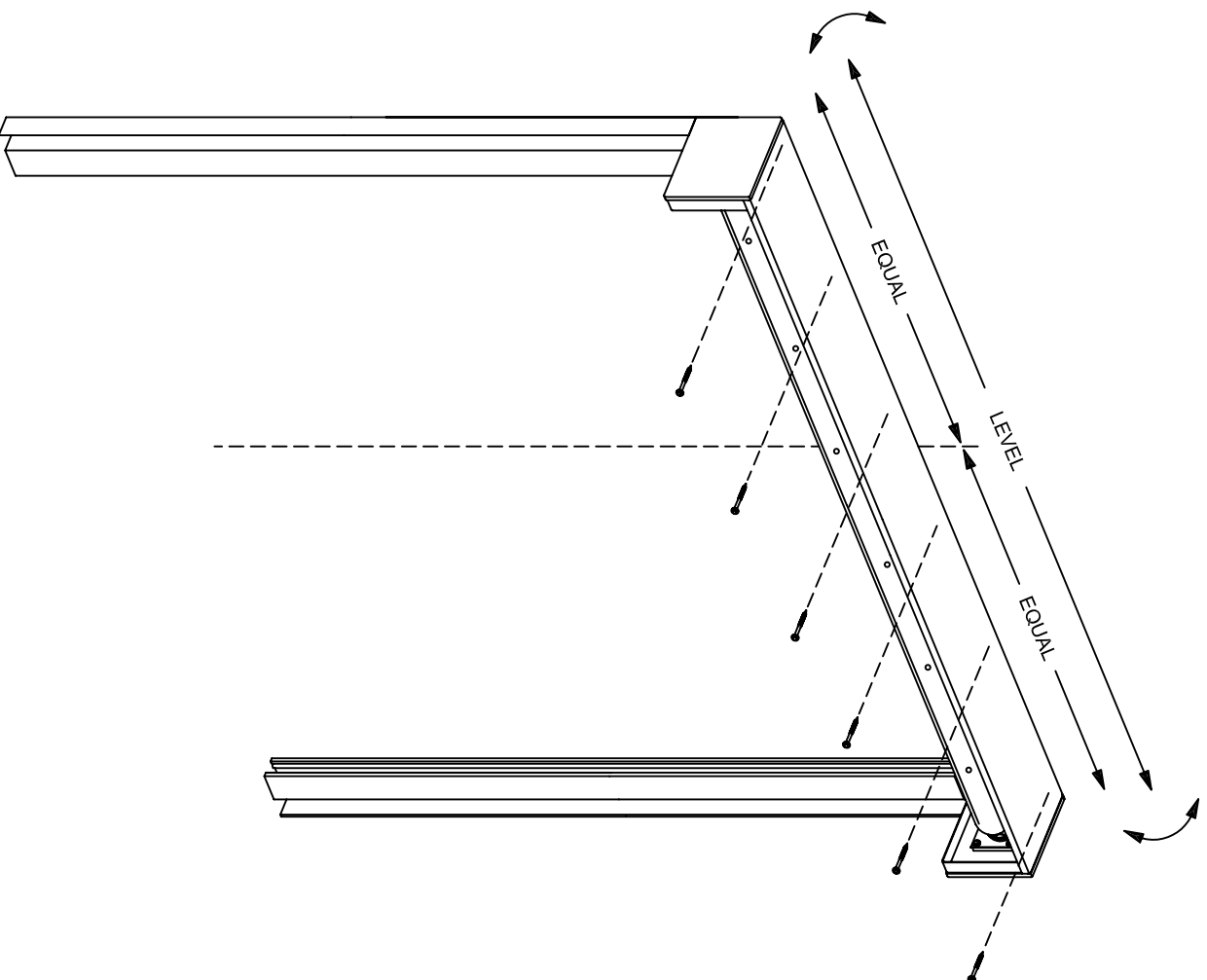




Nautilus

Rolling Shutter System

PAGE #1



STEP #1 - CHECK TO SEE THAT YOU HAVE ALL THE NECESSARY TOOLS LADDERS, DRILLS, DRILL BITS, DRIVERS, LEVEL, TAPE MEASURE, ECT.

STEP #2 - DETERMINE THE COMPOSITION OF YOUR SUB-STRAIGHT BE SURE YOU HAVE THE CORRECT TYPE AND LENGTH OF FASTENER

STEP #3 - REMOVE THE CONTENTS FROM THE PACKAGING BE SURE YOU HAVE ALL THE NECESSARY COMPONENTS TO BEGIN

STEP #4 - DETERMINE AND MARK THE CENTERLINE ON THE OPENING THEN MARK THE CENTERLINE OF THE SHUTTERS HOUSING

STEP #5 - CONNECT THE SIDE TRACKS TO THE SHUTTER HOUSING AND STAND THE UNIT INTO PLACE, CHECK TO BE CERTAIN THE UNIT IS LEVEL

STEP #6 - IF NECESSARY, YOU MAY NEED TO TRIM ONE OR BOTH OF THE TRACKS TO LEVEL THE UNIT, ALWAYS TRIM AT THE BOTTOM

STEP #7 - CENTER THE UNIT, THEN DRILL AND INSTALL ONE FASTENER IN THE UPPER MOUNTING HOLE OF EACH END CAP, USE ONLY THE UPPER HOLE - DO NOT INSTALL FASTENERS IN THE LOWER MOUNTING HOLES

STEP #8 - COMPLETE THE INSTALLATION OF THE HOUSING BY INSTALLING ONE (1) FASTENER EVERY 24" ALONG THE UPPER BACK CORNER OF THE HOUSING - ALWAYS SEAL EACH PENETRATION INTO THE STRUCTURE

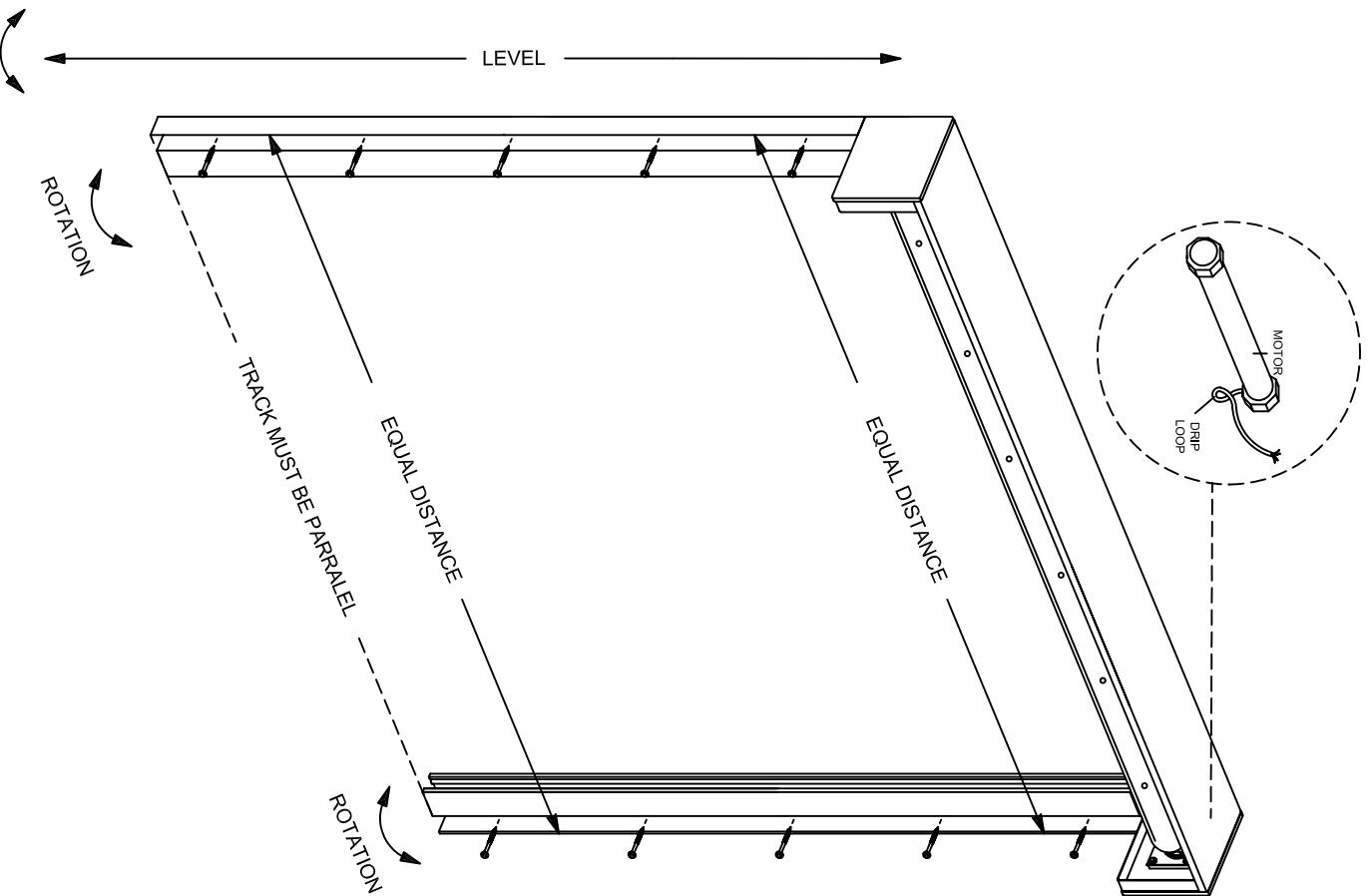
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Nautilus

Rolling Shutter System

PAGE #2



STEP #9 - LEVEL THE LEFT HAND TRACK. THEN DRILL AND INSTALL THE FASTENERS. ALWAYS SEAL EACH PENETRATION INTO THE STRUCTURE

STEP #10 - MEASURE THE DISTANCE FROM OUTSIDE OF TRACK TO OUTSIDE OF TRACK JUST BELOW THE HOUSING AREA

STEP #11 - ADJUST THE BOTTOM OF THE RIGHT HAND TRACK UNTIL THE SAME DISTANCE IS MAINTAINED AS WAS MEASURED NEAR THE TOP

STEP #12 - DRILL AND INSTALL THE FASTENERS IN THE RIGHT HAND TRACK. ALWAYS SEAL EACH PENETRATION INTO THE STRUCTURE

STEP #13 - CHECK TO SEE IF THERE IS ANY ROTATION OF THE TRACKS, THEY MUST BE PARALLEL WITH EACH OTHER, ADJUST IF NECESSARY

STEP #14 - DO NOT INSTALL THE TRACK COVERS ON, THESE MUST REMAIN OFF IN CASE ADJUSTMENTS ARE NEEDED. IF AN INSPECTION IS REQUIRED THEY MUST REMAIN OFF UNTIL INSPECTION(S) ARE COMPLETED

STEP #15 - DETERMINE THE DIRECTION AND POSITION THE MOTOR CORD WILL EXIT THE HOUSING. DRILL AND PULL THE CORD THROUGH TO THE OUTSIDE OF THE HOUSING OR INTO THE BUILDING. SEAL PENETRATIONS

STEP #16 - BE SURE TO FORM A DRIP LOOP JUST BELOW THE MOTOR, THIS WILL PREVENT WATER DAMAGE TO THE MOTOR. BE SURE THE MOTOR WIRE IS SECURED AND AWAY FROM THE AREA THE ROLL WILL TRAVEL

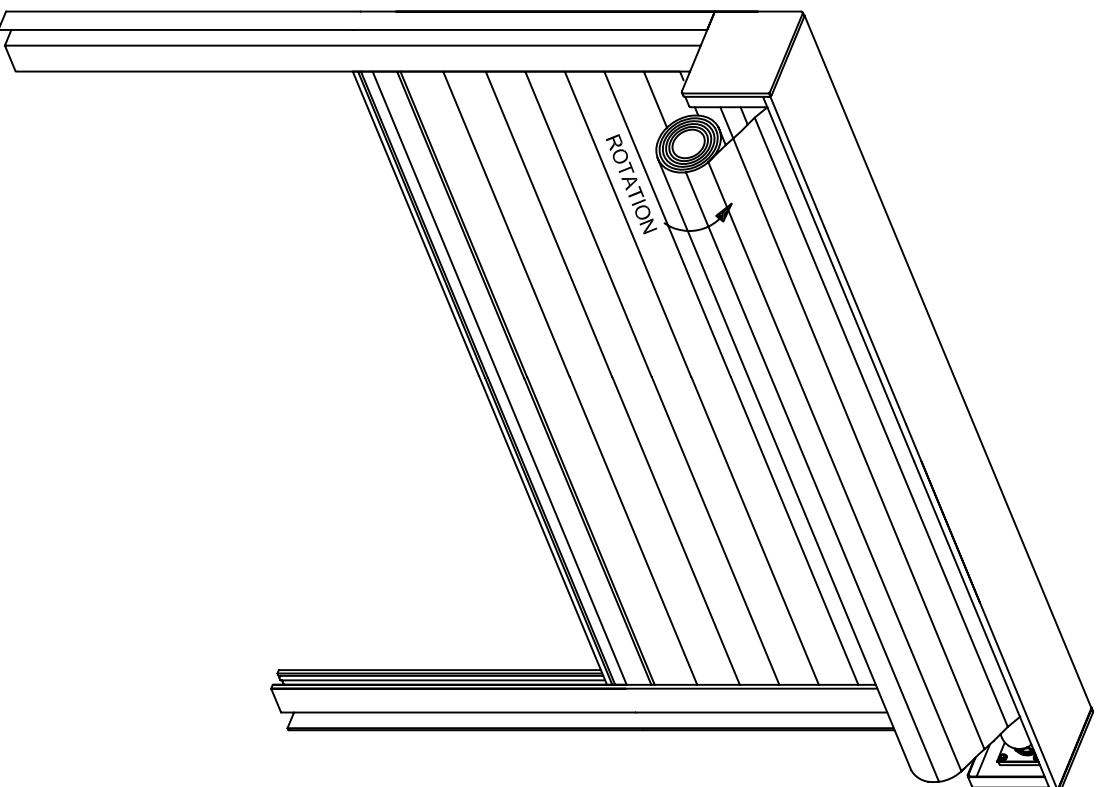
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Nautilus

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PAGE #3



STEP #17 - BEFORE INSTALLING THE SLATS, BE SURE TO TIE A CLEAN, CLOTH HAND TOWEL AROUND THE AXLE APPROXIMATELY EVERY 3 FEET, TO PREVENT MARRING OF THE SLATS FROM RUBBING ON THE AXLE

STEP #18 - RAISE THE ROLL OF SLATS TO THE FRONT OF THE HOUSING, MAKE SURE THE ROLL IS FACING THE CORRECT DIRECTION

STEP #19 - MOVE THE BASE SLAT OVER THE AXLE AND GUIDE IT INTO THE TRACKS, SLOWLY CONTINUE TO FEED THE SLATS OVER THE AXLE

STEP #20 - DEPENDING ON THE SIZE AND WEIGHT OF THE ROLL, YOU MAY NEED TO SUPPORT THE BASE SLAT AND EASE IT DOWN TO THE SILL

STEP #21 - ONCE THE SLATS ARE COMPLETELY INTO THE TRACK, REMOVE THE HAND TOWELS THAT ARE WRAPPED AROUND THE AXLE AND FASTEN THE STARTER SLAT TO THE AXLE WITH THE SCREWS PROVIDED

STEP #22 - ADJUST THE LIMIT SETTING ON THE MOTOR, PLEASE FOLLOW THE SPECIFIC INSTRUCTIONS FOR YOUR MOTOR BRAND AND TYPE

STEP #23 - THE UPPER LIMIT SHOULD BE SET SO THAT THE BASE SLAT REMAINS IN THE TRACK AT LEAST TWO INCHES. THE BOTTOM LIMIT SHOULD BE SET ONCE THE BASE SLAT MAKE CONTACT WITH THE FLOOR, OVER ADJUSTMENT CAN CAUSE DAMAGE TO THE SLATS OR MOTOR

STEP #24 - CHECK THE OPERATION OF THE SHUTTER SEVERAL TIMES, MAKE ADDITIONAL ADJUSTMENTS IF NECESSARY. DO NOT RUN THE SHUTTER CONTINUOUSLY FOR LONG PERIODS. THE MOTORS ARE EQUIPPED WITH A THERMAL CUT OFF. IF THE MOTOR STOPS RUNNING, ALLOW IT COOL DOWN FOR TWENTY MINUTES AND IT WILL RESET ITSELF

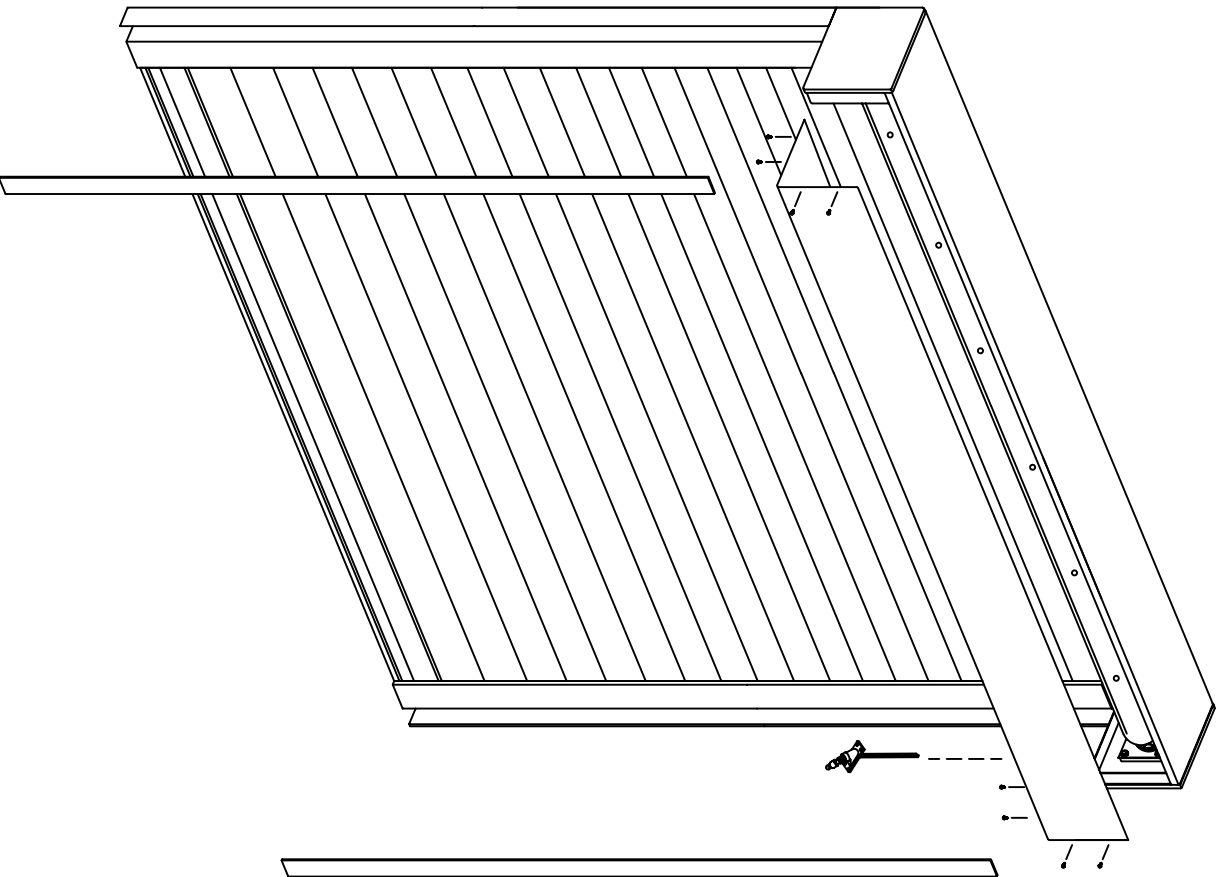
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Nautilus

Rolling Shutter System

PAGE #4



STEP #25 - INSTALL THE FRONT COVER. SLIP THE UPPER EDGE OF THE FRONT COVER INTO THE SEAM OF THE HOUSING. ON LARGER HOODS, START AT ONE END AND WORK ACROSS THE LENGTH OF THE HOUSING

STEP #26 - FASTEN THE FRONT COVER STAINLESS STEEL SHEET METAL SCREWS OR ALUMINUM RIVETS. YOU MAY NEED TO APPLY PRESSURE TO THE OUTSIDE OF THE END CAP TO GET A TIGHT FIT

STEP #27 - IF THE UNIT IS EQUIPPED WITH A MANUAL OVERRIDE, DRILL A 5/8" HOLE INTO THE FRONT COVER AND THEN FASTEN THE UNIVERSAL

STEP #28 - ONLY IF THE UNIT OPERATION HAS BEEN CHECKED AND INSPECTIONS ARE COMPLETE, THEN YOU CAN INSTALL THE TRACK COVERS. USE A BLOCK OF WOOD AND RUBBER MALLETT TO PREVENT DAMAGING THE COVERS. CAUTION: ONCE THE COVERS ARE INSTALLED THEY CAN NOT BE REMOVED

STEP #29 - WIPE DOWN THE UNIT AND SEAL AROUND THE PERIMETER. THE TOP OF THE HOUSING SHOULD BE SEAL WITH THE USE AN "L" SHAPED FLASHING OR ALUMINUM ANGLE THAT IS SEALED AGAINST THE WALL AND AGAINST THE TOP OF THE SHUTTER HOUSING. THIS ACTS AS AN EXPANSION JOINT AND WILL MAINTAIN A POSITIVE SEAL EVEN AS THE HOUSING EXPANDS AND CONTRACTS WITH HEAT AND COLD.

SEE ENGINEERING FOR COMPLETE INSTALLATION DETAILS