

730V-xW, V-Dipole Antenna for 7MHz Expanded Band

V-Dipole Antenna with BS41 Matching Tuner for 7MHz Expanded Band
Remotely Operate 4-Band Switching Enables to Cover the Expanded-Band on 7MHz
by Remotely Controlling 4-Band Switcher

730V-1W (7, 14, 21, 28MHz)

730V-1AW (7, 14, 21, 28, 50MHz)

Power handling is the same as that of standard model 730V-1x.

730V-2W (7, 21, 28MHz)

730V-2AW (7, 21, 28, 50MHz)

Power handling is the same as that of standard model 730V-2x.



BS41. It builds in matching circuit and balun transformer.

4-Band Remote Switch
(Supplied As An Assembly Kit)

This new type V-Dipole antenna both 730V-1W and 730V-2W makes it possible to operate not only on the bands existing so far but also newly assigned the expanded-band on 7MHz.

(For band switching, a 13.8VDC power supply and a remote cable of 4-conductors are required.)

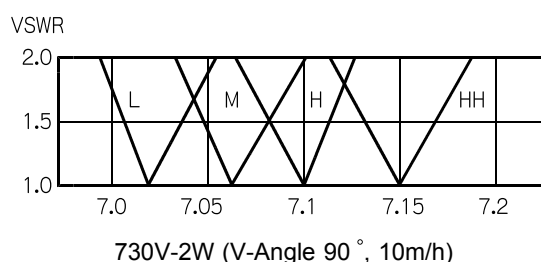
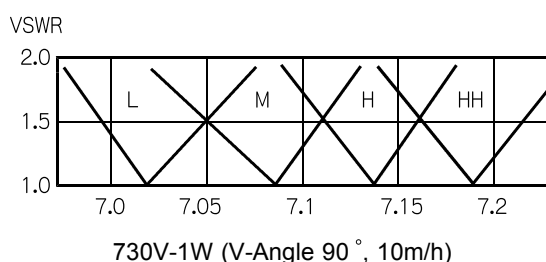
Other than 7MHz, it contributes also to improve to maintain lower VSWR on other frequencies band that 730V-series allows. By conducting the band switching, it makes it possible to resonance the antenna tuning in more precisely, those higher frequencies in the ham band assigned for SSB, FM band etc.

Ex: At the best VSWR point on 14MHz of 730V-1W, operational frequency range expands from 14.15 up to 14.35MHz.

At the best VSWR point on 28MHz of 730V-2W, operational frequency range expands from 28.5 up to 29.0MHz.

As being the fact, taking the recent case in Japan, for example, the rules and regulations has been revised to be able to operate 7.060 ~ 7.140MHz for the PHONE (either AM or SSB) operation in All JA Contest as of 2010. In coupled with the band expansion, needing such an antenna 'ready-for-operation' will help a lot to meet the requests. The same is true of those applications and enthusiasts, seeking for wider bandwidth of operation in upper side of frequencies, for contest, DX-hunting, by determining to band selecting and switching the antenna swiftly into a preferable frequency desired, and quick contacting friends, rag-chewing with a favorite group or party avoiding an unwilling noise and QRM, hence the 730V-1W, 730V-2W will meet the requests.

VSWR for 7MHz (Typical)



- Those users who have already owned either 730V-1x or 730V-2x, the antenna tuner BS41 expanded kit for 7MHz band is only required. Except slight readjustment in tip element, no particular modification on the antenna itself is required as no electrical affection is given by attaching this unit.

BS41, Matching Tuner for 7MHz Expanded Band for 730V Series

This BS41 is a matching tuner designed for the existing 730V-series enable to operate the newly assigned expanded band on 7MHz. By attaching this unit to the model 730V-1x allows to expand the bandwidth on 7MHz. (No modification is required in the antenna.)

Attaching this unit brings to helps the VSWR improvement for the other band other than 7MHz too. The VSWR characteristic for those higher bands (assigned for SSB, FM bands) tend to obtain a better VSWR.

Ex: 14MHz of 730V-1 enables to cover 14.15 ~ 14.35MHz bandwidth at the best VSWR point.
28MHz of 730V-2 enables to cover 28.5 ~ 29.0MHz bandwidth at the best VSWR point.

Not only those who owns the existing 730V-series for expanding it for 7MHz, but also those who wish to set up V-dipole seeking to operate on the newly assigned expanded frequencies on the 7MHz together, such as Contest lovers, DX-huntings, rag-chewing with friends, meeting QSO group or party on the air, this antenna meets the demands and is indispensable.

For the details for the BS41, refer to the page for 730V-xW.



5-BANDS, V-DIPOLE ANTENNA **330V**

☆ Hybrid Type, 3.5/3.8MHz(5-CH), 7MHz(3-CH), 14 ~ 28MHz(4-CH)



Model 330V, 5-Band V-Dipole Antenna



Matching Unit, BS82



Remote Switch, BS82

The model 330V is a 5-band V-dipole antenna of an hybrid type by employing trap and relay controlled matching tuner. The model is, so to say, a kind of a solid type of antenna mixed and combined with the 4-band multi-channel type V-dipole model "730V-1W" and a super-compact lowband dipole for 3.5/3.8MHz bands model "CD78Jr", both of which have been particularly popular among many of these contest enthusiasts and low-band DX lovers. The following specifications are presented.

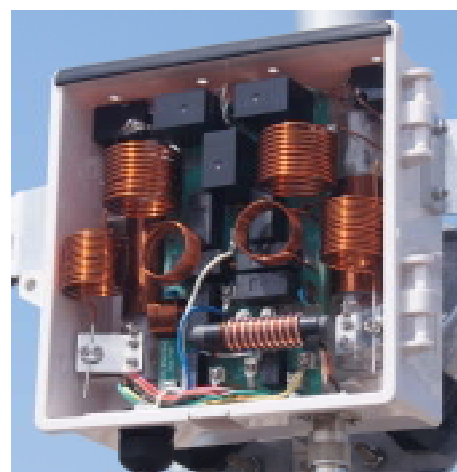
- It offers an wide-band operation of band switching in a multi-channel by use of CD's own relay-controlled tune coupler proved in the popular CD78 Series for many years, that contribute a smooth band-switching, achieving for 5-channel on 3.5/3.8MHz band, 3-channel on 7MHz band and 4-channel for 14/21/28MHz band respectively.
- In coupled with almo-welded made T-hat element producing high radiation efficiency by occupying RF current in full length of element for not only on 7MHz but also on 3.5MHz, it makes it possible to offer a high radiation efficiency.
- It offers an high power capability due to use of Hi-Q trap.
- It offers a smart and space-saving installation as the V-angle (selectable) structure helps the installation to be smaller turning radius without effecting the antenna from ambient or surrounding condition. For those who are disable to set up the antenna in higher height, installing it on a roof top or lower height from the ground as such living in an urban area having limited space, seeking for QRV in HF band from low to higher band, would be most suitable antenna to meet the demands.

SPECIFICATION

Frequency (CH)	Power Capability, CW / PEP
3.5/3.8MHz (5CH*)	400W / 800W
※ 3.50, 3.53, 3.56, 3.60, 3.79 MHz	
7MHz (3CH)	700W / 1400W
14MHz (4CH)	1 kW / 2 kW
21MHz (4CH)	1 kW / 2 kW
28MHz (4CH)	1 kW / 2 kW

F/B Ratio	-2.5~0dB Against $\lambda/2$ Dipole
Impedance	50 ohms
VSWR	Less than 1.3 (Ref - Fig. 1)
Boom Length	11.4 m
Rotational Radius	4.1 m (90°)
Mast Diameter	ϕ 48 ~ 61 mm
Weight	Antenna: 4.9 kg Coupler: 1.3 kg
Wind Survival Rating	35 m/s

* Approx. 13VDC power supply and 7-conductor cable for remote control are required for band switching. Both matching unit BS82 and remote switch are factory shipped to be completed form.



Internal View

- ★ 330V-1A is the model that includes 50MHz operable.
- ★ 786D is a 50MHz kit for upgrading 330V-1 to 330V-1A.

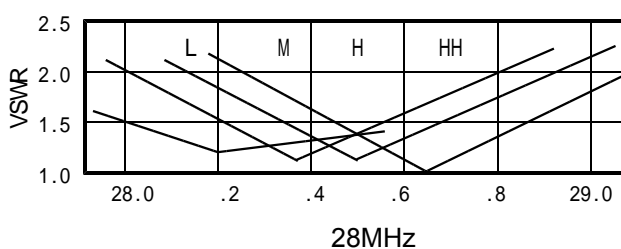
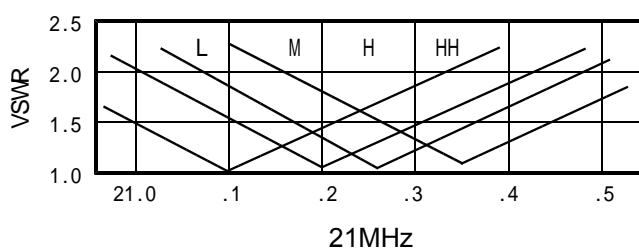
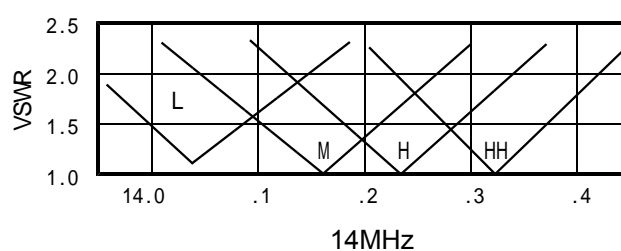
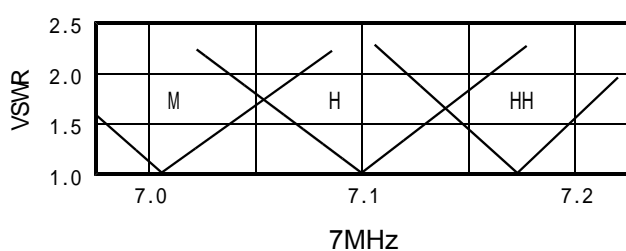
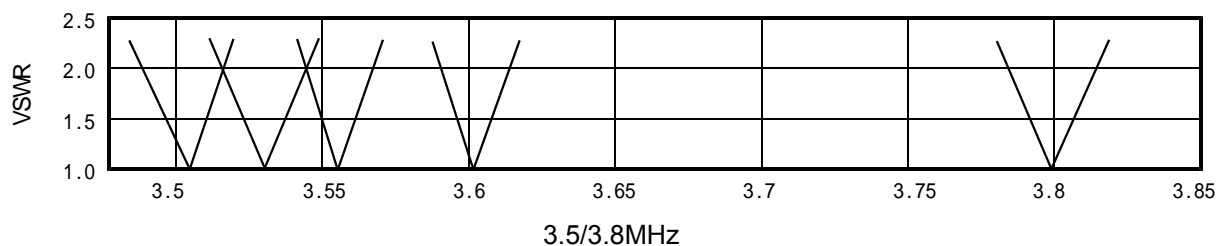


Figure 1. VSWR Curve, 330V (Typical) (10m/h)



WIDEBANDWIDTH, YAGI BEAM ANTENNA

Enable to Operate 7-Entirely 7.0~7.2MHz

Efficient Radiation by use of T-Wire Element

CY402 2-Element

CL40B-5 3-Element

CL40DX 4-Element



Model CY402, 2-Ele. Yagi Beam Antenna



ATU. / Driven



ETU, DTU./Reflector-Director

These models CY402, CL40B-5 and CL40DX are reduced type, Yagi beam antennas assuring a high performance. In the reduced scale type of antenna, a high efficiency will be expected when designing it to set narrow space. Usually the bandwidth is accordingly related to the length of elements, hence these 2 antennas are being applied the entire band by dividing them into 3 bands for the model CY402, while dividing it into 2 bands, by which a high performance are ascertained to derive. In the center section of the each element is equipped with a band turning switching unit, that enables to change and select the band which is remotely controlled. In the tip of element end for which determines the radiation efficiency and performance, a capacitor rod is attached that gives high loading efficiency, works as electrically equal value of 1.6m longer length than mechanical length for both models, that almost as good performance as a full-sized antenna presents, along with using a low-loss loading inductor. Mechanically, utmost consideration is taking into account, a swaged and light weight tubing rod of high strength for element, and alumo-welded capacitor rod are using for reducing an unwanted weight and minimize a wind surface area. Each model is required with 13.8VDC power supply for band switching.

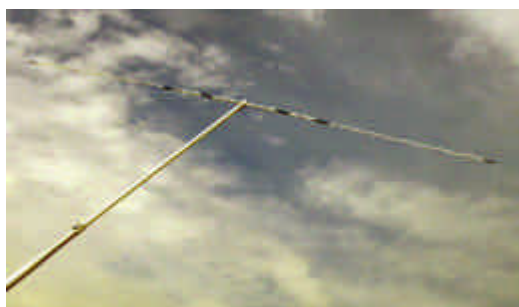
Model	CY402	CL40B-5	CL40B-5
Frequency MHz	7~7.2	7~7.2	7~7.2
Band	3	2	2
No. of Elements	2	3	4
Gain dBi	8	9.8	11
F/B, Ave. dB	20	22	20
Input, PEP kW	3	4	4 (CL40DX-1) 8 (CL40DX-2)
Boom Length m	4.98	10.3	15.2
Element Length m	14.0	15.8	16.0
Rotational Radius m	7.5	9.5	10.9
Wind Surface Area m ²	0.9	1.7	2.2
Weight kg	19	50	68
Control Cable (13.8VDC)	3-Core	2-Core	2-Core



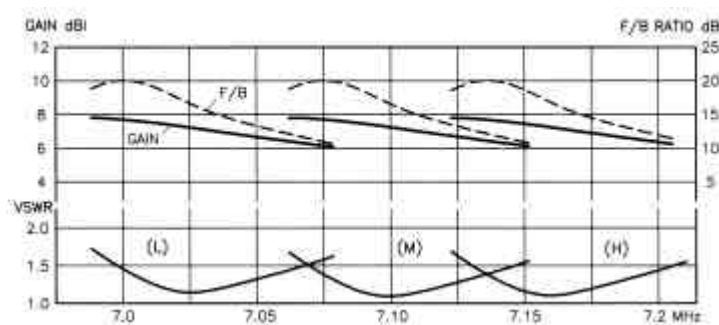
C1/BS-41 Controller

3-band controller for CY402.
This is a assembly kit.

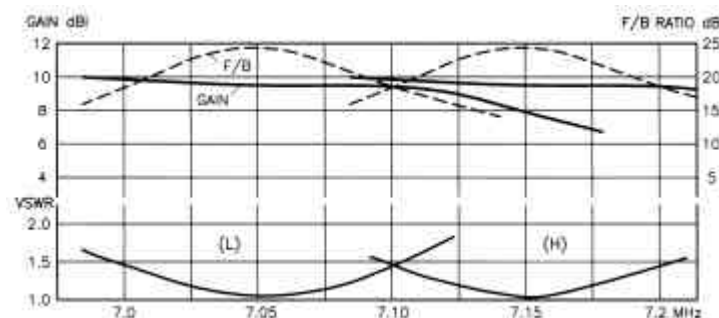
CL40B-5 and CL40DX does not include controller as it is only switching ON-OFF type.



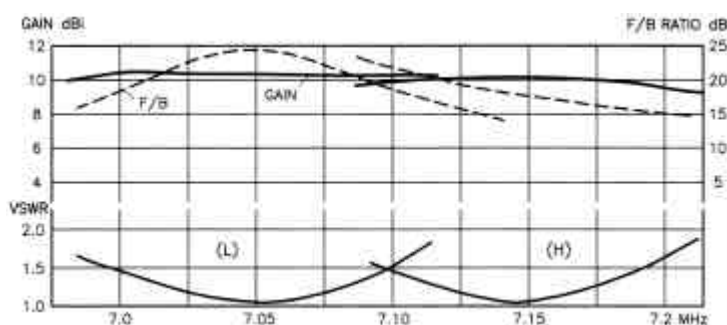
T-Wire •Element



CY402, VSWR, Gain, F/BRatio



CL40B-5, VSWR, Gain, F/B Ratio



CL40DX, VSWR, Gain, F/BRatio



Model CL40B-5, 3-Ele. Yagi Beam Antenna



Model CL40DX, 4-Ele. Yagi Beam Antenna

Upgrade Kit: For those who currently use AFA40 and CL40B-4, a modification kit enable them to upgrade and operate for the expanded band, is also available.



3-Band, Yagi Beam for 7MHz Expanded-Band

☆ 7MHz(3-CH), 14MHz(4-CH), 21MHz(4-CH) Switching

714TW, 714XW, 714XXW



Model 714XW, 3-Band Yagi Beam Antenna



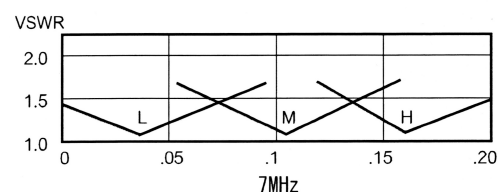
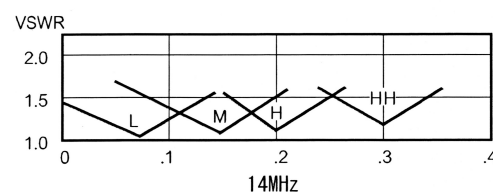
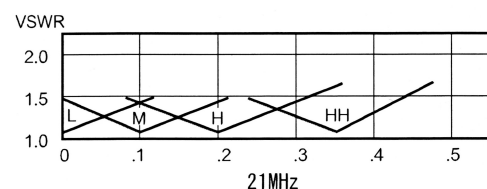
Matching Tuner, BS42



Remote Controller

For being familiar to many avid DXers and contest enthusiasts for many years as a 3-Band Yagi (7, 14, 21MHz) 714-series, it is evolved and newly developed with as 714xW-series, makes it possible to operate the expanded band on 7MHz. It enables to operate newly assigned the extended band above 7.1~7.2MHz by equipping it with matching tuner (BS42). The band switching can be remotely made from a radio shack by switching its controller which could operate not only on 7MHz but also 14MHz and 21MHz with maintaining in the lowering VSWR on each band, it provides you with an comfortable wide-band operation ever.

Model		714TW (714TW-3)	714XW (714XW-3)	714XXW (714XXW-3)
No. of Element	7MHz	2	3	3
	14MHz	4	4	5
	21MHz	4	4	5
Forward Gain (dBi)	7MHz	7.5	9.0	9.0
	14MHz	11.0	11.0	12.0
	21MHz	11.2	11.2	13.0
Power Capability PEP (kW)	7MHz	1.5 (3)	1.5 (3)	1.5 (3)
	14MHz	2.5 (3)	2.5 (3)	2.5 (3)
	21MHz	2.5 (3)	2.5 (3)	2.5 (3)
Boom Length (m)		8.6	9.9	13.7
Element Length (m)		13.6	14.6	14.6
Rotational Radius (m)		7.8	8.8	9.4
Wind Surface Area (m ²)		1.1	1.4	1.7
Weight (kg)		30 (31)	37 (38)	58 (59)
Mast Diameter (mm)		φ 48 ~ 61	φ 48 ~ 61	φ 48 ~ 61
Control Cable (13VDC)		5-Core	5-Core	5-Core



714XW VSWR (Typical)

The figures indicated in () is for -3 model.

714-Series Expanded-Band Matching Tuner **BS42** on 7MHz Band

- ★ Upgradable Existing 714-Series By Adding BS42 (Balun Included) For Expanded-Band Operation
- ★ 7.0~7.2MHz Full Coverage by Relay Controlled System
- ★ Remotely Controllable from a Radio Shack (3-CH on 7MHz, 4-CH on 14/21MHz) Maintaining Low VSWR (Control Cable {13VDC} : 5-Core)