

# PARAMOUNT ME MOUNTING AND WIRING KITS FOR USE WITH THE TCF-S / IFW / Pyxis

Revised 3/18/2008

**Optec Stock #17496 for TCF-S OR IFW AND PYXIS**  
**Optec Stock #17497 for TCF-S OR IFW**  
**Optec Stock #17498 for PYXIS**  
**Optec Stock #17499 for TCF-S AND IFW**  
**Optec Stock #17500 for TCF-S AND IFW AND PYXIS**

The Paramount ME mounting and wiring kit is designed to reduce the number of cables required to operate the Optec TCF-S focuser, IFW filter wheel and Pyxis field rotator with the Software Bisque Paramount ME Robotic Telescope Mount.



*TCF-S Focuser and IFW Filter Wheel mounted to the Paramount ME  
using Optec's Paramount ME Mounting & Wiring Kit.*

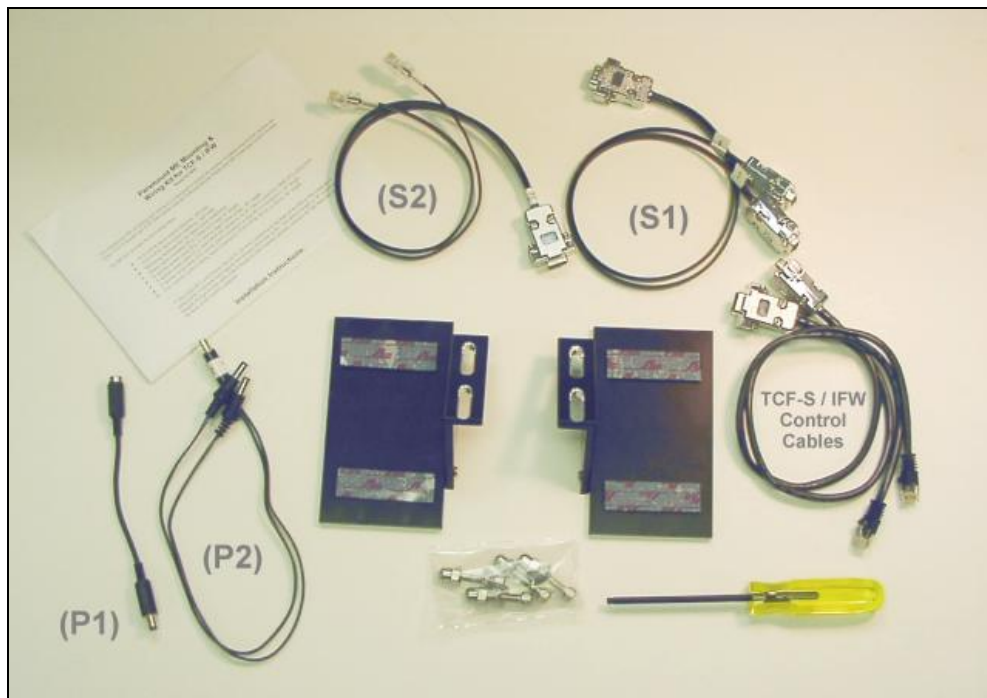
## KIT INVENTORY

### #17497 kit for IFW OR TCF-S, refer to drawing #17-06901

- TCF-S/IFW hand control platform, either left or right side
- Mounting hardware for one hand control platform
- Power cable converter [P1], 2.5mm to 2.1mm - 6" length
- Power cable [P2], 2.1mm to 2.5mm plugs - 24" length
- Serial cable [S1] for connection to user's PC using RS-232 interface. Single female DB-9 PC serial to female DB-9 connector to fit AUX1 on Paramount. **The length of this cable must be user specified.** Lengths up to 50' at no additional cost.
- Serial cable [S2] female DB-9 connector [fit AUX1] to RJ-12 connector - 18" length
- One control cable from control box to TCF-S or IFW. Cable RJ-45 to DB-9 - 18" length

### #17499 kit for IFW AND TCF-S, refer to drawing #17-06900

- TCF-S/IFW hand control platform, left-side
- TCF-S/IFW hand control platform, right-side
- Mounting hardware for two hand control platforms
- Power cable converter [P1], 2.5mm to 2.1mm - 6" length
- Y-splitter power cable [P2], 2.1mm to dual 2.5mm plugs - 24" length
- Y-splitter serial cable [S1] for connection to user's PC using TS-232 interface. Dual female DB-9 [PC serial] to female DB-9 connector to fit AUX1 on Paramount. **The length of this cable must be user specified.** Lengths up to 50' at no additional cost
- Y-splitter serial cable [S2], female DB-9 connector [fits AUX1] to dual RJ-12 connectors -18" length
- Two control cables from control box to TCF-S and IFW. Cables RJ-45 to DB-9 - 18" length.



Kit for #17499 shown

**#17500 kit for IFW AND TCF-S AND PYXIS, refer to drawing #17-6902**

- TCF-S/IFW hand control platform, left-side
- TCF-S/IFW hand control platform, right-side
- Mounting hardware for two hand control platforms
- Power cable converter [P1], 2.5mm to 2.1mm - 6" length
- 3-splitter power cable [P2], 2.1mm to triple 2.5mm plugs. Cable 26" length for two and 36" for one
- 3-splitter serial cable [S1], for connection to user's PC using TS-232 interface. Triple female DB-9 [PC serial] to female DB-9 connector to fit AUX1 on Paramount. **The length of this cable must be user specified.** Lengths up to 50' at no additional cost.
- 3-splitter serial cable [S2], female DB-9 connector [fits AUX1] to triple RJ-12 connectors; 18" length for two and 36" length for one going to Pyxis
- Two control cables from control box to TCF-S AND IFW. Cable RJ-45 to DB-9 - 18" length.

**#17498 kit for PYXIS, refer to drawing #17-06903**

- Power cable converter [P1], 2.5mm to 2.1mm - 6" length
- Power cable [P2], 2.1mm to 2.5mm plugs - 30" length
- Serial cable [S1] for connection to user's PC using RS-232 interface. Single female DB-9 PC serial to female DB-9 connector to fit AUX1 on Paramount. **The length of this cable must be user specified.** Lengths up to 50' at no additional cost.
- Serial cable [S2] female DB-9 connector [fit AUX1] to RJ-12 connector - 30" length

**#17496 kit for IFW OR TCF-S AND IFW, refer to drawing #17-06904**

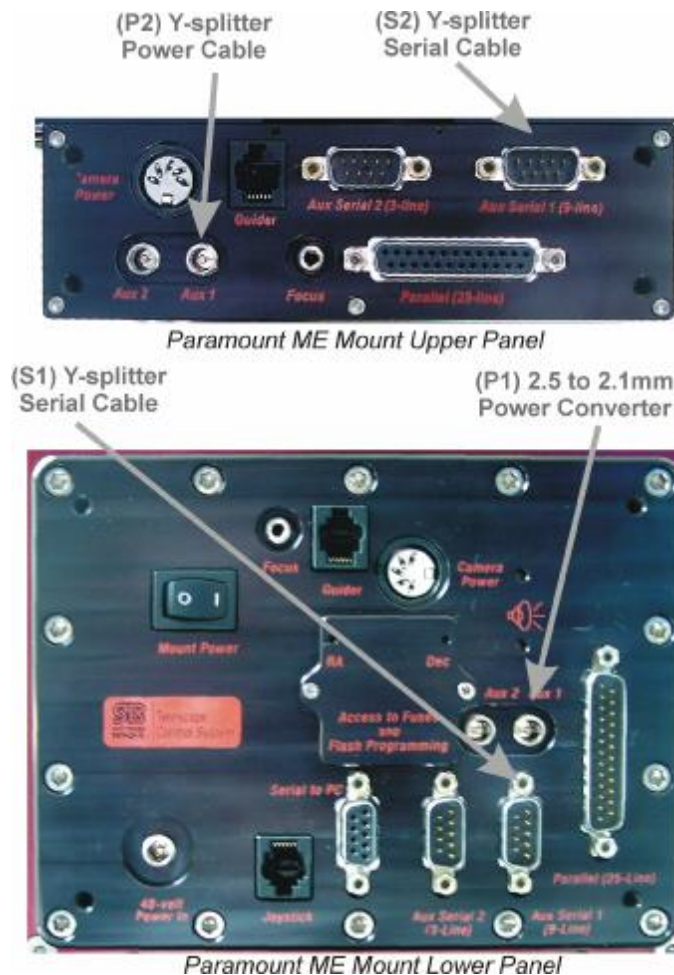
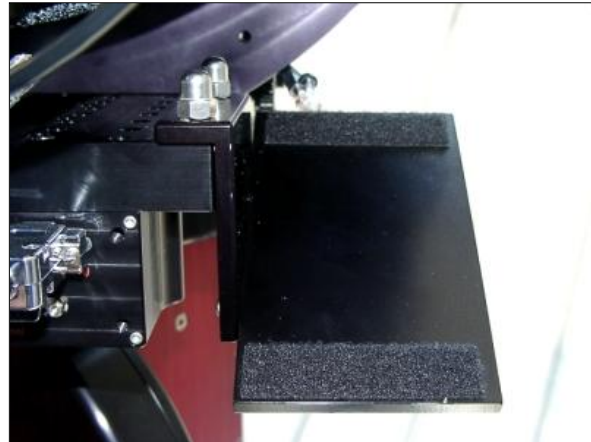
- TCF-S/IFW hand control platform, left or right-side
- Mounting hardware for one hand control platforms
- Power cable converter [P1], 2.5mm to 2.1mm - 6" length
- Y-splitter power cable [P2], 2.1mm to dual 2.5mm plugs - 24" length
- Y-splitter serial cable [S1] for connection to user's PC using TS-232 interface. Dual female DB-9 [PC serial] to female DB-9 connector to fit AUX1 on Paramount. **The length of this cable must be user specified.** Lengths up to 50' at no additional cost
- Y-splitter serial cable [S2], female DB-9 connector [fits AUX1] to dual RJ-12 connectors -18" length
- One control cable from control box to TCF-S or IFW. Cable RJ-45 to DB-9 - 18" length.

## INSTALLATION INSTRUCTIONS

Install the left and right mounting platforms to the ME Universal Mounting Plate using the 1/4" length 1/4-20 socket cap screws and acorn nuts. The socket cap screws should be installed from below the Universal Mounting Plate with the flat washer and acorn nuts above as shown in the photo at right.

Affix the self-adhesive hook & loop fabric (Velcro) to the back of the TCF-S and IFW hand controllers.

Each hand controller for the TCF-S and IFW requires 12VDC at less than 250mA and the Pyxis uses 500 mA. A single 1 Amp power supply will provide enough power for all devices, so the P1 and P2 cables can be used with a single power supply (#17064 supplied with each device). Use the P1 converter cable to convert from Optec's 2.5mm standard connector to the 2.1mm connector used on the base of the ME (select either AUX1 or AUX2). Use the P2 cable at the top control panel on the ME (AUX1 or AUX2) to split the power from the single 2.1mm connector to the two hand controller and Pyxis 2.5mm power connectors. One each should connect to the TCF-S and IFW hand controllers.



The S1 cable should connect directly to the lower ME control panel (AUX Serial 1). This long cable connects the mount to the native COM port (RS-232 interface) of the user's computer. The length of this cable must be specified in the order. Lengths up to 50' are made at no additional charge.

Connect the S2 Serial cable to the upper ME control panel [see image at left] and route the two RJ45 connectors to the TCF-S and/or IFW hand controllers as labeled. The long cable goes to the Pyxis.

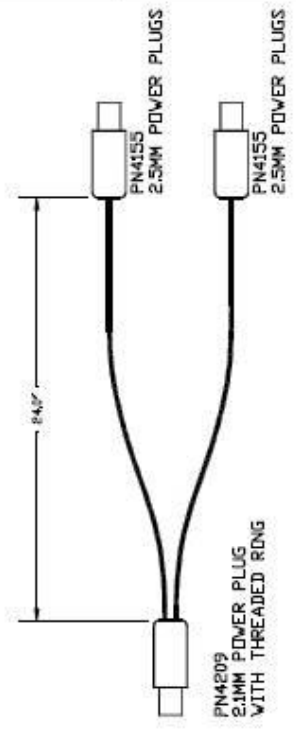
**NOTE: Use only Aux Serial 1 port (9-wire) on the Paramount ME instrument panel (9 internal wires: Pin 1 to 1, 2 to 2, etc.).**

Paramount ME is a product of Software Bisque, visit <http://www.bisque.com/Products/Paramount/Paramount.asp>.

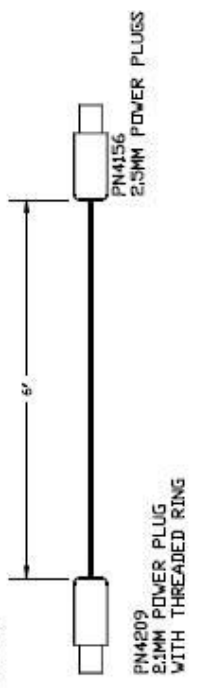
Contact Optec Technical Support at (616) 897-9351 or by email at [sales@optecinc.com](mailto:sales@optecinc.com). Visit Optec's website for the latest product information: [www.optecinc.com](http://www.optecinc.com)

**CONTROL CABLE**

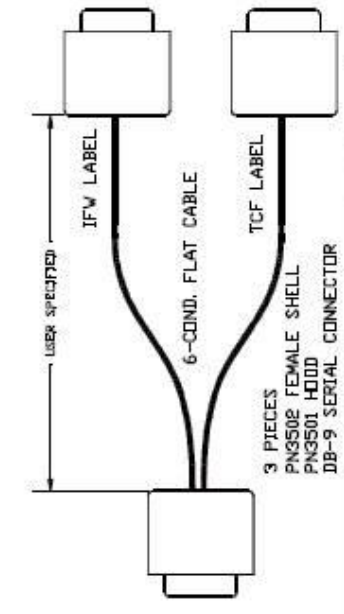
2 REQUIRED  
 JFW/TCF-S STANDARD CONTROL CABLE- 18" LONG



**P1 POWER CABLE CONVERTER**

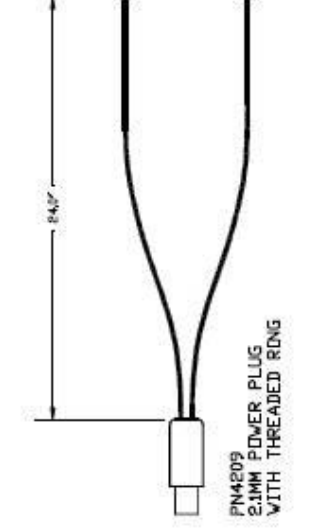


**S1 Y-SPLITTER SERIAL CABLE**

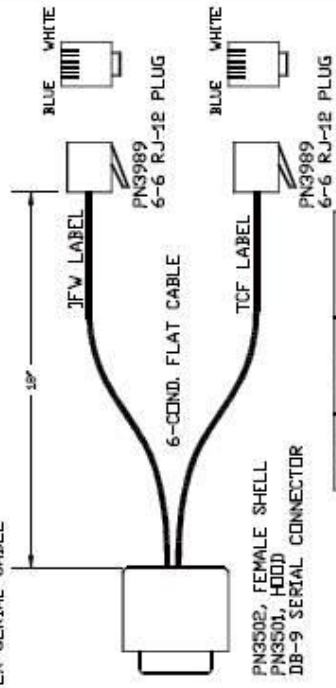


DB-9	TCF-S	IFW
1	BLUE	1
2	WHITE	2
3	GREEN	3
4		4
5		5
6		6
7		7
8		8
9		9

**P2 Y-SPLITTER POWER CABLE**



**S2 Y-SPLITTER SERIAL CABLE**



DB-9	TCF-S	IFW
1	BLUE	
2	WHITE	
3		
4		
5		
6		
7		
8		
9		

TOLERANCE  
 .XX ±.007 .XXX ± .003

CONTRACT  
 PARAMOUNT  
 #17499

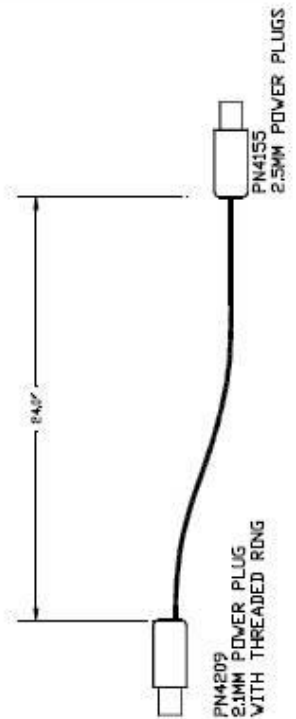
REVISION  
 3/15/2005  
 8/7/06  
 3/18/08

OPTEC, Inc.  
 PARAMOUNT MOUNTING  
 KIT CABLE ASSEMBLY  
 FOR IFW AND TCF-S

SCALE: 1X

NO.17-06900

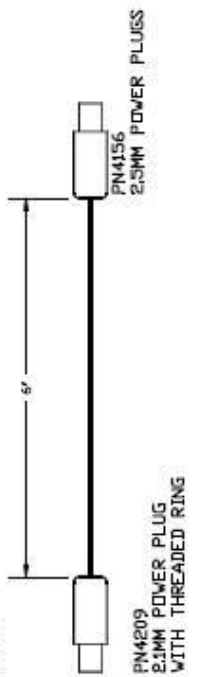
**P2**  
POWER CABLE



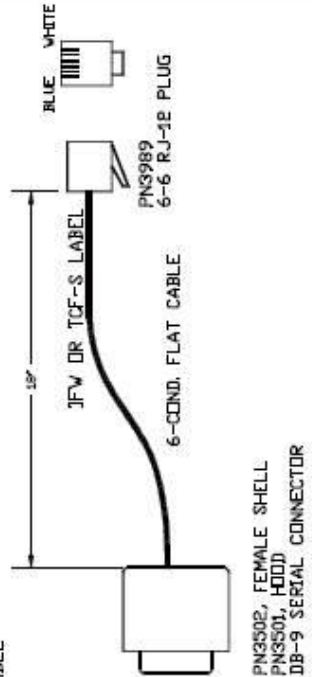
**CONTROL CABLE**

1 REQUIRED  
JFW/TCF-S STANDARD CONTROL CABLE - 18" LONG

**P1**  
POWER CABLE CONVERTER

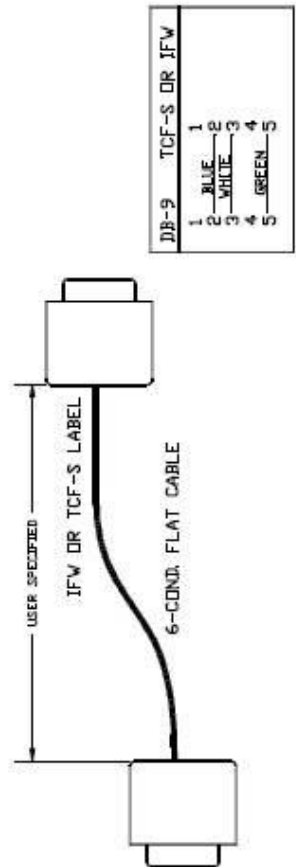


**S2**  
SERIAL CABLE



DB-9	TCF-S OR JFW
1	BLUE
2	WHITE
3	GREEN
4	
5	
6	
7	
8	
9	

**S1**  
SERIAL CABLE FROM PARAMOUNT TO PC



DB-9	TCF-S OR IFW
1	BLUE
2	WHITE
3	GREEN
4	
5	

TOLERANCE  
.XX ±.007 .XXX ±.003

CONTRACT  
PARAMOUNT  
#17497

REVISION  
8/7/06  
3/18/08

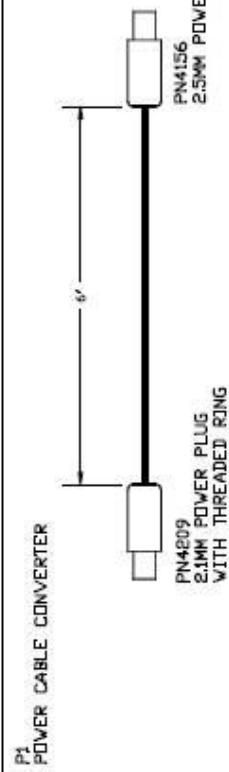
OPTEC, Inc.

PARAMOUNT MOUNTING  
KIT CABLE ASSEMBLY  
FOR IFW OR TCF-S

SCALE 1X ND-17-06901

**CONTROL CABLE**

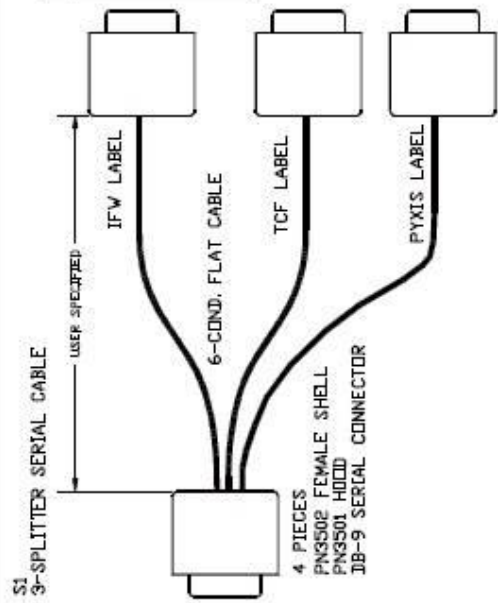
2 REQUIRED  
IFW/TCF-S STANDARD CONTROL CABLE- 18' LONG



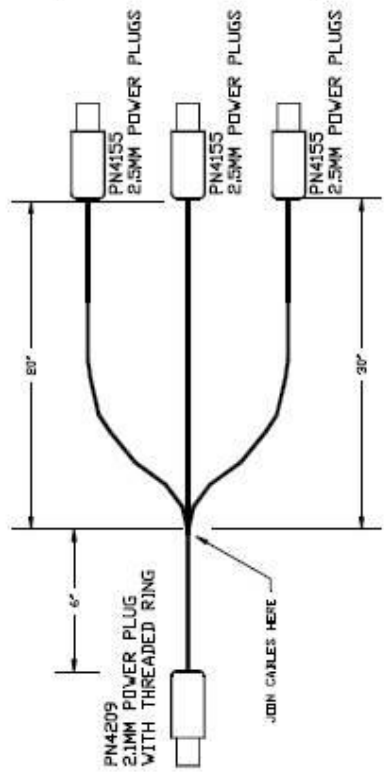
S1 3-SPLITTER SERIAL CABLE

USER SPECIFIED

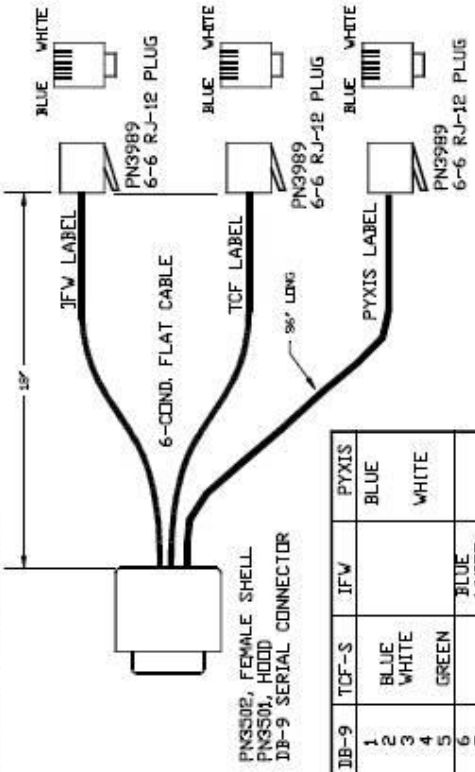
1	BLUE	2	BLUE	3	IFW	4	PYXIS
2	WHITE	3	WHITE	4	WHITE	5	WHITE
3	GREEN	4	GREEN	5	GREEN	6	GREEN
4	WHITE	5	WHITE	6	WHITE	7	WHITE
5	GREEN	6	GREEN	7	GREEN	8	GREEN
6	WHITE	7	WHITE	8	WHITE	9	WHITE
7	GREEN	8	GREEN	9	GREEN		



**P2 3-SPLITTER POWER CABLE**



**S2 3-SPLITTER SERIAL CABLE**



DB-9	TCF-S	IFW	PYXIS
1	BLUE	WHITE	BLUE
2	WHITE	GREEN	WHITE
3	GREEN	BLUE	GREEN
4		WHITE	
5		GREEN	
6			
7			
8			
9			

*OPTEC, Inc.*

PARAMOUNT MOUNTING KIT CABLE ASSEMBLY IFW, TCF-S & PYXIS

SCALE: 1X ND.17-06902

TOLERANCE  
.XX ±.007 .XXX ± .003

CONTRACT  
PARAMOUNT #17500

REVISION  
8/7/06  
3/18/08

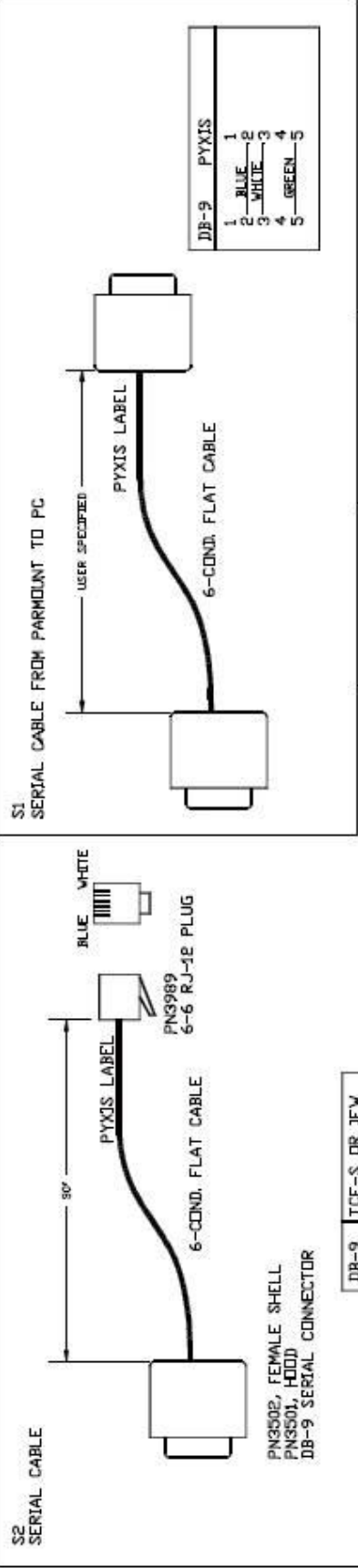
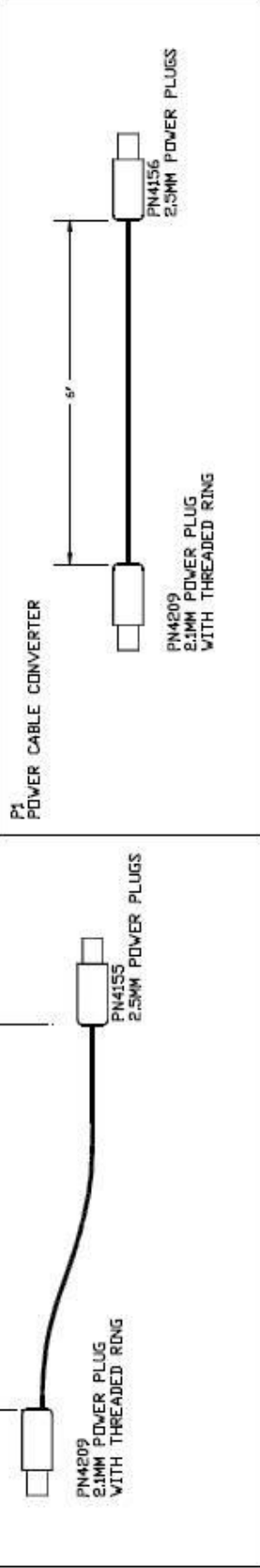
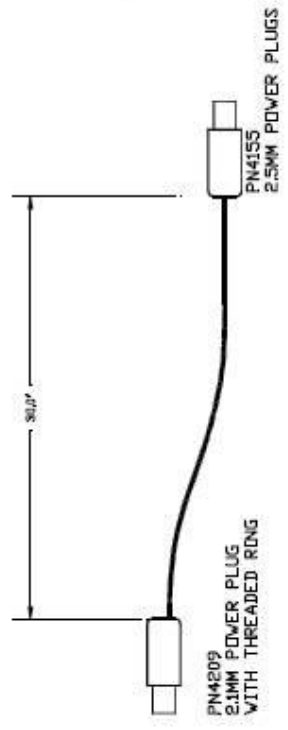
MATERIAL

FINISH

**P2 POWER CABLE**

CONTROL CABLE

NONE REQUIRED



DB-9	TCF-S OR JF'W
1	BLUE
2	WHITE
3	GREEN
4	
5	
6	
7	
8	
9	

DB-9	PYXIS
1	BLUE
2	WHITE
3	GREEN
4	
5	

**S1 SERIAL CABLE FROM PARAMOUNT TO PC**

USER SPECIFIED

PYXIS LABEL

6-COND. FLAT CABLE

TOLERANCE .XX ±.007 .XXX ±.003

CONTRACT PARAMOUNT #17498

REVISION 3/18/08

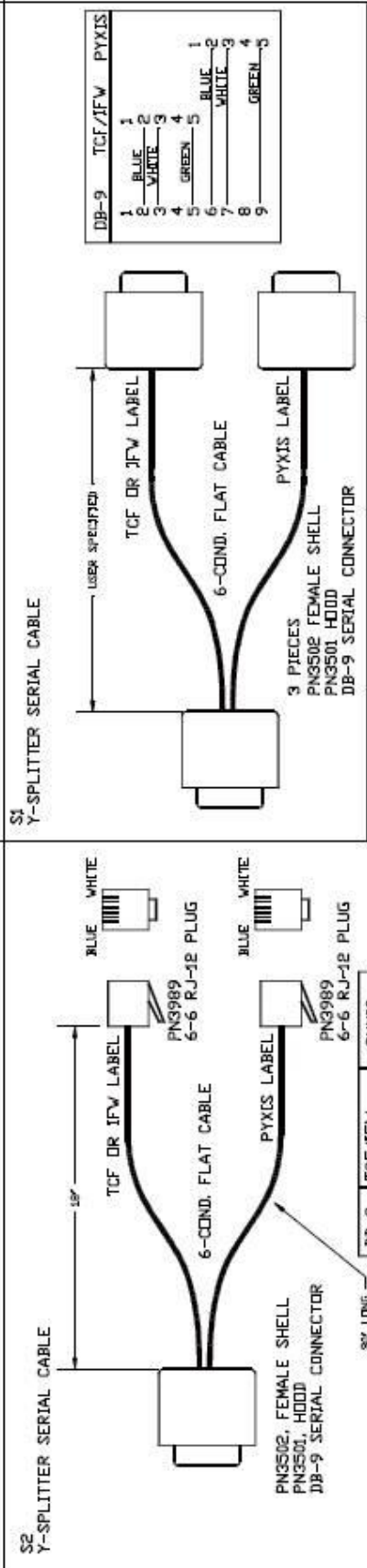
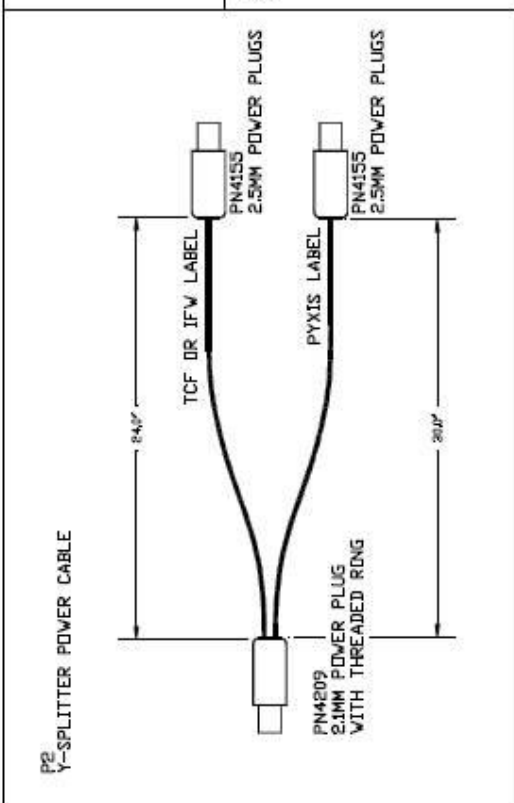
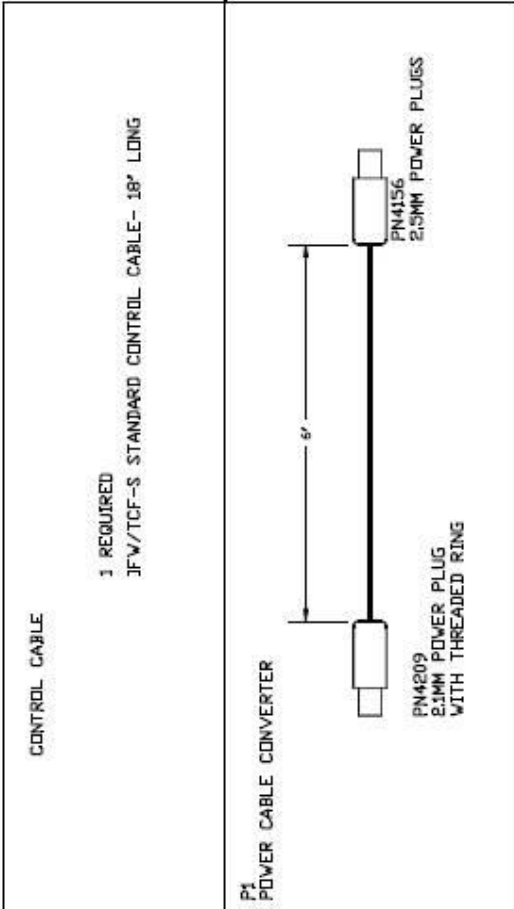
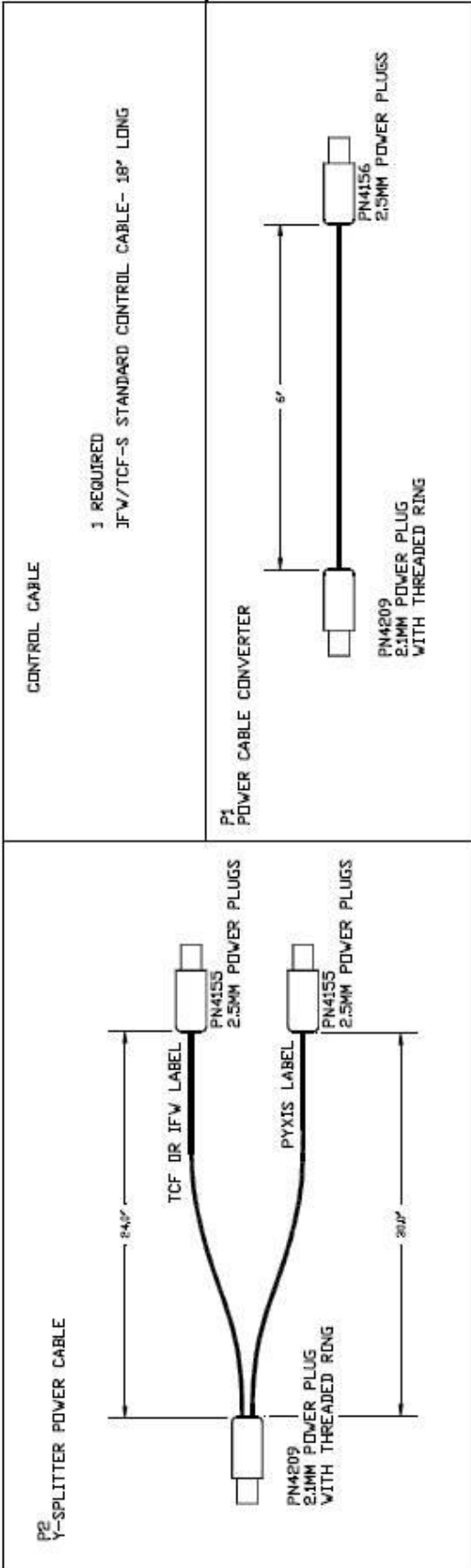
SCALE: 1X

NO: 17-06903

OPTEC, Inc.

PARAMOUNT MOUNTING KIT CABLE ASSEMBLY FOR PYXIS





TOLERANCE		CONTRACT	<i>OPTEC, Inc.</i>
.XX ±.007 .XXX ±.003		PARAMOUNT #17496	
MATERIAL		REVISION	PARAMOUNT MOUNTING KIT CABLE ASSEMBLY FOR IFW/TCF AND PYXIS
FINISH		3/18/08	
		SCALE: 1X	ND-17-06904