



Common Failures:



RC Fasteners not fully engaged.



Watch out for drywall fasteners going through the metal studs...which will short circuit the system.



RC should be located with the flange down, in order to properly support the drywall, not putting weight against the metal studs.



The RC is installed about 12" above the door head, which is allowing the drywall to span over 2". The RC should be located no more than 2" above the opening.



Sound attenuation is very important to many of our projects. Projects are using resilient channels to get to the sound attenuation requirements that many designers are looking for. Installation of the resilient channel is key to its success. Understanding the complexities and requirements of the system is the first step to a successful sound attenuation installation. Many specifications/drawings do not go into all the requirements.

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Installation of Resilient Channels:

- ⦿ It's important to RC should be installed mounting flange down, except at the base of the wall and opening heads. When the RC is installed upside down, the weight of the drywall pushes the channel into the studs (instead of pulling it away from the studs when installed properly) thus causing a short circuit in the wall, resulting in poor sound insulation.
- ⦿ Locate RC within 2" of the floor and opening heads.
- ⦿ Locate RC no more than 6" from the ceiling.
- ⦿ Install RC on studs no greater than 24" o.c.
- ⦿ Install RC on the ceiling at 16" o.c. when joists are 24" o.c. or 24" o.c. when the joists are 16" o.c.
- ⦿ DO NOT install wood blocking at the base of the wall for installation of baseboards.
- ⦿ DO NOT install RC over existing drywall. This will greatly reduce the RC effectiveness.
- ⦿ Installation of ends of RC are either butted, leaving 1/16" gap between ends OR nested & screwed over stud.
- ⦿ RC should not be used on walls that will support cabinets, bookshelves, TV, grab bars, etc..If this is specified, we need to RFI Architect...as we will need to install solid wood blocking at these locations, effectively eliminating the effectiveness of the RC itself.
- ⦿ Review the Installation of wood blocking. If wood blocking is needed, must review with the architect to discuss the sound issue, as well as the unsupported length of the fastener going into the wood.
- ⦿ No more than two layers of up to 5/8 in. gypsum panel products should be installed to RC.
- ⦿ Resilient channels can cantilever a maximum of 6 inches. This may vary by manufacturer and the profile of the intended channel.



Proper splice over stud



Proper RC Installation

Installation of Drywall on RC:

- ⦿ Make sure that the drywall fasteners are not too long where they will come in contact with the studs. The proper screw length for attaching a single layer of gypsum board to resilient channel is 1 inch; the screw length used to create the short circuits was 1-5/8".
- ⦿ To meet fire resistance requirements, the channel and the gypsum panels should extend through any inside corners, meaning through the intersecting stud cavity and be attached to the very last stud. For outside corners, leave a small gap between adjacent channels. The suggested method for gypsum panels in multi-layered systems would be to "stair step" them.
- ⦿ When installing baseboards, many contractors place a wooden block to reinforce the bottom edge of the drywall. If this is done, the drywall is structurally locked to the studs, and the RC is not effective.
- ⦿ When adding a 2nd layer of drywall, this should be done on the other side of the wall.
- ⦿ If this is a rated wall with intumescent track. The top of the wall will need a solid section in order to comply with the fire rated head of wall.



Proper RC Installation

