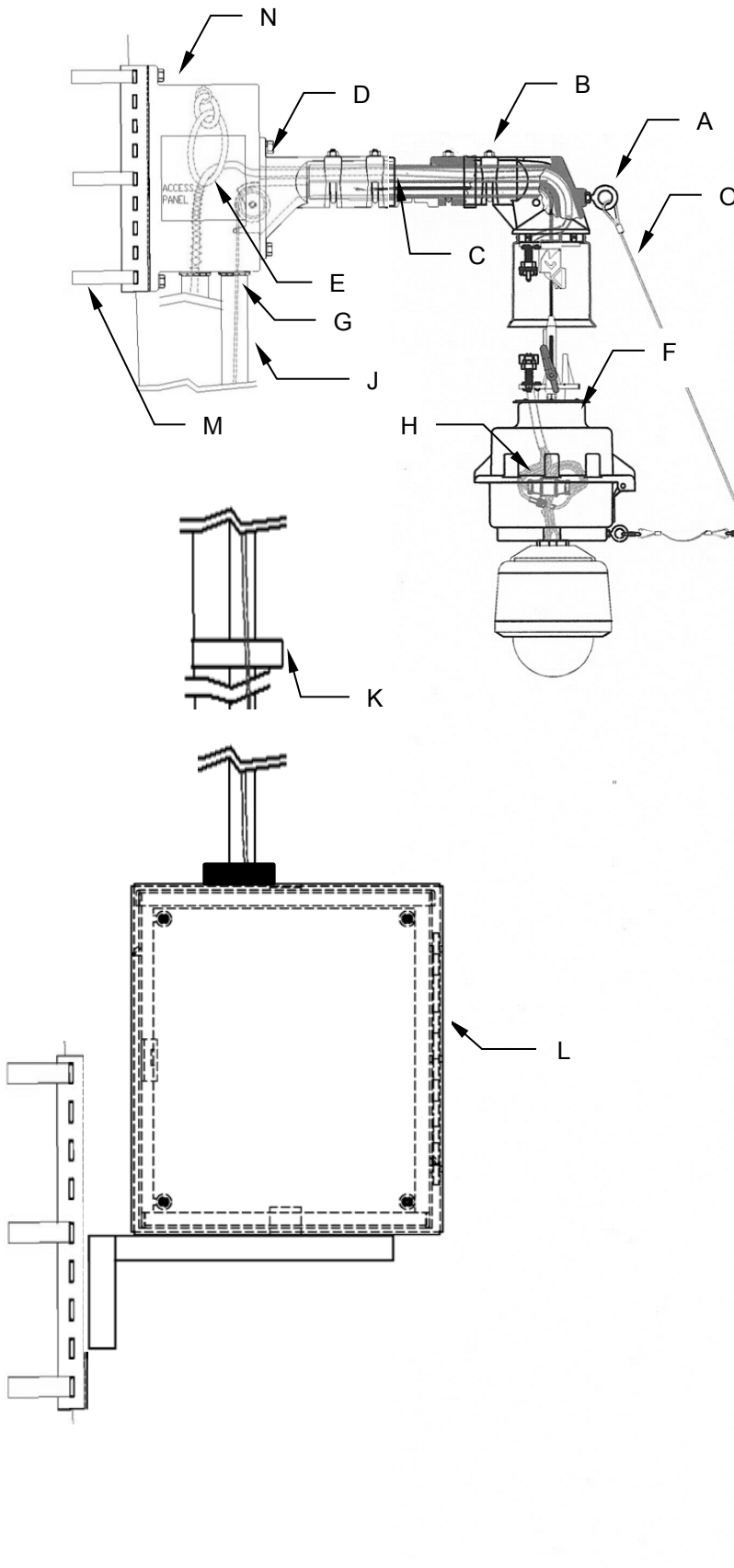
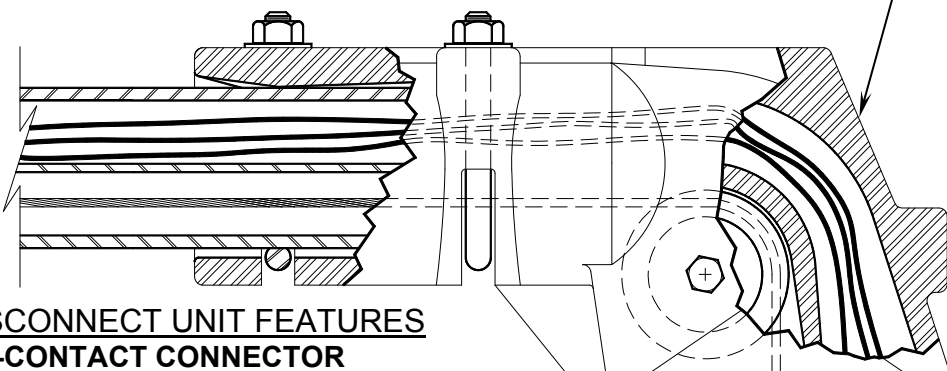


*Design* **CEPM-DN-XX-YY PG**  
Arm and Disconnect Unit for External Pole/Tower  
Mount with Guide Cable and Permanent Mount  
Lowering Tool



- A. ELECTRICAL AND SIGNAL DISCONNECT UNIT WITH 16 CONTACT CONNECTOR, GUIDE EYE BOLT.
- B. HEAVY DUTY ALUM DISCONNECT UNIT FITTER WITH PULLEY AND U-BOLT MOUNTING.
- C. 1/4" THICK DIVIDED PIPE ARM: 2-3/8 IN. O.D. SEPARATES CONTROL CABLE AND ELECTRICAL/SIGNAL WIRES.
- D. POLE MOUNTED FITTER WITH LARGE PULLEY HOUSING AND MOUNTING BRACKET FOR STRAP MOUNTING TO POLE (STRAPS BY OTHERS).
- E. COMPOSITE CABLE STRAIN RELIEF.
- F. CAMERA CONNECTION BOX PROVIDED WITH STABILIZING WEIGHTS. EASY OPEN SWING DOWN DESIGN PERMITS QUICK ACCESS TO SIGNAL WIRES FROM CAMERA ASSEMBLY. FEATURES UNIVERSAL MOUNTING FOR ALL CAMERA TYPES AND PAN/TILT UNITS.
- G. CONTROL CABLE CONSTRUCTED OF 5/32 INCH DIA. 316 STAINLESS STEEL 7X19 CABLE.
- H. CONTINUOUS CAT6 IN EXTREME JACKET AND 3-CONDUCTOR POWER CORD, FROM DISCONNECT UNIT TO CABINET WITHOUT THE NEED OF EXTRA CONNECTORS.
- J. 1 1/2" CONDUIT (BY OTHERS).
- K. CONDUIT CLAMPS ATTACHING CONDUIT TO POLE (BY OTHERS).
- L. PERMANENT MOUNT LOWERING TOOL WITH WINCH IN HEAVY DUTY ALUMINUM ENCLOSURE. ENCLOSURE HINGES TO THE SIDE. OPERATES 90 DEGREES FROM CAMERA ARM. (PADLOCK BY OTHERS).
- M. POLE-BELTS (BY OTHERS) AS PER REQUIREMENTS.
- N. HEAVY DUTY CAST ALUMINUM HOUSING WITH LARGE ACCESS PANEL.
- O. OPTIONAL: CAMERA GUY (GUIDE) CABLE, 5/32" STAINLESS STEEL ALLOWING CAMERA TO SAFELY FOLLOW GUIDE TO GROUND.
- P. GUY CABLE ANCHOR IN GROUND (By Others).

# SPECIFICATIONS FOR ELECTRICAL DISCONNECT UNIT



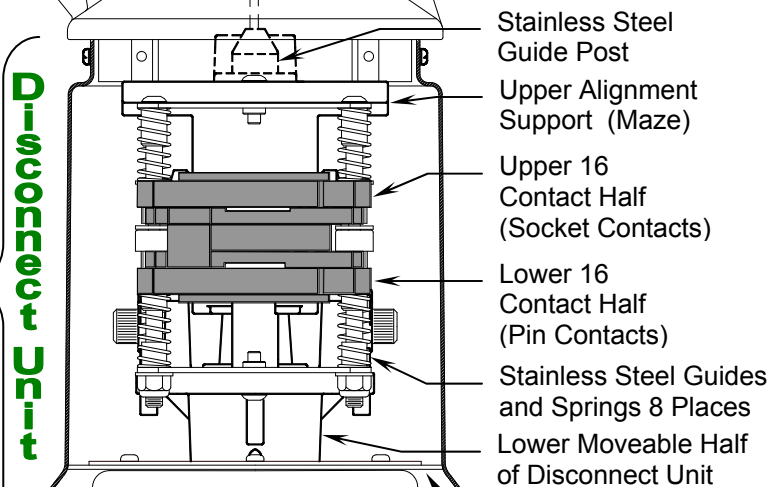
**MOUNTING FITTERS**  
Cast aluminum alloy. Completely isolates the moving control cable from the signal cable. Molybdenum filled nylon pulley has sintered bronze permanently lubricated bearing for maintenance free life. This insures their use for dirty atmosphere and corrosive environments.

**Outdoor Model:** (Shown) For 2-3/8" O.D. Galv. pipe. Retrofit, pole, & wall mtg.  
**Indoor Model:** Has upper flange for surface mtg.

## DISCONNECT UNIT FEATURES

### \*MULTI-CONTACT CONNECTOR

Precision mating upper (socket half of connector) and lower (pin half of connector) portions aided with stainless steel spring assisted guides. Connector provides up to 16 electrical and signal contacts to handle the wide variety of cameras and components in today's marketplace. Both halves of connector are spring assisted to minimize environmental vibrations and provide continuous resistant forces to maintain connector closure and help in ejecting of connector halves during the unlocking sequence of the disconnect unit. Connector halves designed as separate modules for easier removal and replacement should changes be needed for camera and component equipment upgrades. Connector is self-aligning and self-adjusting and is environmentally sealed. All contacts are copper with MIL SPEC **nickel plating** and 30 microinch **gold plating** over nickel. The gold plating passes the Industrial Mixed Flowing Gas test designated to create corrosion. Socket contacts have beryllium copper springs that assure constant contact with pins.



\*U.S. Patent No. 6,261,122

### STRUCTURAL COMPONENTS

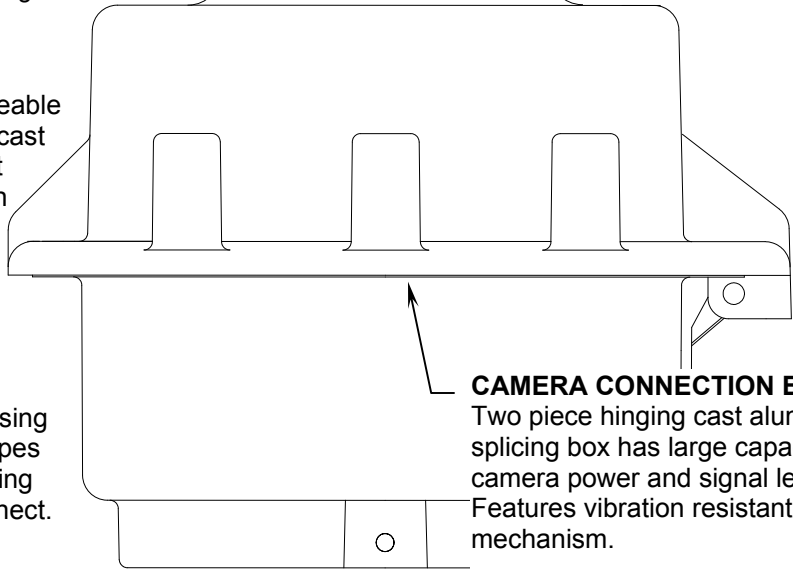
Upper alignment support and lower moveable half of disconnect unit are high strength cast aluminum alloy 356-T6. Main guide post and structural support arms are precision cast stainless steel.

### CYLINDER HOUSING

Standard housing is hydrospun heavy gauge aluminum. Painted finish is optional.

### HOUSING SEAL

Flexible environmental seal at lower housing opening is standard neoprene. Seal swipes and conforms to interior of cylinder housing during all operating stages of the disconnect unit.



### CAMERA CONNECTION BOX

Two piece hinging cast aluminum splicing box has large capacity for camera power and signal leads. Features vibration resistant latching mechanism.

# ELECTRICAL DISCONNECT UNIT With CAT6 FOR IP CAMERAS

## OPERATION OF THE MULTI-CONTACT CONNECTOR

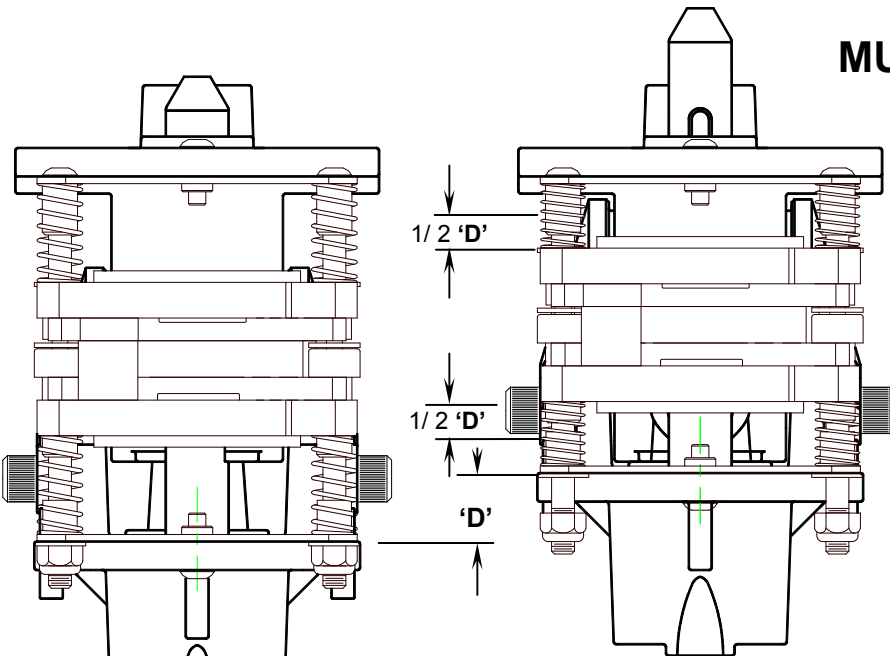
Distance 'D' is the total distance that the disconnect unit must travel to lock and unlock. This unique design (patented) by Camera Lowering Systems provides spring assisted upper and lower portions of the connector that splits the total travel distance in half, thereby equalizing the retaining forces required to assure a uniform seal. Because the upper half (socket contacts), and the lower half (pin contacts) float within the disconnect unit, the connector is isolated from vibrations that would affect signal discontinuity.

### LOCKED POSITION

When the disconnect unit is in the locked position, the multi-contact connector has all contacts engaged. Springs are slightly compressed to provide equal and constant pressure against the two halves to maintain an environmental seal.

### LOCKING POSITION & UNLOCKING POSITION

During the operation to lock or unlock the disconnect unit, the springs of both halves of the connector compress in equal proportions and stainless steel

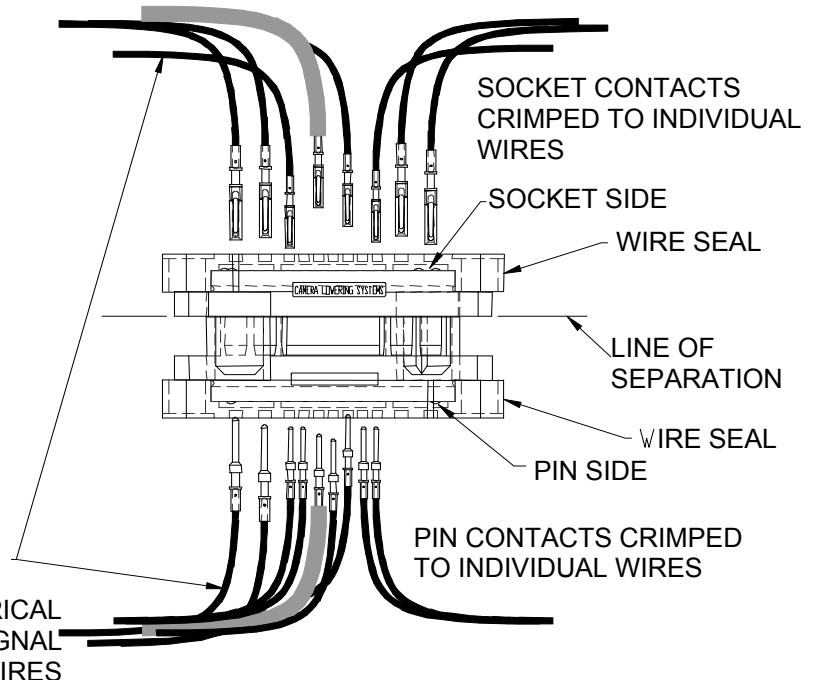


**MULTI-CONTACT  
CONNECTOR SHOWN  
IN LOCKED POSITION**

**MULTI-CONTACT  
CONNECTOR SHOWN  
IN LOCKING OR  
UNLOCKING POSITION**

### CONTACTS AND WIRES

- Twin connectors provide up to 16 Heavy Duty size 12 gold plated over nickel, pure copper electrical contacts.
- Contacts are securely contained within a heavy duty polymer body.
- Upper socket and lower pin contact groups are permanently sealed to the connector body with 'Superflex' silicone adhesive rubber sealant. This provides a tough waterproof rubber seal formulated to withstand extreme temperature cycling and severe weather conditions.
- Signal shielding and drain wires are continuous.
- Wires are up to 16 conductor electrical and signal wires for CAT6 Ethernet cable and 3COND PWR. The contact connector shall accommodate IP camera connections requiring 100BASE-TX (Fast Ethernet), and 1000BASE-T.
- The composite cable is provided from disconnect unit to cabinet. (Length to be specified) 90ft of CAT6 and 3 Cond PWR Cable is provided. No additional connectors are required at the top of the tower, or anywhere else between the disconnect unit and the cabinet.



# DISCONNECT UNIT

## With CAT6 cable for IP Cameras

### OPERATION OF THE MULTI-CONTACT CONNECTOR

guide posts move through linear bearings as the support arms of the disconnect unit move into the proper position within the tracking guide. Electrical and signal contacts remain fully engaged and the camera is still operational.

#### RAISING POSITION

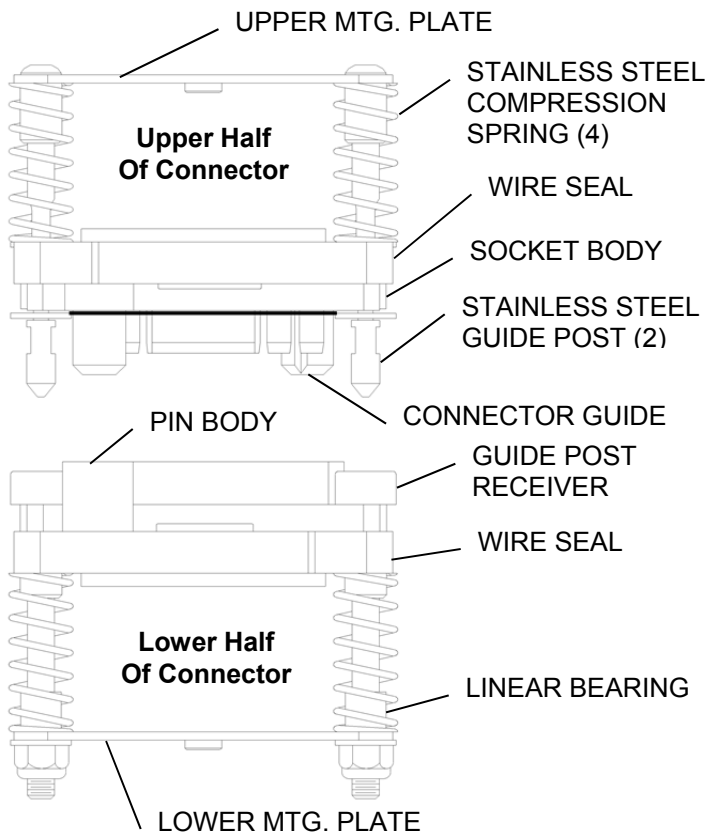
The connector assembly utilizes precision machined 4 stainless steel guides to align the two halves of the connector. These guide pins are longer than the communication pins and must engage first and disengage last. These pins are connected to the disconnect unit causing the unit to be grounded per U.L./CSA ratings of the product. In addition to these pins, a 3-way guide is also used for alignment. A set of alignment posts built into the connector halves serve as the final guides to assure that all pin and socket contacts are perfectly aligned before engagement.

#### LOWERING POSITION

As the disconnect unit begins to unlock, the springs expand and the guide posts begin to separate. The last parts of the connector to disengage are the electrical and signal contacts. Any ground wires or shielding use a longer pin contact to assure that they are the very last to disengage before the camera is lowered for servicing.

### Electrical Disconnect Unit (EDU) Specification Guide

- ❖ The signal and electrical disconnect unit shall meet or exceed sine vibration tests of 3.5 g's within the frequency range of 5-60 Hz in all three axes for minimum of six 5-minute cycle each axes. It shall meet or exceed random vibration tests of frequency range 60-1000 HZ at .025 g2/Hz applied for 30 minutes in each of the three axes. It shall have results to exhibit no signal or electrical discontinuities greater than 10 microseconds. Tests applicable to Electrical Disconnect Unit and attached components.
- ❖ Contact connections shall be capable of passing EIA-232, EIA-422, EIA-485 and Ethernet data signals and 1 Vp-p video signals, as well as 120VAC, 9-24VAC and 9-48VDC. EDU and cable meets ANSI/TIA/EIA-568-B.2-1 standards.
- ❖ The EDU shall have a 3-way tracking guide and support. It shall be constructed of precision cast high strength aluminum alloy 356-T6. A permanently fixed position piece incorporating a special tracking guide system permits the moveable portion of the *Disconnect Unit* to align in the same position every time the system is operated, thereby eliminating the need to re-orientate the camera. The Electrical Disconnect Unit shall have twin high strength notches securing the load of the *Lower Contact Assembly* and camera.
- ❖ The MULTI-CONTACT Connector assembly shall be modular for easy installation and retrofit requirements. All pin and socket contacts shall be insertable and removable. The connector shall have up to 16 copper alloy C14500, size 12 contacts (.100" Dia.) rated at 35 Amps with gold plating over nickel per MIL-G-45204.
- ❖ All hardware shall be corrosion resistant stainless steel. It shall have a self-aligning and self-adjusting mechanical system comprised of two principal assemblies:  
*Two UPPER CONTACT HALVES* shall house the socket contacts. It shall incorporate spring assisted polymer contact body with precision-machined guideposts. The socket contact body shall have integral guideposts for precise contact alignment.  
*Two LOWER CONTACT HALVES* shall house the pin contacts comprised of spring assisted polymer contact body with precision-machined guidepost receivers. The pin contact body aligns with guideposts of integral socket body guideposts.
- ❖ CYLINDER-The cover shall be a one-piece hydro-spun heavy gauge aluminum. The cylinder must utilize stainless steel mounting hardware with O-Ring imbedded washers. The unit must exceed the ingress protection rating of IP55.
- ❖ The unit shall have a guidepost constructed of precision cast high strength stainless steel. It shall utilize a cast-in-place guide bar for precise alignment of *Lower Contact Assembly* with the fixed portion of the *EDU*.
- ❖ If required, connectors in the pole top junction box and camera junction box are provided by others.





**Specifications Information Sheet**

**SYSTEM SPECIFICATIONS** Design CEPM is comprised of the following major assemblies:

**ELECTRICAL DISCONNECT UNIT ♦ CAMERA CONNECTION BOX ♦ DISCONNECT UNIT FITTER ♦ CONTROL CABLE  
NON-ROTATING DIVIDED PIPE ARM ♦ WALL MOUNTED FITTER ♦ WALL CONNECTION BOX ♦ WINCH WITH CABINET  
GUIDE CABLE ♦ ELECTRICAL AND SIGNAL SUPPLY WIRES**

**ELECTRICAL DISCONNECT UNIT**

**3-WAY TRACKING GUIDE AND SUPPORT:** Constructed of precision cast high strength aluminum alloy 356-T6. A permanently fixed position piece incorporating a special tracking guide system permitting the moveable portion of the *Disconnect Unit* to align in the same position every time the system is operated thereby eliminating the need to re-orientate the camera. Twin high strength notches secure the load of the *Lower Contact Assembly* and camera and work with the tracking guide system to assure stability.

**MULTI-CONTACT CONNECTOR:** Connector assembly is modular for easy installation and retrofit requirements. A self-aligning and self-adjusting mechanical system comprised of two principal assemblies:  
*UPPER CONTACT HALF* housing up to 16 .100" Dia. socket contacts. Incorporates spring assisted polymer contact body with **four** precision machined stainless steel guideposts. Socket contact body has **four** additional molded integral guide posts for precise contact alignment.  
*LOWER CONTACT HALF* housing up to 16 .100" Dia. pin contacts. Comprised of spring assisted polymer contact body with **four** precision machined stainless steel guidepost receivers. Pin contact body aligns with **four** additional molded integral guidepost sockets for precise contact alignment.

**DISCONNECT UNIT COVER:** One piece hydro-spun heavy gauge aluminum.

**GUIDEPOST:** Constructed of precision cast high strength stainless steel. Utilizes cast-in-place guide bar for precise alignment of *Lower Contact Assembly* with the fixed portion of the *Disconnect Unit*.

**TWIN TRACKING SUPPORT ARMS:** Made of precision cast high strength stainless steel. Dual arms provide balanced stability of the *Disconnect Unit*. When locked in the *3-Way Tracking Guide and Support* notches, the *Twin Tracking/Support Arms* hold the weight of the camera and camera components and removes all tension from the *Control Cable*.

**LOWER CONTACT ASSEMBLY:** Constructed of precision cast high strength aluminum alloy. Features cast-in-place guide that mates with the fixed portion of the *Disconnect Unit* to aid in tracking and stability. All hardware used on the *Lower Contact Assembly* as well as the entire *Disconnect Unit* is corrosion resistant stainless steel.

**CLOSURE RING AND SEALING GASKET:** Spun aluminum construction with attached extra flexible polymer sealing gasket provides weather-tight seal between *Lower Contact Assembly* and *Disconnect Unit Cover*.

**DISCONNECT UNIT FITTER**

Cast of heavy-duty aluminum alloy to fit 2-3/8 inch outside diameter *Divided Pipe Arm*. Fitter designed to completely isolate moving *Control Cable* from the electrical and signal wires. A molybdenum impregnated nylon pulley provides high strength and low resistance for the moving *Control Cable* thereby increasing the life of the cable. Pulley uses permanent lubricated bearing.

**DIVIDED PIPE ARM**

A 2-3/8 inch O.D. schedule 80 steel pipe with hot-dipped galvanized finish standard. Divided entire length to keep *Control Cable* and electrical/signal wires separate. Arm is position aligned non-rotating type4 incorporating interlocking positioning keys. Round pipe provides very low wind resistance. **The pipe presses up against the disconnect unit fitter with a neoprene gasket in between for a water tight fit.**

**WALL MOUNTED FITTER**

Heavy duty cast aluminum alloy to fit 2-3/8 inch O.D. *Divided Pipe Arm*. Utilizes cast-in-place cable stop to prevent cable connections from entering pulley. Pulley is molybdenum impregnated nylon. Two U-bolt pipe clamps rigidly hold the *Divided Pipe Arm*. Fitter designed to bolt directly to pole top.

**CONTROL CABLE**

316 Stainless steel 5/32-inch diameter 7 x 19 construction cable.

**CAMERA CONNECTION BOX**

Two piece cast aluminum extra heavy construction. Adaptable to all brands of cameras (see "Ordering Information"). Large capacity splicing compartment for camera power and signal leads and connectors. Designed for easy camera mounting. Features two piece construction with lower box hinging feature for easy access to wiring. All stainless steel hardware.

**WALL CONNECTION BOX**

Cast aluminum with large access panel for easy accessibility to inside of box, come with steel mesh strain relief for power/signal cable. Equipped with steel brackets allowing box to be banded to pole (Stainless steel bands by others).

**SECURITY WINCH CABINET**

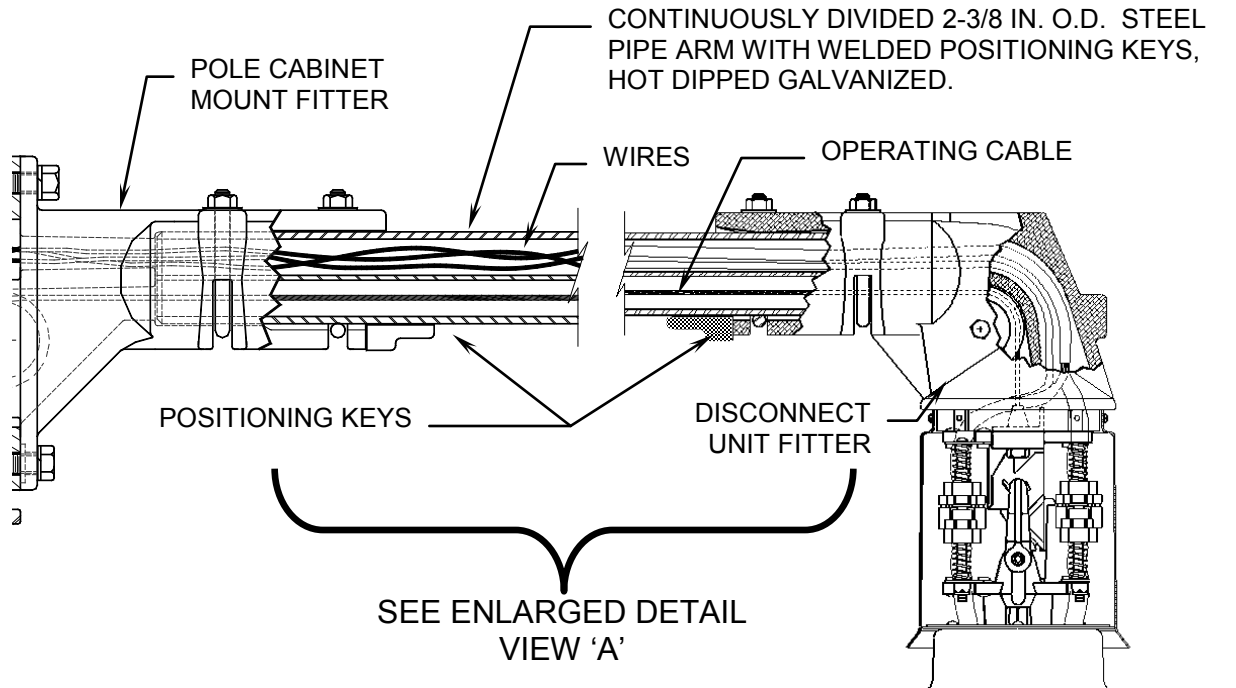
Heavy duty aluminum winch cabinet with ss hinge door, hinging to the right side. Heavy duty handle allows for locking with a padlock. Screened drain hole on bottom of door and cabinet. Galvanized steel or stainless mounting bracket for mounting cabinet to pole/tower. Bracket shall be mounted using stainless steel bands or other hardware (by others).

**GUIDE CABLE**

The camera shall follow the guide cable to the ground to keep the fixture from hitting the structure. The Guide Cable shall be made of 316 Stainless steel 5/32 inch diameter 7 x 19 construction aircraft cable. The assembly shall also have a stainless steel turnbuckle assembly to adjust the cable length. All hardware shall be of corrosion resistant stainless steel.

# CAMERA LOWERING SYSTEMS

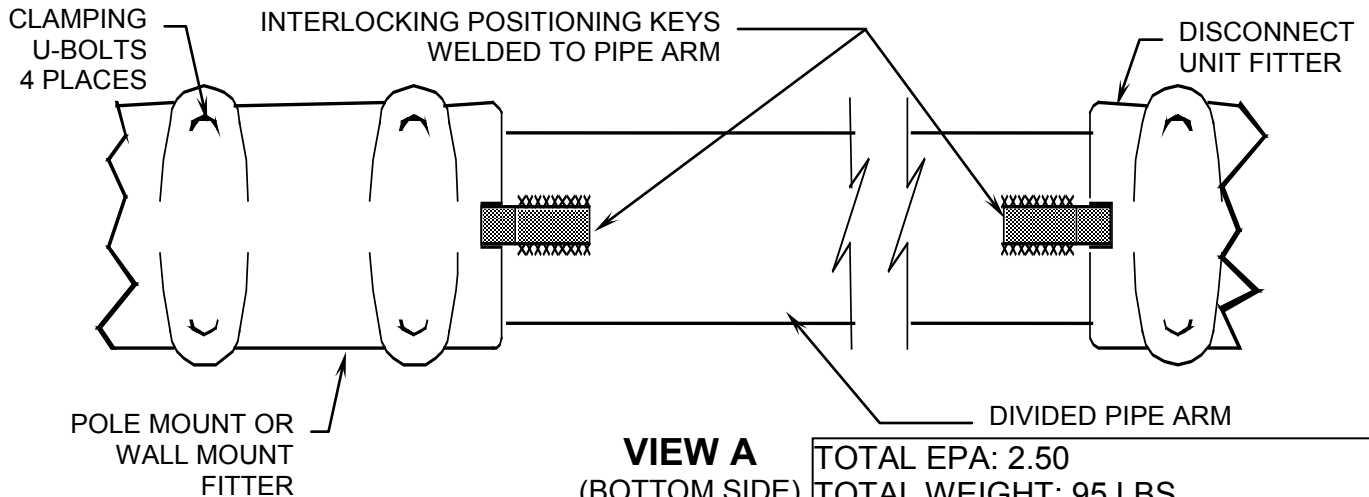
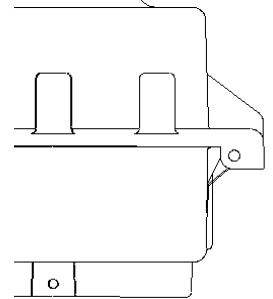
## INTERLOCKING ARM & FITTERS PROVIDES POSITIVE NON-ROTATING POSITIONING OF PIPE ARM FOR ALL OUTDOOR POLE AND WALL MOUNTED LOWERING SYSTEMS



### FEATURES

Specially shaped steel keys are welded to divided pipe arm before arm is galvanized. Precise alignment of keys with corresponding notches in the pole/wall fitter and the disconnect unit fitter provide positive positioning and prevents rotating of components about the divided pipe arm during extreme environmental conditions.

Pipe arm has full length divider separating the wires from the movement of the control cable. Separate chambers within the fitters for electrical wires and the control cable assures complete protection to the wires during the operation of the system.



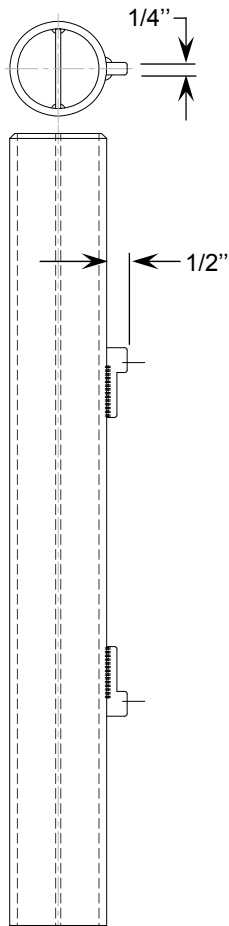
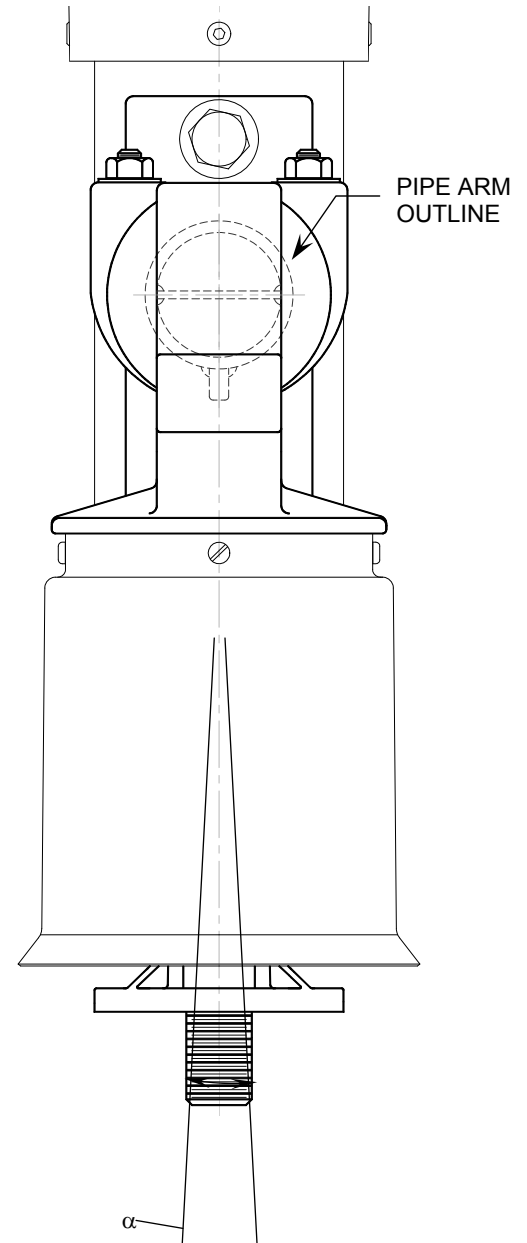
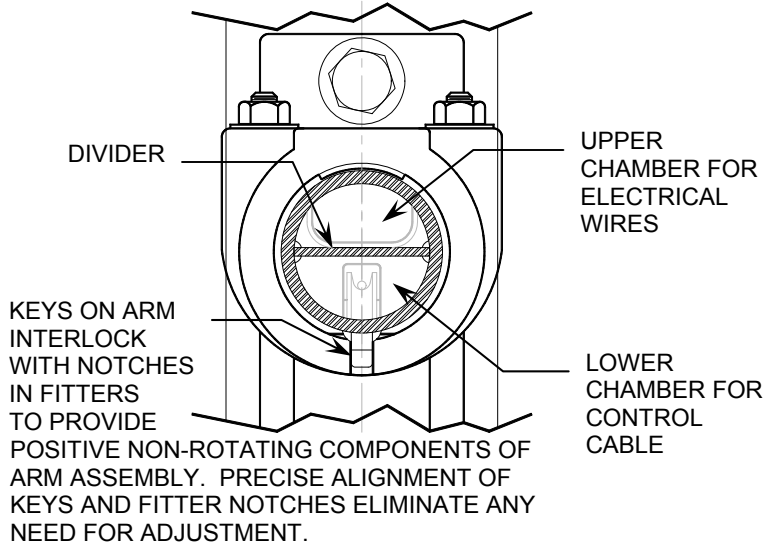
**VIEW A**  
(BOTTOM SIDE)

TOTAL EPA: 2.50  
TOTAL WEIGHT: 95 LBS  
(includes arm, disconnect unit, camera junction boxes, & camera)

# INTERLOCKING ARM & FITTERS

PROVIDES POSITIVE NON-ROTATING POSITIONING OF  
PIPE ARM FOR ALL OUTDOOR  
POLE AND WALL MOUNTED LOWERING SYSTEMS

## ARM CROSS SECTION



## DETAILS OF FEATURES

**NOTE:** WHEN THE INTERLOCKING POSITIONING KEYS OF THE ARM ASSEMBLY ARE MATED WITH THE CORRESPONDING NOTCHES IN THE FITTERS, THE POLE SHAFT MUST BE PLUMB FOR THE PROPER OPERATION OF THE SYSTEM.

**ANGLE  $\alpha$ :** The angle  $\alpha$  shown in the END VIEW is based on mechanical tolerances between mating parts and should not exceed a total of  $1/2^\circ$ . This deviation from plumb will not affect the operation of the components of the arm assembly. All tolerances are based on the pole shaft being plumb when installed.

**PIPE ARM:** (See Fig. 1) Constructed of 2 inch structural steel pipe having an outside diameter of 2-3/8 inch. Positioning keys are permanently welded to the pipe arm at precise positions that align with notches in the ends of each of the fitters. Arm finish is hot dip galvanized after all welding is completed. Optional finishes over the galvanizing are available to match the color of the pole. Ends of the pipe arm bottom out against the inside of the fitters a small fraction of an inch before the keys bottom out in the notches to provide a secure fit.

The pipe arm is installed complete with the rest of the arm components at the factory and is pre-wired to eliminate any need for adjustment in the field.

## END VIEW

Fig. 1

**Features And Benefits**

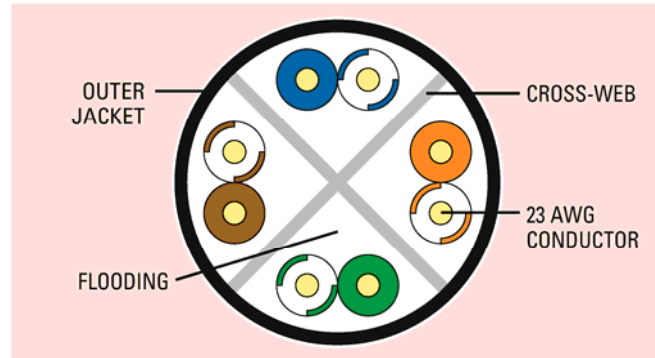
- Innovative cross-web design allowing for maximum pair separation, increasing key electrical performance parameters
- **Gel-filled construction to prevent moisture migration in underground and wet applications**
- Wide temperature range for extreme weather environments
- Made in U.S.A.

**Applications**

- Data transmission rates up to 2.4 Gb/s
- 1000 BASE-T (Gigabit Ethernet)
- 100/10 BASE-T (IEEE 802.3)
- 52/155 Mbps ATM
- Duct and outdoor conduit installations

**Standard Compliances**

- ANSI/TIA 568-C.2
- ISO 11801 (Category 6)
- ICEA S-102-700 (Category 6)
- Telcordia (Bellcore) Specification GR-421-CORE Water Penetration Requirement
- RoHS Compliant Directive 2002/95/EC



**CONSTRUCTION**

**Conductors**

- 23 AWG solid bare annealed copper

**Insulation**

- Polyolefin

**Color Code**

- Pair 1: Blue-White/Blue
- Pair 2: Orange-White/Orange
- Pair 3: Green-White/Green
- Pair 4: Brown-White/Brown

**Separator**

- Cross-web

**Flooding Compound**

- Waterproof gel

**Jacket**

- UV- and Abrasion-Resistant Polyethylenes

**PHYSICAL DATA**

Nominal Cable Diameter (in)	0.250
Nominal Cable Weight (lbs/1000)	25
Minimum Bend Radius (in)	1.0
Maximum Pulling Force (lbs)	32
Temperature Rating (°C)	
Installation:	-30 to +60
Operation:	-45 to +80

**ELECTRICAL CHARACTERISTICS**

<b>DC Resistance (max)</b> Ohms/100 m (328 ft) @ 20°C	8.9
<b>DC Resistance Unbalance</b> (max) Individual Pair %	3.0
<b>Delay Skew (max)</b> ns/100 m	45
<b>Nom. Velocity of Propagation</b> % Speed of Light	69
<b>Characteristic Impedance</b> Frequency (f): 1-250 MHz	Ohms 100 ± 15



**ELECTRICAL PERFORMANCE**

Frequency MHz	PSACR* (min)	ACR* (min)	Insertion Loss (max)	PSNEXT (min)	NEXT (min)	PSACRF (min)	ACRF (min)	Return Loss (min)
1	70.3	72.3	2.0	72.3	74.3	64.8	67.8	20.0
4	59.3	61.5	3.8	63.3	65.3	52.8	55.7	23.0
10	51.3	53.3	6.0	57.3	59.3	44.8	47.8	25.0
16	46.7	48.7	7.6	54.2	56.2	40.7	43.7	25.0
20	44.3	46.3	8.5	52.8	54.8	38.8	41.7	25.0
31.25	39.2	41.2	10.7	49.9	51.9	34.9	37.9	23.6
62.5	29.9	32.0	15.4	45.4	47.4	28.9	31.8	21.5
100	22.5	24.5	19.8	42.3	44.3	24.8	27.8	20.1
200	8.8	10.8	29.0	37.8	39.8	18.8	21.8	18.0
250	3.5	5.5	32.8	36.3	38.3	16.8	19.8	17.3

Note: Values are expressed in dB per 100 m (328 ft.) length @ 20° C.  
\*PSACR & ACR not specified in ANSI/TIA 568-C.2

**N-Composite Cord Specifications:**

3-#14 AWG POWER CABLES (Green, White, Black)

Voltage Rating: 600V.

Water & Sunlight Resistant

Temp. Rating: 105c

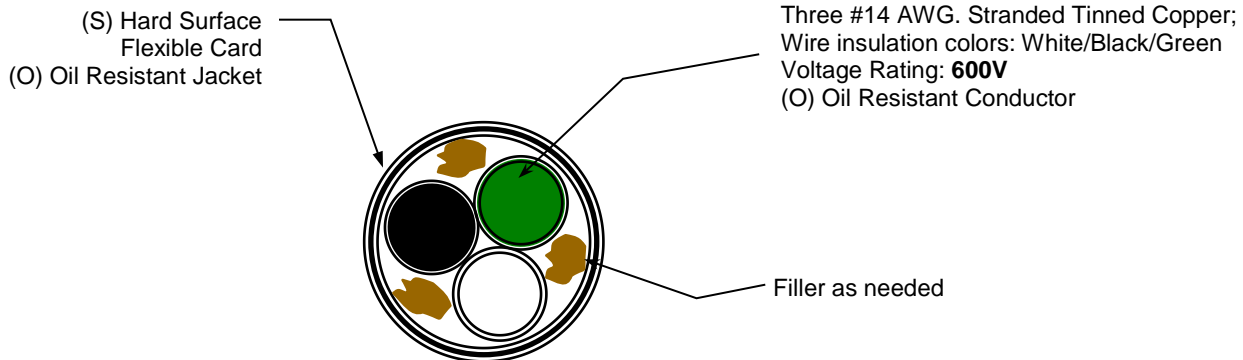
U.L. Ampacity Rating for 14 AWG Flexible Cord: 18

**CABLE ASSIGNMENTS:**

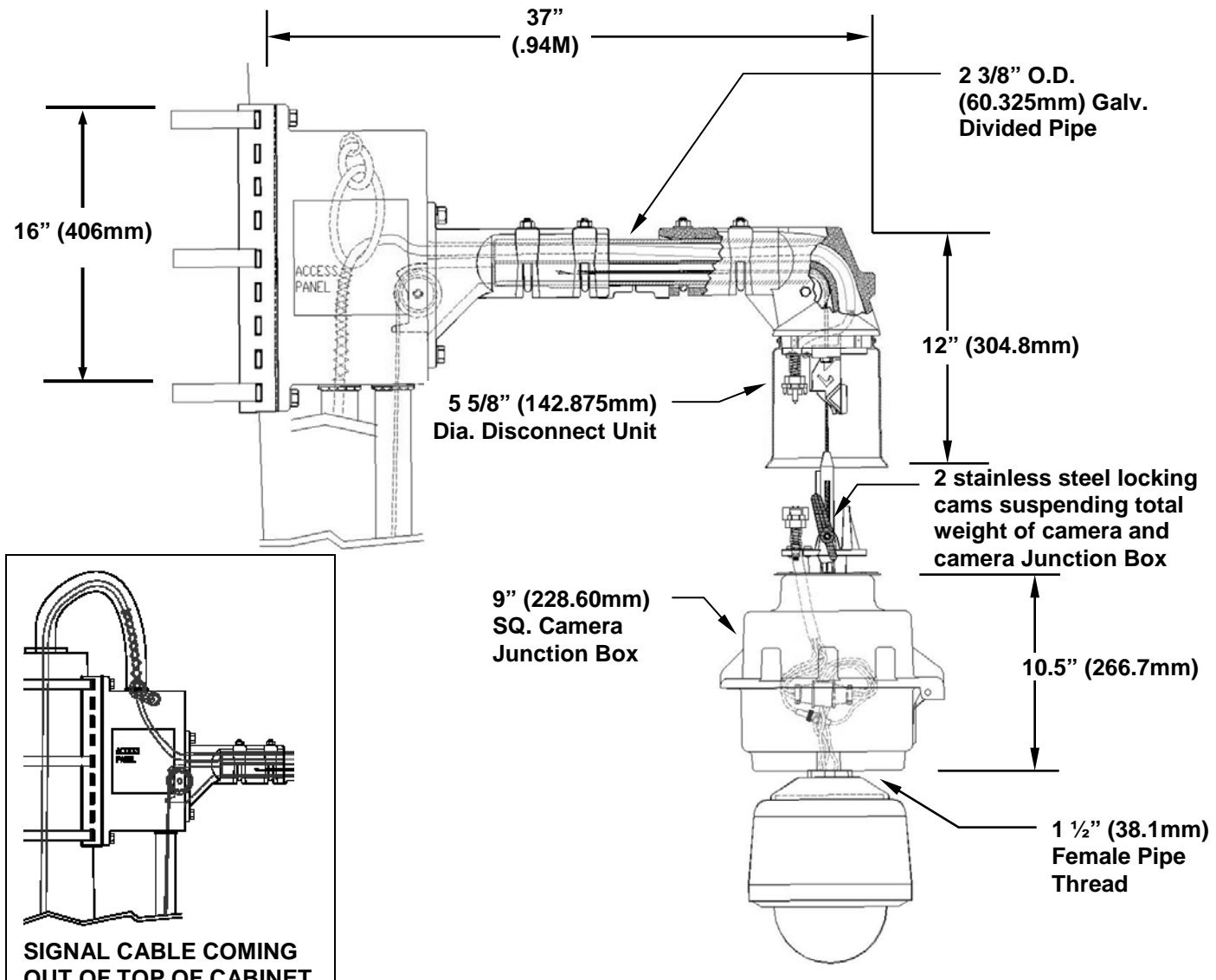
BLACK: POWER (HOT)

WHITE: NEUTRAL

GREEN: GROUND (EARTH)



Design **CEPM** SERIES  
**External Mount Disconnect Unit**  
**Measurements**



**Disconnect Unit Load Capacity:**  
 200 lbs (91kgs) with a 12:1 safety factor  
 400 lbs (182kgs) with a 6:1 safety factor  
 600 lbs (273kgs) with a 4:1 safety factor

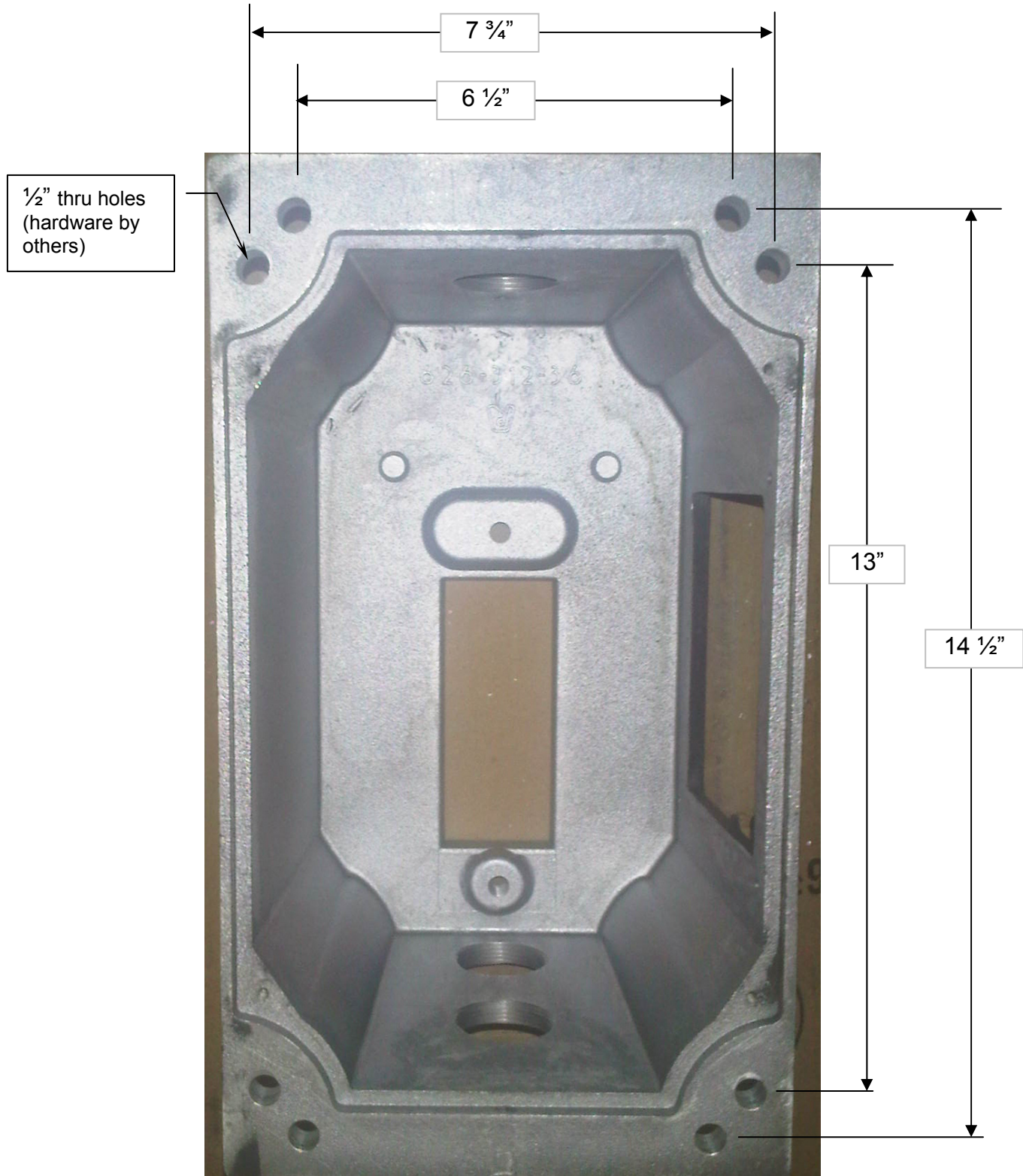
**Complete CTMT with Arm Assembly Load Capacity:**  
 200 lbs (91kgs) with a safety factor of 9:1

**Operating Temperature Range:** NEMA TS2 -40C to +140C, 100% Humidity

**Wind load Rating:** 130mph (211kmph) w/1.3 Gust with 1.65 safety factor.

**Total EPA:** 3.00      **Total Weight:** 95 lbs (43 kgs)  
 (EPA and Weight includes arm, disconnect unit, camera junction box, Top tower cabinet, and camera)

Design **CEPM** SERIES  
Top Box Mounting Details

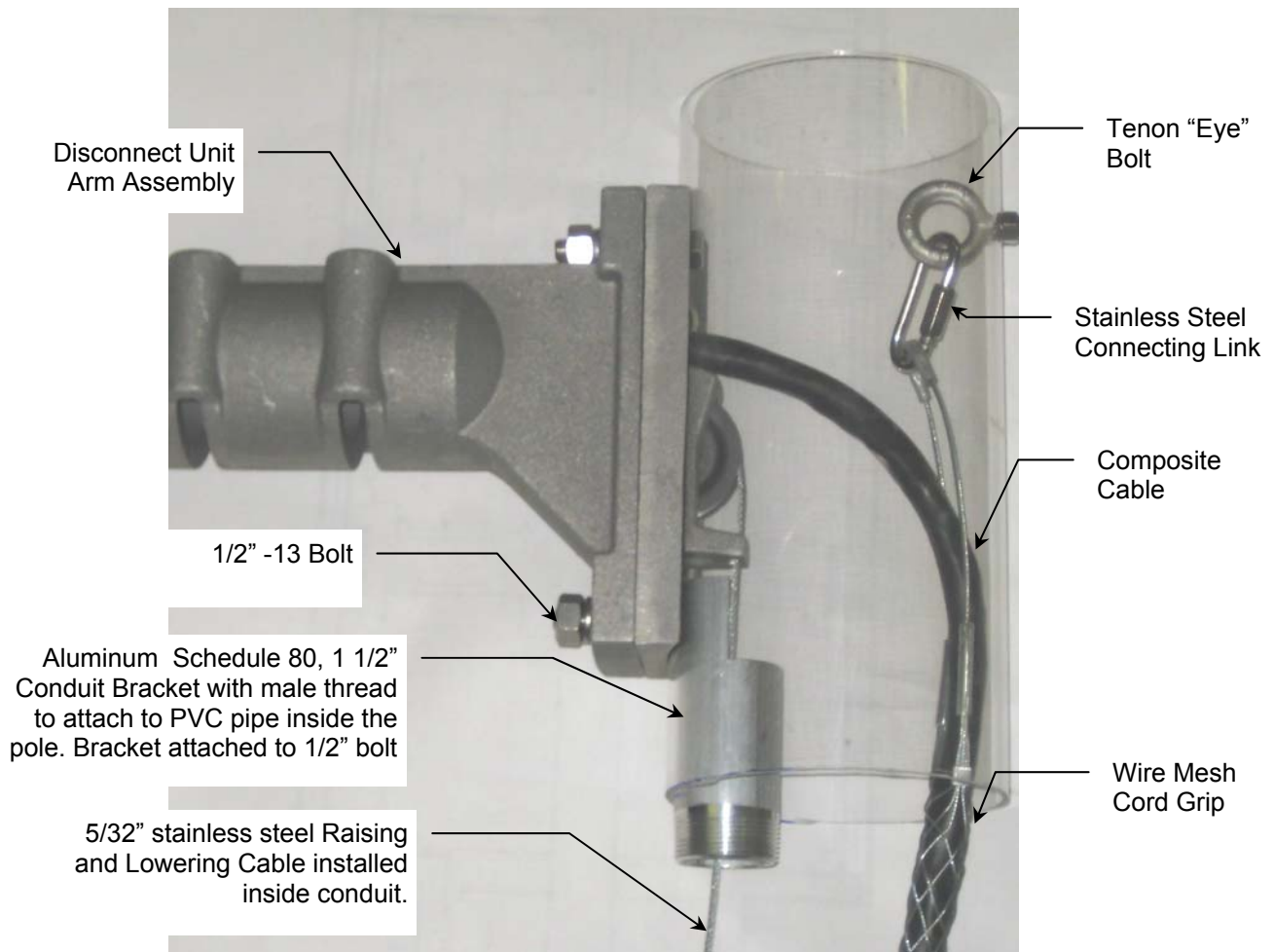


## Composite Cable Cord Grip

### SUPPORT GRIPS Standard Duty, Closed Mesh

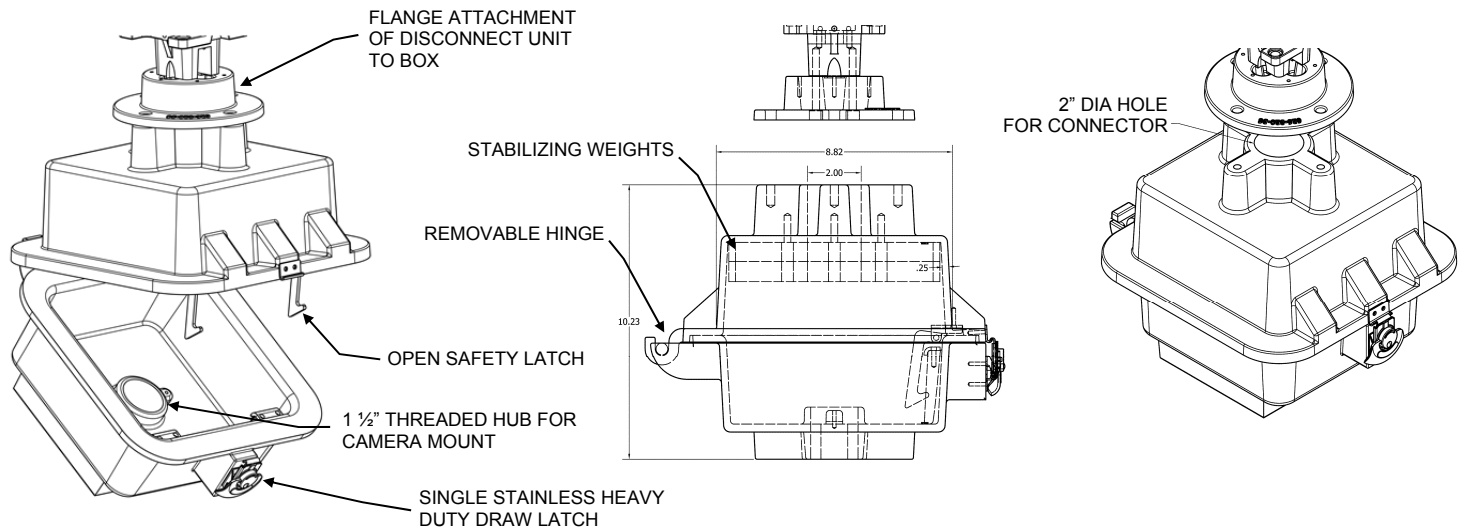
Standard closed mesh support grips are designed for loads up to 600 lbs. and vertical runs of up to 100ft. The different cord grips are used to support electrical/signal cable with a cable diameter ranging from 0.22" to 0.99". Closed mesh support grips have a loop to hang from the eye hook. Support grips are woven of corrosion-resistant tinned-bronze wire.

Optional stainless steel wire mesh also available





# Camera Junction Box Specifications



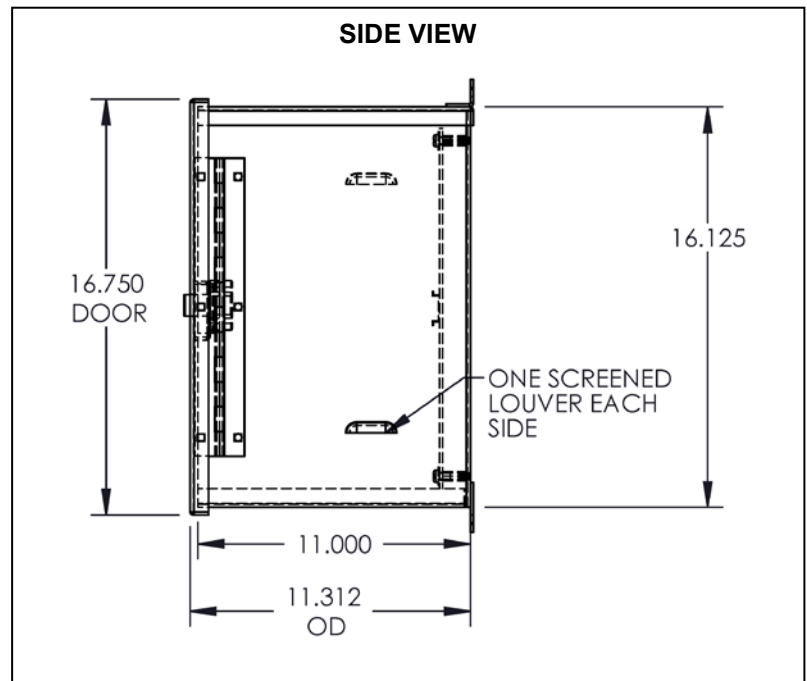
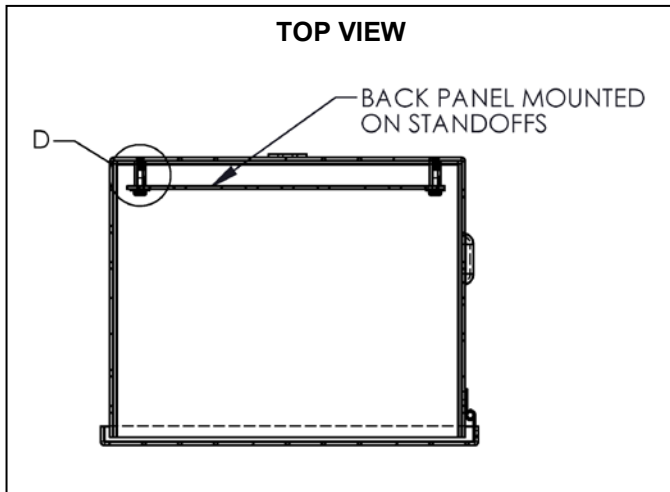
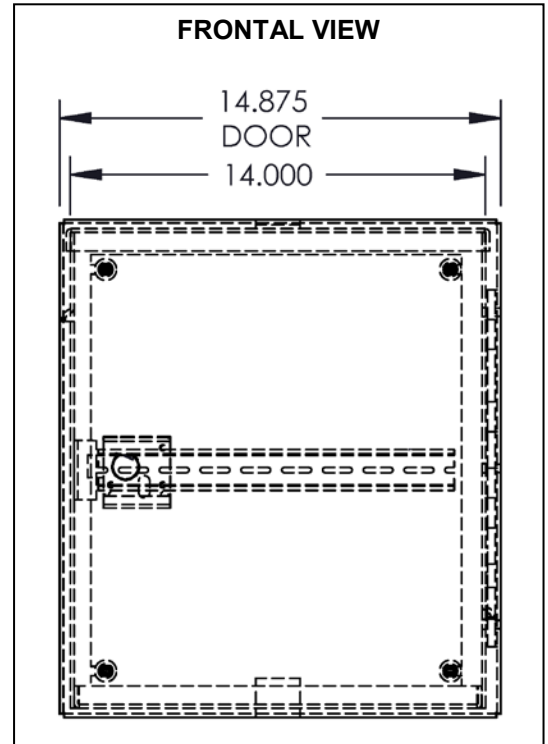
**The Camera Junction Box shall be a two piece design for easy camera mounting and wiring connection**

- The top half shall be mounted and gasketed to the bottom of the disconnect unit flange.
- Flange assembly shall extend into the cylinder of the disconnect unit and designed to repel water. The gasket shall be made of neoprene.
- The Camera Junction Box must exceed the ingress protection rating of IP55.
- Inside the top half, it shall have provision to mount additional weights for lightweight cameras or other equipment.
- There shall be an option to mount the stabilizing weights on the outside of the box.
- Total weight of Camera Junction box with weights: **45 lbs.**
- Made of extra heavy construction.
- The Camera Junction Box shall be adaptable to all brands of cameras. It shall be able to accommodate cameras with a 1 1/2" threaded mount, or a flange mount.
- There shall be two open safety latches to keep the bottom half of the box from flying too far open.

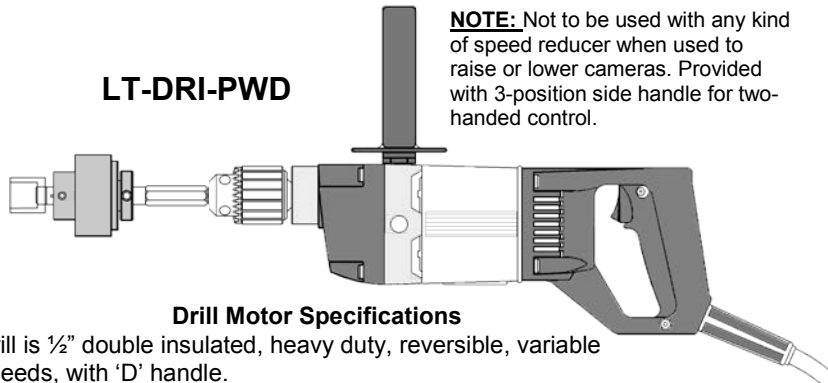
- The two piece construction shall feature a lower box that hinges down for easy access to wiring. It shall contain a large capacity-splicing compartment for camera power, signal leads, and connectors.
- The two-piece clamshell is designed with a removable hinge on one side, and a single latch on the opposite side.
- Both sections shall be made of corrosion resistant cast aluminum.
- In between the two halves, there shall be a gasket made of neoprene, to resist moisture.
- For ease of attachment, disconnect unit flange attaches to the Junction Box from outside of the box.
- Bottom of box must have a screened 'breather hole' for moisture to escape.
- All hardware shall be made of stainless steel.
- There shall be one heavy duty stainless steel spring-loaded Draw Latch to lock the two halves of the Camera Junction Box together.

**CABINET SPECIFICATIONS**

- Dimension: 16.125"H x 14.875"W x 11.0"D
- Cabinet door has a continuous 2" open stainless steel hinge. The door hinges to the right side.
- Cabinet door utilizes a neoprene closed cell gasket permanently mounted on the door, sealing the cabinet. The door overlaps the box, keeping water from penetrating in the box.
- Cabinet has screened vent louvers to provide ventilation and drainage of water.
- Door is secured with #2 Slam Lock.
- Cabinet is designed to NEMA 3R standards.
- Cabinet is constructed of .125" thick 5032 H-32 Aluminum.
- VERTICAL BRACKET HAS SLATS FOR STRAPS TO ATTACH FRAME TO TOWER OR POLE.
- Opening in top of cabinet is for 2" conduit.
- All hardware is stainless steel.
- FDOT Certified Approval #67614102411013



All gearboxes and lowering tool frames are of heavy-duty design to provide reliability, long life, and ease of operation. They incorporate solid steel heat-treated gears for maximum durability and strength. All are equipped with a special automatically actuated disc brake for better load holding ability and the prevention of the load free wheeling. They are essential for lifting operations. Also available for permanent installation or portable use indoors or outdoors for wall mounting, tower mounting, or different kinds of pole mounting.



**LT-DRI-PWD**

**NOTE:** Not to be used with any kind of speed reducer when used to raise or lower cameras. Provided with 3-position side handle for two-handed control.

**Drill Motor Specifications**

- Drill is 1/2" double insulated, heavy duty, reversible, variable speeds, with 'D' handle.
- Chuck size is 1/2" key chuck with key.
- Electrical-Nom. 5 amp universal motor 115v.AC
- Torque-Develops nominal 170 lbs.-in.
- Speed/HP-.5 H.P. No load speed of 350 RPM
- Overall length is 15-1/8"
- Weight: Approx. 7lbs. 6oz.

**Overload Clutch Specifications**

- Lubricated ball indent-totally enclosed-adjustable torque limiting.
- Coil spring type. Varied quantities depending on torque range. Torque range: 60 to 300 lb./in.
- Winch drive is 1-1/8" hex socket with 1/2" sq. drive.
- Max. operating speed is 350 RPM
- Dimensions of clutch: 1 1/2"Dia., 1 5/8"L. Overall, 8 1/2"L
- Hub shaft: 3/8" sq. w/spring loaded pin (clutch end).
- Socket shaft: 3/8" sq. w/spring loaded retaining pin.
- Open-end wrench type torque-adjusting nut. Snap ring tool included with clutch.
- Clutch weight: 2 lbs.

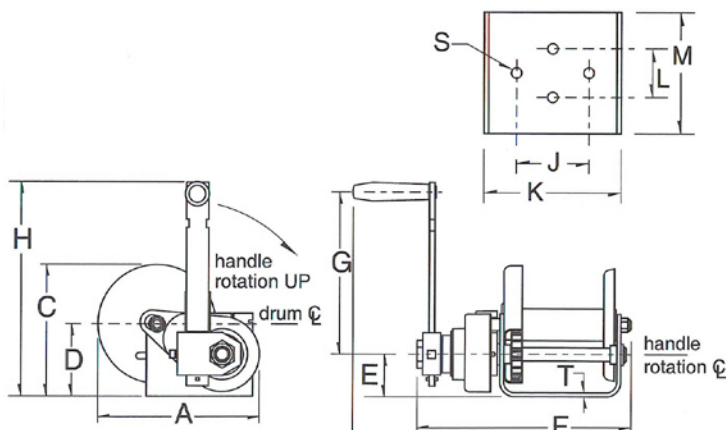
**Winch Dimensions (inches)**

drum dia.	1.50
flange dia.	4.56
drum width	3.00
A	7.27
B	14.12
C	6.12
D	3.31
E	2.00
flange dia.	10.12
G	10.59
H	13.12
J	3.00
K	5.68
L	2.00
M	5.00
S(hole dia.)	0.43
T	0.18

**Specifications on Lowering Tool Winch Assembly**

- **Winch:** Fabricated from heavy gauge steel w/zinc plated finish.
- **Winch Drum:** Stainless steel drum for greater corrosive resistant capability.
- All hardware is made out of stainless steel.
- The winch has a 3:1 Gear reduction to reduce the effort required to raise and lower the assembly.
- Winch comes with heavy-duty disk brake to afford greater load holding ability. This provides a positive locking mechanism to secure cable and keep from freewheeling.
- **Drum capacity:** 110FT of 5/32" diameter cable
- **Cable:** Raising & Lowering Cable for Lowering Tool. Marine grade type 316 Stainless Steel (SS) 5/32"-7x19 aircraft cable. Minimum breaking strength of 2400 lbs.
- **Load Rating:** 1000 lbs on first layer.
- **Weight:** 24LBS.

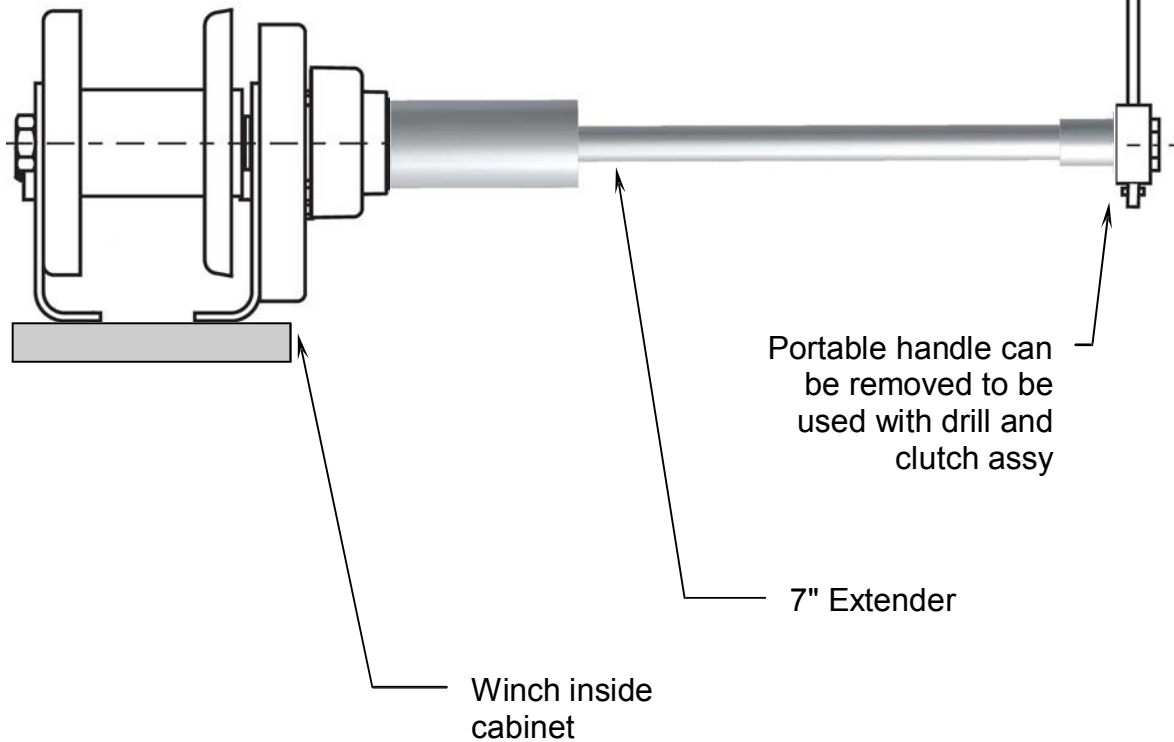
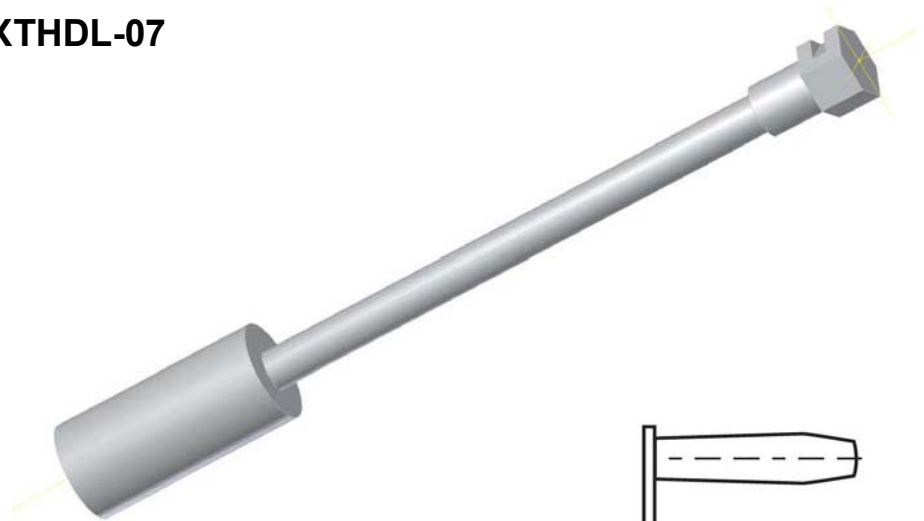
**Spur Gear Winch, 3" Wide Stainless Steel Drum**



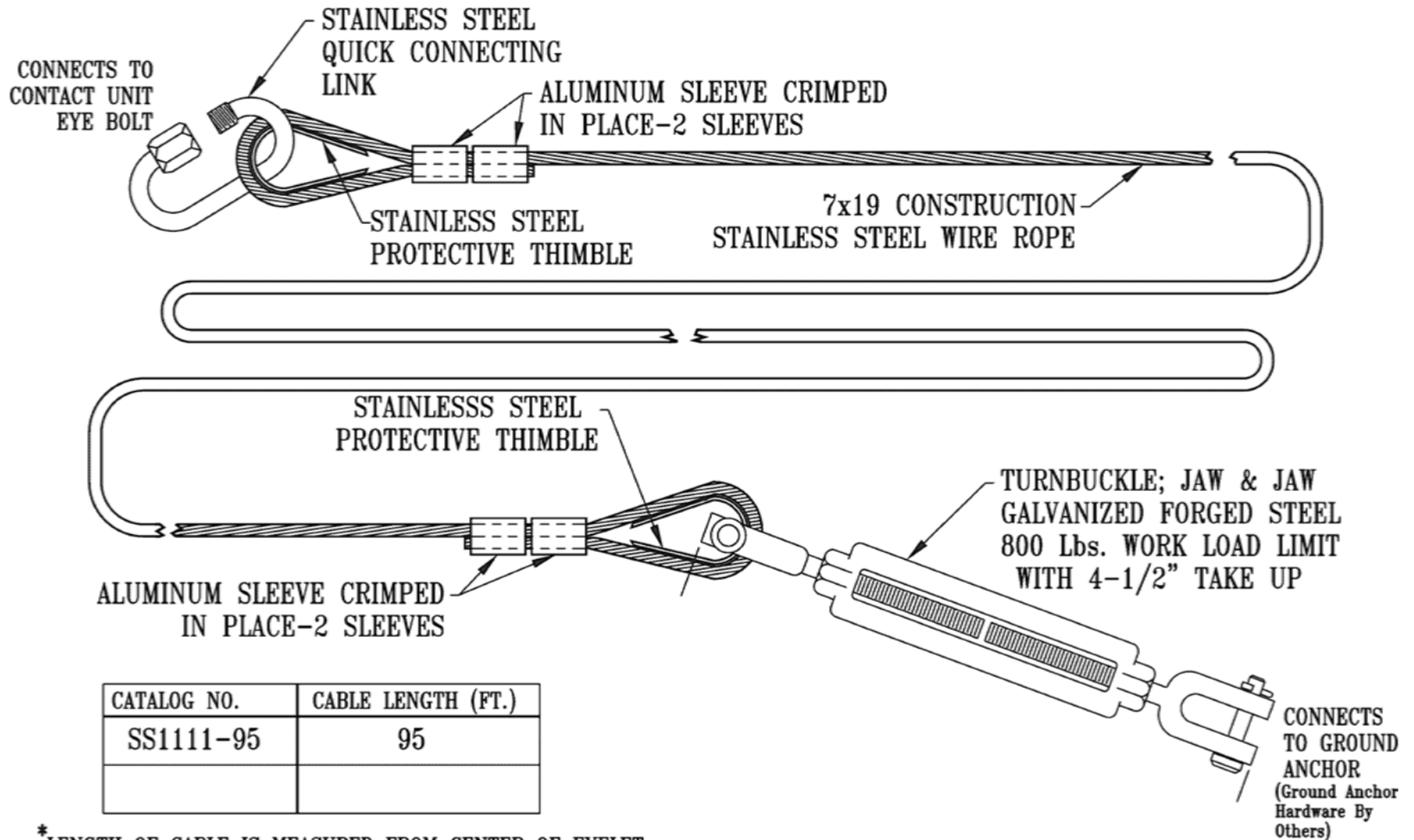
\* All Lowering Systems gear boxes and lowering tools are designed for material handling usage only.  
\* Not for lifting people.  
\* Specifications subject to change without notice.

**LT-EXTHDL-07**

- 7" Extension of Handle
- Adaptable for LT-DRI-PWD drill assembly
- Hex head adaptor to Winch.
- Allows winch to be inside of cabinet while the operator operates the winch outside of the cabinet.
- Fits all CLS cabinets.
- Longer extensions available.



## OPTIONAL: GUY (GUIDE) CABLE SPECS



\* LENGTH OF CABLE IS MEASURED FROM CENTER OF EYELET ON ONE END TO CENTER OF EYELET ON THE OTHER END.