10.00 INSTALLATION INSTRUCTIONS
MODELS 790-OPGW & 570-OPGW

10.11 The following tools and materials are required in addition to those used in normal splicing practices.
*Ratchet/socket or box/open end wrench, 1/2"
*Ratchet/socket or box/ open end wrench, 3/8"
*Screw driver, flat blade

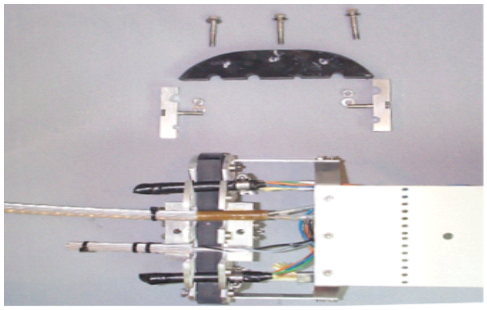
10.12 Loosen the compression bolts on the end plate. The bolt heads should be "backed off" approximately 1/8" from the washers. Remove the closure housing and set it aside.

10.13 Instructions for 790-EM & 570-EM elastomers
Refer to the cable measuring guide that comes with the 790-EM & 570-EM tear out seal elastomer.
(See Drawing 6 for elastomer detail.)

FIGURE 1

10.14 Remove the bottom sections of the inside and outside cable clamps and set them aside. Remove the 3 compression bolts around the cable entry ports to be used. Remove the freed section of the split compression seal and put it aside.

FIGURE 2



10.15a Prepare cable per standard/local practice. OPGW cable should have 3" of the central core or tube exposed past the point where the strands are butted out. **NOTE:** If OPGW cable having stainless steel buffer tube is being used refer to section 15-700 installation instructions for 790/570-PK.
NOTE: No less than 46"of buffer tube from cable "butt" to splice tray should be exposed. Desired amount of fiber in splice tray dictates total length of buffer tube to be exposed.
Example: If 36" of fiber is desired in splice tray expose 36" + 46"= 82" of total buffer tube.
NOTE: If Transition Trays are being used, an additional 26" of exposed fiber is advised.
(See Drawing: Figure 2 Transition Tray).

10.15b Two options are available for tight buffered fibers to allow at least 3.5" of bend radius or 7" diameter bend radius.
See Figs. 3 & 4.

FIGURE 3

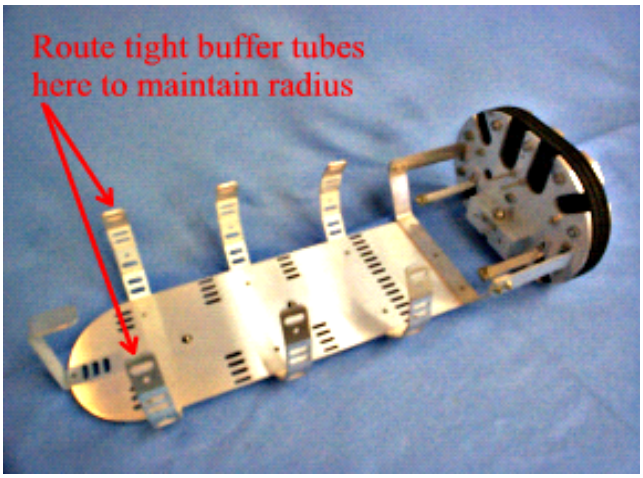
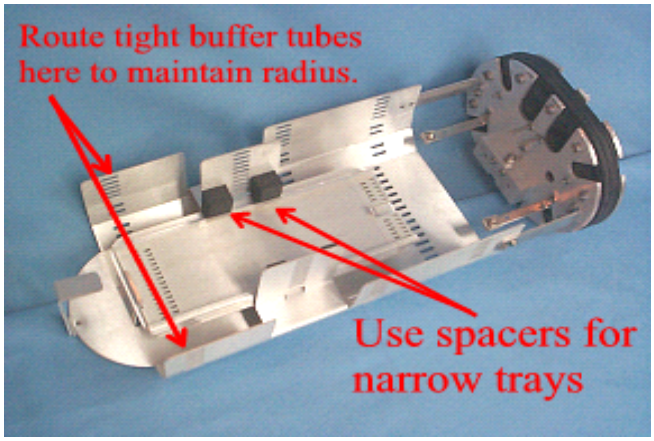
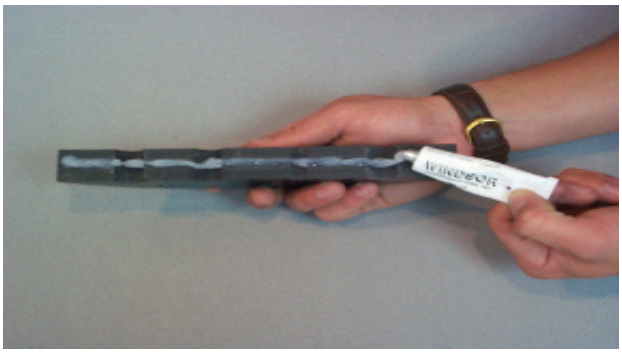


FIGURE 4



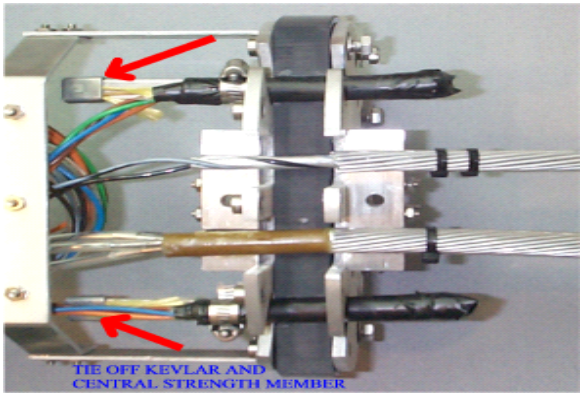
10.16 Insert the cables in the slotted end plate with the stranded cable against the outside edge of the compression seal. Use the provided tube of RTV silicone to run a small bead across the center of the split of the compression seal and drilled holes. Replace the section of the compression seal and the 3
bolts that secure it. Repeat this process on the opposing split even if cables are not being installed

FIGURE 5



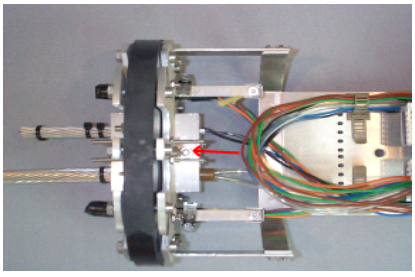
10.17 NOTE: Removal of the termination stand off makes the following task easier. For ADSS or buried type cable tie kevlar and insert central strength member under clamping plate at the end of cable tie stand off bracket. Secure cable clamp around cable tie stand off bracket and cable and then tighten.

FIGURE 6



10.18 Replace the bottom of the inside cable clamp only and tighten the bolt that secures it.

FIGURE 7



10.19 Remove desired amount of buffer tube from fibers leaving no less than 46" of buffer tube and tie wrap buffer tubes into splice tray.

10.20 Splice fibers in accordance with standard local practice. (See Drawings 1, 2 and 3 for recommended splice chip placement.)

10.21 Install splice trays into splice tray holder and secure buffer tube to buffer tube storage platform using the Velcro ties.

10.22a ***VERY IMPORTANT:*** **It is very important to follow the bolt tightening sequence instructions to ensure proper seal**. (See **Drawing 5** for bolt tightening sequence detail.) Slide closure into dome housing and tighten the compression bolts of the end plate. All 11 bolts should be tightened to the point where compression begins ("snug" against the end plate). Begin with the center bolt (1) and tighten one full turn. Move to bolts 2 through 11 and tighten one full turn. Be sure to follow numerical sequence. Return to the center bolt (1) and tighten one half turn. Move to the surrounding bolts (2 through 9) and tighten one half turn. Move to bolts (10-11) and tighten one **full** turn. Be sure to follow numerical sequence.

10.22b ***VERY IMPORTANT:*** **It is very important to follow the bolt tightening sequence instructions for 570 to ensure proper seal**.
(See **Drawing 8** for bolt tightening sequence detail.) Slide closure into dome housing and tighten the compression bolts of the end plate. All 9 bolts should be tightened to the point where compression begins ("snug" against the end plate). Begin with the center bolt (1) and tighten one full turn. Move to bolts 2 through 9 and tighten one full turn. Be sure to follow numerical sequence. Return to the center bolt (1) and tighten one full turn. Move to the surrounding bolts (2 through 9) and tighten one full turn. Be sure to follow numerical sequence.

FIGURE 8

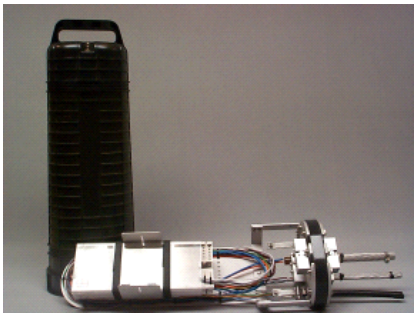
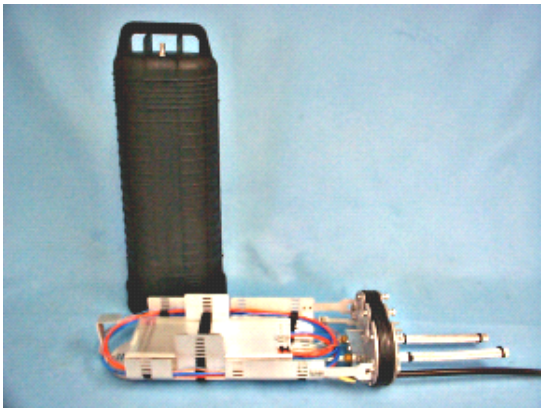


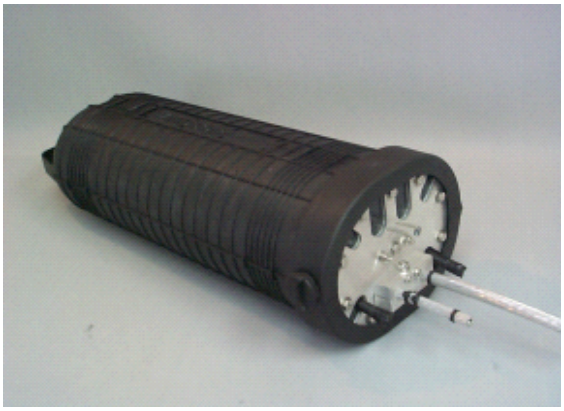
FIGURE 9



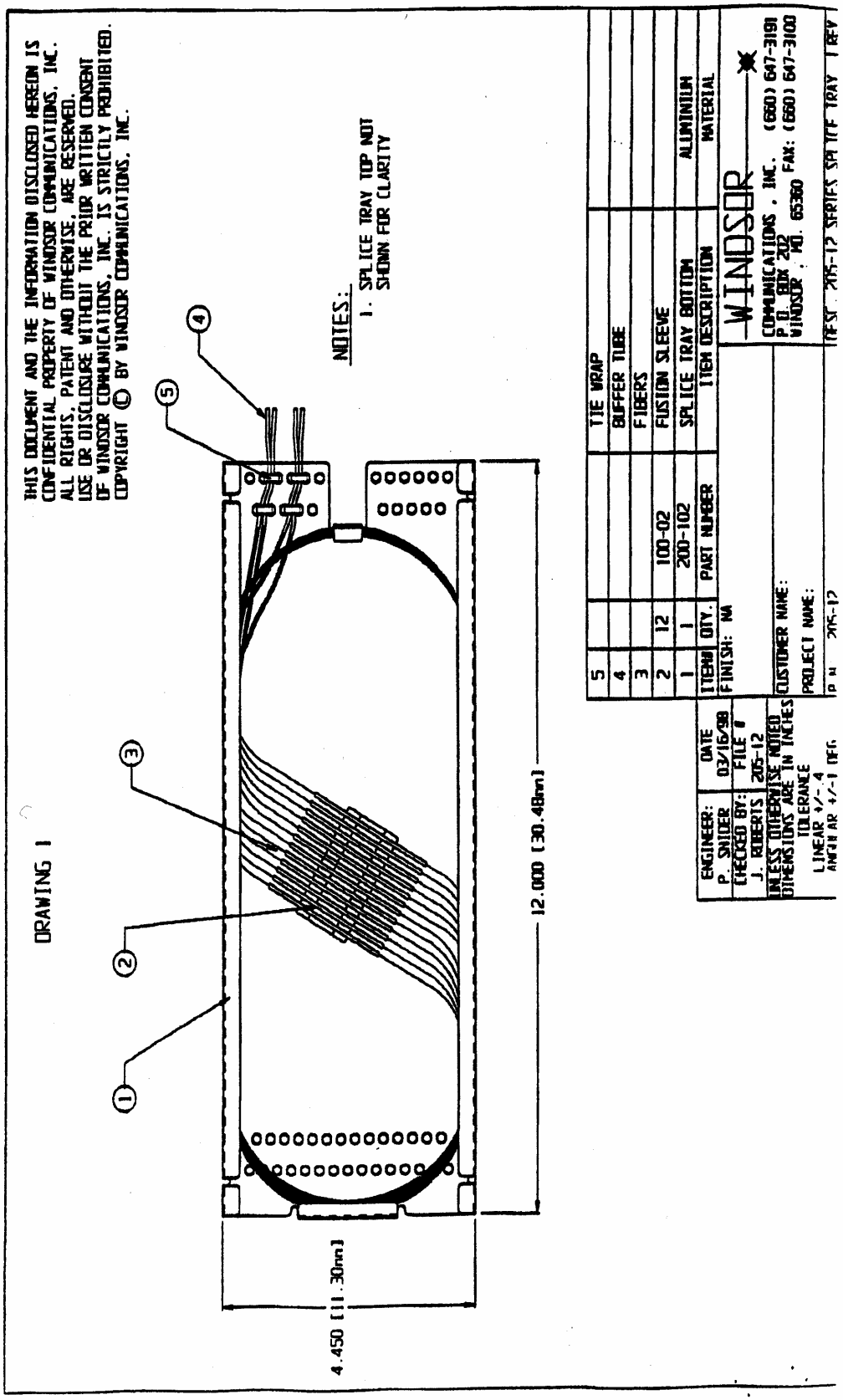
10.23 Replace the bottom section of the outside cable clamp and tighten the bolts until the stranded cable is securely held.

10.24 Install the collar onto the base of the closure housing. The collar locking knob is a over center locking device. Turn knob clockwise and be certain the knob "snaps" into the over center locked position.
NOTE: This is a very important safety device which must be employed when flash testing closure under air pressure. When flash testing, never use more than 6-8 pounds psi. (See Drawing 7 for collar locking detail.)

FIGURE 10



10.25 Closure re-entry.
Loosen all compression bolts of the closure end plate. All bolts must be loose to relieve compression of the seal. Loosen the bolt that secures the outside clamp. Pull cables with a steady force to slide end seal out of closure. If cables are removed or installed apply RTV per section 10.16. Seal closure and locking collar per sections 10.22 and 10.24.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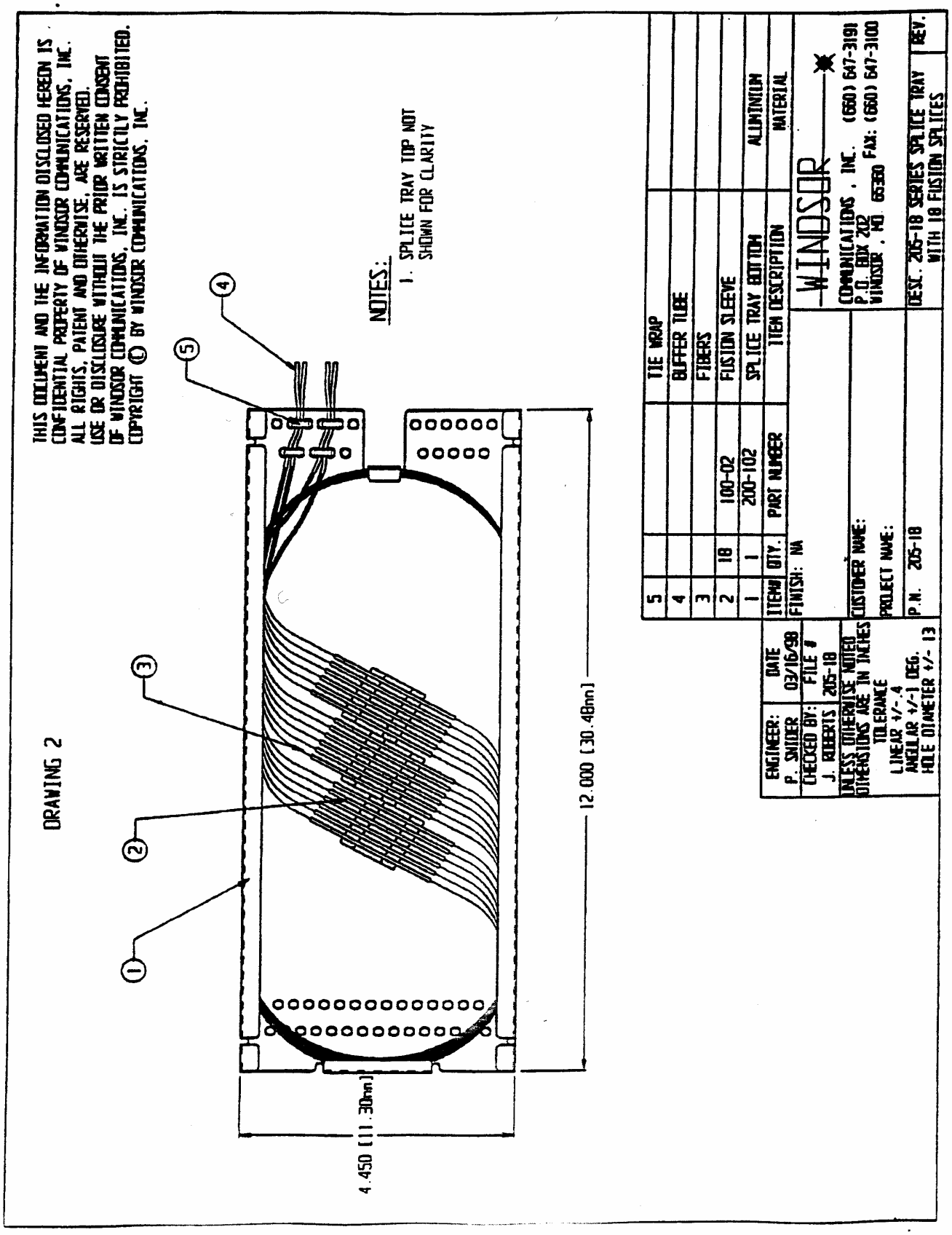
NOTES:
1. SPLICE TRAY TOP NOT SHOWN FOR CLARITY
DRAWING 1
12.000 [30.48mm]
4.450 [11.30mm]
5 TIE WRAP
4 BUFFER TUBE
3 FIBERS
2 12 100-02 FUSION SLEEVE
1 1 200-102 SPLICE TRAY BOTTOM ALUMINUM
ITEM# QTY. PART NUMBER ITEM DESCRIPTION MATERIAL
FINISH: NA
ENGINEER: P. SNIDER DATE 03/16/98
CHECKED BY: J. ROBERTS FILE # 205-12
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCE LINEAR +/- .4 ANGULAR +/- 1 DEG.
CUSTOMER NAME:
PROJECT NAME:
P N 205-12
WINDSOR
COMMUNICATIONS , INC. (660) 647-3191
P O BOX 202 FAX: (660) 647-3100
WINDSOR , MO. 65360
NEXT 205-12 SPRING SPLICE TRAY REV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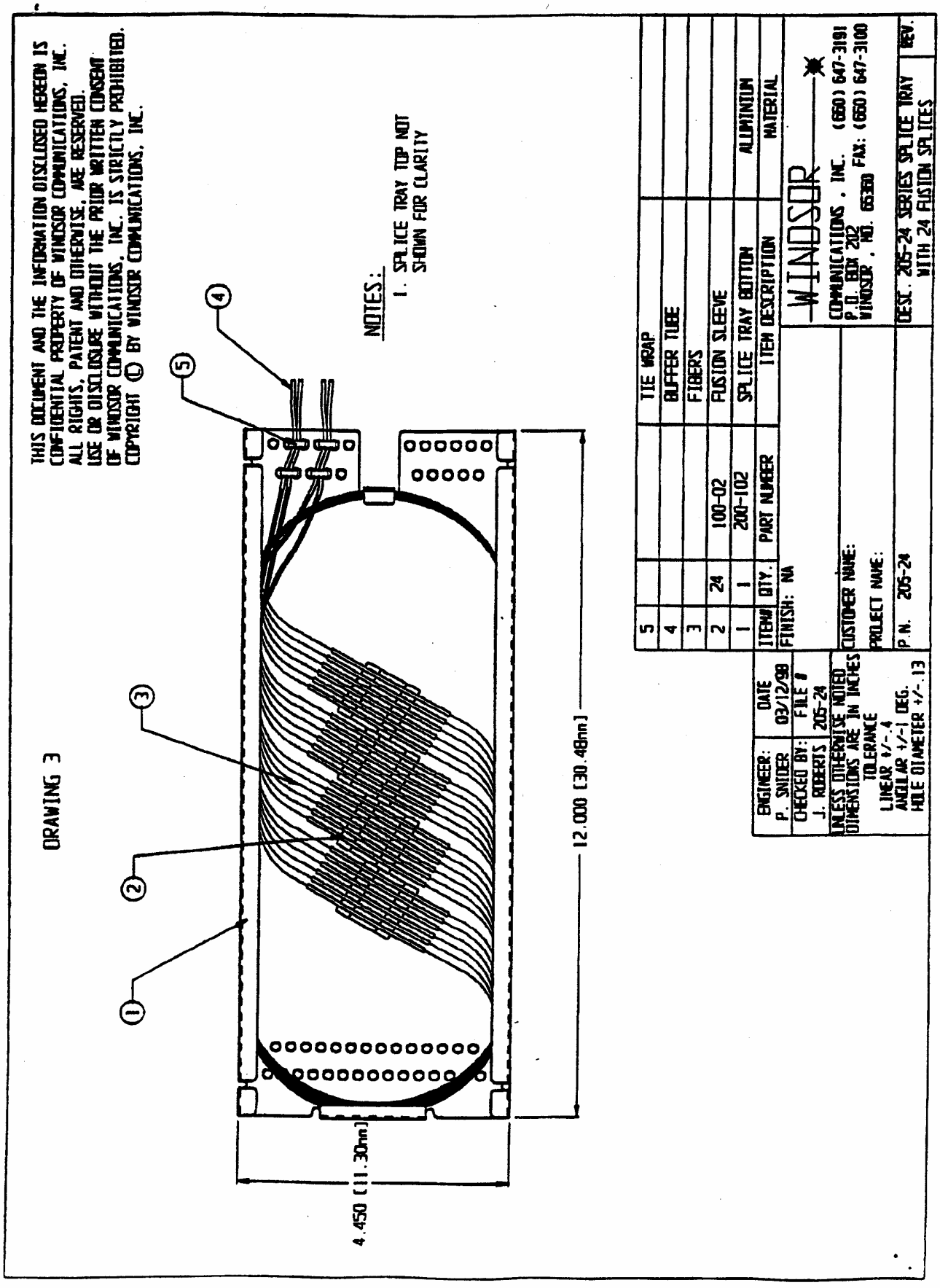
DRAWING 2
NOTES:
1. SPLICE TRAY TOP NOT SHOWN FOR CLARITY
12.000 [30.48mm]
4.450 [11.30mm]
5 TIE WRAP
4 BUFFER TUBE
3 FIBERS
2 18 100-02 FUSION SLEEVE
1 1 200-102 SPLICE TRAY BOTTOM ALUMINUM
ITEM# QTY. PART NUMBER ITEM DESCRIPTION MATERIAL
FINISH: NA
ENGINEER: P. SNIDER DATE 03/16/98
CHECKED BY: J. ROBERTS FILE # 205-18
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCE
LINEAR +/-.4
ANGULAR +/-1 DEG.
HOLE DIAMETER +/- 13
CUSTOMER NAME:
PROJECT NAME:
P.N. 205-18
WINDSOR
COMMUNICATIONS , INC. (660) 647-3191
P.O. BOX 202
WINDSOR , MO 65380 FAX: (660) 647-3100
DESC. 205-18 SERIES SPLICE TRAY WITH 18 FUSION SPLICES
REV.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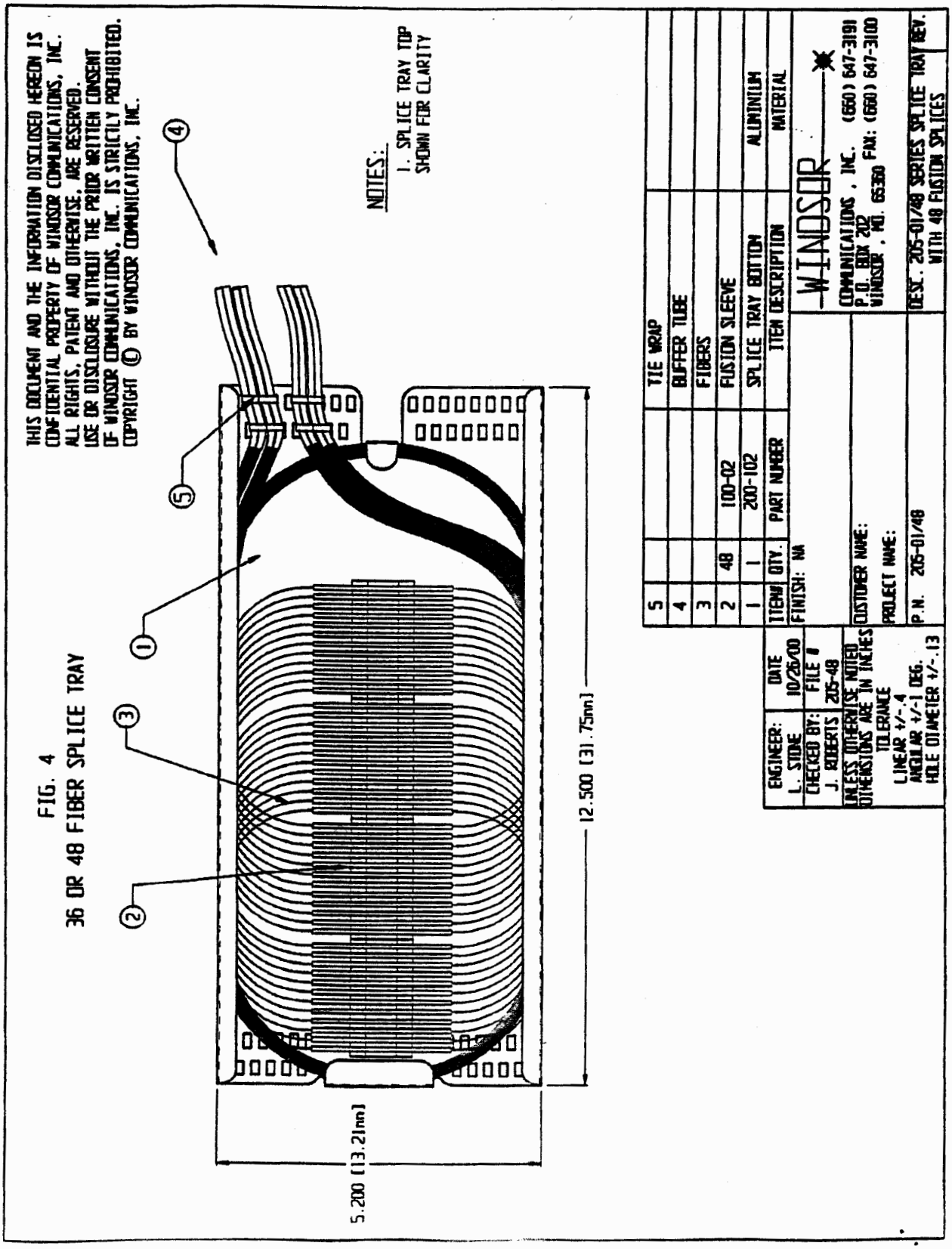
DRAWING 3
NOTES:
1. SPLICE TRAY TOP NOT SHOWN FOR CLARITY
12.000 [30.48mm]
4.450 [11.30mm]
ITEM QTY. PART NUMBER ITEM DESCRIPTION MATERIAL
1 1 200-102 SPLICE TRAY BOTTOM ALUMINUM
2 24 100-02 FUSION SLEEVE
3 FIBERS
4 BUFFER TUBE
5 TIE WRAP
ENGINEER: P. SNIDER DATE 03/12/98
CHECKED BY: J. ROBERTS FILE # 205-24
FINISH: NA
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES TOLERANCE LINEAR +/-.4 ANGULAR +/-1 DEG. HOLE DIAMETER +/-.13
CUSTOMER NAME:
PROJECT NAME:
P.N. 205-24
WINDSOR
COMMUNICATIONS, INC. (660) 647-3191
P.O. BOX 202
WINDSOR, MO. 65360 FAX: (660) 647-3100
DESC. 205-24 SERIES SPLICE TRAY WITH 24 FUSION SPLICES
REV.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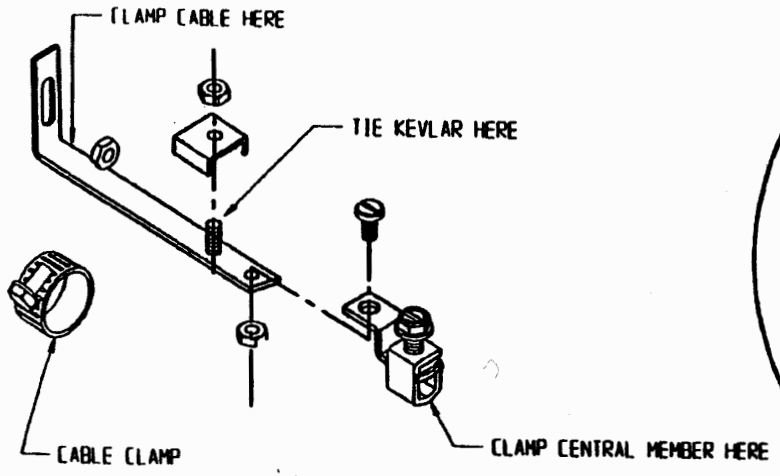
NOTES:
1. SPLICE TRAY TOP SHOWN FOR CLARITY
FIG. 4
36 OR 48 FIBER SPLICE TRAY
12.500 [31.75mm]
5.200 [13.21mm]
5 TIE WRAP
4 BUFFER TUBE
3 FIBERS
2 48 100-02 FUSION SLEEVE
1 1 200-102 SPLICE TRAY BOTTOM ALUMINIUM
ITEM# QTY. PART NUMBER ITEM DESCRIPTION MATERIAL
FINISH: NA
WINDSOR
COMMUNICATIONS , INC. (660) 647-3191
P.O. BOX 202 FAX: (660) 647-3100
WINDSOR , MO. 65380
ENGINEER: L. STONE DATE 10/26/00
CHECKED BY: J. ROBERTS FILE # 205-48
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCE
LINEAR +/-.4
ANGULAR +/-1 DEG.
HOLE DIAMETER +/-.13
CUSTOMER NAME:
PROJECT NAME:
P.N. 205-01/48
DESC. 205-01/48 SERIES SPLICE TRAY REV.
WITH 48 FUSION SPLICES

NOTES:

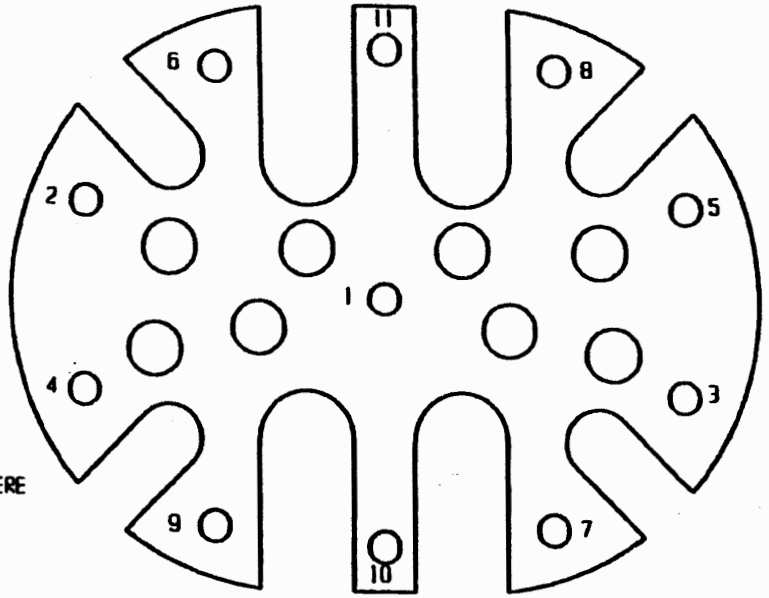
UNLESS OTHERWISE SPECIFIED

1. SURFACE FINISH $\sqrt{32}$
2. DEBURR ALL SHARP CORNERS AND EDGES.

DRAWING 5



790-SO (MODIFIED STAND OFF BRACKET)



BOLT TIGHTEN SEQUENCE

SYMBOL	REVISION	APPROVED	DATE

ENGINEER: L. STONE	DATE 06/07/00
CHECKED BY: J. ROBERTS	FILE # 790-24-OSP-BOLT

UNLESS OTHERWISE NOTED
DIMENSIONS ARE IN INCHES
TOLERANCE
.xxx = +/- .015/.xx = +/- .03
FRACTIONS = 1/16
ANGULAR = +/- .5 DEG.

ITEM#	QTY.	PART NUMBER	ITEM DESCRIPTION	MATERIAL
1	1		INSIDE END PLATE	.250 GREY PVC

FINISH: NA

CUSTOMER NAME:

PROJECT NAME:

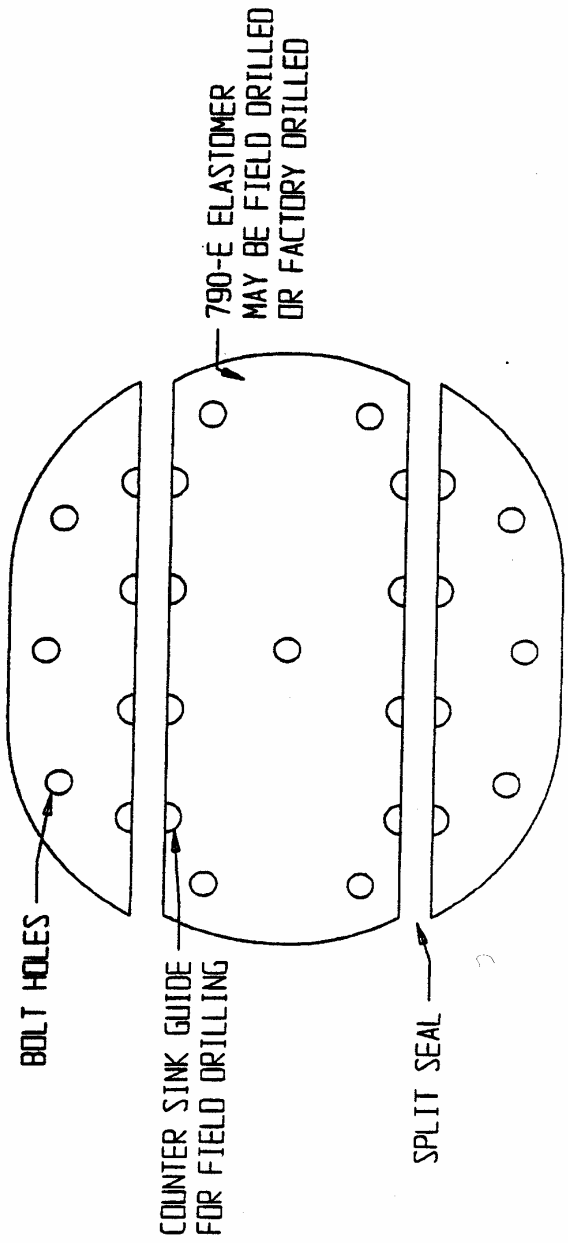
P.N. 790-24-OSP

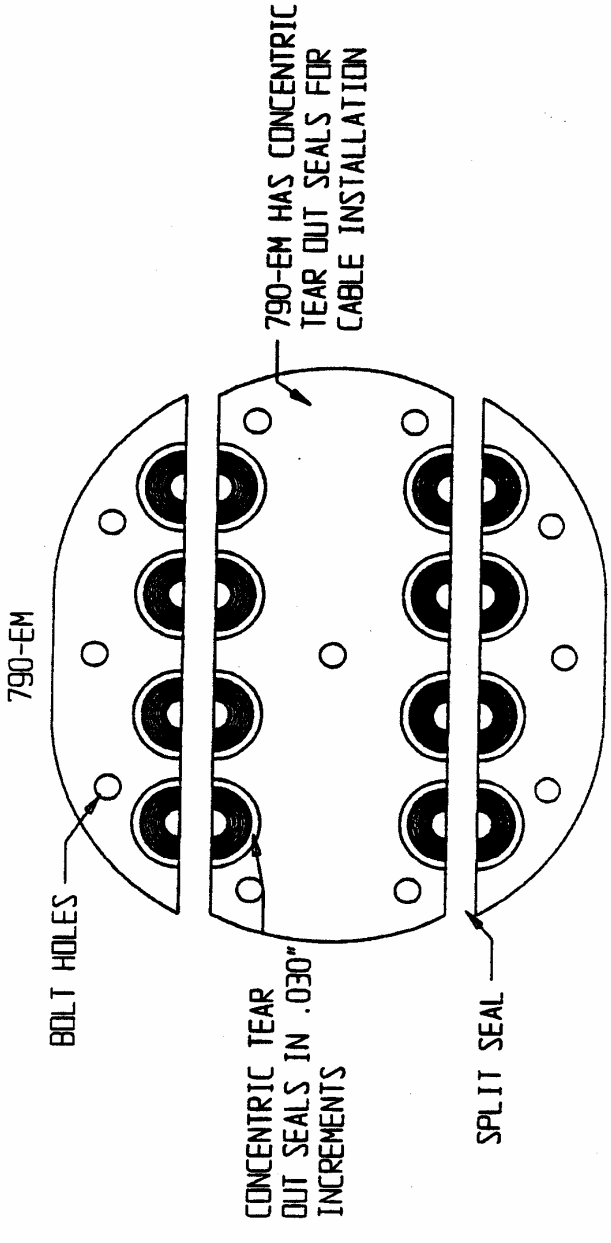
WINDSOR

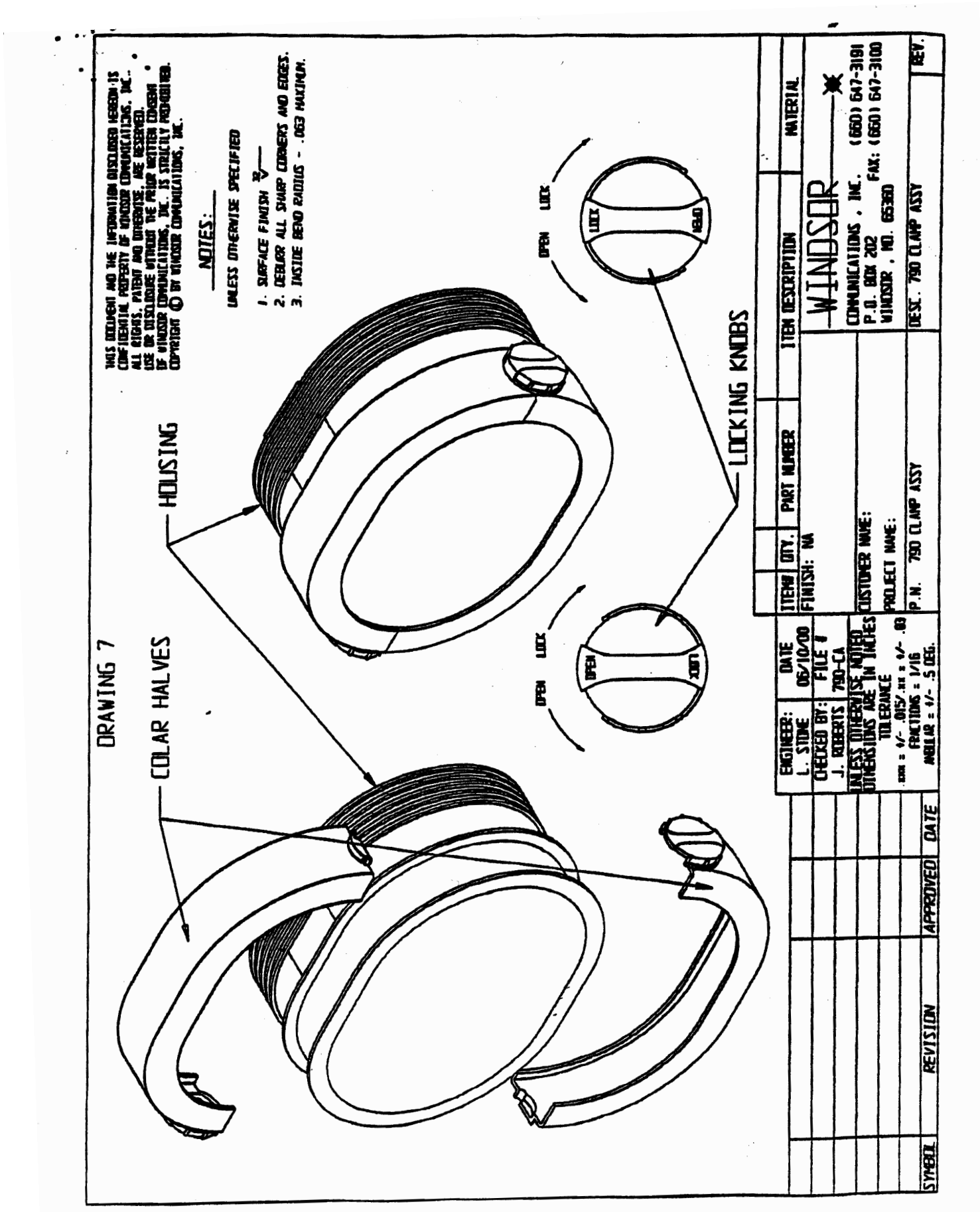
COMMUNICATIONS, INC. (660) 647-3191
P.O. BOX 202
WINDSOR, MO. 65360 FAX: (660) 647-3100

DESC. 790 OBROUND OUTSIDE END PLATE REV.

DRAWING 6


790-E
790-E ELASTOMER
MAY BE FIELD DRILLED
OR FACTORY DRILLED
BOLT HOLES
COUNTER SINK GUIDE
FOR FIELD DRILLING
SPLIT SEAL


790-EM
790-EM HAS CONCENTRIC
TEAR OUT SEALS FOR
CABLE INSTALLATION
BOLT HOLES
CONCENTRIC TEAR
OUT SEALS IN .030"
INCREMENTS
SPLIT SEAL


DRAWING 7
COLAR HALVES
HOUSING
LOCKING KNOBS
OPEN
LOCK
NOTES:
UNLESS OTHERWISE SPECIFIED
1. SURFACE FINISH
2. DEBUR ALL SHARP CORNERS AND EDGES.
3. INSIDE BEND RADIUS - .063 MAXIMUM.
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ENGINEER: L. STONE
DATE 06/10/00
CHECKED BY: J. ROBERTS
FILE # 790-CA
UNLESS OTHERWISE NOTED DIMENSIONS ARE IN INCHES
TOLERANCE
FRACTIONS = 1/16
ANGULAR = +/- .5 DEG.
ITEM# QTY. PART NUMBER ITEM DESCRIPTION MATERIAL
FINISH: NA
CUSTOMER NAME:
PROJECT NAME:
P.N. 790 CLAMP ASSY
WINDSOR
COMMUNICATIONS , INC. (660) 647-3191
P.O. BOX 202 FAX: (660) 647-3100
WINDSOR , MO. 65380
DESC. 790 CLAMP ASSY
SYMBOL REVISION APPROVED DATE
REV.

NOTES :

UNLESS OTHERWISE SPECIFIED

1. ALL DIMENSIONS ARE IN INCHES.
2. DEBUR ALL SHARP CORNERS AND EDGES

DRAWING 8

BOLT TIGHTEN SEQUENCE

REV.	DATE	DESCRIPTION	AUTHORITY	DR. BY	CK. BY

ITEM	QTY.	PART NO.	DESCRIPTION	FINISH
			.250 BOLT PAT.	
TITLE			PART NUMBER	
570 bolt tightening sequence			570-DOP	

TOLERANCE
.xxx = +/- .010
FRACTIONS = 1/16
MATERIAL = +/- 5 DEG

DRAWN: LAS
DESIGNED:
CHECKED:
ENGINEER:

FILE: 570-DOP
SCALE: NONE