

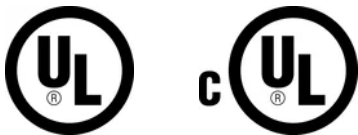
Chemical Ground Electrode



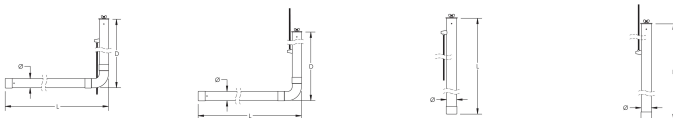
Chemical ground electrodes provide a low impedance ground in locations of high soil resistivity and dry soil conditions. Used in conjunction with a bentonite backfill and nVent ERICO's unique GEM material, the nVent ERICO chemical ground rod electrode systems provide a method to improve soil resistivity directly surrounding the electrode, and can replace multiple conventional ground rods. It maintains a low ground resistance, that dissipates lightning energy and other dangerous electrical fault currents, even in sandy or rocky soil conditions.

The chemical ground electrode is useful for providing an effective earth in poor soil conditions where space for electrodes is limited. Applications include telecommunications, power generation and distribution, commercial and industrial, manufacturing, transportation (rail and aviation), lightning protection, recreational facilities, and defense. The nVent ERICO chemical ground rod electrode systems are most effective when installed as part of a total system that includes high conductivity backfill materials, access/inspection wells, and permanent, reliable nVent ERICO Cadweld connections. They may be installed either vertically or horizontally.

CERTIFICATIONS



DIAGRAMS



FEATURES

Contains natural electrolytic salts, which permeate into the surrounding soil to condition the soil and increase its conductivity

Easy connection to ground electrode conductor using the factory provided pigtail (up or down orientation)

Provides decades of reliable services due to rugged construction and high-quality metals with a 30-year minimum service life

2-1/8" (54 mm) outside diameter copper pipe with 0.083" (2.1 mm) wall

Available in continuous sections up to 10' (3.05 m) in length; longer rods can be field assembled using 5' (1.52 m) or 10' (3.05 m) extensions

Optional factory-attached radial strips are available to reduce impedance to high-frequency lightning energy and to control the direction of the dissipation

L-shaped rods are available for horizontal installation applications where it is impractical to auger deep vertical holes

Access segment on horizontal (L-shaped) chemical ground electrodes is 32" (813 mm) deep

SPECIFICATIONS

Material: Copper

Table 1/1

Catalog Number	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRE352L1UB	Vertical with Pigtail Up	35'	1'		3/0 Stranded	No
ECRH102Q2U	Horizontal with Pigtail Up	10'	2'	32"	4/0 Stranded	Yes
ECRV101T2U	Vertical with Pigtail Up	10'	2'		#2 Solid	Yes
ECRV102Q2D	Vertical with Pigtail Down	10'	2'		4/0 Stranded	Yes
ECRV102Q3U	Vertical with Pigtail Up	10'	3'		4/0 Stranded	Yes
ECRH101T3D	Horizontal with Pigtail Down	10'	3'	32"	#2 Solid	Yes
ECRE202C4D	Vertical with Pigtail Down	20'	4'		1/0 Stranded	Yes
ECRE202C4DB	Vertical with Pigtail Down	20'	4'		1/0 Stranded	No
ECRH082C4U	Horizontal with Pigtail Up	8'	4'	32"	1/0 Stranded	Yes
ECRH102C4D	Horizontal with Pigtail Down	10'	4'	32"	1/0 Stranded	Yes
ECRH102C4U	Horizontal with Pigtail Up	10'	4'	32"	1/0 Stranded	Yes

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRH122C4D	Horizontal with Pigtail Down	12'	4'	32"	1/0 Stranded	Yes
ECRHE202C20U	Horizontal with Pigtail Up	20'	20'	32"	1/0 Stranded	Yes
ECRV102C10U	Vertical with Pigtail Up	10'	10'		1/0 Stranded	Yes
ECRV102C15U	Vertical with Pigtail Up	10'	15'		1/0 Stranded	Yes
ECRV102C4D	Vertical with Pigtail Down	10'	4'		1/0 Stranded	Yes
ECRV102C4DB	Vertical with Pigtail Down	10'	4'		1/0 Stranded	No
ECRV102C4U	Vertical with Pigtail Up	10'	4'		1/0 Stranded	Yes
ECRV102C4UB	Vertical with Pigtail Up	10'	4'		1/0 Stranded	No
ECRV102C6D	Vertical with Pigtail Down	10'	6'		1/0 Stranded	Yes
ECRV102C8U	Vertical with Pigtail Up	10'	8'		1/0 Stranded	Yes
ECRV122C4U	Vertical with Pigtail Up	12'	4'		1/0 Stranded	Yes
ECRV082Q4UB	Vertical with Pigtail Up	8'	4'		4/0 Stranded	No
ECRV101L4D	Vertical with Pigtail Down	10'	4'		#4 Stranded	Yes
ECRV101T4D	Vertical with Pigtail Down	10'	4'		#2 Solid	Yes
ECRV101T4DB	Vertical with Pigtail Down	10'	4'		#2 Solid	No
ECRV101T4U	Vertical with Pigtail Up	10'	4'		#2 Solid	Yes
ECRV101V4D	Vertical with Pigtail Down	10'	4'		#2 Stranded	Yes
ECRV101V4U	Vertical with Pigtail Up	10'	4'		#2 Stranded	Yes

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRV102G4D	Vertical with Pigtail Down	10'	4'		2/0 Stranded	Yes
ECRV102G4U	Vertical with Pigtail Up	10'	4'		2/0 Stranded	Yes
ECRV102G4UB	Vertical with Pigtail Up	10'	4'		2/0 Stranded	No
ECRV102L4D	Vertical with Pigtail Down	10'	4'		3/0 Stranded	Yes
ECRV102L4U	Vertical with Pigtail Up	10'	4'		3/0 Stranded	Yes
ECRV102Q4D	Vertical with Pigtail Down	10'	4'		4/0 Stranded	Yes
ECRV102Q4DB	Vertical with Pigtail Down	10'	4'		4/0 Stranded	No
ECRV102Q4U	Vertical with Pigtail Up	10'	4'		4/0 Stranded	Yes
ECRV102Q4UB	Vertical with Pigtail Up	10'	4'		4/0 Stranded	No
ECRV102V4D	Vertical with Pigtail Down	10'	4'		250 kcmil Stranded	Yes
ECRV102V4U	Vertical with Pigtail Up	10'	4'		250 kcmil Stranded	Yes
ECRV103Q4D	Vertical with Pigtail Down	10'	4'		500 kcmil Stranded	Yes
ECRV103Q4U	Vertical with Pigtail Up	10'	4'		500 kcmil Stranded	Yes
ECRV121T4U	Vertical with Pigtail Up	12'	4'		#2 Solid	Yes
ECRV121T4UB	Vertical with Pigtail Up	12'	4'		#2 Solid	No
ECRV122G4D	Vertical with Pigtail Down	12'	4'		2/0 Stranded	Yes
ECRV122L4D	Vertical with Pigtail Down	12'	4'		3/0 Stranded	Yes
ECRV122Q4D	Vertical with Pigtail Down	12'	4'		4/0 Stranded	Yes

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRV122Q4U	Vertical with Pigtail Up	12'	4'		4/0 Stranded	Yes
ECRV122V4D	Vertical with Pigtail Down	12'	4'		250 kcmil Stranded	Yes
ECRV122V4U	Vertical with Pigtail Up	12'	4'		250 kcmil Stranded	Yes
ECRV123Q4D	Vertical with Pigtail Down	12'	4'		500 kcmil Stranded	Yes
ECRV123Q4U	Vertical with Pigtail Up	12'	4'		500 kcmil Stranded	Yes
ECRE102Q4D	Vertical with Pigtail Down	10'	4'		4/0 Stranded	Yes
ECRE102Q4DB	Vertical with Pigtail Down	10'	4'		4/0 Stranded	No
ECRE152Q4DB	Vertical with Pigtail Down	15'	4'		4/0 Stranded	No
ECRE152Q4U	Vertical with Pigtail Up	15'	4'		4/0 Stranded	Yes
ECRE152Q4UB	Vertical with Pigtail Up	15'	4'		4/0 Stranded	No
ECRE153Q4U	Vertical with Pigtail Up	15'	4'		500 kcmil Stranded	Yes
ECRE201T4U	Vertical with Pigtail Up	20'	4'		#2 Solid	Yes
ECRE201T4UB	Vertical with Pigtail Up	20'	4'		#2 Solid	No
ECRE201V4U	Vertical with Pigtail Up	20'	4'		#2 Stranded	Yes
ECRE202G4D	Vertical with Pigtail Down	20'	4'		2/0 Stranded	Yes
ECRE202G4U	Vertical with Pigtail Up	20'	4'		2/0 Stranded	Yes
ECRE202Q4D	Vertical with Pigtail Down	20'	4'		4/0 Stranded	Yes
ECRE202Q4DB	Vertical with Pigtail Down	20'	4'		4/0 Stranded	No

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRE202Q4U	Vertical with Pigtail Up	20'	4'		4/0 Stranded	Yes
ECRE202Q4UB	Vertical with Pigtail Up	20'	4'		4/0 Stranded	No
ECRE203Q4DB	Vertical with Pigtail Down	20'	4'		500 kcmil Stranded	No
ECRE203Q4U	Vertical with Pigtail Up	20'	4'		500 kcmil Stranded	Yes
ECRE302Q4DB	Vertical with Pigtail Down	30'	4'		4/0 Stranded	No
ECRE401T4D	Vertical with Pigtail Down	40'	4'		#2 Solid	Yes
ECRE402G4D	Vertical with Pigtail Down	40'	4'		2/0 Stranded	Yes
ECRE402Q4D	Vertical with Pigtail Down	40'	4'		4/0 Stranded	Yes
ECRE402Q4DB	Vertical with Pigtail Down	40'	4'		4/0 Stranded	No
ECRE402Q4U	Vertical with Pigtail Up	40'	4'		4/0 Stranded	Yes
ECRE402Q4UB	Vertical with Pigtail Up	40'	4'		4/0 Stranded	No
ECRH081T4D	Horizontal with Pigtail Down	8'	4'	32"	#2 Solid	Yes
ECRH081T4U	Horizontal with Pigtail Up	8'	4'	32"	#2 Solid	Yes
ECRH081T4UB	Horizontal with Pigtail Up	8'	4'	32"	#2 Solid	No
ECRH101T4D	Horizontal with Pigtail Down	10'	4'	32"	#2 Solid	Yes
ECRH101T4DB	Horizontal with Pigtail Down	10'	4'	32"	#2 Solid	No
ECRH101T4U	Horizontal with Pigtail Up	10'	4'	32"	#2 Solid	Yes
ECRH101T4UB	Horizontal with Pigtail Up	10'	4'	32"	#2 Solid	No

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRH101V4D	Horizontal with Pigtail Down	10'	4'	32"	#2 Stranded	Yes
ECRH101V4U	Horizontal with Pigtail Up	10'	4'	32"	#2 Stranded	Yes
ECRH102G4D	Horizontal with Pigtail Down	10'	4'	32"	2/0 Stranded	Yes
ECRH102G4DB	Horizontal with Pigtail Down	10'	4'	32"	2/0 Stranded	No
ECRH102G4U	Horizontal with Pigtail Up	10'	4'	32"	2/0 Stranded	Yes
ECRH102Q4D	Horizontal with Pigtail Down	10'	4'	32"	4/0 Stranded	Yes
ECRH102Q4DB	Horizontal with Pigtail Down	10'	4'	32"	4/0 Stranded	No
ECRH102Q4U	Horizontal with Pigtail Up	10'	4'	32"	4/0 Stranded	Yes
ECRH102Q4UB	Horizontal with Pigtail Up	10'	4'	32"	4/0 Stranded	No
ECRH102V4D	Horizontal with Pigtail Down	10'	4'	32"	250 kcmil Stranded	Yes
ECRH102V4U	Horizontal with Pigtail Up	10'	4'	32"	250 kcmil Stranded	Yes
ECRH102V4UB	Horizontal with Pigtail Up	10'	4'	32"	250 kcmil Stranded	No
ECRH103Q4D	Horizontal with Pigtail Down	10'	4'	32"	500 kcmil Stranded	Yes
ECRH103Q4U	Horizontal with Pigtail Up	10'	4'	32"	500 kcmil Stranded	Yes
ECRH104L4U	Horizontal with Pigtail Up	10'	4'	32"	750 kcmil Stranded	Yes
ECRH121T4U	Horizontal with Pigtail Up	12'	4'	32"	#2 Solid	Yes
ECRH122G4D	Horizontal with Pigtail Down	12'	4'	32"	2/0 Stranded	Yes
ECRH122Q4D	Horizontal with Pigtail Down	12'	4'	32"	4/0 Stranded	Yes

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRH122Q4DB	Horizontal with Pigtail Down	12'	4'	32"	4/0 Stranded	No
ECRH122Q4U	Horizontal with Pigtail Up	12'	4'	32"	4/0 Stranded	Yes
ECRH122V4U	Horizontal with Pigtail Up	12'	4'	32"	250 kcmil Stranded	Yes
ECRHE151G4U	Horizontal with Pigtail Up	15'	4'	32"	#6 Solid	Yes
ECRHE152Q4D	Horizontal with Pigtail Down	15'	4'	32"	4/0 Stranded	Yes
ECRHE152Q4U	Horizontal with Pigtail Up	15'	4'	32"	4/0 Stranded	Yes
ECRHE201T4D	Horizontal with Pigtail Down	20'	4'	32"	#2 Solid	Yes
ECRHE201T4U	Horizontal with Pigtail Up	20'	4'	32"	#2 Solid	Yes
ECRHE202G4D	Horizontal with Pigtail Down	20'	4'	32"	2/0 Stranded	Yes
ECRHE202G4U	Horizontal with Pigtail Up	20'	4'	32"	2/0 Stranded	Yes
ECRHE202Q4D	Horizontal with Pigtail Down	20'	4'	32"	4/0 Stranded	Yes
ECRHE202Q4U	Horizontal with Pigtail Up	20'	4'	32"	4/0 Stranded	Yes
ECRHE203D4D	Horizontal with Pigtail Down	20'	4'	32"	350 kcmil Stranded	Yes
ECRV081T4U	Vertical with Pigtail Up	8'	4'		#2 Solid	Yes
ECRV081V4U	Vertical with Pigtail Up	8'	4'		#2 Stranded	Yes
ECRV082Q4D	Vertical with Pigtail Down	8'	4'		4/0 Stranded	Yes
ECRV082Q4DB	Vertical with Pigtail Down	8'	4'		4/0 Stranded	No
ECRV082Q4U	Vertical with Pigtail Up	8'	4'		4/0 Stranded	Yes

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRE202V5U	Vertical with Pigtail Up	20'	5'		250 kcmil Stranded	Yes
ECRH081T5U	Horizontal with Pigtail Up	8'	5'	32"	#2 Solid	Yes
ECRH101T5U	Horizontal with Pigtail Up	10'	5'	32"	#2 Solid	Yes
ECRH102G5D	Horizontal with Pigtail Down	10'	5'	32"	2/0 Stranded	Yes
ECRH122Q5U	Horizontal with Pigtail Up	12'	5'	32"	4/0 Stranded	Yes
ECRHE201L5U	Horizontal with Pigtail Up	20'	5'	32"	#4 Stranded	Yes
ECRV081T5U	Vertical with Pigtail Up	8'	5'		#2 Solid	Yes
ECRV101T5U	Vertical with Pigtail Up	10'	5'		#2 Solid	Yes
ECRV102Q5U	Vertical with Pigtail Up	10'	5'		4/0 Stranded	Yes
ECRV102Q5UB	Vertical with Pigtail Up	10'	5'		4/0 Stranded	No
ECRV101T6D	Vertical with Pigtail Down	10'	6'		#2 Solid	Yes
ECRV101T6U	Vertical with Pigtail Up	10'	6'		#2 Solid	Yes
ECRV102G6U	Vertical with Pigtail Up	10'	6'		2/0 Stranded	Yes
ECRV102Q6U	Vertical with Pigtail Up	10'	6'		4/0 Stranded	Yes
ECRV122G6UB	Vertical with Pigtail Up	12'	6'		2/0 Stranded	No
ECRE152Q6U	Vertical with Pigtail Up	15'	6'		4/0 Stranded	Yes
ECRE201T6DB	Vertical with Pigtail Down	20'	6'		#2 Solid	No
ECRH102Q6DB	Horizontal with Pigtail Down	10'	6'	32"	4/0 Stranded	No

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRH102Q6U	Horizontal with Pigtail Up	10'	6'	32"	4/0 Stranded	Yes
ECRH121T6U	Horizontal with Pigtail Up	12'	6'	32"	#2 Solid	Yes
ECRV081T6U	Vertical with Pigtail Up	8'	6'		#2 Solid	Yes
ECRV122G10U	Vertical with Pigtail Up	12'	10'		2/0 Stranded	Yes
ECRH102G10D	Horizontal with Pigtail Down	10'	10'	32"	2/0 Stranded	Yes
ECRV081T20U	Vertical with Pigtail Up	8'	20'		#2 Solid	Yes
ECRV101T16U	Vertical with Pigtail Up	10'	16'		#2 Solid	Yes
ECRV101V10D	Vertical with Pigtail Down	10'	10'		#2 Stranded	Yes
ECRV102Q10U	Vertical with Pigtail Up	10'	10'		4/0 Stranded	Yes
ECRV102Q10U B	Vertical with Pigtail Up	10'	10'		4/0 Stranded	No
ECRV102Q20U	Vertical with Pigtail Up	10'	20'		4/0 Stranded	Yes
ECRV103Q65D	Vertical with Pigtail Down	10'	65'		500 kcmil Stranded	Yes
ECRH101T10U	Horizontal with Pigtail Up	10'	10'	32"	#2 Solid	Yes
ECRH101T15U	Horizontal with Pigtail Up	10'	15'	32"	#2 Solid	Yes
ECRH101T20U	Horizontal with Pigtail Up	10'	20'	32"	#2 Solid	Yes
ECRH102Q10D	Horizontal with Pigtail Down	10'	10'	32"	4/0 Stranded	Yes
ECRE152Q10U	Vertical with Pigtail Up	15'	10'		4/0 Stranded	Yes
ECRE152Q10UB	Vertical with Pigtail Up	15'	10'		4/0 Stranded	No

CatalogNumber	Installation	Electrode Length	Pigtail Length	Depth	Conductor Size	Kit
ECRE202Q10D	Vertical with Pigtail Down	20'	10'		4/0 Stranded	Yes
ECRE203Q10D	Vertical with Pigtail Down	20'	10'		500 kcmil Stranded	Yes
ECRV122Q10U	Vertical with Pigtail Up	12'	10'		4/0 Stranded	Yes
ECRE202Q15D	Vertical with Pigtail Down	20'	15'		4/0 Stranded	Yes

ADDITIONAL PRODUCT DETAILS

Chemical ground rods can be ordered as individual components or as a complete kit. Kits include the chemical electrode (pre-filled with electrolytic salts), GEM, bentonite, and a high-density polyethylene inspection well.

ECR-V-10-2Q-4-U-B		
ECR	ERICO Chemical Ground Electrode System	
V	Installation	H: Horizontal HE: Horizontal Extended V: Vertical E: Vertical Extended
10	Electrode Length (')	
2Q	Cable Size	1G: #6 Sol, 1L: #4 Str, 1T: #2 Sol, 1V: #2 Str 2C: 1/0 Str, 2G: 2/0 Str, 2K: 3/0 Sol, 2L: 3/0 Str, 2Q: 4/0 Str 2V: 250 kcmil Str, 3D: 350 kcmil Str, 3Q: 500 kcmil Str, 4L: 750 kcmil Str
4	Pigtail Length (')	
U	Pigtail Orientation	U: Up, D: Down
B*	Rod assembly only	Add "B" for rod assembly only. Leave blank for kit.

* Empty if none

WARNING

nVent products shall be installed and used only as indicated in nVent's product instruction sheets and training materials. Instruction sheets are available at www.nvent.com and from your nVent customer service representative. Improper installation, misuse, misapplication or other failure to completely follow nVent's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death and/or void your warranty.

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Option 2 – Technical

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