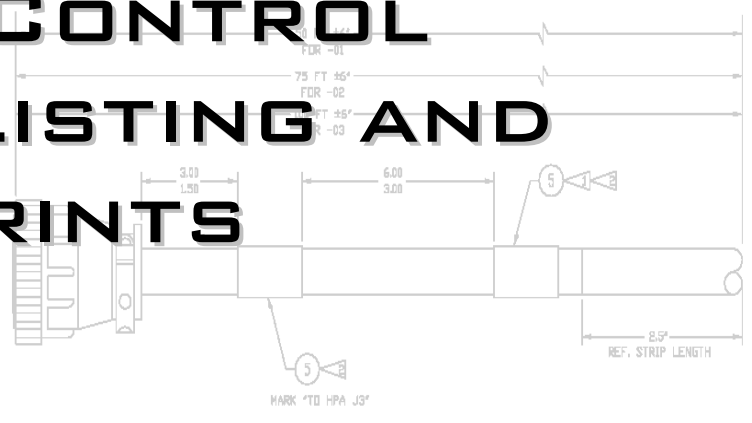


WIRE LIST		REVISIONS				
WIRE NO.	F/L ITEM NO.	ZONE	LTR	DESCRIPTION	DATE	APPROVED
1	1	A		ENGINEERING RELEASE		
2	2	B		ADDED -03 VERSION PER EDD #3635	11/21/95	JML1/21/95
3	3	C		DELETED WIRES 21 & 22, EDD #3965	8/4/97	GDCR/15/97
4	4	D		ADDED 25' DIM PER EDD #4155	9/15/98	GDCR/16/98
5	5	E		REVISED PER EDD # 4377	11/21/99	JML1/21/99

WIRE NO.	F/L ITEM NO.	AVG. COLOR	FRON. REF. DES.	TERM. (P/L) ITEM NO.	ID. REF. DES.	TERM. (P/L) ITEM NO.	REMARKS
1	1	HPA					CONTROLLER
2	1	BLK PAIR 1	P3 - 2 -				CONTROLLER PAIR 1
3	2	RED PAIR 2	P3 - 3 -				BIAS VOLTAGE PAIR 2
4	3	BLK PAIR 3	P3 - 4 -				BIAS VOLTAGE PAIR 3
5	4	RED PAIR 4	P3 - 5 -				BIAS CURRENT PAIR 4
6	5	BLK PAIR 5	P3 - 6 -				BIAS CURRENT PAIR 5
7	6	RED PAIR 6	P3 - 7 -				CROWBAR READY PAIR 6
8	7	BLK PAIR 7	P3 - 8 -				CROWBAR READY PAIR 7
9	8	RED PAIR 8	P3 - 9 -				CROWBAR FIRED PAIR 8
10	9	BLK PAIR 9	P3 - 10 -				CROWBAR FIRED PAIR 9
11	10	RED PAIR 10	P3 - 11 -				HV BEAM ON PAIR 10
12	11	BLK PAIR 11	P3 - 12 -				HV BEAM ON PAIR 11
13	12	RED PAIR 12	P3 - 13 -				HV BEAM ON/OFF + PAIR 12
14	13	BLK PAIR 13	P3 - 14 -				HV BEAM ON/OFF + PAIR 13
15	14	RED PAIR 14	P3 - 15 -				HV BEAM ON/OFF - PAIR 14
16	15	BLK PAIR 15	P3 - 16 -				HV BEAM ON/OFF - PAIR 15
17	16	RED PAIR 16	P3 - 17 -				AMP REVERSE PWR PAIR 16
18	17	BLK PAIR 17	P3 - 18 -				AMP REVERSE PWR PAIR 17
19	18	RED PAIR 18	P3 - 19 -				AMP FORWARD PWR PAIR 18
20	19	BLK PAIR 19	P3 - 20 -				AMP FORWARD PWR PAIR 19
21	20	RED PAIR 20	P3 - 21 -				HV SYSTEM INTERLOCK PAIR 20
22	21	BLK PAIR 21	P3 - 22 -				HV SYSTEM INTERLOCK PAIR 21
23	22	RED PAIR 22	P3 - 23 -				HV CONNECT/ISOLATE PAIR 22
24	23	BLK PAIR 23	P3 - 24 -				HV CONNECT/ISOLATE PAIR 23
25	24	DRAIN	- -	GND AT TB			CABLE GND

# REMOTE CONTROL PINOUT LISTING AND CABLE PRINTS



- NOTES:**
- ▲ MARK P/N, VERSION & CURRENT REVISION LEVEL.
  - ▲ NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM, BLACK CHARACTERS ON WHITE TAPE.
3. P3 1-19 ARE STATUS, 23-28 ARE CONTROL.

# CXIC PHASE II COMPACT DCX SINGLE CABINET DCX WITH BUILT-IN EXCITER

2	2	2	5	600898-01	LABEL, PIN FEED 1' X 14"
1	1	1	4	600188-01	CLAMP, CABLE SHELL SIZE 23
1	1	1	3	600192-01	CONN. PLUG 23-37 RSC
1	1	1	2	600191-01	CONN. PLUG 23-37 RSC
100FT	75FT	50FT	1	606150-01	CABLE, PROCESS CTRL 15PR E2AVG

<p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES ±</p> <p>FRACTIONS 1/32</p> <p>2 PLACE DECIMALS .03 (L3)</p> <p>3 PLACE DECIMALS .010 (L25)</p> <p>ANGLES 1/2°</p>	<p>MATERIAL</p> <p>FINISH</p> <p>CAD FILE</p> <p>MANUAL DWG</p> <p>407755E1</p>	<p>SEC P/L</p> <p>DRWN T SHEAFFER 9/27/95</p> <p>ENGR E JUDD 10/2/95</p> <p>ENGR V MICHEL 10/24/95</p> <p>APPD HSB 10/4/95</p> <p>APPD D JOHNSON 10/4/95</p>	<p>COMARK a THOMSON COMPANY</p> <p>SOUTH-WICK, MASSACHUSETTS</p> <p>CABLE ASSEMBLY, REMOTE, HPA, P3</p>
<p>PROJECTION</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES ±</p> <p>FRACTIONS 1/32</p> <p>2 PLACE DECIMALS .03 (L3)</p> <p>3 PLACE DECIMALS .010 (L25)</p> <p>ANGLES 1/2°</p>	<p>APPLICATION</p> <p>UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES</p> <p>TOLERANCES ±</p> <p>FRACTIONS 1/32</p> <p>2 PLACE DECIMALS .03 (L3)</p> <p>3 PLACE DECIMALS .010 (L25)</p> <p>ANGLES 1/2°</p>	<p>REVISIONS</p> <p>REVISION NO.</p> <p>DESCRIPTION</p> <p>DATE</p> <p>APPROVED</p>	<p>SIZE C</p> <p>CODE IDENT</p> <p>DRAWING NO 407755</p> <p>REV. E</p> <p>SCALE FULL JOB NO:</p> <p>SHEET 1 OF 1</p>

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E 407755



## Remote Control Pinout Listing and Cable Prints

CXIC Phase II Compact DCX (Single Cabinet DCX, Built-in Exciter)

### Table of Contents

452769-01	DCX (Phase II) Remote CTRL Pinout
409606	Cable Assembly, Remote, Exciter P21
407753	Cable Assembly, Remote, HPA P1
407754	Cable Assembly, Remote, HPA P2
407755	Cable Assembly, Remote, HPA P3

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**Note:** Cable lengths are not shown in the chart and are as follows:


-01 (50-feet), -02 (75-feet), -03 (100-feet)

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REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	3/5/99	JOHN PLESS
	B	REVISED PER ECO #4320	8/24/99TS	JOHN PLESS

**NOTE:**

1. THIS REMOTE CONTROL LIST PERTAINS TO BASE LEVEL, SINGLE CABINET DCX TRANSMITTER SYSTEMS ONLY.

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	CHK.	G DelCAMPO	2/24/99					
	ENG	JOHN PLESS	3/5/99	DCX (PHASE 2) REMOTE CONTROL CONNECTOR PINOUT				
	ENG	S KALIS	3/11/99					
	APP.	S WARNER	3/12/99	SIZE	CODE I.D.	DWG No	REV.	
	APP.	D M TOUGAS	3/22/99	A		452769	B	
© THOMCAST COMMUNICATIONS, Inc 1999	ELEC. FILE No.	452769A1	JOB No.			SHEET 1 OF 6		

# Remote Control, Indication and Measurements

## DCX TRANSMITTER RANGE

### System Controls

	Description	Connection	Location	Input
**	Ext RF Drive (Xmtr On)	J21-1	1	See Note 1.
		J21-2	1	
**	Ext Beam (High Volt. On)	J21-3	1	See Note 1.
		J21-4	1	
	Ext HPA Start (Filaments On)	J21-5	1	See Note 1.
		J21-6		
	XMTR OFF = The Absence Of All Of The Above Latched Commands.		1	See Note 1.
	Ext. Collector Cooling	J21-7	1	5
		J21-8	1	
	System/HPA Fault Reset	J21-11	1	5
		J21-12	1	
	HPA Auto Restart Reset	J21-9	1	5
		J21-10	1	
	Command Common	J21-21	1	2
	APC Disable, Exciter	J21-18	1	4
**	Raise Power, Exciter	J21-19	1	3
**	Lower Power, Exciter	J21-20	1	3
	Save Correction, Exciter	J21-15	1	3
	Flat Filter ALE	J21-13	1	4
	Adaptive Correction	J21-14	1	4
	Load Linear LUT	J21-16	1	4
	Recorrect LUT and ALE	J21-17	1	4

\*\* These items are the minimum required per Comark recommendation and/or FCC requirement.

#### Notes:

1. The transmitter may be turned on and off remotely via a single command, or by stepping up or down the operational mode hierarchy. The following is a description of how to accomplish either.

RF Drive (XMTR ON) Mode may be achieved by providing closed latched dry contacts to the Ext HPA Start, Ext Beam, and then to the Ext RF Drive connections. Or it may be achieved by latching Ext Beam and then Ext RF Drive. Or simply by latching the Ext RF Drive command contacts alone.

Ext Beam (HV ON) Mode may be achieved by latching Ext HPA Start and then Ext Beam. Or by simply latching Ext Beam alone.

Ext HPA Start (Filaments ON) Mode may be achieved by simply latching Ext HPA Start.

STOP (XMTR OFF) Mode is achieved only by unlatching all of the Ext RF Drive, Ext Beam, and Ext HPA Start commands if any are presently latched. If only Ext RF Drive is latched, STOP mode may be achieved by unlatching the Ext RF Drive command alone.

# Remote Control, Indication and Measurements

## DCX TRANSMITTER RANGE

### Systems Controls - (continued)

Location 1 = High power amplifier (HPA) connector plate assembly (452740-01).

Input 1 = Relay contact or SS relay; 24 VDC @ 11 mA (Maximum on-state resistance 500 Ohms). Latched closed contacts activates input.

Input 2 = Closed contact connection to command. Tied to GND internally in HPA cabinet..

Input 3 = Momentary connection to command common (input #2) activates input.

Input 4 = Latched connection to command common (input #2) activates input.

Input 5 = Momentary closed contacts activates input.

\*\* These items are the minimum required per Comark recommendation and/or FCC requirement.

### System Status

Description	Connection	Location	Indication given by ;
APC Fault, Exciter (RF Output Fault)	J21-35 J21-21	1	3
Driver Fault	J21-29 J21-30	1	1
Drive CMD Relay	J21-33 J21-34	1	1
External Control (Open contacts = Internal Control)	J21-27 J21-28	1	1
Transport Stream Presence, Exciter	J21-36 J21-21	1	2

Location 1 = High power amplifier connector plate assembly (452740-01).

1 = Indication Given By Dry Relay Contact. Maximum Current 500 mADC, Maximum Voltage 110V DC/AC, Maximum 30W Resistive, Open Contacts = Active Status

2 = Indication given by contact closure to GND (J21-21). GND on J21-36=fault.

3 = Indication given by contact closure to GND (J21-21). GND on J21-35=no fault

## Remote Control, Indication and Measurements

### DCX Transmitter Range

### HPA Fault Status - (All Status is per HPA)

Description	Connection	Location	Normal Indication given by ;
Fault Status:			
3 Phase Voltage	J2-1	1	1
3 Phase Voltage	J2-2	1	
Filament Voltage	J2-3	1	1
Filament Voltage	J2-4	1	
Full Filament Current	J2-6	1	1
Full Filament Current	J2-7	1	
Collector Coolant Flow	J2-10	1	1
Collector Coolant Flow	J2-11	1	
Collector Temperature	J2-12	1	1
Collector Temperature	J2-13	1	
Focus Current	J2-14	1	1
Focus Current	J2-15	1	
Ion Current	J2-16	1	1
Ion Current	J2-17	1	
Cabinet Interlocks	J2-18	1	1
Cabinet Interlocks	J2-19	1	
Ground Probe Interlock	J2-20	1	1
Ground Probe Interlock	J2-21	1	
Arc Detector #1	J2-23	1	1
Arc Detector #1	J2-24	1	
Arc Detector #2	J2-25	1	1
Arc Detector #2	J2-26	1	
Arc Detector Interlock	J2-27	1	1
Arc Detector Interlock	J2-28	1	
Beam Current	J2-29	1	1
Beam Current	J2-30	1	
Body Current	J2-31	1	1
Body Current	J2-32	1	
Cabinet Airflow	J2-34	1	1
Cabinet Airflow	J2-35	1	
Cavity Airflow	J2-36	1	1
Cavity Airflow	J2-37	1	

Location 1 = High power amplifier connector plate assembly (451274-01).

1-Indication given by dry relay contact. Maximum current 500mADC, maximum voltage 110 V DC/AC, maximum 30W resistive. Closed contacts = Normal status. Open Contacts = Fault

## Remote Control, Indication and Measurements DCX Transmitter Range

### HPA Fault Status - (All Status is per HPA)

Description	Connection	Location	Normal Indication given by ;
Fault Status:			
HV Controller/Soft Start Interlock	J3-1	1	1
HV Controller/Soft Start Interlock	J3-2	1	
Bias Voltage	J3-3	1	1
Bias Voltage	J3-4	1	
Bias Current	J3-5	1	1
Bias Current	J3-6	1	
Crowbar Ready	J3-7	1	1
Crowbar Ready	J3-8	1	
Crowbar Triggered	J3-10	1	1
Crowbar Triggered	J3-11	1	
Crowbar Fired	J3-12	1	1
Crowbar Fired	J3-13	1	
HV Beam On	J3-14	1	1
HV Beam On	J3-15	1	
Amplifier Reverse Power (High Trip)	J3-16	1	1
Amplifier Reverse Power (High Trip)	J3-17	1	
Amplifier Forward Power (High Trip)	J3-18	1	1
Amplifier Forward Power (High Trip)	J3-19	1	
RF Sytem Interlock	J3-20	1	1
RF Sytem Interlock	J3-21	1	

Location 1 = High power amplifier connector plate assembly (451274-01).

1-Indication given by dry relay contact. Maximum current 500mADC, maximum voltage 110 V DC/AC, maximum 30 W resistive. Closed contacts = Normal status. Open contacts = Fault

## Remote Control, Indication and Measurements

### DCX Transmitter Range

#### Metering - (All Metering on J1 is per HPA)

Description	Connection	Location	Output
Filament Voltage (+)	J1-1	1	1
Filament Voltage	J1-2	1	
Filament Current (+)	J1-3	1	1
Filament Current	J1-4	1	
Grid Current (+)	J1-5	1	2
Grid Current	J1-6	1	
Bias Voltage (+)	J1-7	1	1
Bias Voltage	J1-8	1	
Ion Current (+)	J1-10	1	1
Ion Current	J1-11	1	
Ion Voltage (+)	J1-12	1	1
Ion Voltage	J1-13	1	
** Beam Current (+)	J1-14	1	1
** Beam Current	J1-15	1	
Focus Current (+)	J1-18	1	1
Focus Current	J1-19	1	
Drive Power (+)	J1-23	1	1
Drive Power	J1-24	1	
Body Current (+)	J1-25	1	1
** Body Current	J1-26	1	
** Beam Voltage (+)	J1-27	1	1
Beam Voltage	J1-28	1	
Reverse Power (+)	J1-29	1	1
Reverse Power	J1-30	1	
Forward Power (+)	J1-31	1	1
Forward Power	J1-32	1	

\*\* These items are the minimum required per Comark recommendation and/or FCC required.

Location 1 = High power amplifier connector plate assembly (451274-01).

Output 1 = Approximately 5 VDC into high impedance or 1 mA for Full Scale Deflection

Output 2 = Approximately 5 VDC into high impedance or 1mA for Full Scale Deflection  
with 2.5 VDC or .5 mA for "zero center".

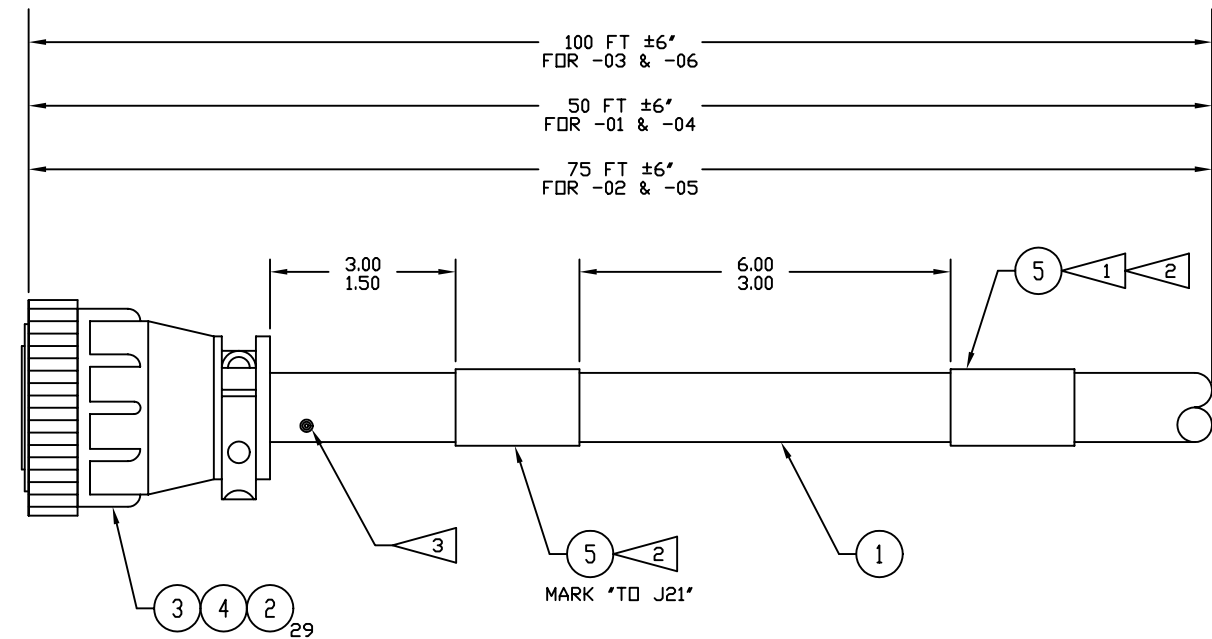


VERSIONS -01,-02 & -03 ONLY

WIRE LIST

WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM			TO			REMARKS
			REF. DES.	TERM.	POS	REF. DES.	TERM.	POS	
1	RED PAIR 1		P21	-	1	-	-	EXT RF DRIVE CMD PAIR 1	
2	BLK PAIR 1		P21	-	2	-	-	EXT RF DRIVE CMD PAIR 1	
3	RED PAIR 2		P21	-	3	-	-	EXT BEAM CMD PAIR 2	
4	BLK PAIR 2		P21	-	4	-	-	EXT BEAM CMD PAIR 2	
5	RED PAIR 3		P21	-	5	-	-	EXT HPA START CMD PAIR 3	
6	BLK PAIR 3		P21	-	6	-	-	EXT HPA START CMD PAIR 3	
7	RED PAIR 4		P21	-	7	-	-	EXT COLLECTOR COOL CMD PAIR 4	
8	BLK PAIR 4		P21	-	8	-	-	EXT COLLECTOR COOL CMD PAIR 4	
9	RED PAIR 5		P21	-	9	-	-	HPA AUTO RESET CMD PAIR 5	
10	BLK PAIR 5		P21	-	10	-	-	HPA AUTO RESET CMD PAIR 5	
11	RED PAIR 6		P21	-	11	-	-	HPA FAULT RESET CMD PAIR 6	
12	BLK PAIR 6		P21	-	12	-	-	HPA FAULT RESET CMD PAIR 6	
13	RED PAIR 7		P21	-	15	-	-	SAVE CORRECTION PAIR 7	
14	RED PAIR 8		P21	-	18	-	-	APC DISABLE CMD EXC PAIR 8	
15	RED PAIR 9		P21	-	19	-	-	RPC RAISE CMD EXC PAIR 9	
16	RED PAIR 10		P21	-	20	-	-	RPC LOWER CMD EXC PAIR 10	
17	RED PAIR 11		P21	-	21	-	-	RPC CMD COM EXC PAIR 11	
18	RED PAIR 12		P21	-	27	-	-	EXT CONTROL STATUS PAIR 12	
19	BLK PAIR 12		P21	-	28	-	-	EXT CONTROL STATUS PAIR 12	
20	RED PAIR 13		P21	-	29	-	-	DVR FAULT STATUS PAIR 13	
21	BLK PAIR 13		P21	-	30	-	-	DVR FAULT STATUS PAIR 13	
22	RED PAIR 14		P21	-	16	-	-	LOAD LINEAR LUT PAIR 14	
23	BLK PAIR 14		P21	-	17	-	-	RECORRECT LUT AND ALE PAIR 14	
24	RED PAIR 15		P21	-	33	-	-	DRIVE CMD RELAY STATUS PAIR 15	
25	BLK PAIR 15		P21	-	34	-	-	DRIVE CMD RELAY STATUS PAIR 15	
26	RED PAIR 16		P21	-	35	-	-	APC FAULT STATUS EXC PAIR 16	
27	BLK PAIR 16		P21	-	36	-	-	TRANSPORT STREAM PRESENCE PAIR 16	
28	DRAIN		-	-	-	-	GND AT TB	CABLE GND	
29	RED PAIR 17		P21	-	13	-	-	FLAT FILTER ALE (PAIR 17)	
30	BLK PAIR 17		P21	-	14	-	-	ADAPTIVE CORRECTION (PAIR 17)	

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE	JB	10/28/99
	B	REVISED PER ECD #4370	GDC	10/28/99



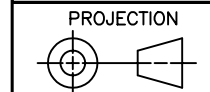
NOTES:

- 1 MARK P/N, VERSION, CURRENT REVISION LEVEL, AND VENDOR I.D.
- 2 NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM. BLACK CHARACTERS ON WHITE TAPE.
- 3 CUT UNUSED CONDUCTORS AND DRAIN WIRES FLUSH WITH JACKET.

QTY	VERSION	PART NO.	DESCRIPTION		
2	2	2	5	605858-01	LABEL, PIN FEED 1' X 1.4'
1	1	1	4	600088-01	CLAMP, CABLE SHELL SIZE 23
1	1	1	3	600089-01	CONN, 37 PIN PLUG
29	29	29	2	601252-01	SOCKET, CONTACT #66592-2
100FT	75FT	50FT	1	606333-01	CABLE, PROCESS CTRL 19PR 22AWG

QTY/VERSION PARTS LIST

ALL DIMENSIONS IN BRACKETS ((XX.X)) ARE MILLIMETERS.



MATERIAL	SEE PARTS LIST	DRWN	JANODAR	5/18/99
FINISH	~	CHKD	G DeCAMPD	5/21/99
CAD FILE#	409606B1	ENGR	J V YORK	6/4/99
MANUAL DWG#	~	ENGR	S KALIS	6/4/99
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ± FRACTIONS 1/32 2 PLACE DECIMALS .03 [.81] 3 PLACE DECIMALS .010 [.25] ANGLES 1/2°		APPD	S WARNER	6/4/99
		APPD	T JERARD	6/4/99
		REMOVE BURRS AND SHARP EDGES		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>

**THOMCAST COMMUNICATIONS, Inc.** Comark Division  
Southwick, Massachusetts

CABLE ASSEMBLY, REMOTE (PHASE II) DCX HPA-EXC P21

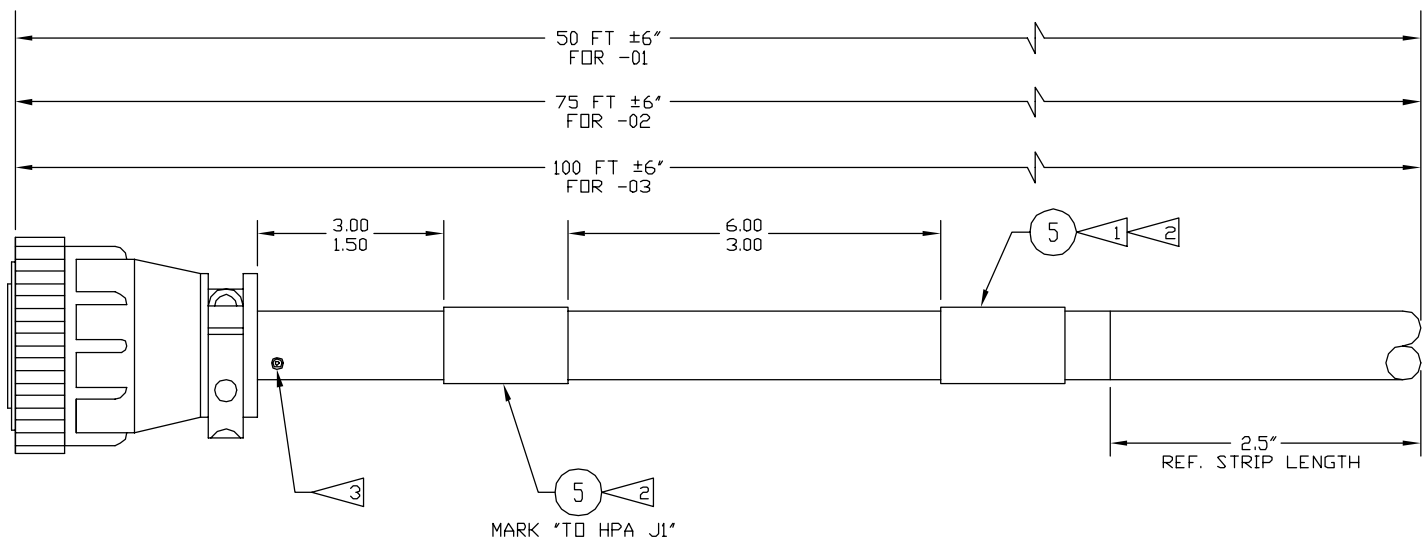
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C		409606	B
SCALE FULL		JOB NO:	SHEET 1 OF 1

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APPLICATION

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
A		ENGINEERING RELEASE		
B		ADDED -03 VERSION PER ECD #3635	11/21/95TS	JM11/21/95
C		REVISED WIRE #9&10 REMARKS. ECD #3654	1/18/96 TS	GDC 1/22/96
D		REVISED PER ECD #3694	3/7/96TS	GDC3/13/96
E		REVISED PER ECD #3932	6/13/97TS	GDC6/13/97
F		ADDED 2.5" DIM PER ECD #4155.	9/15/98TS	GDC9/16/98
NRC		NOTE 4 ADDED NOT APPLICABLE ON DCX SYSTEMS	1/20/99TS	GDC1/20/99

WIRE LIST						
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM		TERM (P/L) ITEM NO.	REMARKS
			REF. DES.	TERM.		
			HPA			REMOTE METERING
1	RED PAIR 1	P1 - 1 -				HEATER VOLTAGE + PAIR 1
2	BLK PAIR 1	P1 - 2 -				HEATER VOLTAGE - PAIR 1
3	RED PAIR 2	P1 - 3 -				HEATER CURRENT + PAIR 2
4	BLK PAIR 2	P1 - 4 -				HEATER CURRENT - PAIR 2
5	RED PAIR 3	P1 - 5 -				GRID CURRENT + PAIR 3
6	BLK PAIR 3	P1 - 6 -				GRID CURRENT - PAIR 3
7	RED PAIR 4	P1 - 7 -				BIAS VOLTAGE + PAIR 4
8	BLK PAIR 4	P1 - 8 -				BIAS VOLTAGE - PAIR 4
9	RED PAIR 5	P1 - 10 -				ION CURRENT + PAIR 5
10	BLK PAIR 5	P1 - 11 -				ION CURRENT - PAIR 5
11	RED PAIR 6	P1 - 12 -				ION VOLTAGE + PAIR 6
12	BLK PAIR 6	P1 - 13 -				ION VOLTAGE - PAIR 6
13	RED PAIR 7	P1 - 14 -				BEAM CURRENT + PAIR 7
14	BLK PAIR 7	P1 - 15 -				BEAM CURRENT - PAIR 7
15	RED PAIR 8	P1 - 18 -				FOCUS CURRENT + PAIR 8
16	BLK PAIR 8	P1 - 19 -				FOCUS CURRENT - PAIR 8
17	RED PAIR 9	P1 - 23 -				DRIVE POWER + PAIR 9
18	BLK PAIR 9	P1 - 24 -				DRIVE POWER - PAIR 9
19	RED PAIR 10	P1 - 25 -				BODY CURRENT + PAIR 10
20	BLK PAIR 10	P1 - 26 -				BODY CURRENT - PAIR 10
21	RED PAIR 11	P1 - 27 -				BEAM VOLTAGE + PAIR 11
22	BLK PAIR 11	P1 - 28 -				BEAM VOLTAGE - PAIR 11
23	RED PAIR 12	P1 - 29 -				REVERSE POWER + PAIR 12
24	BLK PAIR 12	P1 - 30 -				REVERSE POWER - PAIR 12
25	RED PAIR 13	P1 - 31 -				FORWARD POWER + PAIR 13
26	BLK PAIR 13	P1 - 32 -				FORWARD POWER - PAIR 13
27	RED PAIR 14	P1 - 33 -				AURAL FWD POWER+ PAIR 14
28	BLK PAIR 14	P1 - 34 -				AURAL FWD POWER- PAIR 14
29	DRAIN	- -				GND AT TB CABLE GND

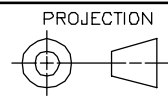


NOTES:

- 1 MARK P/N, VERSION & CURRENT REVISION LEVEL.
- 2 NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM. BLACK CHARACTERS ON WHITE TAPE.
- 3 CUT UNUSED CONDUCTORS AND DRAIN WIRES FLUSH WITH JACKET.
- 4 AURAL FORWARD POWER METERING IS AVAILABLE AT J1 ON CXIC SINGLE TUBE SYSTEMS ONLY. IT IS AVAILABLE OFF THE EXCITER CABINET ON ALL OTHER SYSTEMS. (NOT APPLICABLE ON DCX SYSTEMS)

QTY/VERSION	ITEM	PART NO.	DESCRIPTION		
2	2	2	5	605858-01	LABEL, PIN FEED 1" X 1.4"
1	1	1	4	600088-01	CLAMP, CABLE SHELL SIZE 23
1	1	1	3	600089-01	CONN, 37 PIN PLUG
28	28	28	2	601252-01	SOCKET, CONTACT #66592-2
100FT	75FT	50FT	1	606333-01	CABLE, PROCESS CTRL 19PR 22AWG
-03	-02	-01	ITEM	PART NO.	DESCRIPTION

ALL DIMENSIONS IN BRACKETS ((XX.X)) ARE MILLIMETERS.



4

4

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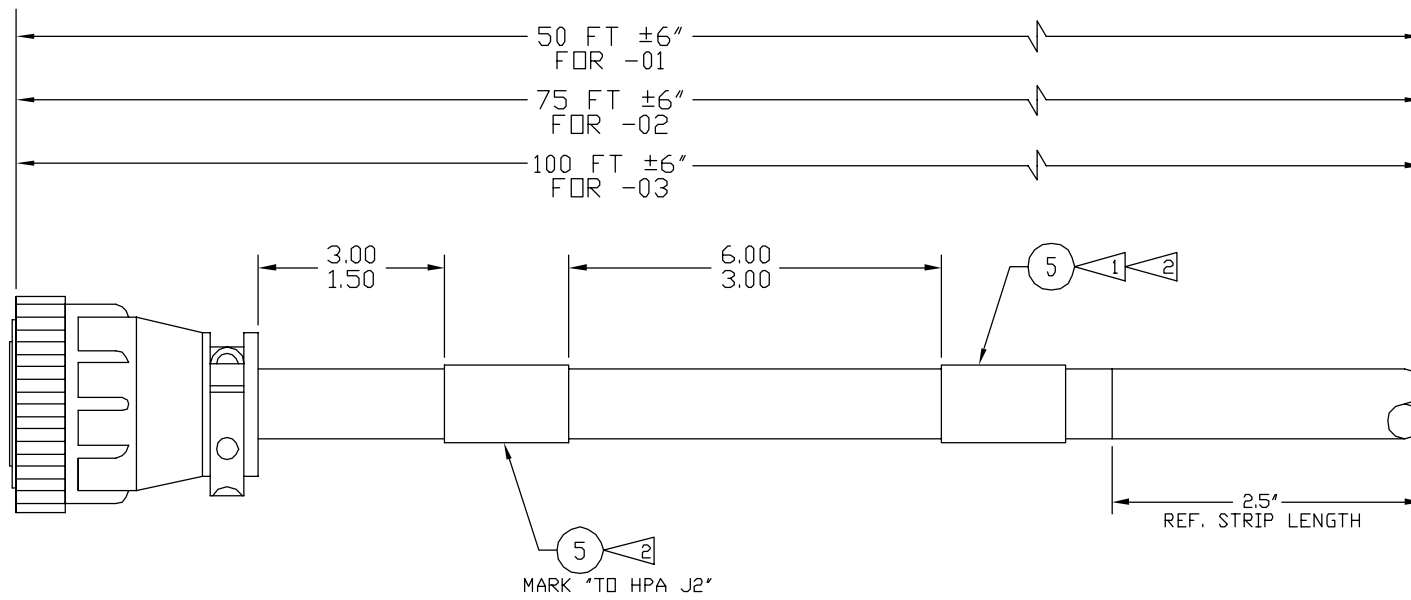
MATERIAL	SEE P/L	DRWN	T SHEAFFER	9/27/95
FINISH	~	CHKD	G DeICAMPD	9/27/95
CAD FILE#	407753F1	HR	TS	
MANUAL DWG#	~	ENGR	E JUDD	10/2/95
		ENGR	W MICHEL	10/94/95
		APPD	HSB	10/4/95
		APPD	D JOHNSON	10/4/95
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		REMOVE BURRS AND SHARP EDGES		
TOLERANCES ±		YES	<input checked="" type="checkbox"/>	NO
FRACTIONS 1/32				
2 PLACE DECIMALS .03 [.8]				
3 PLACE DECIMALS .010 [.25]				
ANGLES 1/2°				

<b>COMARK</b> a THOMCAST company		SOUTHWICK, MASSACHUSETTS	
CABLE ASSEMBLY, REMOTE, HPA P1			
SIZE	CODE IDENT	DRAWING NO	REV.
C		407753	F
SCALE	FULL	JOB NO:	SHEET 1 OF 1

C 407753 F

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE		
	B	ADDED -03 VERSION PER ECD #3635	11/21/95TS	JM11/21/95
	C	ADDED 2.5' DIM PER ECD #4155.	9/15/98TS	GDC9/16/98

WIRE LIST								
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM		TERM (P/L) ITEM NO.	TO		REMARKS
			REF. DES.	TERM.		REF. DES.	TERM.	
				HPA		REMOTE STATUS		
1		RED PAIR 1	P2	- 1 -		- -		3 PHASE MONITOR PAIR 1
2		BLK PAIR 1	P2	- 2 -		- -		3 PHASE MONITOR PAIR 1
3		RED PAIR 2	P2	- 3 -		- -		HEATER VOLTAGE PAIR 2
4		BLK PAIR 2	P2	- 4 -		- -		HEATER VOLTAGE PAIR 2
5		RED PAIR 3	P2	- 6 -		- -		FULL HEATER CURRENT PAIR 3
6		BLK PAIR 3	P2	- 7 -		- -		FULL HEATER CURRENT PAIR 3
7		RED PAIR 4	P2	- 8 -		- -		BACKGROUND HEAT PAIR 4
8		BLK PAIR 4	P2	- 9 -		- -		BACKGROUND HEAT PAIR 4
9		RED PAIR 5	P2	- 10 -		- -		COLLECTOR COOLING PAIR 5
10		BLK PAIR 5	P2	- 11 -		- -		COLLECTOR COOLING PAIR 5
11		RED PAIR 6	P2	- 12 -		- -		COLLECTOR TEMP PAIR 6
12		BLK PAIR 6	P2	- 13 -		- -		COLLECTOR TEMP PAIR 6
13		RED PAIR 7	P2	- 14 -		- -		FOCUS CURRENT PAIR 7
14		BLK PAIR 7	P2	- 15 -		- -		FOCUS CURRENT PAIR 7
15	1	RED PAIR 8	P2	- 16 -		- -		ION CURRENT PAIR 8
16		BLK PAIR 8	P2	- 17 -		- -		ION CURRENT PAIR 8
17		RED PAIR 9	P2	- 18 -		- -		CABINET INTERLOCK PAIR 9
18		BLK PAIR 9	P2	- 19 -		- -		CABINET INTERLOCK PAIR 9
19		RED PAIR 10	P2	- 20 -		- -		HV/LV INTERLOCK PAIR 10
20		BLK PAIR 10	P2	- 21 -		- -		HV/LV INTERLOCK PAIR 10
21		RED PAIR 11	P2	- 23 -		- -		CAVITY ARC #1 PAIR 11
22		BLK PAIR 11	P2	- 24 -		- -		CAVITY ARC #1 PAIR 11
23		RED PAIR 12	P2	- 25 -		- -		CAVITY ARC #2 PAIR 12
24		BLK PAIR 12	P2	- 26 -		- -		CAVITY ARC #2 PAIR 12
25		RED PAIR 13	P2	- 27 -		- -		CAV ARC DET INTLK PAIR 13
26		BLK PAIR 13	P2	- 28 -		- -		CAV ARC DET INTLK PAIR 13
27		RED PAIR 14	P2	- 29 -		- -		BEAM CURRENT PAIR 14
28		BLK PAIR 14	P2	- 30 -		- -		BEAM CURRENT PAIR 14
29		RED PAIR 15	P2	- 31 -		- -		BODY CURRENT PAIR 15
30		BLK PAIR 15	P2	- 32 -		- -		BODY CURRENT PAIR 15
31		RED PAIR 16	P2	- 34 -		- -		CABINET COOLING PAIR 16
32		BLK PAIR 16	P2	- 35 -		- -		CABINET COOLING PAIR 16
33		RED PAIR 17	P2	- 36 -		- -		CAVITY COOLING PAIR 17
34		BLK PAIR 17	P2	- 37 -		- -		CAVITY COOLING PAIR 17
35		DRAIN		- -		GND AT TB		CABLE GND

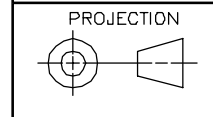


NOTES:

- 1 MARK P/N, VERSION & CURRENT REVISION LEVEL.
- 2 NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM. BLACK CHARACTERS ON WHITE TAPE.

QTY/VERSION	PART NO.	DESCRIPTION			
2	2	2	5	605858-01	LABEL, PIN FEED 1' X 14'
1	1	1	4	600088-01	CLAMP, CABLE SHELL SIZE 23
1	1	1	3	600092-01	CONN, PLUG 23-37 RSC
34	34	34	2	601251-01	PIN, CONTACT #66591-2
100FT	75FT	50FT	1	606151-01	CABLE, PROCESS CTRL 19PR 22AWG
-03	-02	-01	ITEM	PART NO.	DESCRIPTION

ALL DIMENSIONS IN BRACKETS ((XX.X)) ARE MILLIMETERS.



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MATERIAL	SEE P/L	DRWN	T SHEAFFER	9/27/95
FINISH	~	CHKD	G DeICAMPD	9/27/95
CAD FILE#	407754C1	HR	TS	
MANUAL DWG#	~	ENGR	E JUDD	10/2/95
		ENGR	W MICHEL	10/94/95
		APPD	HSB	10/4/95
		APPD	D JOHNSON	10/4/95
		UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		
		TOLERANCES ±		
		FRACTIONS 1/32		
		2 PLACE DECIMALS .03 [.8]		
		3 PLACE DECIMALS .010 [.25]		
		ANGLES 1/2°		
		REMOVE BURRS AND SHARP EDGES		
		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		

**COMARK**  
a THOMCAST company

SOUTHWICK, MASSACHUSETTS

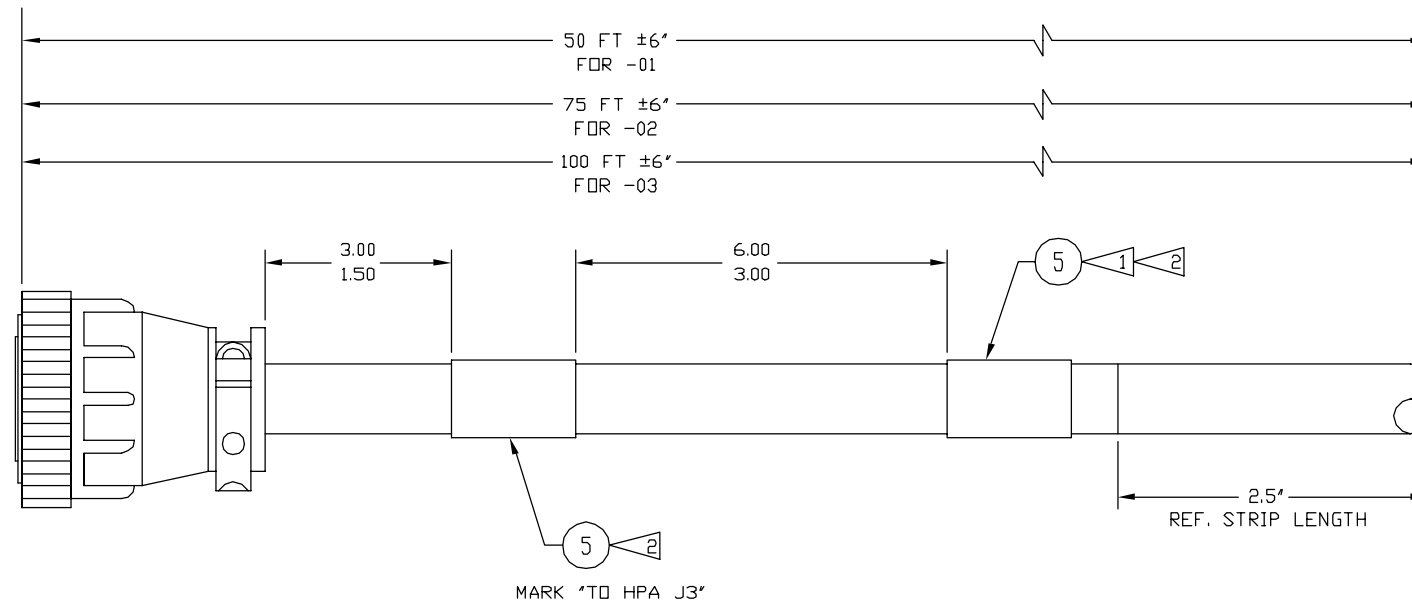
CABLE ASSEMBLY, REMOTE, HPA, P2

SIZE	CODE IDENT	DRAWING NO	REV.
C		407754	C
SCALE	FULL	JOB NO:	SHEET 1 OF 1

C 407754

REVISIONS				
ZONE	LTR	DESCRIPTION	DATE	APPROVED
	A	ENGINEERING RELEASE		
	B	ADDED -03 VERSION PER ECD #3635	11/21/95TS	JM11/21/95
	C	DELETED WIRES 21 & 22. ECD #3965	8/4/97TS	GDC8/15/97
	D	ADDED 2.5' DIM PER ECD #4155.	9/15/98TS	GDC9/16/98
	E	REVISED PER ECD # 4377	11/11/99BF	JM11/11/99

WIRE LIST									
WIRE NO.	P/L ITEM NO.	AWG, COLOR	FROM			TO			REMARKS
			REF. DES.	TERM.	POS	REF. DES.	TERM.	POS	
			HPA			REMOTE			
1	RED PAIR 1		P3 - 1 -			- -			HV CONTROLLER PAIR 1
2	BLK PAIR 1		P3 - 2 -			- -			HV CONTROLLER PAIR 1
3	RED PAIR 2		P3 - 3 -			- -			BIAS VOLTAGE PAIR 2
4	BLK PAIR 2		P3 - 4 -			- -			BIAS VOLTAGE PAIR 2
5	RED PAIR 3		P3 - 5 -			- -			BIAS CURRENT PAIR 3
6	BLK PAIR 3		P3 - 6 -			- -			BIAS CURRENT PAIR 3
7	RED PAIR 4		P3 - 7 -			- -			CROWBAR READY PAIR 4
8	BLK PAIR 4		P3 - 8 -			- -			CROWBAR READY PAIR 4
9	RED PAIR 5		P3 - 10 -			- -			CROWBAR TRIGGERED PAIR 5
10	BLK PAIR 5		P3 - 11 -			- -			CROWBAR TRIGGERED PAIR 5
11	RED PAIR 6		P3 - 12 -			- -			CROWBAR FIRED PAIR 6
12	BLK PAIR 6		P3 - 13 -			- -			CROWBAR FIRED PAIR 6
13	RED PAIR 7		P3 - 14 -			- -			HV BEAM ON PAIR 7
14	BLK PAIR 7		P3 - 15 -			- -			HV BEAM ON PAIR 7
15	RED PAIR 8		P3 - 16 -			- -			AMP REVERSE PWR PAIR 8
16	BLK PAIR 8		P3 - 17 -			- -			AMP REVERSE PWR PAIR 8
17	RED PAIR 9		P3 - 18 -			- -			AMP FORWARD PWR PAIR 9
18	BLK PAIR 9		P3 - 19 -			- -			AMP FORWARD PWR PAIR 9
19	RED PAIR 10		P3 - 23 -			- -			HV BEAM ON/OFF + PAIR 10
20	BLK PAIR 10		P3 - 24 -			- -			HV BEAM ON/OFF PAIR 10
21	RED PAIR 11		P3 - 20 -			- -			RF SYSTEM INTERLOCK PAIR 11
22	BLK PAIR 11		P3 - 21 -			- -			RF SYSTEM INTERLOCK PAIR 11
23	RED PAIR 12		P3 - 27 -			- -			HV CONNECT/ISOLATE PAIR 12
24	BLK PAIR 12		P3 - 28 -			- -			HV CONNECT/ISOLATE PAIR 12
25	DRAIN		- -			GND AT TB			CABLE GND



NOTES:

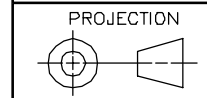
1 MARK P/N, VERSION & CURRENT REVISION LEVEL.

2 NOMENCLATURE TO BE 12 PT HELVETICA MEDIUM. BLACK CHARACTERS ON WHITE TAPE.

3. P3 1-19 ARE STATUS, 23-28 ARE CONTROL.

QTY/VERSION	ITEM	PART NO.	DESCRIPTION		
2	2	2	5	605858-01	LABEL, PIN FEED 1' X 14'
1	1	1	4	600088-01	CLAMP, CABLE SHELL SIZE 23
1	1	1	3	600092-01	CONN, PLUG 23-37 RSC
22	22	22	2	601251-01	PIN, CONTACT #66591-2
100FT	75FT	50FT	1	606150-01	CABLE, PROCESS CTRL 15PR 22AWG
-03	-02	-01	ITEM	PART NO.	DESCRIPTION

ALL DIMENSIONS IN BRACKETS ((XX.X)) ARE MILLIMETERS.



MATERIAL	SEE P/L	DRWN	T SHEAFFER	9/27/95	
FINISH	~	CHKD	G DeICAMPD	9/27/95	
CAD FILE#	407755E1	HR	TS		
MANUAL DWG#	~	ENGR	E JUDD	10/2/95	
		ENGR	W MICHEL	10/94/95	
		APPD	HSB	10/4/95	
		APPD	D JOHNSON	10/4/95	
		REMOVE BURRS AND SHARP EDGES			
		YES	<input checked="" type="checkbox"/>	NO	<input type="checkbox"/>



CABLE ASSEMBLY, REMOTE, HPA, P3

SIZE	CODE IDENT	DRAWING NO	REV.
C		407755	E
SCALE	FULL	JOB NO:	SHEET 1 OF 1

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APPLICATION

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ± FRACTIONS 1/32 2 PLACE DECIMALS .03 [.8] 3 PLACE DECIMALS .010 [.25] ANGLES 1/2°

C 407755



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[www.thales-bm.com](http://www.thales-bm.com)