WATERTIGHT PIN AND SLEEVE DEVICES
RATINGS: 20A, 30A, 60A, 100A & 125A

INSTALLATION

English

WARNINGS & CAUTIONS:

- **TO AVOID FIRE, SHOCK, OR DEATH, TURN OFF POWER AT CIRCUIT BREAKER OR FUSE. TEST THAT POWER IS OFF BEFORE SERVICING OR WIRING!**
- TO BE INSTALLED AND/OR USED IN ACCORDANCE WITH ELECTRICAL CODES AND REGULATIONS (INCLUDING NEC/CEC, AS APPLICABLE).
- IF YOU ARE NOT SURE ABOUT ANY PART OF THESE INSTRUCTIONS, CONSULT AN ELECTRICIAN.
- RECEPTACLES AND INLETS: MOUNTING MEANS NOT GROUNDED. GROUNDING WIRE REQUIRED!
- USE THIS DEVICE **ONLY WITH COPPER OR COPPER CLAD WIRE.**
- THESE DEVICES CONFORM TO IEC STANDARDS 309-1 AND 309-2. THE DEVICE'S CONSTRUCTION IS SUCH THAT EACH DEVICE CANNOT BE MATED WITH ANOTHER IEC DEVICE OF DIFFERENT SPECIFICATIONS (I.E., VOLTAGE, AMPERAGE, OR SYSTEM RATING). FOR SAFETY PURPOSES, DO NOT USE A NON-IEC DEVICE WITH THESE PIN AND SLEEVE DEVICES. THE SPECIFICATIONS FOR NON-IEC DEVICES ARE ESTABLISHED BY THE INDIVIDUAL MANUFACTURERS, AND MAY NOT MEET IEC STANDARDS. IMPROPER MATING OF DEVICES MAY CAUSE AN ELECTRICAL HAZARD WHICH MAY SERIOUSLY AFFECT PROPERTY AND LIFE.
- Examine the devices periodically for any foreign matter that may contaminate the contacts or the insulation material separating the contacts. Contamination decreases the device's insulating properties. this increases the potential for arcing, and possibly decreases the product's life and may cause fire and/or shock hazard. The frequency of inspection depends upon the degree of contamination.

PLUGS AND CONNECTORS

TO INSTALL:

Select conductor size in accordance with Ampacity Tables 400-5 (A) or (B) of the National Electrical Code (NEC), and Tables 2 and 5A of the Canadian Electrical Code (CEC). Use ampacities from 60°C Column of Table 400-5(B). Refer to Table 1 for recommended wire sizes and types.

1. Loosen the assembly screws. (There are two (2) assembly screws each on the inside of the 20A and 30A devices. There are four (4) assembly screws on outside flange of the 60A, 100A and 125A devices).
2. Remove the device's body.
3. To remove the two halves of the external cable clamp, unscrew the two external clamp screws.
4. Unscrew the grommet cap screws to remove the grommet cap from the housing. (Two (2) screws each on the 20A and 30A devices; four (4) screws on the 60A, 100A and 125A devices).
5. Slide the grommet cap onto the cable.
6. Remove enough inner layers of the Neoprene grommet to achieve a snug fit. Slide grommet onto the cable with attached side towards the grommet cap.
7. Slide the housing onto the cable.
8. Cut the cable cleanly. Strip the insulation as noted in **Table 2 (Cable Stripping Guide).** DO NOT TIN CONDUCTORS!
9. Back out the terminal screws but do not remove them completely.
10. Remove internal clamp screws on 20A and 30A devices. On 60A, 100A and 125A devices, back out screws, but do not remove.
    NOTE: The internal clamp may be removed if not required. On 20A and 30A devices, rotate each clamp 1/2 turn clockwise and pull out. On 60A, 100A and 125A devices, unsnap each clamp half from body.
11. Feed the cable through the internal clamp assembly (if used) and insert the conductors into the proper terminal (**refer to Table 3**). Tighten the terminal screws and internal cable clamp screws (if used) as noted in **Table 4 (Tightening Guide).**
12. Reconnect the body with the housing. On the 20A, 30A and 60A devices, line up the key with the notch. Tighten the assembly screws as noted in **Table 4.**
13. Carefully slide the grommet and grommet cap down the cable and into the housing. Press the grommet into the housing and then alternately tighten the grommet cap screws until the grommet cap is flush with the housing.
14. Assemble the external cable clamp and tighten the screws according to **Table 4 (Tightening Guide).**
    INSTALLATION IS COMPLETE.

RECEPTACLES & INLETS

TO INSTALL:

Select conductors of a size having sufficient ampacity in accordance with the 60°C column of Table 310-16 of the National Electrical Code (NEC) and Table 2 of the Canadian Electrical Code (CEC), Part 1. Refer to Table 1 for recommended wire sizes and types.

CAUTION: THE MOUNTING MEANS IS NOT GROUNDED. A GROUNDING WIRE CONNECTION IS NEEDED!

1. For panel mounting, select the mounting site. Prepare the installation site as noted in the Drilling Plan.
2. Cut the cable cleanly. Strip the insulation as noted in **Table 2 (Cable Stripping Guide).**
   DO NOT TIN THE CONDUCTORS! FOR FLUSH-MOUNTED CONDUIT - CONNECTED DEVICES, USE NONMETAL LIC CONDUIT ONLY.
3. Back out terminal screws but do not remove completely.
4. Ensure gasket is mounted evenly in place.
5. Insert the conductors into the proper terminals (**refer to Table 3**). Tighten the terminal screws as noted in **Table 4 (Tightening Guide).**
6. Make sure the gasket holes line up with the mounting holes and screws.
7. Mount the device using the mounting screws. **INSTALLATION IS COMPLETE.**

For Technical Assistance Call: 1-800-369-6675 - www.LarsonElectronics.com

LARSON ELECTRONICS LLC • 9419 E US HWY 175 • KEMP, TX 75143
p: 1-800-369-6671 • intl: 903-498-3363 • f: 903-498-3364 • sales@larsonelectronics.com

For Figs. 1-4
1 - Assembly screws
2 - Body
3 - External cable clamp
4 - External cable clamp screws
5 - Grommet cap screws
6 - Neoprene grommet
7 - Housing
8 - Terminal screws
9 - Internal cable clamp
10 - Keyway notches
11 - Grommet cap
12 - Internal cable clamp screws

Figure 1 - Plug 20A, 30A
Figure 1 – Fiches de 20 et de 30 A
Figura 1 **-** Clavija 20A, 30A

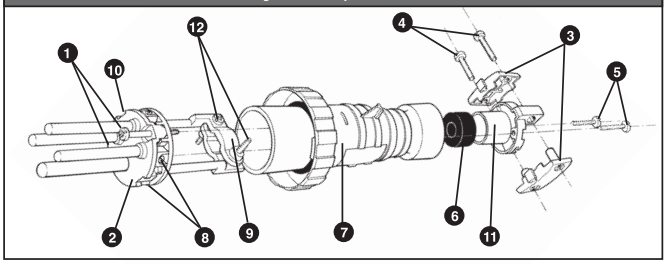


Figure 2 - Plug 60A, 100A and 125A
Figure 2 – Fiches de 60, de 100 et de 125 A
Figura 2 **-** Clavija 60A, 100A y 125A

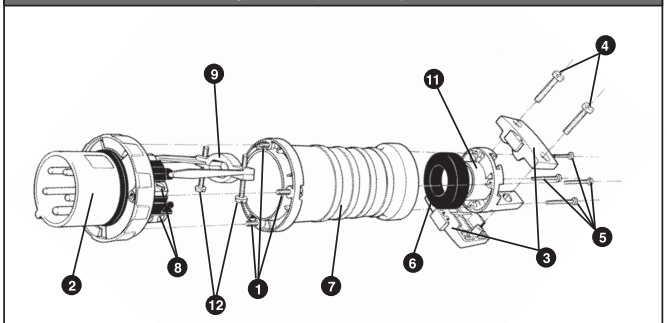


Figure 3 - Connector 20A, 30A
Figure 3 – Connecteurs de 20 et de 30 A
Figura 3 **-** Conector 20A, 30A

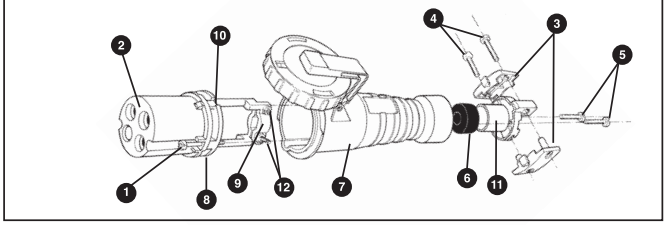
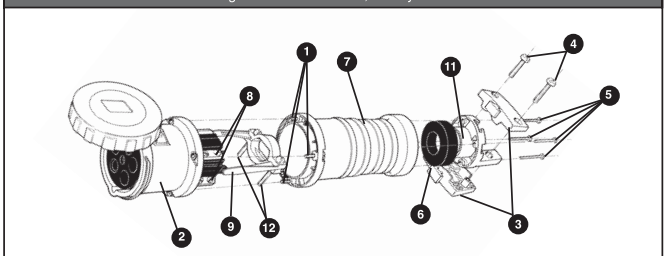
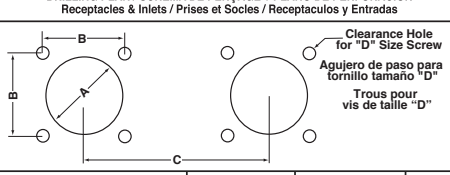


Figure 4 - Connector 60A, 100A and 125A
Figure 4 – Connecteurs de 60, de 100 et de 125 A
Figura 4 **-** Conector 60A, 100A y 125A



DRILLING PLAN / SCHÉMA DE PERÇAGE / PLANO DE PERFORACION
Receptacles & Inlets / Prises et Socles / Receptaculos y Entradas



No. Wires; Device Nᵇʳᵉ de fils; dispositif No. de Cables; Aparato	A inches	A mm	B inches	B mm	C inches	C mm	D
	po pulgadas		po pulgadas		po pulgadas		
20A;3 Receptacle/Prise/Receptaculo	2.13	54	2.17	55	3.94	100	#8
20A;3 Inlet/Socle/Entrada	1.93	49	1.73	44	3.35	85	#8
20A;4 Receptacle/Prise/Receptaculo	2.52	64	2.36	60	4.33	110	#8
20A;4 Inlet/Socle/Entrada	2.32	59	2.05	52	3.94	100	#8
20A;5 Receptacle/Prise/Receptaculo	2.87	73	2.72	69	3.94	100	#8
20A;5 Inlet/Socle/Entrada	2.32	59	2.05	52	3.94	100	#8
30A;3 Receptacle/Prise/Receptaculo	2.99	76	2.72	69	5.12	130	#8
30A;3 Inlet/Socle/Entrada	2.56	65	2.40	61	4.53	115	#8
30A;4 Receptacle/Prise/Receptaculo	2.99	76	2.72	69	5.12	130	#8
30A;4 Inlet/Socle/Entrada	2.56	65	2.40	61	4.53	115	#8
30A;5 Receptacle/Prise/Receptaculo	3.11	79	2.72	69	5.71	145	#8
30A;5 Inlet/Socle/Entrada	2.56	65	2.40	61	4.53	115	#8
60A All/Tous/Todos	2.76	70	2.40	61	6.69	170	#8
100A/125A All/Tous/Todos	3.19	81	2.80	71	7.87	200	#8

For Figs. 5-8
1 - Body
2 - Terminal screws
3 - Mounting screws
4 - Gasket
5 - Grounding wire

Figure 5 - Receptacle 20A, 30A
Figure 5 – Prises de 20 et de 30 A
Figura 5 **-** Receptaculo 20A, 30A

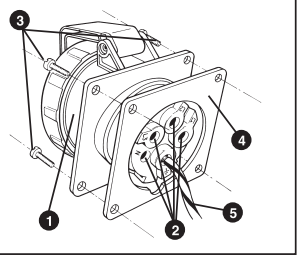


Figure 6 - Receptacles 60A, 100A and 125A
Figure 6 – Prises de 60, de 100 et de 125 A
Figura 6 **-** Receptaculo 60A, 100A y 125A

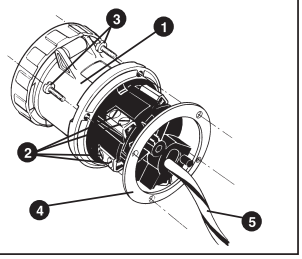


Figure 7 - Inlet 20A, 30A
Figure 7 – Socles de 20 et de 30 A
Figura 7 **-** Entrada 20A, 30A

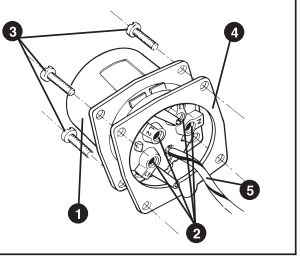


Figure 8 - Inlet 60A, 100A and 125A
Figure 8 – Socles de 60, de 100 et de 125 A
Figura 8 **-** Entrada 63A, 100A y 125A

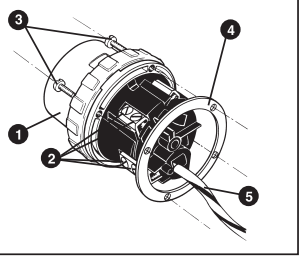


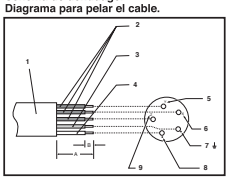
Table 1 - Wire sizes / Tableau 1 – Calibres et types de fils / Tabla 1 - Tamaño de alambres

Device Dispositif Aparato	From De De AWG	COND	TYPE	To À À AWG	COND	TYPE	Grip Range Diamètres de cordon Rango de Agarre Min./Max. Wire diam. (in.)	Grip Range Diamètres de cordon Rango de Agarre Min./Max. Wire diam. (mm)
20A	#14	3	S	#12	3	S	.350/.860	9/22
20A	#14	4	S	#12	4	S	.350/.860	9/22
20A	#14	5	S	#12	5	S	.437/1.187	11/30
30A	#12	3	S	#10	3	S or W	.437/1.187	11/30
30A	#12	4	S	#10	4	S or W	.437/1.187	11/30
30A	#12	5	S	#10	5	S or W	.437/1.450	11/37
60A	#8	3	S or W	#4	3	W	.670/1.625	17/41
60A	#8	4	S or W	#4	4	W	.670/1.625	17/41
60A	#8	5	S or W	#4	5	W	.670/1.625	17/41
100A/125A	#3	3	W	#1	3	W	.950/1.875	24/48
100A/125A	#3	4	W	#1	4	W	.950/1.875	24/48
100A/125A	#3	5	W	#1	5	W	.950/1.875	24/48

Table 2 - Cable stripping guide / Tableau 2 – Guide de dénudage / Tabla 2 - Diagrama de Pelado del cable

Device; No. Wires Dispositif; nᵇʳᵉ de fils Aparato; No. de Cables	Conductor Conducteur Conductor	A inches/po/pulgadas	A mm	B inches/po/pulgadas	B mm
20A;3	W, L1, L2, L3	1.187	30	.375	9.5
	Ground/terre Tierra	1.187	30	.500	13
20A;4, 5	W, L1, L2, L3	1.775	45	.375	9.5
	Ground/terre Tierra	1.775	45	.500	13
30A;3	All/Tous/Todos	1.775	45	.500	13
30A;4	All/Tous/Todos	1.775	45	.500	13
30A;5	All/Tous/Todos	1.970	50	.500	13
60A;All/Tous/Todos	All/Tous/Todos	2.953	75	0.900	23
100A/125A;All/Tous/Todos	All/Tous/Todos	4.125	105	1.175	30

Cable stripping diagram.
Schéma de dénudage.
Diagrama para pelar el cable.



1 - Cable Jacket.
2 - Hot Conductors (no specific color identification).
3 - Green equipment grounding conductor only (or green with yellow stripes).
4 - White or gray, system ground or neutral conductor only.
5 - S2 or L2.
6 - R1 or L1.
7 - Green dot and ⏚
8 - White Dot and N.
9 - T3 or L3.

1 - Gaine du câble.
2 - Conducteurs actifs (non chromocodés).
3 - Conducteur de terre vert de l'équipement seulement (ou vert à rayures jaunes).
4 - MALT du système ou conducteur neutre seulement, blanc ou gris.
5 - S2 ou L2.
6 - R1 ou L1.
7 - Point vert et ⏚
8 - Point blanc ou N.
9 - T3 ou L3.

1 - Forro del cable.
2 - Conductores fase (sin color específico de identificación).
3 - Conductor verde a tierra del equipo únicamente (o verde con rayas amarillas).
4 - Conductor neutro solamente, o sistema a tierra, blanco o gris.
5 - S2 o L2.
6 - R1 o L1.
7 - Punto verde y ⏚
8 - Punto blanco y N.
9 - T3 o L3.

Table 3 - Terminal identification / Tableau 3 – Identification des bornes / Tabla 3 - Identificación de terminales

⏚ and green color ⏚ et couleur verte ⏚ y color verde	Equipment ground conductor. Fil de terre de l'équipement. Conductor a tierra del equipo.
white color and N couleur blanche et N color blanco y N	Grounded circuit conductors (neutral). Conducteurs de circuit MALT (neutre). Conductores de circuito a tierra (neutros).
L1, L2, L3, R1, S2, T3 L1, L2, L3, R1, S2, T3 L1, L2, L3, R1, S2, T3	Ungrounded circuit conductors (line, hot). Conducteurs de circuit non MALT (ligne, actifs). Conductores de circuito sin paso a tierra (fase, línea).
Pilot Pilot Piloto	Control circuit conductor. Conducteurs de circuit de commande. Conductor del control de circuito.

Table 4 - Tightening guide; in·lbs. (N·m) / Tableau 4 – Guide de serrage en po-lb (N.m.) / Tabla 4 - Guía de tensión; in-lbs (N·m)

Device Dispositif Aparato	Terminal Screws Bornes à vis Tornillos Terminales	Internal Cable Clamp Screws Vis du Collier Interne Tornillos de la Abrazadera Interna	Assembly Screws Vis d'Assemblage Tornillos de Ensamble	External Cable Clamp Screws Vis du Collier Externe Tornillos de la Abrazadera Externa
20A	7.1 (.8)	10.6 (1.2)	10.6 (1.2)	17.7 (2.0)
30A	10.6 (1.2)	10.6 (1.2)	10.6 (1.2)	17.7 (2.0)
60A	31 (3.5)	10.6 (1.2)	10.6 (1.2)	26.6 (3.0)
100A/125A	50 (5.6)	17.7 (2.0)	17.7 (2.0)	26.6 (3.0)