

# OR2800 CABLE TERMINAL HOUSING UNIT

This unit is a replacement for the original Conxall 7 pin connector. The accompanying sketch shows all the parts in and exploded view. Assembly should be self explanatory.

This terminal block allows easy field connections and easy access for trouble shooting and voltage measurements at or near the rotator. The housing has a sealing cover and the cable grips are also plastic and form a good seal at the exterior to the housing and where the cable enters. Even so as we all know Mother Nature finds ways to get moisture inside. We recommend you take added precautions based on your personal environment to seal around the cable grips and where the cables enter the cable grip. RTV sealant works well if placed on the mating face just prior to grip installation on the housing. Then tighten the grip onto the nut inside the housing. Once the cables are installed and all connections completed with the cover on, then the cables can be sealed with coax seal, etc.

Six terminal positions have been provided This unit can replace any existing connector on an older OR2800 AC unit with 3 motor leads and two reed switch leads. The order in which you place your leads is up to you but logically it makes sense to duplicate the wiring on the rear panel of the RC2800 AC or DC control unit.

We have provided a terminal block for wire sizes up to #12 AWG. Since most rotator cables have at least 8 wires, it is advantageous to double or triple up the unused wires to get the most power possible to the rotator, particularly on runs over 250 feet..

If you have an OR 2800 AC rotator, (3 motor leads) pair up the Green wire with the Large black wire and insert both into one end terminal position. White and Yellow can be paired and inserted into the next position. Red and Brown can be paired to complete the motor leads. The other two leads, normally Orange and Blue, are the reed switch leads and since only 5 mills of current flow when the reed switch closes, there is no need to pair up to reduce voltage drop. Connect the Orange wire in terminal [position #5 and Blue in the last position, #6 Note: your colors may vary. Use two of the smallest wires for the reed switch leads. These are the Orange and Blue leads coming out of the rotator. Black, White and Red are the motor leads from most older AC units.

If you have an OR 2800 DC unit, White and Black are the motor leads coming from a DC OR 2800. In your long cable run, Black, Green and Brown can be twisted together and inserted in the end terminal position. White, Yellow and Red can also be twisted together and inserted in terminal position #2. The remaining Orange and Blue wire can be inserted into terminal positions #5 and #6 respectably.

## WIRING THE TERMINAL BLOCK:

Sometimes it may be easier to wire into the terminal block while it is above the housing. Remove two of the sub plate mounting screws on the long side of the housing. Loosen the other two screws and slide the sub panel and terminal block out of the housing. Strip off about 3" of

# TERMINAL BOX ASSEMBLY MANUAL

the cable jacket and insert in into and through one of the cable grips so you have plenty to work with. Strip off about 1/4" to 5/16" of insulation on each wires to be used. Twist the bare leads together and insert into the terminal holes and tighten. Once one cable is done, then do the same thing with the other cable and wires. When all the leads are in place and tightened securely, replace the sub plate and tighten the 4 screws holding it down. Pull back the excess cable and make sure the outer jacket of each cable is well into the cable grip. Tighten each cable grip until the cables won't slip and the seal is complete around the cable. Smaller cables may have to be enlarged with tape so the cable grips can do their job. Install the cover and tighten all 4 screws evenly to create a good seal.

## MOUNTING THE HOUSING:

The mounting plate is provided so the housing can be mounted on a tower leg using a Unicradle.

This mounting is optional and the plate is optional. The four holes in the hosing can be used for other mounting methods. The holes are blind and will not affect the integrity of the housing.

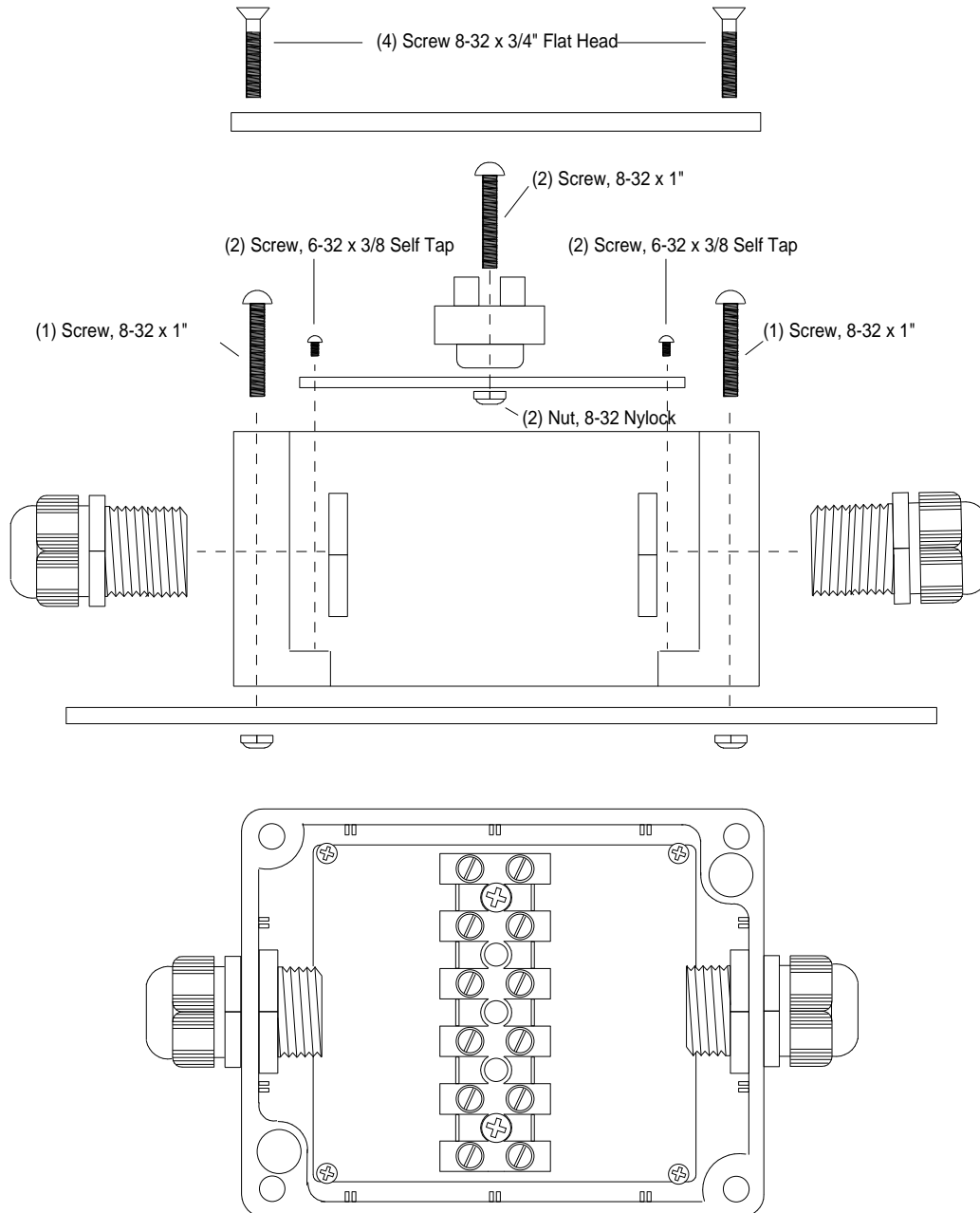
## CABLE ROUTING:

Whenever possible cables down and away from the housing. This prevents water from running down the cable and finding its way into the housing. Form 'Drip Loops' in the cable so water can run away from the housing and then drip off the cable.

## CAREFULLY DESIGNED AND MANUFACTURED BY:

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# OR2800 TERMINAL BOX PARTS & HARDWARE



## PARTS LIST:

Enclosure W/Lid	1	Nut, 1/4-20	2
Terminal Block (6 pos)	1	Washer, 1/4 Split Ring	2
Plate, .125 x 3 x 3.875	1	Screw, 8-32 x 1	4
Plate, .125 x 3 x 6.5	1	Nut, 8-32 Nylock	4
Cord grip W/Nut	2	Screw, 6-32 x 3/8 type F	4
Uni-Cradle (M2AMC0070)	1	Hardware bag from Bud	
U-bolt, 1/4-20 x 2" (14427BNF)	1	Box kit AN-1304	1

# TERMINAL BOX MOUNTING SUGESTIONS

