e.g. deenergize cables before installing, maintaining or removing cable cleats). In addition to work gloves and safety glasses, recommended tools include a hollow-shaft nut driver or ratcheting socket wrench and 6-point deep socket. A tappet wrench and calibrated torque wrench may be required. Torque values are based on clean dry threads. Application temperature range is -60 °C to +90 °C.

STEP 1 – INSTALL RUNG SPACER (if required) For installation in ladder-type cable tray, refer to Figure 1. For mounting on channel strut or other (non-cable tray) mounting surfaces, rung spacers are not required. The rung spacer may cover the mounting hole(s).

STEP 2 – INSTALL CABLE CLEAT LINERS (if required) If cable cleat liners are required, refer to Figure 4. Position one liner below the cable(s) and the other above the cable(s). If the liners are different widths, the wider liner should be positioned above the cable(s) and the narrow liner should be below the cable(s). The liners should be centered in the cable cleat and extend beyond the front and back of the cable cleat by at least 6.35 mm (0.25 in).

STEP 3 – POSITION BASE FROM BELOW

Installation in cable tray: Position the cable cleat base below the cable tray rung as pictured in Figure 2, such that the cleat touches the bottom of the cable(s) or liner, if used.

Installation on channel strut or other (non-cable tray) mounting surfaces using auxiliary mounting hardware: Place mounting bolt through a flat washer and through each mounting hole from the inside of the base. Finger-tighten flange nuts; then tighten to 18 - 24 in-lbs (i.e. ¾ to 1-½ turns). For additional security, a suitable thread locking compound or jam nuts may be used. Jam nut torque guidelines are provided in STEP 4.

Intermediate restraint installation: To secure a cable bundle that is not attached to a rung or strut (e.g. between two cable cleats), position the cable cleat base below the bottom of the cables using a liner, if required.

STEP 4 – POSITION CAP FROM ABOVE AND TIGHTEN Place the cable cleat cap above the cable(s) or liner, if used, and align with the integral cable cleat gripping bolts as pictured in Figure 3. If the cables are similarly sized, the gap between the base and cap should remain equal on all corners during installation. If the cables and cleat are properly matched, an air gap will remain between the cable cleat base and cap after installation. If the cables are straight (i.e. aligned with the longitudinal cable cleat axis), finger-tighten each flange nut after it engages the surface of the bolt pedestal on the cable cleat cap. Then, tighten each flange nut using the following torque guidelines while ensuring the bolt heads remain fully seated in the hex recesses in the cable cleat base.

T1 Cable Cleats → 60 - 72 in-lbs (i.e. 1 to 2 turns) with 1/2 in. socket

T3 Cable Cleats → 36 in-lbs (i.e. 1 to 2 turns) with 1/2 in. socket for T3-03, T3-04 & T3-05 and 9/16 in. socket for T3-06

Additional turns may be required for cables that are not straight (e.g. plexed cables or cables with larger conductors that retain geometrical “memory” from the reel). DO NOT OVER-TIGHTEN GRIPPING HARDWARE. Neither the cables, nor the cleat should be deformed and the cables should not bulge at either end of the cleat. The flange nut may slightly impress the surface of the bolt pedestal after tightening. For additional security, a suitable thread locking compound or jam nuts may be used. When using jam nuts, tighten all of the flange nuts first. Then, hold each previously tightened flange nut in position using a tappet wrench and tighten the jam nut against the flange nut until the desired torque value is reached. DO NOT APPLY ADDITIONAL TORQUE TO THE FLANGE NUTS. The following general torque guidelines are provided for reference when using jam nuts:

Ø 5/16 in. jam nut → Maximum Torque = 132 in - lbs with 1/2 in. socket

Ø 3/8 in. jam nut → Maximum Torque = 236 in - lbs with 9/16 in. socket

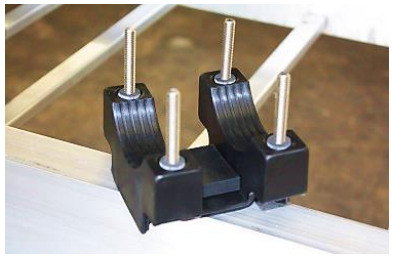

Figure 1

Rung Spacer in Cable Cleat Rung Channel

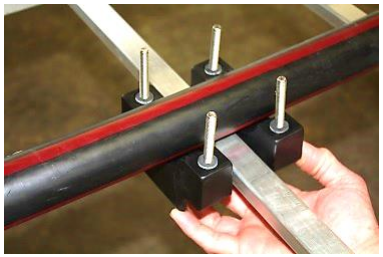

Figure 2

Install Cable Cleat Base Below Rung

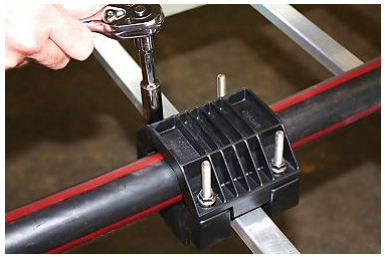

Figure 3

Install Cable Cleat Cap on Top of Cable

Figure 4

Cable Cleat with Top and Bottom Liners

Notes:

1. Thread galling is a condition that can affect stainless steel hardware. To mitigate the risk of thread galling: THREADS SHOULD BE CLEAN AND DRY. TURN NUTS SLOWLY. DO NOT APPLY EXCESSIVE PRESSURE TO NUTS. DO NOT USE IMPACT WRENCH. USE SUITABLE ANTI-GALLING COMPOUND. For additional information on thread galling, contact Talon Products.

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